

Operational Programme I Cohesion Policy 2007-2013

*Investing in Competitiveness
for a Better Quality of Life*

Malta
March 2014



Investing in your future

OPERATIONAL PROGRAMME I

Investing in Competitiveness for a Better Quality of Life

March 2014

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List of Acronyms

AA	Audit Authority
AVL	Automatic Vehicle Location
BAT	Best Available Abatement Technology
BIC	Business Incubation Centre
CA	Certifying Authority
CCA	Carrying Capacity Assessment
CF	Cohesion Fund
CO ₂	Carbon Dioxide
CSG	Community Strategic Guidelines
CVA	Controlled Vehicle Access
DSL	Digital Subscriber Line
EAFRD	European Agricultural Fund for Rural Development
EBN	European Business Incubation Centres Network
EFF	European Fisheries Fund
EIA	Environmental Impact Assessment
eID	electronic Identification Card
ERDF	European Regional Development Fund
EHIC	European Health Insurance Card
ETC	Employment and Training Corporation
ESF	European Social Fund
EU	European Union
FDI	Foreign Direct Investment
GCL	Geo-synthetic Clay Lining
GDP	Gross Domestic Product
GIS	Government Information Services
GHG	Greenhouse Gas
GWh	Giga Watt Hour
HCIS	Health Care Information System
IAID	Internal Audit and Investigations Directorate
ICT	Information Communication Technology
IRC	Information Relay Centre
ISPA	Instrument for Structural Policies for Pre-Accession
IT	Information Technology
ITMS	Intelligent Traffic Management System
JASPERS	Joint Assistance to Support Programmes in European Regions
JEREMIE	Joint European Resources for Micro to Medium Enterprises
JESSICA	Joint European Support for Sustainable Investment in City Areas
KBIC	Kordin Business Incubation Centre
MA	Managing Authority
MARIS	Regional Innovation Strategy for the Maltese Islands
MCAST	Malta College of Arts, Science and Technology
MCESD	Malta Council for Economic and Social Development
MCST	Malta Council for Science and Technology
MEDOCC	Mediterranee Occidentale – Interreg IIIB Programme
MEPA	Malta Environment and Planning Authority
MFF	Multi - Annual Financial Framework
MFIN	Ministry of Finance
MFSS	Ministry for Family and Social Solidarity
MICE	Meetings, Incentives, Conferences and Exhibitions
MIMCOL	Malta Investment Management Company Limited
MOS	Motorways of the Sea
MRA	Malta Resources Authority
MRO	Repair Overhaul Maintenance

MSW	Municipal Solid Waste
MTA	Malta Tourism Authority
NCPE	National Commission for the Promotion of Equality
NCSD	National Commission for Sustainable Development
NEEAP	National Energy Efficiency Action Plan
NGOs	Non-Governmental Organisations
NREAP	National Renewable Energy Action Plan
NRP	National Reform Programme
NSO	National Statistics Office
NSRF	National Strategic Reference Framework
NSSD	National Strategy for Sustainable Development
OHS	Occupational Health and Safety
OP	Operational Programme
OPM	Office of the Prime Minister
PA	Paying Authority
PAS	Patient Administration System
PHARE	Pre-Accession Programme for Central and Eastern Europe
PPCD	Planning and Priorities Co-ordination Division
PPS	Purchasing Power Standards
PV	Photovoltaics
R&D	Research and Development
RDF	Refuse Derived Fuel
RES	Renewable Energy Sources
R&I	Research and Innovation
RO	Reverse Osmosis
RPI	Retail Price Index
RTD	Research and Technological Development
RTDi	Research, Technological Development and innovation
S&E	Science and Engineering
S&T	Science and Technology
SAPARD	Special Accession Programme for Agriculture and Rural Development
SD	Sustainable Development
SEA	Strategic Environmental Assessment
SMEs	Small and Medium-Sized Enterprises
SMSC	Sectoral Monitoring Sub-Committee
SO ₂	Sulphur Dioxide
SPD	Single Programming Document
SSH	Social Sciences and Humanities
SSTI	South Sewage Treatment Infrastructure
SWOT	Strengths, Weaknesses, Opportunities and Threats
SWRO	Sea Water Reverse Osmosis
TEN-T	Trans-European Network for Transport
TINA	Transport Infrastructure Needs Assessment
TSE	Treated Sewage Effluent
TZM	Tourism Zone Management
VET	Vocational and Educational Training
VO	Voluntary Organisation
VOC	Volatile Organic Compounds
VTS	Vessel Traffic Services

Introduction

Operational Programme (OP) I, entitled ***Investing in Competitiveness for a Better Quality of Life***, is one of three programming documents setting out the framework within which funds made available through the Cohesion Policy will be spent over the next seven years (2007-2013). In Malta, there are two Operational Programmes that have been guided by the strategic priorities identified in the National Strategic Reference Framework (NSRF): OP I and OP II.

OP I will be co-financed by the European Regional Development Fund and the Cohesion Fund. The OP and its components take account of the needs and priorities as emanating from the NSRF and the National Reform Programme exercises, the strong link between Cohesion Policy and the achievement of the Lisbon objectives, as well as priorities emerging from national sectoral strategies in addressing (primarily) the infrastructural needs of the country. This is done through 7 Priority Axes that focus on: a) Enhancing Knowledge and Innovation; b) Promoting Sustainable Tourism; c) Developing the TEN-T; d) Climate Change and Resource Efficiency; e) Safeguarding the Environment and Risk Prevention; f) Urban Regeneration and Improving the Quality of Life; g) Technical Assistance. Together, the priorities proposed constitute a plan of action for the period 2007-2013, whereby investment in the various sectors is not seen as an end in itself but rather, as a means of contributing to the realisation of the vision and the attainment of the underlying strategic objectives. The OP is not exhaustive of Malta's needs in the identified sectors but is based on one of the cardinal principles of Cohesion Policy, namely financial concentration.

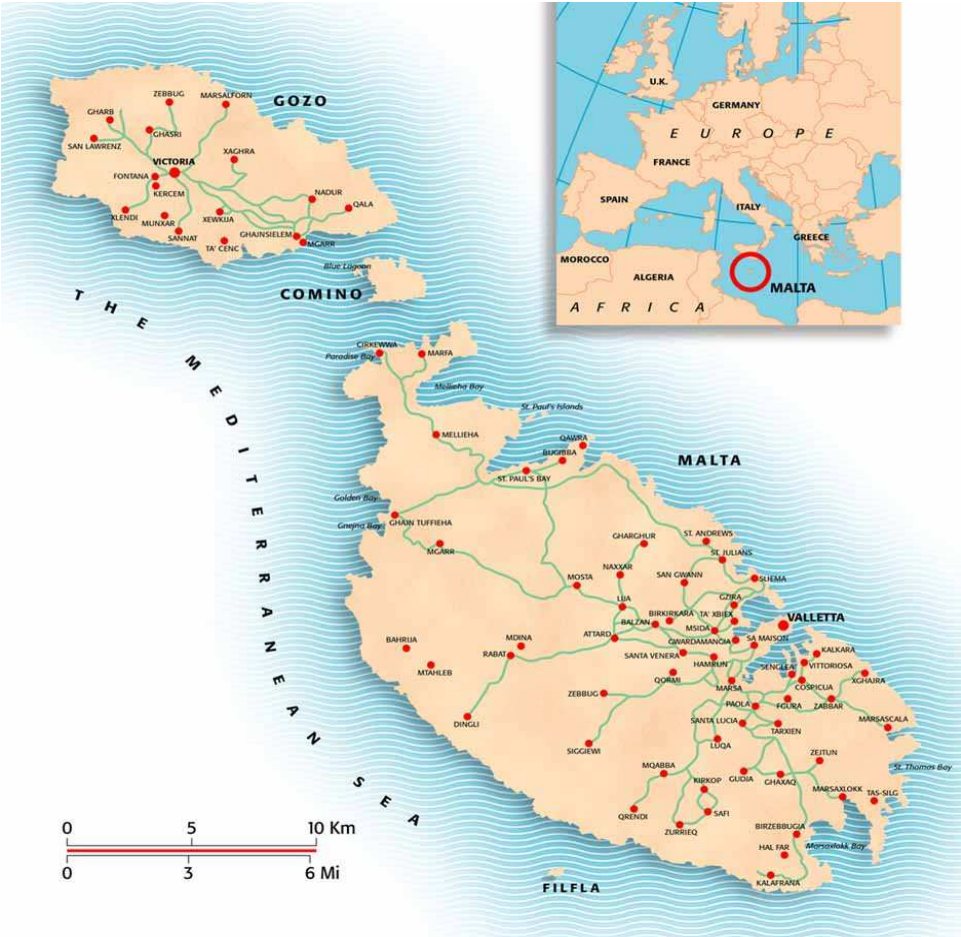
This OP is complemented by another OP, OP II, to be co-funded by the European Social Fund (ESF), which is earmarked to focus on the development of human resources and employment. Both OPs foresee direct support to the private sector in the form of aid schemes. The two OPs do not include other measures that are best funded through national funds and/or other Community/International financial instruments.

Chapter 1 – Situation Analysis of Malta’s Socio-Economy

1.1 A Description of the Socio-Economic Context¹

The situation analysis provides a diagnosis of the prevailing socio-economic situation of the Maltese Islands and serves to identify the main challenges, as well as, strengths and opportunities for Malta. This section focuses on the economy and relevant sectors, accessibility issues, research and innovation, the environment, energy, education and social infrastructure including health, urban regeneration and territorial cohesion.

Figure 0.1 The Maltese Islands



1.1.1 Economic context

Malta’s economic performance has been characterised by positive performance in 2005 despite performing below its potential in recent years. In terms of GDP at market prices in Purchasing Power Standards (PPS), the Maltese economy showed a decrease for most of the years from 2000 onwards

¹ As primary data sources, mainly EUROSTAT and National Statistics Office data has been used.

compared to the EU average. In fact, on a per capita basis, Malta's GDP per head in PPS stood at 69.5 per cent in 2005. The unfavourable global economic environment prevailing since 2001 has impinged significantly on domestic economic conditions. Exogenous shocks stemming from rising energy prices have also affected the Maltese economy negatively in recent years. Furthermore, the international economic environment is becoming increasingly competitive due to stronger market penetration by emerging low-cost countries. On the domestic front, demand is being dampened by the fiscal consolidation process currently underway, whilst a number of economic sectors are facing competitive challenges both in domestic and export markets.

In 2001 real GDP fell by 0.4 per cent, while it increased by 2.2 per cent, in 2002. In 2003, a negative growth rate of 2.4 per cent was registered, while in 2004, the growth rate was negligible. Nonetheless, positive signs have been registered in 2005, when real GDP increased by 2.2 per cent. The growth rate in 2005 was underpinned by increased domestic demand particularly a recovery in private consumption as well as growth in investment. On the other hand, the decline in exports of goods and services contributed to the contradictory effect of the external sector.

In recent years, the Maltese economy was characterized by relatively subdued growth in private and general Government final consumption expenditure whilst gross fixed capital formation exhibited significant fluctuations. The relatively low positive or negative growth rates in consumption reflect the fiscal consolidation under way. Meanwhile, gross fixed capital formation was influenced by one-off exceptional transactions, particularly in 2003, whilst strong investment activity was registered in 2005. The external sector has contributed negatively to real GDP growth between the years 2003 and 2005, and to a lesser extent also in 2004. In particular, exports of goods and services contracted in 2003, increased marginally in 2004 but declined again in 2005. Exports of goods and services are significantly influenced by the performance of the major company in the semi-conductor sector. Some main economic indicators are presented in Table 1.1.

Table 1.1

Main economic Indicators						
	2000	2001	2002	2003	2004	2005
GDP market prices (Lm millions)	1715	1751.7	1831.3	1858.8	1861.3	1941.1
GDP at constant (2000) prices (Lm millions)	1715	1707.4	1745	1703.5	1703.5	1741
GDP growth at constant (2000) prices %		-0.4%	2.2%	-2.4%	0.0%	2.2%
Expenditure Components of GDP at constant 2000 prices (% change)						
Private final consumption expenditure		0.5	-2.2	3.3	1.1	2.8
general government final consumption expenditure		0.6	3.8	3	1.4	0.6
gross fixed capital formation		-14.2	-18.7	29	0.8	7.5
exports of goods and services		-2.9	6.1	-2.4	4.1	-6.2
imports of goods and services		-9.0	-1.6	6.2	4.3	-1.8
Inflation rate		2.9	2.2	1.3	2.8	3
Employment growth (%)		0.7	-0.1	-0.5	0.6	0.3
Labour productivity (% change)		-0.7	0.1	0.5	-0.6	-0.3

Source: National Statistics Office

In the past years, Malta has registered relatively high fiscal deficits. However, the fiscal deficit has been contracting, reflecting the ongoing implementation of Government's fiscal consolidation programme (Table 1.2). The general Government deficit declined from 5.0 per cent in 2004 to 3.2 per cent in 2005. This decline primarily reflected growth in revenue, which exceeded increase in expenditure. As outlined in the Budget Speech for 2006 and in the Update of the Convergence

Programme 2005-2008, as well as in recently updated projections, the deficit will be below 3.0 per cent of GDP in 2006. The fiscal deficits incurred over the years have been reflected in rising debt-to-GDP ratios. General Government debt as a percentage to GDP increased from 56.4 per cent in 2000 to 74.9 per cent in 2004. In order to restore public finances to a sustainable path, Government is not solely addressing the current imbalance in public finance, but importance is attached to the need to reduce the debt-to-GDP ratio at a satisfactory pace. In 2005, the debt to GDP ratio declined to 74.2 per cent and fiscal targets project a further decline in the debt ratio in 2006 to 68.7 per cent of GDP.

The Maltese economy has faced a relatively difficult external environment during the past recent years. The internationally exposed sectors continued to be adversely affected by the downturn in Malta's main European markets and geopolitical uncertainty world-wide. Real exports of goods and services increased by 4.1 per cent in 2004 but declined by 6.2 per cent in 2005, whilst imports increased by 4.3 per cent and by 1.8 per cent in 2004 and 2005, respectively. The decline registered in the export sector is partly a reflection of the relatively subdued international economic environment, especially in Malta's main trading partners, combined with an increasingly competitive international market. The decline in exports was mainly attributed to developments in a major manufacturing company in the semiconductor industry. Indeed, some other sectors managed to register positive results, despite the unfavourable conditions in the external market. Tourism also suffered a slowdown in recent years though improvements in tourist departures were registered in 2004 and 2005.

Table 1.2

General Government Deficit and Debt						
	2000	2001	2002	2003	2004	2005
General Government Deficit as a % of GDP	6.2	6.4	5.5	10.0*	5.0	3.2
General Government Debt as a % of GDP	56.4	62.4	60.1	70.2	74.9	74.2

* Includes effect of one-off operation relating to the restructuring of the shipyards. This effect amounts to about 3.2 per cent of GDP

The widening of the current account deficit experienced in the last years continued during 2005, as the deficit stood at 10.6 per cent of GDP. This reflected a larger merchandise trade gap and higher net investment income outflows that outweighed a positive shift of the transfers account and a larger surplus on services. Current account performance is shown in Table 1.3.

Table 1.3

Current Account						
	2000	2001	2002	2003	2004	2005
Current Account (Lm million)	-221.9	-81.2	26.1	-86.3	-150.8	-205.7
Net Trade and Services	-183.2	-95.4	26.4	-64.8	-113	-196.1
Net Income	-50.4	16.5	10.7	-4.9	-13.6	-21.8
Net Current Transfers	11.7	-2.4	-11	-16.7	-24.2	12.2
Current Account Balance (% of GDP)	-12.9	-4.6	1.4	-4.6	-8.1	-10.6

Source: National Statistics Office

A significant increase in the trade was the main contributor of the deterioration in the current account since 2003. The trade deficit widened in 2005 reflecting a decline in exports and an increase in imports. During 2005, the decline in exports was mainly attributable to a decline in sales of machinery

and transport equipment. Moreover, exports of mineral fuels and lubricants declined as a state-owned oil-bunkering firm ceased its import and re-export operations. Meanwhile, foreign sales of other items such as chemicals and semi-manufactured goods increased. In 2004 and 2005, higher reinvested earnings contributed to a further deterioration in the current account. An increase in net outflows by way of current transfers was also recorded in 2004. However, net inflows of Lm12.2 million were recorded in 2005 reflecting a significant contraction in net private transfers abroad as well as a positive balance on Government transfers despite Malta's contribution to the EU budget.

Percentage changes in the 12-month moving average in the Retail Price Index (RPI) show that the inflation rate in Malta over the last two years has followed a gradually increasing trend. The inflation rate increased from 2.8 per cent at the end of 2004, to 3.01 per cent in December 2005. These inflationary developments have been largely due to domestic and international factors, mainly reflecting the increase in international oil prices.

1.1.2 Main Economic Sectors

a. Manufacturing industry

Economic activity in Malta is characterised by a prevalence of small enterprises with micro enterprises constituting approximately 94.0 per cent of the total number of firms (2004), operating predominantly in the manufacturing and tourism sectors. Overall, the fragmented composition of Malta's industrial landscape, its economic openness, insularity and high export concentration of goods and services, underpins the vulnerability of the Maltese economy. Malta's manufacturing enterprise base predominantly consists of locally-owned small and medium-sized enterprises (SMEs) operating alongside a small number of relatively large foreign-owned export-oriented subsidiaries of multinational companies. Table 1.4 shows selected data by size of enterprise for the manufacturing industry.

Table 1.4 – Number of Enterprises by Size

Year	Variable	Employment size						Grand Total	
		large	medium		micro		small		
		250 plus	050-099	100-249	000-005	006-009	010-019		020-049
1999	Number of enterprises	17	41	32	2,403	200	180	114	2,987
	Number of births	0	1	1	124	5	3	1	135
	Number of deaths	0	0	1	74	2	2	1	80
	Number of persons employed	12,330	2,699	4,850	3,825	1,431	2,478	3,520	31,133
	Number of employees	12,330	2,699	4,850	1,582	1,343	2,417	3,515	28,738
	Turnover (Lm000)	606,654	61,459	146,899	45,828	23,690	44,863	93,965	1,023,157
	Value Added at Factor Cost (Lm000)	147,339	25,398	54,224	19,289	10,202	18,691	32,786	308,109
	Personnel Costs (Lm000)	79,152	13,167	24,970	5,142	4,808	9,797	15,830	152,667
	Gross Operating Surplus (Lm000)	68,187	12,231	29,255	14,146	5,596	9,093	16,936	155,444
	Gross Investment in tangible goods (Lm000)	26,718	2,031	7,910	1,241	823	3,761	5,679	48,162
2000	Number of enterprises	17	44	28	2,481	213	157	117	3,057
	Number of births	0	0	0	160	6	3	0	169
	Number of deaths	0	0	0	65	5	2	2	74
	Number of persons employed	12,732	3,033	4,179	3,848	1,536	2,155	3,547	31,030
	Number of employees	12,732	3,033	4,179	1,503	1,439	2,132	3,540	28,568
	Turnover (Lm000)	882,803	60,442	131,170	44,258	23,065	41,330	107,548	1,290,617
	Value Added at Factor Cost (Lm000)	216,539	24,610	50,941	19,211	9,435	17,085	34,077	371,900
	Personnel Costs (Lm000)	85,165	15,759	22,630	5,021	5,013	9,028	16,513	159,129
	Gross Operating Surplus (Lm000)	131,375	8,852	26,310	14,190	4,422	8,057	17,565	212,771
	Gross Investment in tangible goods (Lm000)	81,339	3,136	7,370	1,357	1,023	2,819	3,865	100,910
2001	Number of enterprises	18	40	25	2,519	219	147	112	3,080
	Number of births	0	1	0	126	4	1	0	132
	Number of deaths	0	0	0	47	1	0	2	50
	Number of persons employed	13,234	2,741	3,761	3,874	1,589	2,008	3,450	30,657
	Number of employees	13,234	2,741	3,761	1,532	1,491	1,975	3,443	28,177
	Turnover (Lm000)	862,418	66,164	134,626	45,594	26,897	43,941	96,742	1,078,381
	Value Added at Factor Cost (Lm000)	152,679	23,897	47,213	18,619	10,415	15,632	33,865	302,320
	Personnel Costs (Lm000)	86,617	14,627	22,129	5,195	5,585	9,043	16,814	160,011
	Gross Operating Surplus (Lm000)	66,062	9,270	25,084	13,424	4,829	6,599	17,051	142,309
	Gross Investment in tangible goods (Lm000)	36,926	3,515	6,051	2,323	2,468	1,312	3,833	56,446

The manufacturing industry has faced the need to restructure in order to be able to compete at international levels. This need was underpinned, on the one hand, by the prospect of the dismantling of protective measures and on the other hand, by the need to better face the challenges from developments in the international markets, in particular with intensified competition from the emerging countries. Manufacturing industry in Malta has been changing with the emphasis shifting from the

traditional low cost manufacturing towards higher value added activities. Cases in point are the contraction of the textile sub-sector and the emergence of generics manufacturing activities in the pharmaceutical sub-sector, in which operators' competitive advantage lies in value-added. A case in point is the pharmaceutical industry whereby Malta has seen an increase in the number of pharmaceutical companies. The employment figures in the sector are provided in Table 1.5, below.

Table 1.5

Employment in Pharmaceutical Companies				
Year	2003	2004	2005	2006(June)
No. of Employees	323	378	498	572
% difference	-	+17	+32	+15

As highlighted in Table 1.6, aggregate nominal output from manufacturing activity has decreased by approximately 21.0 per cent from Lm1,313 million in 2000 to Lm1,037 million in 2005. However, the decline registered in 2005 is mainly attributable to the difficult and subdued environment of the semiconductor international business, which constitutes a large share in total manufacturing and offsets positive results registered in other sub-sectors. The sector's gross value added decreased from Lm348 million in 2000 to Lm302 million in 2001, increasing subsequently in 2002 and 2003, but contracted again to Lm282 million during 2004. During 2005, gross value added in the manufacturing industry increased marginally by 1.6 per cent to Lm285 million. In line with these developments, manufacturing employment followed a downward trend over the past years. Manufacturing employment declined from 24,640 at the end of October 2004 to 23,613 at the end of October 2005. Job losses were mainly concentrated in the manufacturing of textiles and textile products and manufacturing of transport equipment.

Table 1.6

Manufacturing Industry						
	2000	2001	2002	2003	2004	2005
Output (Lm 000)	1,312,996	1,085,138	1,077,288	1,105,599	1,076,663	1,037,267
Output Growth (%)		-17.4	-0.7	2.6	-2.6	-3.7
Gross Value Added (Lm 000)	347,620	302,693	309,296	314,011	281,594	285,985
Gross Value Added (%)		-12.9	2.2	1.5	-10.3	1.6

Source: National Statistics Office

Value added data provides an indication of the contribution of sectoral performance to developments in the total manufacturing industry.² Total manufacturing value added at factor cost fell by 3.7 per cent in 2004, following a decline of 0.7 per cent recorded in the previous year. This reflected a 4.0 per cent decline in personnel costs and a 3.3 per cent decline in gross operating surplus in 2004 when compared to the level recorded in 2003.

A sectoral analysis of the manufacturing industry, based on value added per capita, is provided in Table 1.7. Despite the decline in total value added, value added per capita registered a marginal increase in 2004 reflecting lower employment levels. The growth rate in value added per capita declined from 10.4 per cent in 2002 to 1.5 per cent in 2004. Per capita personnel costs rose by 2.8 per

² The data compiled for this analysis is based on the manufacturers' responses to an annual business statistics questionnaire, in line with the Structural Business Statistics Council Regulation 58/97. According to this methodology, value added at factor cost is made up of personnel costs and gross operating surplus. Personnel costs are made up of wages and salaries and employers' social security costs, whilst gross operating surplus is the surplus generated by operating activities net of labour cost.

cent and 6.5 per cent in 2002 and 2003 respectively, while a 1.0 per cent increase was recorded in 2004. Gross operating surplus per capita recorded a 20.4 per cent rise in 2002, followed by a 3.0 per cent and a 2.2 per cent increase in the following two years. Estimated average value added at factor cost per capita at constant prices for 2005 stood at Lm11,206, rising by 5.9 per cent over that recorded in 2004.

The contribution of the food, beverages and tobacco sector to total value added remained the second largest in the industry. The sector's share in total value added fell marginally to 15.3 per cent in 2002 from 15.6 per cent a year earlier. However this decline was reversed in the following year when the share rose to 16.6 per cent in 2003. In 2004, the food, beverages and tobacco products sector's contribution in total value added rose by a further 0.2 percentage points, to 16.8 per cent. Personnel costs per capita fell marginally in 2002. However this decline was reversed in the following year with a further rise registered in 2004. The share of gross operating surplus in the sector's value added per capita rose from 54.0 per cent recorded in 2001 to 57.4 per cent in 2004. Developments in gross operating surplus were reflected in the performance of value added per capita, which followed a similar trend. It is noteworthy that the sector's value added per capita was 12.8 per cent higher than the average for the manufacturing industry in 2004.

The share in value added at factor cost of the wearing apparel and clothes sector rose from 6.5 per cent in 2001 to 7.0 per cent in the following year, subsequently falling to 3.8 per cent in 2004. The sector's value added at factor cost per capita, which registered an average annual growth rate of 10.7 per cent between 2001 and 2003, fell by 8.3 per cent in 2004. Since 2002, the share of personnel costs per capita in the sector's value added per capita has increased from 64.0 per cent to 83.5 per cent in 2004. The sector's gross operating surplus per capita nearly doubled in 2002 when compared to the level registered a year earlier, but declined by 23.1 per cent in 2003 and nearly fell by half in 2004. Value added per capita in the wearing apparel and clothes sector was 42.3 per cent less than the average for the manufacturing industry.

Table 1.7 Value Added at Factor Cost per capita

	Lm			
	2001	2002	2003	2004*
Food, Beverages and Tobacco Products	11,303	12,094	12,760	13,219
Textiles and Textile Products	12,370	11,241	11,669	11,232
Wearing Apparel and Clothes	6,017	7,361	7,376	6,765
Leather and Leather Products	5,928	6,606	6,904	6,669
Wood and Wood Products	5,882	6,491	5,994	6,361
Paper and Paper Products	7,174	9,398	10,638	10,677
Publishing and Printing	11,211	13,716	11,768	10,114
Chemicals and Chemical Products	11,376	10,613	13,780	14,058
Rubber and Plastic Products	10,301	12,745	12,300	12,530
Other Non-Metallic Mineral Products	7,268	7,561	8,903	8,272
Basic Metal Products	7,304	7,301	6,212	7,206
Fabricated Metal Products	7,698	8,784	8,563	7,277
Machinery and Equipment n.e.c	11,250	9,020	11,927	10,840
Electrical Machinery and Apparatus	12,340	13,717	14,335	16,587
Radio, TV and Communication Equipment	21,725	23,388	24,653	27,035
Medical, Precision and Optical instruments	9,590	11,624	10,667	9,691
Motor Vehicles, Trailers and Semi-Trailers	6,627	7,707	7,175	6,844
Other Transport Equipment	4,401	4,615	3,353	2,832
Furniture and Other Manufacturing n.e.c	8,167	9,043	10,004	11,331
Recycling	9,251	14,909	16,990	15,526
Total Manufacturing	9,971	11,006	11,541	11,718

Source: National Statistics Office

The publishing and printing sector's share in total value added reached 6.3 per cent in 2004. The sector's personnel costs per capita registered an annual average growth rate of 9.7 per cent between 2001 and 2004, exceeding the average for the total manufacturing industry by 14.2 per cent in 2004. Gross operating surplus rose by 25.9 per cent in 2002, and fell subsequently in the following two years to nearly half the level recorded in 2001. Following a 22.3 per cent rise in the sector's value added at factor cost per capita in 2002, a decline of 14.2 per cent was recorded in 2003, followed by a decline of nearly the same magnitude in the following year.

With a share of 7.3 per cent, the rubber and plastic products sector was the fourth largest contributor to total manufacturing value added in 2004, reversing the decline recorded in 2003 and exceeding the share recorded in 2001 and 2002. The sector's value added at factor cost per capita exceeded the average for the manufacturing industry by 6.9 per cent in 2004. The trend in value added per capita was underpinned by developments in gross operating surplus, which made up 49.0 per cent of the sector's value added per capita in 2004, up from 45.6 per cent recorded a year earlier. Personnel costs per capita made up 51.0 per cent of value added per capita in 2004, being 3.4 percentage points lower than that recorded in the previous year.

The radio, TV and communication equipment sector's share in total manufacturing value added remained the major contributor towards total manufacturing value added at factor cost. This share was the highest registered in recent years and reached 25.0 per cent in 2004. This performance is reflected in value added at factor cost per capita which rose steadily at an annual average growth rate of 7.5 per cent. The sector remained the most capital intensive sector in the industry, with gross operating surplus per capita as a share of the sector's value added per capita making up around 70 per cent between 2001 and 2004. Personnel costs per capita reached 29.0 per cent of value added per capita in 2004, declining by 2.2 percentage points from the share recorded in the previous year.

At 10.2 per cent, the third largest contributor to aggregate manufacturing value added was the furniture and other manufacturing sector. The sector's value added per capita registered an average annual growth rate of 11.4 per cent between the 2001-2004 period. This was underpinned by an increase in personnel costs and gross operating surplus per capita, which registered average annual growth rates of 4.5 per cent and 20.6 per cent respectively. In 2004, gross operating surplus made up 50.1 per cent of the sector's value added per capita while the remaining 49.9 per cent consisted of personnel costs. It is noteworthy that during recent years, the share of gross operating surplus per capita has increasingly outweighed the share of personnel costs per capita.

As highlighted in Table 1.7, there are a number of manufacturing sectors - such as the radio, TV and communication equipment sector, electrical machinery apparatus and chemical products - which contribute extensively to aggregate manufacturing value added. These sectors also tend to be characterised by a relatively high concentration of foreign-owned firms' activities geared extensively to the export markets. In turn, this concentration further reflects the dual nature of Malta's industrial landscape with the comparative performance of foreign-owned establishments along domestically owned micro enterprises.

b. Enterprise infrastructure

There are approximately 3.8 km² of zoned industrial land in the Maltese Islands of which, 97 per cent is in Malta and 3 per cent in Gozo.³ The majority of this land is Government-owned (3.4 km²) and administered on its behalf by Malta Industrial Parks, which is totally public owned. This land is parcelled into thirteen industrial zones, whilst private industrial land is interspersed throughout the islands including village cores and is geared primarily for garage-type activities.

The Government-owned industrial land houses approximately 1.3 million m² of factory space with over 600 tenants. Of this, approximately 800,000 m² of land is available for development as defined in the current Structure Plan for the Maltese Islands.⁴ This vacant land is primarily (>90%) in Hal Far, which is the estate defined by current Malta Environment and Planning Authority (MEPA) policy as the strategic industrial location for Malta.

³ Source: Malta Enterprise.

⁴ **Structure Plan for the Maltese Islands – December 1990** - http://www.mepa.org.mt/index.htm?../spr/intro_spr.htm&1

Industrial estates in Malta have, over recent years, lacked investment aimed at the improvement of the general environment and aesthetics through the development of communal facilities and the upgrading of the service infrastructure, with the exception of the recent EU co-financed projects. These EU-funded projects address the upgrading of a selected number of industrial parks, which have proved very successful both with present tenants and new investors. The Hal Far Industrial Estate, which is one of the projects benefiting under the 2004–2006 Structural Funds Programme has registered five new companies and four expansions over the period 2004 – 2006.

The recent upgrading of some sections of the industrial estates has not included the upgrading of industrial stock. The current industrial stock is rather old and outdated, as more than 70 per cent of the factories were built pre-1980. The main development in the past ten years has been the expansion projects of current operations with the only notable development of new factories being the development of the Mosta Technopark carried out in the early 1990s. The current situation is one where the industrial property available is not adequate for the targeted higher value added sectors, such as the bio-medical and high-tech sectors as outlined in *Malta's Industrial Strategy Document 2007 – 2010*.⁵ This is evident when considering the layout and design of the current factory stock, which is more geared for labour-intensive activities.

The promotion and support of innovative start-ups is outlined in Strategic Theme 02 on Competitiveness in *Malta's National Reform Programme* (NRP).⁶ Malta sees the generation of innovative start-ups as an important pillar in achieving Lisbon objectives of increased jobs and growth. Malta Enterprise is currently running the Kordin Business Innovation Centre (KBIC), which currently houses the Innovation Relay Centre (IRC) funded under FP6 and has successfully been awarded with the European Community Business Innovation Centre (BIC) accreditation by the European BIC Network (EBN) in September 2005. Since its inception, the KBIC managed to assist 45 clients and it is currently supporting 25 clients. These KBIC tenants created 65 new full time jobs for the same year.

c. Crafts

The crafts sector in Malta is characterized by a predominance of micro-enterprises. More than seven hundred craftsmen producing any of forty-six different arts, skills or trades considered as Maltese crafts are registered with the Malta Crafts Council. A cluster of crafts enterprises operates at the Ta' Qali Crafts Village while another is active at the Ta' Dbiegi Crafts Village in Gozo. Other isolated crafts enterprises are spread throughout the islands. The sites suffer from accessibility problems and infrastructural deficiencies especially in the common areas. Both issues are considered critical to the sector's competitiveness, in particular, given that the main life-line to the sector is primarily the tourism industry.

The sector is characterized by a high level of fragmentation with a large number of micro enterprises (mainly sole craftsman) and a few small sized enterprises that are currently still engaged in the sector. In addition, and not to a lesser extent, crafts are still practiced by individuals working from home on a part-time basis. The intensive work involved in the production of crafts, especially those traditional crafts that have maintained the traditional process, together with the time consumed in the process, is constantly increasing labour costs. Costs of raw materials and other specific expenses, including, those resulting from water and electricity consumption keep pushing labour costs up. Other problems and challenges faced by the sector vary from the increasing competition due to the single market and importation of cheap crafts products from Asian countries, to environmental policy obligations which often directly affect craft enterprises, to the lack of opportunities for craftsmen to indulge seriously in R&D. This notwithstanding, current trends show that Maltese crafts face a growth potential as the demand for genuine Maltese crafts is increasing both from locals as well as from tourists.

d. Tourism Performance

⁵ Published on 18th October 2006.

⁶ *Malta National Reform Programme – Malta's Strategy for Growth and Jobs – October 2005*, and the NRP's Annual Progress Report 2006.
http://www.mcmp.gov.mt/pdfs/National_Reform_Programme_Malta.pdf#search=%22lisbon%20strategy%20startups%20malt a%22

Tourism contributes significantly to Malta's economic growth, employment creation and foreign exchange earnings.⁷ This sector is acknowledged as Malta's foremost economic activity, generating as much as 24.3 per cent of GDP and contributing to 29 per cent of full-time employment, amounting to a total of 40,050 direct, indirect and induced full-time and part-time jobs.⁸ During recent years, the local tourism industry has been significantly affected by the adverse geopolitical situation that characterized the international environment, as well as the economic situation in a number of major tourist markets. The Maltese Tourism Industry is facing increased international competition, both from traditional, as well as from new emerging tourist destinations. Largely as a result of international developments, the tourism sector in Malta has declined from a level of 1.18 million tourists in 2001 to 1.12 million tourists in 2003. An improvement from the decline registered in previous years was recorded in 2004. In 2005, tourist departures increased by 24,108 or 2.1 per cent, as compared to an increase of 3.5 per cent recorded in the previous year.⁹ Nevertheless, growth rates remain relatively modest. The improvement in the number of tourists departing by air in 2005 was mainly attributable to a strong performance in Malta's core markets.

Table 1.8 - Tourist Departures

	Air					Sea				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
January	55,790	47,305	49,480	48,819	52,270	313	563	522	441	855
February	54,847	47,320	49,020	50,900	44,309	522	461	398	232	84
March	81,029	78,751	71,678	65,019	70,562	486	1,108	823	980	715
April	102,308	91,352	93,287	90,875	87,433	1,571	2,207	1,353	1,291	846
May	105,923	95,160	102,580	103,272	112,001	2,633	2,332	3,156	2,130	558
June	107,161	101,626	104,094	112,514	112,177	3,611	1,931	2,132	2,365	1,754
July	127,519	120,828	126,043	130,202	134,575	6,144	5,465	5,395	4,164	1,176
August	154,782	149,941	157,670	162,910	167,614	11,994	13,952	9,442	14,187	10,705
September	130,152	122,798	118,472	126,402	131,217	4,192	4,182	3,604	3,023	2,374
October	115,393	124,460	109,805	128,070	128,806	1,945	1,580	784	957	528
November	67,432	70,283	65,781	67,434	69,527	1,350	644	587	310	125
December	42,830	47,003	41,179	40,990	40,280	828	1,025	951	195	133
Total	1,145,166	1,096,827	1,089,089	1,127,407	1,150,771	35,589	35,450	29,147	30,275	19,853

Source: National Statistics Office

The British market, Malta's largest source market, registered positive results reflecting the introduction of additional airlines and an increase in the number of flights to Malta. Similarly, the German, Danish and Austrian markets also reported positive results. On the other hand, other markets such as the Italian and the French markets registered weakened performance.

The tourism industry continues to face competitive challenges. During January 2006, tourist departures declined to around 50,000 tourists as compared to 52,000 registered during January 2005. The monthly distribution presented under Table 1.8, above, highlights the prevailing seasonality in Malta's tourism trends, with the four months between June and September 2004 accounting for 48 per cent of tourist departures recorded during 2005. This seasonal concentration involves particular difficulties, including the effects on infrastructure, hotel occupancy, as well as on the labour market and highlights the need to further invest in marketing efforts in order to achieve a better seasonal distribution. Malta's tourism industry remains in operation throughout the year with the result that profits made in summer have to make up for winter losses or reduced profits. Malta does not have the flexibility of shifting workers from one industry to another over seasons.

While air transport accounts for more than 95 per cent of tourist volumes, the sea also provides an additional mode of transport. Table 1.9 shows that growth in cruise passenger arrivals was registered

⁷ The analysis of the tourism sector starts from 2001, as data for tourist departures is only available from this year due to a change in tourism statistics data collection.

⁸ *The Economic Impact of Tourism in Malta*, Malta Tourism Authority, University of Nottingham Report, 2003.

⁹ Tourist departures measure the number of tourists visiting the islands.

between 2001 and 2003, increasing from 0.17 million to 0.38 million in 2003. During the subsequent year, cruise passenger arrivals registered a significant drop to 0.29 million passengers due to international operators re-assessing their operations in the Mediterranean region.

Table 1.9

C r u i s e P a s s e n g e r A r r i v a l s					
	2 0 0 1	2 0 0 2	2 0 0 3	2 0 0 4	2 0 0 5
J a n u a r y	1,967	3,658	1,977	-	3,144
F e b r u a r y	3,535	529	854	353	4,534
M a r c h	4,595	7,924	4,348	2,400	7,997
A p r i l	16,942	20,203	16,128	19,118	22,658
M a y	50,152	40,770	55,277	30,740	36,092
J u n e	25,413	42,932	45,809	24,342	31,956
J u l y	29,915	50,686	55,746	37,183	41,425
A u g u s t	32,072	46,054	55,265	42,236	35,348
S e p t e m b e r	23,298	44,538	57,735	46,816	41,326
O c t o b e r	44,869	51,602	62,708	45,790	52,912
N o v e m b e r	22,626	26,136	22,781	32,075	34,076
D e c e m b e r	4,006	6,600	10,828	10,768	8,636
T o t a l	259,390	341,632	389,456	291,821	320,104

Source: National Statistics Office

More recently in 2005, a turnaround was registered whereby the number of cruise passenger arrivals increased by 9.6 per cent over the previous year. This is also the consequence of more cruise liner operators starting to use Malta as a home port. Moreover, positive signs were also registered during January 2006, when the cruise passenger arrivals increased to 5,551 passengers as compared to 3,144 registered during January 2005. Since the concept of using Malta as a home port involves tourists flying to Malta from where they start and end their cruise, this concept provides increased value added to the economy that goes beyond the cruise liner industry. The new Cruise Liner Terminal, will continue to bolster Malta as an important cruise liner destination in the Mediterranean.

Data indicates that between 2001 and 2003, total tourist expenditure for visits to Malta increased from Lm253 million in 2001 to Lm272.2 million in 2003. Subsequently, declines were registered in tourist expenditure in 2004 and 2005 of 2.0 per cent and 1.6 per cent respectively. On a per capita basis, expenditure by tourists followed an upward trend up till 2004, however, in 2005, per capita expenditure by tourists decreased by 5.4 per cent in 2004 and by 2.7 per cent in 2005. The average number of nights spent by tourists followed an upward trend between 2001 and 2003, increasing from 9.4 nights in 2001 to 10.1 in 2003. Thereafter, the average number of nights spent declined to 9.7 in 2004 and 9.5 in 2005. This performance must be viewed in the context that on a general level, internationally, the growth rates for short breaks continue to outpace the growth in outbound travel.¹⁰

If one had to look at the total tourism earnings,¹¹ the total average expenditure per capita in 2005 was Lm 371.5. Total tourist expenditure in 2005 amounted to Lm 427.6 million, of which Lm 203.7 million was expenditure on the package, Lm 32.3 million and Lm 50.1 million was recorded as expenditure on non-package accommodation and airfares respectively, while other expenditure amounted to Lm 141.4 million. In the same period, expenditure on package travel reached Lm 79.5 million, a decrease of Lm 1.0 million or 1.2 per cent. Non-package expenditure (airfares and accommodation) also decreased by Lm 1.6 million or 4.9 per cent. Other expenditure from both package and non-package tourists increased by Lm 0.5 million reaching Lm 55.5 million. MTA tourism expenditure surveys indicate that tourists visiting Malta spend 40 per cent of their expenditure on accommodation, 11 per cent on food and drink, 13 per cent on transport, 14 per cent on recreation activities, 20 per cent on shopping and 2 per cent on other expenditure.

When trends taking place in Malta are benchmarked within a European perspective, it becomes evident that what is taking place in Malta is part of a wider phenomenon. This phenomenon expresses itself in shorter duration trips featuring lower total expenditure and relatively stable daily expenditure. Table 1.10¹² benchmarks Malta's performance for 2005 in comparison to a European average for the same year. Malta's expenditure per trip and average expenditure per day compare very well with their

¹⁰ In fact in the last years, growth rates in tourist departures on an international level have tended to outpace nights spent.

¹¹ This expenditure includes a tourist's expenditure on the flight, accommodation and during the whole stay in Malta.

¹² Source: *Malta Tourism Authority's Strategic Plan, 2006-2009*, Draft for Consultation.

European equivalents, when considering that Maltese costs stand lower than the European average, which is heavily affected by the larger incoming destinations, such as, Spain, France, Germany, Italy, Austria and the UK.

Table 1.10 – Malta’s Tourism Performance for 2005

	Europe Length of Stay (nts)	Malta Length of Stay (nts)	Europe Expenditure per trip ¹³ (€)	Malta Expenditure per trip ^{14,15} (€)	Europe Expenditure per day (€)	Malta Expenditure per day (€)
2005	9.4	9.5	888	865	94	91

During 2005, the majority of tourists (83 per cent) visited the islands for leisure purposes, followed by 8 per cent who came to Malta for business-related reasons. 2 per cent were in Malta to visit their friends and relatives, while 7 per cent stayed on the island for other reasons, including English-language learning.¹⁶ Table 1.11¹⁷ provides a summary of the main characteristics for seven different identified segments, namely: Leisure and Tour Operating; History and Culture; Meetings, Incentives, Conferences and Exhibitions (MICE); English Language Learning; Sports Tourism (incl. Diving); Gozo-based Holidays; Growth Segments (primarily short breaks).

Table 1.11 – The Main Characteristics of the Tourism Segments: Summary

	Summer and Winter Sun Leisure	History and Culture	CIT	English Language Teaching	Sports including Diving	Gozo-based Holidays	Growth Markets: Short Breaks
Volume	694,000	148,500	63,500	63,700	76,560	63,970	29,700
Volume %	59	12.7	5.4	5.4	6.5	5.5	2.5
Guest nights	6,915,556	1,254,860	222,251	1,130,140	-	617,099	89,100
Guest nights %	62	11.3	2	10.1	-	5.5	0.8
% Expenditure of total	52.9	11.8	7.4	9.6	-	6.2	1.7
Av. total per capita expenditure per night (Lm)	33	41	145	37	40	44	85
Av. length of Stay (Nts)	9.9	8.5	3.5	17.7	10.0	9.6	3.0
Seasonality %							
Q1	15.1	14.5	15.7	9.7	9.3	7.7	22.5
Q2	27.2	29.2	40.9	20.0	21.3	20.4	38.7
Q3	37.8	37.2	16.6	54.9	48.4	54.3	15.9
Q4	19.9	19.1	26.8	15.4	22.6	16.0	22.9
Most important geographical source markets	UK 50.8% Germany 9.4%	UK 29.9% Germany 14.3%	UK 16.5% Italy 15.9% Germany 11.6%	Germany 25.4% Italy 14.2% France 10.7%	UK 38.6% Germany 15.5% Italy 11.9%	UK 48.3% Germany 14.9%	UK 32.7% Italy 27.6%
Segment share within the source market	UK 72.9% Belgium 60.9% Netherlands 58.5%	Belgium 17.4% France 16.4% Austria 15.5% Germany 15.4% Nordic 15.2%	Italy 10.9%	Austria 23.5% Switzerland 16.6% Germany 11.7%	Italy 9.8%	Switzerland 17.6% Austria 7.2%	Italy 8.9% Austria 5.3%

e. Malta’s Tourism Product and Culture

¹³ Source: IPK International, European Travel Monitor 2005

¹⁴ Source: Extrapolation based on NSO Air Departures.

¹⁵ Source: Lm data converted into € equivalent. Average exchange rates for Lm/€ for 2005 obtained from www.centralbankmalta.com

¹⁶ *Ibid.*

¹⁷ *Ibid.*

The primary type of holiday taken by holiday-makers and accounting for 59 per cent of the market segment is the '*Sun and Beach Holiday*.' However, the state of Malta's beaches has been identified as an area, which requires further improvement due to issues of (limited) quantity and quality of beaches, the facilities provided and the quality of service.¹⁸ These deficiencies reflect important limiting factors to a Mediterranean island destination, which, due to its geographical location, is still expected to provide a proper beach offer.

Besides swimming, water sports are among the most widespread activities pursued by visitors during their stay on the island. Malta's offshore environment is another attraction for tourists, particularly those interested in diving. The number of wrecks and further scuttling of boats contribute to the islands' diving product. Malta has 46 diving clubs, 34 being established in Malta and 12 in Gozo. This segment is responsible for attracting 54,000 annual tourists to Malta. It is the largest single component of the Sports Tourism Category which, in its totality, generates 76,560 annual tourists. Other popular activities include, independent sightseeing, walks and organized excursions. Malta's tourism product is composed of assets such as gardens and natural areas. These sites have the potential to be utilized as tourism attractions through the creation of routes, artists' space and improved presentation and interpretation.

Since May 2005, Malta has been 'divided' into various zones to enable direct focus on areas that the tourism industry perceives as sensitive. The application of the Tourism Zone Management (TZM) for the Maltese Islands was done so that issues relating to the general state of the environment, waste management and cleaning, as well as, other issues like directional signage, parking, traffic safety and an overall tourist-friendly atmosphere will be dealt with more efficiently and effectively. Six tourism zones were identified. The criteria used by the MTA to identify and designate these zones included: the high concentration of tourism facilities, e.g. accommodation resorts, tourist attractions, leisure facilities and services; the high number of tourists attracted to the locality/site; as well as, the importance of the locality to enhance the tourist product offer. The tourism zones that have been identified are:

- a) Valletta and the Grand Harbour area;
- b) Mdina, Rabat and Dingli;
- c) Sliema, St. Julians and Paceville;
- d) Bugibba, Qawra, St. Paul's Bay;
- e) Gozo;
- f) Coastal areas.

The island's tourism product is inextricably linked with its cultural heritage. The Maltese archipelago has one of the highest densities of cultural heritage sites in the world. The local landscape has been intensively exploited and reshaped by different civilizations for over 7,000 years, resulting in a rich array of archaeological, architectural and historical remains from different epochs. This history and culture segment attracts 12.7 per cent of Malta's total inbound tourism. This sector generates Lm 74.6 million worth of expenditure by visitors per annum.¹⁹ The country's cultural heritage resources include the oldest free-standing megalithic buildings in the world and a remarkable concentration of baroque art and architecture, some housing unique collections in the world which cannot be exhibited and enjoyed due to lack of available / appropriate space. No other island in the Mediterranean basin has such a vast array of fortifications. The harbour system of fortification consists of 25 km with another 1.2 km of walls in Mdina and a further 1.2 km around the Citadella fortified city in Victoria, Gozo. However, of these, approximately 4.75 km are in a poor state of preservation and require urgent and immediate restoration if they are to be preserved. Malta has 56 museums and historical sites, which are open to the public. Half of these are State-owned, the rest are equally divided between those owned by the Church and by other private entities. In 2005, NSO reported that the number of visitors to these museums and historical sites declined by 4.2 per cent over the previous year.

f. Tourism Service Providers

¹⁸ A recent survey¹⁸ assessing the general visitor experience of tourists in Malta, shows that the Italian and French tourists were dissatisfied with the quality of Maltese infrastructure,¹⁸ where 66 per cent of Italians and the majority of French respondents rated it negatively. The Italians commented on the lack of sandy beaches, lack of beach facilities, small beaches, overcrowding and the general lack of cleanliness on beaches. The French tourists also gave poor ratings to the beaches.

¹⁹ Tourism Segments Report, Strategic Planning and Research Division, MTA, March 2005.

The tourism private sector in Malta is composed of a number of airlines, accommodation establishments, catering establishments, travel agencies and destination management companies, diving clubs, language schools, car hire firms, guides, visitor attractions and transport service providers that offer services which enhance the overall Maltese tourism product. The sector is characterised by small and medium, sized enterprises (SMEs), over 90.0 per cent which are micro enterprises and family-run businesses. At the beginning of 2005, a total of 7,030 tourism operators were licensed to operate as at the beginning of 2005, with 5,905 based in Malta and 1,126 in Gozo.

In terms of accommodation establishments, over the past five years, there has been a shift in the type of beds placed on the market in Malta. Five star bedstock increased to account for 15.9 per cent of hotel accommodation in 2005 from a 12 per cent share in 2002. Five-star accommodation is mostly popular with the business-travel grouping which generates some 63,500 tourists per annum.²⁰ On the other hand, bedstock in other categories of hotel accommodation was slightly reduced. A further 987 licensed holiday premises, including farmhouses and villas, owned by individuals or companies and offering over 4,500 beds are also available on the market. The mix of bedstock is further complemented by over 1,250 host families, which provide accommodation for students visiting Malta to learn English. Indeed, Malta boasts of 45 language schools, three of which are in Gozo. This segment generates a total of 63,700 annual visitors, giving it a share of 5.4 per cent of the total tourist influx to the Maltese Islands.

Maltese tourism service providers suffer from a number of deficiencies in their marketing strategies, such as lack of ICT utilization in e-marketing and e-booking systems, lack of effective participation in consumer and trade affairs, inadequate provision of services and quality assurance.

The tourism and culture sector is also characterised by the operations of a number of non-profit making organisations. These organisations are primarily custodians of important sites of cultural heritage and natural value, promoters of the art, aspects which undoubtedly represent key assets for tourism in Malta. These non-profit organisations have an important role in the provision of tourism-related services especially in terms of cultural heritage, artistic creation and environment protection. Several initiatives by the Ministry for Tourism and Culture, a number of which involve the direct participation of heritage NGOs, are being implemented or planned.

g. Tourism and the Environment

Malta's population density of 1,261 inhabitants per km² exerts considerable impact on the Islands' environment be it through the demand for power, transport and other natural resources. The local situation becomes more taxing during the summer season as tourism volumes tend to peak. The Carrying Capacity Assessment (CCA) for Tourism in the Maltese Islands²¹ highlights a number of environmental indicators showing the impact and increased demand generated by tourism in Malta. In terms of population density, the current tourism volumes lead to an increase from a density of 1,200 persons per square kilometre to a total density (local residents plus tourists) of 1300 persons per square kilometre. This means that every additional 100,000 tourist guest-nights leads to an increase in total density by 0.87 per square kilometre. It is also estimated that 8 per cent of energy consumption and 8 per cent of water consumption go to tourism related activities, with a tourist demand on resources amounting to 1.5 times higher than that of a resident (CCA, 33).

When one considers the small size of the Islands, together with the limited range of habitats and the pressure on the natural environment from a relatively large human population in such a small land mass, Malta can still be considered rich in biodiversity. Over 4,500 species of plants and animals have been recorded, not taking marine organisms into account. About 85 of these species are endemic. The habitats where these species of plants and animals are found include garigue, maquis, woodland, steppe, cliffs and boulder shore, freshwater pools and springs, saline marshlands, sand dunes, rocky shore and seagrass meadows found offshore. Environmental protection is one way of sustaining the tourism sector. Littering, noise, vandalism, lack of concern, clean water, lack of greenery and open spaces are among the factors that have an impact on Malta's natural heritage and negatively influence the competitiveness of the overall Maltese product.

²⁰ Conference and Incentive travelers are different from the other types of visitors to Malta in terms of a number of characteristics. Their seasonality is definitely biased in favour of off-peak months, while their accommodation preferences centre on five and four star accommodation. Their expenditure profile is also higher than average.

²¹ *Tourism Development Policies 2000-2010*, Ministry for Tourism, 2001.

h. Other economic sectors

For decades, the financial services sector in Malta has played a supportive role as a provider of services to the economy with the market for banking and insurance services being predominantly a domestic one. Since 1994, the development of the sector was characterised by the implementation of a legislative programme, which involved upgrading the existing legislation taking into consideration EU standards and moving towards the establishment of a single regulator now known as the Malta Financial Services Authority (MFSA). The market for banking and insurance services adopted a broader focus, while the Investment Services Act alone created a whole new business in financial intermediation, accounting for some 100 licensed investment services providers. The financial services sector accounts for around 12.0 per cent of Malta's GDP and is considered to be an important sector for Malta. Employment in this sector has grown to around 5,500 and financial services are now fast becoming an attractive career proposition for well-trained, highly-motivated graduates and support personnel.

Table 1.12 - Employment for the Creative Industries 2003

Source:		Structural Business Statistics 2003							
Source*:		(marked with *) Business Register 2003							
		Nace Class	Total Number of Units	Number of Employed Persons	Number of Unpaid Persons	Number of Employees	Number of Part-Time Employees	Number of Apprentices	Number of Home workers
Books		22.11	34	100	23	77	18	0	0
Newspapers, journals and periodicals, appearing at least four times a week		22.12	8	539	2	537	136	0	18
Newspapers, journals and periodicals, appearing less than four times a week		22.13	25	85	19	66	14	0	0
Sound recordings		22.14	1	Confidential Data					
Postcards, greeting cards, pictures and similar matter		22.15	29	63	21	42	17	0	0
Printing services n.e.c.		22.22	149	1228	95	1133	52	5	0
Bookbinding services		22.23	12	12	12	0	0	0	0
Pre-press services		22.24	8	8	7	1	0	0	0
Ancillary services related to printing		22.25	24	43	20	23	1	0	0
Reproduction services of sound recording		22.31	3	4	2	2	2	0	0
Reproduction services of video recording		22.32	1	Confidential Data					
Ceramic household and ornamental articles		26.21	13	46	11	35	8	0	0
Jewellery and related items		36.22	71	180	62	118	5	0	0
Advertising services		74.4	214	518	168	350	74	2	0
Photographic services		74.81	194	278	183	95	11	0	0
Motion picture and video production services		92.11	83	182	76	106	34	0	0
Motion picture and video production services		92.12	10	17	9	8	1	0	0
Motion picture projection services		92.13	10	213	7	206	43	0	0
Radio and television services		92.2	88	748	84	664	366	0	112
Artistic and literary creation and interpretation services		92.31	551	1402	540	862	827	0	25
Arts facilities operation services		92.32	21	48	20	28	17	5	0
Other entertainment services n.e.c.		92.34	470	1108	500	608	287	0	0
News agency services		92.4	1	Confidential Data					
Library and archive services		92.51*	7	Activity not Surveyed					
Museums' services and preservation services of historical sites and buildings		92.52*	25	Activity not Surveyed					
			2052	6822	1861	4961	1913	12	155
<i>Notes to Table 1:</i>									
Confidential data is marked to nace classes where there are only one or two units in the same activity.									
Total number of employed persons include the number of employees									
Nace Classes marked with (*) are not frequently surveyed, therefore no data regarding employment is available.									

The creative industries are a growing sector and act as a provider of creative resources. Creative industries refer to those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property. This includes architecture, the art market, crafts, design, film and video, music, the performing arts, publishing, software and computer games, television and radio. These industries in Malta are characterised by micro enterprises and a few small enterprises. Table 1.12, above shows that in 2003, the industry employed a total of 7,041 full-time and part-time jobs, apprenticeships and home-workers.

The construction industry has always been considered one of the significant drivers of Maltese economic activity, as it represents a high degree of local value-added with a significant multiplier factor. National infrastructure programmes have provided a considerable impetus to the sector in recent years, namely the new hospital project as well as a number of infrastructural projects financed by the Fifth Italian Financial Protocol and EU Cohesion Policy 2004-2006. Over the last five years, the share of gross value added of the construction industry expressed as a percentage of total value added was 4.5 per cent. Output by the construction industry followed an upward trend from Lm108.6 million in 2000 to Lm146 million in 2005. Output by this industry registered an average annual growth rate of 6.2 per cent over the 2000-2005 period. The upward trend in output by the construction industry was reflected in positive growth rates in gross value added during the 2000-2005 period registering an annual average growth rate of 6.5 per cent.

The EU's aerospace industry is one of the EU's cutting edge, high tech, sectors, which in 2002 provided over 363,000 jobs and generated EUR 29 billion in value-added.²² As a location, Malta has already proved that it has the necessary advantages to attract and expand a small but significant aviation maintenance sector. Among the advantages which are claimed to have attracted the firms in this sector are good air connections to over 35 destinations which include major European countries, Malta's central location in the Mediterranean, high quality, reliable and flexible workmanship and fluency in major European languages. Currently the aviation MRO cluster employs over 300²³ people focusing on carrying out aircraft C Checks and offering a range of aviation services namely flight operations charters, aircraft maintenance services and business charter brokerage.

1.1.3 Territorial Accessibility

Within the context of the limited national physical territory and population density, the Maltese archipelago gives particular importance to accessibility issues, notably aspects related to road network, sea and airports infrastructure. Competitiveness is a function of accessibility infrastructure. In the context of the Maltese Islands, internal accessibility is primarily dependent on road transport with sea transport ranking second in terms of importance, while external accessibility is based on either sea or air transport. Malta's transport infrastructure consists of one airport (including the heliport) in Malta and a heliport in Gozo, four sea ports (in Valletta, Marsaxlokk, Cirkewwa and Mgarr in Gozo) and the road network.

a. Land Transportation

The length of Malta's road network has not changed significantly since the early 2000 and currently stands at around 2,227 km (2004). There are 1,422km of urban roads and 647km of non-urban roads (generally with single land traffic).²⁴ In this road network, the arterial and distributor roads account for a total length of 184 km. The total length of TEN-T roads is of 51km. Malta's road network has been catering for an increasing motor vehicle population, which has been contributing to a considerable increase in traffic congestion. The current network suffers from a number of bottlenecks which are currently causing a delay in the flow of goods and people. Congestion results in increasing delays for the delivery of goods and loss of productive working time. Private car ownership and usage is on the increase, whereas public transport patronage has been on the decline.

²² Eurostat's Structural Business Statistics (SBS) – Statistics in Focus Industry, Trade and Services 7/2006.

²³ Employment and Training Corporation (ETC) - Employment figures as of June 2006.

²⁴ **Sustainable Land Transport White Paper**, 2004, Malta Transport Authority.

Table 1.13 Road Network

Road Network (in km)			
	2000	2002	2004
Length of road network	2,190	2,225	2,227
Categorised as follow s:			
Arterial and distributor roads		185	184
Urban and local access roads (surfaced)		1,156	1,166
Urban unsurfaced roads (estimated)		281	212
Non-urban (surfaced)		647	665
Total	2190*	2,269	2,227

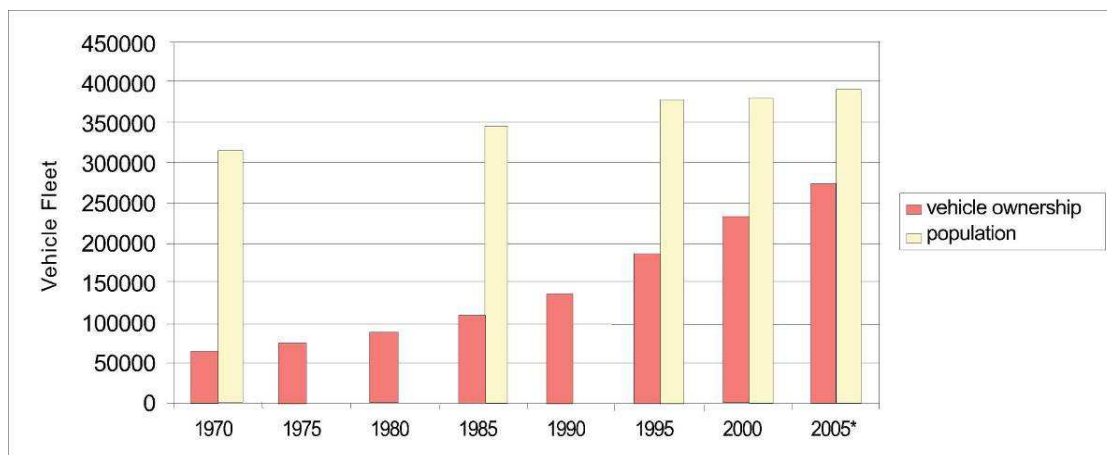
* categorisation not available

Source: Malta Transport Authority

Over the last thirty years or so, travel habits in Malta have changed insofar as people now travel more frequently and travel further distances, more people use the private car over public transport and *travel* patterns have become more complex. The increased demand for both personal mobility and the movement of goods by road has led to a rapid growth in motorization at a national level (as illustrated in Figure 1.1 below).

Private car ownership in Malta is one of the highest in Europe. Figure 1.1 below shows that there are now more than three times the amount of cars that there were thirty years ago. Whilst this growth is partially explained by the increasing population, it also reflects changing lifestyles. The problems of traffic congestion on the roads and the resultant negative impacts on road infrastructure, journey times, safety and quality of life, resulted in a **White Paper on Sustainable Land Transport**²⁵ which aims to provide a comprehensive 10 year framework for the development of a more sustainable transport system till the year 2014. The main objectives behind this framework are to provide accessible, high quality land transport infrastructure, create a safe travel environment for all users, achieve a degree of modal shift from private to public transport and walking and attain healthier travel.

Figure 1.1 – Vehicle Ownership v. Population



²⁵ Malta Transport Authority, 2004.

The road networks for the islands of Malta and Gozo were originally designed and constructed to accommodate light traffic volumes. Over the last two decades, the increased demand for both personal mobility and the movement of goods by road has led to a rapid growth in motorization at a national level. The increase in traffic loads and axle-weights of vehicles using the roads has resulted in significant structural damage being caused to critical sections of the network and to the development of traffic bottlenecks at critical locations of the network.

In the late 1990s, Government published a Master Plan for the Road Restoration in Malta and Gozo. The Master Plan aims to upgrade and modernise the national strategic road network to international standards whilst at the same time improve road safety, accessibility and mobility within the broader context of economic development and a better quality of life of Malta's inhabitants. Indeed, one of the negative impacts of road traffic increase is the number of road accidents, particularly those resulting in fatalities.²⁶ Between 2000 and 2002, a total of over Lm 30 million was invested by the Maltese Government in new road infrastructure. This amounted to about 62 per cent of GDP or 1.32 per cent of total government expenditure. 80 per cent of this sum was invested by the Central Government, the rest by Local Councils.

In 2002, a Transport Infrastructure Needs Assessment (TINA)²⁷ was carried out where the network components for a future Trans-European Transport Network (TEN-T) in Malta were identified. A series of technical studies were also carried out on parts of the road network identified as priorities.²⁸ The 51km route identified in the TINA, the airport, and the 5 ports have been subsequently approved by the EU Commission as forming part of the Trans-European Network (TEN-T). Due to its strategic importance this route is to be upgraded so that it would contribute to the realisation of transport infrastructure elements to comply with the current and future economic and social needs. Feasibility and Environmental Impact Assessment Studies for the upgrading of this TEN-T road network in Malta have been carried out in 2004.²⁹ On the basis of these studies, between 2004 and 2006, road expenditure increased significantly with the addition of EU Structural and Cohesion Funds together with funds from the Fifth Italo-Maltese Financial Protocol.³⁰

b. Public Transport

The Maltese Government is currently looking at improving the national network of public passenger transport services. The scheduled bus services have continued to develop over the years. The network of service has been extended and the introduction of direct services has served to reduce interchange and alleviate congestion pressures at the Valletta terminus. Despite the extension of the service, the patronage has continued to decline. Buses, once a major transport provider, now only account for 12 per cent of all trips in Malta. Having said this, public transport services remain a key means of transport for the over one million visitors per year, with over 85 per cent of tourists making use of it during their stay. It is evident that if this trend continues, there will be greater pressures on the current bus network, both in terms of its financial feasibility as well as in terms of the competition for limited road space with the private car.

Congestion, noise and air pollution by private transport is also of concern. In Malta, transport is the second largest contributor to pollution, after power generation. In the last few years, Government has sought to attract more passengers to the national public transport system by supporting the upgrading of part of the fleet of buses, modernising the ticketing system and improving waiting facilities and travelling information at public transport infrastructure.

²⁶ In 2004, 37.0 per cent of all injury accidents in Malta occurred on the arterial and distributor road network. In addition, the number of accidents occurring during darkness amounted to 42 per cent of the total injury accidents.

²⁷ The TINA was co-financed by EU funds under the Malta-EU Fourth Financial Protocol.

²⁸ These studies are co-financed by the Pre-Accession funds and are expected to be concluded in 2006.

²⁹ Studies surveyed the daily traffic distribution on the main road network, identifying the problem areas along the TEN-T network, close to the central business area of Valletta.

³⁰ The funds allocated from the 2004-2006 budget amount to EUR 21 million and only cover 15 per cent (8kms) of the TEN-T network that requires upgrading.

A number of measures proposed in the ***Sustainable Land Transport White Paper*** are already being implemented or will come into effect during 2007/08, using national funds and through public-private partnerships. Some of the measures under implementation include:

- a Recent investment in the first park-and-ride facility on the periphery of the capital city³¹ for car users and transfer onto more sustainable and environmentally-friendly minibuses;
- b Replacement of a flat €50 annual license fee for vehicles entering Valletta with a new charging regime based on the 'polluter pays principle,' in which, cars will be charged up to €7 a day for on-street car parking within a time-controlled zone;
- c Introduction of vertical pedestrian connections such as funiculars and lifts providing easier vertical access from the ditches surrounding the old part of Valletta to within the fortifications;
- d Upgrading the operation of the sea ferry services by providing a viable sea-based alternative to road transport within the North and Grand Harbour areas.
- e A gradual replacement of the bus fleet since 2001 and an overall upgrade of related infrastructure such as modernization of bus shelters and the introduction of ticketing machine systems (2003) in an effort to make public transport more attractive and efficient.
- f The introduction of "direct routes" for tourists (2003) from major tourist zones to the main national heritage and other sites, thus avoiding transit through Valletta.
- g The introduction of concessionary bus fares for students and the elderly.
- h The introduction of bicycle lanes and bus lanes on some routes.
- i Exploring the possibilities of green transport plans.

Government is also exploring the feasibility of alternative mass transit systems that will support the modal shift. The aim is to provide sustainable and efficient public transport alternatives, which are intended to reduce private car use.

c. Maritime Transportation and ports

In view of its geographical location as an island on the southernmost periphery of the European Union, Malta does not have direct connections to the European land corridors. Therefore the provision of frequent, reliable, safe and cost effective sea transport is of primary interest. The social and economic development of the Maltese Islands depends upon timely and regular maritime connections with a number of European ports for the transportation of goods and services. On a regional level Malta has become an important nodal point for the connection of intercontinental maritime transport to short-sea shipping.

Four of Malta's seaports, namely Valletta, Marsaxlokk, Cirkewwa and Mgarr are part of the TEN-T Maltese network. The seaports of Cirkewwa and Mgarr handle inter-island transportation of passengers and cargo between Malta and Gozo and therefore constitute a critical service and a socio-economic life-line for the island of Gozo. The volume of passengers, vehicles and cargo using the ferry service between Malta and Gozo has increased substantially in recent years. It is expected that the demand for crossings is likely to increase further. Inter-island transportation exerts considerable pressure on the existing port infrastructure, both in terms of port facilities and actual transportation modes. The number of trips made by the ferry and the number of passengers and vehicles, analysed in passenger and cargo vehicles, carried for the years 2000 to 2004 are set out in Table 1.14.

³¹ 11 per cent of national traffic enters Valletta on a typical day.

Table 1.14 – Sea Transport between Malta and Gozo

Sea transport between Malta and Gozo					
Number	2000	2001	2002	2003	2004
Trips	21,930	21,756	19,351	18,856	18,826
Passengers ('000s)	3,069	3,178	3,320	3,388	3,512
Cars and cargo ('000s)	738	796	845	899	914

Source: Gozo Channel

Trends show that the number of passengers and cars using the Gozo ferry service has been steadily increasing over the 2000-2004 period. It is noteworthy that the number of trips has decreased during the years under consideration as a result of the heavy investment undertaken by Government on three modern purposely built ferryboats for journeys between the two islands. These new vessels are relatively faster and can carry more passengers and vehicles than their predecessors.

The increase in inter-island transport has led to the upgrading and expansion of the two seaports, Cirkewwa and Mgarr, in order to accommodate the increasing number of crossings, improve berthing facilities, accommodate the new terminal buildings and segregate the flow of passengers and cargoes. In fact, the Malta Maritime Authority has recently invested over EUR 22.0 million Euros in the construction of new berthing facilities in both ports, with a further EUR 10.2 million to be spent by 2007. Works are now in the process for the construction of a new passenger terminal in the port of Mgarr, Gozo.

Valletta and Marsaxlokk are the main ports serving international traffic and are capable of providing a comprehensive array of maritime services including towage, salvage, pilotage and provisions for all kinds of stores and supplies. Indeed, shipping activity in the ports of Valletta and Marsaxlokk has increased by over 250 per cent since 1990. The number of ships calling at the ports now amounts to around 7,000 per year, together with another 2,300 calls by ships that are serviced in the territorial waters. The port of Marsaxlokk hosts a major Mediterranean container terminal and an independent oil terminal. Since 1990, container volumes have increased twelve-fold reaching some 1.4 million TEUS. Cruise and ferry passengers have this year, reached more than 300,000.³²

The Port of Valletta is a natural deep water harbour with a generally good commercial port infrastructure. However, some of the structures and superstructures, including quays, wharves and breakwaters³³ go as far back as the beginning of the 19th century and are in a dilapidated condition and in some cases do not serve their use, especially due to draught limitations.³⁴ The further development of the port infrastructure depends on required dredging works, quay extensions and the expansion of the port hinterland areas. It does, however, have the potential for increased inter-harbour trips for residents' and tourists' use and pleasure. The cargo traffic in the Port of Valletta has been generally static over the past decade (Table 1.15). The factors that have contributed to this situation relate to the substitution of containerised shipping for conventional break-bulk service and the competing role of Malta Freeport Terminals in handling domestic containerised traffic since 1989.

³² Figures provided by the Malta Maritime Authority.

³³ The Grand Harbour and Ricasoli Breakwaters were built at the beginning of the 20th century and consist of a gravity vertical structure, which, by modern standards is considered lacking in efficiency. Moreover, the breakwater was structurally weakened during the Second World War.

³⁴ The berths were built at a time when draughts of vessels rarely exceeded the 5m mark.

Table 1.15 – Cargo handling at Port of Valletta³⁵

Cargo handling at Port of Valletta					
	2000	2001	2002	2003	2004
Containers (TEU)	12,116	7,853	8,512	11,144	15,186
Trailers (TEU)	19,432	18,962	17,290	18,792	21,358
Break bulk (000 tonnes)	135	130	179	152	255
Dry bulk (000 tonnes)	609	666	719	738	517
Wet bulk (000 tonnes)*	4,316	4,319	4,186	4,144	4,100

*Excluding bunkers

Source: Malta Maritime Authority

The Valletta port also handles ferry and cruise traffic and during the last ten years it has developed as a major port of call for cruise liners in the Mediterranean. During recent years, record levels of over 350 cruise liners carrying more than 300,000 passengers, have visited the port. The majority of passengers come from the USA, Britain, Spain and France. Over the years there has been an increased interest in using Malta as a hub port. One of the main problems for the further development of the Port of Valletta is the lack of berthing capacity for specialized vessels such as container and ferry vessels. Surrounded as it is with historical sites, land based industries and residential areas there is little room for expansion in the port infrastructure, an aspect which has been highlighted as a major weakness for the port's future sustainability. Towards this end, a number of geotechnical, feasibility studies and environment impact assessments on related projects aimed at alleviating this problem are currently underway.

Moreover, the Maritime environment is one of Malta's key attractions. A number of private sector operators also contribute to maritime transportation by providing services relating to sailing, yachting, harbour and round the island cruises. These operators are restricted to Malta's territorial waters. Malta is currently implementing a port and coastal VTS The VTS is expected to be put into operation during the first months of 2007 and will give Malta the means to monitor shipping traffic to enhance navigational efficiency and safety and as an aid for the prevention of maritime incidents.

d. Air Transport

The airport terminal is the international gateway to the Maltese Islands and thus is a prime contributor to the economy. Malta's geographical insularity necessitates the existence of appropriate air links with mainland Europe and other parts of the world. Malta's survival depends on air transport for its daily transportation of cargo, movement of mail and freight, especially perishables, and for the tourism industry. Since air travel is the only viable means of business passenger transport, air transport is crucial for the Maltese business community to have access to the appropriate network of air routes to different destinations. The Malta International Airport, in 2005, registered over 50 airlines operating to and from Malta. In the past few years, the MIA has also attracted a few low cost operators and it is envisaged that major low cost operators will commence operations to and from Malta in the coming months.

³⁵ The baseline for wet bulk cargo also includes wet bulk cargo handled at Marsaxlokk. The wet bulk tonnage in Valletta is the following: 1,130,109 (2001), 1,963,436 (2002), 1,191,939 (2003) and 1,029,520 (2004).

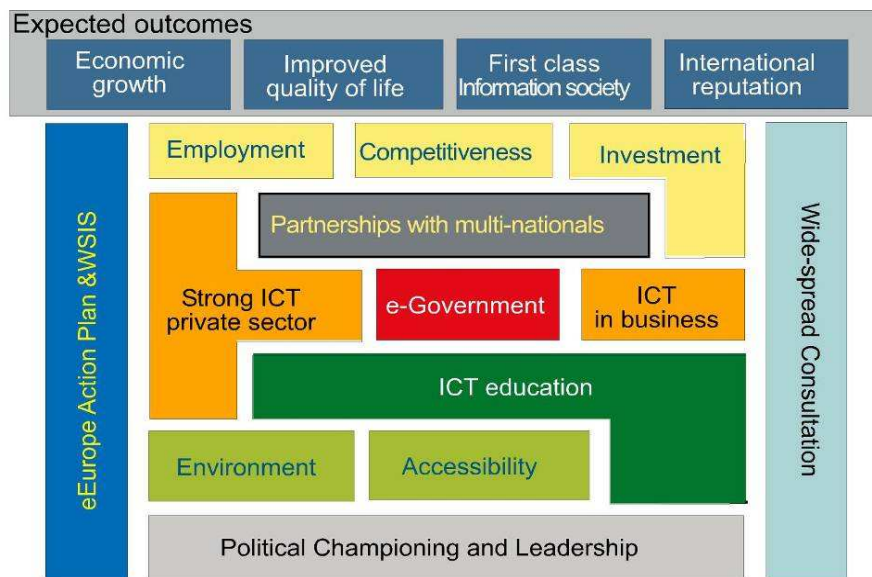
Making Malta accessible to its source markets is also essential in order to ensure a steady flow of tourists throughout the year. Malta needs to maintain its current flow of tourists in the summer months and to achieve growth in tourism particularly during the winter months. To address this, there is wide scope for investment in new and under-served routes. However, Government is aiming at achieving gradual growth rather than an immediate and disproportionate influx of Low Cost Carriers. This will assist the destination to start absorbing the impact of Low Cost Operations and adapt accordingly both in terms of investment and of operations.

Air traffic accounts for more than 95 per cent of tourist volumes. Since tourism is strongly characterised by the seasonality factor, the current number of tourists comes close to the overall carrying capacity during the summer months. In this context, the prevailing airport infrastructure will soon become a bottleneck for the envisaged development of the tourism in the Maltese Islands. Indeed, the TINA study identified that the infrastructure of the airport needs improvement mainly with regard to the resurfacing of the main aircraft parking area, the runway pavement and the construction of a new taxiway to cater for increased aircraft movement capacity as established by recent forecast analysis.

1.1.4 E-Accessibility

The proliferation of E-Accessibility is one area of success of the Malta's socio-economy. Malta's track-record in this sector is characterized by a number of successes as witnessed through a number of indicators measured at EU and international level. Government's **2004-2006 National ICT Strategy** was based on the ambitious aim of transforming Malta from an ICT-using society and economy into a regional centre of excellence, serving as a technological beacon in the Mediterranean. Based on an advanced model (figure 1.2), which ties in together the various ingredients necessary to make a leading ICT nation, the Strategy remains valid today. Indeed, Government is currently renewing this ICT strategy in line with the i2010 vision and strategy. The renewed strategy strives to be technology-neutral and to ensure that the digital convergence of media and information services, devices and systems helps consumers to experience new media and content services; provide opportunities for firms to improve their business process and deliver value-added through their services; and Government to offer further sophisticated interacted public services online.

Figure 1.2 – The eMalta.mt model



The eMalta.mt model

Statistics show that 68 per cent of the Maltese population is ICT-literate. In 2004, practically all households were connected to the telephone network and mobile telephony penetration was rapidly converging with the EU average. UMTS and 3G networks and services have also started to be deployed in Malta. Over 52 per cent of Maltese households have a personal computer that is connected to the internet, 50 per cent of which is broadband.³⁶ Free basic ICT awareness and cost-recovery ECDL training is offered to Maltese citizens within two weeks of registering a request. Moreover, Malta boasts of internet coverage in all major public spaces and core village areas. However, the use of the Internet by the elderly and people with disabilities remains limited. In the last **'ICT usage in household'** survey compiled by the NSO in 2005, only 12 per cent of the people aged between 55-74 made use of the Internet.

ICT education is a fundamental pillar of Government's agenda in the sector. In fact it has invested significantly in technology infrastructure in schools from primary to tertiary level to support the use and integration of ICT in the educational process. All schools are connected to the Internet and boast an above-average student-to-PC ratio. Over 75 per cent of secondary school leavers opt to sit for their European Computer Driving License examinations. At post-secondary, tertiary and vocational level, a number of ICT certification programmes are offered. The number of students choosing ICT subjects is increasing especially at vocational level (MCAST), which this year has experienced a 250 per cent increase in demand. Resources at MCAST are, currently, stretched and the demand for such courses is not being met. The number of graduates in ICT related degrees at University is also on the increase albeit at a slower pace when compared to the demand of such resources from the labour market.

The first preliminary set of indicators of the European Innovation Scoreboard for Malta, the human resources indicators, differ from the EU overall mean, showing clearly that Malta needs to attract significantly more students to take up science and technology at postsecondary levels of education and training. This is also confirmed by the latest European Innovation Scoreboard

³⁶ Statistics provided by the Ministry for Investment, Industry and Information Technology.

(2005). Government has launched a number of fiscal incentives³⁷ to encourage the take-up of ICT, engineering and science subjects at the University of Malta and other recognized educational and training institutions. Moreover, in parallel to this initiative, Government is also offering the opportunity to University and MCAST students to gain experience in this sector through a student job placement programme during their academic recess. The ICT student placement programme has been active since 2005 and over 70 ICT students have been placed in ICT-related jobs with the private and public sector.³⁸ Government's efforts for the "soft measures" aimed at increasing the number of ICT and science and engineering take-up need to be complemented with expansions and upgrades at the public infrastructural level to cater for the additional numbers.

Over the last decade, the national investment programme in public schools has enabled the Maltese education system to be ranked as one of the most technologically connected in the world, with ICT utilised not merely for its teaching but also as a pedagogical tool. However, this level of integration in the first eleven years of education contrasts with tertiary education where technologies continue to be less pronounced in the teaching methods. There is also a marked contrast between education in the first six years of schooling, where 76.6 per cent of teachers use the technology and the following five years, where only 27.8 per cent tend to do so. Overall, the potential of ICT to enable access to learning resources inside and outside the school environment is grossly under-exploited.

The country's ICT vision has also registered considerable success in the attraction of ICT companies operating from Malta. Government's commitment to establish Malta as an ICT centre of excellence has led to vertical strategic alliances with the leading international ICT firms, while a number of other foreign ICT companies are locating their operations in Malta. A major deliverable of this Strategy was the development and implementation of a Technology Centre of Excellence in the region. SmartCity@Malta is the vehicle for the realisation of this deliverable. SmartCity@Malta will transform the currently Ricasoli area in Kalkara into a state-of-the-art ICT and Media Park on the models of Dubai Internet City and Dubai Media City. This park will be complemented by a series of ancillary activities aimed at creating a quality working environment to help attract and retain the best and brightest knowledge workers to SmartCity@Malta. The attraction of ICT foreign direct investment has augmented the demand of ICT graduates and is necessitating the up-skilling of the workforce, particularly those employed in the manufacturing industry.

Notwithstanding the progress registered, a number of fundamental infrastructural deficiencies can be identified, mainly due to the geographical nature of the islands. The cost of international connectivity is an issue both for indigenous and foreign direct investment. The take-up of technology has been vibrant in firms employing more than ten, but remains depressed in micro-enterprises that together form the largest employing component of the economy. The '**ICT usage in business survey**,' conducted in 2005 by the NSO shows that 93 per cent of small, medium and large firms use computers, while 89 per cent use the Internet. However, Internet use drops significantly when the micro enterprises are included, with 60 per cent of all enterprises using the computer and 52 per cent using the Internet. The percentage of enterprises having a website is also relatively low, with only 22 per cent of all enterprises having an online presence. Government has offered a number of programmes to increase technology take-up at the micro level. ICT awareness programmes and tax incentives for e-business investment are available, while firms operating in specific sectors like tourism, have, to date, had the opportunity to obtain funding for their investment in ICT. However, the local business community still has limited appreciation of how technology can improve efficiency, cut costs, reach out to overseas markets and sharpen competitiveness.

³⁷ Income Tax Act (Cap. 23) LN 335 of 2005: Deductions and Tax Credits (General and Specific Qualifications) Rules, 2005. Available online from: <http://www.doi.gov.mt/EN/legalnotices/2005/10/LN335.pdf>

³⁸ **National Reform Programme, Annual Progress Report**, 2006.

Malta ranks amongst the top EU countries in the advancement of its eGovernment programme. Over 90 per cent of the basic public services are online. The eGovernment programme has introduced an online culture in the delivery of simple public services. These include services related to the payment of income tax, job search, car registration, police declarations, birth and marriage certificates, health-related services, VAT and submission of statistical data. The next steps will deliver an e-ID as part of the horizontal infrastructure supporting all of the eGovernment. It guarantees the identity of the person while accessing e-services and provides the necessary level of comfort to the parties relying on authentication. The eGovernment Programme serves as a catalyst to business process re-engineering in the various Government branches. In the last measurement on electronic public services issued by Capgemini³⁹ Consultants, on behalf of the Commission, as part of the i2010 benchmarking, Malta ranked second in terms of online sophistication and third in terms of availability. While the sophistication indicator confirmed that the e-government services are available in a fully interactive format, providing an end-to-end online solution, the availability indicator confirmed that the majority of public services could be accessed through the Internet.

The application of ICT in Malta's health sector started in the 1980s, when the first computer centre was opened next to the national hospital.⁴⁰ In 1992, Government approved a national health information strategy that envisaged the creation of several information systems to support health care delivery and health service management. The largest of these was the Healthcare Information System (HCIS), which was implemented in phases across all public hospitals and health centres in Malta and Gozo. The first Patient Administration System (PAS) modules, that is, the Patient Master Index and the File Tracking System, went live in April 1997, followed by the Outpatients Booking and Registration Module in 1998, the Inpatients Admissions, Discharges and Transfers module in 1999 and the Patient Billing and Accident and Emergency Modules in 2001. In the year 2000, the Department of Health Information launched its first intranet, called HealthWeb. Other systems developed more recently include, the Blood Transfusion System, the Medical Stores system, the Schedule V system and the corporate system.⁴² Malta now also boasts of a Cardiac Investigation and Patients Records System, a Child Health Surveillance System, a Public Health Services Department System as well as, off-the-shelf Access Accounts Database software for accounting and Dakar for human resource management. Malta has gone a long way since then. A number of healthcare and health promotion services have been deployed online since February 2006.

1.1.5 Research and Innovation

The establishment of a Research and Innovation (R&I) framework in Malta has, to date, to a large part been neglected. International benchmarks issued by the EU, the World Economic Forum, and other international organisations of stature that influence decisions made by major international enterprises and entrepreneurs show that, with the exception of ICT, Malta is not only not improving but regressing in terms of its competitiveness and the supporting role played by R&I in this regard. Until as recently as 2002, statistics on national spending on RTDi were not available, resulting in a lack of awareness among policy makers on the extent to which the country was lagging behind in this critical area. Whilst some progress has been achieved much is yet to be accomplished.

The figures for Business R&I (BERD) for 2003, shows that expenditure on R&I from the private sector, constituted 0.069 per cent of GDP, while the public R&I expenditure stood at 0.19 per cent of GDP. Although figures for 2005 have not yet been released, it is estimated that the national R&I investment for 2005 is in the region of 0.35 per cent, based on preliminary indications of a

³⁹ "Online Availability of Public Services: How is Europe Progressing?" DG for Information Society and Media, 2005.

⁴⁰ St. Luke's Hospital, Gwardamangia.

⁴¹ Vide *National eHealth Vision and Strategy*, 2006-2008, Government of Malta.

⁴² Payroll, personnel, departmental accounting, stock control and e-mail.

substantial increase in the business investment.⁴³ Having said this, there are indications that an important part of R&I activity in the country is currently not being captured.

R&D activity in the business sector is largely concentrated in 30-40 firms and is clustered around a number of specific sectors, mainly related to high-value-added manufacturing in ICT, manufacture of machinery, manufacture of chemicals and medical instruments, financial intermediation, food and beverage, and printing, among others. The precise level of sectoral R&D activity is difficult to determine, since official statistics are not readily available, and are often not reliable since firms do not always report their R&D activity or give incomplete information. This makes it difficult to determine the level of intensity of private R&D investments as a percentage of sectoral GDP. Such data would allow a better understanding of how the sectoral R&I is evolving and how this relates to sectoral economic strengths and emerging niche areas, so that R&I can be tackled appropriately. Table 1.16 provides an overview of the sectors where current R&D private investments are growing (excluding ICT).

Table 1.16

Sectoral Private R&D investments in Malta (excluding VAT)								
	Nace Code	Intramural R&D 2003 Expenditure	R&D Expenditure Source CIS3 (2003 figure)	Intramural R&D 2003 Expenditure Source SBS 03	Intramural R&D 2001 Expenditure Source SBS 01	R&D intensity: Private R&D investments percentage of sectoral GDP	Increase from year x to year y	Sectoral GDP as percentage of National GDP
Manufacture of machinery, equipment, etc.	29	56,274	40,000	56,274	41,575	0.9%	36%	0.4%
Manufacture of chemicals and chemical products	24	9,937	10,000	9,937	NA	0.11%	NA	0.55%
Manufacture of medical, precision and optical instruments, watches, etc.	33	67,333	122,000	67,333	160,330	0.51%	-58%	0.84%
Financial Intermediation	67.2							
	66.1	79,000	79,000	79,000	NA	0.36%	NA	1.38%
Food & Beverage	15	85,202	302,000	85,202	58,126	0.18%	47%	2.98%
Printing	22	83,000	83,000	83,000	NA	0.38%	NA	1.4%

Delving deeply in the underpinnings of the present status of RTDi in Malta, one has to acknowledge that Malta's industrial sector is characterised by a dual structure. On the one hand, industry predominantly consists of domestically-owned micro enterprises primarily local market oriented and engaged at the lower end of the technological ladder generally lacking the critical mass to engage in RTDi. On the other hand, Malta's industry comprises a number of foreign-owned affiliates of multinational conglomerates which undertake RTDi activities in home economies and merely transfer technology to Malta in accordance with corporate strategies to serve the needs of the local manufacturing arms. This state of affairs has so far resulted in limited inter-linkages between the domestic and foreign sector, primarily as a result of lack of economies of scale and scope. Moreover, when compared with other small EU member states, in 2003, at 3.1 per cent, Malta has the lowest percentage of tertiary S&T graduates aged between 20 and 29 years and would have to increase its graduates four-fold in order to reach the EU 25 average. Part of the problem stems from lack of basic research facilities at Malta's only University.

Malta's innovation scoreboard indicates a highly mixed record of performance with very poor rankings on the input indicators in terms of the number of S&T graduates, R&D expenditure and

⁴³ *National Strategic Plan for Research and Innovation*, Government Printing Press, August 2006.

SMEs innovating in-house, but generally high rankings on innovation and ICT expenditures and certain output indicators such as exports on high-tech products and employment in medium to high-tech manufacturing. Thus, Malta is positioned above the EU average for the output-input composite indicator, i.e., it generates a higher than average output in proportion to the inputs. However, in absolute terms, its inputs are among the lowest when compared to the other EU countries. Its best performance is in applications (10th place), mostly due to the high-tech export⁴⁴ and in innovation and entrepreneurship (12th place) resulting from high total innovation expenditures, most likely capital investment.

Having said this, a number of initiatives have been initiated such as the development of the Regional Innovation Strategy for the Maltese Islands (MARIS) and the development and implementation of an R&D fund under the EUREKA brand and also through initiatives linked to the development of business technology networks. Malta Enterprise is currently operating 22 schemes to support FDIs and local enterprise, with 12 schemes extending to cover R&D and innovation.

Malta does have a number of research institutes falling mainly under the aegis of the University of Malta and various Government Ministries. In terms of RTDi, in 2004, the National RTDi Programme made funds available to the Malta Council for Science and Technology to promote a culture for continuous scientific research and innovation and encourage public-private sector partnerships and cross-sectoral synergies, involving all parties in the take-up of science and technological research and development. With very limited financial support, Malta managed to secure Euro 3 million and Euro 9 million in funding from the EU Fifth and Sixth Framework Programmes respectively. Indeed, despite its small size and weak R&I capacity, resources and critical mass, Malta has and is participating effectively in FP5 and FP6, with over 45 FP5 projects and 70 FP6 projects.

Over the past two decades, the University of Malta (UoM) has achieved a major leap forward in terms of the quantity and quality of higher education and research, the academic qualifications and achievements of the staff, the wide offering of courses and studies, and the increase in international collaborative R&D activity together with the number of foreign students and researchers that it hosts. The UoM plays a pivotal role in driving the R&I activity, based on a long history of refining key competencies and skills, and producing high quality resources. However, the UoM is constrained by limitations in teaching staff and financial resources, largely due to the massive increases in student intake over the past two decades. It is largely dependent on Government finance. Efforts to break away from this dependency have been embarked upon and include an increasing population of foreign students and a business arm. In terms of available infrastructure, however, various laboratories are not in an enviable state as funding is in short supply and some of the current teaching modules in the University's existing programmes are relying ever more only on a theoretical treatment due to the lack of adequately equipped laboratories and research facilities..

1.1.6 Environment

The Maltese economy, cultural identity, as well as, the citizens' health and quality of life bear a strong linkage with the state of the environment. A healthy environment is considered to be a crucial prerequisite to Malta's future development and competitiveness. Investment in the environment sector is therefore a recognised major strategic priority in Malta's 2004-2006 Cohesion spending. Indeed, over 40 per cent⁴⁵ of the global amount of Structural and Cohesion Funds for this period, have been allocated to the Environmental sector. Current figures highlight that public expenditure on the environment amounts to around 1.4 per cent of GDP. With strong

⁴⁴ This is an anomaly due to one firm within a very small economy.

⁴⁵ 40.5 per cent includes public investment and does not include additional interventions at enterprise levels for the ERDF, the EAGGF and the FIGG.

linkages with economic resource management, this sector is strategic to Malta's future development.

Recent years have seen a dramatic increase in the extent of environmental initiatives, principally relating to upgraded regulation. Malta has numerous EU and international obligations relating to environmental issues and is a member of several international institutions dealing with these issues. Malta is also party to a number of multilateral legal agreements, which affect environmental policies and practices at the national level. Malta has been transposing the EU Environmental Acquis through the upgrading of national environmental legislation and the introduction of specific regulatory instruments. By 2005, approximately 135 pieces of legislation under the 2001 Environmental Protection Act had been published. Correspondingly, recent years have seen a dramatic increase in the extent of environmental regulation. Besides actual legislation, other instruments, such as permitting regimes, guidelines, economic instruments and administrative arrangements have been used. The transposition of the environment Acquis and the institution building of the relevant organisations have benefited from considerable investment from Malta's Pre-Accession instrument and the Transition Facility. Nevertheless, environment monitoring and reporting is hampered by lack of adequate infrastructure, equipment and resources. Integration of environment concerns with other sectors, regulation and enforcement remain hampered by lack of administrative capacity.

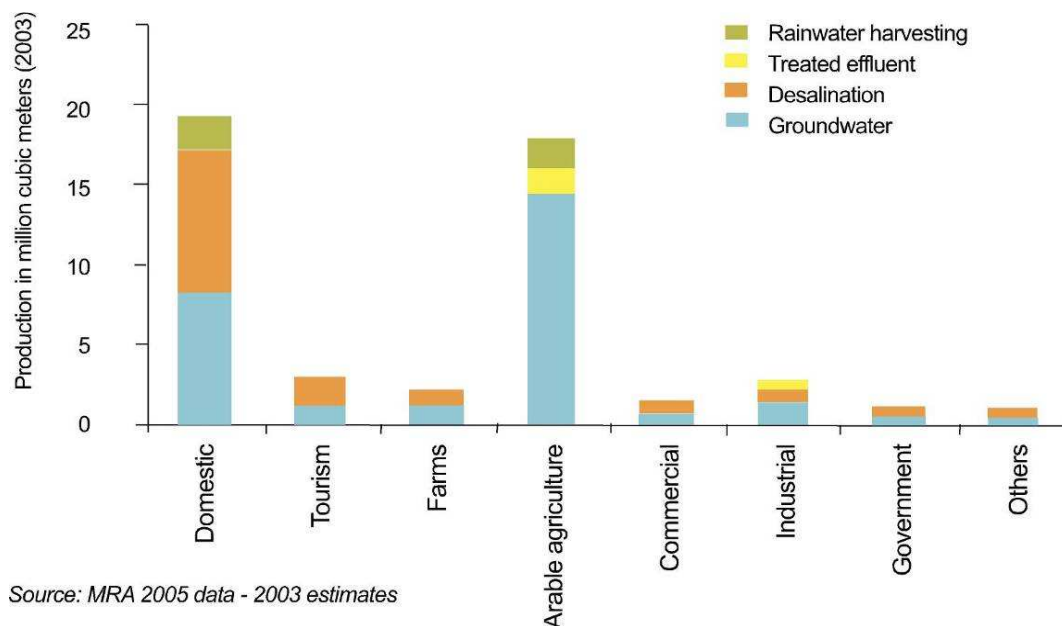
Environmental topics within the school curriculum have increased over the last decade with subjects like science and social studies now including topics relating to the Maltese environment. The Eco-schools initiative and environmental studies subject have also been introduced in some schools and at the tertiary level. The University of Malta has introduced, within the various faculties, more courses related to the environment. However, there are, as yet, no formal courses which serve to qualify operatives and officers in the environment disciplines that are required to service the requirements of the regulatory agencies or third parties such as industry. The 2004-2006 Structural Fund Programme is funding various awareness raising campaigns related mainly to waste management.

a. Water

The geology of the Maltese islands allows the occurrence of natural groundwater in two distinct rock formations, the Upper Coralline Limestone where groundwater accumulates over the impermeable Blue Clay layer and the Lower Coralline Limestone where groundwater occurs as a lens of freshwater floating over seawater. Groundwater was, until the introduction of desalination in the 1960s, the sole source of water, as well as the only large natural source of water for the Maltese islands. Since Malta has no surface waters that can be economically exploited, the islands depend on frail groundwater resources that are subject to fierce competition and are under increasing pressures from intense human activity over a relatively small territory. The use of available groundwater to best effect is recognised as an essential asset for the continuing sustained development in the agricultural and industrial sectors of the Maltese economy (refer to Figure 1.3).

Besides agriculture and industry, groundwater is also a valuable source for drinking and other municipal purposes. Half of the drinking water comes from aquifers, whilst the remaining part is procured from three seawater desalination plants located Pembroke, Cirkewwa and Lapsi. These desalination facilities are amongst the most significant users of electricity in Malta and water production utilizes an overall 8 per cent of all the total electricity production. Currently, the supply of drinking water for the Eastern part of Malta depends solely on the Pembroke Reverse Osmosis (RO) for its water supply. This implies that when the RO plant is offline, water has to be transferred from Ta' Qali Reservoir (located in the central region of the island) to this area, exerting extra pressure on the Island's potable water storage resources given that this storage capacity only caters for a few hours. In addition, the cost to transfer water from Ta' Qali to the Eastern part of Malta is extremely high.

Figure 1.3 - Sectoral Water Consumption by Source



Municipal water demand has decreased significantly over the past years largely as a result of demand management actions adopted by the Water Services Corporation. These actions included an intensive leakage detection and control programme, the continued upgrading of the distribution network and the improved management practices through the installation of intelligent network control devices and improved pumping systems. Notable results have been obtained in the leakage management programme, where production estimates indicate that leakages have been reduced by more than 50.0 per cent over this period. Water savings by consumers have also played a role in the decrease of water consumption.

Water demand estimates for 2003 indicate that the domestic and the agricultural sectors are by far the largest water consumers respectively utilizing 39.0 and 37.0 per cent of the total water produced on the islands. It is also estimated that alternative water supply sources such as the harvesting of surface runoff and the use of treated sewage effluent (TSE) still contribute to a mere 3.0 and 7.0 per cent respectively of the total water production. It is recognized that increasing these shares would contribute to a more efficient and sustainable use of Malta's water resources. Almost 46.0 per cent of Malta's potable water supply (12.7 million m³) is extracted every year from groundwater. Of this supply, more than 65.0 per cent comes from almost 42 km of a groundwater-skimming gallery system running at sea level. The first station using galleries in the Means Sea Level Aquifer was commissioned in 1887 (Wied il-Kbir) with the last in 1963 (Kandja). No cleaning and rehabilitation was ever carried out and from site inspections, it transpires that silt deposits over the years have hindered the proper management and at times caused shutdowns to these galleries as a result of contaminations. The Water Services Corporation has launched an exercise with the aim to locate and secure all 77 gallery ventilation shafts in the gallery systems.

b. Storm Water

Floods have been recognised as potentially undermining Europe's drive towards sustainable development with the adverse effects they have on the economy, the environment and public health. Rainstorms occurring in the areas of the various catchments of the Maltese Islands

generate severe flash floods with the situation worsening as large downstream areas became urbanized. The lack of an integrated approach to rainwater and valley management has increased this risk. This situation makes the problem more sensitive to climate changes.

Hydrologic aspects of the islands of Gozo and Comino are distinct from those of Malta. In Malta, there are 76 catchment areas while in Gozo, there are 33. Surface runoff is measured in four catchments in Malta namely Msida, Burmarrad, Marsa and Mtafheb and at Marsalforn in Gozo. To date, the management of rainwater and valleys has been largely fragmented, at best, and non-existent at worst. Urbanisation along watercourses has led to increased runoff and loss of areas for percolation and replenishment of aquifers. Illegal dumping activities and decades of improper development in valleys have also restrained the water carrying capacity of Malta's natural watercourses, the largest three of which flow down through urbanised and intensely developed areas. The effects of long years of fragmented and oftentimes only reactive efforts in valley and water management become evident when flash floods hit particular areas, compounding problems into disrupting economic activity, high risk to life and property in some of the most densely populated areas of Malta. Less visible effects are the continuing loss of the quality and quantity of water that is naturally available in aquifers.

In September 2003, heavy rainfall led to flooding considered subsequently a "major disaster" within the meaning of Article 2 of Regulation EC/2012/2002. Government has acted with urgency to this situation and has been drawing plans and performing works to mitigate future damage from flash storms. So far efforts have focused mainly on channelling and disposing of water runoffs from the two largest rainwater catchment areas in Malta. In effect these major investments, although mitigating the problem of flooding, do little to address the problem of water shortages from which Malta suffers considerably. In January 2006 the European Commission presented a proposal for a Directive on the assessment and management of flood risks. All river basins are included within the scope of this proposed Directive, indicating the significance, even at Community level, of the phenomenon and the possible consequences.

The re-occurrence of such events is also manifested because of climate change. Global warming, brought about by an increase in greenhouse gasses has resulted in an increase in the sea level (over and above the normal projections), changes in the ecosystems and also a change in rainfall. The latter coupled with an increased urbanisation of valleys and water basins have increased the risks of floods in Malta.

c. Coastal Waters

Coastal waters make up the majority of Malta's water resources and are a key resource for Malta's tourism. Coastal waters are currently being monitored for a number of parameters specified under a number of EU Directives. However, the current monitoring capabilities are incomplete and significant investments are required to improve national capacity to monitor to the standard required to satisfy all relevant water monitoring obligations under existing Acquis⁴⁶ and forthcoming obligations under the Marine Strategy. In the Seventh Report on the Monitoring Programme for Coastal Water (published in May 2004) it was noted that discharges from the Marsa and Delimara power stations are leading to significant reductions in water quality at these areas. With respect to areas exposed from sewage outfalls, the most significant reduction in water quality was recorded at Cumnija and Xgħajra (Wied Għammieq), with Xgħajra bathing waters classified as Class 3 under the Barcelona Convention in a recent report commissioned by the Xgħajra local council⁴⁷ Other areas were monitored for temperature, salinity, transparency, chlorophyll and nutrient levels as well as dissolved oxygen. The findings confirm poor water quality in some inshore coastal waters, especially harbour and marina areas and areas subjected

⁴⁶ Monitoring is based on a number of parameters specified under, inter alia, the Dangerous Substances Directive, the Bathing Water Directive, the Protection of Fish Life Directive, the Urban Wastewater Treatment Directive and the Nitrates Directive.

⁴⁷ *Bathing Water Quality at Xgħajra*, July 2006, Elaine Saliba and Victor Axiak.

to sewage outfalls. However, in general, monitoring programmes results show that since 2002 the overall water quality has improved and that most of Malta's coastal waters are of acceptable status and mostly meet the standards of the Barcelona Convention. In 2004, 83 per cent of sites were classified as First Class under the Barcelona Convention, which indicates a marked improvement from 55 per cent of the sites in 1996.

Malta's inland surface and transitional waters include freshwater and brackish water habitats such as watercourses, springs and freshwater pools. Transitional waters in Malta are saline marshlands or areas at the ends of valleys leading to the sea. These habitats harbour various animals and plants within them having a considerably restricted geographical range and are in danger of extinction. Due to the scarcity of freshwater resources, these habitats are rare in Malta. There are also a number of activities which increase the threats on the status of these waters, such as the depletion of groundwater supply, pollution and encroachment from development.

d. Sewage and Purification

The requirement for the construction of three urban wastewater treatment plants was first identified in 1992, after the former Ministry for the Environment had commissioned the **Sewerage Master Plan for the Maltese Islands**. Furthermore, the EU Urban Wastewater Directive EC/271/1991 stipulates that all sewage shall be subject to treatment prior to disposal to the sea. The present scenario is far from commendable. In 2004, only 6.5 per cent of the sewage was treated. The current sewerage system directs most of the effluents into the marine environment, resulting in microbial and chemical pollution, degradation of marine flora and fauna, as well as, health threats to bathers and divers. It is estimated that circa 25.0 million cubic metres of sewage are being discharged untreated to the sea per year. The South Easterly shoreline is the most effected in view of the fact that most of the sewage generated on the island (80 per cent of all the wastewater) is presently being discharged through a sewage outfall at Wied Għammieq (Ricasoli) some 716 metres away from the shoreline. The discharge is known to severely contaminate the coastline all the way from Rinella to Żonqor point.

In line with the Sewerage Master Plan, Malta is in the process of setting up two wastewater treatment plants, one at Ta' Mgarr ix-Xini in Gozo and one in the North of Malta at iċ-Ċumnija l/o Mellieħa. The construction of these two plants is underway and planned for completion by the second quarter 2007. Once operational, these two Sewerage Treatment Plants will treat 20 per cent of sewage effluent discharged into the sea. Works on the transmission infrastructure for the third and largest plant in the South are expected to start by end of 2006.

e. Air Quality, Climate Change and Pollution

Significant improvements in air quality data availability have been achieved since 1998 particularly, through investment support from EU funds.⁴⁸ This development has allowed for the first quantitative assessment of air quality to take place over the Maltese Islands. In fact, in 1999, the then Environment Protection Department commenced a routine National Air Monitoring Programme. Parallel work has also been carried out on determining emissions and in the drawing up of a greenhouse gas (GHG) inventory.

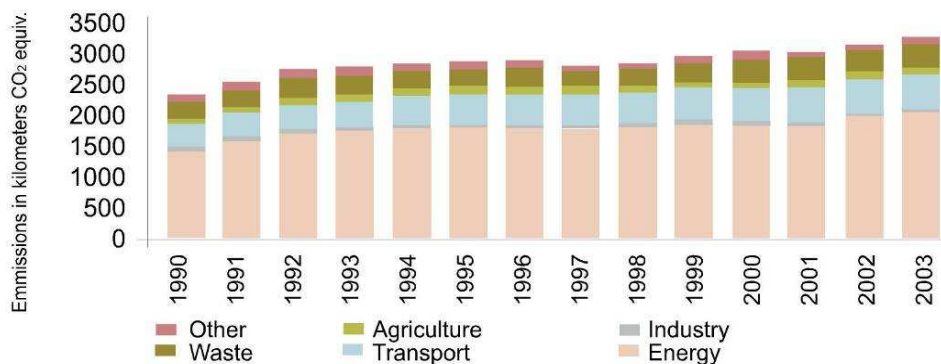
Even though between 1990 and 2000, Malta's GHGs emissions increased by 44 per cent, when compared to the EU25, it had one of the lowest emission rates per capita, at 7.2 metric tons of CO₂ per capita in 2002⁴⁹ compared to 11 tonnes per capita for the EU25. It is estimated that around 20 per cent of total emissions recorded are caused by road transport. As a result of increased usage of unleaded petrol in recent years, benzene concentrations in the air have

⁴⁸ The 2004-2006 Structural Funds Programme has also addressed the issue of air quality with substantial funding.

⁴⁹ Statistics provided by the Ministry for Urban Development and Roads.

declined significantly.⁵⁰ Similarly 8 per cent reduction was also achieved in nitrogen oxide concentrations.

Figure 1.4 - Greenhouse Gas Emissions by Sector



source: MEPA 2005b

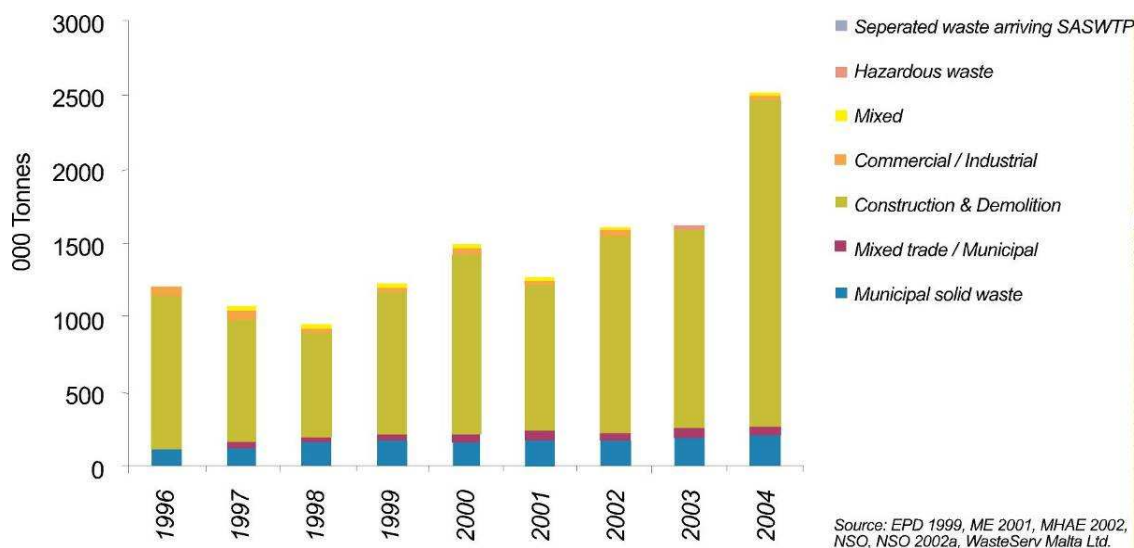
The production of energy from fossil fuels is the most obvious source of environment pressure because of the combustion processes. The energy sector contributed to approximately 63 per cent of Malta's GHG emissions in 2003. A number of measures to reduce the harmful effects of electricity generation have already been undertaken. Coal was phased out and this resulted in lower carbon dioxide (CO₂) emissions and a significant improvement to the environment around the power station at Marsa which is located adjacent to a densely populated area. The introduction of 1.0 per cent sulphur fuel oil contributed to a significant reduction in sulphur dioxide (SO₂) emissions.

f. Waste Management

Construction and demolition activities are generally associated with environmental damage and undesirable practices and most of Malta's solid waste originates from these activities. There has been a marked growth of construction and demolition waste over the years. Municipal waste, which includes mixed trade and municipal waste, is another major contributor to Malta's total generated waste and has increased by 53.0 per cent since 1996. In 2004, generated municipal waste in kg per person stood at 572. This was comparatively higher than that in most of the new EU acceding countries but compared well with the average for the EU25 average estimated at 537 kg per person for that year. Malta's average amount was usually higher than the majority of member states with regard to land-filled municipal waste. In recent years, Malta has made significant investment in environmental infrastructure related to waste management, including the development of new engineered landfills and separate waste collection infrastructure and more investment is planned in 2006 and 2007 as a result of funding from the ERDF and CF (2004-2006) and also from national funds.

⁵⁰ In September 2000, leaded petrol was replaced with a lower lead content fuel and by January 2003, leaded petrol was completely phased out. Bio diesel, which is made up of less polluting sources of diesel, was also introduced. With the abolition of leaded petrol and the supply of bio diesel, there were corresponding improvements in the air quality. Subsequent to the introduction of unleaded petrol, benzene concentrations in air have declined, with notable declines in benzene concentrations occurring in most aggravated areas.

Figure 1.5 - Waste Arriving at Principal Waste Management Facilities by Type



Malta's solid waste management strategy aims to put in place an integrated approach to waste management, involving the reduction in the quantity of waste with a simultaneous increase in recycling and composting, in line with the EU hierarchy. Subsequent to the closure of the uncontrolled landfills at Magħtab and Qortin in 2004, an interim controlled engineered landfill was developed at a site known as Ta' Żwejra. Located in the vicinity of the closed Magħtab dump, this facility receives municipal solid waste and will be equipped with a combined gas recovery and leachate collection system. This facility is furnished and lined with 500 mm thick foundation layer, a 250 mm complementary gas drainage layer, a drainage geo-composite and a geo-synthetic clay liner (GCL). The landfill gas generated will be collected and treated in the common gas collection system planned for the Magħtab rehabilitation, the Ta' Żwejra landfill and the new proposed facility at Għallis.

Waste to energy is one of the alternative energy sources that Government is currently exploring. A proposed facility of waste treatment and composting, co-financed by the 2004-2006 Cohesion Fund, will treat dry-recyclables and biodegradable waste with a view to recycle waste and reduce the amount of biodegradable waste deposited in landfills. The upgrade/improvement of the Sant' Antnin Waste Treatment Plant will be sufficient to fulfil the first target of the Landfill Directive (EC/31/1999) in 2010. The design of an additional treatment solution with increased capacity is therefore unavoidable. Relevant studies are being prepared with Cohesion Fund Technical Assistance 2004-2006.

Households have been encouraged to support the gradual introduction of waste separation at source. To-date a limited number of projects which encourage the collection of materials suitable for recycling, are being organised through local councils. One such project is the national 'bring-in-sites' campaign, which was introduced as a pilot by Government in 2003 and is being implemented on a national scale under the current 2004-2006 Structural Funds Programme. In July 2003, the Magħtab uncontrolled facility stopped accepting inert waste. This was followed by the introduction of a new project concerning the rehabilitation of quarries. Disused quarries, which are considered to impact negatively on the environment, are being rehabilitated with uncontaminated inert material originating from the construction industry. Rehabilitated quarries are generally used for agricultural purposes. Between May 2003 and May 2005, 3.3 million tonnes of inert waste were deposited in 14 quarries. It is estimated that the remaining capacity

will serve for less than five years.

g. Natural Assets and Biodiversity

Malta's natural environment includes habitats such as cliffs, valleys, garigue and sand dunes. This environment only covers 22 per cent of Malta's surface area. Nevertheless, the islands have a rich biodiversity, which include a large number of native plants and animals.⁵¹ The rich biodiversity of the Islands is an important component of Malta's natural heritage, considering that the intrinsic value of the local biodiversity also contributes substantially to the country's attractiveness as a prime tourism destination.

The local vegetation community is mainly characterized by the so-called sclerophyll series, comprising evergreen wood, maquis, garigue and steppe. Total woodland area of Malta comprises approximately 200 hectares. It is mainly artificial as it has been planted by man over the years, yet it still contributes to the Maltese landscape and in some cases to biodiversity which are important for rural tourism. Natural forest remnants are restricted to only four localities. However, the Maltese Islands also harbour specially protected areas and important natural habitats associated with specific geo-morphological features. Coastal habitats such as sand dunes, saline marshlands and wetlands are also considered to be highly threatened and rare. The rural landscape in areas dominated by natural habitats is predominantly characterised by vast stretches of karstland that support garigue communities. These garigue communities support the most biodiverse habitats in the Maltese Islands.

The Maltese Islands harbour a diverse array of flora and fauna, especially when considering the relatively small land area, the limited number of habitat types and the intense human pressure. There is a significant degree of endemism with substantial number of species restricted to the islands and not found anywhere else in the world. Over the past decade, there has been increasing widespread awareness that protected areas can contribute to the conservation of biodiversity and to the good of society at large if they are appropriately managed.

Malta has made a lot of progress with protecting species and habitats of importance. An analysis of 189 Maltese species of international importance indicates that 183 (97 per cent) of species of international importance are protected by Maltese legislation. These figures contrast sharply with the protection regime in 2002, when 39 per cent of the species of international importance were unprotected. The most marked improvements are with respect to higher plants (29 per cent protected in 2002 v. 100 per cent protected in 2005); Fish (21 per cent v. 93 per cent) and Crustaceans (12 per cent v. 89 per cent).

Malta is committed to comply and fulfil the obligations arising from the Nature Acquis through the National Biodiversity Strategy Action Plan. In order to comply with the EU nature protection Acquis, Malta has designated an extensive network of 38 Special Areas of Conservation (under the Habitats Directive⁵²), which represent approximately 12.5 per cent of Malta's land area. Effective management of protected areas has begun, with management plans approved, covering 1.3 per cent of Malta's Special Areas of Conservation. To date only one special conservation area in the marine environment has been designated. This area is representative of the main marine habitat types that are found in the Maltese Islands. This site is currently benefiting from support under Malta's 2004-2006 Structural Fund Programme.

⁵¹ MEPA, State of the Environment Report 2005, Sub-report 9: Biodiversity, 2005.

⁵² Directive EC/43/1992.

1.1.7 Energy

a. Energy Demand

Energy is an essential resource that yields a considerable impact on the quality of life. Energy is also essential as a resource for industry given its far-reaching ramifications on Malta's competitiveness, economic growth and job creation. In view of these considerations, in 2006, government issued a Draft Energy Policy which proposes a holistic and balanced approach for Malta to achieve the internationally-accepted objectives of security of supply and competitiveness, with due regard to environmental sustainability as well as the social dimension and affordability, all pursued in a balanced way. This document also includes a series of measures and actions designed to reach these objectives.

Malta's electricity generation is exclusively reliant on non-renewable energy sources, namely, liquid fossil fuels. During the 1980s and 1990s, Malta experienced relative consistency in energy supply, markets and distribution. On the international scene, fuel prices were relatively stable, while, internal distribution of energy products was assured by Government-owned Enemalta Corporation. However, due to the recent developments in international pricing of petroleum products, this sector has been adversely affected.

Since Malta is geographically isolated, the importance of fuel storage in case of shortages in supply cannot be underestimated. The island's fuel storage facilities are in need of significant maintenance to prevent further deterioration of tanks to safeguard the environment and to retain their essential function in ensuring security of supply to local consumers in compliance with the EU Directive on minimum security stocks.

The size of Malta's energy market is not conducive to economies of scale or of scope. The total electricity generated annually in Malta is around 2.2TWh. This is equivalent to 5,641kWh per person (EU 6,834kWh per person).⁵³ Malta's electrical power is generated in two conventional thermal power stations. These power plants utilize heavy fuel oil for conventional steam plant and gas-oil for gas turbines. The Marsa power station houses the older generation plant, whereas the Delimara power station is relatively more modern, albeit still in need of upgrading particularly in relation to emissions. In the latter plant, the boilers are presently the most efficient and cost-effective steam plant operated by Enemalta and are still in the middle of their operational lifespan. However, the boilers do not achieve emission standards required by L.N. 329 of 2002 transposing the Large Combustion Plant Directive EC/80/2001, as well as, the IPPC Directive EC/61/1996, currently under review.

The network is currently state-owned and is subject to regulation by the Malta Resources Authority. The present electricity distribution system in Malta has evolved from three 33kV distribution centres to a network of seventeen 33kV and one 132kV distribution centre. These are divided among 4 regions, namely, North, Sliema, Central and South and the load growth characteristics for each were analysed to formulate a long-term plan that would ensure a secure and high quality supply suitable for all the different regions by 2013. The 132kV distribution centre was commissioned in 1992, in order to deliver electrical energy from the then, newly constructed Delimara Power Station. A second 132kV distribution centre is currently being commissioned in the centre of the island. These distribution centres are strategically located close to large load concentrations and directly supply large residential, industrial and commercial consumers, as well as, public infrastructure such as the new hospital.

An analysis of the current condition of the distribution network shows that during peak demand periods, most components are operated at close to their rated capacity and have no redundancy. The problem is further exacerbated by the fact that during the past decade, consumption of electricity has increased steadily; from 1,632 GWh in 1995 to 2,263 GWh in 2005 which is

⁵³ *A proposal for an Energy Policy for Malta*, MRES, June 2006.

equivalent to an average increase of 3.3 per cent per annum, over the last ten years.⁵⁴ This demand growth has been caused by an increase in industrial development, an increasing population that is enjoying a better standard of living together with tourism. It is estimated that 8 per cent of energy consumption go to tourism-related activities, with a tourist demand on resources amounting to 1.5 times higher than that of a Maltese resident. Electricity is also used to produce fresh water in Malta. Water production requires a significant amount of electrical energy, particularly for sea-water desalination processes in which approximately 6 kWh are needed to produce one cubic metre of desalinated water.

b. Energy Efficiency

The production of energy from fossil fuels is the most obvious source of environmental pressure because of the combustion processes involved. Indeed, this sector contributes to about 63 per cent of Malta's GHG emissions.⁵⁵ ⁵⁶In this respect, energy efficiency can have a significant impact on the demand for energy and so, it can reduce the country's fuel bill and the release of carbon into the environment.

In terms of works undertaken from the supply-end, Government has established energy efficiency as an important consideration for the authorization of any new generation plant by the MRA and for the granting of any integrated pollution prevention permit by the Malta Environment and Planning Authority. It is also ensuring, through the budget approval process, that the state-owned electrical company strives continually to improve the efficiency of its operations at the level of generation, and also to improve the efficiency of the distribution network.

Energy efficiency by consumers is also being promoted by Government within the public sector sphere. In this regard Government has taken a number of measures in its effort to lead by example. On a corporate level, a case in point is the appointment of *green leaders* for the public sector, entrusted among other things to encourage energy efficiency in the sector to ensure a coordinated effort in reducing the negative environmental impact of Government investments and to ensure that entities operate in the most efficient manner and with the least possible cost. A number of measures are also being implemented by specific organisations which could have considerable impact on the overall energy bill.

The Water Services Corporation⁵⁷ has been particularly successful in reducing the electricity demand from a peak of 15 per cent of all electricity exported from the power stations in 1995 to around 6 per cent in 2004.⁵⁸ Enemalta and the Water Services Corporation have also started indicating on energy bills, the consumption by domestic consumers compared with the previous consumption by domestic consumers and against the average consumption for similar consumers. Government also provides a grant on the purchase of electrical vehicles of 15.25 per cent of the purchase price up to a maximum of Lm 500. A similar grant is provided by Government to subsidise roof insulation in the domestic sector. Following a pilot energy saving project at Birkirkara tal-Ftieh, the Housing Authority decided in January 2005 to incorporate, where possible, a number of energy saving features in its housing projects. These include double glazing in apertures, window and door louvers, roof insulation, storm water cisterns and solar water heaters.

At household level a number of schemes to encourage energy efficiency were introduced in the 2006 budget. The schemes have been a success with an increase of around 60 per cent of

⁵⁴ Enemalta Corporation sources.

⁵⁵ Statistics sourced by the Ministry for Resources and Infrastructure.

⁵⁶ Malta's GHG emissions per GDP: 910 tonnes CO₂ equivalent per million EUR – higher than EU average but lowest among the 10 new Member States.

⁵⁷ Through upgrading of desalination plants to improve energy recovery.

⁵⁸ **A proposal for an Energy Policy for Malta**, MRES, June 2006.

applicants over the previous year (2005).⁵⁹ In the 2007 budget, the measures have been extended to include rebates on purchase of energy efficient⁶⁰ household appliances of up to €116 per appliance.

c. Renewable Energy Sources

The adoption of the Acquis has led to the establishment of more demanding environmental measures within the energy sector. A high level screening exercise on the resource availability of the sources specified in EU Directive EC/77/2001⁶¹ taking into account available renewable energy technologies was carried out by the Malta Resources Authority (MRA). It was concluded that the technologies that may be suitable for Malta and warrant further investigation are wind, solar photovoltaics, biomass wastes, landfill gases and sewage treatment gas.

Subsequently, the MRA proceeded with focusing on one segment of the energy sector, that of RES, and in August 2006 published a ***Draft Renewable Energy Policy***. This policy document promotes use of RES, by setting ambitious goals and targets for penetration and putting in place appropriate support schemes and regulatory measures to encourage meaningful public investment and participation.

The Draft Renewable Energy Policy identifies wind energy as one of the most cost-effective solutions towards greater RES penetration in Malta. Large onshore wind farm development, albeit the most cost-effective, is highly unlikely to materialise due to the constraints that have been identified in the October 2005 Report sent by Malta to the Commission on the implementation of Directive EC/77/2001. The onshore wind power generation potential is constrained by various factors including the small size of the islands and limited land availability. Government has also been particularly concerned with the potential high visual and landscape impacts associated with large scale onshore wind power generation.

Offshore wind is the second best option in terms of costs and is being studied, although this investigation is further complicated by the fact that potential sites are also very important from the point of critical infrastructure – airports, harbours etc or impact established and significant economic activities – tourism, fuel bunkering etc. Furthermore, a number of such potential sites are also important from the marine conservation point of view and/or fishing perspective as well as highly vulnerable to visual and landscape impacts and therefore to tourism. Nevertheless, Malta has in the meantime also issued a Call for Expressions of Interest for Offshore Windfarm development from interested parties that are capable and willing to undertake offshore wind projects with a final capacity of between 75 and 100 Megawatt (peak) in Maltese territorial waters on a public private partnership basis. Micro-wind at household level is also being studied. Despite planning constraints due to the visual impacts on the Maltese townscape, the Government is looking into all alternatives and potential solutions.

The photovoltaic resource potential in Malta is substantial, particularly if one takes into account the roofs of private houses and certain public buildings such as schools but the cost implications of supporting photovoltaics is very high. In 2006, Government started offering incentives in support of photovoltaics installations with a minimum size of 1 kW and less than 3.7 kWp for domestic use, consisting in a grant of 20% of purchase price of the PV system subject to maximum Lm 500. An additional grant of Lm 250 for every additional 1 kWp ($\pm 5\%$) above the minimum 1 kWp is also given. A net metering arrangement has also been established at 3 c/kWh for any excess electricity fed to the grid. In all the cases, the schemes apply to purchases and installation of equipment for domestic use.

⁵⁹ Budget Speech 2007, Ministry of Finance, October 2006.

⁶⁰ In line with Legal Notice 99/2002.

⁶¹ The promotion of electricity produced from RES in the internal electricity market.

Table 1.17: Notifications and applications for installation of PV systems

Year	Installations on domestic premises		Installations on non-domestic premises	
	No.	Total Power (kW)	No	Total Power (kW)
2004	1	0.5	2	5.0
2005	5	7.1	1	2.3
2006 (Jan-Sept.)	5	8.8	4	9.7
TOTAL	11	16.4	6	17.0

The number of applications submitted to MFIN for a grant for installing a Solar Water Heater is shown in Table 1.18. To date, eleven applications have been filed for the installation of photovoltaic systems. No notifications or applications were made with regards to micro-wind generation systems, largely due to regulatory uncertainties from the planning side. This issue is currently being addressed through a planned revision of the relevant regulations and application process.

Efforts continue to be made in this area. More recently, Government set up a Waste to Energy Committee with the objective to assess the feasibility of recovering energy from waste generated. Proposals in this regard will complement those currently being finalised for the upgrading of the St Antrnin waste treatment plant. The digestion process planned for this facility will recover approximately 3.5 million m³ of biogas of which about 60 percent will be methane to be used for the generation of 'green electricity'.

Table 1.18 Number of applicants, approved applications and total refunds for purchase of solar water heating systems for 2005 and 2006 as of September 2006 (Source: MFIN)

	2005	2006 (January-September)
Number of applicants	364	1,012
Approved applications	358	913
Total refunds	Lm17,647.98	Lm86,102.54

Although there appears to be limited potential for growing crops for the production of biofuels in Malta particularly due to limited land and water resources, biofuel production (from local waste) and imported biofuel and biodiesel accounted for 0.5 percent of the total fuel used for road transport in 2005. To support this uptake, Government has also established that the biomass content (i.e. percentage element) in biodiesel is exempt from excise duty.

1.1.8 Urban Development

Since 1842, the Maltese population has increased three-and-a-half times over, from 114,499 to 402,727 in 2005. In 2004 a new land cover map was prepared based on the international EEA CORINE classification.⁶² This CORINE 2000 land cover map provides a new (baseline) indication

⁶² Ref: *State of the Environment Report*, 2005, MEPA.

of land cover at the European scale. It indicates that agriculture accounts for almost half Malta's land area (47.8 per cent) while forests make up only 0.9 per cent. Natural vegetation accounts for 22.7 per cent of land cover, while artificial areas cover 28.6 percent, mainly in the form of a conurbation around the Grand Harbour. The urban localities within the Grand Harbour Local Plan and part of the North Harbours Local Plan include: Valletta; Floriana; Vittoriosa; Senglea; Cospicua; Kalkara; Marsa; Ta' Xbiex; Pieta'; Gzira; Sliema; Paola; and Fgura.⁶³ Malta is by far the most densely populated EU Member State, with an average of 1,261 residents per square kilometre.

The urban fabric in the Maltese Islands plays an important role in the development of society and the economy. Built and natural heritage make an essential contribution to the quality of life, giving context and coherence to the present, while acknowledging the contribution of the past. The importance of the urban fabric is even more pronounced since Malta is by far the most densely populated country in the EU. Malta has a very high proportion of built up land to the tune of 23.0 per cent of total land area. The increase in urban development has mainly taken place in order to provide for additional housing units. In fact, residential areas constitute Malta's principal urban use of land. The relatively high cost of housing is underpinned by rising pressure on land resources for this land use. The rehabilitation of brown-field sites is considered a potential means to reduce this pressure. The urban fabric and the demand for space and housing are on the increase. However, there are still marked downward trends in the household projections in the historic cities and the inner Harbour areas.⁶⁴ In 2005, redevelopments of units within these areas represented a mere 0.3 per cent of the total redevelopment of units across the islands.

During the 20th century, Valletta and the greater Harbour hub went through a steady decline in population and were subject to migration outside the fortifications or to suburban towns and villages. The reasons for this mass migration and decline comes as a result of various crises and elements. The City's population today reaches 6,315 and is confined to 760,000m². The City is still one of the most densely populated areas in the Maltese Islands, with a population density of 7,510 per km². The population density per Km² is the second highest when compared to other fortified maritime cities (Senglea – 12,293 per Km², Cospicua – 6,215 per km² and Vittoriosa – 5,312 per km²)⁶⁵. Notwithstanding its density, Valletta still has 833 vacant dwellings, that is 23 per cent of the total. This is 3 per cent higher than the national average for vacant dwellings in urban conservation areas. Vacant dwellings are one of the most pressing problems in the Maltese Islands and possibly one of the major causes of degeneration of the historic fabric, the environment and texture in conservation areas. While vacant dwellings are a problem in Valletta, other areas, such as the three Cities are characterized by bad housing standards. Quality issues in the historic urban areas revolve around the age of the residential property which renders them unattractive due to their physical obsolescence, absence of lifts, toilets and small rooms. There are 38.6 per cent⁶⁶ dilapidated dwellings in the Cottonera region. Low rental values affect the quality of certain settlements because they discourage owners from maintaining the property in good condition. This results in increasing decrepitude of the housing stock and has a direct impact on the environment, amenity of the area and quality of life.

The population of Valletta is less than 2.0 per cent of the total Maltese population. The trend is destined to continue, since around 30.0 per cent of the residential population consists of people aged 60 and over. This is a predominant trend in the urban cores around the Harbour Area. Indeed, whereas on a national level 14 per cent of the population are over 65 years of age, in the Harbour area (particularly the area requiring regeneration, this percentage is more pronounced – around the region of 21 per cent.⁶⁷ At 10.6 per cent, the average unemployment rate in these

⁶³ Data provided by the Ministry for Urban Development and Roads.

⁶⁴ Structural Plan Review – Demography paper (MEPA).

⁶⁵ Source: NSO 2005 Preliminary Report Census/MEPA Demography topic paper 2001.

⁶⁶ National Action Plan 2004-2006.

⁶⁷ Sources: NSO 2005 Census/MEPA Demography Topic Paper 2001 (data for Valletta, Floriana, Cospicua, Senglea and Vittoriosa).

areas is also considerably high.⁶⁸ The Housing Authority has been investing in the area since 1998. This investment has seen the upgrade of substandard and dilapidated housing. Restoration projects have been directed at urban areas and main heritage assets. The Government has also invested in the social infrastructure of the Cottonera through the development of AÇCESS, the community resource centre aiming to facilitate social inclusion of the people in this area.

Another problem characterizing this area is that the urban hub is becoming inefficient through modernization and the engrained quasi-full dependency on private car. The statistics collated by the local transport and environment authorities prove this phenomenon. The increased service/commercial-oriented districts with the two main nodes in Valletta and Sliema are not consolidating or sustaining further the resident communities. This impact is accentuated by the heavy traffic congestion which is symptomatic of the harbour area. However, national efforts are continuing with the introduction of the Controlled Vehicle Access to Valletta, as of 1st May 2007, as well as the free park and ride scheme servicing Valletta since November 2006. The idea of this scheme is to reduce the number of vehicles entering Valletta by encouraging car drivers to park for free in the designated park and ride area where some 900 parking places have been provided, and then take a shuttle minibus, also for free, to enter Valletta. With regards to the public transport system, this has not, as yet, provided an attractive service which may translate into modal shift. This is ultimately affecting the mobility and accessibility of residents in these localities but also migration into these vacant quarters and areas. Of a total of some 55,000 people working in Valletta and Floriana over a 24 hour cycle, only a quarter reach the City using public transport. This problem is partially being addressed through the introduction of two express bus routes connecting Zurrieq and Mosta to Valletta. Electric minicabs are also operating in Valletta.

Notwithstanding traffic congestion in certain urban areas, the CO₂ emissions level in Malta is comparatively low with 7.2 metric tonnes of CO₂ per capita in 2002.⁶⁹ However, within the harbour hub area, the level of aerosols is quite pronounced.⁷⁰ Particulates in ambient air have been investigated⁷¹ in line with Malta's EU obligations related to air quality.⁷² Concentration peaks of 300 µg/m³ were observed and occurred mainly during morning rush-hour periods from a traffic site in Floriana. However, the air samples taken between September 2004 and March 2005 showed that no traces of mercury and chromium were detected, while arsenic and cadmium concentrations were well below EU target values. Lead concentrations were below EU and WHO limit values and the highest vanadium concentration was also well below the guideline value. As the country is surrounded by sea, sodium concentrations were found to be high, while sulphate particles had the highest occurrence with 55 percent of the average total PM₁₀ fraction.

From the late 1990s, urban development briefs have been undertaken with various projects in and around the Harbour area. The main projects currently include the Manoel Island and Tigne Redevelopment, the Cottonera Waterfront Redevelopment and the Valletta Cruise Liner Terminal. These projects have been largely based on a model conceived in the early 1990s with land concession agreements based on very long term contracts. The basic concept of these agreements is the long term concession with the benefits of private investment in the restoration, rehabilitation and redevelopment of earmarked assets. A number of other projects to rehabilitate old town and village cores have also been undertaken.

⁶⁸ In 2005, the unemployment rate by locality in the South Harbour area was as follows: Valletta – 12%, Floriana – 7 %, Cospicua – 14%, Vittoriosa – 9% and Senglea – 11%. Sources: ETC 2004-2006/MEPA Employment Topic Paper 2001/NSO 46/2007.

⁶⁹ Statistics provided by the Ministry for Urban Development and Roads.

⁷⁰ For Malta, important sources of particulates are dust directly emitted through quarrying or mechanically twirled up dust and tyre and brake abrasion; particulates originated from exhaust emission e.g. of the power plants and traffic; the sea-injecting salt into the atmosphere; and wind blown dust (locally, as well as long-range transported dust in particular from the Sahara).

⁷¹ MEPA 2005.

⁷² Directive EC/107/2004 relating to arsenic, cadmium, mercury, nickel, and polycyclic aromatic hydrocarbons in ambient air.

In recent years, Government has focused on re-launching urban regeneration as a potential economic initiative which acts as a catalyst in local development. In the Cottonera and Harbour area, the Maltese Government has invested in diverse regeneration projects. Since 1995, the Maltese Government has launched three regeneration projects. These include the Valletta Waterfront Regeneration plan, the Cottonera Waterfront Regeneration Plan and the Valletta Rehabilitation Master Plan⁷³. Others are in the pipeline. Local Councils play an invaluable role in this regard.⁷⁴ The restructuring policy includes the development of the National Projects Committee which currently vets and launches new capital projects. The Committee is based on Inter-Ministerial cooperation and 'joined-up' Government.

1.1.9 Education, Social and Health Infrastructure and Housing

Human resources as a vehicle for economic growth and development are Malta's main natural resource. The country's ability to compete in the high-value-added, knowledge-intensive markets requires a highly-skilled and adaptable workforce equipped with tertiary, upper secondary, secondary and vocational qualifications. The Maltese Government's priority remains that of encouraging and supporting people to realize their full potential in order to contribute to Malta's socio-economic development. The development of human capital is crucial since, skills, creativity and competence growth are most likely to result in a strong sense of individual fulfilment and cohesion of society's values. Indeed, social cohesion as a widespread concept that encompasses the areas of education, social welfare, employment and health care is one of the main advocates for a better quality of life.

a. Education Infrastructure

The Maltese Government delivers free education for all in primary and secondary State and Church Schools, which is compulsory up to the age of 16. All state schools and a number of non-state schools provide kindergarten services, which are attended by around 93 per cent of the age cohort (3-4years). At tertiary level, education became free in 1970. At post-secondary level, five colleges provide general education of which, three are state-run and two are church schools. In addition, the Malta College of Arts, Science and Technology (MCAST) and the Institute for Tourism Studies (ITS) are public colleges providing post-secondary vocational education. Tertiary level education is provided predominantly by the University.

Between 2000 and 2004, the overall pupil population at primary level decreased from 34,261 to 31,064 (-9.3%). At secondary level,⁷⁵ the student population increased from 27,254 to 29,540 (+8.4%). The most substantial changes have occurred in the post-secondary sector (including vocational education), where the opening of MCAST has seen the student population at post-secondary and vocational level increase from 9,453 in 2000 to 12,520 in 2004 (+32.4%). The student population at ITS in 2004 stood at 544 students, with an additional 163 students studying part-time. The University student population increased from 5,362 in 2000 to 7,955 in 2004 (+48.4%), as highlighted in Table 1.19, below. From the findings in the Chalmers report (2004),⁷⁶ it is clear that the increase of students both at the University and MCAST has led to a corresponding need to increase resources and physical space. The report cites inadequate infrastructure, over-crowding, under-investment and insufficient funds as added pressures that are, in effect, the result of policy success.

⁷³ To be concluded in 2007.

⁷⁴ Today Malta has 68 Local Councils - 54 in Malta, and 14 in Gozo. The local government has a number of responsibilities including: up-keeping and maintenance of local roads, parks and gardens; collection of household waste; administration of public libraries; local enforcement system (enforced through the Local Wardens); and Agency Agreements (such as the collection of Government rents).

⁷⁵ Up to the age of 16.

⁷⁶ "**State Higher Education Funding**" Chalmers Report, October 2004.

Clearly, Malta has made significant progress over recent years in stepping up participation rates at both post-secondary and tertiary education levels. Despite this progress, educational attainment in Malta is still below the EU average. According to the 1995 census, 51.9 per cent of the working age population have not completed secondary schooling and have attained only ISCED levels 0-2. Some 36 per cent of the working age population attained ISCED Level 3, 3.5 per cent attained ISCED Level 4 and a mere 7.3 per cent attained ISCED Levels 5-7. According to the Census, 60 per cent of the working age population, declare a lack of any formal qualification, while 9 per cent of the population is illiterate.⁷⁷

Table 1.19 – (Source: National Statistics Office, *Malta in Figures 2004: Education and Culture*)

Enrolment at different levels of education					
Level	Primary	Secondary	Post-secondary	Tertiary	Vocational ⁷⁸
2000 Total	34,261	27,254	5,191	5,362	4,262
Males	17,605	13,543	2,278	1,961	3,255
Females	16,656	13,711	2,913	3,401	1,007
2001 Total	33,530	27,647	5,122	7,493	4,134
Males	17,315	13,814	2,516	3,392	3,131
Females	16,215	13,833	2,606	4,101	1,003
2002 Total	32,717	28,126	4,973	7,332	4,087
Males	16,946	14,302	2,705	3,159	2,868
Females	15,771	13,824	2,268	4,173	1,219
2003 Total	31,708	28,560	5,169	9,006	4,635
Males	16,454	14,443	2,298	3,888	3,168
Females	15,254	14,117	2,871	5,118	1,467
2004 Total	31,064	29,540	5,479	7,955	7,041
Males	16,084	14,988	2,318	3,515	5,063
Females	14,980	14,552	3,161	4,440	1,978

The performance of a country aiming to become a knowledge-based economy can be measured in terms of the number of young people aged between 20 and 24 years achieving upper-secondary education levels or more. As shown in Table 1.20, Malta's source for the indicator increased from 40.7 per cent in 2000 to 53.7 per cent in 2005. As per the NRP, Malta aims to achieve the target of 65 per cent of people aged 22 years completing upper secondary education by 2010.

The participation rate at vocational level of education is also on an upward trend. In fact between 2000 and 2004, the rate has increased by 65 per cent. The increase is mainly attributable to the launch of MCAST in 2001, which serves as an umbrella for technical and vocational education and training in Malta.⁷⁹ Between 2000 and 2005, public investment in the institute increased from Lm 579, 856⁸⁰ to Lm 4.9 million. The establishment of the Institute for Tourism Studies in 1988, upgraded the professional standards of human resources for the tourism industry through the

⁷⁷ Official updates from the 2005 census were not yet available during the drafting of the NSRF and OPs.

⁷⁸ Including post-secondary vocational courses.

⁷⁹ MCAST offers technical and vocational education and training in fields such as electronics and engineering, business and commerce, art and design, maritime studies, agribusiness, engineering and community services.

⁸⁰ A number of vocational and educational training institutions which existed in 2000 and were eventually incorporated in MCAST are not covered by the 2000 expenditure. In fact, during 2000, an additional Lm 562,415 and Lm 502,808 were invested in the Trade School and Technical Institutes, respectively, which institutes were later taken over by MCAST.

provision of adequate training (with a high degree of practical experiences both in Malta and abroad) to the prospective workforce. Participation in these institutes is expected to continue increasing.

Table 1.20

Percentage of 20-24 year olds achieving upper secondary education level or more						
Gender	2000	2001	2002	2003	2004	2005
	%	%	%	%	%	%
Males	41.4	37.7	38.7	41.6	49.8	50.5
Females	39.8	40.4	47.2	49.0	52.5	57.1
Total	40.7	39.0	42.9	45.3	51.1	53.7

Source: National Statistics Office, Annual Labour Force Survey data sets

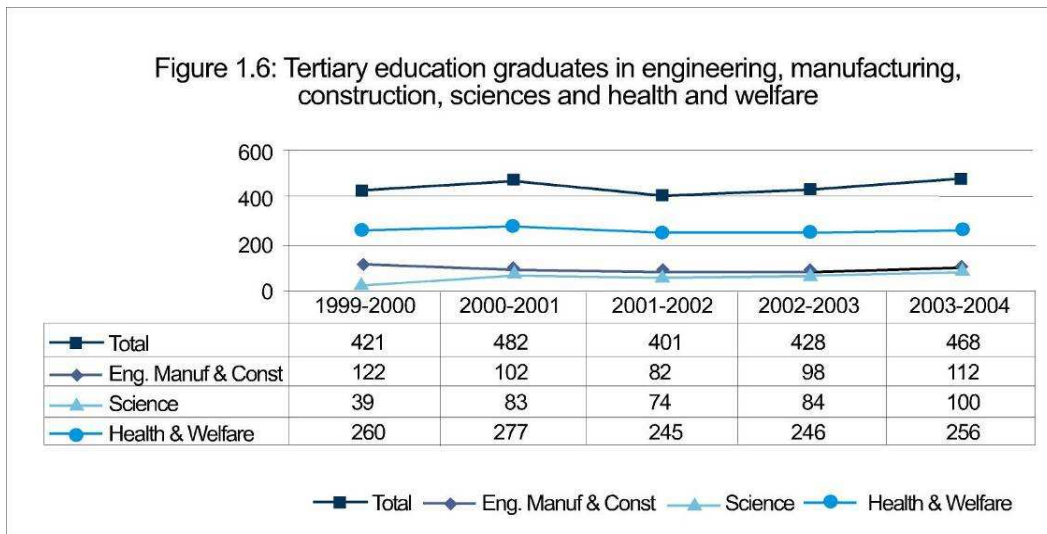
At tertiary level the participation rate of 19 year olds stood at 23.0 per cent in 2004. If the students participating in higher-level courses in the vocational sector are also taken into account, this figure would go up to 26.0 per cent.⁸¹ However, this figure is still below the European average. The forecast, as established in the Pre-Budget Document 2006-2010, is to reach 30.0 per cent by 2010, implying that the general post-secondary capacity must expand in parallel and that a broader range of courses including bridging courses must be in place to facilitate the pathways into the tertiary level including those following vocational streams who intend furthering/extending their studies at University. The participation in post-graduate programs including those at a Masters or Doctoral level, is low. In this regard, further financial investment for research and basic research facilities at the University needs to be supported to increase the participation rates. Incentives are being designed to boost the number of doctoral research in Malta, to provide an increasing pipeline of basic and applied research projects.

The rate of graduates in engineering and sciences related courses at the tertiary level in the scholastic year 2003-2004 stood at 9.9 per cent, a figure which needs to be increased to compare the EU25 average of 23.6 per cent in 2004.⁸² However, as illustrated in figure 1.6, an increase of 31.7 per cent was registered in graduates following engineering and science-related courses between the 1999-2000 and 2003-2006 scholastic years. Within the sciences field of study, the number of university graduates in ICT had an average of 36 graduates per year over five scholastic years (1999-2004). The increase of S+T graduates at tertiary level will require also investment in the relevant infrastructure at the secondary level.

⁸¹ There are a number of individuals who follow courses at all levels in private institutions but are not captured in these statistics.

⁸² Source of EU data: Eurostat 30 June 06, extracted 12 October 2006.

Figure 1.6: Tertiary education graduates in engineering, manufacturing, construction, sciences and health and welfare



b. Social Infrastructure

Due to Malta's territorial size, the tendency in the past was to develop social and employment services on a national level. Such services provide assistance to service users without taking full cognisance of the particular needs of people coming from specific localities. Local development initiatives started around a decade ago when a community development team was set up within the Cottonera region, in the Harbour hub area, with a view to promote a more locality-focused approach. This development led to the investment of a community resource centre known as ACCESS (complex). This centre aims to facilitate the social inclusion of people residing in this locality, particularly persons considered to be at risk of poverty and social exclusion, through personalized social welfare services, training initiatives, learning and enhancement of skills as well as other Community Initiatives.

Both the voluntary sector and Local Councils contribute towards this community development. Such a centre targets a variety of potential service users including the unemployed, persons with disability, children and families, women, young and elderly people, persons with mental health difficulties, persons with housing problems, schools and community groups. Experience has shown that the introduction and development of such community-based services is an effective method of intervention, as it not only facilitates working at grassroots levels, but helps to build upon the strengths of the community and to balance essential characteristics with cultural and national variations in attitudes, perceptions and concepts on children, families and local society.

A consideration should be made between the potential link between the low female participation rate in the labour market and the availability of childcare facilities. Child day-care centres are a relatively recent phenomenon in Maltese society, with the earlier ones being set up in 1996/1997. Childcare services for children under three are currently being provided through a number of private commercial initiatives, while baby sitting services are usually offered from the carer's home. There are approximately 50 childcare facilities,⁸³ catering for approximately 1,000 children under 3 years of age. Pre-school (kindergarten) provision is made widely available by the state, but also through church and private institutions. Out-of-school service (covering out of school hours and holidays) is the least structured and available of all day care services. Government provision is limited and is mainly related to providing childcare services at the workplace.⁸⁴ Under

⁸³ Including centres, home-based facilities and private kindergartens.

⁸⁴ Examples include: St. Luke's Hospital, the University of Malta and APPOGG through its ACCESS Community Resource Centre.

the 2004-2006 Structural Funds Programme, Government is supporting childcare primarily through the training of childcarers, and a national campaign on the benefits of quality childcare.

c. Health Infrastructure

The Maltese population presently exhibits a relatively high health status. In a national health interview survey, conducted in 2002, a relatively high proportion of respondents (73 per cent) stated they were in good or very good health. Life expectancy at birth in 2003 was 80.43 years for females and 76.39 years for males. However, statistics show that circulatory disease is the leading cause of death, accounting for 44 per cent of deaths. Cancers currently account for 24 per cent of deaths with lung cancer as the commonest cancer killer in men (7.6 per cent of all deaths) while breast cancer is the commonest cancer in women (4.4 per cent of all deaths). Mental health is another important chronic condition.

The public health care system provides a comprehensive basket of health services to all persons residing in Malta who are covered by the Maltese social security legislation. In addition, the health care system also provides all necessary care for special groups such as irregular immigrants or foreign workers who have valid work permits. No user charges or co-payments apply. A few services including elective dental services, optical services and coverage of formulary medicines are means-tested. The private sector acts as a complementary mechanism for health care coverage and is financed through private health insurance and out of pocket payment.

Table 1.21 – Activity data Zammit Clapp Hospital (60 beds)

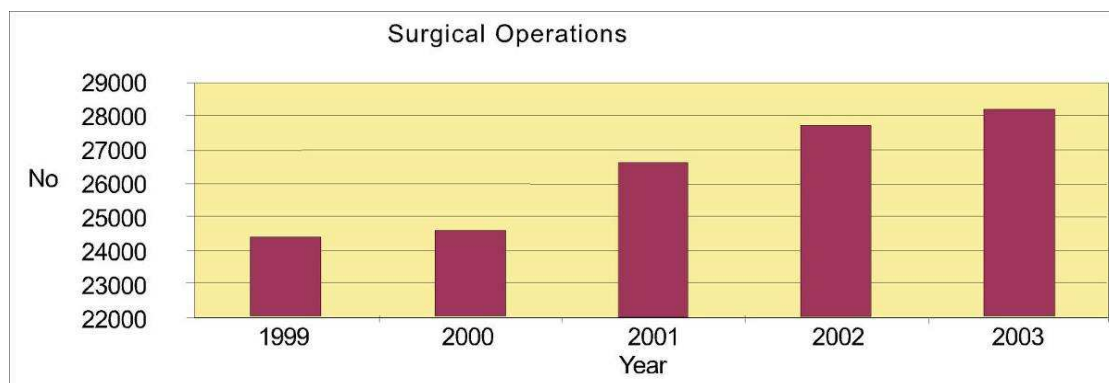
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
<u>Inpatients</u>					
Total admissions	1002	936	915	970	965
Mean length of stay (days)	21	22	22	20	22
% admissions from SLH	52	52	50	53	51
% discharged to own home	69	66	63	67	69
% monthly mean occupancy	98	98	98	98	98
<u>Day Hospital Patients</u>					
New patients seen	825	762	795	835	973
Total Attendances	6749	6382	6601	7159	7225
Total Patients assessed	919	927	851	848	872
% patients transferred	59	54	54	63	56

Acute hospital care takes place at St. Luke's Hospital, which is the main acute general hospital in Malta. The Maltese government has heavily invested in the construction of a new acute hospital, the Mater Dei Hospital, which is expected to be completed in 2007. When completed, the new hospital project will have a total floor area of 232,000m² and approximately 8,000 rooms. The hospital will also be used as a teaching facility by the neighbouring University of Malta. Expenditure on the Mater Dei Hospital represented one third of Government's capital outlay in

2005 and contributed to an estimated 56 per cent of the nominal growth in investment expenditure by Government.⁸⁵

The Rehabilitation Hospital, which was commissioned in the early 1990s is emerging very clearly as insufficient to cater for the needs of rehabilitation and intermediate care. In fact only over half of referrals suitable for admission to this hospital are being accommodated (Table 1.21), leading to unnecessary overcrowding in the acute hospital. The number of admissions with a length of stay over 11 days at St Luke's Hospital, during 2005, was 4,865. These admissions together occupied 133,575 bed days. A large numbers of these would have been suitable cases for rehabilitation and intermediate care that does not require an expensive high-tech acute setting.

Figure 1.7: Surgical Operations Register St Luke's Hospital



The pressures of peripherality and double insularity on the availability of health services highlight the need to provide the minimum time-critical health services in Gozo. The lack of modern equipment and the under-exploitation of information technology necessitate the referral of a significant number of patients to Malta every year, mainly, for diagnostic purposes, with the consequent time delays in getting the required treatment, additional suffering and costs.

d. Housing

The results of the Census carried out by the National Statistics Office in 2005 indicate that around 74.8 per cent of householders own the dwellings they live in, while 21.7 per cent occupy rented properties. 2.7 per cent of all households live in free-of-charge premises. The extent of home ownership in Malta compares favourably with that of other Member States. The acquisition of one's residence has always featured highly on the priority list of Maltese citizens. Government through the Housing Authority, already provides units for sale at subsidized prices on a regular basis through the 'Right to Buy Scheme' and the 'Shared Ownership Scheme.'

Several old vacant dwellings are to be found not only in village cores but also in such urban centres as Valletta, the Three Cities and Floriana. The high architectural, cultural and historical value of these houses needs to be acknowledged. Besides the preservation of cultural heritage, the upkeep of such regions also contributes towards the promotion of Malta's natural assets for the development of sustainable tourism. However, many of these older properties are in a poor state, requiring costly repairs. Some are in a dire state, where re-building would be preferable to refurbishing since the cost of repair would be too high to make a project feasible. In any case

⁸⁵ *Securing Our Future, Pre-Budget Document 2007.*

most of these dwellings cannot be adapted to meet the modern standards of accessibility and hence, it would be too difficult to render them habitable for elderly, disabled people and frail residents. In such cases, particularly where there may be many of such properties in a particular locality, urban renewal is often the most viable option. Several initiatives of urban regeneration are already underway to address the issue, primarily through the Housing Authority's schemes and projects.

1.1.10 The Labour Market

a. The Labour Market – overall situation

Malta's socio-economic development is inextricably linked to human resources. Human resources are Malta's main natural resource. In 2005, the total overall employment rate stood at 54.3 per cent (EU25: 63.8 per cent). Whilst the rate for males stood at 74.4 per cent (EU25: 71.3 per cent), the rate for females was 33.9 per cent (EU25: 56.3 per cent). The same trend followed for the activity rate, where the rate for males stood at 79.3 per cent as opposed to 36.9 per cent for females. Females also experienced a higher unemployment rate, 8.9 per cent when compared to 6.6 per cent for males in 2005. An analysis of employment rates by age group illustrates that the highest rates for males are found in the 25 to 54 age bracket (89.2 per cent) whereas female employment rates tend to be higher in the 15 to 24 age bracket (43.9 per cent). The unemployment rate as at 2005 stood at 7.3 per cent which represents an increase of 0.1 percentage point over that for 2004. Between 2001 and 2005, the unemployment rate in Malta has been constantly lower than the EU average. Approximately 47.7 per cent of the unemployed in 2005 were aged between 15-24.

An overview of those registering for employment with the Employment Training Corporation (ETC) shows that in 2005 there were a total of 7,379 persons registering for employment, amounting to an unemployment rate of 5.1 per cent. Of these 6,696 registered for employment under Part I and 683 were registered under Part II.⁸⁶ This represents a decrease of 8.9 per cent over the previous year. Between 2000 and 2005, the majority of the unemployed under Part I were those looking for elementary and low-skilled occupations.

The labour force increased by 2.6 per cent between 2000 and 2005, with a marginal increase of 0.4 per cent registered between 2004 and 2005. Meanwhile, the number of persons with a part-time job as their main occupation stood at 12,608 during 2005, representing an increase of 10.9 per cent over the previous year. Between 2000-2005, the growth rate of part-time employment as a main occupation was higher for males than for females, however, in 2005 the number of females holding a part-time job outnumbered their male counterparts.

The domestic labour market has been characterised by certain conditions in recent years, particularly as regards developments in full-time employment and in unemployment levels. The process of economic adjustment triggered by industrial restructuring in both public and private enterprises, fiscal consolidation, as well as sluggish growth in the economies of Malta's main trading partners and the steep rise in international oil prices posed an increased uncertainty that affected adversely employment developments. Nonetheless, the performance of the labour market during 2005 indicates the degree of resilience through the expansion in part-time employment, increases in the gainfully occupied population, as well as the decline in the number of registered unemployed.⁸⁷

⁸⁶ Registered unemployed with ETC is composed of both Part I and Part II of the Register. Part I of the Register includes those who are eligible for work and registering with ETC as unemployed, while Part II incorporates other categories of persons searching for work but are not eligible to register under Part I.

⁸⁷ It is notable that over the recent years, increasing importance is being attached by both economic operators and employees to part-time work as the main occupation. This indicates changing working patterns and the relative degree of flexibility of the labour market.

In the period 2000-2005, employment in the private sector was on an upward trend. Furthermore, in 2005, private sector employment stood at 101,029 an increase of 1,669 or 1.7 per cent over 2004. Higher employment in the private sector reflects a significant expansion in private market services over the period 2000 to 2005, most notably in real estate, renting and business activities; transport, storage and communications; and in health and social work. These increases in private market services employment were partly countered by a decline in employment in private direct production, owing to an active restructuring process in the industrial sector.⁸⁸ On the other hand, due to the restructuring of public enterprises, privatisation initiatives, as well as Government's policy to restrict recruitment in non-essential categories in Government Departments and Agencies, public sector employment has been following a downward trend over the recent years. In fact, public sector employment declined from 50,581 during 2000 to 48,062 in 2005.

Gozo's labour market is characterised by a relatively low labour market activity rate and extensive employment in lower-value-added activities. When compared to Malta, the employment rate in Gozo is lower, standing at 49.6 per cent in 2005 (Malta: 54.3 per cent) with 69.6 per cent being males (Malta: 74.4 per cent) and 29.6 per cent females (Malta: 33.9 per cent). The Gozitan labour market is characterised by considerable levels of underemployment, however this does not always induce Gozitans to move or commute to Malta, especially due to the hardships (social, financial and others) that are associated with working in Malta. The Gozitan economy also depends even to a larger extent than that of Malta, on the public sector.

In 2005, employment in this sector in Gozo accounted for 48.2 per cent of total employment on the island when compared to 32.2 per cent in Malta. A significant amount of these employees is found in the lower level industrial grades. Tangible steps in re-deployment have recently been taken with the transfer to Gozo of various back-office operations pertaining to the public sector. This has created new jobs especially for new entrants in the labour market but has not solved under-employment in other categories.

b. Gender equality and female participation in the labour market

Malta has adopted a number of strategies including gender mainstreaming in social protection and social inclusion, and gender equality in employment to promote stable and quality employment for all women and men. Government has embarked on various measures towards an integrated approach to promote gender equality with the aim to increase the female participation rate, which currently compares unfavourably with the EU 25. In this respect, in 2004 Government established the National Commission for the Promotion of Equality (NCPE) whose task is to identify and monitor national policies addressing discrimination and promoting gender equality.

Gender equality has been given a firm legislative basis by means of specific legislation which strengthened the national machinery for gender equality. Through the Income Tax Act (CAP.123) Government introduced new fiscal incentives to encourage more women to return to the labour market.⁸⁹ In addition, as part of the new Collective Agreement for Employees in the Public Service which came into effect in January 2005, Government introduced further flexible family friendly measures which enable employees to combine their work and family responsibilities through extended and more flexible parameters in the utilisation of unpaid parental leave and reduced hours.

Notwithstanding, *de facto* differences are still a reality. In 2005, the total overall employment rate stood at 54.3 per cent as outlined under Table 1.22. Disaggregating this information by gender

⁸⁸ This has been particularly evident in the textiles manufacturing sector.

⁸⁹ One of these provisions gives women who have been absent for more than five years from work, will be exempt from tax for the first year during which they return to work, while another measure relates to part-time job as a secondary source of income for a married couple which gives them the possibility to qualify for a 15 per cent flat rate tax on the part time job of the other spouse who holds a part-time job as a primary source of income.

one notes that whilst the rate for males stood at 74.4 per cent males (EU25: 71.3), the rate for females was of 33.9 per cent (EU25: 56.3). The same trend followed for the activity rate, where for males the rate stood at 79.3 per cent as opposed to 36.9 per cent for females. Females also experience a higher unemployment rate of 8.5 per cent when compared to 6.6 per cent for males.

Table 1.22 - Labour market information by gender for 2005

	Males %		Females %		Total %	
	MT	EU25	Malta	EU25	Malta	EU25
Activity Rates	79.3	77.8	36.9	62.5	58.3	70.2
Employment Rate	74.4	71.3	33.9	56.3	54.3	63.8
Unemployment Rate	6.6	7.9	8.9	9.8	7.3	8.7

*Source: National Statistics Office, Annual Labour Force Survey data sets
EU figures are extracted from the Eurostat Database*

Child day-care centres are a relatively recent phenomenon in the Maltese society, with the earlier ones being set up in the late 1990s. Childcare services for children under three are currently being provided through a number of private commercial initiatives, while baby sitting services are usually offered from the carer's home. There are approximately 50 childcare facilities, catering for approximately 1,000 children under 3 years of age. Pre-school (kindergarten) provision is made widely available by the state, but also through church and private institutions. Out-of-school service (covering out of school hours and holidays) is the least structured and available of all day care services. Government provision is limited and is mainly related to providing childcare services at the workplace.

1.2 Territorial Cohesion – The Island Region of Gozo

1.2.1 General Overview

The Island of Gozo (65 sq. kilometres) and its sister Isle of Comino are located to the North West of the main island of Malta and are separated by about 4 km of sea. The only present link from Malta to Gozo is by ferry. In Gozo, one road provides the principal infrastructural link to and from the Mgarr harbour - Gozo's main and primary link to Malta and the world - and the main town of Victoria. Gozo's peripherality to Malta's main commercial infrastructure gives rise to its double insularity problems which in turn lead to constraints on the movement of persons, goods and services to and from Malta's sister island. Double insularity constraints result in additional transaction costs to Gozo's business sector and act as a burden to Gozitan citizens and visitors. The issue of double insularity impacts on all sectors of the economy and also undermines the quality of life on the island given the limitations on accessibility to important services such as education and training, specialised health care and employment opportunities. These issues together with the island's geographic and structural handicaps are accelerating the under performance of the Gozitan economy, notably, eroding the competitiveness of business in Gozo.

1.2.2 Accessibility

Almost all passenger, vehicular and cargo access to Gozo is through the port of Mgarr. Access to and from the port of Mgarr, as well as within the island itself, is highly congested and at times totally blocked in strategic parts of the island, with a significant negative impact on the environment and on economic activity, notably tourism. The number of vehicles including cargo, crossing between Malta and Gozo has increased from 844,000 in 2002 to about 890,000 in 2005, while the number of passengers increased from 3.3 million to 3.5 million during the same period. Heavy traffic is putting pressure on the road infrastructure which was designed for lighter traffic flows. This situation calls for higher investment in road infrastructure, in particular the construction of a new access road at the lower junction of the port of Mgarr to ensure access to and from this only entry and exit point at all times, since this is the lifeline for Gozo. Moreover, the Mgarr harbour will require further investment in capacity to enable a broader use of the port to cater for cruise liners, ferries and also strengthen its yachting facilities.

With regards to air transport, a helicopter air link between Malta and Gozo ceased to operate in 2006. The link used to complement the sea transport link. In view of this, Government is currently studying different proposals - assuming different scenarios regarding frequency and types of carriers - in order to organise the air link in a manner that takes into account the broader economic, social and environmental concerns.

1.2.3 Competitiveness

Gozo's services sector comprises primarily tourism and related services, as well as, financial and ICT based services. The services sector exhibits the strongest growth potential but necessitates significant investment in infrastructural facilities to create the right environment for increased economic activity. An enabling environment will go a long way to attract back-office work to the island, as well as encourage young people with an entrepreneurial ability and ICT skills to set up their own small business in ICT-based services, creating synergies with other sectors. The ICT sector needs to be further exploited given its high value added content and its capacity to withstand inherent disadvantages emerging from the inevitable inter-island transport costs.

Tourism is the mainstay of the Gozo economy and is a provider for a wide array of employment activity in the island. Tourism in Gozo depends on both foreign as well as internal tourism. Accommodation facilities abound for all types of tourist markets, but occupancy levels are low denting profit margins.

Gozo has unique potential in this sector. Besides its own history culture and archaeology, Gozo has to date avoided the scars of development that have occurred in the larger island. This strength gives it a competitive edge over Malta in terms of beauty, peace, tranquillity and ambience. It is Government's intention not only to safeguard but also to strengthen this competitive edge through improvements in the tourism product, investment in human capital and targeted marketing, protection of Gozo's character, environment and landscape. Gozo's tourism should focus on rural tourism and highlight the natural landscape and scenic views one can enjoy in a non-densely populated area.

1.3 Malta's Strengths, Weaknesses, Opportunities and Threats (SWOT)

The information emerging from the socio-economic analysis draws upon the outcome of a SWOT analysis undertaken during five sessions held in September 2005, for which the relevant public agencies, NGOs, social partners and stakeholders were invited to participate. The SWOT meetings were organised along the following thematic areas of accessibility, economic development and competitiveness, employment, education and social inclusion, the environment and Gozo special needs. In addition, in the first quarter of 2006, a number of public dialogues were held on the same thematic areas in various locations, including Gozo. SWOT factors pertaining to the Priority Axes of OP I, are set out in the following Table:

Table 1.23 – SWOT Analysis

Strengths

- Politically stable, secure environment with good quality of life;
- Favourable climatic conditions;
- Strategic location in the Mediterranean;
- Multi-lingual population;
- Established industrial base with a good reputation of retaining FDI;
- Well established market services;
- Emerging high value-added industrial sectors; (e.g. electronics, ICT, pharmaceuticals, aviation) resulting in experienced workforce and good basis for venturing into RTDi;
- Well-established tourism sector with excellent product potential (e.g. history and culture);
- Unique cultural heritage sites of World Heritage status;
- Close proximity to tourism source markets;
- A prospering financial services sector;
- A well-connected airport infrastructure;
- Natural strategic seaports;
- A good ICT base;
- A rich and diverse flora and fauna;
- Established administrative structures and good governance.

Weaknesses

- Vulnerability as a small island state;
- Small internal market;
- Fragmentation of territory;
- High urbanisation and space restrictions;
- Insularity and double insularity (Gozo);
- No clusters of manufacturing excellence;
- Lack of well-defined niche markets and poor branding of key economic sectors;
- Low level of Research and Innovation capacity;
- Insufficient capacity at post-secondary and vocational level;
- Lack of adequate support structures for enterprises, particularly, SMEs and micro-enterprises, especially in relation to the growth sectors;
- Local Industry consists predominantly of inward-looking SMEs and micro enterprises;
- Quality of overall tourism product;
- Seasonality in tourism sector;
- Gozo tourism dependent on tourism in and from Malta;
- Poor public infrastructure in roads;
- Transport congestion and unsustainable mobility;
- Poor condition of basic ports infrastructure;
- High cost of international connectivity;
- High dependence on desalinated water;
- Insufficient waste treatment facilities and sound waste management practices;
- Discharge of untreated sewage effluent;
- Dependence on non-renewable energy sources;
- Insufficient capacity of the distribution network in the medium term;
- Concentration of phenomena leading to urban degradation;
- Insufficient rehabilitation and specialist capacity in the health service;
- Limited affordable childcare and after-school services.

Opportunities

- Diversification in main economic sectors and focus on higher value added economic activity;
- Small size and insularity makes Malta ideal test-bed for certain applications;
- Potential in the emerging growth sectors;
- Development of centres of excellence;
- Expansion of transshipment and logistics;
- Diversification and efficient use of port services;
- Further integration of different levels of society, business and government through increased use of ICT;
- Understanding the need for waste management and increasing sorted waste collection within society;
- Further economic development through increasing the use of renewable energy sources (territory permitting) and energy efficiency;
- Use of storm water
- Developing the economy through enhanced availability and quality of higher and vocational education especially in technology and knowledge-based branches;
- Development of Gozo as a region with distinct characteristics;
- Investment in different sectors to mitigate against double insularity and improve quality of life in Gozo.

Threats

- Ageing society;
- Shrinking work-force;
- Over-utilisation of finite resources;
- Competition from other catch up countries and those already in a position of strength higher up in the R&I sector;
- Increased international competition in particular from low cost countries resulting from significant loss of industrial base (making it more difficult to establish R&D industry);
- Competition from lower cost Mediterranean destinations particularly from North Africa;
- Environmental degradation and biodiversity decline;
- Increase in storm floods;
- Fluctuating oil prices;
- Risk of losing heritage sites;
- Increased demand for health services as a result of the aging population resulting in overcrowding of the hospital facilities.

1.4 Summary Outcomes and Findings of the Analysis

The Situation Analysis shows that following a period of relatively low growth rates, the first signs of economic recovery are becoming increasingly evident. Malta can boast a number of strengths: generally greater prosperity and a good quality of life, established manufacturing and tourism sectors, a rich cultural heritage of World Heritage status, an increased awareness of the environment, a multi-lingual and adaptable workforce a good ICT base and some strong industry sectors resulting in an experienced workforce providing potential to venture into focused RTDi activities. The country also has established administrative structures.

The islands suffer, however, from many well-known problems. A number of territorial permanent characteristics, such as distance from mainland Europe, its southern peripherality, fragmentation of the territory and Gozo's double insularity impact on the movement of people and the imports and exports of goods and services. As a small island state with a high degree of openness, the Maltese economy is also vulnerable to economic developments in the international scene. Being totally dependant on oil imports for its energy production, higher oil prices have resulted in a negative impact on real GDP growth and higher inflation. The Maltese economy has also faced a relatively difficult external environment in recent years. Without adequate support structures, internationally exposed sectors continue to be negatively effected by the international economic environment and increasingly competitive international markets. This has called for a need to restructure in order to better compete at international levels. It is now clear that the Maltese economy can no longer compete on the basis of low costs and that the use of knowledge is the key to future competitiveness. The Maltese manufacturing industry is currently shifting its emphasis from the traditional low cost manufacturing, towards higher value activities. The need for business to innovate is met with a certain degree of scepticism by the preponderant low-tech manufacturing companies and SMEs with a low level of in-house research capacity. Indeed, expenditure on R&D is quite unsatisfactory when compared to the 3 per cent target of the Lisbon strategy. Malta's innovation capacity is also weak when compared to the other EU Member States. A significant number of Malta-based larger SMEs rely on parent foreign companies for design and product innovation.

Malta has a well-established tourism sector. However, the Maltese tourism industry is currently facing increased international competition, both from traditional and emerging tourist destinations. The sun and beach holiday remains the largest market segment, making the sector prone to seasonal slouches and attracting lower-yield tourists to the islands. There is a tendency towards an undiversified tourism product, oriented exclusively towards mass tourism with exhaustive consumption of natural and social resources and oriented towards quantity rather than quality. The necessity to shift from a purely economic approach to a sustainable and socio-cultural approach is highly commendable. Malta must develop other forms of tourism as part of the diversification strategy, most notably culture tourism. There is a general lack of resources being channelled to the rehabilitation of Malta's heritage, some of which is unique in the world. The tourism product requires a shift up the value chain, which can only be achieved by focusing on a small number of niche products attractive to the international markets. Tourism infrastructure has grown rapidly over the years, giving rise to an excess supply in beds with consequent impacts on fragile environments, particularly in coastal locations. Malta's surrounding sea and beaches have been identified as requiring further improvement in terms of quality and quantity of beaches, provision of coastal and port facilities and quality of service.

A vibrant private sector creates prosperity and wealth across society. It is thus, in the interest of all stakeholders to see the industrial base expand to the largest extent possible. Hence, the country's attractiveness for investment must be enhanced in order to support emerging sectors such as niche-market tourism, pharmaceuticals, the crafts industry and the civil aviation sector, amongst others. The country's potential to expand the services sector and attract foreign direct investment can be strengthened by the supply of knowledge workers. For this to occur, the educational infrastructure needs to expand its capacity (particularly at the post-secondary,

vocational and tertiary levels), improve its quality further and increase its flexibility to respond to the ongoing need for change. This vision should guide the sector in coming years, with shared principles that underpin the vision, the fostering of the comparative advantages forming the basis of the strategy and the vigorous development of the targeted growth sectors.

The level of accessibility is a prime factor influencing the competitiveness of the islands. In terms of internal mobility, investments in roads have been substantial over the last few years, however a good part of the Maltese road network is in need of upgrading. Up to relatively recently, lack of adequate integrated land use and transport planning and deficiency in coordination between infrastructural entities and the utilities sector, has resulted in inappropriate road network infrastructure, giving rise to serious congestion problems and injury accidents. The public transport services have also registered a declining patronage for want of an overhaul to improve the service provided. Ongoing surveys and geotechnical investigations have revealed structural damage and deterioration to most maritime infrastructure around the Maltese Islands, which, in some cases, warrant extensive upgrading investment and in some cases, reconstruction of the infrastructure. In commercial ports, damage is due to the age of the infrastructure and the resulting incompatibility between designed and actual usage characteristics.

The Maltese environment is essential for the quality of life and health of the Maltese citizen and the enhancement of Malta as a tourism product. Albeit increasing awareness by the public of the need to protect the environment, the latter is in a state of degradation. Due to the rapid rate of development, natural landscapes have been replaced by manmade ones and consequently, there has been a loss of habitats and concurrent reduction of wildlife populations. Marine discharges from public sewers, wastewater discharged from Malta's power stations, aerial emissions from the power plants and landfills and storm floods continue to threaten the environment. Areas that warrant immediate attention include continued investment in waste management infrastructures, treatment of waste water, the establishment of risk prevention measures (particularly in the case of storm water management), improvements of air and water (incl. drinking) quality and enhanced environmental monitoring capacity. Malta is also totally dependent on traditional energy sources. Energy efficiency measures and renewable energy sources as alternatives to traditional ones are still in their infancy and need to be further developed. Investments are required in the distribution network to ensure sufficient capacity in the medium term.

Malta has a good ICT base. Indeed, during the past few years, Malta has managed to become a recognized leader in the area of ICT. Notwithstanding, further thrusts are required in order to encourage the widespread use of ICT in all areas of society, particularly across business and Government entities. Broadband connectivity cost is high and therefore detrimental to the development of ICT services, which address insularity as a constraint that would otherwise help translate the availability of broadband into a tool for increased sales and productivity.

Malta is the most densely populated Member State. As new residential development takes place, the older residential stock and related infrastructure deteriorates further. Many of the older and more valuable parts of the urban fabric are in a state of decay. New development has erupted from the traditional built-up areas and sprawled across the countryside. Efficient and prudent use of land and sea is a determining factor in the future economic and social development of Malta, given competing demands for various sectors, increase in tourism infrastructure, space requirements for industry, extensive quarrying, land-intensive waste disposal, shipping and maritime activities, declining public transport patronage, the high population density and demand for more housing.

Considerable investments have taken place in recent years in the education and social infrastructure areas, notably in primary, secondary and vocational levels of education and health infrastructures. A new acute hospital will be opened in mid-2007. The objectives of excellence and equity in access require further investments in a number of areas including additional care facilities to complement the acute hospital. Other social infrastructures where deficiencies can be identified concern affordable childcare. Further effort is required in this regard. The Government

commitment to the latter has recently translated into various measures towards an integrated approach to promote gender equality with the aim to increase the female participation rate. With regards to the labour market, increased uncertainty brought about by an onset of various conditions affecting economic growth and competitiveness have adversely affected employment developments. Nonetheless, the labour market has resisted these pressures, as can be witnessed through the expansion in part-time employment, increases in the gainfully occupied population, as well as, the decline in the number of registered unemployed.

The challenges faced by Malta are even more pronounced in the sister island of Gozo. Double insularity constraints, *inter alia*, transaction costs to the business sector and limitations on accessibility to important services all have an impact on Gozo's socio-economic development. Further endeavours are required to mitigate against double insularity and improve the quality of life of the Gozitan population.

OP I offers the opportunity to correct the situation and provides a framework for the initiation of more orderly and productive development processes.

1.5 Lessons Learnt from the 2004-2006 Programming Period

Malta's pre-budget document 2006 describes Government's long-term vision for Malta as being that of a ***“dynamic, high-value-added economy founded on competence, skills and excellence and capable of sustaining a high standard of living for its entire people.”*** With this aim in mind, OP I proposes an action plan that thrusts Malta into the next phase of socio-economic development whilst nurturing the significant results achieved by the SPD 2004-2006.

OP I builds upon the outcome and experience gained in the implementation of the Single Programming Document 2004-2006. Investment through the ERDF and the Cohesion Fund in the 2007-2013 period, is considered invaluable and a unique opportunity to address some of the country's socio-economic infrastructural deficiencies. Another aim is that of strengthening Malta's competitiveness by upgrading the physical business infrastructure while maintaining a sustainable use of the environment.

1.5.1 Structural Interventions 2004-2006 v. Effort for 2007-2013

During the 2004-2006 Programme, progress has been achieved in various areas, through funding from Structural Funds and the Cohesion Fund. The SPD has provided significant investment in certain sectors and supported projects that would not have otherwise been funded by National Programmes until a much later date or not at all. Although the final outcomes of the SPD are yet to be realized, there is emerging evidence of the additional benefits realized outside the key programme objectives. The main beneficiary sector under the 2004-2006 Cohesion Policy is the environment sector followed by investments in accessibility and human resources. Government intends to continue to build upon the results being achieved under the 2004-2006 Cohesion Policy interventions. Most of the realities outlined in the socio-economic analysis of the SPD remain valid, however in view of the experience gained under the 2004-2006 Programmes and the new overall objectives of the National Strategic Framework for 2007-2013, Government will not only continue to strengthen and consolidate achievements under the 2004-2006 Programmes, but also make efforts in the following areas:

- Inculcating the entrepreneurial spirit in Malta, achieving quality value-added and growth in productivity;
- Reinforcing Malta's comparative advantage with regards to human resources;
- Incentivising the R&I and ICT capacity;
- Revitalising existing conditions and the enterprise infrastructure to achieve an environment more conducive to competitiveness;
- Promoting Malta as a quality destination offering a unique touristic experience;
- Continuing investment in the transport sector through the upgrading of existing infrastructure, as well as, supporting long-term strategies for the gradual introduction of modal shift;
- Protecting the resource base and the environment for the benefit of future generations;
- Upgrading energy networks whilst promoting energy efficiency and the use of renewable energy sources;
- Undertake urban regeneration activities;
- Enhancing the quality of life of citizens through investment in social welfare infrastructure.

Consideration was given to the allocation of projects related to Gozo, during the 2004-2006 programming period. In view of the particular horizontal nature of intervention in Gozo and to facilitate more effective programme management, the promotion of Gozo's regional distinctiveness now features under all priorities, rather than grouping all interventions under one

axis.⁹⁰ This provides a more coherent framework for the implementation of interventions directed towards medium- and long-term development of the Island Region, which framework may also serve as the foundation for future plans. The cornerstones of this framework are: the distinctiveness of Gozo as an economy, economic efficiency, education, social cohesion and the environment underpinned by sound regional governance with the Ministry for Gozo in the role of key regional coordinator.

1.5.2 Organisational Capacity – Tradition v. Innovation

In light of entry into the European Union as full member in May 2004, Malta has sought to enhance its organisational capacity in order to make efficient use of the Structural Funds available to it under the Objective 1 status. One of the major challenges encountered was that of establishing the appropriate structures quickly and precisely. Indeed, it was rather difficult to build a system, which would guarantee effective potential for absorption of the Structural Funds, while, at the same time comply with the procedures and obligations of the relevant EU and national Regulations.

Pre-Accession Funds had been allocated towards projects aimed at facilitating the transposition, application and enforcement of the *Acquis Communautaire* via institution building and technical assistance. These funds proved to be invaluable in assisting the Maltese Administration in gaining the experience necessary to absorb Community funds post-accession. Moreover, various training programmes have been organized in relation to technical issues pertaining to the management of post-accession funds through local and foreign seminars, workshops and conferences.

Also, a Twinning project with Spain and a subsequent Twinning Light Project with Italy assisted the public entities and other organisations in the final efforts of preparation for Structural Funds implementation. Nevertheless, intensive theoretical training could not make up for the lack of hands-on experience. Hence, such training was only partially effective, especially to entities that had not been involved in the implementation of Pre-Accession funds.

The delivery of EU funds in Malta has involved a steep learning curve and has contributed towards building administrative capacity across programme stakeholders. The adoption of EU processes, for instance, has helped to develop best practice in project financial management and discipline (with the imposition of n+2 targets), control procedures, project planning, contract management and evaluation. The best practice is now being transferred across elements of the public sector not involved in administering EU funding. In addition, the establishment of performance indicators, monitoring processes and commissioning of evaluations is helping to build a culture of evaluation.

Given that the implementation of the 2004-2006 Cohesion Policy Programme is the first experience with Structural Funds for the Maltese Authorities, a mid-term update on the efficiency of the implementation system was undertaken at the end of 2005. The results of the interim evaluation were discussed at the Monitoring Committee and the Maltese Government has since then followed up several of the recommendations made by the independent evaluators. The issue of increasing human resources was taken up immediately with several calls for applications issued in 2006 for all horizontal stakeholders. A service-wide call to support co-ordination cells within Line Ministries was concluded at the end of 2006. The public procurement legislation and administrative procedures have also been revised to maximize efficiency and also incorporate lessons learned during the 2004-2006 period.

⁹⁰ Recommended also by the evaluators of the Mid-term Update on the Efficiency of the Implementation of Malta's SPD 2004-2006, February, 2006.

A need for a continuous supply of trained resources to assist in the implementation of the next round of Cohesion Policy Programmes, has already been identified as being vital.⁹¹ It will also have a positive 'knock-on' effect in terms of transferring best practice and building administrative capacity across the public sector. Towards this purpose, the Managing Authority has commissioned the drawing up of a five year Training Strategy that will be translated into a set of annual Action Plans that provide regular and structured training and information sessions for all stakeholders, thus bolstering human resource capacity. The implementation of the Strategy started in the second quarter of 2007.

1.5.3 Coordination among Stakeholders

Structural Funds have been a catalyst in strengthening the coordination of a number of decision-making bodies. Implementation of Structural Funds requires co-ordination between the activities of the Managing Authority, the Line Ministries, the Paying/Certifying Authority, the Treasury, the Department of Contracts, beneficiaries and other relevant public entities. Bearing this in mind, the Managing Authority, acting as a moderator, sent a clear message that Structural Funds mobilisation necessitated respect for deadlines and accountability at all levels. Hence, emphasis was placed on the need for requirements, decisions and deadlines to be taken seriously. At first, this constituted a cultural change and some entities were compelled to make certain adjustments to their ways of operation. Moreover, Community legislation had to be transposed into national legislation and implemented effectively through the appropriate administrative structure. Hence, public entities:

- a) found themselves having to comply with the body of EU regulations, legal safeguards in terms of the Aquis Communautaire, procedures and implementation formalities;
- b) were compelled to become more disciplined in project planning and implementation;
- c) in terms of control, they were made subject to a hierarchical cascade of checks and internal and external control measures.

Overall, socio-psychological resistance against planning has been overcome as it became clear that in today's world spending money depends on preparing professional projects. Also, although the bureaucracy involved in administering the funds was initially a burden on the relevant authorities, today, with structures and administrative procedures in place, the major key players, namely, the Managing Authority, the Paying /Certifying Authority, the Treasury, the Budget Office and the Department of Contracts collaborate to ensure the smooth running of the implementation of projects co-financed by the Structural Funds. The Structural Funds Database has been instrumental in this regard. Furthermore, the coordination cells within Line Ministries play a pivotal role between the MA and the beneficiaries, since they act as additional localized support, assisting beneficiaries falling under a Ministry in the implementation of the projects.

The current system of having one Managing Authority, one Certifying Authority and one Audit Authority for both OPs under the Cohesion Policy is seen to be an appropriate implementation structure for the programming period 2007-2013.⁹² It is also practical to retain one body to steer the bulk of the procurement process (the Department of Contracts) and one body for making payments (the Treasury) to contractors and beneficiaries.⁹³ Having all these main stakeholders within the Office of the Prime Minister and the Ministry of Finance is also beneficial.

However, a review of the overall efficiency and effectiveness of the programme implementation suggests that a number of changes are necessary and these are portrayed below.

⁹¹ One of the recommendations made by the mid-term evaluators was to establish a comprehensive skills development programme for officials and other stakeholders dealing with Structural Funds.

⁹² Confirmed by the Evaluation of the Efficiency of the Implementation of Malta's SPD 2004-2006, February 2006.

⁹³ The latter in the case of aid schemes.

1.5.4 Project Planning and Project Implementation

In order to ensure that the projects are selected and up and running as quickly as possible, following the Commission's endorsement of OP I, lessons from the implementation of the SPD have highlighted the need to develop project planning procedures for the new Programme. This relates to undertaking the compilation of cost-benefit analysis and factoring in environmental considerations in the developmental phase, in order to bring to light potential planning issues in advance. The preparation of the project pipeline for the major national infrastructural projects is currently underway using JAPERS assistance and also national funds in the compilation of the preparatory work.

During the 2004-2006 programme, project selection was largely carried out at one go and by a single project selection board which led to bottlenecks and delays in the approval of projects. In an effort to speed up the approval process of the projects and also in view of the fact that OP I is considerably larger than the SPD, this system requires revision. Calls for projects will be staggered over a number of years. Moreover, given that the Cohesion Fund co-finances major infrastructural projects of national importance, no call for projects will be issued for the identification of the Cohesion Fund Projects. These will be determined by Cabinet.⁹⁴

In terms of project implementation, the 2004-2006 experience has also clearly demonstrated that, while the technical input is required from the agency running the project, professional management is required for all projects, particularly the larger projects. The local monitoring and implementation organizational set-up is also being reviewed. In recognition of the role of the Managing Authority to manage the programme and that of the Line Ministries to undertake and realize their portfolio of projects, there should be a formal mechanism to steer projects and to address critical issues that are escalated by project leaders. The introduction of a Programme Implementation Unit within Line Ministries will facilitate programme management at Line Ministry level and provide a more effective mechanism to track project progress and to deal with issues as they arise. Moreover, the revamped Structural Funds Database should also add more value to the monitoring process at project level.

1.5.5 Conclusion

In preparation for the OP, Malta has taken stock of what has been achieved and/or will be achieved by the SPD 2004-2006. OP I aims to build upon and consolidate the achievements of the SPD while setting new and additional goals and targets, in order to achieve the vision that Government has set out to secure a future of excellence for all Maltese citizens.

⁹⁴ The procedure is outlined in Chapter 5 of this OP.

1.6 The Partnership Process

1.6.1 The Consultation Processes

The discussion on the Programming of Cohesion Policy 2007-2013 can be seen as the third of its nature in a process which started in early 2005 with the launch of the *Governments' Pre-Budget Document*, which was followed by a consultation process in the summer of 2005 on the National Reform Programme. The start of the preparations for the Cohesion Policy Programmes has to be seen in this context, that is, building upon the discussion and consultation that had taken place as part of the finalisation of the *Pre-Budget Document* and the *National Reform Programme*. The priorities in the Cohesion Policy Programmes reflect the strategy that had already been identified through a series of consultation sessions on these documents.

With regards to the preparation of the Cohesion Policy Programmes themselves, four Working Groups were set up in the third quarter of 2005 focusing on a number of priority areas, namely: Economic Development and Competitiveness; Accessibility; Environment; and Employment and Social inclusion. The selection of the vertical priority areas was based on the draft Community Strategic Guidelines available at the time. A number of areas such as research and development, employment and special needs for Gozo were included as *horizontal priorities* to be addressed by each of the Working Groups.

The Working Groups were chaired by experts in the field and brought together Line Ministries, public sector organisations and relevant partners (NGOs and socio-economic partners) for discussions on the strategic framework pertaining to each of the priority areas. The Cohesion Policy drafting team also participated in most of the meetings. Questionnaires were distributed to the main stakeholders and bilateral meetings were organised, under the auspices of the Chair of the Working Group, between specific stakeholders and the Cohesion Policy drafting team. The Chairpersons of the Working Groups reported to the Steering Committee which was set up in 2005 to oversee the programming process of the 2007-2013 Cohesion Policy Programmes. The Steering Committee is chaired by the Parliamentary Secretary within the Ministry of Finance and oversees the drawing up of the overall strategy and the identification of the priorities to be presented in the National Strategic Reference Framework and the OPs. The Steering Committee is composed of a number of senior public officers including the Principal Permanent Secretary (as the link to Cabinet and the relevant Cabinet Committees with an overview of national priorities⁹⁵), the Permanent Secretary (Policy) within the Office of the Prime Minister (as the link between Cohesion Policy Programmes and the National Reform Programme), the Permanent Secretary and the Director General Budgetary Operations within the Ministry of Finance (as the links between Cohesion Policy and national budget initiatives), the Director General Economic Policy (the link between Cohesion Policy and the overall macro-economic situation in Malta), and the Head of the designated Managing Authority for the 2007-2013 Cohesion Policy Programmes.

As a follow-up and conclusion of the work of the Working Groups, a national SWOT workshop spanning five half day sessions was organised in September 2005. Four sessions dealing with the same thematic areas as the Working Groups were held in Malta and a fifth session was held in Gozo dealing with Gozo special needs. Over 80 organisations – public organisations, socio-economic partners, NGOs and other representatives of the private sector were invited to the workshops. As part of the national SWOT workshop, an e-mail address was set up: nsrf@gov.mt.

Following the agreement of the Council on Financial Perspectives in December 2005, a series of public dialogues were organised by the Office of the Prime Minister in the first quarter of 2006. These public dialogues were led by the Prime Minister of Malta and apart from the participation of the general public, relevant organisations (public and non-public) received a specific invitation to attend. Prior to the dates of the individual public dialogues, an invitation to the public was

⁹⁵ As outlined in the Pre-Budget document 2006.

published in the newspapers, which was accompanied by a write-up on the specific area (relevant to the public dialogue) with examples of current interventions (if any at all) under the 2004-2006 programming period. On the day of the dialogues, short video-clips were used to set the scene (introducing Cohesion Policy in general and highlighting Cohesion Policy interventions in Malta) and ensure a focused discussion.

Five public dialogues were held: human resources; environment, accessibility, enterprise and tourism, and Gozo. Apart from members of the general public, public sector organisations and representatives of local Government, over 40 non-Government organisations participated in the public dialogues which were also given good coverage in the media. An average of 45-50 interventions were made at each session. The dialogues were also supported by a help-desk on site where the participants could ask for further information or pass on written submissions on the issues discussed. Moreover, self-addressed (and paid) envelopes which could be sent to the drafting team with comments, positions and ideas were made available on site. An e-mail address djalogi@gov.mt was set up and all video clips were posted on the website of the Department of Information.

Simultaneous to the public dialogues a number of high level inter-governmental consultations were held in order to prioritise the areas of intervention that had come out of the working groups, the SWOT and the public dialogues. The prioritisation exercise was based on a number of criteria, namely: clear needs which had come out of all the consultation exercises;⁹⁶ the sectoral strategies;⁹⁷ available budget⁹⁸ obligations emanating from the EU;⁹⁹ the regulatory package of the Structural Funds¹⁰⁰ and proposed duration, sustainability and risks.¹⁰¹

Following this process, the first draft of the NSRF¹⁰² was published¹⁰³ for public consultation. A press conference was held on 25th March 2006 in order to launch the draft which also received extensive attention in the media, including the national Sunday papers. A copy of the published version was sent to all participants of the public dialogues. The draft NSRF was made available in hard copy version from the Office of the Prime Minister and also the Ministry of Finance and in soft copy version on the websites of the Department of Information, the Ministry of Finance and the general Government website.

Another session was held on 3rd April 2006, to formally present the document to the extended Malta Council for Social and Economic Development (MCESD). The document was launched by the Parliamentary Secretary within the Ministry of Finance. The formal session included a presentation of the document and its objectives followed by a discussion. At the end of the session the Chair MCESD was invited to send the Council's comments to the drafting team by the end April 2006. Updates on the programming process of Cohesion Policy 2007-2013 were also given at the Monitoring Committees for Structural Funds (2004-2006), where Government socio-economic partners and civil society are represented.

Given that no major comments were received on the NSRF, the Government proceeded with the finalisation of the first draft of the Operational Programme, which was launched for public consultation at the end of June 2006 with a subsequent session with MCESD in July. The ex-ante evaluation on OP I has also been undertaken and confirms the selection of the priority axes.

⁹⁶ There was a high degree of consistency between the priorities that were proposed internally by public organisations and those which were proposed most strongly by the partners and the public in the public dialogues.

⁹⁷ Where these were available.

⁹⁸ Not just the global allocation but also the allocations by Fund.

⁹⁹ These included commitments undertaken under the Accession Treaty (e.g. environment) and priorities for the EU for Cohesion Policy (Community Strategic Guidelines, Lisbon Agenda, National Reform Programme amongst others).

¹⁰⁰ The issue of eligibility, state aid (which could delay) and project implementation period were amongst the main issues considered under this item.

¹⁰¹ Under this item, the issue of implementation risks such as expropriation and MEPA permits were discussed, and wherever the risk was considered to be too high in terms of timing, national funds were proposed.

¹⁰² The strategy underpinning the OPs.

¹⁰³ The draft NSRF was published in book format and was available electronically on a number of government websites.

Moreover, the Strategic Environmental Assessment of this document has also been carried out on behalf of the Government of Malta. One of the main findings of the latter exercise was that despite a worst-case scenario being assumed during the assessment process, overall, the potential impact of the Programme on the environment was judged to be positive, in so far as the environment stands to benefit from its implementation.

1.6.2 The Main Outcomes of the Consultation

The procedures leading to the preparation of the OP were complex and lengthy. As a result of the extensive consultation exercise carried out prior to the formulation of the OP and considering that the OP is multi-sectoral and comprehensive, no realistic alternatives to the objectives presented in the OP have been outruled. Some potentially alternative initiatives were not taken forward because there was a consensus among stakeholders that they would be better funded by other sources of funding or through the private sector's contribution. Other initiatives were not included under the OP because they were either too uncertain and underdeveloped, or would require so much research and development in the preparatory phase that they would not be likely to be completed within the funding period; the funds secured for these Initiatives would, therefore, not be used in time to meet N+3/2 rules. The latter initiatives are those that Government has identified as most suitable for funding from the national budget.

In general, there was agreement on investing in the upgrading of roads; human resources and education (with specific reference to investment in further and higher education to promote R&I); the environment (where issues such as sewage, floods and waste were specifically mentioned); health (particularly in Gozo); the tourism product (particularly cultural heritage), making the tourism product more known to potential customers; as well as, support to make enterprises more competitive. A number of NGOs highlighted the need to increase the female employment rate and the link to childcare and also the need to continue to promote and support social inclusion.

1.6.3 List of Organisations Invited to Participate in the OP Consultation Processes

a) Public Sector Consultation – Stakeholders

1. Ministry of Finance;
2. Ministry of Justice and Home affairs;
3. Ministry of Education, Youth and Employment;
4. Ministry of Foreign Affairs and Investment Promotion;
5. Ministry for Tourism and Culture;
6. Ministry for Competitiveness and Communications;
7. Ministry for Resources and Infrastructure;
8. Ministry for Gozo;
9. Ministry for Health, the Elderly and Community Care;
10. Ministry for Investment, Industry and Information Technology;
11. Ministry of Rural Affairs and the Environment;
12. Ministry of Urban Development and Roads;
13. Ministry of the Family and Social Solidarity;
14. All Agencies and authorities falling under the abovementioned Ministries including the Malta Environment and Planning Authority.

b) Others - Public

1. University of Malta;
2. MCAST;
3. Malta Enterprise;
4. National Commission for the Promotion of Equality for Men and Woman;

5. National Commission for Persons with Disability;
6. National Family Commission;
7. Foundation for Educational Services;
8. Foundation for Human Resources Development;
9. Fondazione de Malte (National Association for Human Rights).

c) Wider Consultation - Stakeholders

1. Confederation of Malta Trade Unions;
2. General Workers Union;
3. Union Faddiema Magħqudin;
4. Malta Employers Association;
5. Malta Chamber of Commerce and Enterprise;
6. Malta Federation of Industry;
7. Malta Hotels and Restaurants Association;
8. General Retailers & Traders Union;
9. Environmental NGOs:
 - a. Biological Conservation Research Foundation (BCRF)
 - b. BirdLife Malta
 - c. ECO The Malta Ecological Foundation
 - d. International Animal Rescue
 - e. International Tree Foundation (Malta)
 - f. Light Pollution Awareness Group (LPAG)
 - g. Malta Energy Efficiency and Renewable Energies Association (M.E.E.R.E.A.)
 - h. Malta Institute of Waste Management
 - i. Malta Organic Agriculture Movement (MOAM)
 - j. Moviment għall – Ambjent (Friends Of The Earth Malta)
 - k. Nature Trust (Malta)
10. Cultural/Heritage NGOs:
 - a. Fondazzjoni Wirt Artna
 - b. Din L-Art Hejwa
 - c. Wirt Għawdex.

d) a number of *Significant Economic Operators/Stakeholders* including MIA, Air Malta, Malta Freeport; representatives of the banking sector; companies representing the manufacturing sector; the services sector and also the construction industry.

e) General Public through the public dialogues.

Chapter 2 - Evaluation of the Strategy

2.1 Ex-Ante Evaluation Summary

The regulatory framework for the Structural Funds Programme for the period 2007-2013 provides for an Ex-Ante Evaluation to assess the consistency of the Strategy and Priorities chosen with the Community Strategic Guidelines and the National Reform Programme. The Ex-Ante Evaluation for this OP was carried out by a team of independent experts in line with the requirement of Article 48 of the Council Regulation EC/1083/2006 laying down general provisions on the ERDF, ESF and CF.

The Ex-Ante Evaluation has the aim of providing input intended to improve programming quality and optimize the allocation of budgetary resources. It provides prior judgement on whether development issues have been correctly diagnosed; whether the strategy and objectives are relevant to meet the needs and disparities identified in the socio-economic analysis; whether there is coherence with Community policies and guidelines and whether the expected impacts are realistic.

The main components of the evaluation are:

- An appraisal of the socio-economic analysis and the appropriateness of the ranking of the main disparities identified;
- An evaluation of the economic rationale of the strategy and its consistency;
- An appraisal of the coherence of the strategy of the OP with the National Strategic Reference Framework Document, the National Reform Programme, the Community Strategic Guidelines, the pre-Budget document¹⁰⁴ and relevant sectoral policies;
- An identification and appraisal of the Community added value;
- An assessment of the output, result and impact indicators; and
- An appraisal of the proposed implementation systems.

2.1.1 Main Evaluation Questions

The evaluators focused their analysis on the following questions:

- Does the Programme represent an appropriate strategy to meet the challenges confronting the sector?
- Is the strategy well defined with clear objectives and priorities and can these objectives be realistically achieved with the financial resources allocated to the different priorities?
- Is the strategy coherent with national and Community policies?
- How and to what extent will Cohesion Policy produce direct economic benefits of a sufficient scale for the Community and support greater cohesion and convergence of Malta in the internal market?
- How will Cohesion Policy interventions be implemented and be visible to the citizens in the Member State?
- Are appropriate indicators identified for the objectives and can these indicators and their targets form the basis for future monitoring and evaluation of performance?
- What will be the impact of the strategy in quantified terms?
- Are implementation systems appropriate to deliver the objectives of the Programme?

¹⁰⁴ At the time of the evaluation only Pre-Budget 2006 was available.

2.1.2 The Evaluation Process

This ex-ante evaluation has been undertaken in parallel with the completion of the OP. This report, therefore, is based primarily on an assessment of the draft OP dated June 2006, which was provided to the evaluators by the Planning and Priorities Coordination Division (PPCD). Given the extensive consultation that had taken place, also within the context of partnership (as described in the previous chapter) and the NRP exercise, and given the overall very positive assessment in terms of the evaluation criteria and questions, the evaluators limited their discussion primarily to the drafters of the OP.¹⁰⁵

2.1.3 Main Findings

The ex-ante evaluators highlighted a number of findings relating to the main components that were to be evaluated in line with main evaluation questions listed under section 2.1. The main findings are:

- OP I represents a very appropriate strategy to meet the very significant challenges that the Maltese economy faces over the next seven years. These challenges are well documented and clearly elaborated in the socio-economic analysis and are reflected in the overall objective of Investing in Competitiveness for a Better Quality of Life.
- Overall, the rationale for intervention in OP I is generally robust and can be justified on the basis of providing public good. This is based on the broad understanding that a key factor that can drive economic success is investment in infrastructure. In this regard, the Ex-Ante Evaluation supports the provision for a significant level of financial resources for transport, energy, health, educational and social infrastructure and for investment in urban regeneration.
- The objectives are also clear. The Ex-Ante Evaluation is of the opinion that there is a high degree of consistency between the different priorities in OP I and its objectives. Furthermore, the Ex-Ante exercise does not propose a significant reallocation of financial resources across priorities given that the OP has achieved a balanced mix between economic, social and environmental objectives.
- In assessing the strategy against Malta's NSRF, the National Reform Programme and the Community Strategic Guidelines, the evaluators found it to be closely aligned with all of these policies and strategies;
- Since the initial draft of OP I contained a limited set of indicators, the Ex-Ante Evaluation focused, initially, on providing recommendations for a new set of indicators. Following an extension of the ex-ante exercise, the output, result and impact indicators have been reviewed based on data and information emerging from ad hoc interviews and meetings undertaken with pertaining stakeholders, as well as, other data and information on the rationale and baseline for the various indicators provided by the relevant authorities. These indicators have been found to be satisfactory. However, where applicable, the Ex-Ante evaluators have made recommendations for improvement in view of potential project management considerations and intervention effectiveness.
- In terms of implementation, the evaluators recognised that progress has been made in relation to the recommendations in the Mid-Term Update of the SPD Programme for 2004-

¹⁰⁵ The ex-ante evaluation exercise has been extended in 2007, following the receipt (in April 2007) from the Commission of an assessment of the Programme proposal, with a view to address the main recommendations made in relation to the integration of an appraisal of the Community added value and an assessment of the indicators presented.

2006. Most of the recommendations made in the Mid-Term Update were taken on board for the implementation of the 2007-2013 Programme.

2.1.4 Main Recommendations and the manner in which they feature in a revised draft of the OP

a. Appraisal of the Socio-Economic Analysis and the Relevance of the Strategy

The Ex-Ante Evaluation underlined that the socio-economic analysis of OP I articulates the fundamental needs and structural weaknesses of the country, clearly outlining the sluggish economic growth experienced in recent years. It further stated that the strategy of the OP is very relevant to the needs identified in the analysis. Notwithstanding, the evaluators identified the need for greater quantification and more statistical data on the issue of indicators in order to enable a better understanding of identified weaknesses and opportunities. This was deemed to be useful in the development of the relevant Programme indicators. Hence, this recommendation was taken on board through the inclusion of a table enlisting the main context indicators and by substantiating facts through statistical information, where available.

The ex-ante evaluation also suggested the inclusion of further consideration of the challenges and opportunities that Malta is facing in upgrading the manufacturing sector from a traditional low-cost manufacturing base towards higher value-added activities. The situation analysis has been strengthened in recognition of the impetus given to investment in the enterprise sector.

The Evaluation exercise also recommended the inclusion of a description of the potential impact resulting from the development of low-cost travel. When the first draft of OP I was presented to the evaluators, the issue of low-cost airlines was left out of the situation analysis since, it was at a critical stage of evaluation and negotiation and hence, no further information was possible, at the time. More details have been included in a subsequent draft. Similarly, the evaluators recommended a description of the SMART City project as the first ICT business park in Malta. This project is expected to promote the Island's competitiveness and generate substantial employment. This recommendation has been taken on board within the limitations of the information available at this critical stage of negotiations between the Maltese Government and the foreign investors.

Within the same section, the evaluators argued that describing the financial services sector as '*one of the success stories of the Maltese economy*,' might weaken the case for any public sector intervention in this sector. Hence, this sector should be described as offering 'opportunity' rather than being deemed a 'strength', especially in view of the constraints which affect the full development potential of this sector. This recommendation was also endorsed.

Another important observation was the remark to the effect that the SWOT exercise is not fully underpinned by the socio-economic analysis and that the successive link between the SWOT analysis and the socio-economic analysis is not always visible. In order to address this weakness in the document, the SWOT analysis has been revised to reflect the analysis and also be in line with the definition forwarded by the Commission to the Maltese Authorities.¹⁰⁶ Moreover, Chapter 1 now includes a section entitled '*Conclusions of the Socio-Economic Analysis*.' The aim of this chapter is that of developing a better linkage between the SWOT analysis and the socio-economic analysis as a basis for the strategic direction that is found subsequently in the document.

¹⁰⁶ In this definition, Strengths and Weaknesses should refer to the endogenous structure whereas Opportunities & Threats relate to exogenous factors.

b. Evaluation of the Rationale of the Strategy and its Consistency

The ex-ante stated that, overall, there is a high degree of consistency between the different priorities in the Programme. The rationale for intervention is justified on the basis of providing public goods. The evaluators support the allocation of a significant amount of financial resources within the Programme to transport, energy, health, educational and social infrastructure and for investment in urban regeneration. The rationale for intervention in other sectors such as environment can also be justified in terms of addressing externalities, equity or redistribution grounds.

In contributing towards the wider objective of improving the quality of life, however, the Programme has also placed significant emphasis on supporting health and education, upgrading the visual/built environment, and developing alternative energies and the environment. This supports other goals of social cohesion and the environment, which, in the view of the Ex-Ante evaluators, suggests that the Programme has achieved the right 'policy mix'.

Recommendations under this section evolved around the need to make more reference to targeting the interventions, especially in such sectors as e-communications, childcare, educational and social infrastructure, support for enterprise and the tourism sector. In this regard, efforts were made to ensure that interventions are specifically targeted to certain sectors of the economy that are experiencing sluggish growth.

c. Appraisal of the coherence of the strategy with regional and national policies and the coherence with Community Guidelines

The evaluators noted that the priorities of this Programme address the manner by which the strategy contributes to the achievement of the Lisbon objectives by considering its coherence with national policies and the Community Strategic Guidelines.

In assessing the coherence of the OP with the Community Strategic Guidelines (CSG), the evaluators commented that the majority of interventions contemplated within this OP are directed towards the first two CSG objectives, while OP II is likely to be addressing the third CSG objective on more and better jobs. Having said this, the evaluators stated that it is highly probable that the envisaged impacts from this OP are likely to result in increased levels of employment and thereby also contribute indirectly to the third CSG objective. On this basis, they considered that there is sufficient evidence that the OP has been formulated with the Lisbon objectives in mind.

d. Expected Output, Results and Impacts

At the time when the draft OP was remitted for the initial evaluation, the exercise of drawing up the relative indicators was not completed. Hence, the evaluators commented on the absence of indicators within a number of priorities. Towards this purpose, the Ex-Ante Evaluation focused, initially, on providing examples of recommended indicators. Some of the indicators presented have been taken into consideration in the formulation of indicators for the final draft of the OP.

The Ex-Ante exercise was revisited during May 2007 with a view to address the recommendations made by the EC in April 2007, within the context of the inter-service consultation on OP I. The scope of the Ex-Ante was extended to include a review of the output, result and impact indicators within the different Priority Axes. Overall, the indicators have been found to be satisfactory. Further details in this regard can be found in Annex Ib to this OP, entitled: ***Extension to the Ex-Ante Evaluation of Malta's Operational Programme I – Cohesion Policy 2007-2013.***

e. Proposed implementation systems

The Evaluation exercise noted that the procedures and the roles and responsibilities for the Programme organization are in line with the general provisions of Council Regulation EC/1083/2006. The evaluation also welcomed the fact that following the Mid-Term Update carried out in 2005 on the 2004-2006 Structural Funds Programme, the Authorities have taken on board most of the recommendations related to human resource complement and bottlenecks in the implementation system so as to improve the implementation of OP I.

On a final note, the evaluators recommended that once a list of major projects is identified, consideration should be given to projects, which lend themselves well to Public Private Partnership. In principle, Government is not adverse to this recommendation. In fact, it is being applied to several projects funded by the National budget. While PPP intervention under OP I is not being excluded, Malta may opt for other options such as design and build projects. Moreover, Government is fully aware of the stringent time window within which the EU funds may be absorbed and the potential negative impact of a long-winded contracting process, especially if one had to take into account the limited experience of public entities with PPPs. These considerations can fuel perceptions of PPP projects as having implications on the timely implementation of the Programme.

f. The Added Value of Cohesion Policy

Another section of the extended Ex-Ante exercise consisted of an assessment of the contribution of OP I to the Community Value Added in terms of the added value of the Structural Funds and Cohesion Fund applications. The focus of this analysis was directed at two main areas, namely, the added value of Cohesion Policy and issues of implementation and visibility. The Ex-Ante evaluators have opined that Cohesion Policy in Malta will continue to strengthen the overall level of investment, growth and convergence to an extent, which would not have occurred without community transfers. This is expected to lead to strengthening the long-term growth potential of the Union as a whole, since Malta will be using the factors of production more efficiently.

Another intangible effect of Cohesion Policy in Malta was deemed to be its contribution towards making the Union more visible to citizens, enterprises and local authorities. Among the benefits frequently cited is greater support for European integration. Interventions earmarked under OP I were deemed to further contribute towards visibility.

2.2 Strategic Environmental Assessment

The Strategic Environmental Assessment (SEA) Regulations¹⁰⁷, which implement European Directive EC/42/2001 on the assessment of the effects of certain plans/programmes on the environment, require that a SEA of a wide range of plans/programmes is carried out prior to their implementation. The objective is that of providing a high level of protection to the environment, including health, and to contribute to the integration of environmental and health considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. Malta's OP I falls within the scope of the Regulations.

The purpose of this SEA is to ensure that the OP will deliver a high level of environmental protection and enhancement. The SEA achieves this aim by providing a structured process through which the activities proposed under the OP are tested against agreed environmental criteria. The SEA process involves a number of stages:

- A process of **Screening** was undertaken to determine whether the OP requires a SEA, based on whether significant environmental effects are likely to result from the implementation of the Programme;
- A Seminar was held to bring together the SEA Competent Authority, the Environmental Authority, the SEA Consultants, OP I Drafting Team and OP I's stakeholders. The purpose of this meeting was to **consult the Stakeholders** on the Scoping Report for the SEA and in particular, to elucidate the alternative objectives that were considered and not included in the OP and to discuss the implications of a "do nothing" scenario;
- A **Scoping Report** setting out the framework for the SEA, including setting the context for the SEA, establishing the baseline, setting the SEA objectives and indicators for the assessment and identifying any potential significant impacts of the OP;
- A draft **Environmental Report** was produced. The main element of the draft was the assessment of the likely effects of the plan on the environment;
- A two week **Public Consultation** on the draft OP and Environmental Report was undertaken to gather feedback from the stakeholders (including NGOs). The documents were uploaded on the websites of the Managing Authority (PPCD, OPM), the Ministry of Finance and the Ministry for Rural Affairs and the Environment. This consultation was publicized on three subsequent issues of the Malta Government Gazette (in both the Maltese and English languages). Moreover, all Government Ministries and the Maltese Environmental Authority received a notice by e-mail to inform them of the launch of an inter-Ministerial consultation on the draft SEA Environmental Report with a view to make all entities and public authorities falling within their remit aware of this consultation process. Consequently, a **recommendation report** was compiled by the SEA Competent Authority based on the submissions received;
- The **Draft OP and Environmental Report were revised** taking into account the views expressed during the Consultation;
- A second 8-week **Public Consultation** on the OP and revised Environmental Report was launched to gather the views of the Maltese public and NGOs. Once again, the documents were uploaded on the website of the Managing Authority (PPCD, OPM), the Ministry of Finance and the Ministry for Rural Affairs and the Environment. This consultation was published on four issues of Malta's Government Gazette, as well as, four issues on each of the four local newspapers with the broadest and largest target audiences);
- Following the feedback by the Competent Authority on the second public consultation, a final draft of the OP; the SEA Environmental Report (inclusive of an addendum and the Non-Technical Summary); the Opinion Report presented by the SEA Competent Authority to the Minister for Rural Affairs and the Environment; the Environmental Minister's endorsement of the Opinion Report, as well as, the aggregated opinions of the

¹⁰⁷ Legal Notice 418/2005.

- public and all stakeholders and comments and an explanation on how such opinions have been integrated in the OP, have been circulated to all stakeholders and published to ensure the transparency of the SEA process;
- Monitoring and review will be undertaken throughout the delivery of the OP to help identify adverse effects and to provide information for subsequent programmes.

The SEA process examines individual outputs of the planning process and proposes necessary amendments to maximize the environmental benefits of development proposals and to minimize their negative environmental impacts and risks. Towards this purpose, the SEA Environmental Report examines the first six¹⁰⁸ of the Priority Axes in the light of the following SEA objectives: air pollution; energy efficiency and renewable energy; biodiversity; fresh water quality; waste management; marine quality and the coastal environment; land use; transport; flooding and oil spills; landscape; noise, dust and light pollution; and cultural heritage.

2.2.1 Findings

Despite assuming the worst-case scenario during the assessment process, overall, the impact of the Programme on the environment is judged to be positive. The SEA opines that OP I takes environmental issues into account and that the environment stands to benefit from its implementation. A number of positive environmental impacts have been identified for **all** the Priority Axes and none of the Priority Axes has been deemed to have potentially *major* negative impacts. Nonetheless, there have been initiatives within Priority Axes that have been considered to have some negative impacts.¹⁰⁹ The main impacts on land use criteria arise from those actions that could result from the implementation of infrastructure in certain areas.

2.2.2 Recommendations

The early work of the Strategic Environmental Assessment identified a number of issues for the Programme. The issues raised by the SEA consultants and the suggested responses have been taken into account in developing the OP and some issues will also be taken into account when drawing up the Terms of Reference of applications for funding.

One of the main recommendations is that of making information relating to potential environmental impacts, including statutory obligations and guidance, available to project applicants in order to enable them to make informed decisions relating to the type of actions, which they wish to implement. The SEA also proposes the creation of an environmental checklist containing a series of questions relating to environmental issues, to ensure environmental integration when applications for grant funding are received. Another suggestion is that, in considering applications for assistance or blocks of applications for funding, an assessment is undertaken to ensure that no imbalance is introduced between the activities to be funded within a

¹⁰⁸ Subsequent to the compilation of the SEA, the OP has been revised, in line with the outcome of the Ex-Ante Evaluation and the informal recommendations from the CION and hence, now only has seven rather than eight priority axes (incl. Technical Assistance). The version of the OP I used for the SEA had the following Priority Axes:

- a) Investing in an enterprise-support infrastructure;
- b) Supporting a competitive enterprise;
- c) Promoting sustainable tourism;
- d) Developing the TEN-T infrastructure;
- e) Improving accessibility and services of general economic interest;
- f) Upgrading environmental infrastructure;
- g) Urban regeneration and improving the quality of life;
- h) Technical Assistance.

¹⁰⁹ It is noted that many of the potential impacts are theoretical and arise as a result of considering the worst case scenario for each priority since the actual impacts can only be observed following the implementation of the programme, depending on site specific issues as well as the proposed design and approach taken for individual projects implemented under OP I.

particular area so that environmental impacts become cumulative. These recommendations are being considered.

The SEA prescribes the setting up of environmental monitoring arrangements that will enable the identification of corrective actions and establish how well the Programme complies with the SEA objectives. In light of the above, the SEA recommends the setting up of an Environmental Committee that meets, at least once a year and comprises key stakeholders and technical experts. The role of this Committee will be essential to the thrust of integrating environmental considerations into the Programme, throughout its lifecycle. The Maltese authorities are committed to making an effort to introduce environmental criteria in the project selection process (see chapter 5 of this document). One of the roles of the Committee will be to support the Managing Authority and other stakeholders in monitoring the implementation of commitments at programme level. Further down the line, during project implementation, another role of the Committee will be that of assessing trends in the indicators and establish whether the projects funded under OP I have had an impact on the trends. Climatic factors and the issue of the global impact of the programme in terms of Greenhouse Gas emissions will also be monitored within this context. Other responsibilities should include the collation of data for the SEA indicators on funded projects for that year and proposal for remedial action, where applicable.

Various institutions, officials and other stakeholders involved in this process through the development and implementation of the Programme, need to understand what it means to integrate the environment and 'green projects,' the reasons for integrating the environment and how it can be done. Most of the time, capacity-building is needed to create the expertise necessary to achieve environmental integration. Towards this purpose, funds will be allocated towards capacity-building for all bodies involved in the project life-cycle to:

- a) issue guidance and procedure on how to integrate environmental issues in Cohesion Policy;
- b) improve understanding and awareness of the need to integrate the environment into projects;
- c) support national authorities with a view to promote and help the project development/preparation process;
- d) monitor project implementation and its environmental impacts;
- e) evaluate results.

Given the strategic level of the OP, the SEA does not argue against some initiatives in favour of more environmentally-friendly actions implemented under the Priority Axes, and therefore, the impacts remain indicative. The assessment does, however, identify mitigation measures to minimize or negate the potential negative impacts and enhance the positive benefits. An important point worth mentioning is that Government is committed to ensure that there is a link between the OP priorities and the sustainability of the energy lifecycle (including Greenhouse Gas emissions). This will be pursued by ensuring that the main infrastructural interventions envisaged under OP I will have to demonstrate that they have considered environmental issues in their project designs.

2.2.3 Summary of the Main Recommendations

ENVIRONMENTAL RECEPTOR	CUMULATIVE AND SYNERGISTIC IMPACTS	ACTION RECOMMENDED BY THE SEA TEAM	ACTION TAKEN BY THE GOVERNMENT AS PROPONENT OF THE PROGRAMME
Biodiversity	In assessing the impact of the priority axes on biodiversity, the SEA is cognisant of the fact that most of the initiatives will focus on strengthening the existing infrastructure; new infrastructure is considered only in a few initiatives. Hence, the status of protected areas and species is not expected to be negatively impacted by OP I.	The SEA recommends that new infrastructure be set up within areas designated for development and brown-field sites and to avoid protected areas and sites where protected species are recorded.	In drawing up the OP, any actions that could significantly impact a Natura 2000 site, scheduled area, or protected species were excluded. Furthermore, the MA will ensure that projects approved for funding consider their potential impact on biodiversity and landscape in the application process and where appropriate in the planning and complementary regulatory processes. Indeed, a formal Appropriate Assessment will be required in accordance with the obligations arising under the Birds and Habitats Directives (Article 13 of L.N. 257 of 2003). This is normally requested by MEPA (the Environmental Authority) during the assessment of planning applications within or adjacent to such areas.
Waste Management	The OP is expected to be beneficial in terms of providing waste management infrastructure and opportunities for reducing and recycling waste. However, major construction projects might generate additional waste in the short-term.	Appropriate conditions in development and environmental permits addressing matters such as the recycling of construction waste and waste separation should be imposed, where appropriate.	Through the relevant planning and environmental permit process, Government will ensure that projects promoted will abide by National Legislation on the issue of Waste Management. Moreover, project promoters will be encouraged to integrate sound waste management practices in their respective projects.
Human Health	The inclusion of objectives to promote modal shift towards sustainable modes of transport could have the potential to pose an overall positive impact on human health through improved air quality and increased road safety. However, major development projects could adversely affect human health through dust and noise pollution in the short-term.	Mitigation of the impacts of dust, noise and light from development can only be required through project-specific conditions that are imposed by MEPA. The SEA suggests that projects that adopt such measures should be given priority for funding.	Local environmental improvements can be linked to health improvements, and to a number of key health aims, especially around the promotion of active lifestyles. Moreover, OP I envisages considerable investment in the Health sector, covered by Priority Axis 6. In order to prevent the financing of projects that could have negative implications on human health, SD (including environmental sustainability) is a horizontal priority that will be one of the criteria for assessment at project application and selection stages.

ENVIRONMENTAL RECEPTOR	CUMULATIVE AND SYNERGISTIC IMPACTS	ACTION RECOMMENDED BY THE SEA TEAM	ACTION TAKEN BY GOVERNMENT AS PROPONENT OF THE PROGRAMME
Soil	Soil erosion and soil quality are likely to be positively affected by Priority Axis 5 (previously Priority Axis 6), through the construction of stormwater infrastructure in areas sensitive to flooding as it would help control runoff from agricultural areas. No cumulative effects were predicted in this regard since, it largely depends on how many projects are implemented in rural areas. Moreover, the availability of a new source of water for agriculture from recycled waste water may improve agricultural produce especially in areas that lack freshwater.	The recycled waste water will need to be suitably treated to remove nitrates, chloride etc that could be detrimental to soils and the underlying aquifer. No mitigation actions are required if water quality is deemed adequate.	<p>In terms of preserving green areas, government policy is that of concentrating development in existing towns and cities, reusing land, where possible, in that context.</p> <p>In terms of recycled waste water, the formulation of the Stormwater Masterplan that is currently underway will feature the result of research carried out in relation to the economic viability of desalinating stormwater. An assessment of the quality of water will be required as a prerequisite to any actions contemplated for the reuse of captured water.</p>
Water	The quality of both seawater and drinking water is expected to be positive as a result of actions contemplated, including sewage treatment and improvement in the production and extraction of drinking water.	No recommendations were made since the OP is likely to positively effect both seawater and drinking water quality as a result of direct interventions in the sector.	Malta's strategic direction in this area is to continue to focus on desalination efficiency, to further reduce water leakages from the distribution network and improve drinking water quality. The OP also contemplates the finalization of the Sewerage Master Plan. The marine environment will benefit through direct interventions to eliminate the discharge of raw sewage into the sea.
Air quality	The objective to effect a reduction in the overall volume of traffic will result in a reduction of air pollution. Reduction of private car use and the corresponding congestion as a result of modal shift towards sustainable travel will also be beneficial. Impacts on air quality as a result of the construction of new infrastructure, energy use and extraction of materials will have to be addressed at project level.	Emphasis should be placed on Modal Shift in order to encourage the use of non-car modes, as well as, use of RES that has positive impacts associated with climate change.	<p>Various interventions promoting Modal Shift will be financed under Priority Axis 6 (previously 7) of the OP. These include the upgrading/setting up of bus waiting facilities, foot paths and cycle lanes; the setting up of an Intelligent Traffic Management System and an Automatic Vehicle Location to increase public transport efficiency.</p> <p>Investment in the promotion of RES and Energy Efficiency at the domestic level as well as the setting up of PVs and other RES on public</p>

			buildings will also contribute to a reduction in “greenhouse” gas emissions. Moreover, major infrastructural interventions envisaged under OP I will have to demonstrate commitment and effort in integrating environmentally/climate-friendly measures within the projects.
ENVIRONMENTAL RECEPTOR	CUMULATIVE AND SYNERGISTIC IMPACTS	ACTION RECOMMENDED BY THE SEA TEAM	ACTION TAKEN BY GOVERNMENT AS PROPONENT OF THE PROGRAMME
Climatic factors	Climate change effects could be reduced through initiatives that promote sustainable travel, use of renewable energy sources and reduction of emissions from disused landfills. Having said this, some initiatives may increase traffic levels in some areas.	The SEA team recommends that project proposals that take into account energy conservation, energy efficiency, reduction of GHG emissions and use of renewable energy should be given priority at the stage of project selection.	The OP will target “greenhouse” gases throughout its activities and investments including: <ul style="list-style-type: none"> - promotion of eco-innovation through grant schemes; - promotion of RES and EE through direct intervention envisaged under Priority Axis 5 relating to Promoting Services of General Economic Interest. Besides, sustainable development (environmental sustainability) as a horizontal priority will be one of the criteria for assessment at project application and selection stages. Main projects will have to demonstrate commitment towards and effort in integrating environmentally/climate-friendly measures within the projects.
Material Assets	The cumulative impact on material assets is expected to be positive because of initiatives that focus on stormwater management. The construction of new roads could also alleviate the problems of flooding.	No recommendations were made.	Enhanced roads will feature stormwater management features, such as the construction of reservoirs and the laying of silt pits, where possible.
Cultural Heritage	Should major developments be located in sensitive areas, then, the cultural landscape is likely to be negatively effected. Actions relating to regeneration and rehabilitation of culturally important sites/features are likely to yield positive impacts on the cultural environment.	The impacts of OP 1 on cultural heritage are unknown since they are likely to be site-specific. The SEA recommends that appropriate conditions in development and environmental permits include cultural heritage protection measures and compliance with the Culture Heritage Act.	Protection of cultural heritage is a necessary precondition for the issue of planning permits. Through the relevant planning and environmental permit process, Government will ensure that projects promoted will abide by National Legislation on the issue of Cultural Heritage. Moreover, this sector is closely monitored by the Superintendence of Cultural Heritage.
Landscape	The OP will have a positive impact on the landscape of the urban environment through	Since it is likely that major development will be funded, those developments that	Through the relevant planning and environmental permit process,

	initiatives to restore fortifications and urban cores. In parallel, however, major development could negatively impact the landscape in sensitive areas.	are located outside Development Zones and likely to negatively impact the landscape, should be vetted more thoroughly to ensure that all impacts have been assessed and appropriate mitigation measures implemented.	Government will ensure that projects promoted will abide by National Legislation on the issue of Biodiversity and Landscape. Moreover, projects will have to demonstrate commitment towards integrating environmentally-friendly measures within the projects.
ENVIRONMENTAL RECEPTOR	CUMULATIVE AND SYNERGISTIC IMPACTS	ACTION RECOMMENDED BY THE SEA TEAM	ACTION TAKEN BY GOVERNMENT AS PROPONENT OF THE PROGRAMME
Land	The cumulative impact on land largely depends on the number of projects (requiring land development) that are funded under the OP and whether such land is found within or outside development zones. At this stage, the cumulative impact cannot be assessed.	In the case of major infrastructural projects, one of the significant impacts on land is the take up of land that is not zoned for the particular use. It is recommended that development be located within Development Zones. Those developments located outside Development Zones should be vetted more thoroughly to ensure that all impacts have been assessed and appropriate mitigation measures implemented.	Through the relevant planning and environmental permit process, Government will ensure that projects promoted will abide by National Legislation on the issue of Land Management.

Chapter 3 - Strategic Direction

3.1 Introduction and Context

Following the description and conclusions of the analysis of Malta's socio-economic status, the achievements of the 2004-2006 programming period and the strategy already identified in the NSRF, this chapter seeks to describe the strategic direction of OP I. An important principle of this OP is the concentration of resources – that is focusing the intervention of funds in those areas and sectors which lend themselves best to the interventions of Cohesion Policy and where the Funds can achieve maximum results in terms of impact and absorption. Cohesion Policy is an important funding arm towards improving Malta's competitiveness, as well as the quality of life of the Maltese citizen. Interventions envisaged will complement the efforts being co-funded by the national budget and other sources, including other Community Programmes and Initiatives. The policy mix of funding being proposed by Malta in OP I, is based on a thorough analysis of the objectives and needs of the country, taking into account the specific characteristics of the country, the structure of its economic activity, the nature and extent of its structural deficits and its potential areas of comparative advantage.

OP I, '*Investing in Competitiveness for a Better Quality of Life*,' is co-financed by the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). This Programme will primarily support investments in a number of critical sectors such as enterprise-support infrastructure, RTDi, tourism, transport, environment and risk prevention, energy, education and social infrastructure, urban regeneration, health and e-society. The OP also aims to invest directly in enterprises, undertakings and non-undertakings, through a number of aid schemes co-financed by the ERDF. The whole territory of the country will be eligible for interventions under this OP. It is to be noted that this OP will be complemented by another OP co-financed by the European Social Fund which will focus on education, training, employment, social inclusion and administrative capacity building.

Malta's strategy for this OP is based on the socio-economic challenges that the country will face during the intervention period as identified in the NSRF, the strengths, weaknesses, opportunities and threats of the current socio-economic situation in Malta, priorities emanating from national strategies - including the Pre-Budget Documents '*A Better Quality of Life*,' 2006-2010 and its successor for the 2007 budget '*Securing Our Future*,' the '*National Reform Programme 2005-2008*' and its update of 2006, as well as, '*The Structure Plan for the Maltese Islands 1990-2010*.' This OP is also placed in the context of '*The Draft Sustainable Development Strategy 2007-2016*' that aims, in tandem with the Lisbon Strategy for Growth and Jobs, for a more prosperous, cleaner and fairer Malta. Sustainable Development is an overarching concept that represents an integral part of this Programme.

Moreover, this OP is based on the experiences gained in implementing EU-funded programmes and projects during the period 2004 – 2006. Other factors taken into consideration in the delineation of this OP include a thorough assessment of the capacity of the Maltese administration to implement initiatives and absorb available funds, the Community Strategic Guidelines for the programming period 2007 – 2013 and the relevant legislative package for Cohesion Policy 2007-2013, as well as, the indicative financial resources available for the period 2007 – 2013. Sectors which are not covered by this OP are not being excluded from investment during the same period. In these cases, investment is being contemplated under other instruments, including the national budget.

3.2 NSRF Strategic Objectives

The OP is one limb of the NSRF. The NSRF describes the overall strategy for Cohesion Policy 2007-2013 and enlists the principal needs and challenges Malta faces in its quest to converge with the rest of the European Union. In view of Malta's vision to promote a competitive and high value adding economy and to achieve sustainable socio-economic development earmarked for a better quality of life, the country's needs and challenges can be summarized in the following categories:

- I. The need to improve Malta's international competitiveness in its key economic sectors (This includes the promotion of indigenous investment and facilitating the attraction and consolidation of foreign direct investment; to enable the diversification of tourism industry market segments; and to facilitate the development of the knowledge intensive economic activity in existing and new economic sectors);
- II. The urgent need to address existing deficiencies in Malta's physical infrastructure particularly those related to the environment, energy, transport and ICT;
- III. The need to ensure quality education and training for all and to provide a knowledge and skill development environment which targets the responsive identification of future labour market requirements;
- IV. The need to raise the employment rate through better labour market adaptability;
- V. The need to address Gozo's regional distinctiveness, bolster economic activity and address the negative impact of the island's double insularity on its socio-economic development.

Malta's strategic priorities for the period 2007-2013 are underpinned, and based on present and future policies of public investment undertaken by the Government of Malta and co-financed by the national budget and EU funds. Overall, Malta's national development strategy is geared to meet the three strategic pillars of: economic competitiveness; the need to safeguard and improve the environment and quality of life; as well as, the resolve to invest and facilitate the development of human resources. These three pillars are translated into four strategic objectives for the NSRF (vide figure 3.1), namely, sustaining a growing and knowledge-based, competitive economy; improving Malta's attractiveness and the quality of life; investing in human capital; and addressing Gozo's regional distinctiveness. The NSRF strategic objectives are earmarked to be achieved by two OPs – this OP (OP I) and OP II '**Empowering People for More Jobs and a Better Quality of Life.**' The integration between the ERDF, Cohesion Fund and ESF interventions is illustrated in figure 3.1, below.

The NSRF Strategic Objectives of most relevance to this OP are **sustaining a growing and knowledge-based, competitive economy** and **improving Malta's attractiveness and the quality of life.**

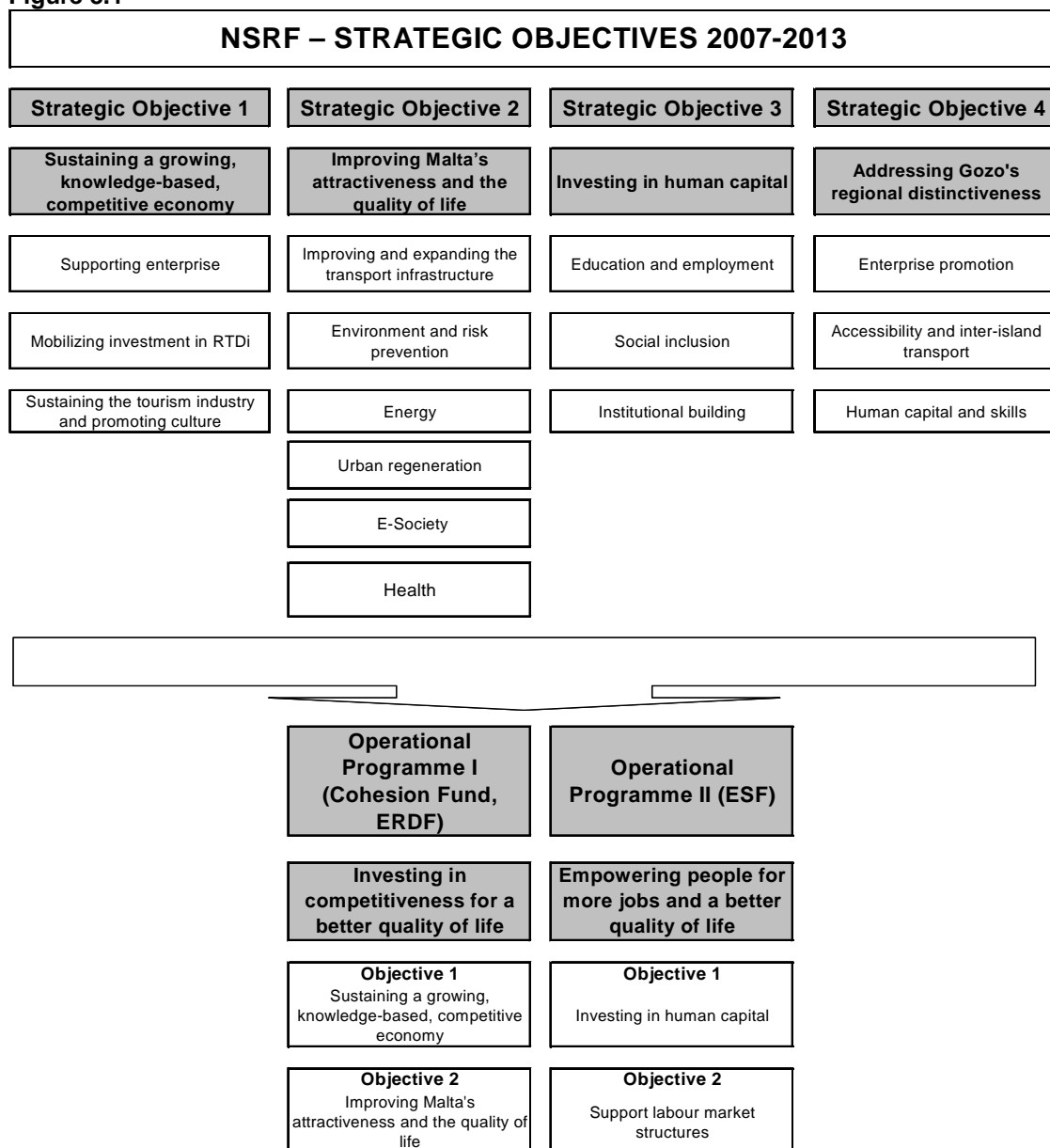
The Strategic Objective of **sustaining a growing and knowledge-based, competitive economy** consists of efforts to support enterprise and mobilise investment in RTDi and initiatives to sustain the tourism industry and promote culture. These efforts are intended to sustain Malta's economic growth prospects and achieve competitiveness in the medium and the longer term. It is strongly believed that economic competitiveness and growth potential are determined by the development of knowledge-based economic fundamentals, particularly through the promotion of RTDi and the upgrading of business support services.

The Strategic Objective of **improving Malta's attractiveness and the quality of life** is underpinned by efforts to improve and expand the transport infrastructure, upgrade services of general economic interest, promote energy efficiency and the diffusion of renewable energy sources (RES), undertake investment to achieve a sustainable environment, invest in risk

prevention, as well as, undertake urban regeneration, improve accessibility measures, and support investment in health care, educational and social infrastructure. These efforts are inextricably linked to the country's needs and requirements to make Malta an attractive location for foreign and indigenous investment as well as improving the quality of life of its citizens.

Three fundamental factors, namely small size, vulnerability and peripherality make Gozo more susceptible than the Island of Malta to adverse economic effects which are outside the control of national policy formulation, including lower rate of economic growth and lower consumption per capita. Interventions financed through this OP will meet the NSRF Strategic Objective of **addressing Gozo's regional distinctiveness**. OP I will focus on promoting enterprise and the development of key economic sectors in Gozo, addressing the key accessibility issues pertaining to transport infrastructure, as well as, protecting the environment.

Figure 3.1



3.3 Objectives of the OP

3.3.1 Overall Objective of the OP

This OP has the overall objective of ***Investing in Competitiveness for a Better Quality of Life***. This overriding objective aims to develop and generate economic growth based on competitive economic activities, underpinned by adequate physical infrastructure, leading to a better quality of life for the Maltese citizens. This general objective will be achieved through the attainment of a number of specific objectives, clustered in two main strategic objectives of ***sustaining a growing and knowledge-based competitive economy*** and ***improving Malta's attractiveness and quality of life***. Figure 3.1, above, highlights the relationship between the strategic objectives of the NSRF and OP I general and specific objectives. The specific objectives will be addressed over the whole territory.

Achieving competitiveness for a better quality of life necessitates first and foremost continuous investment in the country's physical infrastructure *inter alia*, in the areas of enterprise support, RTDi, tourism (including heritage promotion), transport networks, the energy and water sectors, environmental sustainability, risk prevention, as well as urban regeneration, E-society, education and social infrastructure, and health.

3.3.2 Strategic Objectives

The overall objective of OP I will be achieved through the attainment of the dual strategic objectives of ***Sustaining a Growing, Knowledge-based, Competitive Economy*** and ***Improving Malta's Attractiveness and Quality of Life***. These two objectives represent the underpinnings of the NSRF strategic objectives for the 2007-2013 period.

The objective of ***sustaining a growing and knowledge-based competitive economy*** targets enterprise and the tourism sector. It lays down the nation's vision for industry and the actions to be taken to better equip enterprises and the tourism sector, not only to weather the changing environment, but also to continue to generate wealth and prosperity. The strategy for industry is being conducted in two ways. First, the aim is to address the existing industry base, reinforcing it, through restructuring and other methods, to orientate it towards the manufacture of quality, high value-added products. Second, new investment must be channelled in a consistent manner towards targeted areas, which include various sectors that are already proving their worth, particularly the pharmaceutical, hi-tech manufacturing sectors and the growth sectors in the service industry. Sustaining such an industry and promoting further growth presents a case for an increase in national focus on R&I, particularly the enabling infrastructure for creating a capacity for R&I. With regards to tourism, this has been and is an industry that has the potential to give Malta sustained economic growth and good employment opportunities. Planned efforts for this industry, include an improvement in the product that would enable Malta to be marketed as a high-quality tourist destination and marketing Gozo as a unique-holiday experience.

The second objective demonstrates Malta's commitment towards improving the Islands' attractiveness and the quality of life of the citizens through a number of focus areas, namely, improving and expanding the transport infrastructure; upgrading services of general economic interest; investing in the environment and risk prevention; undertake urban regeneration; improve accessibility; and invest further in education, social infrastructure and the health sector.

The objectives of this OP have been developed taking into account a number of crucial realities that affect Malta's socio-economic development for the planning period 2007-2013. These realities emanate from the analysis of the socio-economic situation and the SWOT analysis, described in Chapter 1 of this document and include:

- Lack of adequate support structures for micro-enterprises and SMEs;
- Low level of R&D expenditure, funding, lack of integrators and lack of physical capacity to promote R&D;
- The quality of the overall tourism product and its seasonality;
- Poor public infrastructure in roads and ports;
- Deficiencies in the energy sector including dependency on non-renewable energy sources;
- Discharge of untreated sewage into the sea;
- Increase in storm floods;
- Continued intervention and promotion of sound waste management practices;
- Enhancing Malta's urban fabric;
- Further integration of different levels of society, business and government through ICT;
- Commitment towards excellence in the health sector;
- Need for further development of education and social infrastructure.

3.4 Priority Axes

These challenges, based on the realities outlined under Chapter 1 represent the framework of Malta's specific needs and must be addressed by this OP during the 2007-2013 period. This analysis, together with the feedback stemming from meetings with stakeholders and from public consultation meetings;¹¹⁰ the SWOT of the current socio-economic situation in Malta; priorities emanating from national strategies;¹¹¹ as well as, the experiences gained in implementing EU funded programmes and projects during the period 2004-2006, have led to the identification of the following Priority Axes to be addressed under this OP:

Priority Axis 1 – Enhancing Knowledge and Innovation;

Priority Axis 2 – Promoting Sustainable Tourism;

Priority Axis 3 – Developing the TEN-T;

Priority Axis 4 – Climate Change and Resource Efficiency;

Priority Axis 5 – Safeguarding the Environment and Risk Prevention;

Priority Axis 6 - Urban Regeneration and Improving the Quality of Life;

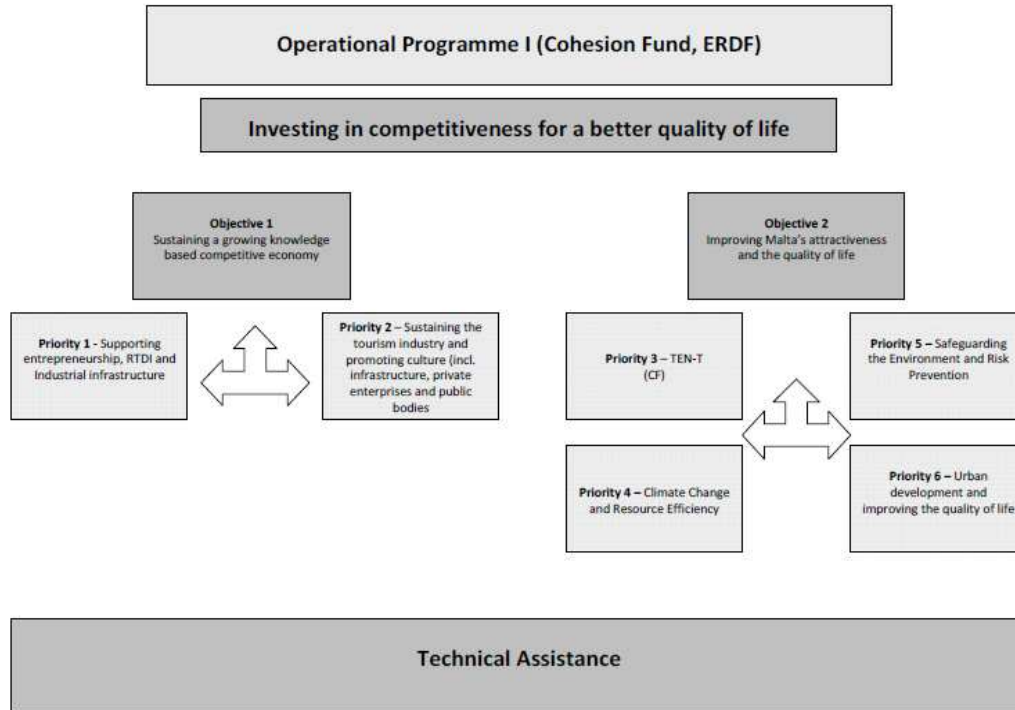
Priority Axis 7 - Technical Assistance

The seven Priority Axes are earmarked to provide an enabling socio-economic environment conducive to the promotion of competitiveness which, in turn, provides for the attainment of a better quality of life for citizens. The technical assistance and administrative capacity Priority Axis aims at facilitating the implementation of this OP by supporting Malta in meeting the requirements emanating from the regulatory package on Cohesion Policy and supporting administrative capacity.

Each Priority Axis has a number of specific and operational objectives and is underpinned by a number of focus areas of intervention. The linkage between the OPI's Axes (1 to 6) and the overall and strategic objectives of the Programme, is shown in Figure 3.2. The linkages highlight the importance of the strategic complementarity between the OP's Priority Axes, as well as, the cohesive and integrative manner in which strategic objectives will be pursued over the 2007-2013 period.

¹¹¹ Including the Pre-Budget Documents identified above.

Figure 3.2



It is also important to highlight that output, results and impact indicators, details of which are contained in the subsequent Priority Axes Chapter, are attached at different levels of the OP framework. Each Priority Axis has specific output and result indicators which are expected to result in a number of core impact indicators reflecting the attainment of OP I's dual strategic objectives of ***Sustaining a Growing, Knowledge-based, Competitive Economy*** and ***Improving Malta's Attractiveness and Quality of Life***. The inclusion of quantifiable targets in the OP is important in view of the programming of Priority Axes. The strategic objectives will be met through the attainment of a number of interdependent indicators at the output, results and impact levels. This hierarchy of indicators is driven by the fulfilment of the core impact indicators at OP level, namely:-

1. Percentage increase in R&D expenditure as a percentage of GDP (targeted increase from 0.52 per cent in 2004 to 0.85 in 2013);
2. Percentage increase in tourism earnings and the percentage increase of manufacturing exports. For tourism, the target is set at 1.0 per cent increase per annum in tourism earnings over the 2007-2013 period. The target for the manufacturing industry is set for an increase of manufactured export earnings with an average growth rate of 2.7%¹¹²;
3. No. of direct jobs created (core indicator) will be in the region of 1,400 full-time equivalents by the end of the programming period;
4. Environmental attractiveness indicator (based on a weighted average of variables);
5. Transport attractiveness indicator (based on a weighted average of variables);
6. Quality of life: social and physical development (based on a weighted average of variables);

¹¹² Baseline data 2004 (excluding extraordinary items) with an average growth calculated over a 7 year reference period.

7. Ensuring that OP I is a low carbon programme, with the ultimate aspiration of achieving carbon neutrality.

Figure 3.3 – OP I Impact Indicators

OP I - Impact Indicators	% increase in R&D expenditure as a percentage of GDP	% increase of earnings from tourism; and % increase of manufactured exports		No. of direct jobs created (core indicator)	Environmental attractiveness indicator	Transport attractiveness indicator	Quality of life: social and physical development	CO ₂ equivalent emissions
	from 0.52 (2004) to 0.85 (2013)	a 1.0 % increase p.a. in tourism earnings (over the 2007-2013 period)	an increase of manufactured export earnings with an average growth rate of 2.7% ¹¹³	1,400 full-time equivalents by 2015	Over 450 % increase by 2015 ¹¹⁴	Over 75% increase by 2015 ¹¹⁵	Over 150% increase by 2015 ¹¹⁶	Low Carbon with the ultimate aim of achieving Carbon - Neutrality

These impact indicators relate to the most important objectives and results Malta will strive to achieve from the Programme. These indicators will measure Malta's progress towards the achievements of the specific objectives of this OP; in the promotion of value-added economic activities through increased RTDi activity, and the generation of GDP growth in the different economic sectors. These indicators will also measure the country's results in meeting the objective of further investment in the infrastructure, environmental sustainability and a better quality of life. More details in relation to the methodology used in drawing up these indicators are found in section 4.8 of this document.

¹¹³ Baseline data 2004 (excluding extraordinary items) with an average growth calculated over a 7 year reference period.

¹¹⁴ **Environmental attractiveness** does not take into consideration all the interventions envisaged within the context of this OP, but rather, the most representative of infrastructural interventions in terms of the envisaged individual investment.

¹¹⁵ The impact indicator on **transport attractiveness** aims to measure an improvement on road and maritime transport efficiency and attractiveness, based on the implementation of the TEN-T, which, *inter alia*, aims to develop a better integrated transport system (road and sea) and to improve the inter-modality of the transport system.

¹¹⁶ **Quality of life**, as mapped out above, is not a reflection of happiness or overall satisfaction with life. The increase represents a higher quality of life based solely on the variables assessed in the methodology for compilation of these weighted averages.

3.4.1 Linking the Priority Axes to the Community Strategic Guidelines

This OP has the aim of achieving the vision underpinned by Malta's National Strategic Reference Framework, which, in turn, aims to benchmark the country's socio-economic development in the light of the Community Strategic Guidelines for programming in the period 2007–2013.¹¹⁷

The European Commission has prepared a (draft) communication on *Cohesion Policy in Support of Growth and Jobs: Community Strategic Guidelines, 2007-2013*. The Communication provides guidance for Europe to renew the basis of its competitiveness, increase its growth potential and its productivity and strengthen social cohesion, placing the main emphasis on knowledge, innovation and the optimisation of human capital. It urges Member States to concentrate the limited resources available to Cohesion Policy on promoting sustainable growth, competitiveness and employment as set out in the renewed Lisbon Agenda. The Community Strategic Guidelines (CSGs) focus Cohesion Policy priorities into three:

¹¹⁷ Council Decision of 18/08/2006 on **Cohesion Policy in support of Growth and Jobs: Community Strategic Guidelines, 2007-2013**.

1. Making Europe and its regions more attractive places to invest and work;
2. Improving knowledge and innovation for growth;
3. More and better jobs.

To promote a sustainable development path and strengthen competitiveness in the knowledge-based economy, it is essential to ensure availability of basic infrastructures, to increase investments in human capital, and to promote research and innovation, including access and strategic use of information and communication technologies. In addition, the success of Cohesion Policy depends on a range of conditions, which favour investment such as macro-economic stability, effective implementation of the Single Market, structural and administrative reforms, good governance, a business-friendly climate, and the availability of a highly skilled workforce.

The interrelationship between the Community Strategic Guidelines and the OP Priority Axes is highlighted in Table 3.1. With Lisbon objectives in mind, this OP has been formulated upon the objectives of the NSRF, which, in turn, has been based upon these Guidelines. Indeed, the majority of interventions contemplated within this Programme are directed towards the first two objectives of the CSG, while OP II is more likely to address the third CSG objective on more and better jobs. Having said this, it is very likely, however, that a number of interventions under this OP, as well as the envisaged impacts from this programme are likely to result in increased levels of education and employment and thereby also contribute indirectly to the third CSG objective.

From the OP point of view, the interventions falling within Priority Axes 1 to 6 at the OP level will shape Malta's response and position within the wider context of the Community Strategic Guidelines. Within the context of the CSG, making Malta a more attractive place to invest and work, OP I will be underpinned by investment in the TEN-T; energy; waste water management; municipal waste management; risk prevention; urban regeneration and E-society interventions. Improving knowledge and information for growth will be underpinned by investment to improve the general business environment; improving support to SMEs; investment interventions to strengthen R&I; and through promotion of sustainable tourism. More specifically, Priority Axis 1, dealing with investing in an enterprise support infrastructure; supporting a competitive enterprise, Priority Axis 2 relating to promoting sustainable tourism and Priority Axis 6 dealing with urban regeneration and improving the quality of life, are the Priority Axes with the most extensive links with the CSGs. This highlights the important role attached to the attainment of these Priorities under OP I in the achievement of Malta's Vision in line with the CSGs.

With a view to address CSG 1.2 and 1.3, major infrastructural projects across the Priority Axes (besides direct support for energy efficiency and renewable energy [Priority Axis 4] and the environment [Priority Axis 5]) will have to show a commitment towards environment and/or climate-friendly development.

Table 3.1

Cross-referencing of OP I - Priority Axes and CSG

Community Strategic Guidelines		OP I – Priority Axes					
		Enhancing knowledge and innovation	Promoting sustainable tourism	Developing the TEN-T	Climate Change and Resource Efficiency	Safeguarding the environment and Risk Prevention	Urban regeneration and improving the quality of life
1	Making Europe and its regions more attractive places to invest and work	P.A. 1	P.A. 2	P.A. 3	P.A. 4	P.A. 5	P.A. 6
1.1	Expand and improve transport infrastructure			✓			✓
1.2	Improve the environmental contribution to growth and jobs	✓	✓		✓	✓	✓
1.3	Address Europe's intensive use of traditional energy sources	✓	✓		✓	✓	✓
2	Improving knowledge and innovation for growth						
2.1	Increase and improve investment in RTD	✓	✓				
2.2	Facilitate innovation and promote entrepreneurship	✓	✓				
2.3	Promote the information society for all	✓	✓				✓
2.4	Improve access to finance	✓					

3.4.2 Linking the Priority Axes to the National Reform Programme

The National Reform Programme (NRP) for Malta, 2005, was developed in response to the re-launch of the Lisbon Strategy which was adopted in March of the same year by the European Council. The NRP represents a comprehensive three-year strategy to implement the integrated guidelines for growth and jobs. These integrated guidelines are a direct reflection of priorities at the European level which aim to boost the Union's growth potential in order to achieve the overarching objective of sustainable development.

Several political, economic, social, technological and environmental factors affect Malta's economic growth and international competitiveness and hence, the island's employment growth potential. Malta has chosen five strategic themes, which form the pillars of its NRP. These are: the sustainability of public finances; competitiveness; employment; education and training; and the environment. Table 3.2 gives a snapshot of the links that exist between the NRP and the Priority Axes and specific objectives of this OP. A competitive, knowledge-based economy is based on the realisation of public finance sustainability, competitiveness, employment generation and further investment in education and training. An improved quality of life is inextricably linked with the NRP priorities of competitiveness, further employment opportunities, the protection of the environment and education and employment.

The interventions falling within Priority Axes 1 to 6, will shape Malta's strategy for more growth and job creation as envisaged in the Lisbon strategy. In this regard, employment, environment and competitiveness represent the most relevant objectives of Malta's NRP, which will be addressed through OP I. Interventions earmarked to promote and support value-added economic activities, as well as, the investment in physical infrastructures and other support infrastructure are seen as constituting an integral role in the attainment of the NRP objectives, primarily those related to competitiveness, environment, education and employment. Indeed, all Priority Axes of this OP are earmarked to address the policy responses of the competitiveness, environment, education and employment NRP strategic themes.

In particular, the first two Priorities of the OP are aimed at improving the Malta's competitiveness through enhancing knowledge and innovation and promoting sustainable tourism. A number of measures are foreseen, including direct support to SMEs, primarily those within the manufacturing, tourism and other sectors that provide economic and social value-added; strengthening RTDi; upgrading enterprise support infrastructure and improving the tourism product.

Expanding and improving the transport infrastructure addresses the competitiveness strategic theme within the NRP. This OP addresses this objective through Priority Axis 3 (for TEN-T infrastructure) and Priority Axis 6 (dealing with internal mobility). With regards to Priority Axis 6, e-accessibility is intended to enable more efficient business development and increase economic growth while providing for a more efficient e-Government public service. Furthermore, e-accessibility initiatives such as e-health and other related Government services are conducive to bringing about cost-reduction in the public service, hence contributing to the NRP strategic theme relating to the sustainability of public finances.

The NRP identifies a number of activities that generate pollution, which are currently not bearing the full environmental costs. These include waste generation, development and energy generation. Almost all of the Priority Axes within the OP (Axis, 1, 2, 4, 5 and 6) aim at the promotion of a sustainable environment and address a number of areas highlighted by the NRP including the use of non-conventional sources of water, better utilisation of energy sources, waste management, climate change and halting biodiversity loss. These areas are of direct relevance to the environment strategic theme of the NRP.

Within the NRP, the first strategic theme concerns the sustainability of public finances. While most of the policy actions fall outside the direct scope of the OP, all the Axes contribute in some

indirect way to this theme. Moreover, given that the majority of interventions under the OP fall under the broad heading of national public infrastructure, national public finances are being supported with considerable Community funding in providing for the country's national development goals. One particular policy states the need for Government to stimulate economic growth by promoting further Public-Private Partnership (PPP). PPP intervention may take place under OP I. Malta may also opt for other options such as design and build projects.

Table 3.2

Cross-referencing of OP I - Priority Axes/Objectives and NRP

OP I - Objectives		NRP Strategic Themes						
Priority Axis	Objectives	Sustaining a growing, knowledge-based competitive economy	Improving Malta's attractiveness and the quality of life	Sustainability of public finances	Competitiveness	Employment	Education and training	Environment
1	Enhancing Knowledge and Innovation	✓		✓	✓	✓	✓	✓
2	Promoting Sustainable Tourism	✓		✓	✓	✓		✓
3	Developing the TEN-T		✓	✓	✓			
4	Climate Change and Resource Efficiency		✓	✓	✓			✓
5	Safeguarding the Environment and Risk Prevention		✓	✓	✓	✓		✓
6	Urban Regeneration and Improving the Quality of Life		✓	✓	✓	✓	✓	✓

Breakdown by categories of intervention¹¹⁸

To demonstrate the synergy and consistency with the Community Strategic Guidelines and with the renewed Lisbon Strategy, Malta has presented the actions which should be considered as Malta's effort towards the attainment of the Lisbon objectives and the exercise of *earmarking* within the context of the NSRF. It should be noted that in line with the Conclusions of the European Council of December 2005, Malta was not bound by the targets of *earmarking*. However, Malta has always been committed to making an effort vis-à-vis the current situation under the 2004-2006 Programme towards *earmarking* categories of intervention. This effort is clearly demonstrated given that Malta is increasing its efforts towards the earmarking process. Table 3.3 below presents Malta's categorization, of which, indicative Community allocations from OPI to the categories of *earmarking* add up to EUR 301.77 million which is roughly equivalent to 36% of the NSRF's Community funds. OPII's indicative *earmarking* portion of Community funds amounts to EUR 96.5 million, which is equivalent to 11.5% of the total Community funds. Total NSRF *earmarking* amounts to around EUR 398.27 million (Community Funds) which is roughly equivalent to 47.4% of total Community funds.¹¹⁹

¹¹⁸ These tables are indicative and are being provided for information purposes only.

¹¹⁹ The indicative allocations to the categories of earmarking have been tweaked up following the negotiations on OP I, whereby further funds were re-allocated from Electricity (distribution network) to RES/EE.

Table 3.3 – Categorisation of Funds assistance

	Code	Priority Theme	% ¹²⁰
Research and Technological Development (RTD), innovation and Entrepreneurship	1	RTD activities in research centres RTD infrastructure (<i>incl. physical plant, instrumentation and high speed computer networks linking research centres</i>) and centres for competence in a specific technology	0.04
	2	Technology transfer and improvement of cooperation networks between small businesses (SMEs), between these and other businesses and universities, post-secondary education establishments of all kinds, regional authorities, research centres and scientific and technological poles (<i>scientific and technological parks, technopoles, etc.</i>)	5.36
	3	Assistance to RTD, particularly in SMEs (<i>incl. access to RTD services in research centres</i>)	0.50
	4	Advanced support services for firms and groups of firms	0.51
	5	Assistance to SMEs for the promotion of environmentally-friendly products and production processes (<i>introduction of effective environment managing system, adoption and use of pollution prevention technologies, integration of clean technologies into firm production</i>)	2.56
	6	Investment in firms directly linked to research and innovation (<i>innovative technologies, establishment of new firms by universities, existing R&TD centres and firms, etc.</i>)	0.25
	7	Other investments in firms	0.58
	8	Other measures to stimulate R&I and entrepreneurship in SMEs	0.72
	9	Other measures to stimulate R&I and entrepreneurship in SMEs	1.44
Information Society	13	Services and applications for the citizen (<i>e-health, e-government, e-learning, e-inclusion, etc.</i>)	2.06
	15	Other measures for improving access to and efficient use of ICT by SMEs	0.26
Transport	21	Motorways (TEN-T)	10.94
	22	National Roads	1.92
	23	Regional/local roads	1.05
	24	Cycle Tracks	0.30
	26	Multimodal transport	0.66
	28	Intelligent transport systems	0.79
	30	Ports (TEN-T)	4.66
Energy	39	Renewable energy: wind	0.01
	40	Renewable energy: solar	7.56
	43	Energy efficiency, co-generation, energy management	2.54
Environmental Protection and Risk Prevention	44	Management of household and industrial waste	4.87
	45	Management and distribution of water (<i>drinking water</i>)	0.88
	46	Water Treatment (<i>waste water</i>)	9.86
	50	Rehabilitation of industrial sites and contaminated land	4.06
	53	Risk prevention (<i>including the drafting and implementation of plans and measures to prevent and manage natural and technological risks</i>)	5.00
	54	Other measures to preserve the environment and prevent risks	0.51
Tourism	55	Promotion of natural assets	0.04
	56	Protection and development of natural heritage	0.28
	57	Other assistance to improve tourist services	3.95
Culture	58	Protection and preservation of cultural heritage	7.23

¹²⁰ % refers to the % amount of OP I's total EU financial allocation.

	59	Development of cultural infrastructure	1.84
	60	Other assistance to improve cultural services	0.44
Urban and Rural Regeneration	61	Integrated projects for urban and rural regeneration	0.84
Investment in Social Infrastructure	75	Education infrastructure	6.24
	76	Health infrastructure	7.48
	77	Childcare infrastructure	0.17
	78	Housing infrastructure	0.13
	79	Other social infrastructure	0.04
Strengthening Institutional Capacity at National, Regional and Local Level	81	Mechanisms for improving good policy and programme design, monitoring and evaluation at national, regional and local level, capacity-building in the delivery of policies and programmes	0.08
Technical Assistance	85	Preparation, implementation, monitoring and inspection	1.03
	86	Evaluation and studies; information and communication	0.33

Codes for the Form of Finance Dimension

	Code		% ¹²¹
Form of Finance	01	Non-repayable aid	98.56
	02	Aid (loan, interest subsidies, guarantees)	1.44 ¹²²
	03	Venture capital (participation, venture-capital fund)	0
	04	Other forms of finance	0

Codes for the Territorial Dimension

	Code		% ¹²³
Territory Type	03	Islands	100

Codes for the Economic Activity Dimension

	Code		% ¹²⁴
Economic Activity	03	Manufacture of food products and beverages	0.19
	04	Manufacture of textiles and textile products	0.01
	05	Manufacture of transport equipment	0.08
	06	Unspecified manufacturing industries	6.19
	08	Electricity, gas, steam and hot water supply	6.73
	09	Collection, purification and distribution of water	10.74
	10	Post and telecommunications	0.12 ¹²⁵
	11	Transport	19.75
	12	Construction	0.11
	13	Wholesale and retail trade	0.50
	14	Hotels and restaurants	0.65
	15	Financial intermediation	1.40
	16	Real estate, renting and business activities	0.09
	17	Public administration	2.00
	18	Education	11.74
	19	Human health activities	7.58
	20	Social work, community, social and personal services	0.28
	21	Activities linked to the environment	16.39
	22	Other unspecified services	15.44

¹²¹ % refers to the % amount of OP I's total EU financial allocation.

¹²² Financial engineering actions under JEREMIE.

¹²³ % refers to the % amount of OP I's total EU financial allocation.

¹²⁴ % refers to the % amount of OP I's total EU financial allocation.

¹²⁵ Refers to all interventions under e-accessibility and information society.

3.5 Integration of Horizontal Priorities

The implementation of the OP will comply with Community policies on sustainable development and equal opportunities.

3.5.1 Sustainable Development

The EU Sustainable Development Strategy 2001¹²⁶ (the Gothenburg Agenda) provided a “third dimension” to the Lisbon Strategy, recognizing that economic, social and environmental renewal go hand in hand. On a national level, the Maltese Government has drawn up a Draft Sustainable Development Strategy for the Maltese Islands, at the heart of which is the simple idea of enabling the Maltese people to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations. The strategy contains an integrated vision or purpose, three vertical themes and a set of targets for implementing and ensuring sustainability. The three central aims of the strategy are:

- Effective protection of the environment and prudent use of natural resources;
- Promoting sustainable economic development;
- Fostering sustainable communities.

The Maltese Government is aware that OP I needs to reflect the National Sustainable Development Strategy to ensure mainstreaming of Sustainable Development (SD) throughout. OP I treats SD as a cross-cutting theme and will be contributing to this goal in an integrated way through the dual objectives of **investing in the country's physical infrastructure** and **supporting and promoting value added economic activities**. The aim is that of generating economic growth as well as providing adequate infrastructure leading to a better quality of life for Maltese citizens in a long-term perspective. SD has an environmental perspective, an economic perspective and also a social dimension.

From the **environmental perspective**, the national SD Strategy identifies the need to adopt new transport and energy policies to reduce GHG and other emissions. As far as transport is concerned, upgrading the TEN-T infrastructure will contribute to the SD objective by establishing efficient links between nodes of communication. The OP also foresees a number of measures which should contribute to modal shift, thereby contributing to the SD objective of restoring the use of public transport. Investments in the energy sector, including the upgrading of the distribution network, environmental upgrades in ageing generation plants and the encouragement of a shift toward renewable energy will also contribute to the reduction of emissions. Further reductions in CO₂ emissions are likely to be attained, *inter alia*, through the integration of energy efficient and renewable energy measures (where applicable), particularly in the construction of new and in upgrading existing buildings (including private households and SMEs). Emissions will also be curtailed through waste management initiatives that will help reduce Malta's dependence on land-filling. Moreover, support will be offered to help SMEs to undertake environmental enhancements thereby improving their environmental performance.

The national SD strategy also foresees the protection of our countryside, the management of protected sites as well as the protection of biodiversity. These targets assist in attaining the vision of OP I whereby it is contemplated that sustainable tourism must be guaranteed. The protection of the natural heritage is critical to the tourism product and is also a means of diversifying the tourist market and is closely linked to improving the quality of life of Maltese citizens.

¹²⁶ This strategy was renewed and approved by Council in June 2006.

The need to upgrade environmental infrastructure, foreseen in OP I, ensures the protection of the water table by reducing contamination as a result of new treatment facilities for solid and liquid waste. Additionally, improving the quantity and quality of recycled water for secondary purposes and the setting up of storm water management systems and sewage treatment facilities, will reduce Malta's dependence on the water table and on reverse osmosis. A major positive impact is anticipated as a result of the envisaged initiative to increase sewage treatment capacity so as to eliminate raw sewage discharges to the sea. This will improve the quality of bathing water in line with international obligations foreseen in the national SD strategy.

The Government is committed to making an effort to integrate environmentally-friendly and/or climate-friendly considerations into the Programme, throughout the Priority Axes, also through the introduction of project selection criteria related to the environment. This means that interventions envisaged under OP I will have to demonstrate that they have considered environmental and (where applicable) climate change issues in the design and implementation of their projects. The achievement of commitments will be monitored also by the Environmental Committee mentioned under section 2.2.2 of this document.

From the **economic perspective**, OP I reflects the SD challenges contained in the strategy through initiatives aimed at creating employment opportunities and increasing productivity to generate income and improve the quality of life of the Maltese population, taking into consideration environmental and social impacts. Through support being offered to the competitive enterprise, OP I will be contributing to the enhancement of the innovative capacities of enterprises and spearhead collaboration between enterprises to support the creation of a knowledge-based economy. OP I will also contribute towards greater competitiveness of tourism enterprises through improvements in the tourism product and better marketing and branding techniques and improved cost structures of enterprises.

In terms of **social renewal**, education is crucial for SD to actually happen. SD requires new ways of thinking, working and behaving. OP I envisages investment in RTDi and the educational and social infrastructure. This will provide the facilities and resources, which will in turn create the incentive required to provide people with the necessary skills, values and knowledge to enable more sustainable activity to occur. This will contribute to the SD objective of continuing to adopt measures to decrease the early school-leavers rate in line with Government's targets. Moreover, interventions envisaged by OP I must demonstrate commitment to respect the principles of non-discrimination and equal opportunities. This effectively demonstrates that OP I is responsive to labour force participation of women, which is presented as a challenge in the national SD strategy.

SD targets are clearly in tune with the objectives of OP I and the successful implementation of this OP will ascertain that some of the objectives contemplated in the SD strategy will be adequately addressed and achieved. In developing OP I, the objective is that of building on best practice from the current programme, reflecting the opportunities available through the integration of the horizontal themes and the benefits that this can bring to programme delivery. In addition, at project level, synergy between the economy, society and environment will be achieved through the use of guidance, appraisal and monitoring procedures.

3.5.2 Equal Opportunities

Government is committed to increase the female employment rate and increase the labour supply from groups with low employment rates.¹²⁷ At a national level, this commitment will be implemented through a number of actions which prevent and address discrimination; provide incentives for groups with a low employment rate to take-up work; and a series of measures which enable a better balance between work and family life. To ensure that the OP supports Government's commitment in terms of equal opportunities, the document was prepared in

¹²⁷ Including early school leavers, the low-skilled and persons with disability.

conjunction with persons who have good knowledge of gender issues and equal opportunities in Malta. Advice was sought from the Ministry for the Family and Social Solidarity (MFSS), as the drivers of equal opportunities in Malta. The National Commission for the Promotion of Equality in Malta, within MFSS, which is the body responsible to monitor the implementation of Equality for Men and Women Act (CAP 456) and to promote equality in spheres where it may be lacking, was also directly consulted to ensure that gender issues, as well as all other forms of discrimination are taken into account as appropriate. This consultation contributed to the proper 'visioning' of the drafting of the OP in terms of equality of opportunities as an underlying horizontal theme across the programme.

The Government of Malta recognises that access to equal opportunities is a fundamental requirement for the economic regeneration and competitiveness of the Islands. Given that people are Malta's only resource, it is essential that this OP contributes to the development of the Maltese people in such a way as to enable every citizen to perform to maximum potential. In terms of gender equality, with the number of female graduates exceeding the number of males, it is essential that this Programme, together with OP II, creates the right conditions for this resource to develop further and flourish. In this regard a number of measures have been identified which will contribute directly to the objective of equal opportunities. These include the expansion of education, research and training infrastructure, the promotion of other social infrastructure such as childcare centres; and support towards the further development of information society which is conducive to inclusion, thus facilitating equal access to all.

Moreover, the Government is committed to ensure that interventions financed under this OP demonstrate commitment to respect the principles of non-discrimination and equal opportunities. In line with the abovementioned objectives, efforts will be made to address gender balance and social inclusion in all decision-making and implementation processes, to further ensure that this dimension is given due regard insofar as this is feasible and practicable. In line with National legislation, physical access for people with disabilities is a material planning consideration for the building of all public infrastructures. Moreover, where structural barriers for gender and other forms of discrimination exist, efforts will be made to work towards their elimination.

In the 2004-2006 Programming Period the Managing Authority has built a good working relationship with the National Commission for the Promotion of Equality between Men and Women. A help desk was set-up by the Commission to assist project promoters in their effort to integrate the equal opportunities dimension in their project ideas and training was also provided by the Commission (in collaboration with the Managing Authority) in this regard. In terms of social inclusion, the Policy Development and Programme Implementation Directorate of the Ministry for the Family and Social Solidarity has been an active contributor, particularly with regards to issues of social welfare and integration.

The Managing Authority and other horizontal stakeholders will continue to build upon the existing working relationship in order to consolidate what has been achieved to date. For the period 2007-2013, equal opportunities will also be integrated at the individual project level. To this end, project promoters will be requested to indicate clearly in the proposals how they intend to contribute to the horizontal priority of equal opportunities. This will be given consideration in the project selection process. In this regard, equality requirements will be given due consideration in reports monitoring progress on implementation of the Programme. In addition, the entity/ies responsible for the protection of equal opportunities will be invited to participate in the internal monitoring systems, with a view to ensure its mainstreaming across the priority axes.

3.6 Financial Concentration

This OP covers the whole territory. All Priority Axes listed above shall cover the challenges that are being faced by Malta and Gozo. Government is committed to spend a minimum of ten per

cent of the funds under this OP in Gozo on measures contributing to Gozo's socio-economic development. The implementation of this commitment is described under Chapter 5 - Implementing Provisions.

Chapter 4 - Priority Axes

This chapter consists of a detailed description of the Priority Axes, including a background overview, the specific and operational objectives pertaining to each Axis, a number of focus areas,¹²⁸ a list of major projects (where applicable), the amount of funds allocated towards the Priority Axis, an indication of the potential use of the flexibility facility in terms of Article 34(2) of the Council Regulation EC/1083/2006 and a number of output and result indicators.

Malta's aim is that of investing in competitiveness for a better quality of life, through an integrated approach that maximizes the synergy between the Priority Axes enshrining the framework for ERDF and CF intervention. The delineation of the Priority Axes is based on the attempt to ensure that all the relevant Priorities of the NSRF are being addressed, whilst complying with the relevant provisions in the legal framework.¹²⁹

The Priority Axes for OP I are the following:

- Enhancing Knowledge and Innovation;
- Promoting Sustainable Tourism;
- Developing the TEN-T (Transport Infrastructure);
- Climate Change and Resource Efficiency;
- Safeguarding the Environment and Risk Prevention;
- Urban Regeneration and Improving the Quality of Life;
- Technical Assistance.

These Priority Axes are complemented by activities co-funded by the ESF under the different Priority Axes of OP II. This integrated approach links capital investment with aid schemes to the private sector, as well as, education/training and employment initiatives in support of the overall development of the territory. These Priority Axes will also be complemented by measures envisaged by other Programmes and Initiatives outside Cohesion Policy such as the National Rural Development Strategy¹³⁰ and Malta's National Strategic Plan for Fisheries.¹³¹

¹²⁸ The focus areas are not comprehensive of all the interventions that will be supported by the OP. They merely present an indicative list of the main areas of intervention.

¹²⁹ Particular reference is made to Articles 34 and 37 of Council Regulation EC/1083/2006.

¹³⁰ Co-funded by the European Agricultural Fund for Rural Development (EAFRD).

¹³¹ Co-funded by the European Fund for Fisheries (EFF).

4.1 Priority Axis 1 – Enhancing Knowledge and Innovation

Background

Malta is distinctively different from other Member States in terms of its limited resource endowments; socio-economic constraints on its ability to reap the benefits of economies of scale due to indivisibilities and limited scope for specialization; the high dependence on international trade; production limitations; and effects of insularity. Despite these largely intrinsic handicaps, the Maltese economy has managed to become an integral part of the international economy, be it in the manufacturing or services sector. International competition will remain a key concern in the coming years. Faced with a number of important challenges emerging from the economic reform and liberalization processes, increasing competitive pressures primarily in the manufacturing sector, and the entry into the Single European market, measures must be mobilized in order to align Malta's overall competitive focus and direct investment to those economic activities which add most value.

In line with Malta's *Industrial Strategy 2007-2013*, this Priority Axis aims to consolidate projects financed through National funds by providing the necessary support required for Malta's competitiveness challenges over the coming years. A two-tiered approach is being considered; first and foremost, the existing local industrial base (made up primarily of small and micro enterprises) operating in traditional sectors such as the food products; beverages and tobacco; textile and textile products; leather and leather products; pulp and paper products; rubber and plastic products; manufacture of electrical and optical equipment; and manufacture of transport equipment, must be supported; the second dimension of the strategy relates to the maintenance of existing and the attraction of new foreign direct investment (FDI) targeting primarily the sectors outlined in the strategy, namely pharmaceutical manufacturing and services; the ICT sector; biotechnology and bio-informatics; high-tech manufacturing; creative sectors; the maritime and aviation industries.

In order to support this approach, the availability of physical enterprise infrastructure is critical. In the case of local enterprises, many of these need to be reallocated to dedicated industrial zones. In this regard, existing industrial zones need to be given a facelift and be upgraded with relevant amenities, particularly those relating to accessibility. In terms of attracting FDI, as well as spurring local industry to upgrade to high quality value-added, Malta must be quick-to-market in supplying the necessary factory or industrial space as well as the required human resource capacity. Poor performance, in essence, means that FDI opportunities are lost to competitors and local expansion and growth could be stemmed. Government believes that targeted new investment should be focused primarily towards those sectors and activities that best meet Malta's comparative advantages, such as, but not limited to, the digital gaming, creative and life sciences sector, as well as the financial services industry, online gaming and other IT-related activities, the aviation and maritime industry, and other niches in the manufacturing sector, most notably the pharmaceutical industry. The creative industries sector is being prioritised as one in which Government is seeking growth as regards both economic activity and employment opportunities, as well as having a direct connection with the significant investment in the educational sector, which provides professionals and experts in various aspects of this sector. In this regard, Malta is also seeking to develop its involvement in the Life Sciences through the creation of a specialized park, in order to contribute towards focusing on providing the necessary investment to attract FDI. The Kordin Business Incubation Centre (KBIC) caters for businesses related to technology with high value-added sectors such as ICT, renewables, bio-tech and other innovative start-ups. During the past three years, the KBIC managed to reach saturation level with occupancy of 80 per cent, which is the full level for an incubator to be in a position to accommodate larger start-ups and expand current operations.

In the initial part of the 2007-2013 programming period, Malta focused on providing the necessary investment to attract FDI, which included the modernisation of the necessary infrastructure, the

creation of the right environment to attract value-added industries as well as building the necessary capacity within the University to train the necessary people i.e. the necessary skilled human resources needed without which FDI cannot be maintained and sustained. Thus further initiatives are needed to ensure that the number of students choosing S&T subjects increases. In Malta, human resources in science and technology as a share of labour force in Malta still remain substantially below EU average.¹³²

In order to compete on a global level as clearly endorsed by the *Innovation Union* flagship identified in the EU 2020 strategy, Europe must train enough researchers to meet national R&D targets (p9). In a country like Malta, where R&D has limited historical tradition, it is important, in order to ensure an important contribution to the EU targets, that emphasis is given to increase investment in attracting young people to the right education streams. The government is pursuing a strategy which aims to promote excellence in education and skills development. However, the experience of the main stakeholders implementing a number of measures in recent years through EU, national and private resources is that children must be enthused and nurtured towards S&T subjects from a very early age to eventually proceed towards S&T careers. This is an important pre-condition to create and sustain the necessary talented personnel as well as achieve the EU targets as set out in the flagship initiative and to which Malta subscribes.

Aid to industry has so far largely been provided through fiscal incentives under the Business Promotion Act (Cap 325 of the Laws of Malta) and not through direct grants. However, there is general recognition that existing industry must be supported directly, to invest in initiatives enabling it to restructure and strengthen its capabilities in order to meet the set vision of quality, high value-added and productivity growth. This will enable existing industry to compete better in the internal market, as well as, make successful ventures into the international market. The Government is committed to provide an enabling business environment in which enterprise flourishes and becomes more competitive. Interventions foreseen by this Priority Axis will be complemented by the development of national clustering and networking initiatives¹³³ through a mix of competition and cooperation as underlying drivers of learning and innovation. Clustering and networking have the aim of improving base and thus reduce costs by aggregating economies of scale to enable industry to position itself better to compete in both the domestic and overseas markets, as appropriate. Attempts in this direction have not been very successful so far given the typography of local enterprises, most of which are still largely family owned; however, further efforts are required in this regard.

Within this context, and given that a large percentage of industry in Malta is made up of small and micro enterprises, the Government is committed to give due importance to the continuous promotion of such enterprise and small business start-ups. SMEs' access to finance is one of the key factors for business expansion, job creation and economic growth. In Malta, to date, the primary source of external finance to industry has been through bank loans. Banks usually require collateral against their lending and for SMEs that are investing in intellectual property and intangibles and which do not have collateral, the lack of availability of external guarantees to secure access to loans has, to date, constituted a serious impediment to growth. In order to address this problem, the Government, through Malta Enterprise, has introduced four main instruments: loan guarantees; soft loans; interest subsidies and royalties.

In 2009 Malta's R&D intensity as a percentage of GDP stood at 0.54 per cent¹³⁴, with human resources in science and technology as a share of labour force only at 30.9%.¹³⁵ This is well below the EU average and evidently, this is not an optimal situation. Low R&D expenditure as

¹³² Malta's percentage in 2009 was 30.9 whereas the EU 27 average was 40.1%.

¹³³ These include Supply Chain Vendors Clusters to facilitate the transformation of suppliers into preferred vendors; the creation of Industry and Enterprise Grouping Clusters by supporting the engagement from industry of cluster coordinators subject to demonstration of quality high value-added and productivity growth; and Targeted National Clusters Initiatives as a platform to firm-up the first wave of the target areas.

¹³⁴ EUROSTAT: Gross Domestic Expenditure on R&D (GERD) 2009 data.

¹³⁵ EUROSTAT: 2009 data.

well as the unavailability of the necessary human capital is constraining national efforts to attract and retain high-tech FDI and to move up the technological ladder. There is recognition that R&I and the availability of human capital are critical drivers for the success of a competitive knowledge-based economy. R&I must become a fundamental pivot of the Maltese economy. This requires a shift to economic activity where knowledge assumes a more important dimension, both in the public and private sectors. For this shift to happen, a number of *smart knowledge investments* needs to be undertaken in order to create the relevant enabling environment. Some of Malta's challenges to increase its activities in research and innovation are specifically related to the need to build the R&I infrastructure and framework focusing on a small number of sectors of strategic importance, including specifically, the area of environment and energy with the main thrust being on solar, wind and bio-energy.

On a more general and long-term sustainable level, Malta needs to build its science, technology, research and innovation infrastructural capacity in the education system to entice and secure the potential of today's and tomorrow's youth to take up such studies. In Malta, only 12.9% (2008) of annual graduates were in mathematics, science and technology studies compared to the EU 27 average which stood at 22.5.¹³⁶ Moreover, out of the 33 countries examined in the 2009 European Innovation Scoreboard, Malta ranked in the 18th place with regards to the current performance in the number of S&E and SSH graduates. Furthermore, the percentage of students enrolled in the fields of mathematics, science and technology is 17.2% for Malta whereas the EU 27 is 25% (2008).¹³⁷ Government has, in the past years, already taken a number of concrete actions to support a series of measures (including investments in infrastructure) aimed at enticing students to take up science and technology studies at tertiary level. However, it is now very clear that unless there are active measures to increase the pool of pupils (at primary and secondary levels) that have an interest in these subjects, the numbers at tertiary level can never reach the desired targets. In this regard, investments in the formal education system must be complemented with corroborating investment outside the formal system that will attract children (and convince parents) from a very early age to S&T subjects. In Malta subject choices (that will determine future career paths) are made already at the age of 12 and hence it is important that by then children have been exposed to S&T in both their formal and informal education streams. In the next 10 years, at least, the (formal, non-formal and informal) education systems and environments have to be *skewed* towards S&T to give the necessary boost to the system and ensure the desired outcomes.

Investments under this Axis will be complemented with human resource interventions through OP II (ESF). Moreover, actions under this Priority Axis will also be complemented by various national initiatives. There is evidence, since the beginning of the 2000s that R&I is starting to occupy a higher position on the national agenda. In the 2005 Budget, Government underlined the importance of R&I as a critical component towards the attainment of national competitiveness. In this regard, a number of actions are being taken, which include, a philosophical orientation whereby state-financed R&I will be directed towards value-added research in niche economic areas.¹³⁸ Two new projects (EuroMedITI and SmartCity@Malta) reflect a clear shift in the policy rationale from investments in S&T *per se*, to investments in S&T and research as drivers for innovation and economic growth. With an investment outlay equivalent to \$300 million, SmartCity@Malta will transform the Ricasoli Industrial Estate in Malta into a state-of-the-art ICT and Media business community based on the successful models of Dubai Internet City and Dubai Media City. SmartCity@Malta is the largest ever foreign direct investment in the ICT and media sectors ever made in Malta. This project will create the infrastructure to develop a self-sustaining township consisting of a total office space of 103,000m², besides other residential and lifestyle elements. This project is expected to generate some 5,600 jobs. The Government intends to

¹³⁶ EUROSTAT, 2008 data science and technology graduates by gender, graduates (ISCED 5-6) in Mathematics, Science and technology per 1000 of population aged 20-29.

¹³⁷ EUROSTAT, 2008 data, Mathematics, science and technology enrolments and graduates, students at ISCED levels 5-6 enrolled in the following fields: science, mathematics, computing, engineering, manufacturing, construction - as % of all students.

¹³⁸ "A Better Quality of Life," 2006-2010 Pre-Budget document, page 62.

keep making “smart” investments in the area, including a National Centre for Interactive Science which should address this gap of S&T friendly infrastructure and whose primary aim will be to continue to crack the existing psychological (often perceived to be too difficult) and cultural (parents’ perceived appropriateness of such subjects, especially for girls) barriers against the take-up of S&T subjects and encourage even “average” ability pupils to embrace S&T as the future.

Objectives

The specific objective of Priority Axis 1 is that of supporting Malta’s efforts in becoming a knowledge-based, competitive economy. The operational objectives of this Priority Axis are:

- To promote and strengthen high value-added economic activity (including attraction of FDI) through investments in enterprise-support infrastructure including industrial facilities;
- To support the re-structuring process of local industry and its move towards a competitive knowledge economy, promote entrepreneurship and facilitate access to finance;
- To undertake a number of *smart investments* in the knowledge infrastructure;
- To support S&T related investments in the formal and informal education streams, including infrastructure to increase the S&T cohort in the long-term;
- To undertake research projects within upgraded / new facilities.

Focus Areas of Intervention

Enterprise Infrastructure

A key factor in sustaining a growing, knowledge-based, competitive economy is the attraction of FDI. One of the key factors in attracting foreign direct investment is the availability of physical enterprise infrastructure. Notwithstanding the fact that Malta has invested significantly in industrial park infrastructure, the demand for industrial space still exceeds supply and most of the existing parks /estates require upgrading to cater for the shift to more high value-added sectors. With the exception of very few industrial parks, the general impression that such parks reflect is one of neglect. Amenities are, at best, basic. Moreover, most of the parks were designed and built in the 1960s and 1970s and cater for the labour-intensive industries of the time. The current supply of ‘factory space’ does not necessarily meet the requirements of high value-added industries, which are currently being targeted. As a result, investment in both general purpose and dedicated ‘factory space’ will be required to enhance the country’s attractiveness for investment. It is envisaged that given the space restrictions, considerations will be given to modular solutions providing flexibility of allocation and designed to client specifications.

The expansion of incubation and innovation facilities will also be supported. In order to address the current limitations of the KBIC, the expansion of incubation facilities would offer a broader selection of spaces ready for occupancy. Besides additional incubation space, the increase in scope of incubation facilities would facilitate collaboration and networking activities between firms building on technology transfer, academia and industry linkages as well as increased focus on the restructuring process from low value to high value added activities, including professional activities, arts and entertainment. The physical set-up of facilities to encourage R&I leading to eventual commercialisation of technology, is also important for the existent manufacturing companies, as well as, to attract new high value-added investment.

Other interventions foreseen under this Focus Area include the upgrading and embellishment of the common areas of industrial zones and existing estates and parks, particularly the road network within the estates. The proposed measures foresee investments in accessibility and general service infrastructure, establishment of community facilities and the improvement of the general state of the environment through upgrading and creation of open spaces and landscaping

improvement. Investment will focus on the embellishment of the public areas, with an emphasis on upgrading accessibility. Development will also focus on an aviation park as a contribution towards the development of national clustering and networking initiatives, aggregating economies of scale.

Aid Schemes to the Manufacturing and Service Industries

In order to support the re-structuring and the transition which many local enterprises need to make in order to be able to compete successfully both in the Single Market, as well as, in the global economy, investments in public infrastructure need to be complemented with specific aid schemes to support the individual firms. The grants will be tailor-made and designed to address the needs of Maltese industry, both manufacturing and services,¹³⁹ and its ability to comply with the specific context of the economy.

The grant schemes earmarked for manufacturing and services are not designed in isolation but will form part of a framework of activities that tie in directly with the measures that will be undertaken under this Priority Axis and other Axes within this OP as well as a number of Priority Axes under Malta's OP II, co-financed by the European Social Fund. The proposed measures will be designed to be compatible with the relevant acquis on state aid. The support measures and initiatives will be for a pre-determined and fixed duration and tied to a specific budget line. The schemes will seek to address a number of areas, including R&I, technology transfer, industry clustering and promotion of networking particularly between large and small/medium-sized enterprises, public-private partnerships and the concentration of enterprises, start-ups, the use of ICT and ICT propagation in firms, OHS, quality assurance, the development of new market initiatives, as well as, environmental enhancements and eco-innovation. In the latter regard, particular importance will be placed on aiding companies to use innovative technologies to reduce the environmental impacts of their activities and introduce environmental management schemes. Schemes to promote primarily energy efficiency¹⁴⁰ and the use of RES in enterprises will be financed under Priority Axis 4.

Financial Engineering

In recognition of the fact that the future of European competitiveness depends on an integrated, open and competitive financial market that covers risk capital and debt finance instruments, aid schemes to enterprise will be complemented by other measures that stimulate a "close to market" approach. On a national level, a number of instruments such as loan guarantees have been introduced and have been on the market for the past six years. The Government recognizes that the JEREMIE initiative provides an opportunity to strengthen the current Maltese SMEs support structure through access to finance. However, it is important to avoid competition between measures. Following an SME Financing Gap Assessment, under the *aegis* of the JEREMIE Initiative,¹⁴¹ as well as, consultations with local constituted bodies, a demand for a number of financial engineering products such as micro-credit seems to transpire. This assessment was proven to be right with a fast take up of the initial EUR 10 million that was allocated under the programme to a holding fund. This allocation was consequently topped up by an additional EUR 2 million. The Managing Authority has decided to confer the role of the JEREMIE holding fund to the European Investment Fund, by the award of a grant in accordance with Article 44(b) of the Council Regulation EC/1083/2006.

Investment in RTDi and RTDi-related Infrastructure and ICT

¹³⁹ Excluding tourism which will be dealt with holistically under Priority Axis 2.

¹⁴⁰ Minor actions within a comprehensive upgrade / innovation project will also be accepted under this Axis.

¹⁴¹ *Draft JEREMIE Interim Report for Malta: SME Financing Gap Assessment*, 15 January 2007.

Malta's interventions in terms of R&I will be driven by the ***National Strategic Plan for Research and Innovation 2007-2010***, which presents a vision for R&I as being at the heart of the Maltese economy to support value-added growth and wealth. Government financing and state intervention over the period 2007-2010 will focus on the areas designated as platforms of strategic importance.

In line with the ***National Strategic Plan for Research and Innovation 2007-2010's*** recommendation to **popularise science**, it is envisaged that active measures need to be undertaken in order to invest in educational infrastructure such as permanent specialised learning facilities to support a knowledge-based economy to **'Expanding Malta's Science, Engineering and Technology Human Capital Base'**. Considering the educational structure in Malta, whereby choices made in the early years of formation will influence the options available at post-secondary and tertiary level, efforts should be directed towards students at the initial schooling years (prior to the choice of subjects as area of specialization) so that they are drawn towards S&T subjects. This is what is needed to achieve the necessary increase in human capital base (and contribute towards the competitive, knowledge-based economy in line with the Europe 2020 Strategy). Due to recent and incremental Government and Structural Funds investments, Malta is increasing and improving upon its physical infrastructure with regards to laboratory space. These investments now need to be complemented with measures to attract more of Malta's children and youth towards S&T careers. Such measures could include softer measures such as campaigns as well as other actions such as the establishment of a science park, which would serve as a permanent interactive centre for pupils, students and their families in support of an increase in the take-up of S&T subjects at school and subsequently at University and MCAST.

Malta's objective in promoting R&I is to develop a *focused* approach based on platforms of strategic importance (described above), bearing in mind those countries' realities that do not support the development of a broad-based research sector or the pursuit of pure research for its own sake. Malta is taking a two-pronged approach towards the development of a thriving RTDi sector. The macro approach envisages the delineation of a strategic framework and the establishment of the underlying soft and hard infrastructure, including the build-up of the necessary human capital in which R&I will take root, and within which, actors in the system of innovation can interact and engage. On the other hand, a micro approach that looks closely at the actions of specific economic sectors both in the firm and non-firm sector.

Government believes that public sector investment in R&I must add value to the economy and society in terms of tangible business-driven research, innovative products, processes and services. Capacity must, thus, be directed towards establishing an enabling framework that will allow value-added R&I to flourish. Towards this purpose, Government has pledged to provide the infrastructural and supporting framework for R&I and also to upgrade and expand educational and training infrastructure in order to cater for the increasing and diversified needs in this sector. In this context, applied and basic research investments and activity must come together. Government, through the Malta Council for Science and Technology (MCST), will ensure that the required mechanisms are in place so as to ensure convergence and above all, coherence between diverse initiatives. The initiatives foreseen as 'potentially viable' may include, *inter alia*, the strengthening of Public Research and Laboratory Centres; the establishment of links between business and University; the strengthening of science popularization media which needs to be complemented by infrastructure, acting as learning environments that provide the opportunity for individual experience and skill development by virtue of means of interaction and experimentation rather than the more traditional conservative way of teaching S&T. In this regard, R&I projects will be eligible for financing under the RTDi focus area of intervention within this Priority Axis. Research on pilot actions and studies to promote a better understanding of the potential exploitation of RES will be eligible for financing under Priority Axis 4. Towards this purpose, the Maltese Government is thinking of promoting research in any RES technology which it believes could be suitable for the Maltese context or where Malta could provide the 'real laboratory environment' for research projects to develop technologies.

The strategic stance underlying Malta's economic vision of increased competitiveness necessitates a supply of knowledge workers. The education system, at all levels, needs to ensure that the appropriate investments (physical and in human resources¹⁴²) are made to encourage more students into scientific, technical and engineering disciplines. Special emphasis needs to be placed on secondary school students by inculcating in them the necessary desire and enthusiasm required to opt for and remain interested in such subjects. The objective of increasing the relative share of high value-added activity in economic output will transform the proportions of labour demand and increase the relative importance of more workers with tertiary and vocational qualifications in the targeted sectors. For this to occur, the educational infrastructure needs to expand its capacity, improve its quality, and increase its flexibility to respond to the ongoing need for change. This includes the expansion of the educational infrastructure (both in the public and in the private spheres), and the development or procurement of additional educational facilities and material required to achieve this transition. This Axis will focus on the expansion and upgrading of R&D and ICT facilities within, and targeting, the tertiary education (primarily University) system while Priority Axis 6 will be geared towards more general investments in the education system.

R&I interventions supported by this OP are complemented by investment in human resources supported by OP II (ESF OP), particularly those areas addressing issues such as: improving education and skills; increasing participation rates in the areas of S&T; support for the creation of employment opportunities arising in the R&D sector and training and re-skilling of employees in the private sector. This should be the way forward for Malta to move from its current position in the moderate innovators group to innovation leaders. Ultimately, both OPs operating together will not only result in achievements in the human resource related areas, but also contribute to the attainment of the targets set by Malta in the National Strategic Reference Framework and the National Reform Programme.

Summary List of Potential Interventions

- Investment in enterprise-support infrastructure including “factory space” geared for modern investments, industrial parks, the expansion of incubation facilities and the general upgrading (primarily improved accessibility) of industrial zones (the latter mostly housing local micro enterprises);
- Aid schemes to the manufacturing and services industries to, *inter alia*, support start-ups; invest in market operability; launch new or improved products or processes (including the development of prototypes); improve e-business activities to help local enterprises upgrade and match FDIs; as well as, adopt environmental-sensitive technologies, operating systems and processes;
- Provision and access to financial engineering products;
- Development of more integrated R&I policy approaches across Government, industry and academia;
- Investment in RTDi, ICT and other S&T related infrastructure in the formal and informal education set-up, to promote a high value-added knowledge economy and attract more pupils and students to S&T subjects.

Fund

This Priority Axis will be co-financed by the European Regional Development Fund (ERDF).

Financial Allocation

¹⁴² The human resources dimension is catered for under OP II, co-financed by the ESF.

The total funding for this Priority Axis amounts to €120,000,000, of which €102,000,000 represent the Community Funding.

Flexibility Facility

In line with Article 34(2) of the Council Regulation EC/1083/2006, the Government has decided to avail **of the possibility** to finance in a complementary manner and subject to the limit of 10 per cent of Community funding for Priority Axis 1, actions falling within the scope of assistance from the ESF, provided that they are necessary for the satisfactory implementation of the operation and are directly linked to it. The flexibility facility will be applied **only if required** and **will not necessarily reach the full 10 per cent**. The use of the facility will be monitored through the Structural Funds Database. In the case of this Priority Axis, the facility is being proposed in the case of small training/capacity-building components in the various projects, particularly since there will be a boost in education and R&I infrastructure, as well as, in the aid schemes which would not warrant a standalone ESF project or an intervention under an ESF training or employment scheme.

Table 4.1 - Output and Result Indicators

<i>Type of Indicator</i>	<i>Indicator</i>	<i>Target</i>
OUTPUT	• No. of new / upgraded industrial zone projects by the end of 2015	7
	• No. of SMEs benefitting from JEREMIE Financial Instruments	600
	• No. of projects (Direct investment aid to SME)	450
	• No. of enterprises assisted (Non-SMEs)	9
	• No. of RTD projects (core indicator)	15
	• No. of new / modernized specialized learning facilities constructed / refurbished	22
RESULT	• No. of new enterprises (local and foreign) / expansions in sites upgraded	25
	• No. of start-up businesses supported (core indicator) ¹⁴³	20
	• No. of SMEs launching new or improved product or processes	40
	• No. of SMEs improving their use of ICT for e-business	49
	• No. of SMEs improving their market penetration efforts	55
	• No. of SMEs assisted in environmentally sensitive technologies, operating systems and processes	15
	• No. of enterprises involved in networking and new collaboration with other businesses and	30

¹⁴³ The definition of start-ups in this scheme is 5 years since the scheme is notified under Article 6 of the Regional Aid Guidelines which defines start-ups as enterprises which are less than five-years old. This is being interpreted as 5 years from their registration date. Start-ups will be supported for a maximum of 2 years.



- academia (core indicator)
- % increase of students taking up S&T related studies at the vocational / higher education levels¹⁴⁴ at targeted intervention institutions 45
 - % increase of students registrations of S&T related studies at Secondary Level by 2015¹⁴⁵ 10
 - Investment Induced through JEREMIE Financial Instruments €51.5 M

¹⁴⁴ The number of students taking up S&T at vocational/higher educational levels, in the scholastic year 2006/2007 is of 1,185 students at the University of Malta and 1,907 at MCAST.

¹⁴⁵ The number of students registration S&T (Chemistry, Biology and Computer Studies) at Secondary level, in the scholastic year 2006/2007 is of 1,644 (Total for Junior Lyceums & Secondary Schools – Malta & Gozo Form III).

4.2 Priority Axis 2 – Promoting Sustainable Tourism

Background

Tourism contributes significantly to Malta's economic growth, employment and foreign exchange earnings. For this reason, it is important that Malta continues to attract its current level of tourism activity and in line with its tourism policy, move towards the limited growth scenario. The long-term target for tourism volume to the Maltese Islands is set at a peak of 1.5 million tourists per annum. This is considered to be the optimum target for Malta on the basis of improved occupancy levels in tourism accommodation and the destination's carrying capacity constraints.¹⁴⁶ The target is based on Malta's wish to attract more high-yield tourists, while reducing seasonality through further development and marketing of the tourism product, and capitalising on niche markets. Government's policy is that of developing sustainable tourism activity by focusing on the three pillars of economic wealth, environment and social impacts.

Government's strategy for tourism is highlighted in the *Tourism Policy for the Maltese Islands, 2006-2010*, and aims at providing an enriching experience for today's discerning tourist. While boasting of a mature tourism industry, structural changes are required to further economic activity through tourism. Malta's tourism product offer is composed of its sea and coastal formations, its culture, its people and its landscapes. The combination of all these in such a limited land mass is what makes Malta unique. To ensure a positive experience, Malta must improve its overall tourism product through better utilization, conservation, enhancement and presentation of its many assets, particularly the country's natural and cultural heritage, as well as through the provision of value for money for services by the private sector and by non-governmental organizations. Further efforts are required in enhancing the tourism package through quality improvements in both the physical product and services provided. This package should be well presented and communicated to potential tourists as something truly worth exploring and experiencing.

This strategic focus on the adoption of a segment-based approach to strengthen and increase Malta's share in the international tourism market, revolves around the branding exercise which aims to develop and disseminate a new strategic approach for tourism in Malta. The market segmentation approach identifies seven segments for the tourism industry; namely, the leisure and tourism operating; history and culture; meetings, international events, conferences and exhibitions; sports tourism including diving; English-language learning; Gozo-based holidays; and growth markets (such as cruise and stay, spa package stays, short-breaks etc). The segments chosen for this new marketing approach is the result of an examination of Malta's strong points when it comes to overseas marketing. During recent years, there has been a rapid shift from the approach which was traditionally based on promoting a product or service differently within diverse geographical boundaries, to one which is more globalised in nature. In addition, the market has also witnessed the emergence of strong destination brands traditionally reserved for tangible products rather than destinations. The recognition of these factors has led to the logical step of branding Malta which should also increase Malta's visibility overseas.

With regards to the demarcation between ERDF and EAFRD, ERDF will support initiatives in rural tourism only in so far as these are part of the national tourism strategy for niche markets in the tourism sector (marketing, branding and related activities). On the other hand, the EAFRD will target tourism activities implemented through small-scale infrastructure in rural areas and the marketing of tourism services relating to rural tourism at a local level.

Objectives

The specific objective of Priority Axis 2 is to promote a sustainable and competitive tourism

¹⁴⁶ Carrying Capacity Assessment for Tourism in the Maltese Islands, Ministry for Tourism, 2001.

industry able to achieve its potential for growth and re-affirm its central role in Malta's economic activity. The operational objectives of this Priority Axis are:

- To support the upgrading of the tourism product, particularly its cultural assets;
- To promote the Maltese Islands as a prime and diverse tourist destination beyond sun and sea niche segments;
- To improve the competitiveness of tourism and culture operators.

Focus Areas of Intervention

Product Development

Malta's tourism sector can only be competitive if the country dispels destination fatigue and remains vibrant. Competitive product development depends on investment in a number of areas to ensure that the physical environment is in concomitance with the high standard hotel and tourist facilities.

Research indicates that history and culture are primary motivators for tourists choosing Malta as their tourism destination, over and above weather and recreational considerations. The Maltese archipelago has one of the highest densities of cultural heritage sites in the world. The local landscape has been intensively exploited and reshaped by different civilizations for over 7,000 years, resulting in a rich array of archaeological, architectural and historical remains from different epochs. The country's cultural heritage resources include the oldest free-standing megalithic buildings in the world and a remarkable concentration of baroque art and architecture, some housing unique collections in the world, which cannot be exhibited and enjoyed due to lack of available/appropriate space. Malta's World Heritage Sites include a series of six megalithic buildings dating from the Neolithic period, the fortified capital city of Valletta, and the underground Hal Saflieni Hypogeum. Within this context, Maltese fortifications offer a unique and extensive wealth of historical significance. No other island in the Mediterranean basin has such a vast array of fortifications and their restoration and revalorization is an integral and focal part of Malta's cultural-tourism product. Priority interventions are required in Valletta, Vittoriosa, Mdina and the Citadella (Gozo) fortifications in order to avoid such heritage from being lost forever. The conservation, interpretation and restoration of cultural heritage is a top priority under this Axis.

There is also an increasing recognition of the need to conserve and protect the environment, not only as an end in itself, but also due to the strong linkages between environment and competitiveness, particularly sustainable tourism. Fourteen per cent of departing tourists rate Malta as *bad* or *very bad* from an environmental point of view.¹⁴⁷ The state of the roads, increasing urbanization, and low levels of cleanliness¹⁴⁸ are amongst the top environmental issues that give rise to varying levels of dissatisfaction to Malta's visitors. Malta's environment is therefore an integral part of the tourism product. There is a need to protect the general environment whilst, at the same time, addressing the product weaknesses identified. Apart from the Government, which has a key role to play, it is important for all to understand that the whole nation should make its contribution. The upgrading of the general environment including the upgrading of dilapidated areas should not be limited to central government but should also be undertaken by Local Councils, voluntary organisations and the private sector. The whole nation stands to gain if the environment is managed more appropriately.¹⁴⁹

Moreover, the extent of vegetation cover and natural habitats in the Maltese Islands has been drastically reduced over the years. The propagation of native woodland, other habitats and

¹⁴⁷ Survey on *'The Impact of the Environment on Tourism'* carried out by the Malta Hotels and Restaurants Association.

¹⁴⁸ Noise levels, hunting and trapping, landfills, bad odours, poor air quality and litter on beaches have also been highlighted.

¹⁴⁹ Other issues such as quality of roads and waste management will be addressed under other Axes of this OP.

related fauna offer the possibility of sustaining particular niches of the tourism industry, as well as, offer recreational and educational facilities to the public. In this regard, this Axis may also support the implementation of NATURA 2000 plans on sites that have a direct impact on the tourism industry as well as the upgrading of other sites of natural beauty and heritage, also within the context of tourism.

The participation of NGOs in the implementation of product development projects, particularly in the area of cultural heritage, will be encouraged. The Government believes that NGOs have an important role in the implementation of the tourism strategy. In Malta, tourism and culture are characterised by a strong and active presence of non-profit making organizations. These organisations are the custodians of important sites of cultural, heritage and natural value, all key assets for the tourism industry. They are experts in their respective fields of interpretation, study, and site management and generally hold a positive track record in being innovative (for Malta), and sometimes entrepreneurial in their field. Here lies an opportunity for tourism and for culture to make the most of these organizations to further develop these two economic activities. The participation of NGOs and local councils (the latter, particularly in the case of tourism zones projects) under this focus area will be encouraged.

Niche Market Development

Government's objectives include a better seasonal spread of tourist flows together with increased income generated through tourism which would sustain existing jobs and eventually create more and better jobs. Clearly, distinct efforts are required for Malta to diversify the traditional seasonal dependence. Malta has managed to penetrate the market in a number of segments with the result that tourists choose Malta for different motivations, primarily for a holiday but also for language learning, diving and to practice other sports, for conferences and incentives, for cruising, as well as, for experiencing and appreciating the country's wealth of cultural heritage. However, more effort is required to address the narrow perception of Malta as a mere '*sun, sea and sand*' destination.'

Indeed, investment planned for the 2007-2013 period will meet the objectives to target diverse segments such as leisure and tour operator business; cultural tourism; meetings, incentives, conferences and exhibitions (MICE);¹⁵⁰ the language learning segment; sports and in particular diving tourism; Gozo-based tourism and other growth niche markets (including health tourism,¹⁵¹ film production, cruise and stay, short breaks and vacation ownership). Investment in the development of niche markets will also stimulate the promotion of Malta as a venue within regional and sub-regional-based travel programmes. This is particularly relevant in attracting visitors from long-haul destinations. This segment has a very rich product-base which, however, requires improved interpretation and investment in facilities supported by a good marketing campaign.

The country needs to move away from the traditional image of Malta as solely an island providing a '*sun, sand and sea*' destination. The new image must be based on a promise which the country can then deliver to its visiting tourists. Towards this purpose, the policy over the coming years will be that of position Malta in the overseas markets whilst adopting initiatives which will ensure the delivery of the promised product.

¹⁵⁰ MICE is an important means of linking tourism marketing to other sectors, such as current and future FDI in IT, pharmaceutical production and other relevant sectors.

¹⁵¹ Unlike mass tourism, health-related tourism has a narrow focus with emphasis on personal care, reputation of service providers, service quality and consumer satisfaction. Health-care tourism in Malta can be motivated by several considerations. Malta enjoys a relatively good reputation in the field of medicine with top medical personnel. It offers a strategic location, and cultural amenities which may be particularly attractive to tourists seeking medical services; availability of a healthy international cuisine, together with a mild climate, good infrastructure and excellent connections from most European cities.

The elements of Malta's attractiveness should be regarded as additional bonus factors since it needs to be appreciated that Malta is also a bustling, sophisticated metropolis with numerous possibilities for recreation and an unparalleled historical heritage. Malta's strengths are its heritage, its diversity and the hospitality of its people. The measures will consist of a number of actions which will enhance the Maltese Tourism product, including the production of materials and communication products to be marketed both locally and abroad. On a local scale, it will have the aim of inculcating the economic and socio-cultural value of tourism in Malta. To the outside world, through marketing aired in different parts of the world, it will have the aim of placing the Malta experience strongly in the tourists' minds as a preferred destination for heritage, hospitality and diversity. The Island of Gozo will also be marketed as a unique rural destination offering a distinctive experience, whereby visitors can get away from it all and be in touch with nature while having the possibility to engage in a number of relaxing activities.

The island of Gozo is popular for its tranquillity and its distinct natural heritage. Through its unique sites, Gozo offers potential for the overall tourism product. Apart from its natural endowments, Gozo is also rich in cultural heritage which dates as back as the Neolithic times. All this potential will be further strengthened by various Government initiatives, which will aim to improve the quality of the Gozo product, thus rendering Gozo as an enticing all-year-round location for both foreign and domestic tourists. The effort invested by the public sector will be complemented by further investment by the private sector.

The potential of domestic tourism for Gozo will also be tapped, in order to ensure a steady flow of Maltese visitors to the Island not only during the peak season but also in the lean and shoulder months. The effort by the public sector will be complemented by further investments in these areas from the private sector.

Aid Schemes to Tourism/Cultural Undertakings

Tourism service providers are a critical component to the overall objective of this Priority Axis. Maltese tourism enterprises operate in a highly competitive environment. Malta contends with destinations which are not only better known and which invest heavily, but also enjoy the benefits of economies of scale and/or lower cost structures. Maltese tourism enterprises need support in order to be able to sell a more competitive tourism offer. Assistance to the private sector needs to be directed towards stimulating and directing investment aimed at improving the quality of the service being offered and leading to greater profitability through affordable reductions of operational costs. In order to be competitive, tourism enterprises must improve their cost structures and adopt a more entrepreneurial approach. To achieve this, tourism enterprises must be encouraged to be more innovative in the way they conduct business, in their thinking and planning processes and in their investments.

A number of aid schemes will be developed to support the competitiveness of tourism enterprises. These schemes will mainly, though not exclusively, support SMEs^{152 153} and will aim at strengthening the sectors' competitive advantage, promote R&I, increase use of ICT and e-business, enhance quality assurance to complement product development, and encourage sound environmental practices and enhancements. The schemes will have a two-fold approach towards the development of tourism operators in Malta. They will provide assistance aimed at generating new and better employment potential and therefore directly affect the quality of life of the resident population. They will also aim at achieving a quality leap in terms of the tourism product offer by

¹⁵² Where state aid will be offered to large enterprises, the projects' assessment will include an evaluation of the local effects of the project in terms of the employment and supply chain.

¹⁵³ Undertakings which offer farmhouse accommodation for tourists will be eligible for ERDF funding and as such will not be treated as agri-tourism which falls under the remit of the EAFRD programme. The term farmhouse is a marketing tool used to promote rustic accommodation. There is therefore no direct link between 'farmhouses' and farming or agriculture. Farmhouses are licensed by the Malta Tourism Authority under the category of villa or villa with pool and due to this licensing standard, they are considered standard tourism accommodation facilities, similar to other accommodation facilities. They are also subject to regulatory standards within the MTA enforcement unit.

means of securing the absorption of new technology; stimulating research and development and technological applications in the industry; encouraging sustainable use of resources and strengthening the synergies between environmental protection and growth; as well as, supporting operational and management processes and procedures leading to quality-assured business practices and overall competitiveness. In this context, aid schemes to large tourism enterprises will, *inter alia*, focus on granting aid to improve the supply of tourism services through new higher added-value services and to encourage new, more sustainable patterns of tourism.

Complementary to assistance being provided to tourism service providers, enterprises operating in the culture sector will also be granted support to further develop the creative industry. Grants to culture enterprises will be connected to the development needs of the different art forms within the cultural sector. Intervention will be linked to the aim of increasing the skills of cultural operators with a view to enhancing their professional development. In the majority of cases, these enterprises are micro enterprises requiring assistance to improve their culture product offer and invest in human resources. Through the creative industry, Malta has the potential to create opportunities for young artists not only in terms of broadening and increasing access to high-quality arts and cultural events, but also in terms of job creation. Malta's contemporary artistic activity and the organisation of regular events that promote Malta as a worthwhile experience rather than just any another destination, will also be supported. With regards to large enterprises, aid will focus upon improving the supply of cultural services through new higher added-value services.

The grant schemes envisaged within this Priority Axis will be implemented under the relevant block exemption and *de minimis* rules. The schemes earmarked for tourism are not designed in isolation but will form part of a framework of activities that tie in directly with the infrastructural measures that will be undertaken and also with a number of measures undertaken under the relevant Priority Axes of Malta's OP II, co-financed by the European Social Fund.

Interventions envisaged under this Priority Axis will be supported with other actions financed under OP II, to address skills mismatches in the tourism sector, given the objective of sustaining existing jobs and creating new job opportunities in the sector. Focus will be placed on investment in human capital through the promotion of continuous professional development within the tourism and culture fields, as part of the effort of improving the quality of the tourism product and therefore, also strengthen the sectors' overall competitiveness.

Summary List of Potential Interventions

- Investment in the upgrading of the Maltese (and Gozitan) tourism product across all identified tourism niches and segments, including, *inter alia*, upgrading of coastal areas; enhancement of tourism zones and specific areas as defined by the Tourism Policy; restoration of fortifications, restoration and revalorization of cultural sites; and nature protection interventions (including implementation of NATURA 2000 plans¹⁵⁴) that impact on the tourism industry;
- Marketing of diverse tourism segments through marketing measures aired both locally and abroad;
- Aid schemes to tourism and cultural undertakings and non-undertakings.

Fund

This Priority Axis will be co-financed by the European Regional Development Fund (ERDF).

Financial Allocation

¹⁵⁴ The preparation of the Plans will be the remit of the EAFRD as outlined under Chapter 5 (section 5.4.6) of this document.

The total funding for this Priority Axis amounts to €120,000,000, of which €102,000,000 represent the Community Funding.

Flexibility Facility

In line with Article 34(2) of the Council Regulation EC/1083/2006, the Government has decided to avail of **the possibility** to finance in a complementary manner and subject to the limit of 10 per cent of Community funding for Priority Axis 2, actions falling within the scope of assistance from the ESF, provided that they are necessary for the satisfactory implementation of the operation and are directly linked to it. The flexibility facility will be applied **only if required and will not necessarily reach the full 10 per cent**. The use of the facility will be monitored through the Structural Funds Database.

Table 4.2 - Output and Result Indicators

<i>Type of Indicator</i>	<i>Indicator</i>	<i>Target</i>
OUTPUT	• No. of assisted tourism and cultural projects (core indicator)	20
	• Surface area of rampart elevation plan restored (m ²)	150,000
	• No. of marketing measures to penetrate/develop new/established niche markets	2
	• No. of projects implemented by enterprises	110
RESULT	• % overall increase in the number of paying visitors at upgraded sites ¹⁵⁵	4
	• % of total tourists visiting upgraded cultural sites ¹⁵⁶	14%
	• % average increase in tourist departures for the established niche segments ¹⁵⁷	3
	• No. of enterprises adopting new products and processes ¹⁵⁸	90

¹⁵⁵ Baseline for 2006: 41,434 (4% of 1,035,844) based on Heritage Malta figures i.e. Total Heritage Malta Paying Visitors 2006 – 1,035,844.

¹⁵⁶ Total number of Tourists (2007): 1,243,512.

¹⁵⁷ Total Tourists for 7 niche segments (2007): 1,139,930

¹⁵⁸ Based on identified intervention areas for projects implemented by enterprises and assisted by ERDF (schemes).

4.3 Priority Axis 3 – Developing the TEN-T

Background

Malta's transport infrastructure is a key element in the functioning of the economy's internal and external trade. As an island on the southernmost periphery of the European Union, Malta is highly dependent upon timely and regular connections for both goods and passengers to European ports and airports and an efficient distribution on the national network. The Ten-T network in Malta consists of 51 kms of road network, four ports (Valletta, Marsaxlokk and Cirkewwa, in Malta and Mgarr in Gozo) and one airport. Irrespective of its territorial constraints, Malta's resolve is to make the best from the development of international gateways and national transport systems. This is primarily envisaged through the upgrading of the road network, ports and other physical support infrastructure, which will increase the connectivity of Malta on the international level and improve the backbone transport infrastructure, with a view to bolster competitiveness and improve the quality of life of citizens and visitors.

Strategic connectivity between Malta's main towns is a vital element of creating a successful knowledge-based economy. Indeed, transport connectivity is a key asset in successful urban areas, in terms of the functioning of their economy. Journey time reliability boosts productivity and competitiveness, and is also a critical factor in attracting investment. Moreover, the economy is becoming increasingly dependent on the service sector and, in particular, on tourism. In a highly competitive tourism market, a poor perception by the visitor of a country's transport system can, in the medium to the longer term, cause irreparable damage to the tourist industry and, through the multiplier effect, to the economy as a whole. The upgrading of the road network will also have a direct bearing on the quality of life of the citizens. The high level of urbanisation creates many problems with the traffic, and as a result, traffic jams are a frequent phenomenon in the Island. Moreover, the road network was originally designed and constructed to accommodate light traffic volumes. An increase in the traffic loads and axle-weights of vehicles using the roads, has resulted in significant structural damage being caused to critical sections of the network. Government has set ambitious targets with regard to road safety which will require upgrades in the network and increased safety measures. With a view to optimizing TEN-T infrastructure, considerable funds have already been allocated by Government, under Cohesion Policy 2004-2006. These funds cover around 15 per cent (8 kilometres) of the TEN-T road network that requires upgrading.

In addition, being an island, Malta is highly dependent on air and maritime transportation. Limited space puts barriers on the potential of the country's ports. Shipping activity has increased considerably over the last fifteen years. However, apart from Freeport development, port infrastructure, has to date, remained as it was 15 years ago. Ongoing surveys and geotechnical investigations have revealed structural damage and deterioration to most maritime infrastructure around the Maltese Islands, which warrant extensive interventions, upgrading, and in some cases reconstruction to cater for today's port business. Increased port traffic and the provision of new maritime ancillary services that provide added value to the Maltese economy, is conducive to a situation, which, given the present state of port infrastructure, in terms of capacity and quality, can no longer be considered sustainable. Moreover, given that the country is an archipelago, inter-island transport is critical to the overall development of the Islands, mainly Gozo. Gozo's accessibility is completely dependent on Malta-based channels. The primary modal form of accessibility remains the ferry service between Mgarr and Cirkewwa. This accounts for all vehicular access to the island of Gozo, all freight transportation to address Gozo's requirements, and all residents' and tourists' traffic between the islands. During recent years, investment has been directed at upgrading the port infrastructure and facilities particularly in Mgarr, Gozo. However, more investment is required, particularly in the port of Cirkewwa (Malta), to improve the quality and efficiency of the inter-island connections and ensure adequate port capacity.

Objectives

The specific development objective of Priority Axis 3 is to optimise the connectivity of the Maltese Islands both domestically and internationally. The operational objectives of this Priority Axis are:

- To improve journey time reliability and road safety through upgrades to parts of the TEN-T road infrastructure;
- To improve maritime accessibility (also inter-Island) by upgrading TEN-T ports and the related infrastructure.

Focus Areas of Intervention

Road Transport Links

Strategic connectivity between the Islands' main towns is a vital element of competitiveness. Improved linkages to population centres, areas of employment, tourism and industrial areas; and better journey time reliability will help boost productivity and competitiveness, increase access to markets and attract inward investment. While considerable improvements of the network have already been undertaken using 2004-2006 Cohesion Policy funding and also national funds, this Priority Axis will see the continuing improvement of the backbone road with particular attention being given to alleviate bottlenecks along the network. In terms of competitiveness, this will translate into an enhancement of the local manufacturing industry through the achievement of better access to the ports, thus reducing operating costs for transport operators; support the maritime industry through better access with the Sea Passenger Terminal, Cruise liner Terminal and the Deep Water Quay and obtain safer and faster access to the International Airport at Luqa.

The upgrading of the TEN-T roads is also a necessary precondition for an improved quality of life of the Maltese citizens. Interventions are envisaged to enhance the flow of traffic which will result in a reduction in journey time and improved road safety for motorists, through the enhancement of road infrastructure and the setting up of new street furniture. In line with the European objective for road safety, Government also aims to reduce the number of injury accidents. In order to reduce the incidence of road accidents resulting from poor road infrastructure, design or condition (particularly at accident black spots), and water run off (caused by the typical flash floods in Malta), an upgrade is required in the road geometry, surface and signage. In a bid to sustain modal shift, investment under this Priority Axis will also support the provision of public transport priority measures along the network and improve facilities for pedestrians and cyclists through the provision of footways, crossings, subways, bridges and bicycle lanes. Moreover, improvements in the road surface are also expected to dramatically reduce the noise generated from vehicular traffic, which is currently very high due to the uneven surface. The noise generated from vehicular traffic can also be reduced through the introduction of noise barriers along the TEN-T network. An upgrade of the road network would also entail improvements in the roadside environment, with better landscaping and the planting of trees and shrubs that absorb some of the impact of traffic on the adjacent urban and rural areas.¹⁵⁹

Investments under this Priority Axis will be complemented with further investments in the road network (non-TEN-T), using the ERDF (under Priority Axis 6) and also national funds in order to ensure an integrated approach, which results in the improvement of the whole network, including arterial, distributor and residential roads. In the latter regard, the Government is making efforts towards addressing transit challenges that Malta is currently facing. During the last few years, the Government has stimulated and implemented a Vertical Connection project, the Sea Ferries, the free Park and Ride scheme, Controlled Vehicle Access and the Electric Taxis which all form part of the accessibility strategy for Valletta and Floriana, published by the Cabinet Committee for National Projects in 2005.

¹⁵⁹ Careful attention will be paid to ensure that TEN-T infrastructural interventions will be concentrated on existing roads and will not take up rural land, except where there is no other feasible alternative.

Maritime Transport Links

The geographic discontinuity and the difficulties arising from Malta's insularity cannot be emphasised enough. The fact that socio-economic activity depends primarily upon maritime freight and the increasing importance of passenger transport by sea, highlights the critical importance of investments in Malta's seaport infrastructure and in adequate connectivity to the European Motorways of the Sea. Moreover, sea travel is the main mode of transportation between the two main Islands, Malta and Gozo.

In a bid to enhance merchandise trade capacity and stimulate additional economic competitiveness, Cohesion Fund investment is to be channelled into the refurbishment and upgrading of existing port infrastructure. Without such investments in ports, Malta risks that in the near future, its ports will no longer be in a position to handle current and future traffic volumes, thus, resulting in high risks of losing established niche markets such as cruise-lining and transshipment of cargo. This will severely impact on Malta's competitiveness and the quality of life of citizens given that the country is highly dependent on imports to survive. The initiatives under this Priority Axis will include the upgrading of basic port infrastructure such as breakwaters and quays in the Marsaxlokk and Valletta harbours, as well as, investment in port infrastructure in Gozo to attract more business to Gozo.

Interventions are also envisaged to further develop the sea port infrastructure with a view to enhance inter-island connectivity. Government is committed to invest in the ports of Cirkewwa and Mgarr to cater for improved accessibility, so as to reduce the insularity of the island of Gozo and promote its economic activity. The final phase of the infrastructural development related to inter-island transport consists in the construction of a passenger/vehicle terminal at Cirkewwa to complement facilities at the port of Mgarr. The proposed terminal would provide minimum but adequate facilities that would streamline passenger and vehicle traffic, reduce ferry downtime operations and further facilitate the transfer of excursion tourists to Gozo. This will also contribute to an improved quality of life of citizens and visitors, particularly those that need to cross the channel on a daily basis.

Major Projects

Improving the TEN-T Road Infrastructure

Malta's TEN-T route, identified in the TINA study (2002) will be upgraded to contribute to the economic and social needs of the Islands. Seven priority projects have been identified in the project pipeline for Cohesion Policy 2007-2013. These are aimed to improve existing road transport infrastructure links to the Grand Harbour, the International Airport at Luqa, and the island of Gozo. In particular, works will consist of improvements on stretches of the network aimed at providing better access to the Sea Passenger Terminal around which there is a high rapid increase of concentration of commercial interest, economic activity and sea passenger traffic movements and improvements to the strategic link between the Air Freight Terminal and the Marsa Industrial Estate as well as the network works are also being planned in the Northern part of the TEN-T network to improve access to the Ferry Terminal at Cirkewwa, as well as, the road network from the Ferry Terminal at Mgarr Harbour to Victoria in Gozo.

The planned works will be divided into two phases. The first phase consists in the improvement and widening of various parts of the network, as well as, improvements to the other road user and road-side environment. These projects will complement completed improvements to road infrastructure co-financed by Cohesion Policy 2004-2006.

The second phase is earmarked for implementation between 2012 and 2015. The set of projects that will be financed through this phase of the 2007-2013 Programme, will aim to enhance the capacity, safety and efficiency of strategic nodes of the network.

Summary List of Potential Interventions

- Upgrading of road transport links within the context of the TEN-T network;
- Refurbishment and upgrading of existing TEN-T port infrastructure.

Fund

This Priority Axis will be co-financed by the Cohesion Fund.

Financial Allocation

The total funding for this Priority Axis amounts to €145,000,000, of which €123,250,000 represent the Community Funding.

Table 4.3 - Output and Result Indicators

<i>Type of Indicator</i>	<i>Indicator</i>	<i>Target</i>
OUTPUT	• KMs of roads upgraded (core indicator)	20
	• Sq m of new/refurbished infrastructure	57,889
	• Construction of new sea passenger terminal	1
RESULT	• % increase in satisfaction rate of transport operators/users ¹⁶⁰	10
	• Reduction in journey time (minutes)	10
	• % reduction in traffic accidents in the areas of intervention ¹⁶¹	10
	• % increase in cargo per annum (within intervention areas) ¹⁶²	2
	• % increase in sea passengers per annum ¹⁶³	2.5

¹⁶⁰ An attitudinal survey will be carried out immediately before and another after the completion of the road interventions with a view to assess the satisfaction rate of transport users and operators, based on a number of criteria, *inter alia*, road safety, comfort, landscaping, a safer pedestrianisation, etc.

¹⁶¹ Baseline: The number of injury traffic accidents registered in the TEN-T roads in 2005 is of 177 for Malta and 16 for the Island of Gozo.

¹⁶² Baseline: The total cargo tonnage in Valletta in 2007 was 2,373,078,. The total amount of cargo handled in Malta in 2007, excluding Malta Freeport Transhipment was 12,248,770.

¹⁶³ Baseline: The number of cruiseliner passengers in 2004 was of 291,821 and the number of passengers crossing between Malta and Gozo was of 3,512,400.

4.4 Priority Axis 4 – Climate Change and Resource Efficiency

Background and Targets

This Priority Axis aims to improve and strengthen Malta's mitigation and adaptation measures (strategies) in response to climate change as well as measures intended to ensure the best and efficient use of available resources.

Over the years anthropogenic (human) activities had a profound impact on the global climate. Climate Change, like any other issue related to sustainable development, is directly intertwined with economic and social concerns, apart from ecological concerns. The increase in greenhouse gases (GHG) into the atmosphere from human activities has caused a rise in temperatures; changes to rainfall patterns and sea levels (getting higher) as well as other extreme weather conditions resulting in storms and floods becoming more common and frequent.

Emissions due to anthropogenic activities are resulting in increasing atmosphere concentrations of GHG. These substances include carbon dioxide, methane, chlorofluorocarbons (CFCs) and nitrous oxide. Some gases are potentially more effective than others at changing climate. Carbon Dioxide (CO₂) is responsible for over half (63%) of enhanced man-made global warming; with one of the main sources of CO₂ in the atmosphere being the combustion of fossil fuels (coal, oil and gas). In Malta, various sectors contribute towards the GHG emissions with the energy and transport sectors being the major sources of CO₂ emissions. In case of the former, power generation and the resulting increase in CO₂ emissions is closely linked to the continuous increase in electricity demand. With regard to transport, land transport is the highest contributor to emissions due to the large number of private car usage. In this regard parallel interventions to promote modal shift are being implemented under Priority Axis 6 as well as from other (national) sources. A major catalyst for climate change action has been the European Union's proposal for an integrated energy and climate change package setting EU overall targets for reducing of GHG by at least 20% of 1990 levels, increasing use of renewable energy sources by 20% of the final energy consumption and reducing energy consumption by 20% of projected 2020 levels.

In the coming years CO₂ allowances to cover this level of emissions will be available and traded on the market through the European Emissions Trading Scheme. In essence, this implies that the cost of energy is no longer dependent only on the cost of fuel on the market and the cost of production but will also include the cost of CO₂ emissions (either through reduction measures or through the cost of CO₂ allowances to cover actual emissions). Within this framework and the overall objectives of the Operational Programme, this Priority Axis will finance actions that are intended to promote the generation of energy from Renewable Energy Sources (RES) and other measures intended to limit the need for energy inputs (e.g. energy minimisation) as well as energy efficiency actions.

Other GHGs are emitted, albeit in smaller quantities than CO₂, however, they all trap heat far more effectively than CO₂ does, in some cases by a factor of thousands of times, making them also powerful contributors to global warming. Methane is the next most common greenhouse gas after CO₂, followed by Chlorofluorocarbons and other industrial gases (which deplete the Earth's protective ozone layer) and Nitrous oxide, all contribute to 19%, 12% and 6% respectively of global warming from human activities.

Methane in itself is the primary component of natural gas and an important source of energy if properly managed. Thus in line with the objectives of this Priority Axis, technological options available to make use of a wide variety of biomass types as a renewable energy source will be explored. Energy has a significant impact on competitiveness and is an essential resource for industry. Thus, government is committed in exploring the sustainable provision of energy. In this regard this Priority Axis shall also consider studies that may be undertaken to investigate further a number of issues which could assist Malta achieve its climate change objectives.

Apart from actions intended to ensure Malta's competitiveness by ensuring that the current practices, such as water abstraction and the use of water resources are made more sustainable, this Priority Axis will consider financing adaptation measures to climate change. Adaptation measures are wide ranging, and these can be defined as the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects. Such adaptation measures can be carried out in response to (ex post) or in anticipation of (ex ante) changes in climatic conditions. It entails a process by which measures and behaviours to prevent, moderate, cope with and take advantage of the consequences of climate events are planned, enhanced, developed and implemented.¹⁶⁴ It entails behavioural changes to avoid giving rise to the need for actions that have the impact of generating GHG. Government is committed towards achieving these objectives through the implementation of policy measures in the coming years, to promote such behavioural changes which will directly impact on the generated GHG.

An increase in resource efficiency will be key in securing growth especially relevant for a small country like Malta, where resources are limited due to the islands insularity.

Objectives

The specific development objective of Priority Axis 4 is to promote mitigation and adaption measures to the effects of climate change together with the promotion of sustainable resource efficiency for increased competitiveness and an enhanced quality of life. The operational objectives of this Priority Axis are:

- To undertake studies in areas related to the objectives of the Priority Axis;
- To promote measures resulting in best use of available resources;
- To promote the use of RES and energy efficiency measures at all levels of governance, including the public, the non-governmental, the domestic and enterprise levels;
- Reduction in the use of non-renewable energy sources;
- To undertake investments intended to reduce GHG emissions.

Focus Areas of Intervention

Energy

Malta's strategy for the energy sector rests on the deliberations and recommendations contained in a number of documents for the energy sector, '**A proposal for an Energy Policy for Malta**',¹⁶⁵ a '**Renewable Energy Policy**,' the National Renewable Energy Action Plan (NREAP) and the National Energy Efficiency Action Plan (NEEAP) as well as other policy documents related to Climate Change including the National Environment Policy, the National Climate Change Mitigation Strategy and the National Climate Change Adaptation Strategy – Consultation Report.

In the context, the policy document '**A proposal for an Energy Policy for Malta**', Government is stressing six main policy areas for intervention in the sector: energy efficiency; reducing reliance on imported fuels; stability in energy supply;¹⁶⁶ reducing the emission from the energy sector;¹⁶⁷ efficient and effective delivery of energy supplies and support to the energy sector. Interventions

¹⁶⁴ Adapted from UNDP 2005, UKCIP 2003 and IPCC 2001.

¹⁶⁵ The National Energy Policy for the Maltese Islands was subsequently published in December 2012.

¹⁶⁶ In this regard Enemalta is also implementing two projects partly funded by the European Economic Programme for Recovery (EEPR), entitled *Electricity Interconnection Malta-Italy* and *Small isolated islands initiative*. The funding approved by the Commission for both projects is €20 and €5 million respectively.

¹⁶⁷ This OP originally was intended to support national initiatives through a project which consisted of the modification and application of best available technologies to the boilers at the existing Delimara Power Station with a view to improving air quality and bring it in line with emission standards required by LN 329 of 2002, transposing Directive EC/80/2001. Since as at February 2011, there was no formal state aid position by DG-COMP, interim mitigation measures were successfully implemented and the plant is now compliant with the Large Combustion Plant Directive (LCPD).

under this Priority Axis are focused on the reduction of our reliance on imported fuel through the active promotion and increase in use of renewable sources as well as the promotion of Energy Efficiency measures.

Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources requires that Member States should achieve a share of energy of the gross final consumption from renewable resources. As per Annex I Malta has the obligation of achieving a 10% target for share of energy from renewable sources in gross final consumption of energy by 2020. This includes energy consumed in transport, electricity, heating and cooling. Article 4 of the Directive defines the requirement that each Member State shall adopt a National Renewable Energy Action Plan (NREAP) indicating the local measures for energy from renewable energy sources as well as energy efficiency strategies and any other measures required including cooperation with other Member States in joint projects, statistical transfers, joint support schemes as well as joint projects with third countries.

The role of EU funds in supporting EE and RES is first of all to reward their environmental benefits in comparison with conventional power sources (which have been receiving heavy subsidies for an extensive number of years). Second, it helps overcome those barriers in the shape of various persistent market imperfections and lack of capital to cover the initial investment costs on the side of households, enterprises, voluntary organisations (VOs) and / or public institutions. In this regard, this Priority Axis will finance measures identified in the NREAP that will contribute to Malta's achievement of its 10% target.

The funding support shall also act as a well-targeted catalyst stimulating the private sector, the public institutions, the non-governmental entities and households to invest more actively in increasing the energy efficiency of their buildings/companies and installing RE technologies for their energy demands.

Regarding efficiency in end-use, there are many initiatives currently underway to attain greater energy efficiency, including subsidies and support schemes by Government, which primarily target consumers, but also enterprises. These schemes will be enhanced and buttressed through funds allocated under this Priority Axis. Examples of eligible energy efficiency improvement will include the retro-fitting of measures and the financing of beyond-compliance measures for the new constructions that, *inter alia*, include heating and cooling systems (e.g. heat pumps and new efficient boilers); insulation and ventilation (e.g. wall cavity and roof insulation, double/triple glazing of windows, passive heating and cooling); hot water (e.g. installation of new devices, direct and efficient use in space heating and cooling); lighting (e.g. digital control systems, use of motion detectors for lighting systems in commercial buildings); new efficient devices, heat recovery systems; other equipment (e.g. time control for optimised energy use, stand-by loss reduction, installation of capacitors to reduce reactive power, transformers with low losses); domestic generation of renewable energy sources, whereby the amount of purchased energy is reduced. In particular, an energy efficiency information programme is being put up in order to create awareness on efficiency in all energy applications and to provide access for the user to the right information, at the right time. Moreover, Government will continue to lead by example through the adoption of energy efficiency practices in the public sector.

In the RES sector, Government aims at establishing decentralized systems of power generation with small and medium-scale, environmentally-friendly RE facilities. In line with the Lisbon objectives, one of Malta's most important aims is that of ensuring long-term energy supply by taking advantage of RES. Apart from contributing to security of supply, it is regarded as a sound policy option towards promoting environmentally-friendly energy production and also contributes to a reduction of greenhouse gas emissions that are associated with climate change. However, owing to certain natural and territorial characteristics and circumstances, not all countries are able to reap the benefits of RES to the same degree. The possibility of large scale offshore wind farms at depths greater than 50m is currently being examined. In this regard pilot actions intended to explore and to promote a better understanding of the potential exploitation of RES will

be eligible for financing under Priority Axis 4. Towards this purpose, the Maltese Government shall consider promoting research in any RES technology which it believes could be suitable for the Maltese context or where Malta could provide the 'real laboratory environment' for research projects to develop technologies.

On the ground, an array of incentives were introduced (including the introduction of a feed-in-tariff) in order to promote RES-generation among households and economic players, including the private sector, particularly in relation to solar (photovoltaic systems) and micro-wind generating systems. In the latter regard, a number of administrative and planning barriers associated with electricity generated from RES have been reduced. In addition, Government is supporting and enhancing the scope of such initiatives, on a national scale, through the introduction of tax incentive measures for the promotion of biofuels, whereby the biomass content in biodiesel is exempt from excise duty. As is the case with energy efficiency, Government will also introduce projects promoting RES within the public sector. In promoting and managing the introduction of RES, Government will seek to ensure that the quality of life of citizens is not compromised. The different renewable energy technologies all have different impacts on the environment and the quality of life and, as such, they need to be assessed individually. This Axis may co-finance studies and assessments with regard to potential national energy efficiency and RES projects.

Information dissemination and educational information campaigns on sustainable energy use in general and on policies promoting RES are considered important elements in meeting the energy challenge. Towards this purpose, publicity and educational information campaigns to support measures related to RES and energy efficiency as part of a project or a scheme will be eligible for financing under this Axis.

A number of the measures eligible for co-financing under Axis 4 are underway and Malta is already reporting their progress in both the National Renewable Energy Action Plan¹⁶⁸ and in the National Energy Efficiency Action Plan.¹⁶⁹ Government, through the ERDF funds, launched two schemes to subsidise the costs for the purchase of RES and EE technologies within both the domestic and the business sectors. In addition, the NREAP is also reporting that part of the electrical PV production has been achieved through a number of projects, some of which are ERDF-funded.

Apart from direct support under Priority Axis 4, RES and EE are implemented as part of other projects financed through this Operational Programme (any investments of Cohesion Policy funds in new/refurbished buildings will, wherever possible, integrate energy-saving measures and RE technologies in the project design).

Resource Efficiency

Natural resources underpin the functioning of an economy (competitiveness) and the quality of life of people. These resources include raw materials such as fuels, minerals and metals but also food, soil, water, air, biomass and ecosystems. Continuing our current patterns of resource use is not an option. Using resources more efficiently will be key in making progress to deal with climate change and to achieve our targets of reducing GHG emissions. Interventions under this Priority Axis will focus on biomass and water resource efficiency as well as measures for the promotion of energy efficiency in order to ensure the achievement of Malta's 2020 targets.

The increased demand in energy and the high cost for natural gas and oil has heightened the interest in alternative and renewable energy sources. Animal manure is an example of such a potential source of energy biomass. Malta's approach to RES will employ a combination of the most energy efficient technology best suited for Malta. Such choice will be geared at exploiting

¹⁶⁸ National Renewable Energy Action Plan Report of July 2010.

¹⁶⁹ 2nd National Energy Efficiency Action Plan of June 2011.

potential energy biomass sources such as animal manure whilst simultaneously mitigating possible environment effects associated with manure.

Government is exploring the possibility of relocating a number of dairy cattle farms from urban areas to agricultural zones. The zone is planned to be home to the farm cluster as well as a manure treatment plant, with a capacity to receive circa 42,000 tonnes of manure generated from the surrounding farms. The measure is not only contributing towards a rehabilitation of the urban environment through the removal of the nuisance effect but could also contribute towards isolating a specific waste component that, if treated appropriately, can generate biogas whilst improving the quality of sewage in the public network and hence assisting in the treatment of sewage effluent, potentially improving the quality of the resultant treated effluent.

The current process for manure storage and application is associated with significant impacts on the environment, including climate change due to the GHG emissions. Greenhouse gas emissions are released from the manure heaps and the improper management of manure. The long-term storage of manure also causes pollution of the groundwater. However, if properly treated, manure produces biogas which is an important source of energy that cannot be overlooked. Considering that Malta has been given a very ambitious target of 10% of the share of energy generated from renewable sources in gross final consumption of energy by 2020, it is of extreme importance that any resources that generate energy such as solar, wind and co-generation in waste to energy projects, are exploited to the maximum possible extent. The renewable energy generated, replaces the use of fossil fuels and reduces the overall quantities of greenhouse gasses emitted into the atmosphere as a result of electricity generation.

Another Government target within the water resource efficiency objective is the potential re-use of treated sewage effluent. In Malta 56%¹⁷⁰ of water is produced through SWRO plants. Whilst desalination provides a solution to the water supply problem, it is undoubtedly energy intensive. It is estimated that over 40%¹⁷¹ of all water in Malta is consumed for non potable usage. Following the completion of the waste water treatment plant in the South of Malta, which is financed under Priority Axis 5 of this OP, all of Malta's sewage is now being treated prior to disposal. This resource, if further treated can replace the non-potable portion of potable water used as well as provide an alternative source to some of the direct extraction of groundwater. In this regard tests have already been undertaken and based on 2010 figures, the specific energy consumption of the SWRO production was 4.65 kWh/m³. A pilot project which undertook tests on highly polished reclaimed water shows that in a worst case scenario (where salinities near 11,500 µS/cm), the specific energy consumption that would be expected would amount to 1.5 kWh/m³. This means that by supporting the further treatment of sewage effluent, not only would Government be maximizing its current resources, but also registering a saving of about 3.15kWh/m³ when compared to the energy required by SWRO plants for the same volume of water. In the light of the existing water deficit as a result of the groundwater depletion, this Priority Axis, in line with Government policy, shall seek to support actions aimed at the further treatment of treated sewage effluent (TSE) in order to make use of an available resource. Pilot projects and studies in this area can also be considered for co-financing under this Axis.

Summary List of Potential Interventions

- R&D&I actions (including pilot actions) and studies in relation to Climate Change and Resource Efficiency;
- Schemes for RES and energy efficiency for various players, including households and enterprises;
- RES and energy efficiency projects for public; public equivalent; and NGO buildings;
- Educational information campaigns to support measures related to RES and energy efficiency interventions under this Axis;

¹⁷⁰ WSC Annual Report 2010

¹⁷¹ FAO – Malta Water Resources Review (2006)

- Actions (equipment, infrastructure and accompanying soft measures) that seek to make better use of resources available (including the further treatment of TSE for further use) and lessen GHGs;
- Infrastructures for the generation of RES from natural source (including animal manure).

Fund

This Priority Axis will be co-financed by the European Regional Development Fund (ERDF).

Financial Allocation

The total funding for this Priority Axis amounts to €105,000,000, of which €89,250,000 represents the Community Funding.

Flexibility Facility

In line with Article 34(2) of the Council Regulation EC/1083/2006, the Government has decided to avail of **the possibility** to finance in a complementary manner and subject to the limit of 10 per cent of Community funding for Priority Axis 4, actions falling within the scope of assistance from the ESF, provided that they are necessary for the satisfactory implementation of the operation and are directly linked to it. The flexibility facility will be applied **only if required and will not necessarily reach the full 10 per cent**. The use of the facility will be monitored through the Structural Funds Database.

Table 4.4 - Output and Result Indicators

<i>Type of Indicator</i>	<i>Indicator</i>	<i>Target</i>
OUTPUT	• No. of projects dealing with Resource Efficiency	1-2
	• Annual penetration rate of installed PV and micro-wind starting in 2008 (kWp/annum)	18,000
	• No. of RES /energy efficiency schemes	2-3
	• No. of studies	2
	• Solar Water Heaters - m ² installed	1,500
	• No. of RES Projects (core)	30
RESULT	• Total annual electricity generated from small scale PV and micro-wind installations (MWh/annum)	24,000
	• Total energy savings per year (MWh/annum)	10,000
	• Reduction greenhouse emissions (CO ₂ and equivalents, kt) (core)	15
	• Additional water resources through further treatment of sewage effluent	5Mm ³
	• % decrease in energy consumed for volume of water treated ¹⁷²	50%

¹⁷² SWRO plants use 4.65kWh/m³

4.5 Priority Axis 5 – Safeguarding the Environment and Risk Prevention

Background

As a small densely populated and highly urbanised island economy in the Mediterranean, Malta faces wide-ranging environmental challenges including the management of its waste streams, solid and liquid, as well as in the area of water quality. Apart from the deadlines concerning compliance with EU directives, the issue of environment infrastructure has a heavy bearing on Malta's competitiveness, particularly in the tourism sector, as well as on the quality of life of its citizens. Although various initiatives have already been undertaken to upgrade Malta's environment infrastructure, more work needs to be done to achieve sustainability in the environment sector.

The current waste management scenario poses several threats to the environment, due mainly to the heavy dependency on landfills. Landfilling is a very land-intensive option, a consideration that is especially problematic in Malta, given the small land area. When landfills are not properly managed, significant environmental problems ensue, including negative visual impact, emissions of toxic gases from spontaneous combustion of waste, vermin, odours and groundwater and marine contamination. In addition, potential risks to human health are not excluded. This problem is further exacerbated by the fact that Malta's waste management resources are limited, highlighting the critical importance of reducing the overall waste volumes and the recovery and re-use of raw materials. Moreover, Malta and Gozo were declared as a Nitrate Vulnerable Zone and thus, the old practice of depositing the manures on to arable land is no longer acceptable. Ongoing infrastructural projects financed through Cohesion Policy 2004-2006 and National Funds feature the control of emissions from the three main landfills of Maghtab, Qortin and Wied Fulija; the establishment of Bring-in-Sites and Civic Amenity Sites; and the upgrading of the Sant Antnin Waste Treatment Plant. An awareness and educational campaign is also being carried out. The main strategic direction with regards to waste management is to promote the increase of waste separation at source, set up various plants for the treatment of municipal solid waste and other wastes such as agricultural waste, receive technical assistance related to the treatment of various waste streams, implementing the treatment of hazardous waste in line with LN 168 of 2002 and develop the necessary waste-to-energy plants, and further the rehabilitation of closed-down landfills.

Flooding problems in Malta can be rather acute. By way of example, following the September floods in 2003, Malta benefited from funds under the Solidarity Fund to finance emergency measures in Malta to address repairs required as a result of the damages sustained. The problem is even more acute in certain areas of the Island such as the Birkirkara/Msida catchment area. The current storm water system, which is based on a network of culverts trenched in the streets, is not coping with the amount of storm water. Consequently, whenever it rains heavily, a large volume of storm water run-off is carried on the surface of the roads, which do not have a proper drainage system, and flows to the nearest valley or directly to the sea. In the process, large inconveniences are created for residents, the business community and travellers that normally use these routes for their day-to-day work as well as great losses of water which could be reused. The increased traffic also leads to late arrivals at places of work and therefore reduced productivity. Moreover, severe damage is made to the current infrastructure, such as the road infrastructure, water and electricity networks and the sewage system. Considerable damage is also made to agricultural land. Flooding also leads to damages of personal assets such as cars and houses. In addition, the flooding problem also has negative repercussions on economic activity. In fact, a number of businesses and showrooms have relocated in other districts which have less or no problems of flooding. Clearly, the current situation is untenable.

An analysis of the existing situation of the water sector in Malta shows that the Islands have been increasingly relying on sea water desalination as the major source of potable water, though a

variable extent of groundwater abstraction is still prevalent. Government is committed to providing high quality drinking water in accordance with the requirements of 98/83/EC. Malta's strategic direction in this area is to continue to upgrade relevant infrastructure, including reservoirs, sea water desalination efficiency and to continue to improve the drinking water quality through improved water supply systems. In terms of waste water, in line with EU Directive (Urban Wastewater), three waste water treatment plants, one in Gozo, another in the North of Malta and the third and largest plant in the South of Malta¹⁷³ have been completed and in operation. Approximately 66,000 m³/day of sewage is now being treated through the said plants. The further treatment of TSE is being considered as a resource efficiency measure under Axis 4, however, this Axis may co-finance actions aimed at strengthening the collection network through more advanced technologies. A new programme of works is currently being prepared.

Objectives

The specific development objective of Priority Axis 5 is to continue with the upgrading process of the country's environment infrastructure, particularly in the area of solid and liquid waste management as well as develop infrastructure related to risk prevention, in particular flooding.

The operational objectives of this Priority Axis are:

- To minimise landfilling of waste and to rehabilitate disused landfills, as well as, increase the capacity for waste treatment, energy recovery and recycling purposes;
- To undertake investments in water networks;
- To increase sewage treatment capacity in the South of Malta;
- To develop infrastructure to minimise the effects of storm water and reduce the incidence of flash flooding.

Focus Areas of Intervention

Solid Waste

In the waste management sector, waste minimisation remains a critical strategic objective. There is a need to minimise the effects of waste on the environment and society and to fully comply with EU Regulations.¹⁷⁴ Extensive awareness campaigns play an invaluable role in this regard. Malta's strategic vision also encompasses the possibility of exploiting waste as a potential energy source for electricity generation will be addressed both under Priority Axis 4 and 5. The overall aim is to reduce the amount of waste and divert the remaining residues for recycling, the recovery of resources and the efficient utilisation of waste for energy production. This Priority Axis not only foresees the continuation of investment in infrastructures for sound waste management practices, but builds upon the latter by enhancing through interventions to promote waste prevention. On a National level, and through the implementation of an updated Waste Strategy, the Government is exploring the possibility of introducing Producer Responsibility schemes. The very high population density in Malta, which is also the highest in Europe, imposes constraints for the development of landfills. Land use constraints in Malta make the use of landfills a far less

¹⁷³ The latter was constructed through funds under this Axis (current programming period) and will be completed in 2012.

¹⁷⁴ Statistical data of waste being generated in Malta shows that the average weight of MSW generated per capita is 1.0kg a day. This compares to rates per capita of the MSW generated in the EU. The high rate of waste generated is in the Inert Waste stream. This is mainly due to strong construction industrial activity and reflects the investment made to enable the efficient use of the limited land space available for development by excavation to create void space for development. This extracted mineral is considered as waste as there is a supply much greater than the demand for utilisation. The weight of this stream received at the public waste disposal facility decreased from 2.2 million tonnes in 2004 to .87 million tonnes in 2006. As from 2005, the private sector has increased its activity to manage this waste and the amount received at the public facility represented part of the weight generated.

desirable option. Moreover, eligible interventions under this Priority Axis will seek to ensure the potential synergies in the treatment of waste. Government has set itself the target of commissioning the establishment of an additional Mechanical Biological Treatment Plant for the Maltese Islands for both municipal and other waste. The biological component of the plant will include a bio-digester to recover biogas from any digestible waste, complete with ancillary facilities to reduce the amount of landfilling required. This Axis will also co-finance measures for the setting up of waste treatment and storage facility with the aim of reducing landfill volume and to recovering energy from waste, where possible, and rehabilitation and restoration of former landfills. Preliminary studies for the rehabilitation of existing sites have been drawn up through financing under Cohesion Policy 2004-2006 and national funds. Further studies will be eligible for funding under this Programme as part of a bigger project.

Water and Waste Water

The quality of potable water has a direct impact on the health and quality of life of the citizens of the country, its economic wellbeing, sustainable development as well as on the general appeal and attractiveness of the country. Urbanisation, agriculture, tourism and industrial development have increased the pressure on the environment and have led to a rapid degradation of the Islands' natural environment and resources, in particular freshwater resources. The supply of water from natural sources through groundwater abstraction is not enough to meet the country's needs and Malta still relies heavily on sea-water desalination as one of its major sources of potable water. Water from these sources is blended in order to ensure a supply of good quality potable water at the least possible cost in an environmentally sustainable manner. This mode of operation entails pumping water from sources as well as between reservoirs to maintain a sufficient level of reserves throughout the Island, thus making the system totally power dependent.

In order to ensure continual optimization of operations to maintain a balance between water quality and power consumption while at the same time satisfying demand requirements, Malta is seeking to implement initiatives such as an intelligent control system through the use of dedicated software. This in turn is complimented by other elements for improving the efficiency of parts of the groundwater collection system, for improving the quality of water produced from reverse osmosis desalination plants and for the better monitoring of water quality. This would thus contribute towards the country's continual effort to develop its water infrastructure to ensure a good supply of good quality water with due regard to the sustainability of its natural water resources environment and efficient use of energy. Exploration of alternative sources of water as a resource (such as treated effluent) will be dealt with under Axis 4. Such sources would provide an alternative to the use of groundwater for secondary purposes.

Until recently Malta was discharging most of its sewage untreated into the sea. The management of waste effluent within the parameters mandated by environmental principles and targets under the Water Framework Directive 2000/60/EC remains a national ongoing commitment. Within this context the South Sewage Treatment Infrastructure complements the existing two wastewater treatment plants (in Gozo and in the North of Malta) to ensure that all sewage is treated prior to its safe disposal at sea in line with the Urban Wastewater Directive 91/271/EC. Now that Malta is treating all its raw sewage before discharge to the marine environment, the impending planned interventions will be directed towards the strengthening of the collection network (in line with the stipulations laid down in Annex I (A) of the EU Urban Wastewater Directive) through the application of more advanced technology, better suited for Malta's territorial specificities and high urban density.

Flood Relief

Within the context of climate change, risk prevention is becoming an increasingly higher priority for the Government. Malta's topography tends to contribute to the phenomenon of flash flooding on the occurrence of heavy storms during the autumn and winter months. This phenomenon

frequently leads to heavy damage to the physical environment, economic disruption and occasionally, to loss of human life. In this regard, the formulation of a proactive approach to this problem, particularly the development of infrastructural solutions to address the incidence of high storm water volumes, constitutes a major priority. Studies within the context of the Formulation of a Storm Water Master Plan to ascertain and identify the priority projects and the relevant technology options were undertaken under the 2004-2006 Cohesion Fund. The National Flood Relief Project seeks to mitigate flooding in eleven different localities in Malta with four Catchment Basins. This involves site interventions in four storm water catchment areas and the strengthening of the Valley Management and Storm Water Units to be able to monitor and maintain a sustainable valley management and storm water system. The primary objective of this project is to limit the impacts of urban flooding. In dealing with the flooding issue, the project will also seek to explore and develop, where possible, flood water catchments and potential re-use facilities.

Major Projects

Mechanical Biological Treatment Plant

This project will involve the setting up of a Mechanical Biological Treatment Plant (MBT) to *primarily* treat municipal solid waste (MSW), some commercial waste and other waste capable of undergoing biological treatment. The co-mingling of waste products such as manure to MSW, to yield a better end product is being explored and may be considered as part of this project. The treatment combines the mechanical process of separating dry recyclables such as glass, plastic, paper/cardboard and metals, leaving an organic fraction.

Fundamentally, the objective of the Malta North plant is to treat municipal waste. Still, considering the space limitations in Malta, the possibility of accepting manure waste at these plants to the extent that it is technically and economically advantageous to the entire system of waste management shall be considered. It is considered that there exist synergies and economic opportunities by co-mingling manure with municipal waste which could potentially (i) improve the desirable qualities of the output from the municipal waste system in terms of biogas production and final compost quality; and (ii) reduce the overall costs of treatment.

The implementation of waste treatment plants will thus enable Malta to:

- meet the targets established in the Waste Management Landfill Regulations of 2002 (LN168 of 2002) and reduce the amount of waste going to landfill and
- abide to LN 233/2004 – Protection of Waters against Pollution from Agricultural Sources.

Thereby this reduces the risks that would otherwise be imposed on the environment should the waste remain untreated.

Rehabilitation and Restoration of Existing and Former Waste Dump Sites

Following the installation of the gas collection system, the next phase of rehabilitation involves the capping and landscaping of the closed landfills in order to return these sites to beneficial use. With respect to the largest closed landfills the preliminary design of the landscape was determined through an International Design Competition. This site will also be used to demonstrate the benefits of renewable energy sources. Limited intervention is also intended for other closed landfills. This project will benefit the Maltese population as a whole, as well as the tourism sector.

South Sewage Treatment Infrastructure

A major project envisaged under this Priority Axis is the establishment of a South Sewage Treatment Infrastructure (SSTI) and related sewage transmission infrastructure, for the treatment of 80% of all sewage generated on the Maltese Islands amounting to about 51,000m³/day. This figure was until recently being discharged untreated through a marine sewage outfall at Wied Ghammieq, limits of Kalkara to the South East of Malta. The project beneficiaries are the Maltese and Gozitan population (circa 410,000 residents) and over 1 million tourists visiting the Maltese Islands every year.

The project comprises the construction of a new urban wastewater treatment plant at Ta' Barkat limits of Xghajra, a new wastewater pumping station at Rinella, upgrading of an existing wastewater pumping station in Xghajra, a new wastewater gallery from Rinella to Ta' Barkat and the construction of a 1km submarine outfall. The project falls under the purpose of the Water Framework Directive, particularly in relation to the protection of coastal waters, will restore the bathing water quality to the 5km coastline extending between Ricasoli and Marsascalea (from Sufficient to Excellent¹⁷⁵) quality in line with the Bathing Water Directives 76/160/EEC and /2006/7/EC, and will also reduce and/or eliminate the discharges of certain hazardous substances to the aquatic environment. This project will aim to address a number of socio-economic objectives which include; increase recreational value of the North East coastal area, improved tourist potential of the Maltese Islands, improved potential for fishing and improved health and a better quality of life. In addition the project is to recover 50% of its energy requirements through anaerobic sludge digestion, thus reducing the carbon footprint of the plant from a renewable energy source, a 1MW biogas generation facility which will minimise the energy dependency on the grid.

National Flood Relief Project

This project will consist of a storm water management system in four storm water catchment areas most susceptible to problems of flooding, mainly due to the unfavourable topography. The different components include a network of storm water collectors located on the streets of a number of towns and villages that are linked to a system of underground tunnels and conveys flash flood waters to a stormwater sea outlet. In two components of this project, namely that of the B'Kara-Msida and the Zabbar-M'Scala catchments, part of these tunnels, in turn, will be used to capture an amount of stormwater that occurs during normal downpours so that this gathered water can be directed to soakaway reservoirs or dams mainly for aquifer re-charge. Another component provides for the rehabilitation and upgrading of an existing storm water canal and the replacement of a number of road bridges crossing the canal.

Summary List of Potential Interventions

- Integrated actions to promote waste separation;
- Construction of a Mechanical Biological Treatment Plant;
- Rehabilitation and restoration of former landfills;
- Setting up of a waste treatment and storage facility;
- Construction of a Sewage Treatment Plant in the South of Malta;
- Investment in measures aimed at improving the water networks;
- Setting up of a storm water management system to develop infrastructure to minimize the effects of storm water and reduce the incidence of flash flooding.

Fund

This Priority Axis will be co-financed by the Cohesion Fund.

Financial Allocation

¹⁷⁵ As defined in Directive 2006/7/EC.

The total funding for this Priority Axis amounts to €189,288,258.82, of which €160,895,020 are Community Funding.

Table 4.5 - Output and Result Indicators

Type of Indicator	Indicator	Target
OUTPUT	• No. of landfills rehabilitated	3
	• No. of liquid waste treatment plants constructed	1
	• No. of storm water management (risk prevention) projects (core indicator)	1
	• No. of waste projects (core indicator)	3
	• No. of water projects	1
RESULT	• Landfill volume saved on an annual basis as at 2015 (m ³)	130,000
	• Total RES recovered from waste by 2015 (GWhrs/annum)	17.0
	• Area rehabilitated (km ²) (core indicator)	0.3
	• % decrease in national sewerage effluent discharge ¹⁷⁶	80
	• Status of coastal waters in the South of Malta (from Sufficient) ¹⁷⁷	Excellent
	• M ³ of increased rain water harvesting and re-use potential in catchment areas	300,000
	• Frequency of flooding within areas of intervention	1 every 5 years
	• Compliance of Reverse Osmosis desalination plants with the Drinking Water Quality Directive	Full
	• Power consumption reduction (KWhrs/annum)	600,000
	• Population affected by improved water networks	30,000

¹⁷⁶ Baseline: It is estimated that circa 25.0 million m³ of sewage are being discharged untreated into the sea per annum.

¹⁷⁷ 5km of coastline will be relieved from the current sewage contamination.

4.6 Priority Axis 6 – Urban Regeneration and Improving the Quality of Life

Background

The urban fabric coupled with the quality of life of Maltese citizens, plays an important role in the development and enhancement of Maltese society. Covering areas such as urban regeneration; internal accessibility and modal shift in transport; educational, social and health infrastructure; as well as, environmental monitoring, Priority Axis 6 is geared towards concepts that are intrinsic to the continuing enhancement of quality of life of Maltese society.

Development must be based on a multifaceted approach, covering environmental, economic and social concerns. Urban regeneration will be undertaken within this holistic approach. The importance of the urban fabric is increased since Malta is predominantly urban and densely populated and is characterised by a high degree of urban sprawl. The urban regeneration context is driven by the concept of transit-oriented development, which is based on consolidated policy and planning for urban regeneration and transit. Government intends to continue to develop the measures already undertaken in this regard to guarantee a holistic approach to these intra-linked zones, particularly within the Harbour area. In this regard, an inter-ministerial committee (National Project Committee) has been set up to coordinate and launch capital projects, particularly regeneration projects and to ensure collaboration between the Ministries responsible for particular sectors. The cardinal principles which have been developed to direct Capital Projects, transit-node developments and transport in the priority areas which have been established, promote a positive centre/node image; protect, rehabilitate, regenerate and enhance local character; introduce a diversity of housing and residential units; ensure an active public realm; and create a pedestrian-friendly environment, permeable street networks and legible built environments. Interventions within this context will be limited to those falling within an urban regeneration context.

Transport connectivity is regarded as a key underpinning asset in successful urban areas. The TINA study in 2002 established that out of 96 kilometres of road representing TINA roads, 51 kilometres represented TEN-T roads and 45 kilometres consisted of access roads. In addition, there are 2,227 kilometres of arterial and local access roads. In terms of accessibility, Malta's TEN-T transport links will be addressed through interventions falling under Priority Axis 3. These measures will need to be complemented with an efficient internal transport infrastructure and also with further intensification of efforts in the area of internal accessibility. Despite considerable interventions under the national budget over the past years, a number of arterial and distributor roads still require upgrading in order to come up to standard and comply with road safety standards to which Government is committed. To date, Government has sought to attract more passengers to the national public transport system primarily by supporting the upgrading of part of the fleet of buses and modernising the ticketing system. Recent initiatives undertaken primarily through the national budget such as the Park and Ride, as well as, dedicated bus and cycle lanes, are all measures aimed at encouraging modal shift. Apart from improving accessibility, such measures will contribute to a reduction in traffic congestion, pollution and health-related risks which, in turn, will better the 'quality of life' for the citizens.

It is important to improve connectivity in all its forms to move to a more modern and better-balanced economy. Malta has already made considerable progress in investing in the information society and e-services. Given Malta's territorial constraints as an Island on the periphery of Europe, there are a number of dependencies and vulnerabilities with respect to the current set-up of the enabling infrastructure, particularly international connectivity. Digital infrastructure and e-society use in general have a very important role to play, not only in terms of supporting the knowledge economy, but also in reducing some of the effects of the Islands' territorial constraints (insularity, double insularity and peripherality) and improving the overall

quality of life of Maltese citizens.

The quality of life of citizens is intertwined with the quality of the environment. Recent years have seen a dramatic increase in the extent of environmental regulation. The transposition of the environment Acquis and the institution-building of the relevant organisations have been a priority in the run up years to accession. However, further efforts are required to enhance the environmental fabric of the island through the setting up of monitoring, information and data-compilation mechanisms focusing on industrial pollution control, environmentally-friendly construction, air quality and climate change, water quality, biodiversity and noise abatement.

Health and early education will also continue to be an important focus of Government's attention. In this context, the goal will continue to be the enhancement of the quality of life of Maltese citizens by ensuring equity and access to excellent quality educational, social and health services. Over the last few years, government has invested heavily in the construction of a new acute hospital, the Mater Dei Hospital, which was completed in 2007. This investment will be complemented with ancillary facilities for Oncology patients.

In the area of Oncology, EUROCARE-4¹⁷⁸ results show that the 5-year relative survival rates for Maltese cancer patients for a number of the common cancer sites compare unfavourably with those of most other EU Member States. Survival depends on a number of factors which in several cases include, amongst others, the stage at diagnosis and the treatment available for the primary curative phase and subsequent events such as recurrences, secondary and widespread disease. Diagnosis and treatment of cancer has a tremendous impact on the quality of patients' lives and on that of their families and carers. The Oncology Centre will be designed with these needs in mind with the aim to contribute directly towards longer patient survival rates.

In the case of education, many state schools are housed in schools built in the first part of the last century or in ex-military services buildings. In this regard the building / expansion and upgrading of the current state school system is considered important not just from a quality of life point of view but also in view of Malta's goal to become a knowledge-based competitive economy. In this regard, the ambition to increase the level of participation in education at post-secondary levels will need to be supported by infrastructural expansions and upgrades and other capital investments in the main post-secondary and tertiary education institutions in Malta and Gozo.

Objectives

The specific development objective of Priority Axis 6 is to safeguard and valorise the country's urban heritage and promote an overall improvement in quality of life through better accessibility, enhanced education, social and health systems and increased environmental monitoring capacity.

The operational objectives of this Priority Axis are:

- To upgrade the physical environment and visual appeal of urban cores through urban regeneration and integrated local development;
- To improve internal mobility;
- To promote further the use of information society and increase e-services;
- To continue investments in the health, social and education sectors.
- To enhance environmental monitoring capability and awareness of environmental issues.

Focus Areas of Intervention

¹⁷⁸ The Project EUROCARE-4 monitors cancer survival in Europe, including additional countries and patients diagnosed between 1995 and 2002. This allows to analyze whether the substantial differences in survival between countries which emerged from the previous surveys are still present.

Urban Regeneration

Integrated urban development projects are vital mechanisms which spur the main industries in the nerve centre of the Maltese Islands, the City and the Harbour region. The regeneration of this area integrates the major sectors of the local economy; maritime, tourism, the building industry, transit and commercial services. A number of local plans and regeneration plans for urban areas focus on an integrated approach to regeneration which aims to reverse the trends within the urban cores which are affected by vacancy in residences (7 to 9 per cent) – the most critical being migration out of the capital and into new schemed areas; improve the quality of life of the citizens and also develop and enhance business opportunities in these areas. Government's strategy in the realm of urban regeneration is directed at an integrated approach to address urban development, land transportation, conservation and social regeneration. The main driving force behind this policy is to create an intelligent and efficient City which does not only encapsulate innovative transport means, but grafts these in a historic regenerated and rehabilitated ambience. A concerted effort is being made to develop and integrate these factors through urban regeneration initiatives which bring together housing and social development with transit-oriented projects aimed at making urban areas, particularly the harbour and capital Valetta (considered to be both economic and cultural catalysts) successful socio-economic hubs.

Further integrated urban regeneration and embellishment will be endeavoured through the active role of the local government system. Local communities are considered to be the backbone of the country's social infrastructure. Efforts will be made to emulate projects related to the provision of support facilities within the context of integrated Local Plans and Urban Regeneration Plans, ideally drawn up by neighbouring local councils, working on a partnership basis. Given their role in local development, the non-profit sector will also be encouraged to participate in development initiatives. However, *ad hoc* initiatives in local communities which are more geared to support measures relating to conservation for conservation's sake will be supported by the EAFRD.

Internal Mobility

Malta's small land mass and its high population density mean that the Islands are heavily urbanised. One of the immediate priorities is to upgrade the physical condition of the road network. While recognizing that the upgrading of the TEN-T backbone, airport and seaports, financed under Priority Axis 3 of this OP is of national importance, these transport nodal points have to be complemented by a comprehensive and effective road infrastructure network in the form of arterial, distributor and residential roads that connect these nodal points with the hinterland. Government has already embarked on an extensive road-upgrading programme, which needs to continue with substantial investments in order to upgrade the entire network to a level which complies with the European transport network requirements. With the aim of improving traffic safety, reducing vehicle operating costs and reducing traffic time, Government's immediate priorities consist of rebuilding the majority of arterial, distributor and link roads to improve the quality of these roads as well as extending their life span; to construct and improve junctions, footpaths, surface water culverts and rubble walls, where necessary; to improve street lighting; and upgrade street furniture in various localities. Due diligence will be exercised to ensure that road infrastructure will not be in contradiction with the objectives set for the preservation and sustainable development of rural areas through EAFRD, which constitute the essential green lung for the quality of life of the densely populated islands. Indeed, the upgrading of road infrastructure will include the reconstruction of rubble walls, the construction of reservoirs and laying of silt traps for the preservation of stormwater, the replanting of shrubs in lieu of those uprooted in the upgrading process and some general landscaping.

Internal transport networks are characterised by high levels of private motorised travel, lack of modal choice and low utilisation of the available public transport. In the coming years the upgrading of the road network will be complemented with reforms and investments in public transport so that the latter can become truly modern, attractive and sustainable. It is the

Government's objective to continue to encourage modal transport shift. To achieve a reduction in private mobility without compromising accessibility, the Government is looking at improving the national network of public passenger transport services. Government intends to invest in the further upgrading of the fleet, upgrading bus service waiting facilities, and the introduction of new technology to improve bus service reliability and passenger information at various points of the bus transport network. In addition, Government is in the process of conducting studies into the feasibility of alternative mass transit systems that will support the projected modal shift. This together with other studies exploring the possibility of widening Malta's scope for modal shift will be eligible for financing under this Priority Axis. The aim, *inter alia*, is to provide sustainable and efficient public transport alternatives, which will induce reduced private car use and safeguard the environment. In the past year, the Government has supported Modal Shift by stimulating the proposal of a Vertical Connection project, the Sea Ferries, a Pedestrianisation project, public transport reform, Controlled Vehicle Access, a Vehicle Monitoring System and the Electric Taxis which all form part of the accessibility strategy for Valletta and Floriana, published by the Cabinet Committee for National Projects in 2005.

E-Accessibility

ICT offers significant opportunities by enabling people to work in new and smarter ways, thus, contributing to a better quality of life. The **National ICT Strategy 2007-2010** is currently being drafted. The strategy will be a vehicle through which Government and all other stakeholders implement initiatives championed by the European Union as part of the '**i2010 – A European Information Society for Growth and Employment**'.¹⁷⁹

Improved access to electronic services and the proliferation of ICT among the different segments of the population are the main goals and enablers for a more efficient business development, increased economic activity and a more efficient public service administrative capacity. Firmly in this context, the aim is to increase the access to technology across a broader base of Maltese society. There is a resolve to use ICT as an effective management tool within the public sector aimed at the delivery of first class, accessible and secure government services. In line with the above, the Government plans to embark on a number of initiatives, including an ICT Consolidation Programme, e-Health, e-Learning initiatives, and other e-Government services to further promote the utilisation of ICT. This is in line with Government's strategy to sustain e-Inclusion initiatives across society and the economy in a bid to narrow the digital divide. The latter will ensure that all Maltese citizens are active participants in the knowledge society and can leverage on the best use of ICTs across the public and private sectors.

The education investment in ICT that will take place under this Priority Axis will be complemented with parallel investments to promote ICT use in enterprises and ICT initiatives at tertiary level under Priority Axis 1 of this OP and also under different Priority Axes of the ESF OP.

Education, Social and Health-related Infrastructure

A holistic approach to the improvement of the quality of life of local communities necessitates interventions to improve the availability of state-of-the-art educational infrastructure. Given that human resources are Malta's premier resource, knowledge and higher educational attainment levels are critical contributors to Malta's economic growth and the improvement of the standard of living of its citizens. A highly-skilled workforce is the product of lifelong education, starting from early childhood, through effective primary and secondary schooling, moving onto vocational and tertiary education and beyond. This Axis will take a holistic approach to the much needed modernization and expansion of the educational institutions at different levels. Primary, and particularly, Secondary educational infrastructure, within the local towns, needs to be expanded and upgraded to promote the better knowledge society and encourage the take-up of science and science-related subjects at a very early age. In order to achieve this, investments will be directed

¹⁷⁹ COM (2005) 229.

towards the expansion and upgrading of schools and investment in related equipment, information systems and other resources. The objective of increasing the participation rate in upper secondary education level and more, to 70 per cent by 2013, has to be coupled by an investment in capacity infrastructure in these institutions, both in Malta and in Gozo.¹⁸⁰ The quality and responsiveness of the educational system would also benefit from investment in administrative information systems to manage and develop these institutions into centres of excellence in the Mediterranean region.

In an effort to improve the quality of life of the local community, investments are also envisaged in social infrastructure through the setting up of a number of centres related to employment and training in communities. These can include local employment and skills development centres as well as childcare day centres. The latter, as a result of the consideration of a potential link between the low female participation rate in the labour market and the availability of affordable childcare facilities. In this regard consideration is also being given to support enterprises (within the state aid regime) in introducing or upgrading childcare facilities at the workplace. Other social infrastructure is also envisaged with a view to enhance social inclusion. This may include the setting up of community access centres to facilitate participation in employment, as well as, independent living centres that have the aim of promoting the access to services for persons with disability by providing advice, information and training in aspects of independent living such as mobility and assistive technology.

One of the main focuses with respect to priorities in the health sector is enhancing equity access to care by placing the patient at the centre of all initiatives. The opening of the new hospital will provide a quality leap in the environment within which care is delivered. A substantial improvement in the quality of acute care services has been achieved due to the migration to the new Mater Dei Hospital. In this regard, another major investment in health infrastructure is the envisaged construction of a new cancer treatment facility which will expand and enhance current service provision and complement the services offered in the acute care hospital settings. It is the Government's commitment that Malta should make every effort towards the over-arching goal of developing excellent quality and patient-centric services and treatment propositions which are entirely designed around the clinical and non-clinical needs of the patient. As part of the broader Draft National Cancer Plan 2010 – 2015, the quality of care expected to be provided through the new oncology centre forms part of selected priority areas of intervention including (i) prevention (ii) screening (iii) research and (iv) evaluation. The attainment of this national and strategic goal prescribes: (i) the replacement of existing outdated equipment with contemporary clinical and non-clinical technologies; (ii) the implementation of a concerted effort towards apposite capacity building and training of specialised personnel across both the clinical and non-clinical spectrum; (iii) the Development of oncology palliative care service within the new Centre; and (iv) making full use of the upgraded infrastructure. Furthermore, this Project will also have indirect effects upon the families of cancer patients. Some examples include: elevating the burden of care (and associated productivity reductions) that comes hand in hand with aiding family members find curative, and palliative, private treatments and reducing the severity of resultant traumatic family experiences.

Notwithstanding this, the provision for new treatments and new services are always in high demand, not only to cure diseases but also to improve screening and diagnostic services. Furthermore, quality and accessibility are not only beneficial for patients and service users, but can also be conducive to the sustainability of the care systems. By improving the current services provided, as well as with the introduction of new services, a reduction in the need for hospitalization could be achieved. It is also understandable that by excelling in quality, the chance of curing patients from their conditions will enhance not only the quality of life of the patient's receiving treatment but also of the persons surrounding them.

¹⁸⁰ Investments under this Axis will be complemented with investments under Priority Axis 1 related to R&D and ICT.

Across all hospitals, Government also aims to develop and implement new information technology systems and an e-health strategy to improve health care delivery. The OP will also intervene in public health investments in Gozo.

These actions will be further complemented through financing e-health under the e-accessibility focus area of intervention under the remit of this Priority Axis, as well as, financing from alternative sources.¹⁸¹ Interventions in the health sector are foreseen to be bolstered through activities financed under the ESF OP, with a view to cater for the human resources aspect.

Environmental Monitoring

Quality of life is also clearly linked to environmental issues, particularly the enforcement of legal compliance obligations. Crucial to the enforcement dimension is also the monitoring obligations. The main strategic thrusts in this regard comprise the development of strategic plans, the setting up of monitoring and information and data compilation mechanisms, the carrying out of feasibility studies, coordinated environmental education through an established body, as well as, the implementation of awareness and education campaigns. These initiatives will focus particularly on environmental areas including industrial pollution control, environmentally friendly construction, air quality and climate change, water quality, biodiversity and noise.

Major Project

Mater Dei Hospital Oncology Centre

This project consists in the setting up of Oncology facilities offering advanced cancer treatment modalities in a comprehensive care setting. The project will increase the number of Oncology inpatients beds as well as expand the current day care facilities and outpatients clinics. A new Palliative Care Unit will be set up focusing on optimal symptom control, psychological, social and spiritual support. The Paediatric Oncology Unit will also be expanded in order to offer a service to adolescents and young persons suffering from cancer, while an increase in Haematology inpatient and day care beds will also occur. Additional facilities for psychosocial care, patient and carers' facilities, educational and interdisciplinary facilities will also be provided.

The planned infrastructure will also seek to increase screening facilities and introduce organised screening programmes, improve diagnostic facilities (endoscopic, imaging, cyto/pathological), and also increase, improve and introduce new modalities for treatment (surgical, radiotherapy and chemotherapy). The main aim of the planned improvements on the current oncology infrastructure is to improve cancer survival that will be the cumulative result of all these interventions.

Summary List of Potential Interventions

- The upgrading of urban cores through integrated urban regeneration projects (including the participation of local councils);
- Upgrading of non-TEN-T roads;
- Supporting Government's efforts to achieve Modal Shift through the setting up of Traffic Management Systems and other actions aimed at the overall enhancement of public transport infrastructure;
- Improved access to e-government services and other e-accessibility initiatives;
- Investment in general public educational (including vocational) and training infrastructure;
- Investment in social and social inclusion infrastructure (including childcare – both public and for enterprises);¹⁸²

¹⁸¹ Primarily national funds and also the Swiss Maltese Cooperation Agreement.

¹⁸² In the case of enterprises the funds will be allocated via an aid scheme issued by the relevant public body.

- Investment in public health infrastructure and equipment, including the establishment of a new oncology centre;
- Setting up environmental monitoring programmes.

Fund

This Priority Axis will be co-financed by the European Regional Development Fund (ERDF).

Financial Allocation

The total funding for this Priority Axis amounts to €165,000,000, of which €140,250,000 are Community Funding.

Flexibility Facility

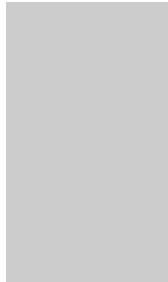
In line with Article 34(2) of the Council Regulation EC/1083/2006, the Government has decided to avail of **the possibility** to finance in a complementary manner and subject to the limit of 10 per cent of Community funding for Priority Axis 6, actions falling within the scope of assistance from the ESF, provided that they are necessary for the satisfactory implementation of the operation and are directly linked to it. The flexibility facility will be applied **only if required** and will **not necessarily reach the full 10 per cent**. The use of the facility will be monitored through the Structural Funds Database.

Table 4.6 - Output and Result Indicators

<i>Type of Indicator</i>	<i>Indicator</i>	<i>Target</i>
OUTPUT	• No. of projects ensuring sustainability and improving the attractiveness of towns and cities (core indicator)	1
	• Km of upgraded roads (non TEN-T)	7
	• No. of projects promoting Modal Shift	2
	• No. of new e-services for the public and the business community ¹⁸³	72
	• No. of constructed learning, training and other support facilities	10
	• No. of refurbished existing learning and training facilities with new equipment	110
	• No. of projects (health) (core indicator)	4
	• No. of environmental monitoring projects	1
	• Sq m of modernised learning and training facilities refurbished (with new equipment) within intervention areas	19,000
	• Sq m of newly constructed learning, training and other support facilities within intervention areas	50,000
RESULT	• Average % redevelopment of units in regeneration areas of total national regeneration ¹⁸⁴	1.27
	• Road surface condition of upgraded roads ¹⁸⁵	1.0 - 1.5

¹⁸³ Baseline: In 2007, the Government e-services for the general public amounted to 58 e-services.

¹⁸⁴ Baseline: The average % redevelopment of units in regeneration areas of total regeneration in Malta in 2005 is 0.03 (source MEPA 2005).



• % increase in use of non-car modes ¹⁸⁶	8
• % increase in use of e-services ¹⁸⁷	26
• Number of benefiting students (Education) (core indicator)	56,000 ¹⁸⁸
• % of total patients [within intervention areas] using new/upgraded equipment/services ¹⁸⁹	60%
• No. of new services offered in the health sector ¹⁹⁰	5
• National environmental monitoring programmes established	4

¹⁸⁵ Test Factor Reading Method: The survey is carried out by visual inspection of the road surface for every 200m intervals in order to assess 10 indicators (irregularities, rut depth, damages, crocodiling, chipping loss, repaired areas, potholes, open joints, bleeding and skid resistance test) that are characteristics of road deterioration. The collected data from these field surveys is then assigned codes from which a substance, service value, and condition values are worked out. The resulting value is a condition value that has a range of 1.00 to 1.45 and over. A section that has a value in the range of 1.00 to 1.49 is a road that is in a very good condition and a section that has a value of 4.5 and over is in a very bad condition and needs urgent attention. The values are classified as follows:

- 1.00 to 1.49 – very good condition;
- 1.50 to 3.49 – medium condition;
- 3.50 to 4.49 – poor condition;
- 4.50 and over – very poor condition.

¹⁸⁶ Baseline: The only baseline data currently available in relation to non-car modes is that relating to number of bus tickets sold which in 2005 was of 29,745,124. A Household Travel Survey will shortly be carried out with a view to assess current traveling modes.

¹⁸⁷ Baseline: Number of citizens using e-government services for 2005 is 20% the total Maltese population (402,727) and hence, 80,545. The target number of citizens using e-government services by 2013 is 96,654.

¹⁸⁸ Double counting is inferred because of pupils/students/trainees benefiting from more than one upgraded/modernized facility.

¹⁸⁹ Baseline data will be stipulated when projects are approved and will reflect the situation prior to the intervention

¹⁹⁰ Baseline data will be stipulated when projects are approved and will reflect the situation prior to the intervention

4.7 Priority Axis 7 – Technical assistance

Background

Technical Assistance is critical to the smooth implementation of the Programme. The Member State is responsible for the implementation of the Programme and needs support, both in terms of human resources in house and also external expertise, in order to carry out the functions and fulfil its obligations in line with the Regulatory Package and its own procedures and rules. The Mid-Term Update has highlighted the need to employ further technical assistance funds to facilitate the management of the Programme. The Mid-Term Update (on the efficiency of the 2004-2006 SPD) also proposed to use Technical Assistance to increase the pool of resources working on the management of the Programme in order to avoid bottlenecks and delays in the implementation. The evaluators deemed the combination of these actions as essential to manage and monitor programme components and projects more effectively.

Effective administrative capacity of public administrations and public services is a fundamental requirement for economic growth and jobs. Government firmly believes that its role in the economy should be as a regulator and facilitator for growth generated by the private sector, rather than that of an active economic operator. This is in line with the revised Lisbon Strategy which calls for better regulation, policy design and delivery to create the conditions for economic growth and job creation. Furthermore, increasing productivity and quality at work in the Public Sector is essential to pursue and accelerate reform, raise productivity and growth in the wider economy, and to promote social and territorial cohesion and sustainable development. For the Government to provide an efficient and effective service which sustains economic growth and socio-economic development, it must continuously invest in its administrative capacity across a number of areas. In this regard, attention will also be given to social partners and the civil society in relation to capacity building activities falling within the scope of this Programme.

Objectives

The specific development objective of Priority Axis 7 is to facilitate the overall implementation of the 2007-2013 Programme and reinforce the administrative capacity of the public administrations. The operational objectives of this Priority Axis are:

- To ensure the efficient administration and implementation of the OP through an effective application of regulations and procedures;
- To optimise the Programme's quality and the efficiency of the interventions through capacity-building measures;
- To support the implementation of the OP's communication plan, evaluation plan and the multi-annual training strategy;¹⁹¹
- To provide support for the achievement of an efficient and effective Public Sector;
- To contribute towards the development of effective partnerships;
- To support activities related to the Closure of the ERDF measures within the Single Programming Document for Malta (2004-2006) and the Cohesion Fund 2004-2006;
- To support activities related to the Future of Cohesion Policy and Territorial Cohesion.¹⁹²

¹⁹¹ Most of the activities foreseen under the training strategy will be undertaken by Axis 5 of the ESF OP, however OP I will fund training actions that are specific only to ERDF / Cohesion Fund projects.

¹⁹² In most cases, these will be funded using the 70:30 ratio as these might be general Cohesion Policy issues. This includes support for officers to attend meetings related to (Cohesion) policy development (rather than just directly related to programme implementation) issues – including the monitoring of the Cohesion Policy aspect of the multi-annual financial framework as well as support (capacity) in the monitoring and formulation of national positions with regard to the new regulatory package.

Focus Areas of Intervention

Implementation of the Programme

Technical Assistance and Administrative Capacity Building are critical to the efficient implementation of the OP. In terms of Technical Assistance, the actions under this Priority Axis will support and accompany the Programme implementation, in accordance with Article 46 of the Council Regulation EC/1083/2006 and will fund preparatory, management, monitoring, evaluation, information and publicity, control activities and activities aimed to reinforce the administrative capacity for implementing the Funds. The Axis will support the main horizontal stakeholders of Malta's implementation system, including the Managing Authority, the Certifying Authority, the Audit Authority, the Intermediate Bodies and other bodies relevant to Malta's implementation system, including those related to the goal of enhanced participation by socio-economic partners and NGOs. This Priority Axis will support the management and implementation of the Programme through an effective application of the regulations, optimising the Programme quality and efficiency of the interventions, and increasing the visibility and awareness on Structural Funds interventions through dissemination of relevant information and targeted publicity actions.

In line with the obligations stemming from the Cohesion Policy 2007-2013 legislative regime, the Managing Authority is preparing a Communication Plan and an Evaluation Plan, both of which will be submitted to the Commission during 2007.

Within the context of Cohesion Policy 2007-2013, Malta has a relatively centralized system of implementation with one Managing Authority, one Certifying Authority and one Audit Authority for the whole territory. Payments to contractors are centralized via the Treasury and most contracts are processed via a central contracting authority. Moreover, given that most projects are implemented by the Public Sector, the Maltese implementation system foresees coordination cells within Line Ministries to facilitate the liaison between the Management structures and the Beneficiaries. A number of Intermediate Bodies will be created to cater for aid schemes. All these structures need to build capacity – both in numbers and also in terms of skills and knowledge on Structural Fund implementation. In this regard, this Axis will co-finance both remuneration of persons working on the management of the Programme as well as external expert assistance and other capacity building measures such as training; networking and exchange of experiences (within the Member State and also with other Member States).

Within the context of the implementation of the Operational Programme, improvements and efficiencies in public administration, through service quality improvements and further consolidation of entities, which at present is happening across various entities are important to ensure less fragmentation and duplication. This Axis will support any necessary investment-type of interventions, particularly those relating to investment in tools; systems (mainly ICT-related) and relevant infrastructure, thus helping the public administration become more modern and efficient in its operations and more effective in terms of its outputs.

Moreover, Government intends to support and facilitate the participation of social partners and the civil society in the Programme. Government realizes that the civil society in Malta is very fragmented and depends largely on volunteers. Hence, it is necessary to build capacity – if the objective of increasing partners' participation in the Programme is to be a realistic target.

Closure of the Single Programming Document for Malta (2004-2006) and the Cohesion Fund 2004-2006

The legal provisions for the 2004-2006 Programme for each Member State do not make provisions for financing closure-related expenditure beyond the eligibility date. In the case of Malta this is the 30th June 2009. However, COCOF document COCOF 07/0021/04-EN

establishes that “costs incurred after the final date of eligibility of the 2000-2006 Programmes relating to the closure of these Programmes may be co-financed by the technical assistance budgets of the 2007-2013 Programmes”.

Within this context, this Axis may finance activities related to the closure of the ERDF measures within the SPD and the Cohesion Fund Projects 2004-2006, including audit and control costs (as well as the preparation of the winding-up statement), costs relating to the preparation of the final implementation reports, costs relating to the remuneration of personnel working on the 2004-2006 Programme and the archiving of supporting documents.

Future of Cohesion Policy and Territorial Cohesion

The Government has recently set up a Policy Co-Ordination Directorate to co-ordinate Malta's position and policy with regard to EU funds (decentralised managed Funds). This directorate shall also be responsible for the overall co-ordination of future Cohesion Policy (also the MFF aspect), the regulatory package as well as the territorial agenda and ESPON. Technical Assistance from this Programme may finance activities related to regulatory issues on Cohesion Policy including those related to simplification exercises and policy, Future of Cohesion Policy and Territorial Cohesion, as well as the implementation of Territorial Agenda (in the case of the latter as relevant to Cohesion Policy). Given the intense period of negotiations on the regulatory package, additional administrative support will be required in Malta to follow-up issues and co-ordinate national positions as well as seek expertise, where necessary. Technical Assistance may also finance preparatory studies to cover the drawing up of national strategies or plans, feasibility and technical studies as well as other expertise aiming to identify possible investment priorities and projects for the new programming period 2014-2020.

Common activities between OP I and OP II

Given that Malta only has two programmes and a centralised implementation system, it is inevitable that there will be actions which are common to both OPs. These include (although not exclusively) actions related to the common database, publicity actions, evaluations, services of internal staff and external expertise. Costs related to actions common to both OPs, that is, having a component contributing to both Programmes such as the electronic monitoring system, common publicity actions, as well as, the salaries of officials working on both programmes shall be allocated between the two OPs on the basis of a flat rate ratio of 70:30 (OPI:OPII). Taking the financial volume alone would have unbalanced costs substantially towards OPI since the financial allocation of OPI is 6.5 times as much as OPII. In this regard, the fragmentation of the ESF projects and the laborious control mechanisms required for ESF kind of interventions have also been taken into account and have led to an increased ratio for OPII, beyond its share of total Structural Funds.

Summary List of Potential Interventions

- Support to the OP's main horizontal stakeholders to optimize quality in the fulfilment of responsibilities intrinsic to the preparatory, management, monitoring, evaluation, information and publicity, control activities;
- Actions to increase the visibility of Cohesion Policy 2007-2013;
- Actions to enhance the participation of socio-economic partners and NGOs;
- Remuneration of personnel working on the management of the OP;
- Investment in ICT and other tools to render public administration more efficient in its processes, where these link to the implementation of the Programme;
- Activities related to the closure of the ERDF financed measures within the 2004-2006 SPD and 2004-2006 Cohesion Fund;
- Activities related to national co-ordination and monitoring of 2014 – 2020 regulatory package and future Cohesion Policy issues (including Territorial Cohesion and MFF issues).

Fund

This Priority Axis will be co-financed by the European Regional Development Fund (ERDF).

Financial Allocation

The total funding for this Priority Axis amounts to €12,327,095.29, of which €10,478,031 represent the Community Funding.

Flexibility Facility

In line with Article 34(2) of the Council Regulation EC/1083/2006, the Government has decided to avail of **the possibility** to finance in a complementary manner and subject to the limit of 10 per cent of Community funding for Priority Axis 7, actions falling within the scope of assistance from the ESF, provided that they are necessary for the satisfactory implementation of the operation and are directly linked to it. Actions foreseen under the flexibility facility within the remit of this Priority Axis include networking and institution-building actions specific to ERDF/CF type of interventions. The flexibility facility will be applied **only if required and will not necessarily reach the full 10 per cent**. The use of the facility will be monitored through the Structural Funds Database.

4.8 Indicators

4.8.1 Impact Indicators

The overall objective of this OP *Investing in Competitiveness for a Better Quality of Life* and the specific objectives of *sustaining a growing, knowledge-based, competitive economy* and *Improving Malta's attractiveness and the quality of life*, will be measured and assessed through an overall impact indicator of increasing nominal exports of goods and services. This is based on the NSRF Strategic Objectives of *Sustaining a growing, knowledge-based, competitive economy and Improving Malta's attractiveness and the quality of life* and the NSRF core target and impact indicator: *Increasing nominal exports of goods and services by 4 per cent over the 2007-2013 programming period.*

The specific objectives of this OP will also be measured through a number of specific impact indicators. The selection of the impact indicators is driven by the objective to come closer to the performance of the EU 25 on issues related to economic performance and enhancement of the quality of life of Maltese citizens and the objective to contribute towards the goals of the Lisbon strategy.

The selected OP impact indicators are expected to contribute towards the attainment of the overall target of the OP. The selected impact indicators are not specific to a particular Axis although each one is obviously tied to one Axis or more Axes than the other indicators. Efforts to support enterprise and mobilize investment in RTDi and initiatives put forward to sustain the tourism industry will sustain Malta's economic growth towards a more competitive economy. Among various types of interventions having the aim of improving the Islands' attractiveness and the quality of life of Maltese people, three of the most representative areas of intervention are transport, the environment and enhanced quality of life, hence, the choice of relative impact indicators. Within the context of the limited national physical territory and population density, the social and economic development of the Islands depends upon timely and regular connections for both goods and services, hence, transport issues should be given due regard. Malta's environment is also an essential characteristic of the quality of life and health of the Maltese people, besides being a part of the country's national identity and contributing to competitiveness in terms of its implications on the tourism sector. One of the challenges of this OP remains that of balancing the requirements of economic development with the sustainable use of the environment. This is essentially underpinned through the quality of life impact indicator, as well as, through the commitment of the Government to ensure that the programme is low in carbon with the ultimate aspiration of achieving carbon neutrality.

One of the key impact indicators is to increase R&D expenditure as a percentage of GDP. Improving this target will support Malta's move towards a competitive and knowledge-based economy. In this respect, Malta is committed to raise the rate from 0.52 per cent (2004) to 0.85 per cent (2013).

The Islands' tourism sector is one of the sections that can offer most potential for effectively contributing to Malta's economic and social development. Hence, to improve Malta's competitiveness, an increase must also be registered in tourism earnings. To this end, Malta is committed to increase its tourism earnings by 1 per cent over the 2007-2013 period.

From a competitiveness point of view, in order to generate economic growth and employment opportunities, specific attention will be given to the manufacturing and services industries. Consolidating existing and attracting new FDI as well as promoting enterprise and small business start-ups is critical in ensuring economic growth. In this regard, the aim is to increase manufactured export earnings at an average growth rate of 2.7%.¹⁹³

¹⁹³ Baseline data 2004 (excluding extraordinary items) with an average growth calculated over a 7 year reference period.

Another important impact indicator for this OP is the number of jobs created (full-time equivalents) as a direct result of interventions financed through the ERDF and CF. The target is that of creating 1,400 FTEs by 2015. A point worth noting in this respect is that, unlike OP II, the focus of OP I is not that of increasing employment, but rather supporting infrastructure to sustain the current employment into the future. The latter, in view of the fact that Malta is currently undergoing a period of restructuring, needed with a view to better compete at international levels with intensified competition from the emerging countries. Indeed, the aim of this OP is that of improving competitiveness and hence, improved efficiency and productivity growth are more in line with Malta's strategic vision for OP I.

The specific objective of *improving the quality of life* of the Maltese citizens is being underpinned, to a large extent, by efforts to improve and expand the transport infrastructure. The latter also contributes to improved competitiveness, through improved linkages to population centres, areas of employment, tourism and industrial areas and better journey time reliability. Hence, one of the key impact indicators that will be assessed is that of transport attractiveness. Transport attractiveness is expected to increase by more than 75 per cent in 2015, taking 2007 as a baseline (vide Table 4.8).

Investment to achieve a sustainable and healthy environment is inextricably linked to the country's needs and requirements to make Malta an attractive location for foreign and indigenous investment, as well as, improving the quality of life of its citizens. To this end Malta aims to improve environmental attractiveness to five times the current standard (vide Table 4.8). It is to be noted that environmental attractiveness, in this context is being measured through the most representative infrastructural investments, namely, waste management; risk prevention (storm water management); waste water treated and RES energy produced.

One of the main objectives of OP I is that of safeguarding and improving the quality of life of Maltese citizens through better accessibility, enhanced education, social and health systems and increased environmental monitoring capacity. An impact indicator based on a weighted average of various variables has been used to draw up a Quality of Life impact indicator. **Quality of life: social and physical development**, as mapped out above, is not a reflection of happiness or overall satisfaction with life. The increase represents a higher quality of life based solely on the variables assessed in the methodology for compilation of these weighted averages. Table 4.8 represents the methodology used in compiling this weighted average, as well as, the weighted average impact indicators in relation to **environmental attractiveness** and **transport attractiveness**.

Climate change has been identified as a key issue for regional development to recognise. Climate Change refers to a range of weather effects including more frequent and extreme weather events, increase in average daily temperature, sea level rise and changes in precipitation. These effects alter the demands made upon regional infrastructure and the degree to which a regional economy can continue to grow.

Through OP I, Malta is making a strong commitment towards climate change by integrating environmental criteria throughout the Programme. As outlined under Chapters 2 and 3 Malta will aim at ensuring that the Programme is **low in carbon with the ultimate objective of achieving carbon neutrality**.

There are four main areas of carbon impact for the OP: *transport, buildings, energy and resources*. For each of these areas of impact, the programme could, through strong, thorough application of the sustainable development cross-cutting theme, drive the Programme's impacts so that they can be labelled '**low carbon**.' Malta, could, therefore, focus its efforts on delivering a low carbon Programme which helps decouple economic development from carbon use and climate change.

Implementing these recommendations will require

- clear Sustainable Development requirements in application for assistance under the new Programme;
- ongoing monitoring in order to track carbon emissions and impacts. Specifically, the benchmark values which we have used to ascertain potential reductions in carbon impacts from the Programme need to be verified and reviewed periodically as this field progresses and Programme implementation proceeds.

Table 4.7 – OP I - Impact Indicators

OP I Impact Indicators	Target
% Increase in R&D expenditure as a percentage of GDP	<i>from 0.52 (2004) to 0.85 (2013)</i>
% Increase of earnings from tourism	<i>a 1.0% increase p.a. in tourism earnings (over the 2007-2013 period)</i>
% Increase of manufactured export earnings	<i>an average growth rate of 2.7%¹⁹⁴</i>
No. of direct jobs created (core indicator)	<i>1,400 full-time equivalents</i>
Transport weighted average	<i>over 75% increase</i>
Environment weighted average	<i>over 450% increase</i>
Quality of Life weighted average	<i>over 150% increase in quality of life</i>
CO₂ equivalent emissions	<i>low carbon with the ultimate aim of achieving carbon neutrality</i>

¹⁹⁴ Baseline data 2004 (excluding extraordinary items) with an average growth calculated over a 7 year reference period.

Table 4.8 – Methodology for compiling weighted average indicators

	Euro	2007	2015	Weight 1	Weight 2	Index	Index*Wt	Weighted Index	Product Overall Index
Energy	75	0.24	17	28.85		7163.33	204326.92	excluded in 2nd version	
Wastewater	70	80545	407556	26.92		506.00	13623.02		
Waste treated	65	49000	150000	25.00		306.12	7653.06		
Storm water	50	5000	50000	19.23		1000.00	19230.77		
	260			100.00	45.49			2448.34	111385.44
TEN-T	109	10.9	24.9	56.19		228.44	12835.05		
non-TEN-T	25	26.5	34.1	12.89		128.68	1658.24		
Sea passengers	30	3840534	3937369	15.46		102.52	1585.38		
Sea cargo	30	12248770	14351386	15.46		117.17	1811.84		
	194			100.00	33.95			178.91	6073.07
Health	64	34523	112207	54.47		325.02	17703.27		
Pupils/students	36.5	1000	25000	31.32		2500.00	78297.87	excluded in 2nd version	
Redev. Units	1	39	124	0.85		317.95	270.59		
Child care	0.5	1000	1250	0.43		125.00	53.19		
e-services	17.7	83766	96654	15.06		115.39	1738.15		
	120			102.13	21.00			980.63	20590.67
	574				100.44				1380.49

Index Aggregation excluding Energy and students in upgraded facilities

Wastewater	80545	407556	26.92		506.00	13623.02			
Waste treated	49000	150000	25.00		306.12	7653.06			
Storm water	5000	50000	19.23		1000.00	19230.77			
				71.15			569.29		40506.85
TEN-T	10.9	24.9	56.19		228.44	12835.05			
non-TEN-T	26.5	34.1	12.89		128.68	1658.24			
Sea passengers	3840534	3937369	15.46		102.52	1585.38			
Sea cargo	12248770	14351386	15.46		117.17	1811.84			
				100.00			178.91		17890.52
Health	34523	112207	54.47		325.02	17703.27			
Redev. Units	39	124	0.85		317.95	270.59			
Child care	1000	1250	0.43		125.00	53.19			
e-services	83766	96654	15.06		115.39	1738.15			
				70.81			279.14		19765.21
				241.96					323.04

Methodological Notes:

- (a) Expenditure is used to create weights and sub-weights
- (b) 2007 was taken as base year in respect of all programmes
- (c) Whenever data in respect of 2007 was not available base data was estimated
- (d) Indices were computed in respect of programme within each priority axis
- (e) Programmes with extremes of data were left out when compiling weighted indexes in respect of each priority axis
- (f) Indices in respect of energy and students in upgraded facilities were ignored because of extremes of data.

Results are as follows:

	2007	2015
Wastewater	100.0	506.0
Waste treated	100.0	306.1
Storm water	100.0	1000.0
Group	100.0	569.3
TEN-T	100.0	228.4
non-TEN-T	100.0	128.7
Sea passengers	100.0	102.5
Sea cargo	100.0	117.2
Group	100.0	178.9
Health	100.0	325.0
Redev. Units	100.0	317.9
Child care	100.0	125.0
e-services	100.0	115.4
Group	100.0	279.1
All Items	100.0	323.0

4.8.2 Result and Output Indicators

The result and output indicators are described and quantified at Priority Axis level. They are based on the main focus areas of each of the Axes and under which, most of the interventions of each Axis are likely to occur or can be grouped. The number of output and result indicators has been kept at a minimum to take account of the proportionality principle and in order to enable the effective monitoring of the targets. This is in line with Article 37 (c) of the Council Regulation EC/1083/2006 and also the recommendations of the Mid-Term Update of the 2004-2006 Structural Funds Programme. The output and result indicators are being reproduced hereunder for ease of reference.

Table 4.9 – OP I - General Indicators

Priority Axis 1 Enhancing Knowledge and Innovation	Priority Axis 2 Promoting Sustainable Tourism	Priority Axis 3 Developing the TEN-T	Priority Axis 4 Climate Change and Resource Efficiency
<p>No. of new enterprises (local and foreign)/expansions in sites upgraded (25)</p> <p>No. of start-up businesses supported (core indicator) (20)</p> <p>No. of SMEs launching new or improved product or processes (40)</p> <p>No. of SMEs improving their use of ICT for e-business (49)</p> <p>No. of SMEs improving their market penetration efforts (55)</p> <p>No. of SMEs assisted in environmentally-sensitive technologies, operating systems and processes (15)</p> <p>No. of enterprises involved in networking and new collaboration with other businesses and academia (core indicator) (30)</p> <p>% increase of students taking up S&T related studies at the vocational/higher education levels at targeted intervention institutions (45)</p> <p>% increase of students registrations of S&T related studies at Secondary Level by 2015 (10)</p> <p>Investment Induced through JEREMIE Financial Instruments (€51.5M)</p> <p>No. of new/upgraded industrial zone projects by the end of 2015 (7)</p> <p>No. of SMEs benefitting from JEREMIE Financial Instruments (600)</p> <p>No. of projects (Direct Investment aid to SME) (450)</p> <p>No. of enterprises assisted (non-SMEs) (9)</p> <p>No. of RTD projects (core indicator) (15)</p> <p>No. of new/modernized specialized learning facilities constructed/refurbished (22)</p>	<p>Result Indicators</p> <p>% overall increase in the no. of paying visitors at upgraded sites (4)</p> <p>% of total tourists visiting upgraded cultural sites (14)</p> <p>% average increase in tourist departures for the established niche segments (3)</p> <p>No. of enterprises adopting new products and processes (90)</p> <p>Output Indicators</p> <p>No. of assisted tourism and cultural projects (core indicator) (20)</p> <p>Surface area of rampart elevation plan restored (m²) (150,000)</p> <p>No. of marketing measures to penetrate/develop new/established niche markets (2)</p> <p>No. of projects implemented by enterprises (110)</p>	<p>Result Indicators</p> <p>% increase in satisfaction rate of transport operators/users (10)</p> <p>Reduction in journey time (minutes) (10)</p> <p>% reduction in traffic accidents in the areas of intervention (10)</p> <p>% increase in cargo per annum (within intervention areas) (2)</p> <p>% increase in sea passengers per annum (2.5)</p> <p>Output Indicators</p> <p>KMs of roads upgraded (core indicator) (20)</p> <p>Sq m of new/refurbished infrastructure (57,889)</p> <p>Construction of new sea passenger terminal (1)</p>	<p>Total annual electricity generated from small scale PV and micro-wind installations (MWh/annum) (24,000)</p> <p>Total energy savings per year (MWh/annum) (10,000)</p> <p>Reduction Greenhouse emissions (Co₂ and equivalents, kt) (core indicator) (15)</p> <p>Additional water resources through further treatment of sewage effluent (5Mm³)</p> <p>% decrease in energy consumed for volume of water treated (50%)</p> <p>No. of projects dealing with Resource Efficiency (1 – 2)</p> <p>Annual penetration rate of installed PV and micro-wind starting in 2008 (kWp/annum) (18,000)</p> <p>No. of RES / energy efficiency schemes (2-3)</p> <p>No of studies (2)</p> <p>Solar Water Heaters – m² installed (1500)</p> <p>No. of RES projects (core indicator) (30)</p>

**Priority Axis 5
Safeguarding the Environment and Risk Prevention**

Landfill volumes saved on an annual basis as at 2015 (m³) (130,000)

Total RES recovered from waste by 2015 (GWhrs/annum)(17)

Area rehabilitated (km²) (core indicator) (0.3)

% decrease in national sewerage effluent discharge (80)

Status of coastal waters in the South of Malta (from Sufficient)
(Excellent)

M³ of increased rain water harvesting and re-use potential in catchment areas (300,000)

Frequency of flooding within areas of intervention (1 every 5 years)

Power consumption reduction (KWhrs/annum) (600,000)

Compliance of reverse osmosis desalination plants with the Drinking Water Quality Directive
(Full)

Population affected by improved water networks (30,000)

No. of landfills rehabilitated (3)

No. of liquid waste treatment plants constructed (1)

No. of storm water management (risk prevention) projects (core indicator) (1)

No. of waste projects (core indicator) (3)

No. of water projects (1)

**Priority Axis 6
Urban Regeneration and Improving the Quality of Life**

Result Indicators

Average % redevelopment of units in regeneration areas of total national regeneration (1.27)

Road surface condition of upgraded roads (1.0 - 1.5)

% increase in use of non-car modes (8)

% increase in use of e-services (26)

Number of benefiting students (Education) (core indicator) (56,000)

% of total patients [within intervention areas] using new/upgraded equipment/services (60%)

No. of new services offered in the health sector (5)

National environmental monitoring programmes established (4)

Output Indicators

No. of projects ensuring sustainability and improving the attractiveness of towns and cities (core indicator) (1)

Km of upgraded roads (non TEN-T) (7)

No. of projects promoting Modal Shift (2)

No. of new e-services for the public and the business community (72)

No. of constructed learning, training and other support facilities (10)

No. of refurbished existing learning and training facilities (with new equipment) (110)

No. of projects [health] (core indicator) (4)

No of environmental monitoring projects (1)

Sq m of modernised learning and training facilities refurbished (with new equipment) within

intervention areas by 2013 (19,000)

*Sq m of newly constructed learning, training and other support facilities within intervention areas
by 2013 (50,000)*

Table 4.10 – OP I - Core Indicators

Priority Axis	Output and Result Indicators
Priority Axis 1 Enhancing Knowledge and Innovation	4. No. of RTD projects (15) 5. No. of enterprises involved in networking and new collaboration with other businesses and academia (30) 8. No. of start-up businesses supported (20)
Priority Axis 2 Promoting Sustainable Tourism	34. No. of assisted tourism and cultural projects (20)
Priority Axis 3 Developing the TEN-T	16. Kms of roads upgraded (20)
Priority Axis 4 Climate Change and Resource Efficiency	23. No. of RES projects (30) 30. Reduction greenhouse emissions (CO ₂ and equivalents, kt) (15)
Priority Axis 5 Safeguarding the Environment and Risk Prevention	27. No. of waste projects (3) 29. Area rehabilitated (km ²) (0.3) 31. No. of stormwater management (risk prevention) projects (1)
Priority Axis 6 Urban Regeneration and Improving the Quality of Life	37. Number of benefiting students (Education) (56,000) 38. No. of projects [health] (4) 39. No. of projects ensuring sustainability and improving the attractiveness of towns and cities (1)
Impact Indicators	1. No. of direct jobs created (1,400 full-time equivalents)

4.9 List of Major Projects

Table 4.11 – OP I - Major Projects

<i>Priority Axis</i>	<i>Title of Project</i>
Priority Axis 3 Developing the TEN-T (CF)	Improving the TEN-T Road Infrastructure (Phase 1)
	Improving the TEN-T Road Infrastructure (Phase 2)
Priority Axis 5 Safeguarding the Environment and Risk Prevention (CF)	Mechanical and/or Biological Treatment Plants
	Rehabilitation and Restoration of Existing and Former Waste Dump Sites
	South Sewage Treatment Infrastructure
	National Flood Relief Project
Priority Axis 6 Urban Regeneration and Improving the Quality of Life (ERDF)	Mater Dei Hospital Oncology Centre

Chapter 5 – Implementing Provisions

5.1 Main Implementing Bodies

The provisions for the implementation of this OP will be in line with Article 58 of Council Regulation EC/1083/2006 establishing general principles of the management and control systems. In this regard, a Managing Authority to manage this OP, a Certifying Authority to certify statements of expenditure and applications for payment before they are sent to the European Commission, and an Audit Authority responsible for verifying the effective functioning of the management and control system, are being set up in accordance with Article 59 of Council Regulation EC/1083/2006. A number of other Bodies which the Maltese Authorities have designated as part of their implementation system will also be described in this Chapter.

5.1.1 The Managing Authority

The Planning and Priorities Co-ordination Division within the Office of the Deputy Prime Minister, Ministry for European Affairs, Parliamentary Secretariat for the EU Presidency 2017 and EU Funds is entrusted with the management and overall coordination of this OP. The Planning and Priorities Co-ordination Division is set up in line with the established national procedures of the Government of Malta.

The Planning and Priorities Co-ordination Division will carry out the tasks and functions of a Managing Authority as described hereunder in full accordance with the institutional, legal and financial systems of Malta.

Contact details:

Head of the Managing Authority,
Planning and Priorities Co-ordination Division,
Triq il-Kukkanja,
Santa Venera SVR1411

Tel: +356 22001142

Fax: +356 22001141

E-mail: info.ppcd@gov.mt

Website: www.ppcd.gov.mt

a. Tasks and Functions of the Managing Authority¹⁹⁵

The Managing Authority shall be responsible for managing and implementing the OP in accordance with the principle of sound financial management. In particular the Managing Authority will:

(a) Ensure that operations are selected for funding in accordance with the criteria applicable to the OP and that they comply, for their whole implementation period, with applicable Community and national rules and guidelines, including those relating to Information and Communication and criteria for the Eligibility of Expenditure;

¹⁹⁵ Article 60 of EC/1083/2006.

(b) Verify that the selection process has complied with the evaluation criteria approved by the Monitoring Committee;¹⁹⁶

(c) Verify¹⁹⁷ the delivery of the co-financed products and services and that the expenditure declared by the beneficiaries for operations has actually been incurred and complies with Community and national rules;

(d) Ensure that there is a system for recording and storing in computerised form accounting records for each operation under the OP and that the data on implementation necessary for financial management, monitoring, verifications, audits and evaluation are collected;

(e) Ensure that bodies (not Beneficiaries)¹⁹⁸ involved in the implementation of operations maintain either a separate accounting system or an adequate accounting code for all transactions relating to the operation without prejudice to national accounting rules;

(f) Ensure that the evaluations of the OPs referred to in Article 48(3) of Council Regulation EC/1083/2006 are carried out in accordance with Article 47 of the same regulation;

(g) Set up procedures to ensure that all documents regarding expenditure and audits required to ensure an adequate audit are held in accordance with the requirements of Article 90 of Council Regulation EC/1083/2006;

(h) Ensure that the Certifying Authority receives all necessary information on the procedures and verifications carried out in relation to expenditure for the purpose of certification;

(i) Guide the work of the Monitoring Committee and provide it with the documents required to permit the quality of the implementation of the OP to be monitored in the light of its specific goals;

(j) Draw up and, after approval by the Monitoring Committee, submit to the European Commission the annual and final reports on implementation;

(k) Ensure compliance with the information and publicity requirements laid down in Article 69 of Council Regulation EC/1083/2006;

(l) Provide the European Commission with information to allow it to appraise major projects in line with Articles 40 and 41 of Council Regulation EC/1083/2006.

b. Additional Responsibilities

In addition to the above, the Managing Authority will be tasked with the following functions (to be carried out in coordination with the European Commission and other competent authorities):

(1) Ensure that assistance from the Funds is consistent with the activities, policies and priorities of the Community, and complementary to other financial instruments of the Community, in particular with the Community Strategic Guidelines on cohesion and the National Strategic Reference Framework;¹⁹⁹

¹⁹⁶ In the case of aid schemes, this task will be delegated to the Intermediate Bodies.

¹⁹⁷ Verifications on-the-spot of individual operations may be carried out on a sample basis in accordance with the Commission Regulation EC/1828/06.

¹⁹⁸ Official approval as per correspondence from the European Commission dated 6th May 2008.

¹⁹⁹ Article 9(2) of Regulation EC/1083/2006.

(2) Co-ordinate assistance from this OP with assistance from the OP co-financed by the ESF, the programmes financed by the European Agricultural Fund for Rural Development (EAFRD) and the European Fisheries Fund (EFF), the interventions of the EIB, where applicable, and of other existing financial instruments;²⁰⁰

(3) Co-ordinate with the competent public authorities and other stakeholders to ensure the promotion of the equality between men and women and the integration of the gender perspective during the various stages of the OP implementation;²⁰¹

(4) Take appropriate steps to prevent any discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation during the various stages of implementation of the Funds and, in particular, in the access to them. In particular, accessibility for disabled people shall be one of the criteria to be observed in defining co-financed operations and to be taken into account during the various stages of implementation;²⁰²

(5) Ensure that the OP is implemented in the pursuit of the framework of sustainable development and the Community promotion of the goal of protecting and improving the environment as set out in Article 6 of the Treaty;²⁰³

(6) Co-ordinate Malta's feedback on the Community Strategic Guidelines on Cohesion in case a mid-term review of the Guidelines is required to take account of any major changes in the priorities of the Community;²⁰⁴

(7) Co-ordinate the revision of the OP in agreement with the European Commission, in case of significant socio-economic changes, or in order to take greater or different account of major changes in Community, national or regional priorities, or in the light of evaluation referred to in Article 48(3) of Council Regulation EC/1083/2006 or following implementation difficulties;²⁰⁵

(8) Manage the technical assistance and administrative capacity building Axis of the OP to finance the preparatory, management, monitoring, evaluation, information and control activities of the OP, together with activities to reinforce the administrative capacity of the Stakeholders managing and implementing the Funds;²⁰⁶

(9) Lay down rules at national level on the eligibility of expenditure taking into account exceptions provided in the specific Regulations for each Fund, to revenue-generating estimates as set out in Article 55 of Council Regulation EC/1083/2006 and ceilings on state aid;²⁰⁷

(10) Ensure that an operation retains the contribution from the Funds. In case of modifications, the Managing Authority is to inform the European Commission in the annual implementation report required under Article 67 of Council Regulation EC/1083/2006;²⁰⁸

(11) Co-ordinate the carrying out of evaluations, organise the production and gathering of the necessary data and use the various types of information provided by the monitoring system;²⁰⁹

(12) Draw up an evaluation plan presenting the indicative evaluation activities which are intended to be carried out in the different phases of the implementation;²¹⁰

²⁰⁰ *Ibid* Article 9(4).

²⁰¹ *Ibid* Article 16.

²⁰² *Ibid* Article 16.

²⁰³ *Ibid* Article 17.

²⁰⁴ *Ibid* Article 26.

²⁰⁵ *Ibid* Article 33.

²⁰⁶ *Ibid* Article 46.

²⁰⁷ *Ibid* Article 56.

²⁰⁸ *Ibid* Article 57.

²⁰⁹ *Ibid* Article 48.

²¹⁰ *Ibid* Article 48.

(13) Co-ordinate the carrying out of evaluations carried out in view of changes from set targets or revision of the OPs;²¹¹

(14) Provide the competent authority responsible for the drawing up of the annual implementation report on the National Reform Programme with information on the contribution of the Funds;²¹²

(15) Send to the European Commission for the first time in 2008 and by 30 June each year, an annual implementation report and by 31 March 2017 a final implementation report containing the information laid out in Article 67 of Council Regulation EC/1083/2006;²¹³

(16) Examine with the European Commission every year, following the submission of the annual report on implementation, the progress made in implementing the OP, the principal results achieved over the previous year, the financial implementation and other factors with a view to improving implementation;²¹⁴

(17) Co-ordinate the setting up of a Monitoring Committee for the OP within three (3) months starting from the date of the notification of the decision approving the OP;²¹⁵

(18) Provide the secretariat to the Monitoring Committee;²¹⁶

(19) Carry out in conjunction with the Monitoring Committee, monitoring through reference to financial indicators and the indicators referred to in Article 37(1)(c) of Council Regulation EC/1083/2006 and specified in the OP;²¹⁷

(20) Inform the Monitoring Committee of comments made by European Commission on reports concerning the OP, in particular the annual implementation report;²¹⁸

(21) Co-ordinate with the competent public authority the management and control systems for the OP in accordance with Articles 58 to 62 of Council Regulation EC/1083/2006 and ensure that they function effectively;²¹⁹

(22) Submit to the European Commission, before the first interim payment or, at the latest, within twelve months from approval of the OP, a description of systems containing details laid down in Article 71 of Council Regulation EC/1083/2006;²²⁰

(23) Ensure that all supporting documents regarding expenditure and audits on the OP are kept available for the European Commission and the Court of Auditors as specified in Article 90 of Council Regulation EC/1083/2006;

(24) Carry out any other role identified as being the task of the Managing Authority by the Commission Implementing Regulation EC/1828/2006.

²¹¹ *Ibid* Article 48.

²¹² *Ibid* Article 29.

²¹³ *Ibid* Article 67.

²¹⁴ *Ibid* Article 68.

²¹⁵ *Ibid* Article 63.

²¹⁶ *Ibid* Article 64.

²¹⁷ *Ibid* Article 66.

²¹⁸ *Ibid* Article 68.

²¹⁹ *Ibid* Article 70.

²²⁰ Note: The description of the systems will be accompanied by a report setting out the results of the assessment of the setting up of the systems and giving an opinion on their compliance with Articles 58 to 62 of Regulation EC/ 1083/2006. The Audit Authority of this OP will have the overall responsibility for the establishment of this report.

5.1.2 The Certifying Authority

The European Union (Paying Authority) Directorate within the Ministry of Finance (MFIN) is entrusted with the certification of the declarations of expenditure and applications for payment in relation to the priorities of this OP before they are sent to the European Commission. The European Union (Paying Authority) Directorate is set up in line with the established national procedures of the Government of Malta.

The European Union (Paying Authority) Directorate will carry out the tasks and functions of a Certifying Authority as described hereunder in full accordance with the institutional, legal and financial systems of Malta.

Contact details:

Head of the Certifying Authority,
European Union (Paying Authority) Directorate,
Ministry of Finance
Maison Demandols,
30, South Street,
Valletta VLT 1102

Tel: +356 259998297

Fax: +356 25998418

E-mail: payingauthority.mfei@gov.mt

Website: www.mfin.gov.mt

a. Tasks and Functions of the Certifying Authority²²¹

The Certifying Authority shall be responsible for certifying declarations of expenditure and applications for payment before they are sent to the European Commission. In particular the Certifying Authority will:

(a) Draw up and submit to the European Commission, at least three times a year, certified statements of expenditure and applications for payment in line with the provisions laid down in Council Regulation EC/1083/2006;

(b) Certify that the statement of expenditure is accurate, results from reliable accounting systems, is based on verifiable supporting documents and that the expenditure declared complies with applicable Community and national rules and has been incurred in respect of operations selected for funding in accordance with the criteria applicable to the Programme and complying with Community and national rules;

(c) Ensure, for the purposes of certification, that it has received adequate information from the Managing Authority on the procedures and verifications carried out in relation to expenditure included in statements of expenditure;

(d) Take account for certification purposes of the results of all audits carried out by or under the responsibility of the Audit Authority;

(e) Maintain accounting records in computerised form of expenditure declared to the European Commission;

²²¹ *Ibid* Article 61.

(f) Keep an account of amounts recoverable and of amounts withdrawn following cancellation of all or part of the contribution for an operation. Amounts recovered shall be repaid to the general budget of the European Union, prior to the closure of the OP by deducting them from the next statements of expenditure in line with the provisions laid down in Council Regulation EC/1083/2006.

b. Additional Responsibilities

In addition to the above, the Certifying Authority will be tasked with the following functions (to be carried out in coordination with the European Commission and other competent authorities):

(1) send at the latest by the end of April of each year to the European Commission a provisional forecast of the likely payment applications for the current financial year and the subsequent financial year ;²²²

(2) ensure that the beneficiaries receive the total amount of the public contribution as quickly as possible and in full from the body responsible for making payments;²²³

(3) declare to the European Commission any interest generated by the pre-financing at the time of the final closure of the OP;²²⁴

(4) carry out any other role identified as being the task of the Certifying Authority by the Commission Implementing Regulation.

5.1.3 The Audit Authority

The Internal Audit and Investigations Directorate (IAID), within the Office of the Prime Minister , reports to Cabinet Secretary and the Internal and Audit Investigations Board within the Cabinet Office. The IAID is entrusted with verifying the effective functioning of the management and control system of the OP. The Internal Audit and Investigations Directorate is set up in line with the established national procedures of the Government of Malta and is functionally independent of the Managing Authority and the Certifying Authority of the OP.

The Internal Audit and Investigations Directorate will carry out the tasks and functions of an Audit Authority as described hereunder in full accordance with the institutional, legal and financial systems of Malta.

Contact Details:

Head of the Audit Authority,
Internal Audit and Investigations Department,
Office of the Prime Minister,
Valletta Building
Lower Ground Floor,
South Street,
Valletta VLT 1103

Tel: +356 21237737
Fax: +356 21237681
E-mail: info.iaid@gov.mt
Website: www.iaid.gov.mt

²²² *Ibid* Article 76.

²²³ *Ibid* Article 80.

²²⁴ *Ibid* Article 83.

a. Tasks and Functions of the Audit Authority²²⁵

The Audit Authority shall be responsible for verifying the effective functioning of the management and control system of the OP through the carrying out of audits. In particular the Audit Authority will:

(a) Ensure that audits are carried out to verify the effective functioning of the management and control systems of the OP;²²⁶

(b) Ensure that audits are carried out on operations on the basis of an appropriate sample to verify expenditure declared;²²⁷

(c) Present to the European Commission within nine months of the approval of the OP an audit strategy covering the bodies which will perform the audits referred to in (a) and (b) above, the method to be used, the sampling method for audits on operations and the indicative planning of audits to ensure that the main bodies are audited and that audits are spread evenly throughout the programming period;

(d) Submit to the European Commission by 31 December of each year from 2008 to 2015, an annual control report setting out the findings of the audits carried out during the previous 12 month-period ending on 30 June of the year concerned²²⁸ in accordance with the audit strategy of the OP and report any shortcomings found in the systems for the management and control of the Programme. The information concerning the audits carried out after 1 July 2015 will be included in the final control report supporting the closure declaration described in (g) hereunder;

(e) Issue an opinion by 31 December of each year from 2008 to 2015, on the basis of the controls and audits that have been carried under its responsibility, as to whether the management and control system functions effectively, so as to provide a reasonable assurance that statements of expenditure presented to the European Commission are correct and as a consequence reasonable assurance that the underlying transactions are legal and regular;

(f) Where applicable, submit by 31 December of a given year, a declaration for partial closure assessing the legality and regularity of the expenditure concerned;

(g) Submit to the European Commission at the latest by 31 December 2017, a closure declaration assessing the validity of the application for payment of the final balance and the legality and regularity of the underlying transactions covered by the final statement of expenditure, which shall be supported by a final control report;

(h) Ensure that the audit work including that carried out by contracted bodies is of internationally accepted audit standards;

(i) Report any irregularity, as it arises, to the European Anti-Fraud Office (OLAF) and periodically inform the Commission of the administrative procedures instituted following all irregularities previously notified and of important changes resulting therefrom, including: the amounts which have been, or are expected to be recovered; the interim measures taken to safeguard recovery of

²²⁵ *Ibid* Article 62.

²²⁶ Where the audits are carried out by a body other than the Audit Authority, these will be under the responsibility of the Audit Authority and the Audit Authority shall ensure that such bodies have the necessary functional independence as per Article 62(3) of EC/1083/2006.

²²⁷ Where the audits are carried out by a body other than the Audit Authority, the Audit Authority shall ensure that such bodies have the necessary functional independence (Article 62(3)).

²²⁸ The first report to be submitted by 31 December 2008, shall cover the period from 1 January 2007 to 30 June 2008.

sums wrongly paid; the judicial and administrative procedures instituted with a view to recovering sums wrongly paid and to imposing sanctions; the reasons for any abandonment of recovery procedures; as well as, any abandonment of criminal prosecutions where applicable.

b. Additional Responsibilities

In addition to the above, the Audit Authority will be tasked with the following functions (to be carried out in coordination with the European Commission and other competent authorities):

(1) Establish a report setting out the results of an assessment of the setting up of systems and giving an opinion on their compliance with Articles 58 to 62 of Council Regulation EC/1083/2006. The report will accompany the description of the systems, covering in particular the organisation and procedures of the Managing Authority, the Certifying Authority, the Audit Authority, other bodies carrying out audits under the responsibility of the Audit Authority and intermediate bodies, where applicable;²²⁹

(2) Meet with the European Commission on a regular basis, at least once a year, to examine together the annual control report and opinion described in (d) and (e) above, and to exchange views on other issues relating to the improvement of the management and control of the OP;²³⁰

(3) Co-ordinate with the competent public authority/ies the prevention, detection and correction of irregularities and the recovery of amounts unduly paid together with interest on late payments and the related notification and progress of proceedings to the European Commission;²³¹

(4) Carry out the above mentioned roles in line with Commission Regulation EC/1828/2006.

5.2 Other Bodies²³²

In addition to the main implementing bodies described under Section 5.1, the Member State shall set up a Monitoring Committee and designate bodies responsible for receiving payments from the Commission and for making payments to the beneficiaries in line with Council Regulation EC/1083/2006. The Member State may designate one or more Intermediate Bodies to carry out some or all of the tasks of the Managing or Certifying Authority under the responsibility of that authority.

5.2.1 Monitoring Committee

A Monitoring Committee for this OP will be set up, in agreement with the Managing Authority, within three months from the date of notification to Malta of the Commission decision approving the OP. The Monitoring Committee shall draw up its rules of procedures within the institutional, legal and financial framework of Malta and adopt them in agreement with the Managing Authority in order to exercise its missions in accordance with Council Regulation EC/1083/2006.

The Monitoring Committee will be chaired by a representative of the Maltese Government and its composition will be decided by Malta in agreement with the Managing Authority, and will be comprised of the Permanent Secretaries of each Government Ministry; the Head of the Managing

²²⁹ Article 71 of EC/1083/2006. The report and opinion can be carried out by a public or private body, other than the Audit Authority, which is functionally independent of the Managing Authority and the Certifying Authority, and shall carry out its work taking account of internationally accepted audit standards. Where the Audit Authority is not carrying out the report itself, it shall be responsible for the contracting of the task.

²³⁰ *Ibid* Article 73.

²³¹ *Ibid* Article 70.

²³² See also section 5.5 below.

Authority; the Head of the Certifying Authority; one representative of each of the organizations represented in the Malta Council for Economic and Social Development; one representative of the Local Councils Association; representatives of the Civil Society; representatives of the European Commission; as well as, a representative of the European Investment Bank (EIB) when appropriate. The Managing Authority will carry out the role of secretariat to the Monitoring Committee.

The tasks and functions of a Monitoring Committee as described hereunder will be carried out in full accordance with the institutional, legal and financial systems of Malta.

Contact Details:

Secretariat to the Monitoring Committee,
Planning and Priorities Co-ordination Division,
Triq il-Kukkanja,
Santa Venera SVR1411

Tel: +356 22001142

Fax: +356 22001141

E-mail: info.ppcd@gov.mt

Website: www.ppcd.gov.mt

a. Tasks and Functions of the Monitoring Committee²³³

The Monitoring Committee shall satisfy itself as to the effectiveness and quality of the implementation of the OP. In particular the Monitoring Committee will:

- (a) Consider and approve the criteria for selecting the operations financed within six months of the approval of the OP and approve any revision of those criteria in accordance with programming needs;
- (b) Periodically review progress made towards achieving the specific targets of the OP on the basis of the documents submitted by the Managing Authority;
- (c) Examine the results of implementation, particularly the achievement of the targets set for each Priority Axis and the evaluations referred to in Article 48(3) of Council Regulation EC/1083/2006;
- (d) Consider and approve the annual and final reports on implementation referred to in Article 67 of the Council Regulation EC/1083/2006;
- (e) Be informed of the annual control report, or of the part of the report referring to the OP concerned, and of any relevant comments the Commission may make after examining that report or relating to that part of the report;
- (f) Propose, when necessary, to the Managing Authority any revision or examination of the OP likely to make possible the attainment of the Funds' objectives referred to in Article 3 of the Council Regulation EC/1083/2006 or to improve its management, including its financial management;
- (g) Consider and approve any proposal to amend the content of the Commission decision on the contribution from the Funds.

²³³ *Ibid* Article 65.

5.2.2 Body responsible for receiving payments from the Commission

The European Union (Paying Authority) Directorate²³⁴ within the Ministry of Finance, the Economy and Investment (MFEI) is entrusted with receiving payments made by the European Commission in relation to the priorities of this OP. The European Union (Paying Authority) Directorate is set up in line with the established national procedures of the Government of Malta. The same Body is also the Certifying Authority as described under section 5.1.2 above.

The European Union (Paying Authority) Directorate will carry out the tasks of the competent body for receiving the payments made by the European Commission as described hereunder in full accordance with the institutional, legal and financial systems of Malta. The contact details are the same as those of the Certifying Authority described under 5.1.2 above.

a. Tasks and Functions of the Body responsible for Receiving Payments from the Commission

Without prejudice to the tasks to be carried out by the Certifying Authority²³⁵, the European Union (Paying Authority) Directorate shall be responsible for receiving the pre-financing, interim payments and payments of the final balance from the European Commission in line with Council Regulation EC/1083/2006.

In particular the European Union Paying Authority Directorate will:

- (a) Open and manage a bank account at the Central Bank of Malta for the posting of payments by the European Commission in relation to the OP (The bank account number for the ERDF is **40201 EUR-CACM-066-N**; for CF: **40201 EUR-CACM-068-R**; and for ESF: **40201 EUR-CACM-067-P**);²³⁶
- (b) Transmit an original copy of the Financial Identification Form of the bank account to the European Commission;
- (c) Receive from the European Commission in line with Article 82 of Council Regulation EC/1083/2006 a single pre-financing amount which shall be paid in different instalments, as follows:²³⁷
 - from the contribution of the European Regional Development Fund to the OP 2% in 2007, 3% in 2008 and 4% in 2009;
 - from the contribution of the Cohesion Fund to the OP 2.5% in 2007, 4% in 2008 and 4% in 2009.
- (d) Liaise with the Managing Authority and the competent authority on financial estimates as regards the distribution and use of the pre-financing amount;

²³⁴ The European Union Paying Authority Directorate is also the designated Certifying Authority for the Structural Funds and the Cohesion Fund 2007-2013.

²³⁵ In Malta the tasks of the Certifying Authority and that of the competent body receiving payments from the European Commission will be carried out by the same organisation, namely the EU Paying Authority Directorate within the Ministry of Finance.

²³⁶ The bank account holder will be the Director European Union Paying Authority Directorate.

²³⁷ If no payment application under the OP is sent within 24 months of the date on which the European Commission pays the first instalment of the pre-financing amount, the European Union Paying Authority Directorate will reimburse the total amount paid as pre-financing to the European Commission.

(e) Receive interim payments from the European Commission on the basis of payment applications and statements of expenditure submitted by the Certifying Authority in line with Article 85 of Council Regulation EC/1083/2006;

(f) Receive payment of the final balance from the European Commission in line with Article 89 of Council Regulation EC/1083/2006.

5.2.3 Body responsible for making payments to the beneficiaries

The Treasury within the Ministry of Finance, the Economy and Investment is the Body making payments to beneficiaries. The Treasury is set up in line with the established national procedures of the Government of Malta.

Malta will pre-finance from the national budget the EU share of operations being implemented by Beneficiaries that are either part of central government (government departments, public authorities and public corporations and companies), local government (local councils) or non-governmental organisations. This means that the Beneficiaries under these categories implementing projects will present invoices to the Treasury and following the relevant checks these invoices will be paid by the Treasury (to the contractor). In all these cases the Treasury will pay the contractors directly on behalf of the Beneficiaries.

In the case of private enterprises that are carrying out individual projects and receiving public aid in the context of aid schemes under Article 87 of the Treaty,²³⁸ the Beneficiary will be reimbursed by the Treasury the public component of the cost upon presentation by the beneficiary of the relevant receipts and supporting documentation to the Intermediate Body,²³⁹ which the latter will certify to Treasury. In this case, the Treasury will be reimbursing the public contribution of the expenditure already incurred by the beneficiary.

The Treasury will carry out the tasks of the competent body for making payments as described above following procedures and in full accordance with the institutional, legal and financial systems of Malta.

Contact Details:

Director General (Treasury),
The Treasury,
The Mall, Level 4,
Floriana FRN 1470

Tel: +356 25967100

Fax: +356 215967203

E-mail: info.mfin@gov.mt

Website: www.treasury.gov.mt

²³⁸ Article 2(4) of EC/1083/2006 establishes that in the context of aid schemes under Article 87 of the Treaty, beneficiaries are public or private firms carrying out an individual project and receiving public aid.

²³⁹ See section 5.2.4 below.

5.2.4 Intermediate Bodies

The Member State may designate one or more Intermediate Body to carry out some or all of the tasks of the Managing or Certifying Authority under the responsibility of that Authority.²⁴⁰

In view of Article 2(6) of Council Regulation EC/1083/2006, which provides that in the context of aid schemes under Article 87 of the Treaty, Beneficiaries are the public or private firms carrying out an individual project and receiving public aid, there is a need to establish Intermediate Bodies to manage the aid schemes. Malta will only establish IBs and schemes to ensure compliance with Article 2(6) of EC/1083/2006. The Intermediate Body will be the public body designated by the MA to manage the scheme under Article 87 of the Treaty while the Beneficiary is the enterprise receiving aid under the scheme²⁴¹.

In this regard the management and implementation of aid schemes selected under the auspices of Priority Axes 1 (aid schemes to enterprises); 2 (aid schemes to tourism and culture undertakings), 4 (enterprise schemes for RES/Energy Efficiency) and 6 (aid schemes to promote the provision of childcare facilities by enterprises²⁴²), this OP will be entrusted to a number of Intermediate Bodies that will act on behalf of the Managing Authority and carry out duties on its behalf vis-à-vis beneficiaries implementing operations in the context of aid schemes. Such functions will be agreed upon in an agreement between the Managing Authority and the selected Intermediate Bodies. All Intermediate Bodies will be public organisations.

a. Tasks and Functions of Intermediate Bodies

The relationship between the Managing Authority and each identified Intermediate Body will be defined in an agreement that will include the following information:

- (1) Details on the Intermediate Body managing the implementation of the aid scheme, with specific information on the institutional capacity for the administrative and financial management of the aid scheme;
- (2) The types of operations to be covered by the proposed aid scheme with quantified indicators and benchmarks;
- (3) The eligibility and selection criteria for selecting operations which will be submitted for the approval of the Monitoring Committee;
- (4) The rate of assistance from the Funds and the rules governing that assistance;
- (5) The arrangements for monitoring, evaluating and ensuring the financial control of the aid schemes vis-à-vis the Managing Authority, including the modalities for recovering amounts unduly paid and the presentation of accounts.

In addition the agreement will contain a detailed list of the functions that will be delegated to the intermediate bodies at all stages of programme implementation including:

- (a) Preparing and launching calls for individual projects under the aid scheme (including application forms and guidance notes);

²⁴⁰ Article 59 of EC/1083/2006.

²⁴¹ An entity can be both an IB and a Beneficiary within the operational programme as long as it is not acting as both within the same operation.

²⁴² And non-undertakings. Aid schemes to promote the provision of childcare under this axis will largely support the building/adapting premises in line with the new national standards.

- (b) Evaluating the proposals received and selecting the operations for co-financing;
- (c) Ensuring that the individual operations selected under the aid scheme for funding are in line with the proposed criteria and that they comply, for the whole implementation period, with applicable Community and national rules;
- (d) Verifying the delivery of the co-financed products and services and that the expenditure declared by the beneficiaries for operations has actually been incurred and complies with Community and national rules;
- (e) Ensuring that there is a system for recording and storing in computerised form accounting records of each operation under the aid scheme and that the data on implementation necessary for financial management, monitoring, verifications, audits and evaluation is collected;
- (f) Ensuring that beneficiaries and other bodies involved in the implementation of operations are aware of the rules and obligations of managing an operation under this Programme;
- (g) Ensure that beneficiaries and other bodies involved in the implementation of operations maintain either a separate accounting system or an adequate accounting code for all transactions relating to the operation without prejudice to national accounting rules;
- (h) Setting up procedures to ensure that all documents regarding expenditure and audits required to ensure an adequate audit are held in accordance with the requirements of Article 90 of Council Regulation EC/1083/2006;
- (i) Ensuring compliance by the Beneficiaries with the information and publicity requirements laid down in Article 69 of the Council Regulation EC/1083/2006;
- (j) Laying down rules on the eligibility of expenditure taking into account exceptions provided in the specific Regulations for each Fund, and ceilings on state aid;
- (k) Ensuring that an operation retains the contribution from the Funds as set out in Article 57 of the Council Regulation EC/1083/2006.

The modalities for the carrying out of the above tasks will be laid down in the agreement with the Managing Authority. This delegation shall be without prejudice to the financial responsibility of the Managing Authority and of the Government of Malta.

5.3 Implementation modalities

The procedures and arrangements for monitoring, evaluation, the computerised exchange of data, reporting systems, the financial circuit and the information and publicity of the OP are described hereunder.

5.3.1 Monitoring Procedures

Monitoring procedures will be established to ensure the quality of the implementation of the OP. Monitoring will be carried out with reference to financial indicators and the indicators referred to in Article 37(1)(c) of Council Regulation EC/1083/2006. Wherever the nature of the assistance permits, statistics shall be broken down by sex and other categories, in line with the obligations of the Commission Implementing Regulation (EC/1828/2006) and the relevant annex/es.

The monitoring of the financial indicators and the indicators referred to in Article 37(1) (c) of the Council Regulation EC/1083/2006 will be computerised. In this regard, a computerised data management system, currently in use for the 2004-2006 Structural Funds, will be enhanced to ensure the electronic transfer of financial and other data of the projects selected in the framework of this OP into a central database.

This database which will be managed by the Managing Authority, will contribute to the electronic data exchange with the Commission, in accordance with the Commission Regulation EC/1828/2006, setting out detailed rules for the implementation of Council Regulation EC/1083/2006 and provide the following information to be used for the compiling of the annual reports and final report on implementation:

- (1) The progress made in implementing the OP and priorities in relation to the specific, verifiable targets, with a quantification, wherever and whenever possible, using a limited number of indicators for output and results;
- (2) The financial implementation of the OP, detailing for each Priority Axis the expenditure paid out by the beneficiaries included in payment claims sent to the Managing Authority and the corresponding public contribution, the total payments received from the Commission and quantification of the financial indicators referred to in Article 66(2) of Council Regulation EC/1083/2006 and the expenditure paid out by the body responsible for making payments to the beneficiaries;
- (3) The indicative breakdown of the allocation of Funds by categories, in accordance with the Commission Regulation setting out detailed rules for the implementation of Council Regulation EC/1083/2006.

In view of the recommendations made by the Mid-Term Update of the SPD 2004-2006, the Managing Authority will take the initiative to ensure that a formal mechanism to steer operations is set up. Due to the fact that the majority of operations will be implemented by public sector bodies, a Project Steering Committee function within each Line Ministry will be set up. Apart from providing a more effective mechanism to track project progress and to deal with arising issues, the introduction of Steering Committees will facilitate programme management at the Managing Authority level. It is envisaged that, whilst project leaders would continue to liaise with the respective programme managers within the Managing Authority, the Steering Committees would report to the Permanent Secretary/Programme Implementation Director in the line Ministry. To be effective, Steering Committees will be composed of persons who are both capable and available to steer projects and take timely decisions.

5.3.2 Evaluation

Article 47 (1) of Council Regulation EC/1083/2006 defines the overall purpose of evaluating Cohesion Policy to improve the quality, effectiveness and consistency of the assistance from the Funds and the strategy and implementation of OPs with respect to the specific structural problems affecting the Member States.

Under Article 48 of the same Council Regulation, Member States are obliged to carry out an Ex-Ante evaluation. The objective of the ex-ante evaluation is described under the same Article 48. Essentially, Ex-Ante evaluations should aim to optimize the allocation of budgetary resources and improve the quality of the programming document. The Ex-Ante evaluation carried out on this OP is discussed under Chapter 2. As outlined under Chapter 2, a good number of the recommendations made by the independent evaluators have been taken on board by Malta in the finalization of this document.

The Council Regulation provides for a shift from a concept of mid-term evaluation driven by regulatory imperatives, towards a more flexible, demand-driven approach to evaluation during the programming period ('on-going evaluation'). The Commission's Working Paper 5 '*Indicative Guidelines on Evaluation Methods: Evaluation during the Programming Period*' (October 2006) describes in more detail, the approach that should be adopted with regard to on-going evaluation activities in the 2007-13 period. There are a number of key points:

- Firstly, there are two specific situations in which Member States should carry out an evaluation – 'where the monitoring systems reveal a significant departure from the goals initially set' and, secondly, if and when 'OP revisions are proposed'. These changes could arise from financial considerations (e.g. if financial absorption lags behind targets), or be content-related or linked to an OP's implementation.
- Secondly, a distinction is made between evaluations of a strategic nature ('in order to examine the evolution of a Programme or group of Programmes in relation to Community and national priorities') and evaluations of an operational nature ('in order to support the monitoring of an OP').
- Thirdly, as laid down in the Regulation, there are four main principles that govern on-going evaluation: *proportionality* (evaluation activities should be 'in proportion to the scale and resources of an OP or 'potential risk areas' associated with its implementation; *Independence* ('evaluations shall be carried out by experts or bodies - internal or external - that are functionally independent of the certifying and audit authorities'; *Partnership* ('essential for planning, designing and carrying out evaluation. It relies on consultation and participation of stakeholders and provides a basis for learning, openness, and transparency during the whole process'); and *Transparency* ('it is good practice to publish evaluation reports in the interests of transparency and in order to stimulate public debate on evaluation findings').

In line with the same Article 48, Malta is currently preparing an evaluation plan which will give an indication of the evaluation activities foreseen under the Programme. The Plan will seek to build upon the experience which Malta has with evaluation so far and the evaluation plan for the programming period 2004-2006. Malta will submit the evaluation plan during 2007. The plan will include a number of ongoing evaluations assessing specific issues and will include consideration to the cross-cutting issues: relevance, efficiency, effectiveness, the impact and Community value-added, and sustainability.

Although not obligatory, Malta envisages a mid term evaluation being carried out in 2009. This will be parallel to a mid-term evaluation that will be carried out for Malta's OP II. The mid-term evaluation will essentially involve a synthesis of the work carried out in the ongoing evaluations. However, in addition to this, the mid-term evaluation will review monitoring data and performance indicators across the breadth of the two OPs. The purpose of the mid-term evaluation will be that of assessing progress towards key OP objectives and towards the overall NSRF goals, and to

recommend corrective actions if there is under-performance. It will also be used to support any proposed changes in the objectives of the OPs or reallocation of financial resources.

Ex-post evaluation is the responsibility of the Commission.²⁴³ The Managing Authority will support the Commission in this task.

5.3.3 Computerised Exchange of Data

The Planning and Priorities Coordination Division (PPCD) within the Parliamentary Secretariat for the EU Presidency 2017 and EU Funds is responsible for the set-up, management and administration of the Structural Funds Database (SFD07), the Information Management and Monitoring System for Structural Funds. The SFD07 will be web-based, operating on the secure framework of the Government of Malta.

The local system (SDF07) to be implemented for the programming period 2007-2013 will interface with the Structural Funds Common Database 2007 (SFC07) through Web-Services. Hence, data will automatically be transferred directly from the SFD07 to the SFC2007. For each programme, a valid CCI code will be requested and assigned by the SFC2007, as opposed to the current situation whereby the CCI code has to be explicitly obtained from the Commission by means of a manual workflow. The CCI code will serve as a single point of reference in the SFD07, providing the Commission with a single dossier, thus facilitating searching, reporting and auditing. Section 5.3.1 above explains some of the functions, particularly monitoring, that will be carried out via the electronic system.

5.3.4 Accounting, Monitoring and Financial Reporting Systems

Information on procedures implemented to assure the reliability of the systems in place including security of the electronic exchange of data.

The scope of the SFD07 is twofold, that of managing Programmes and projects, as well as a financial control mechanism to enable the smooth processing of payments. The system, by design, caters for the management of the framework, cascading down to the various Programmes, Priority Axes and respective projects. The new system is built around five main processes which include:

- OP Management;
- Project Management;
- Contract Management;
- Payment Management;
- Certification.

The system allows for a multi-user group environment with distinct roles and operations. Within this context the information gathered is evaluated at various stages. The Managing Authority (PPCD) regularly reviews the information that is captured by the system both for internal administration, as well as, in order to provide information to the Monitoring Committee. The system issues a number of standard and customised reports to meet the needs of the various data groups.

The SFD07 has an inbuilt system for monitoring financial and physical indicators. At regular intervals, the Managing Authority may request each project leader to provide a qualitative summary update of the progress made by their respective projects. This information is central in

²⁴³ Article 49 of EC/1083/2006.

compiling a number of progress reports both on an ad hoc and/or annual/biannual/quarterly basis, as requested by the competent authority and the Commission.

Malta has adopted a centralised system whereby the Government (out of its national budget) advanced both ERDF/CF and national co-financing related to Structural Funds (SF)/Cohesion Fund (CF) projects to all public sector Beneficiaries. The funds are allocated to the accounts of the Line Ministries (rather than the Beneficiaries themselves²⁴⁴) to ensure a degree of control over the funds and also to facilitate the payment to contractors via the central agent, namely the Treasury. The invoices are received by Beneficiaries in the first instance. However, in the majority of cases, the accounting entry, although identifiable and distinct, will be within the central government accounting system and not within the accounting system of the Beneficiary²⁴⁵. Nonetheless all bodies involved in the implementation of operations have access to a system for fully recording and storing in computerised form accounting records for each operation.

The objective behind this payment system is to facilitate the participation of entities in SF and also for control purposes. The system guarantees a full audit trail, incorporates a clearly identifiable code within the national accounting system and is sound and effective in terms of controls.

5.3.5 Financial circuit

The following procedures for the mobilisation and circulation of funding are being set up to ensure the transparency of financial flows. A brief reference to the financial circuit is also being presented under section 5.2.3 above.

Distinct financial procedures have been established according to specific categories of beneficiaries as follows:

- Public sector beneficiaries, including Line Ministries, Government departments, public authorities, and public corporations that are responsible for initiating and implementing operations selected under one of the Priority Axes of this OP.
- Other public or public equivalent beneficiaries including local councils and socio-economic partners, constituted bodies and non-governmental organisations that are responsible for initiating and implementing operations selected under one of the Priority Axes of this OP.
- Private sector beneficiaries, defined as private enterprises carrying out an individual project and receiving public aid within the context of aid schemes under Article 87 of the Treaty.

a) Public Sector Beneficiaries

These include Line Ministries, Government departments, public authorities and public corporations that are responsible for initiating and implementing operations selected under one of the Priority Axes of this OP (vide Figure 5.1). The Malta Government annual financial estimates

²⁴⁴ The Annual Financial Estimates of the Maltese Government indicate clearly the funds allocated to each respective public body (beneficiary) with respect to project co-funded from Structural and Cohesion Funds.

²⁴⁵ Exception to this are only the beneficiaries receiving aid under Article 87 of the Treaty where the full accounting entry will be held in the accounting system at beneficiary level as these are only reimbursed for any payments made from Government's pre-financing mechanism. In this case there will also be an accounting entry in the central government accounting system when such beneficiaries are reimbursed the EU and the Malta Government components.

will provide for the pre-financing of the Community co-financing share of the forecasted annual eligible expenditure of all the selected projects under the responsibility of Public Sector beneficiaries. The Malta Government annual financial estimates will also provide for the Maltese co-financing share of the forecast annual eligible expenditure, as well as an allocation for other expenditure not eligible for Community co-financing.²⁴⁶ The Treasury will pay **on behalf** of the beneficiary, the service/supplies/works provider, the Community co-financing share and the Malta co-financing share of the invoice from the relevant expenditure items as explained also under section 5.2.3 above.

b) Other Public or Public Equivalent Beneficiaries

These include Local Councils, Socio-economic Partners, Constituted Bodies and NGOs that are responsible for initiating and implementing operations selected under one of the Priority Axes of this OP (vide Figure 5.2). The Malta Government annual financial estimates will provide for the pre-financing of the Community co-financing share of the forecast annual eligible expenditure of all the projects under the responsibility of such beneficiaries (such as Local Councils, socio-economic partners, and NGOs). The national public co-financing share of the projects will be provided for from the funds of the beneficiaries defined as Socio-economic Partners, Constituted Bodies, NGOs and Local Councils. In this regard no provision will be made for national co-financing funds in the national budget. On receipt of invoice/s, the beneficiary will transfer an amount from own funds equivalent to the established national co-financing rate of the project to an expenditure item of the national budget. The Treasury will pay the full amount of the invoice to the service/supplies/works provider on behalf of the beneficiary.²⁴⁷

c) Private Sector Beneficiaries

These are defined as private enterprises carrying out an individual project and receiving public aid within the context of aid schemes under Article 87 of the Treaty (vide Figure 5.3). The Malta Government annual financial estimates will provide for the pre-financing of the Community co-financing share of the forecast annual eligible expenditure of all the aid schemes under the responsibility of the selected Intermediate Bodies. The Community and national (public) co-financing will be paid to the beneficiary upon receipt of relevant documentation proving payment (by the beneficiary) of the total amount (EU, national public and national private) of the expenditure invoiced. Treasury will reimburse beneficiary the full public component. The Treasury will carry out the functions of the body responsible for making payments to the beneficiaries by reimbursing the public share of the eligible cost.

The Certifying Authority will carry out the functions of the competent body receiving the payments made by the Commission for all three distinct financial circuits. An account will be opened with the Central Bank of Malta and its operation will be the responsibility of the Certifying Authority. The European Commission will transmit the advance, interim and final payments of the Funds in the bank account.

²⁴⁶ In the case of some public entities / corporations, the national co-financing and ineligible costs may be sourced from the entity's own resources.

²⁴⁷ In exceptional circumstances, for example in the case of salaries, in order to ensure that payments are effected in stipulated time periods the beneficiary for both categories (a) and (b) above may effect the necessary payments and then Treasury will reimburse the beneficiary the full public share of the eligible costs upon receipt of the relevant documentation.

Figure 5.1: Financial Flow Chart – Public Sector Beneficiaries

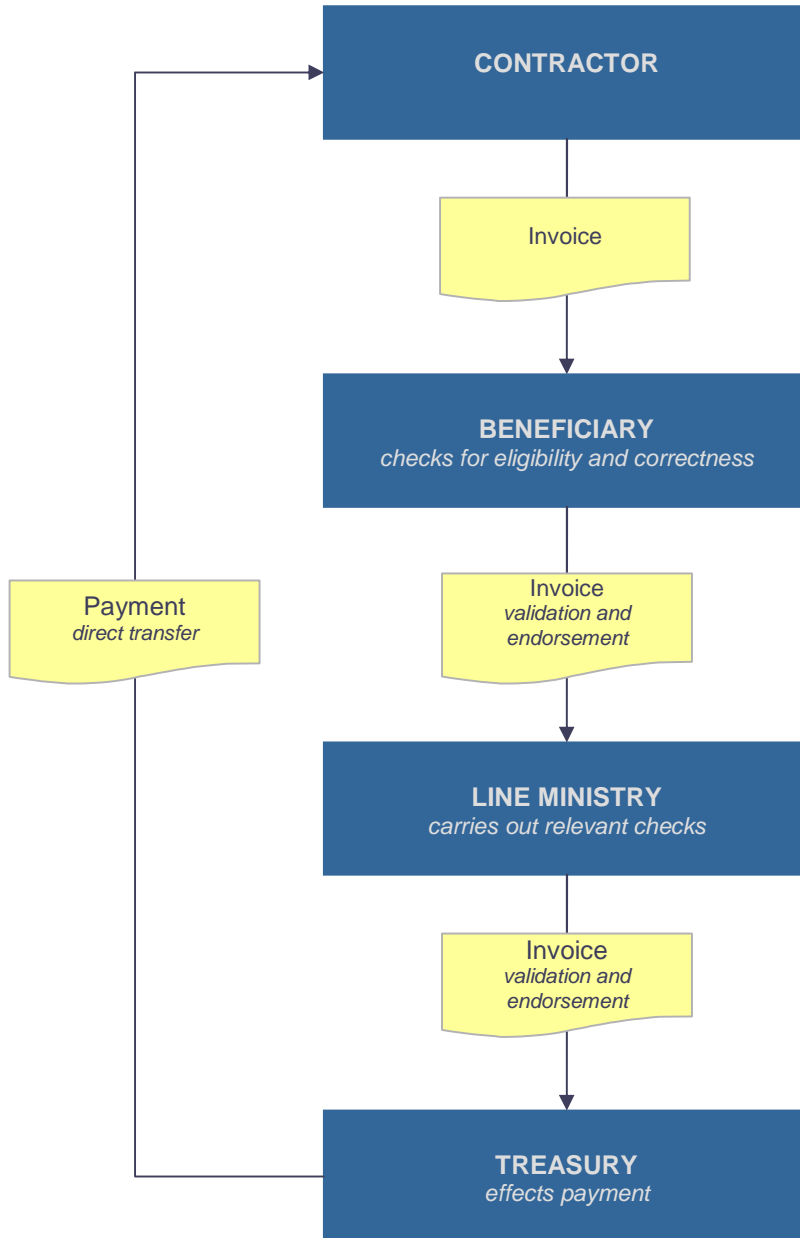


Figure 5.2: Financial Flow Chart – Public and Public Equivalent Beneficiaries

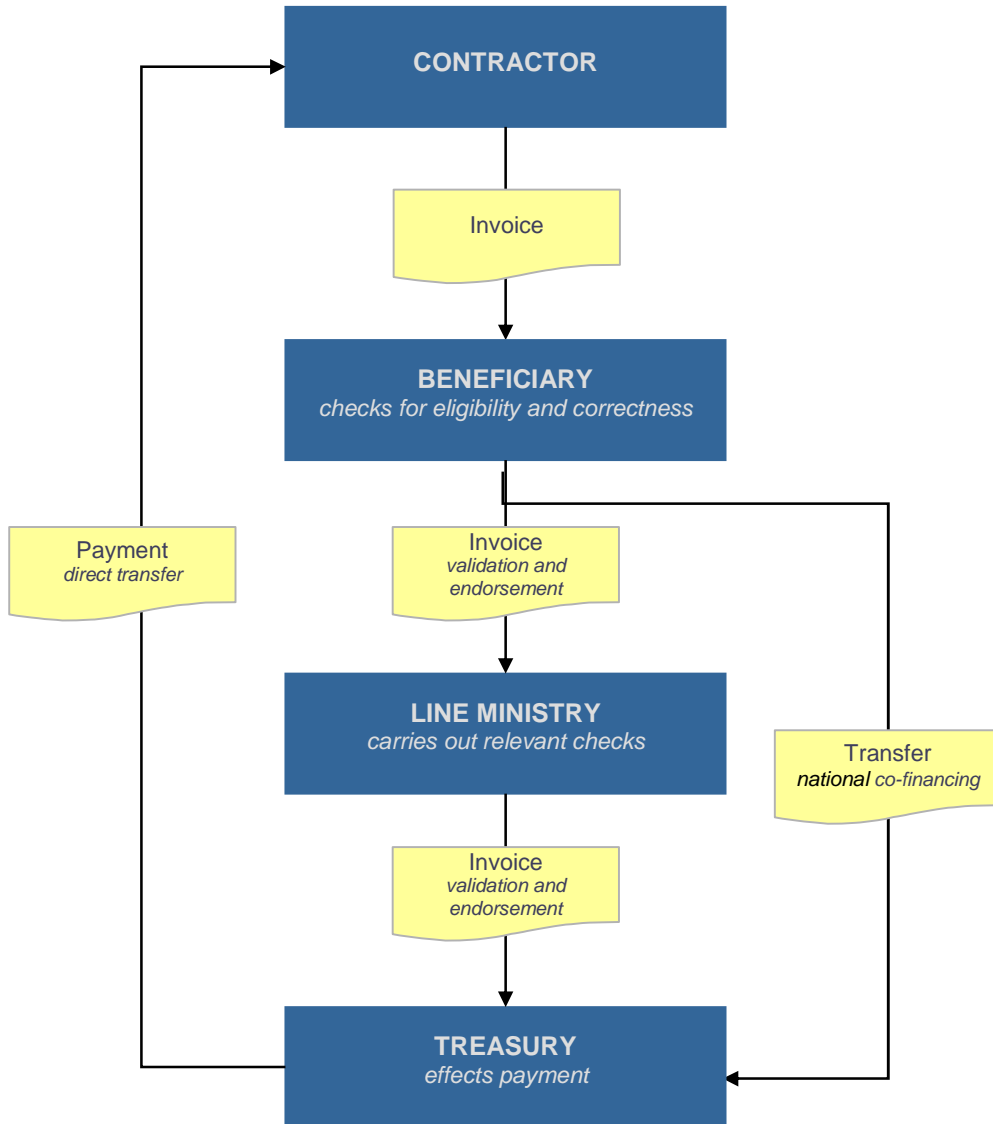
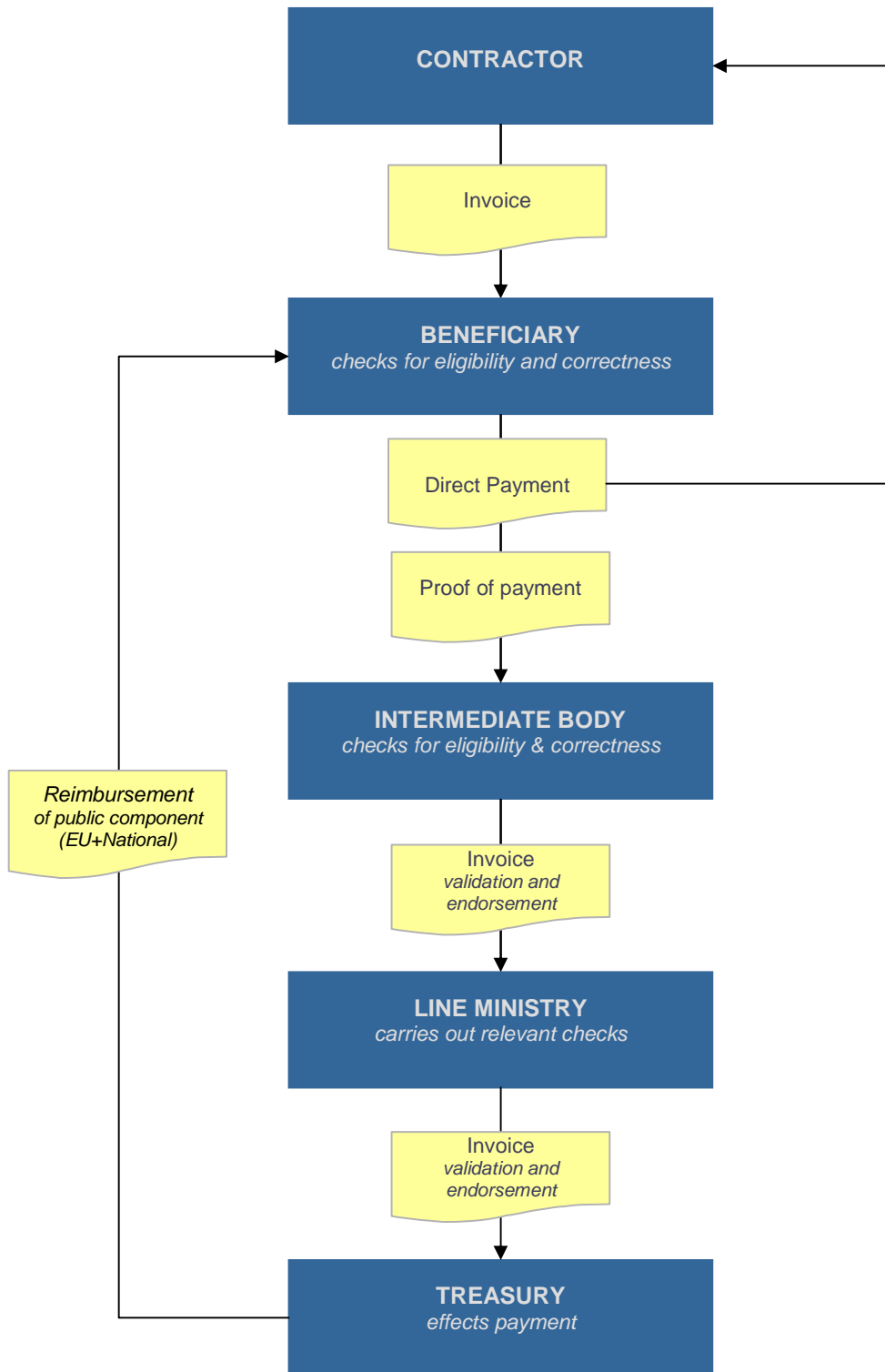


Figure 5.3: Financial Flow Chart – Private Sector Beneficiaries



5.3.6 Information and publicity

Article 69 of Council Regulation EC/1083/2006 highlights the obligations of the Member State and the Managing Authority for providing information on and publicizing operations financed under the OPs. The Maltese Government is highly committed to publicise the role of the Cohesion Policy and to make visible the results and impacts of Programme implementation.

In line with the Commission Regulation EC/1828/2006, Malta is currently preparing a Communications Plan which shall cover the two OPs (ERDF and ESF), with activities that are relevant to both OPs and specific components for each of the OP, given the different nature of the operations financed under the two OPs. Malta believes that there is a need to support as many synergies between both OPs and to give a coherent approach to the publicity actions, hence the general component relevant to both OPs. On the other hand, given the specific objectives of each OP and also the different target groups and stakeholders, the Maltese authorities believe that the Plan should give space to distinct components that are more appropriate for one or the other OP.

The objectives of the Communications plan are to:

- a) Provide transparent information on the opportunities provided by Structural Funds and the Cohesion Fund assistance to potential project proponents;
- b) Devise a system that provides information about Structural Funds and Cohesion Fund interventions;
- c) Inform the media, the general public and interested stakeholders about the role played by the EU in implementing the assistance;
- d) Make visible results achieved through the assistance given by the Funds;
- e) Promote an understanding and appreciation of the role of Structural Funds and the Cohesion Fund and the EU's contribution to the overall socio-economic development of Malta and Gozo.

In a nutshell, the Communications Plan aims to carry out promotional, informational and support measures throughout the programming period, with activities covering the general framework and scope of the Structural Funds and Cohesion Fund at a programme level and provide guidance for information and publicity initiatives at project level, so that programme actions and project initiatives will be coherent (less confusing to public). This will also avoid duplication of resources. In this regard, the Managing Authority will beef up its capacity through the setting up of a communications co-ordination unit which will be co-funded through the technical assistance of the OPs.

5.3.7 Project Selection Process

European Regional Development Fund:

The Project Selection process for the ERDF will take place, primarily, through the following procedures:

a. Open Call for Applications.

In the case of an open call for application, a call will be issued highlighting which Priority Axis is open and who are the eligible applicants. Such a call will be published in the media and also on the website of the Managing Authority and other Government websites. The call will be accompanied by guidance notes on the application form and also by information sessions to provide information on the project application and selection process. The criteria for selection of the operations will be proposed by the Member State and approved by the Monitoring Committee. The proposed criteria will also include environmental criteria to ensure that project proponents have made an effort to consider environmental issues in the design and proposed implementation of the project. Separate calls will be issued for the participation of Partners and NGOs in order to

ensure a more level playing field in the selection process. The bulk of the ERDF funds under this OP will be allocated to operations selected through an open/restricted call procedure.

b. Aid Schemes

No public call will be issued by the Managing Authority for the management of aid schemes under Article 87 of the Treaty. A number of Intermediate Bodies (only public bodies) are foreseen and the Managing Authority will allocate a sum of money to these public bodies managing the schemes on behalf of the Managing Authority. The Intermediate Bodies will be designated by the Managing Authority and the relationship between the Managing Authority and its Intermediate Bodies will be regulated in an agreement. The Intermediate Bodies will launch a call for project proposals to the beneficiaries so that there is competition between potential beneficiaries and also amongst the operations selected. The selection criteria will be drawn up by the Intermediate Body and approved by the Monitoring Committee.

c. Small Projects and Projects of Particular National Interest

The Managing Authority may decide to allocate funds directly to small projects or projects that contribute to the achievement of the objectives of the Programme and which arise during the implementation period but outside the period of an open call. Moreover, the 2004-2006 experience has taught that, generally, there are savings which accrue from the original approved operations. In this case, the resultant potential savings often do not warrant an open call for applications (with all the administrative burdens) because of the relatively small amount available. The beneficiary will still be required to complete a project application form and will sign a letter of grant with the Managing Authority. The beneficiary will be expected to follow rules and procedures as directed by the Managing Authority. The size of each individual operation that can be selected under this procedure will not exceed Euro 150,000 in total public eligible cost.

d. Major Projects

No call for applications will be issued for major projects. All of Malta's major projects under this OP consist of national public infrastructure. The projects are indicatively listed and described under the relevant Priority Axis of the OP. Any additional submissions will be approved by Cabinet and sent to the Commission for approval. The Monitoring Committee will be kept informed of any additional major projects submitted to the EC, which are not listed in the OP.

e. Technical Assistance

Technical assistance for both the ERDF and the Cohesion Fund will be demand-driven (not subject to specific calls) and managed by the Managing Authority. The Managing Authority will set up procedures for any of the eligible stakeholders wanting to make use of the technical assistance. These procedures will be explained to the Monitoring Committee and will also be made public to stakeholders in the manual of procedures of the Funds which will also be published on the relevant websites.

Cohesion Fund:

Given that the Cohesion Fund projects are national projects and inherent to a limited number of entities within the public sector, no public call for applications will be issued for the selection of the Cohesion Fund projects. The Government will decide on the allocation of funds for the different areas within each of the sectors, namely transport and environment. The projects

received from the relevant entities will be assessed according to the selection criteria. It should be noted that a good number of the projects foreseen under the Cohesion Fund will be major projects and are also included under the relevant Priority Axis.

5.3.8 Implementation of the 10 per cent Commitment for Gozo

The Government is committed to spending a minimum of 10 per cent of the Funds on projects related to the socio-economic development of Gozo. In the analysis of the NSRF, the specific situation and needs of Gozo have resulted in a strategic objective aimed at addressing Gozo's regional distinctiveness. Gozo's regional distinctiveness arises from a variety of factors including the Island's double insularity as a small Island on the periphery of another Island, its distinctive socio-economic development, and its fragile natural environment. The need to address Gozo's regional distinctiveness are specifically linked to mitigating the double insularity issues – primarily easing accessibility pressures – and efforts to promote economic activity and increase employment. In this regard, the Government realises that there is a need for a specific holistic approach to boost the Island's economic growth. The Government's objective to address Gozo's regional distinctiveness is translated by a commitment to spend a minimum of 10 per cent of Cohesion Policy resources on measures contributing to Gozo's socio economic development.

Under the 2004-2006 Cohesion Policy Programme, a similar commitment was implemented via a specific territorial Priority Axis in the Programme. The Mid-Term Update carried out on the efficiency of the 2004-2006 Programme did not deem such an approach as very efficient due to the resultant insufficient flexibility arising during implementation. It should be noted that during the 2004-2006 period, Gozo exceeded its 10 per cent allocation through a number of national projects which had a Gozo component as part of the implementation of a sectoral strategy, as is the case, for example, of the waste management strategy and the road upgrading programme.

Given the success of Gozo projects under the 2004-2006 Programme, and also in view of the number of sectoral national strategies that need to be implemented under the 2007-2013 Programmes, the Government is confident that there is no need, at this stage, to introduce special measures to implement the Government's commitment. In this regard, the authorities are proposing to allow the project selection process take its normal course with the selection of the best projects and to monitor the Gozo projects as well as the relevant components under the implementation of national sectoral strategies in order to ensure that the Government's commitment is translated into operations on the ground in Gozo. The Government will monitor the situation through the SFD and assess the situation through the evaluation process and will propose rectifying measures if and when the need arises.

5.4 Horizontal Issues

The implementation of the OP will comply with Community policies on sustainable development and equal opportunities. Co-ordination and consistency with the European Social Fund, the European Agricultural Fund for Rural Development and the European Fisheries Fund and with other Community Programmes and Initiatives such as the 7th Framework Programme and the CIP.

5.4.1 Sustainable Development

The Sustainable Development Strategy for the Maltese Islands, entitled '**A Sustainable Development Strategy for the Maltese Islands – 2007-2016**,' has the aim of building upon and harmonizing the various sectoral, economic, social and environmental strategies and action plans that are operating in the country. This ensures socially responsible economic development, while protecting the resource base and the environment for the benefit of future generations. The strategy is characterised by 20 priority areas divided over three vertical themes and a set of targets for implementing and ensuring sustainability. The three central aims of the strategy are the effective protection of the environment and prudent use of natural resources, promoting sustainable economic development and fostering sustainable communities.

Since Sustainable Development (SD) is a cross-cutting theme of this OP, the three pillars of the SD strategy are inextricably linked to the OP's specific objectives. The synergy is underpinned by the common aim of generating economic growth as well as providing adequate infrastructure leading to a better quality of life for the Maltese citizens in a long-term perspective. More specifically, the challenges contained in the Draft SD Strategy will be addressed through OP I interventions earmarked to focus on a number of important areas pertaining to the promotion of SD. These include efforts to promote sustainable economic development through support to enterprise and mobilization of investment in research, technological development and innovation (RTDi), as well as, through initiatives put forward to sustain the tourism industry and promote culture. The OP also dovetails with the SD strategy, in that, it envisages interventions to improve the quality of life of Maltese citizens. This will be achieved through actions aimed to improve the transport infrastructure, undertake investment to achieve environmental sustainability, invest in risk prevention, improve accessibility measures, undertake urban regeneration, undertake investment in health care, as well as promote energy efficiency and diffusion of RES. In fact, RES and Energy Efficient measures are considered as a horizontal priority throughout the OP and all projects are encouraged to incorporate such measures in the project design. At project selection stage, all operations are assessed against this criterion and marks are given to the extent sustainable development is implemented within the project. The OP is also responsive to the actions proposed in the SD objective of fostering sustainable communities through interventions focusing on education and employment, with mention of social inclusion and institution-building aspects.

SD targets are clearly in tune with the objectives of OP I and the successful implementation of this OP will ascertain that some of the objectives contemplated in the SD strategy will be adequately addressed and progressively achieved. In developing OP I, the objective is that of building on best practice from the current programme, reflecting the opportunities available through the integration of the horizontal themes and the benefits that this can bring to programme delivery. In addition, at project level, synergy between the economy, society and environment will be achieved through the use of guidance, appraisal and monitoring procedures.

In order to strengthen the link between the implementation of the OP and the achievement of the horizontal priority of Sustainable Development, an annual meeting will be held between the Managing Authority, the identified stakeholders and technical experts (called to attend on an *ad hoc* basis), with the aim of assessing the trends and ascertain whether and to what extent, projects funded under the OP could have had an impact on such trends. The relevant

stakeholders will meet at least once annually. The MA will also look at any updates or information that may be required to monitor the recommendations of the SEA with the SEA Competent Authority.

5.4.2 Equal Opportunities

Article 16 of Council Regulation EC/1083/2006 establishes that the Member State and the Commission shall ensure that equality between men and women and the integration of the gender perspective are promoted during the various stages of implementation of the Funds. Furthermore, Article 13 of the EC Treaty obliges Member States to promote further equality on the grounds of racial and ethnic origin, sexual orientation, religion or belief and age.

The Government of Malta recognises that access to equal opportunities is a fundamental requirement for the economic regeneration and competitiveness of the Islands. Towards this purpose, the Government is committed to ensure that interventions financed under this OP demonstrate commitment to respect the principles of non-discrimination and equal opportunities. In line with the abovementioned objectives, efforts will be made to address gender balance in decision-making and implementation processes, to further ensure that the gender dimension is given due regard insofar as this is feasible and practicable. Where structural barriers for gender balance exist, efforts will be made to work towards their elimination.

In the 2004-2006 Programming Period, the Managing Authority has built a good working relationship with the National Commission for the Promotion of Equality between Men and Women. A help desk was set-up by the Commission to assist project promoters in their effort to integrate the equal opportunities dimension in their project ideas and training was also provided by the Commission (in collaboration with the Managing Authority) in this regard. In terms of social inclusion, the Policy Development and Programme Implementation Directorate within the MFSS has been an active contributor, particularly with regard to issues of social welfare and integration. Furthermore, the Directorate has been responsible for the drafting of a National Action Plan for Social Protection and Social Inclusion 2006-2008.

The Managing Authority and other horizontal stakeholders such as the Department of Contracts will continue to build upon the existing working relationship in order to consolidate what has so far already been achieved. For the period 2007-2013, equal opportunities will also be integrated at the individual project level. To this end, project promoters will be requested to indicate clearly in the proposals how they intend to contribute to the horizontal priority of equal opportunities. This will be given due consideration in the project selection process. In this regard, equality requirements will be given due consideration in reports monitoring progress on implementation of the Programme.

In order to strengthen the link between the implementation of the OP and the achievement of Equal Opportunities objectives, an annual meeting will be held between the Managing Authority, the NCPE and other relevant stakeholders. The aim of the meeting will be to assess trends and indicators and ascertain whether and to what extent operations funded under this OP are contributing to the equal opportunities' objectives. In addition, the entity/ies responsible for the protection of equal opportunities will be given the possibility to participate in the internal monitoring systems, with a view to ensure its mainstreaming across the priority axes.

5.4.3 The Partnership principle

Social and civil dialogue in Malta are mainly embodied within the Malta Council for Economic and Social Dialogue (MCESD). The Malta Council for Social and Economic Development (MCESD) was established by an Act of Parliament (Cap. 431) in 2001 as a body corporate having a distinct legal personality. The MCESD is a consultative and Advisory Body to Government on issues relating to the sustainable economic and social development of Malta, whilst providing a forum for

consultation and social dialogue among social partners and, where necessary, with Civil Society organizations. The Council is appointed by the Prime Minister and comprises key Government officials from leading Line Ministries, including the Office of the Prime Minister, the Ministry of Finance, and the Ministry for Family and Social Solidarity, the Central Bank of Malta, trade unions, employer's associations and relevant constituted bodies together with a standing civil society committee.

The MCESD serves as a consultative and advisory body to Government on matters of economic and social policy. It is a tri-partite body, which represents interests from Government, Unions and Employers. The Council also houses a committee representing Civil Society interests. In general, the Council serves social partners to obtain a better understanding of each other's situations and concerns, thereby contributing to industrial peace. The Council also operated relatively successfully in drafting documents by working groups composed of members within the Council in preparation for the discussion for the social pact, which subsequently resulted in failed negotiations. In other instances, the Council was successful in contributing to the drawing-up of important frameworks, such as in the case of the Employment and Industrial Relations Act (1999). Networking and participation in conferences at a European level has contributed considerably to the capacity of the socio-economic partners and the civil society in general. However, it is also argued that the capacity and ability of social partners and their motivation to partner more actively within the policymaking process can be further developed.

Civil society in general has a long and valued tradition in Malta. It provides independent views on politics, culture, use of leisure time, social and environmental issues and other important life aspects and activities. On a micro level, civil society (the voluntary sector) makes invaluable contribution to certain sections of society, especially in the area of social inclusion and disadvantaged persons.

This OP was formulated on the basis of the consultation and dialogue carried out for the National Reform Programme, the Pre-Budget Documents and also the NSRF. The draft Programme was launched at a press conference and a session was held with MCESD where the Programme was discussed with the Partners and the Partners given the opportunity to send in comments to the drafters. Two sessions were also held with the NGO sector (particularly those active in the area of social inclusion). Moreover, a number of public dialogues were held in the first quarter of 2006 where Partners, civil society and the public in general were invited to participate and provide input to the drafting of the OP.

The Government is committed to boost the participation of the Partners and civil society in general in the implementation of Structural Funds and plans to implement a number of measures which will facilitate access to the Funds by the Partners and civil society. These include the provision of pre-financing (the full Community share) by the national budget of each selected operation by the Partners and civil society; the publication of specific calls for Partners and NGOs with specific criteria so that NGOs do not have to compete with national organisations; and capacity building measures in order to make this commitment a reality. Moreover, the Partners will also be represented on the Monitoring Committee. In this regard all Members of the MCESD and representatives of the NGO sector, civil society and also the Local Councils Association will be invited to participate in the Monitoring Committee.

5.4.4 Inter-Regional and Trans-National Co-operation 2007-2013

Closer cooperation across EU regions can contribute to the speeding up of economic development and the achievement of higher growth. Given Malta's insularity the development of partnerships beyond national borders is considered to be positive. During the 2004-2006 period Malta has participated in six territorial co-operation programmes under the Interreg Community Initiative. The experience is still relatively at its initial stages (two years) given that in Malta

territorial co-operation programmes came on board only after accession to the European Union.²⁴⁸

The main priorities under the different strands include environment, accessibility, enterprise development, culture valorisation and territorial cohesion issues. The projects are largely soft in nature consisting mainly of networking of stakeholders, actions to facilitate the understanding of common problems, the development of common strategies and action plans, and the development and exchange of good practice and experiences.

a. European Territorial Co-operation 2007-2013

Malta's strategic objective is to continue to build on the 2004-2006 experience, whilst introducing more the territorial cohesion dimension to the programmes, particularly the issue of Islands. Malta's priority areas for the territorial co-operation programmes include sustainable tourism (including cultural heritage), environment protection, accessibility and the development of human resources. These areas will be presented by Malta for most programmes. Over and above these three sectors, Malta will propose a number of other areas – also relevant to the respective programmes – which are also seen to be complementing and strengthening what is being proposed under the national programmes.²⁴⁹

b. Cross-Border Co-operation

Cross-border cooperation programmes contribute to the harmonious development of the European Union and strengthen the administrative, economic and social links between the regions of the European Union. The ultimate objective of cross-border co-operation in Europe is to integrate areas that face common problems requiring common solutions. Malta has no land borders; however the maritime border with Sicily has been recognized as an area requiring closer co-operation for the benefit of the economic and social integration of the region.

The importance and the value added of this cross border cooperation emanates from the proximity between the two Member States and the ensuing potential to address common challenges. In this regard Malta's priorities for the 2007-2013 include sharing of knowledge and exchange of best practice and experience in a number of areas including: justice and home affairs (particularly co-operation in the area of illegal immigration), sustainable tourism, (tourism and culture), enterprise links, environment protection, accessibility and the development of human resources. These areas are seen to be particularly conducive to strengthening existing administrative, economic and social links, as well as clearly complementing the identified priorities under this OP.

c. Trans-National Cooperation

The objective of trans-national cooperation programmes is to promote better integration within the European Union through the formation of large groups of European regions that have an interest in co-operating on strategic matters with the ultimate aim of encouraging a sustainable and balanced development of the European territory.

Malta will participate in the trans-national grouping of the Mediterranean Space which will include a number of Member States: Greece, Cyprus, Malta, Slovenia and regions from Portugal, Spain, France, Italy and the United Kingdom (Gibraltar). The priority areas for Malta under the trans-

²⁴⁸ Malta was not eligible to the Phare 1BC Programme.

²⁴⁹ Reference is made in the NSRF to territorial co-operation priorities, however these are indicative and subject to the discussions with other Member States during the programming phase of the relevant programmes.

national co-operation strand include RTDi, environment, accessibility, sustainable urban development, and the development of human resources. These areas will complement and add a trans-national dimension to the measures foreseen under the Priority Axes identified under this OP.

d. Inter-Regional Co-operation

Inter-regional co-operation aims to increase territorial integration within the EU, by improving the effectiveness of regional development policies through relevant instruments and exchange of information and sharing of experience. According to the Community Strategic Guidelines, inter-regional co-operation should focus on the Growth and Jobs Agenda. Malta fully agrees with the priorities identified under the Community Strategic Guidelines for this type of co-operation namely strengthening innovation, SMEs and entrepreneurship, environment and risk prevention, urban development, modernisation of public sector services (particularly e-Government initiatives) and social inclusion. The priorities clearly complement a good number of the actions foreseen under this OP and the idea that the Inter-Regional Co-operation programme can act as an *incubator* for some ideas, particularly with regard to innovation and urban issues is positive.

e. Links with other Relevant Programmes

In addition Malta will be participating in the Mediterranean sea-basin programme under the European Neighbourhood and Partnership Instrument (ENPI). The indicative priorities for Malta under this Programme include economic and social development focusing on research and technology, SMEs, business development and tourism, trade and investment promotion, addressing common issues such as illegal migration, ensuring efficient and secure borders by improving procedures and infrastructure at border control and the protection of environmental, natural and cultural resources. Malta also aims to promote the social and cultural integration of border areas with specific focus on gender equality, education and cultural networking, and social sector cooperation.

5.4.5 Regions for Economic Change Initiative

In the framework of the *Regions for Economic Change Initiative*, the Managing Authority commits itself to:

- (a) Consider innovative operations related to the results of the networks in which Malta is involved, and if pertinent, make the necessary arrangements to welcome into the mainstream programming process innovative operations related to the results of the networks in which the region is involved;
- (b) Invite (for the relevant item on the agenda) a representative (as an observer) of the network(s) where Malta is involved to the Monitoring Committee of the relevant Programme, to inform the members of the Committee on the progress of the network's activities;
- (c) Include a point on the agenda of the Monitoring Committee of the relevant Programme to discuss potential suggestions for inclusion into the mainstream Programme concerned,²⁵⁰
- (d) Report on the above in the Annual Implementation Report of the Programme.

²⁵⁰ It should be noted that the final decision on whether the suggestions will be mainstreamed will remain that of the Government of Malta.

5.4.6 Co-ordination and Consistency with other Funds and Programmes

OP I, which has the central theme of improving the country's competitiveness and generating a better quality of life, will run alongside other European funding initiatives. These initiatives address similar or complementary actions and will be implemented during the same period. In order to avoid overlap between the types of activities that will be funded, this Programme has taken account of the local priorities and level of funds available through these other programmes. This section seeks to outline the complementarity and synergies as well as demarcation lines (if and when applicable) to ensure that Malta maximises on the available resources and there is no duplication of effort and resources.

a. ERDF and ESF

This OP is supported by OP II – ***Empowering People for More Jobs and a Better Quality of Life***. Malta's competitiveness necessitates a supply of knowledge workers. Moreover, given that human resources are Malta's only resource, there is strong justification to ensure that none of the elements of this precious resource is lost or left unutilised. The objective of OP I of increasing the relative share of high value-added activity in economic output will require the necessary human resources in order to make this happen. For some of the objectives under OP II to be realised there needs to be a number of *smart investments* in terms of physical capacity in the education, training and R&D infrastructure.

In this regard, human resources investments supported by OP II are complemented by investments under OP I (ERDF), particularly those areas addressing education and training infrastructure, social infrastructure, RTDi interventions and investment in firms. It is strongly believed that ultimately both OPs operating together will not only result in achievements in the human resources related areas but also contribute to the attainment of the targets set by Malta in the National Strategic Reference Framework.

Moreover, the ERDF and Cohesion Fund investments will be creating infrastructures and generating investments in new technologies and systems, as well as, potentially new industries, that will require reform and specialised skills. These are expected to be generated through OP II interventions. ERDF-type of investments in enterprises will also require complementary investment in the private sector with respect to the human resources. Furthermore, social infrastructure (such as childcare centres and hospitals) is important in terms of its contribution towards ESF objectives, such as workforce participation, employment and occupational health.

b. ERDF and EAFRD / EFF

Overall, agriculture and fisheries are in decline on a national basis. However, there exists the opportunity to build on the strong potential contribution the sector may make towards the development of high value market niches such as specialised tourism and environmental management. The horizontal priority of *addressing Gozo's regional distinctiveness* is also particularly relevant to the development of such potentials.

Under the 2007-2013 Programmes, the agriculture and fisheries sectors have been separated from mainstream Cohesion Policy. The sectors will be supported by the European Agricultural Fund for Rural Development (EAFRD) and the European Fisheries Fund (EFF) respectively. In this regard, separate Strategies and Programmes are being prepared. The National Strategic Reference Framework highlights the consistency and complementarity between the Structural Funds/Cohesion Fund and the EAFRD and the EFF. This section gives a synopsis of relevant sections of the EAFRD and EFF strategies in order to demonstrate consistency between

Cohesion Policy and other related Community Policies, namely rural development and fisheries and that the different instruments will be working together to achieve the national objectives of development. Another section on co-ordination mechanisms seeks to demonstrate that there will be effective co-ordination on the ground to ensure that all priorities are addressed with minimal risks with regard to overlaps and duplication of effort and resources.

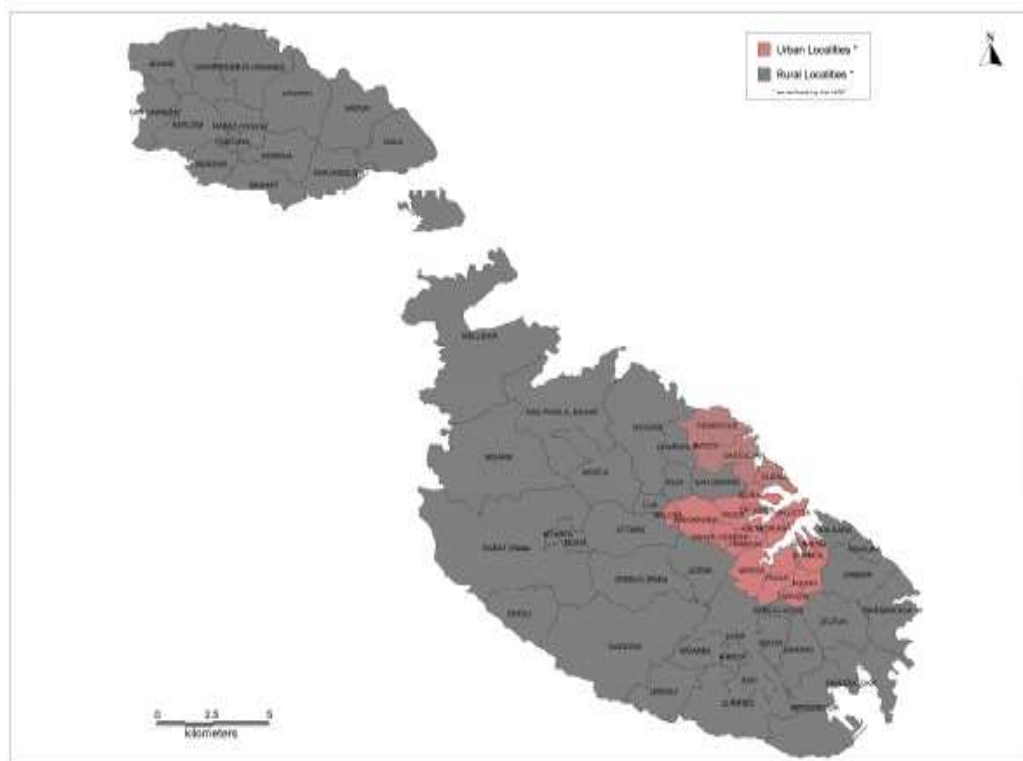
In terms of the National Rural Development Strategy, Government's policy is to create a balance between urban development and the open spaces through the conservation of bio-diversity. The urban localities found on the island of Malta are concentrated mainly, in the Northern and Southern Harbour districts. This is where the island's major conurbation is located. The remaining rural localities where agricultural activity, countryside recreation and nature conservation are practiced are mainly located in the remaining four districts – Northern, Western, South Eastern and Gozo and Comino districts.

The objectives of the National Rural Development Strategy are those of improving the quality of life in rural areas; building local capacity to improve governance; and mobilising the endogenous development potential of rural areas. In order to meet these objectives, this strategy is underpinned by four priorities, which focus on the need to improve the competitiveness of the agricultural and forestry sectors; safeguarding the environment and countryside; improving the quality of life in rural areas and encouraging diversification; and building local capacity for employment and diversification. Malta aims to improve the competitiveness of the agricultural sector by focusing on the priorities of knowledge-transfer, the modernisation of holdings and adding value to agricultural products with respect to quality and competitiveness. These efforts are earmarked to lead to a more differentiated, higher quality production and services to domestic consumers and foreign tourists and thus, make farming a viable and more attractive career choice. The Strategy also aims to improve the environment and the countryside through the encouragement of retention of agricultural activity, particularly for less favoured areas, and environmentally-friendly production methods in line with rural heritage. The vision of enhancing the multifunctional role of rural areas will be achieved through improving the quality of life in rural areas through the conservation and valorisation of rural, natural and cultural heritage.

The strategy indicates a number of measures which will be funded through EAFRD funding, these include: information actions; use of advisory services; setting-up of management, relief and advisory services; modernisation of agricultural holdings; adding value to agricultural products; cooperation for development of new products, processes and technologies in the agriculture and food sector; infrastructure related to the development and adaptation of agriculture; participation of farmers in food quality schemes; information and promotion activities; natural handicap payments in areas affected by specific handicaps; Natura 2000 payments and payments linked to Directive 2000/60/EC; agri-environment payments; encouragement of tourism activities; conservation and upgrading of the rural heritage; skills acquisition, animation and implementation.

The linkage between OP I's objectives and the objectives of the Rural Development Strategy is highlighted in three main focus areas; the issue of competitiveness of the agri-business sector, sustainable environmental development and the enhancement of the quality of life. Under the Rural Development Strategy, the importance of competitive business activity in the agriculture sector will be actively pursued. Similarly, the importance of the physical, natural and cultural environment on both economic performance and the quality of life enjoyed by the Maltese population is underlined through the specific objectives highlighted under the Rural Development Strategy. As a result the OP's objectives of sustaining a growing knowledge-based competitive economy and improving Malta's attractiveness and the quality of life are consistent with the Rural Development Strategy.

Figure 5.4 Map of the Maltese Islands showing Urban and Rural Localities²⁵¹



There are a number of areas of potential overlap, particularly with regards to actions associated with the maintenance, restoration and upgrading of the rural heritage, and for actions associated with the encouragement of tourism activities. The EAFRD will almost always be the most appropriate source of funding in rural areas. As a demarcation line, the EAFRD is more geared to support measures relating to conservation for conservation's sake. The EAFRD will hence, be the only fund that will cater for the protection of biodiversity in rural areas and for the preparation of Natura 2000 conservation and management plans. With regards to the *implementation* of the management plans, the EAFRD may undertake interventions with regards to the preservation of rural heritage, that is, in the case of actions associated with the maintenance, restoration and upgrading of the natural and cultural heritage in areas that are defined as rural in the Plan. The ERDF, on the other hand, may finance the implementation of Natura 2000 plans and natural heritage operations in areas that are considered to be important in communities that are dependent on tourism or that are related to areas identified as tourism zones.²⁵² In this respect, ERDF interventions will be guided by the overall principle of economic dimension and a potential to yield an economic return, thus, contributing to the bolstering of the country's competitiveness. Tourism activities, implemented through small-scale infrastructure in rural areas and the marketing of tourism services relating to rural tourism, at the local level, will be undertaken through the EAFRD. The ERDF will support initiatives in rural tourism, only insofar as these form

²⁵¹ Map of the Maltese Islands showing Urban and Rural Localities provided by the Rural Development Directorate.

²⁵² By way of clarification, in terms of aid schemes to tourism undertakings, undertakings which offer farmhouse accommodation for tourists will be eligible for ERDF funding and as such will not be treated as agri-tourism which falls under the remit of the EAFRD programme. The term farmhouse is a marketing tool used to promote rustic accommodation. There is therefore no direct link between 'farmhouses' and farming or agriculture.²⁵²

part of the National Tourism Strategy (marketing, branding and other related activities) for niche markets in the tourism sector.

Grant schemes to agro-processing enterprises constitute another area of potential overlap. In this respect, EAFRD financing is earmarked to serve agricultural products with the aim of achieving quality certification, improving product freshness and the promotion of the traditional cottage industry. The financing of an intervention to enhance the efficiency of the general production line of products that do not contribute to the achievement of quality certification, the enhancement of freshness and the quaint characteristics of the traditional rural products will not **in principle** be considered eligible for EAFRD financing. Such interventions are earmarked for ERDF financing. More specifically, while ERDF measures target a broad range of enterprise, EAFRD measures will focus on enterprise using an Annex I input. EAFRD measures will be aimed at gearing the agricultural industry to enhance its competitiveness. Therefore, EAFRD measures would, have the aim of improving the quality of products possibly through improved freshness, rural and traditional qualities (such as production of traditional cheeses or other traditional products derived from sheep's and goats' milk); new approaches for the use or development of agricultural products (such as innovative uses of herbal plants); and productions backed by quality marks-national, freshness, organic, where such marks are issued by a recognized authority (such as doc wines).

In order to ensure maximum co-ordination and no overlaps, the relevant Managing Authorities/ Intermediate Bodies have also undertaken to consult each other formally before launching the call for projects and before formally approving projects, wherever potential overlap may exist.

Malta's National Strategic Plan for Fisheries (2007-2013) enlists several objectives and priorities for the sustainable development of the Maltese fisheries sector. These objectives include the development of the fleet; the promotion of the aquaculture sector; and the development of the processing and marketing sectors; the development of fisheries' infrastructure; the development of the human resources in the fisheries sector; and the sustainable development of fisheries areas. With regard to increasing competitiveness in the sector, the Strategy envisages the increase in investment in processing and packing facilities for the fisheries and aquaculture products and in marketing and promotional campaigns. Linked to the enhancement of competitiveness in the fisheries sector is the objective to further develop human resources capabilities, improve the structure, organisation and working environment and the upgrading of skills. From the physical infrastructural perspective, the Strategy has the objective of consolidating and improving the current infrastructure servicing the fisheries and aquaculture industry through the construction of amenities at designated ports and the relocation of fish markets. Linked to this is the objective to improve the quality of life in specific coastal areas through the diversification of employment prospects and infrastructural works.

The linkages between OP I's objectives and those of the Fisheries Strategy, focus on two main issues. One of these issues is the competitiveness of the business sector and thus the enhancement of the quality of life of the proportion of the Maltese population, dependant, to varying extents on this Industry for its livelihood (the fisheries industry provides direct employment to around 1,400 people in the primary and secondary sectors of aquaculture – around 0.4 per cent of the EU total in the sector). However, this sector is of much greater social and cultural importance than the above figures imply. The livelihood of most of the local fishermen depends on the sale of highly prized species which are available to the consumer as fresh fish of highest quality. The variety and quality of these fish species also make a significant contribution to the important tourism industry since local restaurants boast of high quality seafood which together with the colourful traditional fishing vessels are significant attractions to the tourists visiting Malta. Indeed, surveys of visitors to Malta have repeatedly placed a high value on culture as expressed in its artisan form, as a prime tourist attraction. The fishing industry is one of the more important artisanal crafts that have survived to an appreciable extent. Its contribution to the tourist industry is in keeping with the on-going efforts to diversify from the highly seasonal,

typically lower income 'sun and sea' tourists and to attract upper market tourists through cultural activities.

Another important issue that links OP I to the NSP is that of sustainable coastal and environmental development. The NSP focuses intervention on the consolidation and improvement of the current infrastructure servicing the fisheries and aquaculture industry, through the construction of amenities at designated ports and the relocation of fish markets to provide better facilities for the buyers, sellers and inspectors and for the handling of the product. This is in line with the Vision of improving Malta's competitiveness and enhancing the quality of life of the Maltese citizens. Moreover, major fishing villages and markets around the Maltese Islands, including Marsaxlokk, are attractions to both locals and tourists alike due to their picturesque characteristics and on-going artisanal activities related to fishing. Furthermore, small base ports that are not important from a fleet or landings value point of view, are still important as they enhance the rural environment and form part of the mosaic that builds Malta as a favourable tourist destination. This ties in neatly with OP I's endeavour to promote the importance of the physical, natural and coastal environment in terms of both economic performance, as well as, the quality of life enjoyed by the Maltese population.

The delineation between ERDF and EFF is clear. The only possibility for overlaps is through Axis 4 of the Fisheries Strategy, which focuses on the sustainable development of fisheries areas. However, the local strategy for EFF will limit the application of Axis 4 actions to infrastructural works in specific coastal areas. These will, *inter alia*, be aimed at improving the environmental conditions of the coastal areas and organising existing facilities for fisheries communities. While, OP I envisages interventions to enhance coastal areas, these will be limited to providing enhanced services for the tourism industry (not the fisheries sector) or the quality of life of the Maltese public. Improved infrastructure which has the aim of improving the operations of the local fishing industry will exclusively fall under the remit of the Fisheries Strategy and the EFF. Demarcation between EFF and ERDF will therefore be achieved through the concentration of the former on the fisheries sector, which will not be supported through the ERDF. In the event that overlap exists, the Steering Committee (vide c. below) will put in place arrangements to ensure that the EFF funds only those activities which cannot be funded through the ERDF.

c. Other Community Programmes: R&D Programme, CIP, LIFE

During the period 2007-2013, Malta will also benefit from a number of Community Programmes. Of particular relevance to this OP, are the 7th Framework Programme for R&D; the Competitiveness and Innovation Framework Programme (CIP) and the environment Programme LIFE.

As regards R&D, infrastructural actions under this OP will be directed towards building capacity of national research infrastructure including the procurement of equipment and the development of local centres of excellence. There will be no overlap with the FP7 Capacities programme, since the latter has a wider scope and is aimed at the development of large-scale collaborative infrastructure for use by multiple Member States. Malta has not yet reached such an advanced stage of development and will find it difficult to participate in this initiative. The local fund is intended primarily to establish basic infrastructure facilities which will lay the foundation for further development of research activities in Malta. Moreover, the Malta Council for Science and Technology, which is responsible for implementing the National R&I Strategy Plan 2007-2013 is also the organisation responsible for the FP7 and will be seeking means of ensuring effective synergies between the two programmes.

With regard to access to the CIP, Malta is looking at this Programme to co-finance access to finance for SMEs and capacity building in the same area. Currently Malta is launching, from its own funds, a number of *access to finance* products, including venture capital and will use the CIP to complement the products available under the national budget and also build its capacity and

experience in a number of financial engineering products. Malta is still considering the use of *JEREMIE* under this OP. Any agreement on *JEREMIE* will be complementary to opportunities available under the CIP.

In recent years, Malta has invested more and more in the environment sector. The environment has been the largest beneficiary sector under Cohesion Policy 2004-2006 and continues to be an important sector for the 2007-2013 Cohesion Policy Programmes, particularly OP I. Under this OP, Malta will be focusing on primarily large infrastructural projects in the areas of waste management, waste water, storm water management and risk prevention; air quality and emissions control. The extent of the funding required for these projects is not available under the Life Programme so there is no real risk of overlaps or double funding. On the other hand the actions that can be co-financed under *Life*, albeit on a much smaller scale, would complement the infrastructure co-funded under this OP and could possibly act as pilot actions for larger projects to be funded under the OP.

d. Structures

The NSRF foresees the establishment of a number of co-ordination structures to ensure complementarity and no overlaps or duplication. The terms of reference of these Committees will be drawn up by the Managing Authority in conjunction with the management structures of the other Programmes. Moreover, the Planning and Priorities Co-ordination Division will provide support and assistance to the co-ordinators of the other Community Programmes, given its expertise in terms of EU Funding procedures and implementation. At a more operational level consistency and co-ordination between Cohesion Policy Programmes and the Programmes co-financed by the EAFRD and the EFF will be ensured through the setting up of a steering committee between the Planning and Priorities Co-ordination Division as the Managing Authority for Cohesion Policy programmes and the Ministry for Rural Affairs and the Environment, as the public authority responsible for the implementation of the programmes financed by the EAFRD and the EFF. The Committee will meet at least once a year and will also include the participation of the relevant Intermediate Bodies, where necessary, primarily in the case of aid schemes to enterprises. At a strategic and operational level, meetings have already been held in order to discuss the delineating parameters for potential programme action, capped in accordance with location and relevance.

5.5 Respect of Community Norms

5.5.1 Competition

The State Aid Monitoring Board was set up in June 2000 as an autonomous and independent authority within Government. It was first established administratively and later that year its existence was legally reinforced by Articles 57 and 58 of the Business Promotion Act (Cap 325).

With regard to the administrative set-up, the national authorities have always ensured that the Board is established within a central Government Ministry, as this would trench State aid matters at the core of Government policy making. The State Aid Monitoring Board is supported by a core team of legal and economics professionals, who have gained specialised knowledge in this field. The day-to-day activities involve interaction with policy makers in determining Government's position on State aid. The Board also acts as an interlocutor with the EU Commission on State aid matters. Moreover, State aid grantors and various beneficiaries seek the Board's advice and guidance with regard to both existing and proposed State aid measures.

The Board therefore plays a critical role in the co-ordination of national initiatives as well as the dissemination of information in this field. In this way, both providers of State aid and beneficiaries

would benefit from the specialized support of the Board with regards to new State aid proposals, the appropriate procedure to be followed with the notifications and pertinent reporting obligations.

The State Aid Monitoring Regulations (L.N. 210 of 2004) enshrine the principles of Article 87 of the EC Treaty. The Regulations clearly outline the conditions under which State aid may be granted and lays down the procedure to be followed in line with the modalities established in the EC Council Regulation.²⁵³ The 2004 Regulations bind any provider of aid²⁵⁴ to notify in the first instance the State Aid Monitoring Board with all proposals of any new aid. In this way, complete and appropriate notifications are submitted to the Commission thus ensuring that the assessment procedure is not prolonged unnecessarily. Moreover, this approach also reduces the possibility of granting incompatible State aid, which would eventually have to be recovered with interest on arrears.

The notification of a proposed new aid must contain all the necessary information in order to enable the Board to issue an opinion. Following an examination and assessment of the submitted information, the Board issues a preliminary opinion regarding the notified aid, allowing the provider of aid or any other pertinent party to make further submissions if considered necessary. On the basis of any additional information, the Board will issue a final opinion, which will be communicated to the State aid provider. If the Board deems that the proposed aid may be granted, it shall also notify the EC Commission of the proposed aid and provide the necessary information in order to enable the Commission to give its decision. In cases where the Board deems that the proposed aid is not compatible with the EC principles, it shall inform the provider of the proposed aid about this position and will refrain from processing the case further unless expressly so requested by the State aid provider.

The Regulations also establish an appropriate reporting system whereby the providers of State aid are bound to provide on a prescribed form details of any State aid granted during the immediately preceding year. This requirement enables the Board to meet its reporting obligations.

The same notification and examination procedure is also followed by the State Aid Monitoring Board in the case of aid schemes that are specifically regulated by EC block exemptions. If following its assessment the Board deems that the proposed aid is compatible with the applicable EC block exemption regulation, it would notify the Commission about the respective aid.

In order to facilitate the effective implementation of the Commission Regulation EC/69/2001 concerning *de minimis* aid²⁵⁵, the State Aid Monitoring Board is keeping a database of all such aid. Apart from vigilance by State aid grantors in fulfilling the *de minimis* thresholds, State aid beneficiaries are required to provide details of all such aid received within the previous three years when applying for *de minimis* aid.

All projects and schemes earmarked for funding from the EU will also have to be notified to the State Aid Monitoring Board in order to determine compatibility with the State aid *acquis*.

²⁵³ Council Regulation EC/659/1999 of 22 March 1999 laying down detailed rules for the application of Article 93 of the EC Treaty.

²⁵⁴ Provider of aid includes the Government, its Ministries and departments, entities falling under such Ministries and departments, local councils that, directly or indirectly, grant or plan to grant aid, as well as any other bodies authorized by the State to grant aid.

²⁵⁵ Commission Regulation EC/69/2001 of 12 January 2001 on the application of Articles 87 and 88 of the EC Treaty to *de minimis* aid.

5.5.2 Public Procurement

Public Procurement in Malta is regulated by a number of Subsidiary Legislations under the Financial Audit and Administration Act, namely S.L.174.04 S.I.174.06 and S.I.174.08.²⁵⁶ This regulatory framework ensures that Malta is in line with the relevant EU Directives.

The most frequently used subsidiary legislation in the field of procurement is S.L.174.04 and the following is intended as a brief summary of the salient parts of the regulation in question.

- Public contracts which are EU funded with an estimated value not exceeding €47,000 are issued by the Government department/entity concerned. A list of these departments/entities is published under Schedule 1 of the Regulations (L.N. 296/2010);
- Public contracts which are EU funded and have an estimated value equalling or exceeding €47,000 but not exceeding the thresholds established in the relevant European Union Directives are issued by the Department of Contracts as the Central Government Authority, for the Government Departments/Entities listed under Schedule 2 of the Regulations;
- Public contracts with an estimated value equal to or exceeding the EU thresholds are issued by the Department of Contracts and are advertised in the Official Journal of the European Communities in addition to publication in the Government Gazette;
- Contracts with an estimated value of over €2,000,000 or, at the discretion of the Director Contracts, any other lower value or if by negotiated procedure or competitive dialogue procedures, are submitted in three separate packages with package 1 containing the Bid Bond, package 2 the technical specifications, supporting documents and samples, and package 3 the price schedules, payment terms and other commercial details. The packages are opened in public in the above numerical sequence, provided that if at any stage the tenderer fails to comply with the procedural requirements or with the technical specifications, the remaining packages in his tender are discarded unopened. At each stage of the process the Public Contracts Regulations provide for a right of redress, with temporary suspension of the tendering process;

Certain Contracting Authorities, listed in Schedule 3 of the S.L.174.04 such as the Local Councils administer their own public procurement.

- The Department of Contracts issues calls for tenders to award period contracts for the provision of equipment, stores, works or services that are by nature, of a common use and Government Departments/entities, except for those entities listed in Schedule 3 of the Regulations, are obliged to make such procurement through these period contracts;
- The Department of Contracts is currently in the process of implementing E-procurement as the standard way of carrying out public procurement. Thanks to this effort it will be possible to implement the Dynamic Purchasing System.
- Public contracts issued by the Department of Contracts are awarded upon the recommendation of the General Contracts Committee.

a. Appeals

Under Maltese law the Public Contracts Review Board (PCRB) is the administrative tribunal that has the competence to hear appeals filed by aggrieved bidders in respect to recommendations relating to the award of tenders. The procurement regulations establish a threshold of €12,000

²⁵⁶ And any subsequent amendments made.

below which there is no right of appeal in front of the PCRB. This board is composed of three members: a president and two members all of which are appointed by the Prime Minister.

The Decisions of the Public Contracts Review Board are rendered in writing and has to contain all facts and reasons on which its decision is taken. The decision of this tribunal is not however final in that the prospective bidder can file an appeal in front of the Court of Appeal (Superior Jurisdiction). The Court of Appeal has to decide the appeal within four months from the date when all parties have been notified of the appeal.

Whereas an aggrieved bidder can appeal from the decision of the Public Contracts Review Board on points of fact and law Contracting Authorities can appeal from a decision of the Public Contracts Review Board only when the Public Contracts Review Board has imposed penalties or damages and when it has decided on the ineffectiveness of a contract.

b. Body

The Department of Contracts is generally responsible for public tendering and contracting in Malta.

Chapter 6 – Financial Provisions

6.1 Annual Commitments

This Section features the financing plan of the OP, giving the annual commitment of each Fund in the OP.

Commitments shall be made on an annual basis according to the following plan:

OP reference (CCI number): 2007MT161PO001

Table 6.1

OP I Annual Commitments			
Regions without transitional support	Structural Funds (€)	Cohesion Fund (€)	Total
	(1)	(2)	(3) = (1)+(2)
2007	77,119,337	26,328,567	103,447,904
2008	70,942,088	35,145,727	106,087,815
2009	63,751,300	41,923,106	105,674,406
2010	52,949,924	51,484,717	104,434,641
2011	52,328,922	52,514,411	104,843,333
2012	58,387,885	44,489,136	102,877,021
2013	68,498,575	32,259,356	100,757,931
Grand Total			
2007-2013	443,978,031	284,145,020	728,123,051

6.2 Allocation for each Priority Axis

This Section features the financial plan of the OP, giving, for the whole programming period, the amount of the total financial allocation of each Fund in the OP, the national counterpart and the rate of reimbursement by Priority Axis.

Payments are made as reimbursements of expenditure actually paid out according to the following plan.

Financial plan concerning the OP expressed in total expenditure

OP reference (CCI number): 2007MT161PO001

Priority Axes by source of funding (in €):

Table 6.2

OP I – Allocation by Priority Axis								
	Community Funding	National counterpart	Indicative breakdown of the national counterpart		Total funding	Co-financing rate	For information EIB contri- butions	Other funding
	(a)	(b) = (c)+(d)	National Public funding	National private funding	(e) = (a)+(b)	(f) = (a)/(e)		
Priority Axis 1 – Enhancing Knowledge and Innovation (ERDF)	102,000,000	18,000,000	18,000,000	0	120,000,000	85%		
Priority Axis 2 – Promoting Sustainable Tourism (ERDF)	102,000,000	18,000,000	18,000,000	0	120,000,000	85%		
Priority Axis 3 – Developing the TEN-T (CF)	123,250,000	21,750,000	21,750,000	0	145,000,000	85%		
Priority Axis 4 – Climate Change and Resource Efficiency (ERDF)	89,250,000	15,750,000	15,750,000	0	105,000,000	85%		
Priority Axis 5 – Safeguarding the Environment and Risk Prevention (CF)	160,895,020	28,393,239	28,393,239	0	189,288,259	85%		
Priority Axis 6 – Urban Regeneration and Improving the Quality of Life (ERDF)	140,250,000	24,750,000	24,750,000	0	165,000,000	85%		
Priority Axis 7 – Technical Assistance (ERDF)	10,478,031	1,849,065	1,849,065	0	12,327,096	85%		
Total	728,123,051	128,492,304	128,492,304	0	856,615,355	85%		
ERDF	443,978,031	78,349,065	78,349,065	0	522,327,096	85%		
CF	284,145,020	50,143,239	50,143,239	0	334,288,259	85%		