Table of Contents

Appendices

CHAIRMAN'S MESSAGE

It is with great pleasure to communicate the second edition of the State of the Construction Industry Report. This report continues to build on the previous report issued in 2005, in providing the construction sector with a snapshot of the performance of the industry. The strategic intent behind the report remains unchanged – namely a thorough analysis of available statistical information supported by direct response from stakeholders with a view to relay a basis for consultation.

As we endeavoured in the previous edition, we directed our focus on the industry's economic situation and prospects by assessing the growth in contribution of the construction industry in terms of the Gross Domestic Product, enabling correlation between contribution to GDP by the construction industry and the national GDP. This analysis was supported by an evaluation of the persons employed within the construction industry and additions to capital employed within the construction industry.

In general terms, the registered percentages show an overall growing industry, with the contribution to GDP by the Real Estate, Renting and Business Activities sector registering a year-on-year increase, with contributions spanning between 10.04% and 12.23. Against this background, a sectorial analysis of the various economic activities shows that the average wage in the Mining and Quarrying Sector is equivalent to Lm 6102.24, that within the Construction Sector is established at Lm 4797.23 and that within the Real Estate, Renting and Business Activities was Lm 5393.12. These values are to be compared to the the average wage in Malta which stands at Lm 5197. Otherwise, all sectors show a rise on the previous report for 2004.

It is also positive to note that December 2005 registered the highest full time and total employment figure over the period 2001-2005, in turn constituting between 12-15% of the local full-time labour force. The BICC's report further attempts to delineate those areas where spare capacity still exists for employment. These include plumbers, welders, tile layers, assembling labourers, aluminium workers and steel fixers.

In response to the public reactions to the first BICC State of the Industry Report, this year's edition features a number of new areas bearing direct relevance to the industry, including Health and Safety, the implications of the Construction Products Directive, Environmental Considerations and Energy Efficiency.

The report also focuses on the impact of MEPA on the industry, and an attempt was made to highlight those areas that may warrant a review – an effort which was realised in consultation with our stakeholders. The feedback that has been received from stakeholders highlights those specific aspects that MEPA should review in order to sustain the well being of the industry.

The document further attempts to lay down trends in the demand for housing provision underlined by fluctuations in property prices. In order to provide a detailed representation of these indicators, data has been subdivided by housing typology taking into account the most common housing typologies that are currently available in Malta. Statistics for 2005 indicate a significant rate of growth in terms of housing provision, taking the number of annually approved units to the highest level recoded in the seven year period analysed since the first edition of this Report. During 2005 the number of social housing units developed also reached the highest value registered in the last 5 years.

The report cannot overlook government's investment on construction related projects, topping an unprecedented Lm 78 million mark, signifying a record increase of over 17% over the previous year.

Against this background, it is reiterated once again that the strength of this report, and its continued relevance, depends on the compilation of the data. Although data collation remains an onerous task, it is positive to note that stakeholders are being more enticed into understanding the benefits underpinning this report, which is specifically aimed to provide a guiding rationale to propagate our industry forward in the ride of global challenges.

Robert Musumeci
BICC Chairman

FORWARD

The Building Industry Consultative Council has the pleasure to present the State of the Construction Industry Report for the year 2005, one that aims to capture the state of play in this sector from a number of angles be they from an economic, employment, product or perception standpoint. It is a tool that may be used by all those concerned in order to understand better the mechanics of this sector.

The construction industry continues to represent one of the most important sectors of the local economy. Not only does it contribute to a significant portion of the country's GDP but it is also one of the sectors that carries a significant portion of the labour force with encouraging growth rates in both areas. It is thus not surprising that the State of the Construction Industry Report be deemed as an important document to all those stakeholders who are in some way or another already involved in the construction industry or those who are contemplating moving into this sector.

In its second edition this report includes a number of new areas related to health and safety, the construction products directive, environmental considerations and energy efficiency. While these new areas will provide a more holistic picture when compared to the first edition, it is still open to see further improvements and refinements being carried out in subsequent editions. The authors are indeed grateful to all those stakeholders who in some way or another contributed to the completion of this second report. These included architects, contractors, MEPA, ETC, Dhalia Real Estate Services, the Housing Authority, the National Statistics Office, the Malta Resources Authority, Enemalta Corporation and other persons who in some way or another supported this initiative. Our thanks also goes to the Chairman, Board, Executive Secretary and all the members of staff at the Building Industry Consultative Council (BICC) for their support and understanding during the compilation of this report.

It needs to be pointed out that the strength of this report lies in the compilation and analysis of the data that is relevant to the sector. Throughout the assignment we have faced a number of difficulties in obtaining all the data we would have liked to have had available. May we take this opportunity to appeal both to the BICC as well as to all the stakeholders concerned that this effort is one which is intended to continue to stimulate the well being of a sector which has always reflected the national performance of our economy and that this report would not be possible without the timely compilation and submission of data requested. As much as possible we have tried to obtain the latest statistics available to cover the period up to end 2005. However, the statistics that are reproduced within this report have to reflect the timing of statistics as published by the relevant competent authorities and thus, as with any sectorial analysis, have in some areas lagged behind the publication date of this document.

The authors sincerely hope that this document will be received well and that it may fulfil the intentions with which it has been prepared, that is, to give all stakeholders having an interest in the construction industry a snapshot of the performance within the sector.

Perit Kevin Gatt **Ing. Helga Pizzuto**

November 2006

SYNOPSIS

This report, which is now in its second edition, aims to provide all stakeholders in this sector with a snapshot of the state of the industry. This report is being based on agreed statistical information and should provide the basis for consultation on, and then consideration of, the economic state of the construction industry. It addresses a key number of objectives that are thought to be the most relevant to the construction industry namely:

Economic Criteria

In addressing the industry's economic situation and prospects, the following economic criteria have been considered:

- growth in contribution of the construction industry to Gross Domestic Product (GDP);
- correlation between contribution to GDP by the construction industry and national GDP;
- persons employed within the construction industry; and
- additions to capital employed within the construction industry.

The following are the salient observations namely:

- The percentage contribution to GDP by the Mining and Quarrying sector showed a year-on-year increase and hovered between 0.21% and 0.31%;
- The growth in contribution to GDP by the Mining and Quarrying sector, albeit registering a year-on-year increase between 2000 and 2004, experienced a drop in 2005;
- The percentage contribution to GDP from the Construction sector also showed a contribution varied between 3.49% and 4.18%;
- The contribution to GDP by the Real Estate, Renting and Business Activities sector also showed a year-on-year increase with contributions spanning between 10.04% and 12.23%;
- The year-on-year increase in contribution to GDP by this sector seems to have experienced a significant slowdown in the growth rate between 2004 and 2005.
- All three sectors exhibit an absolute net growth in the compensation paid to employees over the period under review, although certain negative trends prevail between certain years;
- In the quarrying sector, an excellent year was registered in 2003, whereas it seems that the predominant growth rate hovers around the 4.5% mark;
- The construction sector saw a growth rate on a year-on-year basis albeit at different rates;
- The growth rate in the Real Estate, Renting and Business Activities sector dropped during the period 2002 – 2003 albeit now having recovered to an all time high.

- As at December 2005, the sectors have the highest full time and total employment figure over the period 2001-2005;
- Female employment varies considerably with undulations that present both positive and negative year-on-year fluctuations;
- The sectors constitute between 12-15% of the local full-time labour force;
- Essentially the sectors remain male dominated.
- The Construction sector represents that sector which contributes mostly to employment numbers followed by the Real Estate, Renting and Business Activities sector and subsequently the Mining & Quarrying sector;
- Whilst all sectors contributed positively towards employment growth between 2001 and 2002, this cannot be said for the subsequent years in which there were one or more sectors that experienced a negative trend.

Malta Environment and Planning Authority

In establishing the impact of MEPA on the industry it has been thought that the best information on those areas that may warrant a review be obtained from key stakeholders. The feedback that has been received from stakeholders provides insight into those aspects that need to be looked in further with a view to addressing those areas that can continue to contribute positively towards the well being of the industry.

Housing

The trend in the demand for housing provision has been established from trends in the supply of new housing stock and fluctuations in property prices. In order to provide a detailed representation of these indicators, data has been subdivide by housing typology taking into account the most common housing typologies that are currently available in Malta.

While there has been a slow down in the rate of growth of the number of housing units issued with a development permit in the period 2003-2004. Figures for 2005 indicate a reversal of the trend with a significant rate of growth being registered during the past year, taking the number of annually approved units to the highest level recoded in the seven year period analysed since the first edition of this Report. This increase can be attributed to a substantial growth in the number of approved flats while the number of approved dwellings other than flats has remained relatively stable over the last three years.

Conversions and redevelopment continue to result in a net gain in housing stock with the largest gain being a result of redevelopment. Preliminary indications from MEPA are that eighty percent of redeveloped units are flats, ten percent are maisonettes and the rest are other categories.

Social housing comprises a part of the demand for new housing. During the period 2001–2005, nearly 4.5 % of the approved housing units were developed as social housing. During 2005 the number of social housing units developed reached the highest value registered in the last 5 years.

There has been a continued trend of increasing property prices. During 2005 prices for flats were on average estimated to have increased by 20.34% when compared to 2004; prices for maisonettes were on average estimated to have increased by 15.32% while prices for terraced houses were on average estimated to have increased by 9.3%.

Non-residential Building;

In 2003 the total number of approved applications dropped by over thirty five percent, this downward trend continued also during 2004 but at a lower rate. In 2005 the number of permits issued was stable at 2004 levels. The highest number of permits during the five year period was registered in 2002 at 607 approved applications, while the lowest number was registered in 2004 at 315 applications.

The downward trend in the number of development permits issued is a reflection of a drop in the total number of applications submitted. The largest drop in number of applications when comparing 2005 to 2003 was in the Community and Heath Services category, while the largest increase was in the mixed office and retail category.

Infrastructure

Government expenditure on construction related projects topped the Lm 78 million mark, an increase of over 17% over last year. The Ministries which registered an increase in allocation were those responsible for the Family and Social Solidarity, Tourism and Culture, Justice and Home Affairs, Health and Care of the Elderly.

Materials and Pricing

A similar exercise like the one conducted for the 2004 Report was undertaken. This year sees the development of a new schedule that has been based on the work currently in hand by the Directorate General (Services) of the Ministry for Resources and Infrastructure in the preparation of an Act to amend the Building (Price Control) Act, Cap. 288.

Quarry Industry

The number of permits for new quarries has been minimal with one permit issued for a softstone quarry in 2003 and another one in 2004. The trend has been towards the extension of existing quarries, in fact over the past two years a total of seven permits have been issued for extensions of existing stone block quarries and five permits for extensions of the existing hardstone quarries.

The current number of licensed quarry operations has been stable at around 60.

Consultants

Attempts to establish the demands and trends for consultancy inputs in the various cycles of the construction industry were made. While no data that would allow for the necessary quantification and stratification of the demand in this sector is currently being collated in a structured manner, some data has been made available. The data, while still very limited provides initial indicators that should be built upon.

Capacity

The strength, or otherwise of the construction industry may also be determined from a number of other parameters such as the:

- level of unemployment prevailing in categories of workers within the sector;
- pay packages being offered to employees within the sector; and
- level of educational infrastructure available for the sector and its level of appraisal by employers within the industry.

ETC-provided data suggests that the construction industry is likely to be experiencing the following:

- a significant surplus of plasterers, painters, carpenters and heavy truck drivers as evidence by the high number of employed persons in these categories;
- spare capacity still exists for the employment of plumbers, welders, tile layers, assembling labourers, aluminium workers and steel fixers as there are still a small number still registering for this type of work;
- within the administrative portion of the industry there is a surplus in clerical staff, watchmen as indicated by the high number of people seeking this type of employment.

The Labour Force Survey (December 2005) estimates that the average wage in Malta amounts to Lm 5197. A sectorial analysis of the various economic activities shows that the average wage in the Mining and Quarrying Sector is equivalent to Lm 6102.24, that within the Construction Sector is established at Lm 4797.23 and that within the Real Estate, Renting and Business Activities was Lm 5393.12. All sectors show a rise on the previous report for 2004.

Surveys and Opinion Polls

A survey based on last year’s questionnaire was undertaken and which was based on the following parameters:

- turnover and future outlook;
- employment, existing, past and projected;
- current profit levels and future outlook;
- projected investment;
- outlook for the construction industry;

- reasons for not opting to expand business; and
- training.

The findings of this Trend Survey are based on a sample of 30 contractors derived from as wide a spectrum as possible in order to ensure the representativeness of the sample.

Commencement Notices

Commencement notices provide the ideal source of information that could give a representation of the ongoing construction activity at a specific period of time. Available data with respect to commencement notices is not considered reliable and MEPA data, in respect of compliance certificates issued, has been used to draw some observations with respect to the demand picture as established in earlier sections of this report for housing and non industrial buildings.

Health and Safety

During the last year, there were ten cases relating to construction decided by the Courts of Magistrates. Eight were found guilty and fined between Lm200 and Lm1000. Two others were acquitted - one because the accused was wrongly charged, while in the second case, the defence was totally based on evidence of third parties (the original complainants). However, they failed to turn up in Court and the accused was acquitted. 26 other cases are waiting to be appointed before the law Courts.

During 2004, there were twelve (12) fatalities at the place of work of which ten (10) took place within the construction industry. This represents an 83% of all occurrences which is very high. Unfortunately data for the previous years available in the public domain is incomplete and as such comparisons cannot be made. It is evident that the rate in Malta is by far higher than in any of the EU-15 countries taken individually or as an aggregate.

Construction Products Directive

The Construction Products Directive (Council Directive 89/106/EEC), has the objective of ensuring the free movement of all construction products within the Union by harmonising national laws with respect to the essential requirements applicable to these products in terms of health, safety and stability.

Locally the Directorate for Consumer and Industrial Goods within the Malta Standards Authority (MSA) is the technical advisory arm in respect of the free movement and safety of construction products. The MSA is responsible for harmonizing local legislation to reflect the Construction Products Directive (CPD).

The implementation of the CPD has a direct impact on the construction products on the market and on those facilities/operations that locally produce products for incorporation in construction.

The CPD has been transposed by the Construction Products Regulations, 2001(L.N. 270 of 2001), issued under the Product Safety Act (CAP 427).

An overview of the Directive and the local regulations has been provided.

Environmental Considerations

The environment is a wide ranging discipline and therefore selected aspects were taken to show the trends that prevailed. These included:

- Solid waste generation and disposal;
- Water production;
- Wastewater generated;
- Power generation;
- Land use.

Statistics characterising these areas illustrate the trends over the past years.

Energy Efficiency

The construction industry can clearly play a key role in the attainment of a more efficient use of energy through:

1. The use of construction products whose characteristics (e.g. thermal resistance,) and performance (e.g. air tightness of doors and windows, efficiency of boilers, fans, cooling units) allow for an efficient use of energy to be made; and
2. The use of building designs that allow for an efficient use of energy to be made.

A number of relevant regulations are currently in force, while others are expected to be introduced within the coming months. An overview of current subsidiary legislation and of the draft building regulations has been provided. Trends in energy demand by the industrial, commercial and domestic users have also been presented.

1.0 Economic Criteria

The construction industry is undoubtedly one of the major drivers of the Maltese economy. The State of the Construction Industry Report 2004 attempted to demonstrate this through an analysis of salient parameters such as:

- growth in contribution of the construction industry to Gross Domestic Product (GDP);
- correlation between contribution to GDP by the construction industry and national GDP;
- persons employed within the construction industry; and
- additions to capital employed within the construction industry.

A change in the manner of statistical reporting to conform to the European System of Accounts commonly referred to as ESA95 is being used as from this year's edition. The parameters quoted for each sector are the following[1]:

- **Output (P1)** consists of the products created during the accounting period. Particular cases included are:

  (a) the goods and services which one local kind of activity unit (KAU) provides to a different local KAU belonging to the same institutional unit;

  (b) the goods which are produced by a local KAU and remain in inventories at the end of the period in which they are produced, whatever their subsequent use.

  However, goods and services produced and consumed within the same accounting period and within the same local KAU are not separately identified. They are therefore not recorded as part of the output or intermediate consumption of that local KAU.

- **Intermediate Consumption (P2)** consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital. The goods and services may be either transformed or used up by the production process.

- **Final consumption expenditure (P3)** consists of expenditure incurred by resident institutional units on goods or services that are used for the direct satisfaction of individual needs or wants or the collective needs of members of the community. Final consumption expenditure may take place on the domestic territory or abroad.

- **Gross fixed capital formation (P51)** consists of resident producers' acquisitions, less disposals, of fixed assets during a given period plus certain additions to the value of non-produced assets realized by the productive activity of producer or institutional units. Fixed assets are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly, or continuously, in processes of production for more than one year.

[1] National Accounts – Implementation of the European System of Accounts (ESA 1995), NSO News Release No. 195/2003, 17 December 2003.

- **Changes in inventories (P52)** are measured by the value of the entries into inventories less the value of withdrawals and the value of any recurrent losses of goods held in inventories.

- **Acquisitions less disposals of valuables (P53)**: valuables are non-financial goods that are not used primarily for production or consumption, do not deteriorate (physically) over time under normal conditions and that are acquired and held primarily as stores of value.

- **Exports of goods and services (P6)** consist of transactions in goods and services (sales, barter, gifts or grants) from residents to non-residents.

- **Imports of goods and services (P7)** consist of transactions in goods and services (purchases, barter, gifts or grants) from non-residents to residents.

- **Consumption of fixed capital (K1)** represents the amount of fixed assets used up, during the period under consideration, as a result of normal wear and tear and foreseeable obsolescence, including a provision for losses of fixed assets as a result of accidental damage which can be insured against.

- **Compensation of employees (D1)** is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period. Compensation of employees is broken down into:
  (a) wages and salaries in cash and in kind
  (b) employers' actual and imputed social contributions

- **Taxes on products (D21)** are taxes that are payable per unit of some good or service produced or transacted. The tax may be a specific amount of money per unit of quantity of a good or service, or it may be calculated *ad valorem* as a specified percentage of the price per unit or value of the goods and services produced or transacted. As a general principle, taxes in fact assessed on a product, irrespective of which institutional unit pays the tax, are included in taxes on products, unless specifically included in another heading.

- **Other taxes on production (D29)** consist of all taxes that enterprises incur as a result of engaging in production, independently of the quantity or value of the goods and services produced or sold. They may be payable on the land, fixed assets or labour employed in the production process or on certain activities or transactions.

- **Subsidies (D3)** are current unrequited payments which general government or the Institutions of the European Union make to resident producers, with the objective of influencing their levels of production, their prices or the remuneration of the factors of production. Other non-market producers can receive other subsidies on production only if those payments depend on general regulations applicable to market and non-market producers as well. By convention, subsidies on products are not recorded on other non-market output.

- **Subsidies on products (D31)** are subsidies payable per unit of a good or service produced or imported. The subsidy may be a specific amount of money per unit of quantity of a good or service, or it may be calculated *ad valorem* as a specified percentage of the price per unit. A subsidy may also be calculated as the difference between a specified target price and the market price actually paid by a buyer. A subsidy on a product usually becomes payable when the good is produced, sold or imported. By convention, subsidies on products can only pertain to market output or to output for own final use.

- **Other subsidies on production (D39)** consist of subsidies except subsidies on products which resident producer units may receive as a consequence of engaging in production. For their other non-market output, other non-market producers can receive other subsidies on production only if those payments from general government depend on general regulations applicable to market and non-market producers as well.

- **Property income (D4)** is the income receivable by the owner of a financial asset or a tangible non-produced asset in return for providing funds to, or putting the tangible non-produced asset at the disposal of, another institutional unit.

1.1 Statistics for the Sectors

Although this report focuses on the construction sector, it is appropriate to focus also on related sectors. In fact a look at the Sectoral Annual GDP according to NACE A17 classification leads one to identify three main sectors namely:

- Mining and quarrying;
- Construction; and
- Real estate, renting and business activities.

The statistics for each of the sectors, for the period 2000-2005 will be reproduced hereunder and specific comments related to each sector will follow in subsequent sections.

It is important to stress that the NACE classifications are a standard classification of economic activities in the European Community and therefore represent a standard benchmark amongst Member States as well as other countries. A detailed breakdown of each classification is given in Appendix I. It must be pointed out that the three chosen sectors are not to be considered as the only sectors that are effected by the construction industry as there are other NACE classification areas such as manufacturing which cover aspects such as products used in the building industry such as joinery, bricks, ceramic tiles and metals amongst others. Similarly, there might be other components within the particular NACE classification which are beyond the scope of the construction industry. However, unless raw data is available by sub-category it would be impossible to perform a micro analysis of the broader classification.

Mining and Quarrying Sector

Table 1.1 – Sectoral Annual GDP : Mining and Quarrying[2]

	2000	2001	2002	2003	2004	2005
	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000
Production account						
Output	6788	6496	8945	10440	11422	12734
Intermediate consumption	2977	2822	4564	5238	5973	6776
Value added, gross	3811	3674	4381	5202	5449	5958
Consumption of fixed capital	344	340	319	357	350	355
Value added, net	3467	3334	4062	4845	5099	5603
Generation of income account						
Value added, net	3467	3334	4062	4845	5099	5603
Compensation of employees	1461	1527	1528	1755	1826	1909
Other taxes on production	7	8	12	12	10	19
Other subsidies on production (-)	0	0	0	0	0	0
Operating surplus	1999	1799	2522	3078	3263	3675

Construction Sector

Table 1.2 – Sectoral Annual GDP : Construction[3]

	2000	2001	2002	2003	2004	2005
	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000
Production account						
Output	108576	121607	127624	130642	137339	144046
Intermediate consumption	49354	54480	56678	58004	60883	65900
Value added, gross	59222	62127	69946	72638	76456	78146
Consumption of fixed capital	4713	5349	5193	5141	5237	5312
Value added, net	54509	61778	64753	67497	71219	72834
Generation of income account						
Value added, net	54509	61778	64753	67497	71219	72834
Compensation of employees	28463	32428	35257	36772	38819	40462
Other taxes on production	336	399	521	525	442	825
Other subsidies on production (-)	0	0	0	0	0	0
Operating surplus	25710	28951	28975	30200	31958	31547

[2] Gross Domestic Product for 20045– NSO News Release No. 47/2006, 10 March 2006
[3] Gross Domestic Product for 20045– NSO News Release No. 47/2006, 10 March 2006

Real Estate, Renting and Business Activities

Table 1.3 – Sectoral Annual GDP : Real Estate, Renting and Business Activities[4]

	2000	2001	2002	2003	2004	2005
	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000
Production account						
Output	233121	256251	277361	307459	330837	347080
Intermediate consumption	62797	75784	84950	96500	107272	111429
Value added, gross	170324	180467	192411	210959	223565	235651
Consumption of fixed capital	44598	47901	50351	52379	54145	56074
Value added, net	125726	132566	142060	158580	169420	179577
Generation of income account						
Value added, net	125726	132566	142060	158580	169420	179577
Compensation of employees	36116	39836	39299	39116	40054	43913
Other taxes on production	562	682	889	1010	853	1589
Other subsidies on production (-)	562	492	326	210	27	69
Operating surplus	89610	92540	102198	118664	128540	134144

1.2 Contribution of the Construction-Related Sectors to GDP

The gross domestic product (GDP) is a measure of how well the country's economy has been faring over the period. Table 1.4 summarises the contribution to GDP by the three sectors between the period 2000 - 2005 as well as the year-on-year change.

Table 1.4 – Contribution to GDP from the Construction-Related Sectors

Year	2000	2001	2002	2003	2004	2005
Mining and Quarrying Sector						
Contribution to GDP by Mining & Quarrying Sector (Lm 000)	3811	3674	4381	5202	5449	5958
Growth in Contribution to GDP by Mining & Quarrying Sector (Lm 000)		-137	707	821	247	509
% Contribution to GDP by Mining & Quarrying Sector	0.22	0.21	0.24	0.28	0.30	0.31
Construction Sector						
Contribution to GDP by Construction Sector (Lm 000)	59222	62127	69946	72638	76456	78146
Growth in Contribution to GDP by Construction Sector (Lm 000)		2905	7819	2692	3818	1690
% Contribution to GDP by Construct Sector	3.49	3.58	3.89	3.97	4.18	4.06
Real Estate, Renting and Business Activities						
Contribution to GDP by Real Estate, Renting and Business Activities Sector (Lm 000)	170324	180467	192411	210959	223565	235651
Growth in Contribution to GDP by Real Estate, Renting and Business Activities Sector (Lm 000)		10143	11944	18548	12606	12086
% Contribution to GDP by Real Estate, Renting and Business Activities Sector	10.04	10.39	10.71	11.53	12.21	12.23

[4] Gross Domestic Product for 20045– NSO News Release No. 47/2006, 10 March 2006

From Table 1.4 the following may be inferred:

- The percentage contribution to GDP by the Mining and Quarrying sector showed a year-on-year increase and hovered between 0.21% and 0.31%;
- The growth in contribution to GDP by the Mining and Quarrying sector, albeit registering a year-on-year increase between 2000 and 2004, experienced a drop in 2005;
- The percentage contribution to GDP from the Construction sector also showed a contribution varied between 3.49% and 4.18%;
- The contribution to GDP by the Real Estate, Renting and Business Activities sector also showed a year-on-year increase with contributions spanning between 10.04% and 12.23%;
- The year-on-year increase in contribution to GDP by this sector seems to have experienced a significant slowdown in the growth rate between 2004 and 2005.

1.3 Employment within the Construction Industry

The level of employment within the construction industry is a strong indicator of the activity and performance of the industry. It is likely that an industry that supports a steady growth is an indication of an industry that is thriving. On the other hand, layoffs from within the sector are usually a reflection of a decrease in activity.

Table 1.5 summarises the compensation to employees from within the different sectors of the construction-related sectors.

Table 1.5 – Compensation of employees[5]

	2000	2001	2002	2003	2004	2005
	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000	Lm '000
Quarrying and Mining	1461	1527	1528	1755	1826	1909
Increase/(Decrease)		66	1	227	71	83
Percentage Increase/(Decrease)		4.52	0.07	14.86	4.05	4.55
Construction	28463	32428	35257	36772	38819	40462
Increase/(Decrease)		3965	2829	1515	2047	1643
Percentage Increase/(Decrease)		13.93	8.72	4.30	5.57	4.23
Real Estate, Renting & Business Activities	36116	39836	39299	39116	40054	43913
Increase/(Decrease)		3720	-537	-183	938	3859
Percentage Increase/(Decrease)		10.30	-1.35	-0.47	2.40	9.63

The data from Table 1.5 leads to the following observations:

- All three sectors exhibit an absolute net growth in the compensation paid to employees over the period under review, although certain negative trends prevail between certain years;
- In the quarrying sector, an excellent year was registered in 2003, whereas it seems that the predominant growth rate hovers around the 4.5% mark;

[5] Gross Domestic Product for 20045– NSO News Release No. 47/2006, 10 March 2006

- The construction sector saw a growth rate on a year-on-year basis albeit at different rates;
- The growth rate in the Real Estate, Renting and Business Activities sector dropped during the period 2002 – 2003 albeit now having recovered to an all time high.

Table 1.6 – Employment within the Construction-related Sectors and Growth trends, 2001 – 2005
Source: Labour Force Survey 2001, National Statistics Office, Malta
Labour Force Survey 2002, National Statistics Office, Malta
Labour Force Survey 2003, National Statistics Office, Malta
Labour Force Survey 2004, National Statistics Office, Malta
Labour Force Survey 2005, National Statistics Office, Malta

	December 2001			December 2002			December 2003		
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total
Males	14819	624	15443	17054	684	17738	16175	760	16935
% Males	14.78	18.57	14.91	17.47	15.15	17.37	16.64	19.15	16.74
Females	1755	355	2110	1467	533	2000	1716	891	2607
% Females	5.05	4.90	5.03	3.92	6.02	4.32	4.69	9.56	5.68
Total	16574	979	17553	18901	1217	20118	17891	1651	19542
% of Labour Force	12.28	9.23	12.06	14.00	9.10	13.56	13.38	12.42	13.29
				2001 – 2002			**2002 – 2003**		
Males				2235	60	2295	(879)	(76)	(803)
% Change (Males)				15.08	9.62	14.86	(5.15)	11.11	(4.53)
Females				(288)	178	(110)	249	(57)	607
% Change (Females)				(13.00)	50.14	(5.21)	16.98	(10.69)	30.35
Total				2327	238	2565	(1010)	(19)	(576)
% Change (Total)				14.04	24.31	14.61	(5.34)	(1.56)	(2.86)

Table 1.6 – (continued)

	December 2004			December 2005		
	Full time	Part time	Total	Full time	Part time	Total
Males	17699	508	18207	18118	730	18848
% Males	17.90	13.02	17.71	18.35	14.76	18.18
Females	2197	562	2759	2038	620	2658
% Females	6.12	5.98	6.09	5.81	6.57	5.97
Total	19896	1070	20966	20156	1350	21506
% of Labour Force	14.76	8.05	14.16	15.06	9.38	14.51
	2003 – 2004			**2004 - 2005**		
Males	1524	(252)	1272	419	222	641
% Change (Males)	9.42	(33.16)	7.51	2.37	43.7	3.52
Females	481	(329)	152	(159)	58	(101)
% Change (Females)	28.03	(36.92)	5.83	(7.24)	10.32	(3.66)
Total	2005	(581)	1424	260	280	540
% Change (Total)	11.2	(35.19)	7.29	1.31	26.17	2.58

From Table 1.6 the following observations can be made as regards the characteristics of the employment market within these sectors:

- As at December 2005, the sectors have the highest full time and total employment figure over the period 2001-2005;
- Female employment varies considerably with undulations that present both positive and negative year-on-year fluctuations;
- The sectors constitute between 12-15% of the local full-time labour force;
- Essentially the sectors remain male dominated.

It is also interesting to note the employment characteristics of the individual sectors that comprise the construction industry-related sector. From the data of Table 1.7 the following additional comments may be drawn:

- The Construction sector represents that sector which contributes mostly to employment numbers followed by the Real Estate, Renting and Business Activities sector and subsequently the Mining & Quarrying sector;
- Whilst all sectors contributed positively towards employment growth between 2001 and 2002, this cannot be said for the subsequent years in which there were one or more sectors that experienced a negative trend.

Table 1.7 – Full Time Employment within the respective Construction-related Sector 2001 – 2005
Source: Labour Force Survey 2001, National Statistics Office, Malta
Labour Force Survey 2002, National Statistics Office, Malta
Labour Force Survey 2003, National Statistics Office, Malta
Labour Force Survey 2004, National Statistics Office, Malta
Labour Force Survey 2005, National Statistics Office, Malta

	2001	2002	2003	2004	2005
Mining & Quarrying					
Males	515	730	956	992	491
Females	0	0	79	0	0
Total	515	730	1035	992	491
% of Workforce	0.4	0.5	0.7	0.7	0.3
Construction					
Males	11072	11560	10826	11170	12456
Females	210	501	388	276	283
Total	11282	12061	11214	11446	12739
% of Workforce	7.7	8.1	7.6	7.7	8.6
Real Estate, Renting and Business Activities					
Males	3856	5448	5153	6045	5901
Females	1900	1879	2140	2483	2375
Total	5756	7327	7293	8528	8276
% of Workforce	4.0	4.9	4.9	5.8	5.6

1.4 Consumption of Fixed Capital

The Consumption of Fixed capital represents the amount of fixed assets used up, during the period under consideration, as a result of normal wear and tear and foreseeable obsolescence, including a provision for losses of fixed assets as a result of accidental damage which can be insured against. Table 1.8 summarises the results for the three sectors.

Table 1.8 – Consumption of Fixed Capital 2000 – 2004

	2000	2001	2002	2003	2004	2005
Mining and Quarrying	344	340	319	357	350	355
Construction	4713	5349	5193	5141	5237	5312
Real estate, Renting and Business activities	44598	47901	50351	52379	54145	56074

It may be noted that the only year-on-year increase is maintained by the Real estate, renting and business activities sector and which magnitude is far higher than the other two sectors. The fluctuations that may be observed in the Mining & Quarrying as well as in the Construction Sectors may be symptomatic of a certain degree of uncertainty that may prevail within these two sectors.

2.0 Malta Environment and Planning Authority

The Malta Environment and Planning Authority (MEPA) plays a primary role in shaping the development activity on the islands. Planning and environment related policies have a direct and wide influence on the construction industry in that they impact the level of development activity, they can promote specific development types that may necessitate new construction skills or the use of specific equipment and they can have an impact on materials in use and operations in general.

During 2005 MEPA issued for public consultation the South Malta Local Plan. The Policy and Design Guidance DC2005 was approved and became applicable to all applications validated after 18 April 2005.

MEPA also issued a new procedure in order to facilitate the correction of development built on wrongly approved sites. This new procedure addresses one of the recommendations put forward in the 2004 State of the Construction Industry Report.

A revised interpretation of Structure Plan Policy TRA4 with respect of the Commuted Parking Payment Scheme (CPPS) was also published. The following is the list of circulars issued during 2005.

CIR 3/05:
1 Correction of wrong site plans
2 Extension of Valletta Air-Condition Units Scheme
3 Interpretation of Structure Plan Policy TRA4 and CPPS refund

CIR 2/05:
1 Policy and Design Guidance 2005

CIR 1/05:
1 Supplementary Planning Policy Guidance on Open Storage Areas
2 Supplementary Planning Policy Guidance on 'Major Accident Hazards and Hazardous Substances'
3 Procedure on Air Conditioning Units in Valletta

In October 2005 the Ministry for Rural Affairs and the Environment announced that a review of the operations and procedures relevant to the Development Control Section within MEPA had been undertaken with the overall objective of minimising delays in application processing without jeopardising the professional application processing. The main actions taken have been[6]:

- Improvements in Customer Care;
- Internal reorganisation with respect to application processing with the aim of increasing accountability; and
- Stricter implementation of the timeframes established at law with respect to consultations with stakeholder entities.

[6] Ministry Press Release 06.10.05

Key stakeholders have again been requested to provide feedback in respect of MEPA operations and active policies where these are though to merit review. The policy related input has been primarily in respect of the Policy and Design Guidance 2005.

2.1 Improvements within MEPA

- Improvement in the attitude of the front desk personnel.

2.2 Aspects of MEPA Modus Operandi Meriting Review

- The chief executive should provide top quality management and full accountability for the entire decision-making process at all levels;
- The degree by which development is slowed down by inappropriate decisions should be a matter of major concern;
- Regular audits should be undertaken and published to provide clear and concise information about the consistency of decision-making at all levels, its compliance with underlying planning objectives and whether the degree by which decisions are overruled reveals improper internal functions or inappropriate values;
- Composition of boards should also include competent persons who are not architects by profession but who have a good understanding of the construction and property industry;
- Having the Planning and Development Directorate and the Environment Protection Directorate within the same entity may give rise to a conflict of interest;
- MEPA should be focused on sustainable development;
- The processing of large projects is very inefficient and far too lengthy running into years;
- Separate statistics relative to the application processing for large projects should be published;
- Restructuring is required in order to increase efficiency;

  The Ministry for Rural Affairs and the Environment in the last quarter 2005 set up a Change Management Team with the responsibility of implementing within MEPA a number of recommendations that are aimed at achieving, amongst others, increased efficiency in application processing.
- Timeframes that are legally established for responses or decisions by MEPA should be adhered to such that application processing is not delayed and entities consulted during the application processing should respond within stipulated deadlines;

  The above is in line with one of the recommendations that is being implemented within MEPA.
- Applications are invalidated on minor omissions or errors which could be easily corrected by contacting architect. In addition, applications are invalidated multiple times causing substantial time delays;
- The timeframes established for the processing of applications should take into consideration the fact that works in tourist facilities cannot be commenced during the

summer months. The inappropriate timing of the issuance of permits for such facilities is introducing further delays into the process;

- MEPA should consult with the Chamber of Engineers on aspects related to fire, ventilation, noise, energy requirements and alternative energy;
- A system whereby MEPA issues a formal preliminary site development guideline based on local plans should be introduced; and
- MEPA should apply policy guidelines with flexibility with a final aim of achieving the policy objectives;

2.3 MEPA Policies Meriting Review

- Responsibility for minor works and alterations should be taken by architect and should only require notification without need for MEPA endorsement;
- There are cases of conflicts between general and specific policies;
- Current outlook within MEPA dampens creativity with respect to building aesthetics;
- Application of Floor Area Ratio (FAR):
  - Application should be encouraged;
  - Application of the FAR should form part of a 'tall building' strategy which should clearly delineate specific localities and zones where high rise building would be permitted;
  - 'tall buildings' should be considered in terraced development zoning;
  - 'tall buildings' should be considered in villa areas, however the sites should have a larger landscaped area;
  - The requirement for the applicability of the FAR should be 3,000 sq. meters of site area as an absolute minimum with no exceptions;

  A MEPA planning policy document on the use and applicability of the FAR was issued for public consultation in the 2nd quarter of 2006.
- Policies on height limitations:
  - Four stories plus one should be applicable to most development areas;
  - Building height policies as established in Local Plans should be applied with flexibility in order to take into consideration the building heights of adjoining buildings;
  - Semi-basements up to six courses should be considered as basements;
  - Building height policies when applied to settlement boundaries should be revisited to allow for two floors plus a recessed floor; and
  - In mixed development zoning, more options such as the introduction of 'tall buildings' should be studied.
- Policies on UCAs:
  - There should be a limitation on the colour schemes and materials that can be used on facades; and
  - More negotiation / flexibility of policy application is required to allow for re-development of old buildings on large sites such that they can provide viable development project opportunities;

- Some policies forming part of the Policy and Design Guidance 2005:
  - There is a certain inconsistency between clauses (e) and (f) of Policy 6.9 - Garages for Private Vehicles which could lead to an ambiguous interpretation;
  - Policy 7.2 clause iii with respect to balconies should be deleted;
  - Policy 10.7 that establishes the requirements for parking provisions as applied to penthouses on existing buildings is too stringent;
  - The requirements for plant rooms on the roof of commercial buildings as established by Policy 10.10 need to be revisited; and
  - Policy 14.5 development on the roof of industrial buildings where this relates to the parking of cars needs to be revisited as currently too restrictive.
- When applying ‘Access for All’ requirements to industrial buildings MEPA should aim to achieve a sound balance between these requirements and the limitations of existing sites and buildings;
- Parking payment made by developers should be utilised by MEPA to provide car parking facilities for the persons who have paid; and
- Clearly defined urban boundaries need to be established.

3.0 Housing

The development of housing contributes significantly to the activity in the construction industry and is one of the key sectors that consumes significant quantities of quarried stone. The trend in the demand for housing provision therefore provides an indicator of the current and forecasted construction activity related to residential development.

Demand for new housing provision can be indicatively established from trends in the supply of new housing stock and fluctuations in property prices. In order to provide a detailed representation of these indicators, data has been subdivided by housing typology taking into account the most common housing typologies that are currently available in Malta namely:

- flats/apartments
- maisonettes
- terraced houses
- semi detached villas
- detached villas.

3.1 Demand for New Housing Provision

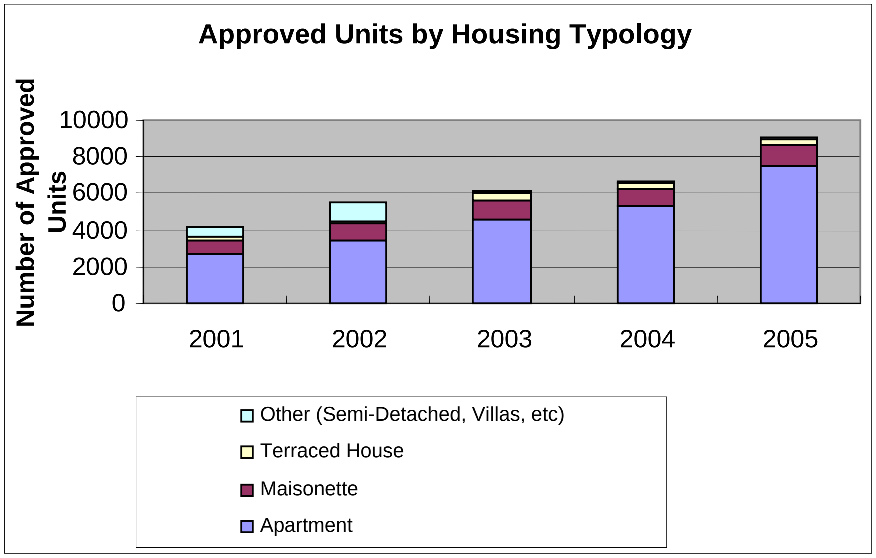
Trends in the demand for new housing provision and related construction activity can be established from the number of development permits issued. However as development applications relative to dwellings may constitute a single, multiple or multi-type aggregate, trends in the number of applications approved, while indicative of the activity in the sector, need to be supplemented by specific data in respect of the number and type of dwelling units approved. The required data for the period 2001–2005 has been extracted by MEPA and is captured in Table 3.1.

Table 3.1: Number of Approved Dwelling Units by Housing Typology
Source: MEPA

Approved Units by Housing Typology					
	2001	**2002**	**2003**	**2004**	**2005**
Apartment	2657	3420	4548	5265	7539
Maisonette	774	910	1085	966	1058
Terraced House	203	135	414	353	363
Other (Semi-Detached, Villas, etc)	546	1016	81	123	121
Totals	**4180**	**5481**	**6128**	**6707**	**9081**
Growth	**1811**	**1301**	**647**	**579**	**2374**

While there has been a slow down in growth in the period 2003-2004, figures for 2005 indicate a reversal of the trend with a significant rate of growth being registered during the past year, taking the number of approved units to the highest level recoded in the seven year period analysed since the first edition of this Report. This increase can be attributed to a substantial growth in the number of approved apartments. Figures in the other three typologies have remained relatively stable over the last three years. The trends by typology are depicted in Figure 3.1.

Figure 3.1: Approved Units by Housing Typology
Source: MEPA



The number of flats/apartments approved as a percentage of the total approved housing continues to increase, rising from just over 60% of total applications in 2001 to over 80% of total applications in 2005. On the other hand the percentage of approved applications for maisonettes as a percentage of the total approved applications continues to drop from just under 19% in 2001 to just below 12% in 2005. The percentage of approved applications for terraced houses as a percentage of the total approved applications during the past 5 year period peaked in 2003 at just below 7%. This figure has been on a downward trend in 2004 and 2005 with 4% being the percentage for 2005. The number of approved applications for villas and semi-detached villas as a percentage of the total approved housing remains at just over 1% reflecting the figures for the years 2003 and 2004.

3.2 Conversion and Redevelopment

Conversions and redevelopment continue to result in a net gain in housing stock with the largest gain being a result of redevelopment. Preliminary indications from MEPA are that 80% of redeveloped units are apartments, 10% are maisonettes and the rest are other categories. The number of units gained or lost per year is captured in Table 3.2. The unit movements, per type of application for the period 2001-2005, are captured in Table 3.3.

The number of conversions or redevelopments, where there is a one to one replacement, as a percentage of the number of approved applications has dropped from the 2% registered over the period 2001 - 2003 to just over 1% in 2005. On the other hand the number of units gained as a result of conversion or redevelopment as a percentage of total approved units has been rising from 17% in 2001 to 36% in 2003 to 46% in 2005. This when considered in conjunction with the trends in the typology of the approved units as captured in Figure 3.1 and MEPA's preliminary indications on the typology of the development in question may be indicative of a continued trend towards the replacement of residential units by units with a smaller foot print and / or higher buildings.

Table 3.2: Changes in number of dwelling units as a result of Conversion or Redevelopment
Source: MEPA

	2001 Gain/ Loss	2002 Gain/ Loss	2003 Gain/ Loss	2004 Gain/ Loss	2005 Gain/ Loss
Conversion	+34	+3	+88	+28	+299
Redevelopment	+611	+1273	+1968	+2388	+4278
Total	**+645**	**+1276**	**+2056**	**+2416**	**+4577**

Table 3.3: Changes in number of dwelling units by type of application
Source: MEPA

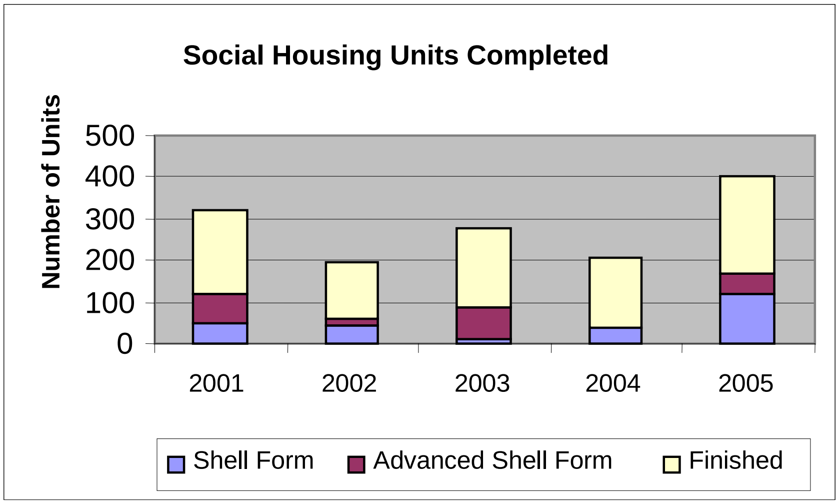
Conversions and Redevelopment: Unit Movements					
	2001	**2002**	**2003**	**2004**	**2005**
Units that had replaced the original number of units (Dwelling to Dwelling on a 1:1 basis)	104	119	139	23	119
Total Units gained (Dwelling units replaced by other Dwellings of varying amounts)	+728	+1359	+2177	+2783	+4184
Dwelling Units gained (Other to Dwelling)	+110	+88	+446	+185	+1185
Units lost (Dwelling units lost to Other non-dwelling categories)	-83	-83	-84	-63	-71

3.3 Social Housing

Social housing comprises a part of the demand for new housing. During the period 2001–2005, nearly 4.5 % of the approved housing units were developed as social housing. Figure 3.2 presents the number of units completed per year during this period.

During 2005 the number of housing units completed reached the highest value registered in the last 5 years.

Figure 3.2: Number of Social Housing Units Completed per Year
Source: Housing Authority



Annual expenditure on social housing construction projects is captured in Table 3.4 below.

Table 3.4: Annual Expenditure on Social Housing Construction Projects
Source: Housing Authority

Annual Expenditure on Social Housing Construction Projects					
	2001	**2002**	**2003**	**2004**	**2005**
Total cost of projects in Lm	3,485,423	2,433,925	4,076,916	4,767,042	3,306,152
Yearly inc. in expenditure in Lm	606,901	(1,051,498)	1,642,991	690,126	(1,460,890)

Note: 2004 expenditure covers period Oct 03-Sept04
2005 expenditure covers period Oct 04-Sept05

3.4 Property Prices

Three data sources have been utilised to establish property prices for the years 2004 and 2005 and to establish pricing trends. The different sources of data are the National Statistics Office (NSO) News Releases on property prices; median property prices as reported by the Central Bank of Malta (CBM) in their quarterly reviews and property prices broken down by high-level categories and by number of bedrooms as provided by Dhalia. These three sources utilise different data and methodologies thereby giving rise to different prices and different rates of changes of prices over the same periods, however the trends that emerge corroborate each other.

3.4.1 Flats

It is estimated that on average contract prices for flats during 2005 had increased by 20.34% when compared to prices in 2004[7]. On average prices for 2004 are estimated to have been 16.6% higher than prices in 2003**.** It is also estimated that contract prices in the first quarter

2006 had increased by 11.47% when compared to the same period in 2005[7]. Over the two year period 2003-2005 on average, contract prices increased by 40%.

Dhalia data indicates that the rate of increase in prices for flats over the two year period 2003 – 2005 has varied dependant on the number of bedrooms of the property. This data indicates that over this period the price of 1 bedroomed flats increased by 48%, the price of two bedroomed flats increased by 7% while the price of 3 bedroomed flats has remained stable at 2003 figures. This could be indicative of a new demand for high quality property for single inhabitants as opposed to a stabilised demand for flats to house families. Figure 3.3 depicts the pricing fluctuations for flats between the years 2001-2005.

3.4.2 Maisonettes

It is estimated that on average, contract prices for maisonettes during 2005 had increased by 15.32% when compared to prices in 2004. On average, prices for 2004 are estimated to have been 17.49% higher than prices in 2003. It is also estimated that on average, contract prices in the first quarter 2006 had increased by 9.67% when compared to the same period of 2005[7]. Indicatively this points to a slow down in the rate of increase in property prices for maisonettes. Over the two year period 2003-2005 on average, contract prices increased by 35.49%.

Dhalia data indicates that over the two year period 2003 – 2005 the price of two bedroomed and three bedroomed maisonettes increased by 35 % and 37% respectively. Figure 3.4 depicts the pricing fluctuations for maisonettes between the years 2001-2005.

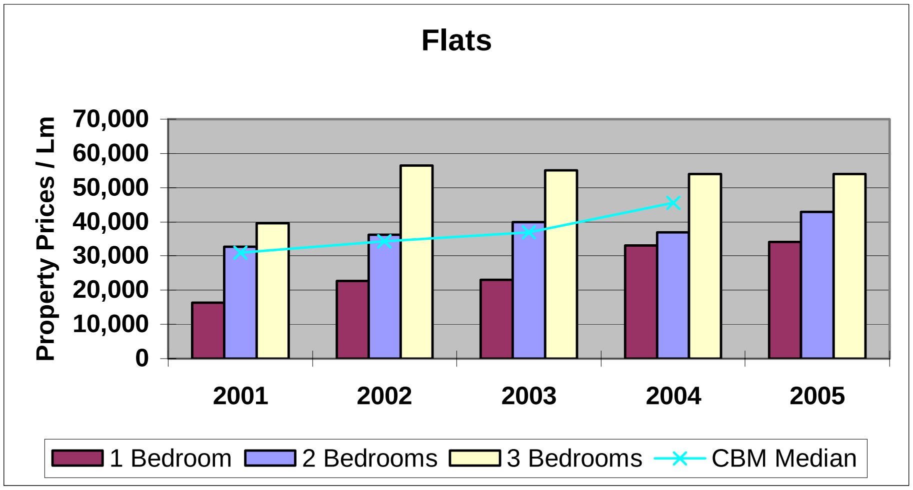
3.4.3 Terraced Houses

It is estimated that on average, contract prices during 2005 had increased by 9.3% when compared to prices in 2004. On average, prices for 2004 are estimated to have been 9.97% higher than prices in 2003. It is also estimated that on average, contract prices in the first quarter 2006 had increased by 13.42% when compared to the same period of 2005[7]. Over the two year period 2003-2005 on average, contract prices increased by 20%.

Dhalia data indicates that over the two year period 2003-2005 the price of a 3 bedroomed terraced houses increased by 31%. Figure 3.5 presents the pricing fluctuations for terraced houses between the years 2001-2005.

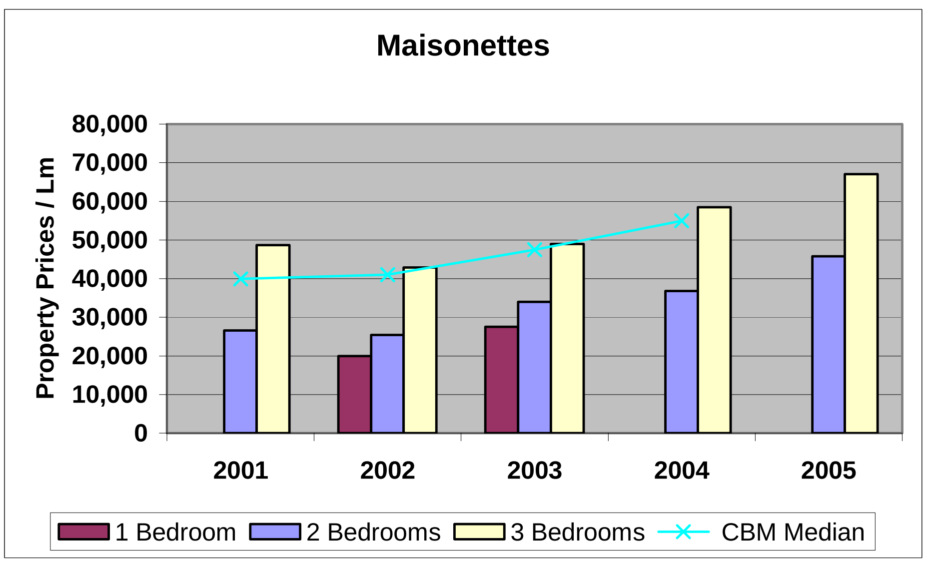
[7] NSO News Release 129/2006

Figure 3.3: Prices of Flats
Source: Dhalia and Central Bank of Malta



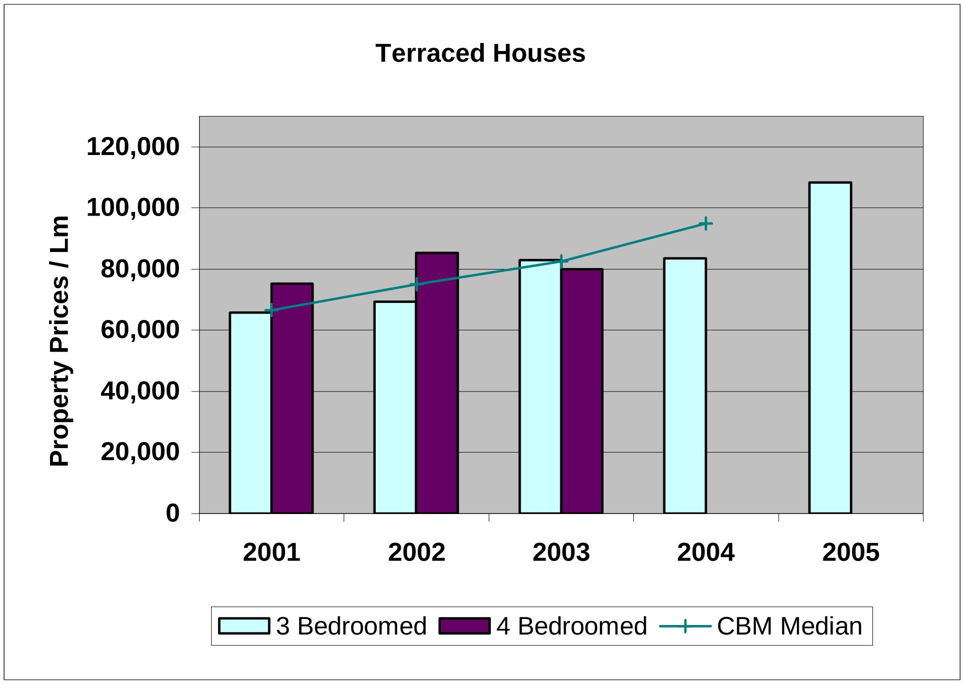
Note: CBM Median is the median flat price as reported by the Central Bank of Malta in the Quarterly Review 2005:1 Appendix 2 Median House Prices.

Figure 3.4: Prices of Maisonettes
Source: Dhalia and Central Bank of Malta



Note: Median is the median maisonette price as reported by the Central Bank of Malta in the Quarterly Review 2005:1 Appendix 2 Median House Prices.
Data relative to 1 bedroomed maisonettes was not available for 2001, 2004 and 2005.

Figure 3.5: Prices of Terraced Houses
Source: Dhalia and Central Bank of Malta



Note: Median is the median terraced house price as reported by the Central Bank of Malta in the Quarterly Review 2005:1 Appendix 2 Median House Prices.
Data relative to 4 bedroomed terraced houses was not available for 2004 and 2005.

3.4.4 Semi-Detached and Detached Villas

The NSO does not provide any price analysis in respect of villas as they are considered to be highly heterogenous.

Median prices for villas as reported by the Central Bank in their first quarter review for 2005 rose by 19% in 2004 over 2003 prices.

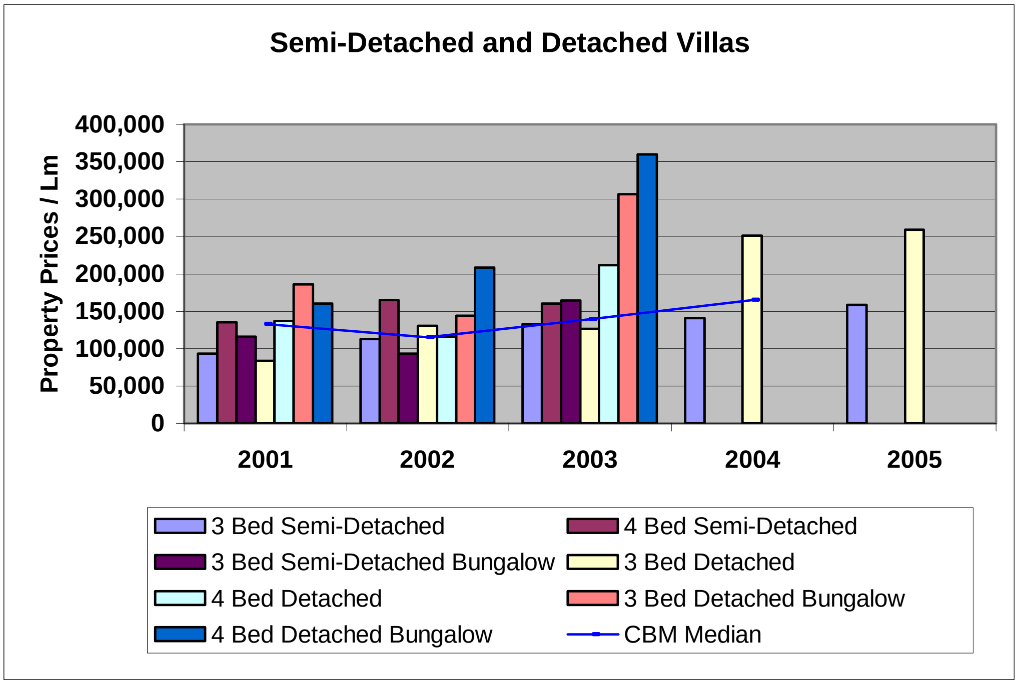
Dahlia data for semi-detached and detached villas indicates a continued increase in property prices, however indicatively, there is a slow down in the rate of increase. While between 2001 and 2003 a 43% increase in prices for semi-detached property had been registered, this rate of increase has fallen to approximately 20% over the two year period 2003–2005.

Prices for detached villas continued to rise at a high rate during 2004 possibly due to the redevelopment potential of such property or the fact that availability of such property on the market has reduced. Prices during 2005 for detached villas were marginally higher than 2004 prices. Figure 3.6 presents the pricing fluctuations between the years 2001-2005.

3.4.5 Shell Form Property

The difference between the price of property sold in shell form and the price of finished property can be considered to provide an indicator of the market preference for shell or finished property; the cost of finishing and the quality of the finish of the property on the market. Table 3.5 captures the median property prices for shell and finished flats and maisonettes.

Figure 3.6: Prices of Semi-detached and Detached Property
Source: Dhalia and Central Bank of Malta



Note: Median is the median villa price as reported by the Central Bank of Malta in the Quarterly Review 2005:1 Appendix 2 Median House Prices.
Data relative to 4 bedroomed and bungalow property not available for 2004 and 2005.

Table 3.5: Median Prices in Lm of Shell and Finished Property by Typology
Source: Central Bank of Malta Quarterly Review 2005:1 Appendix 2 Median House Prices

	2000	2001	2002	2003	2004
Flats					
Shell	26,500	26,500	26,000	29,500	35,000
Finished	29,500	31,000	34,250	37,000	45,500
Percentage Increase	*11*	*17*	*32*	*25*	*30*
Maisonettes					
Shell	29,500	31,750	35,000	35,000	43,000
Finished	37,000	39,900	41,000	47,500	55,000
Percentage Increase	*25*	*26*	*17*	*36*	*28*

4.0 Non-Residential Buildings

Another area of activity for the construction industry is the development of non-residential buildings. The number of projects for new commercial or industrial buildings such as offices, factories, warehouses, hotels etc. is therefore indicative of the current level of activity and the future demand in the sector. In order to provide a detailed representation of these indicators, data has been subdivided by typology based on the categorisation of development applications made by MEPA.

4.1 Demand for Non Residential Buildings

During the period 1999 – 2002 there was a positive trend in the number of approved applications in respect of non-residential buildings indicating growth in the sector. However, in 2003 the total number of approved applications dropped by over 35%. This downward trend continued also during 2004 but at a lower rate. In 2005 the number of permits issued was stable at 2004 levels.

Data in respect of development permits issued during the period 2001-2005 is captured in Table 4.1.

Table 4.1: Number of Approved Applications by Typology
Source: MEPA Data

Approved Applications by Typology					
	2001	**2002**	**2003**	**2004**	**2005**
Manufacturing/Industrial	41	57	18	21	21
Offices	39	54	19	38	20
Shops and retail services	118	108	44	36	45
Restaurant/cafe/bar	34	49	24	25	25
Car parking and vehicle garaging	162	154	134	105	103
Community and Health Services	16	30	32	20	5
Warehousing (Commerce/Industry storage)	28	37	28	25	31
Recreational	21	56	31	15	20
Mixed Office and Retail	12	16	12	8	15
Hotel/tourist accommodation	26	13	15	8	16
Educational	14	33	28	14	18
TOTAL	**511**	**607**	**385**	**315**	**319**
Increase in permits	**(37)**	**96**	**(222)**	**(70)**	**4**

The downward trend in the number of development permits issued is a reflection of a drop in the total number of applications submitted. The largest drop in number of applications when comparing 2005 to 2003 was in the community and heath services category, while the largest increase was in the mixed office and retail category.

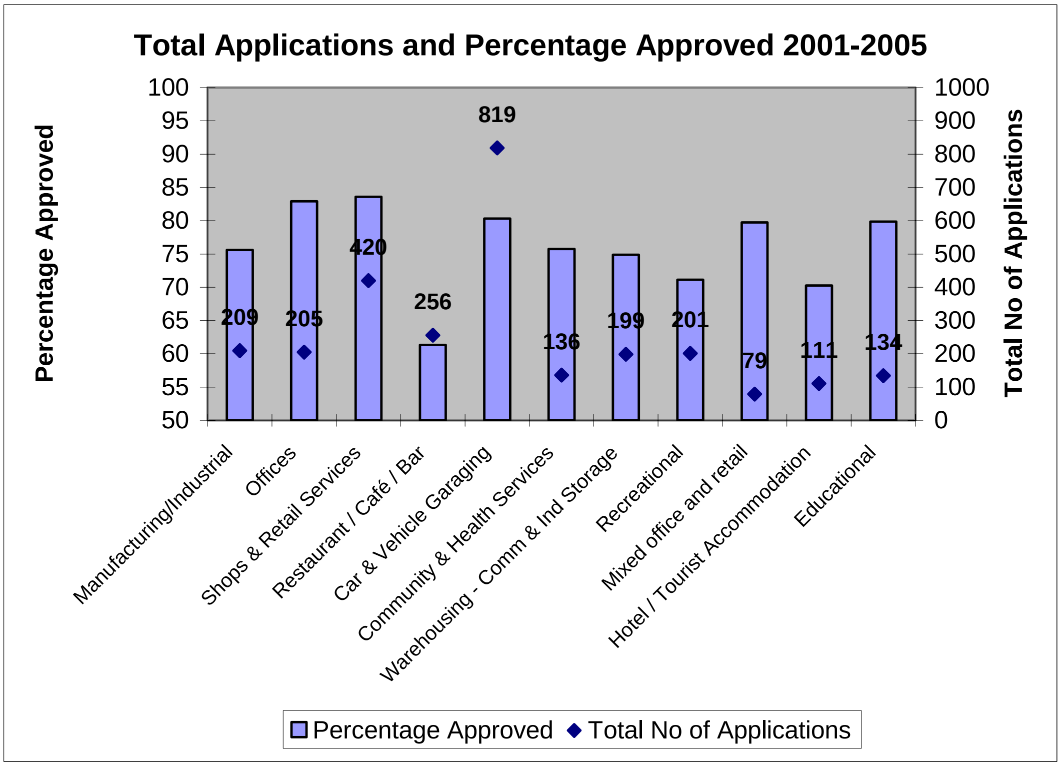
The total number of applications per typology per year and the percentage approved is captured in Table 4.2.

Table 4.2: Number of Applications and Percentage of Applications Approved
Source: MEPA

Applications by Typology					
	2001	**2002**	**2003**	**2004**	**2005**
Manufacturing/Industrial	**51**	**74**	**27**	**24**	**33**
Percentage Applications Approved	80%	77%	67%	88%	64%
Offices	**51**	**65**	**26**	**38**	**25**
Percentage Applications Approved	76%	83%	73%	100%	80%
Shops and retail services	**152**	**133**	**55**	**33**	**47**
Percentage Applications Approved	78%	81%	80%	109%	96%
Restaurant/cafe/bar	**60**	**76**	**40**	**39**	**41**
Percentage Applications Approved	57%	64%	60%	64%	61%
Car parking and vehicle garaging	**225**	**196**	**161**	**121**	**116**
Percentage Applications Approved	72%	79%	83%	87%	89%
Community and Health Services	**19**	**37**	**46**	**26**	**8**
Percentage Applications Approved	84%	81%	70%	77%	63%
Warehousing (Commerce/Industry storage)	**44**	**45**	**38**	**33**	**39**
Percentage Applications Approved	64%	82%	74%	76%	79%
Recreational	**27**	**85**	**38**	**25**	**26**
Percentage Applications Approved	78%	66%	82%	60%	77%
Mixed Office and Retail	**13**	**18**	**15**	**12**	**21**
Percentage Applications Approved	92%	89%	80%	67%	71%
Hotel/tourist accommodation	**32**	**21**	**19**	**17**	**22**
Percentage Applications Approved	81%	62%	79%	47%	73%
Educational	**17**	**41**	**37**	**16**	**23**
Percentage Applications Approved	82%	80%	76%	88%	78%
TOTAL Applications	**691**	**791**	**502**	**384**	**401**

Throughout the past five year period the largest number of applications was received for the development of car parking and vehicle garaging facilities whilst the smallest number of applications received was for the development of mixed office and retail buildings. The total number of applications and the percentage of applications approved per typology is captured in Figure 4.1.

Figure 4.1: Total Number of Applications and Percentage of Applications Approved 2001 - 2005
Source: MEPA



4.2 Trends across the various typologies

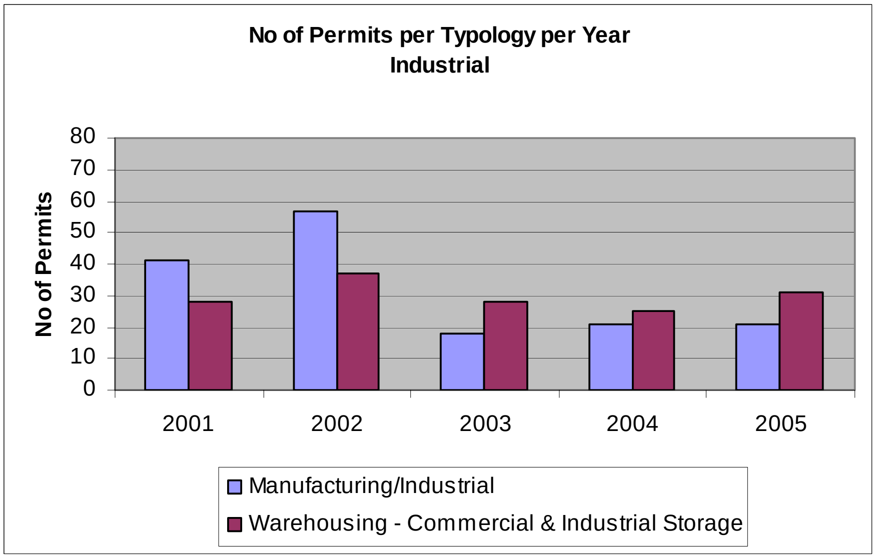
In order to provide relevant indicators, data has been grouped and analysed by sector namely:

- Industrial (including warehousing)
- Office and Retail (including car parking and garaging)
- Health and Education (including community services and recreational)
- Tourism and Catering

4.2.1 Industrial and Warehousing

The trend in the industrial and manufacturing sector in the period 1999 to 2003 has been negative. A substantial drop in applications occurred in 2003 with the number of permits issued in 2004 and 2005 stabilising at 2003 levels. The trend in number of permits issued in the warehousing sector has also been negative but the drop in permits throughout the 1999 – 2005 period has been marginal. The number of permits per year per typology is captured in Figure 4.2.

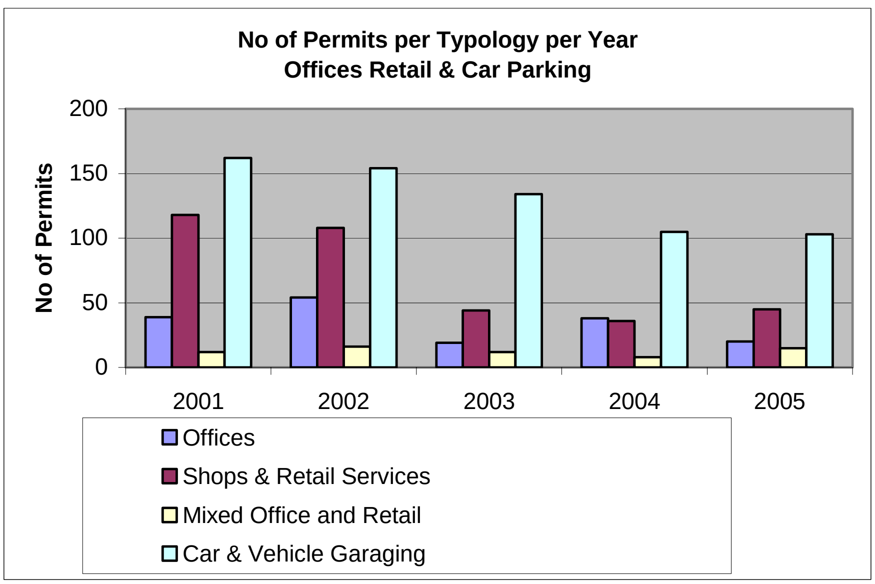
Figure 4.2: Total Number of Permits Industrial Sector 2001 - 2005
Source: MEPA



4.2.2 Office and Retail

In the period 2003 – 2005 the number of permits issued in respect of offices fluctuated but the trend over the last five year period has been negative. Similarly over the past five years there is a clearly negative trend in the number of shop and retail outlet permits and in the number of permits issued for car parking and vehicle garaging facilities. The number of permits per year per typology is captured in Figure 4.3.

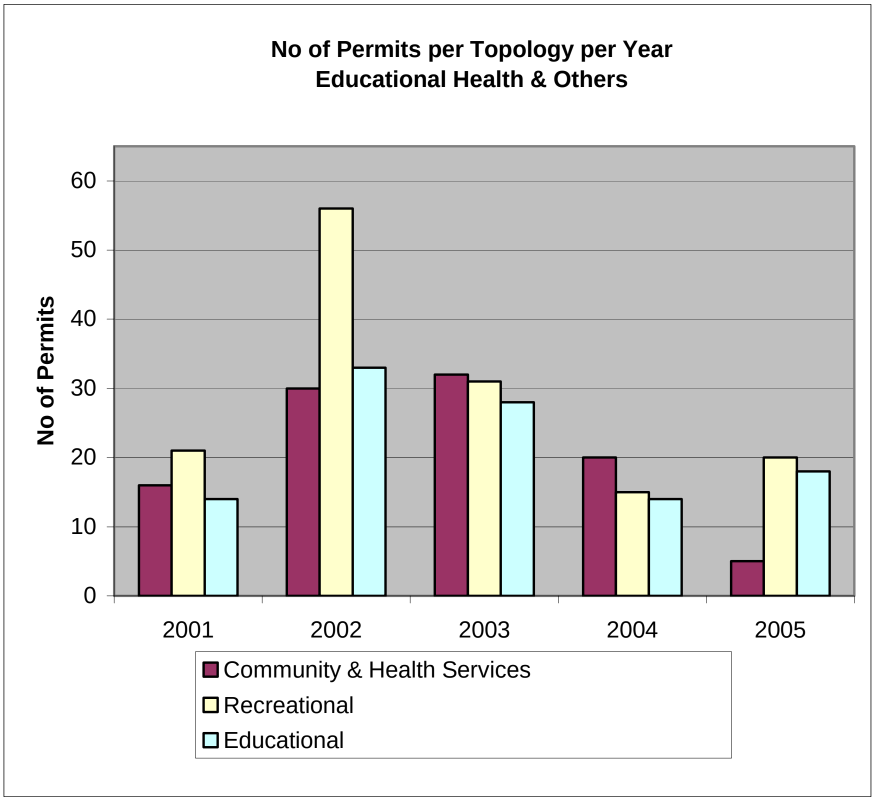
Figure 4.3: Total Number of Permits Office and Retail and Car Parking Facilities 2001 - 2005
Source: MEPA



4.2.3 Health and Education

Following a peak in activity in this sector in 2002, figures for permits issued have been slowly returning to the 2000 – 2001 levels. In 2005 the community and health sector saw the lowest number of permits being issued in the period 1999 to 2005. The number of permits per year per typology is captured in Figure 4.4.

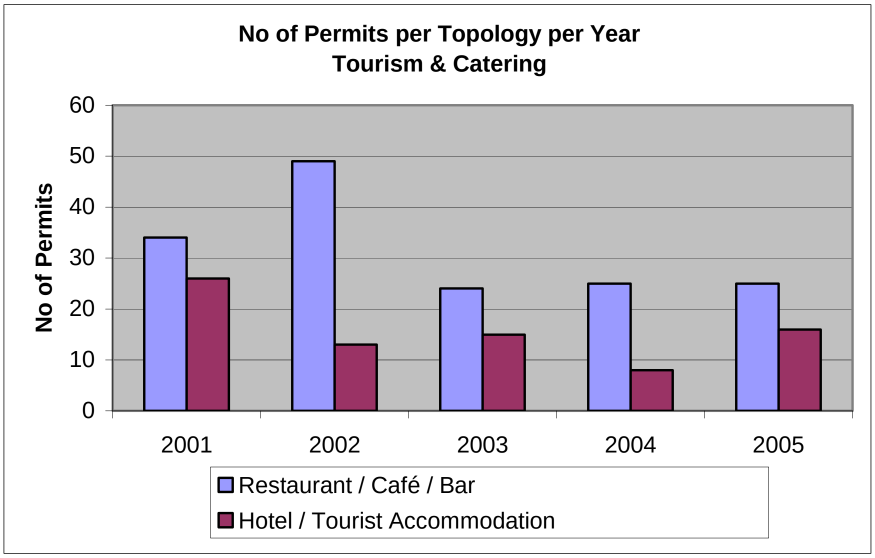
Figure 4.4: Total Number of Permits Education and Health Sector 2001 - 2005
Source: MEPA



4.2.4 Tourism and Catering

Following a positive growth over the period 1999-2002, 2003 saw a drop in the number of permits issued relative to catering establishments. Figures for 2004 and 2005 have remained at 2003 levels. On the other hand, the number of permits relative to hotel and tourist accommodation during 1999 to 2005 peaked in 2001 at 26. Since 2002 the number of annual permits issued has fluctuated from a minimum of 8 to a maximum of 16. The number of permits per year per typology is captured in Figure 4.5.

Figure 4.5: Total Number of Permits Tourism and Catering Sector 2001 - 2005
Source: MEPA



5.0 Government Investment and Infrastructure

Infrastructure consists of one of the most important elements that contributes to the workload of the construction industry in Malta. Although currently most of these works are still under state control, a significant number of entities have migrated from within the public service to the public or private sector.

This Objective addresses Government expenditure throughout the past years, as this effects the input into the construction industry. A summary of this expenditure has been captured through the Budgetary Estimates and is presented in the Table 5.1 hereunder.

It is proposed that, in future, the BICC will enter into discussions with the various entities that undertake major works of an infrastructural nature in order to establish an agreed bi-annual format for the required data to be presented. This would permit this important aspect to the construction industry to be included in subsequent updates.

Table 5.1

Government Capital Investments - Construction

Ministry	Project	2002	2003	2004	2005	2006
Social Policy		**2129322**	**2100000**	**1630000**	**1580000**	**1625000**
Housing		***2129322***	***2100000***	***1630000***	***1580000***	***1625000***
	Upgrading Works in Housing Estates	391281	380000	310000	290000	290000
	Major repairs to Government Tenements	738041	720000	370000	390000	435000
	Contribution to Housing Authority	1000000	1000000	950000	900000	900000
Education		**4399607**	**5400000**	**4820000**	**3620000**	**2750000**
University of Malta	Construction/adaptation/refurbishment	800000	800000	720000	720000	650000
MCAST	Construction/adaptation/refurbishment	499980	1500000	1000000	900000	600000
Foundation for Tomorrow's Schools	Construction/adaptation/refurbishment	3099627	3100000	3100000	2000000	1500000
Youth & the Arts						
Sports facilities	Construction/upgrading	874999	550000	400000	400000	400000
	Rehabilitation works and equipment - MCR	196000	50000	85000	-	-

Ministry	Project	2002	2003	2004	2005	2006
Finance		**3401335**	**4525000**	**3705500**	**90000**	**40000**
Industrial Areas	Improvements to Buildings	62249	30000	50000	15000	-
	Upgrading of Infrastructure in non-MDC industrial zones	348943	350000	275500		
	Development of industrial zones for SMEs	10469	50000	80000		
	Construction of factories & upgrading of industrial areas	2920160	3900000	3150000		
	Replacement of roofs & soffits in existing factories	41145	130000	50000		
Inland Revenue	Construction		40000	50000	45000	20000
Customs	Construction	18369	25000	50000	30000	20000
Tourism		**169847**	**260000**	**264000**	**260000**	**505000**
	Restoration of Auberge d'Italie	49129	50000	10000	0	
	Upgrading at ITS	29999	30000	30000	0	
	Relocation costs icw capital projects	80869	90000	10000	0	
	Cottonera infrastructure upgrading	9850	90000	114000	0	
	St George's Bay project			100000	225000	225000
	Installation of electrical substation at MCR				35000	
	Rehabilitation of MCCA					30000
	Golf Course					100000
	Tourism Zone Management					150000

Ministry	Project	2002	2003	2004	2005	2006
Urban Development and Roads		**7365328**	**10750000**	**14571000**	**11718000**	**7893000**
	Modernisation of the road network (5th Italian Protocol)		2400000	7821000	6630000	5323000
	Improvements to building	14461	50000		-	
	Sundry road improvements	498899	600000	850000	500000	2000000
	Hot and cold asphalt programme	399461	500000	600000	600000	
	Levelling and asphalting of private streets	1761715	3000000	1850000	1200000	
	Road restoration project	2403058	3000000	2350000	2150000	
	Pedestrian bridges/underpasses		80000	65000	50000	50000
	Upgrading of Fgura Road	192893	60000	95000	25000	50000
	Psaila Street	250000	150000	30000	-	-
	Gzira link road		50000	460000	50000	-
	B'kara bypass San Gwann link road	584113	760000	150000	75000	50000
	Park and ride project		100000	300000	50000	190000
	Tal-Qroqq junction	1260728				
	Cottonera Infrastructural Upgrading				358000	170000
	Development of Pace Grasso Football Ground Area				30000	0
	Development of new projects					60000
Competitiveness and Communications					**672000**	**490000**
	Upgrading of Infrastructure in non-MDC industrial zones				572000	290000
	Development of industrial zones for SMEs				100000	200000

Ministry	Project	2002	2003	2004	2005	2006
Justice and Home Affairs		**1433389**	**1800000**	**870000**	**725000**	**745000**
	Various construction/upgrading works - Judiciary	271579	500000	220000	240000	250000
	Various construction/upgrading works - Police	177444	300000	300000	300000	250000
	Various construction/upgrading works & equipment - CCF	780535	800000	210000	75000	130000
	Various construction/upgrading works & equipment - CPD	85486	75000	40000	35000	40000
	Rehabilitation works - GPD	118345	125000	100000	75000	75000
Resources & Infrastructure		**5882190**	**8283000**	**8388000**	**1912000**	**1680000**
Sewerage		***2410010***	***4740000***	***3921000***		
	Extensions/Improvements	1557738	1850000	1110000		
	Sewage treatment plants	469000	150000			
	Master Plan Implementation	383272	2740000	2811000		
	Enhancement of public areas	608106	80000	80000	60000	60000
Improvements to Buildings		***120240***	***100000***	***65000***		
	House of Representatives			20000		
	Refurbishment of MSD offices and workshops			20000		
	Refurbishment of Presidential Palace			25000		
	Others	120240	100000			
Projects		***2743834***	***3363000***	***4322000***	***1912000***	***1620000***
	Upgrading of existing storm water systems	8113	33000	50000	240000	200000
	Rehabilitation of St James Cavalier	124495	10000	10000	10000	9000
	Restoration of forts, fortifications and historical places	480804	500000	650000	450000	400000

Ministry	Project	2002	2003	2004	2005	2006
	Upgrading works at main touristic areas	778174	850000	650000	700000	731000
	Rehabilitaion projects	550000	600000	613000	250000	250000
	Adaptation works at Cottonera Family Resource Centre	21919	50000	10000	-	
	Caravan Site	21919	50000	10000	150000	30000
	Waste management services	407721	1100000	2000000		
	Restoration works (Italian Protocol)			140000	112000	
	Construction and upgrading works at National Parks	350689	170000	189000		
Gozo		**1079485**	**1327000**	**1055000**	**1070000**	**1070000**
	Construction of factories	43784	40000	40000	40000	40000
	Farm access roads	11853	30000	15000	15000	15000
	Construction and upgrading of roads	401244	400000	180000	180000	180000
	Hot asphalt programme	95062	100000	150000	150000	150000
	Extension of sewerage system	134408	190000	150000	170000	170000
	Sewerage Master Plan Implementation	44802	200000	160000	140000	140000
	Centralisation of Government Offices	24287	50000	15000	15000	15000
	Improvement to touristic facilities	18430	20000	15000	15000	15000
	Communal centre	0	10000	5000	5000	5000
	Construction and maintenance in schools	206360	150000	150000	165000	165000
	Restoration and improvements to historical sites	22715	20000	30000	30000	30000
	Construction works & equipment at Gozo General Hospital	70701	100000	130000	130000	130000
	Improvement to sports facilities	5839	17000	15000	15000	15000

Ministry	Project	2002	2003	2004	2005	2006
Health		**26805897**	**27410000**	**41645000**	**33670000**	**37026000**
	Construction works at Mater Dei Hospital	26456766	27000000	41000000	32725000	36056000
	Upgrading works & equipment - Institutional Health Care - SLH	195838	200000	450000	300000	300000
	Upgrading works & equipment - Institutional Health Care - Boffa Hospital	52764	35000	20000	20000	70000
	Upgrading works & equipment - Institutional Health Care - Mt Carmel	50138	75000	120000	70000	50000
	Improvements to buildings & equipment at Health Care Centres	10364	50000	25000	25000	25000
	Upgrading works & equipment for Public Health Laboratories	11306	20000	15000	15000	15000
	Construction works in Government Cemetries	28721	30000	15000	15000	15000
	Improvements to St Vincent de Paule Residence				400000	380000
	Improvement to buildings in Homes				100000	100000
	New day care centre					15000
Foreign Affairs						
	Construction and Restoration Works	61715	200000	85000	50000	50000
Investment, Industry and IT					**5218000**	**4667000**
	Sewerage System Extensions/Improvements				1200000	1200000
	Sewerage Master Plan Implementation				1200000	700000
	Malta North Infrastructure				2818000	2767000
Rural Affairs & the Environment			**1781000**	**3613770**	**6088000**	**4880000**
	Construction and Upgrading Works at National Parks				120000	120000
	WasteServ Malta Limited		1781000	2000000	3100000	2500000
	Works and equipment			1613770	2868000	2260000

6.0 Prices and Costs of Materials and Products

The construction industry in itself offers a range of materials and products that are repeatedly used in new developments or in the rehabilitation of existing properties. The aim of this objective is to provide the reader with a cross section of prices and costs of the various main elements that are repeatedly used in the construction industry. This would enable stakeholders to be familiar with current costs not only for information purposes but also for their strategic planning related to their investment.

In order to obtain as broad a cross section as possible a number of contractors and architects have been consulted with a view to obtaining their prices for a selected range of materials. In doing so it has been felt that a true picture would be obtained both from the contractors' end as well as from that of practicing professionals. It must be pointed out that a degree of reluctance to submit such prices was observed and the need to stimulate the submission of such data needs to be encouraged in order to develop a true snapshot of market realities.

This year sees the development of a new schedule that has been based on the work currently in hand by the Directorate General (Services) of the Ministry for Resources and Infrastructure in the preparation of an Act to amend the Building (Price Control) Act, Cap. 288.

Consequently only an average value is being presented. The maximum and minimum values may be requested from the BICC should they be of specific interest.

In compiling these figures, 16 different contractors or architects were sampled and the results are summarised hereunder. The prices obtained range from small to large contractors spread across the geographical territory of the Maltese Islands. In this manner the sample is considered to be relatively representatives of the market. Some rates included in these schedules have been borrowed directly from this work.

Table 6.1 : Average Prices and Costs of Materials and Products

AVERAGE RATES FOR CONSTRUCTION WORKS

Item	Description	UNIT	RATE (incl. VAT)
	MASONRY WORKS		
	N.B. Walls are to be measured in square metres. For measurement purposes, height of each course is to be measured at 265mm. Door and window openings not exceeding 1.20m width shall not be deducted from measurements. Openings over 1.20m wide shall be deducted accordingly.		
1	150 to 180mm thick single skin soft stone walls, quarry faced both sides, bedded in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust – *xahx)*.	m^2	5.27
2	230mm thick single skin soft stone walls, quarry faced both sides, bedded in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust – *xahx)*.	m^2	5.43
3	300 to 360mm thick double skin soft stone walls, each skin 150 to 180mm thick, quarry faced both sides, bedded in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust – *xahx)*.	m^2	10.54
4	460mm thick double skin soft stone walls, each skin 230mm thick, quarry faced both sides, bedded in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust – *xahx)*.	m^2	10.97
5	150 to 180mm thick single skin soft stone walls, fair faced both sides (machine dressed), bedded and jointed in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust-*xahx*).	m^2	5.69
6	230mm thick single skin soft stone walls, fair faced both sides (machine dressed), bedded and jointed in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust - *xahx*).	m^2	5.98
7	300 to 360mm thick double skin soft stone walls, consisting of 2 skins 150 to 180mm thick, fair faced both sides (machine dressed), bedded and jointed in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust - *xahx*). Rate is inclusive of forming a cavity between skins (up to 75mm wide) and bond stones between skins at 2.00m intervals in each course.	m^2	11.32
8	460mm thick double skin soft stone walls, consisting of 2 skins 230mm thick, fair faced both sides (machine dressed), bedded and jointed in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust - *xahx*). Rate is inclusive of forming a cavity between skins (up to 75mm wide) and bond stones between skins at 2.00m intervals in each course.	m^2	11.85

9	Single skin soft stone walls, built curved to a radius, each stone works as a *voussiour,* bedded and jointed in gauged mortar 1:1:6 (1 part cement, 1 part sand and 6 parts stone dust - *xahx*).	m^2	22.00
10	150 to 175mm thick pre-cast hollow concrete block walls, bedded and jointed in gauged mortar 1:1:4 (1 part cement, 1 part sand and 4 parts stone dust - *xahx*).	m^2	7.00
11	230mm thick single skin pre-cast hollow concrete block walls, single density type, bedded and jointed in gauged mortar 1:1:4 (1 part cement, 1 part sand and 4 parts stone dust - *xahx*).	m^2	6.15
12	230mm thick single skin pre-cast hollow concrete block walls, double density type, bedded and jointed in gauged mortar 1:1:4 (1 part cement, 1 part sand and 4 parts stone dust - *xahx*).	m^2	6.46
13	Extra Over plain stonework for:		
a	Fair facing *fuq il-fil* finish.	m^2	2.79
b	Curved *voussiours*.	no	3.54
c	Flat arch *voussiours*.	no	3.48
d	Plain bands or protrusions (horizontal and/or vertical), up to 50mm projection.	m	4.35
e	Squint angles (measured per course).	no	1.23
f	Rounded corners (measured per course).	no	1.97
g	Stone corbel, 1course high, protruding up to 300mm.	no	17.42
h	Stone corbel, 1 course high, protruding up to 600mm.	no	36
I	Forming recess to receive ends of suspended slabs, *ingall*, 150mm high x 75mm deep.	m	3.75
j	Single skin hollow concrete block walls, built curved to a radius.	m^2	1.90
	CONCRETE WORKS		
	All concrete items shall be deemed to include all necessary formwork and propping works. Unless otherwise stated, all steel reinforcement shall be measured separately from the concrete items.		
	Concrete grade C20 OPC in:		
14	Foundation footings under walls.	m^3	49.22
15	100mm thick ground slab, trowelled smooth.	m^2	3.82
16	Blinding layers, trowelled smooth.	m^3	35.65
17	Infilling to cavities.	m^3	35.65
18	Infilling to voids of 150mm - 230mm thick pre-cast hollow concrete block walls.	m^2	4.03

	Concrete grade C25 OPC in:		
19	150mm thick suspended slabs, including 1 layer C503 mesh reinforcement.	m^2	8.58
20	Suspended stairs, straight flights, average 300mm going x 150mm high riser, with and including 1 layer C503 mesh reinforcement. (Stairs measured in linear metres taking length of each step by number of steps. Quarter landings shall be measured as 2 steps. Half landings shall be measured as 150mm thick suspended slabs).	m	11.52
21	Suspended spiral staircase, average 300mm going x 150mm high riser, with and including 1 layer C503 mesh reinforcement. (Stairs measured in linear metres taking length of each step by number of steps).	m	19.88
22	Ring beams.	m^3	114.58
23	Beams and lintols.	m^3	200.84
24	Column bases.	m^3	94.25
25	Columns.	m^3	148.91
	Concrete grade C30 in:		
26	Grouting to joints of pre-cast pre-stressed roofing slabs, up to 300mm thickness.	m	3.88
27	Grouting to joints of pre-cast pre-stressed roofing slabs, 300mm - 500mm thick.	m	6.77
	Reinforcement:		
28	High yield steel bar reinforcement, including cutting, bending and fixing in position:		
a	32mm diameter.	kg	0.40
b	25mm diameter.	kg	0.40
c	20mm diameter.	kg	0.40
d	16mm diameter.	kg	0.40
e	12mm diameter.	kg	0.40
f	10mm diameter.	kg	0.40
29	Steel mesh fabric reinforcement, including cutting, bending and fixing in position, type:		
a	A98.	m^2	1.28
b	C503.	m^2	1.78
c	B503.	m^2	2.50
d	A252.	m^2	1.75
e	A393.	m^2	3.80
f	A503.	m^2	3.60

	<u>Roofing works</u>		
30	80mm thick concrete C20 roof screed with and including 120mm thick (average) bed of crushed rock *torba* laid to falls and cross falls, trowelled smooth.	m^2	5.17
31	Extra over item 30 for power-floating of concrete surface to obtain a true smooth finish.	m^2	0.59
32	Form chase 6mm thick x 60mm deep in concrete roof screed, and fill joint with an approved mastic sealant for expansion joints on roof.	m	5.80
33	50 x 50mm cement sand triangular fillet between roof parapet walls and concrete slab.	m	3.89

7.0 Quarry Industry

The quarry industry supplies a primary resource to the construction industry and is considered an integral part of this industry. In particular the ability of this industry to meet the demand placed upon it by the construction industry is a key indicator in assessing the state of the construction industry. The developments and trends in this sector are therefore considered indicative of the overall state of the industry.

Demand for hard stone is linked primarily to the manufacture of concrete products, the construction of high rise buildings, civil engineering projects and road building. Demand for softstone comes primarily from housing construction. Data for softstone and hardstone quarries, where available, has been kept separate in order to provide a better representation of the activity in the separate areas.

At present no accurate data of volumes of stone being extracted is available. The salient trends that have occurred in the quarry industry are therefore based on information and data obtained from the Minerals Directorate of the Malta Resources Authority and on MEPA data related to development permits.

7.1 Quarry Operation

The MEPA adopted strategy presumes against new quarries until the 1st plan review which was originally targeted for around 2005. Within this context, the number of permits for new quarries has been minimal with one permit issued for a softstone quarry in 2003 and another one in 2004.

The trend has been towards the extension of existing quarries, in fact over the past two years a total of 7 permits have been issued for extensions of existing stone block quarries and 5 permits for extensions of the existing hardstone quarries.

The current number of licensed quarry operations has been stable at around 60. The breakdown between softstone and hardstone quarry licences is captured in Figure 7.1. Data in respect of quarry development applications and permits is captured in Figures 7.2 and 7.3.

Figure 7.1: Number of Licences for Quarry Operations
Source: MRA Data

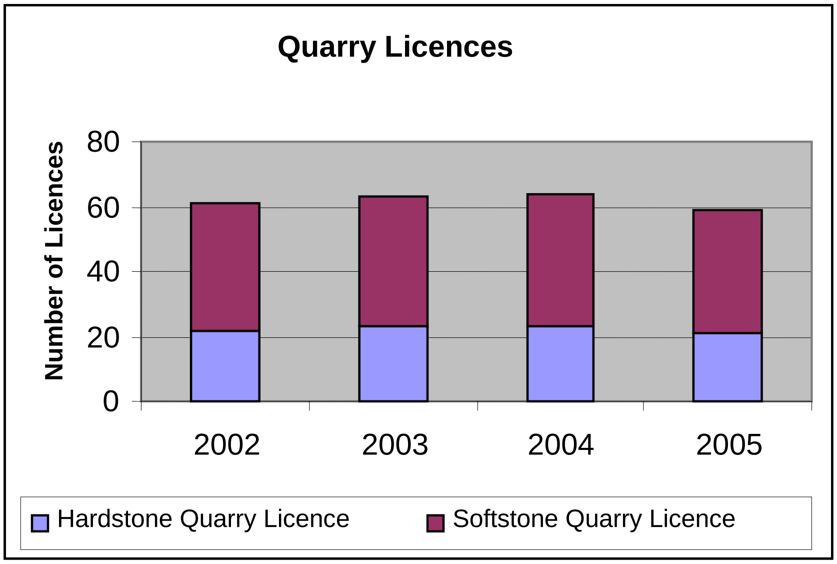
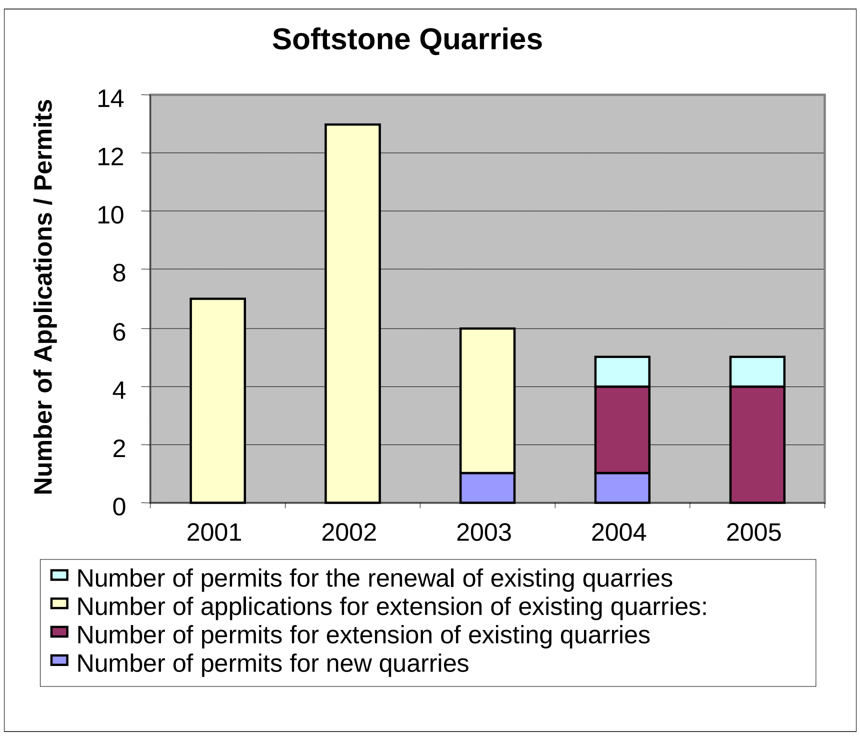
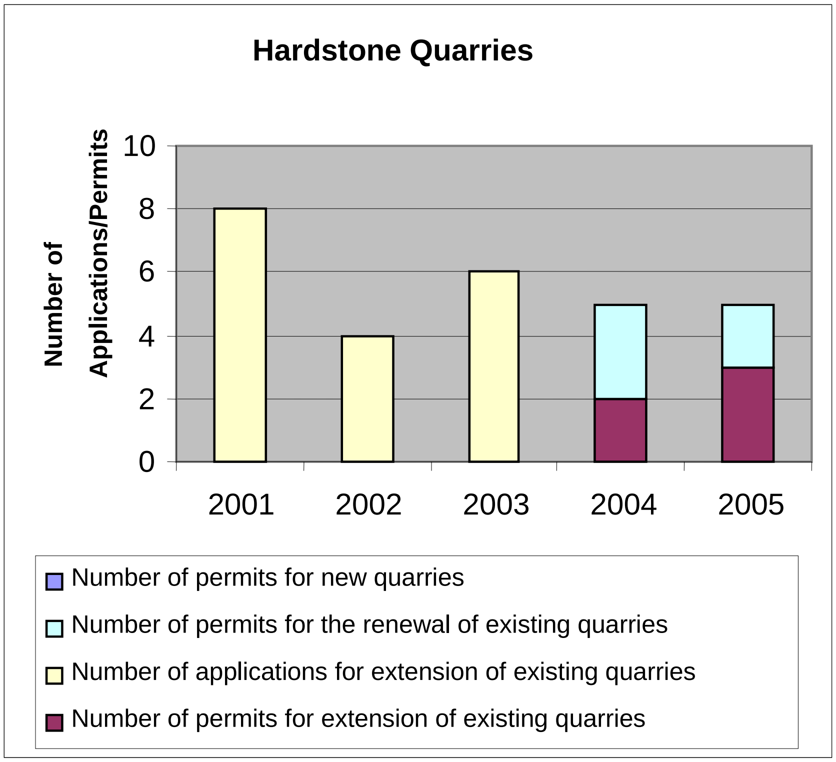


Figure 7.2: Number of Softstone Quarry Development Applications and Permits
Source: MEPA Data



NB: The data for 2001 to 2003 is in respect of number of applications received, while the data for 2004 and 2005 is in respect of permits issued.

Figure 7.3: Number of Hardstone Quarry Development Applications and Permits
Source: MEPA data



NB: The data for 2001 to 2003 is in respect of number of applications received, while the data for 2004 and 2005 is in respect of permits issued.

7.2 Demand and Supply

Demand for softstone and hardstone is not expected to drop given the trends in development of new housing and ongoing infrastructural projects such as the road network upgrading projects.

A snapshot of the supply and demand can be obtained from the Supply and Use Tables published by the National Statistics Office. These tables were published for the first time in June 2004 and data is currently available for the years 2000 and 2001.

The supply table shows the output in terms of specific products from the industry sectors while the use table highlights the industry sector that is making use of the product. Table 7.1 and Table 7.2 capture the 'supply' and 'use' data for products from mining and quarrying.

Table 7.1: SUPPLY Table extract Products from Mining and Quarrying
Source: National Statistics Office - News Release 112/2004
National Statistics Office - News Release 5/2005

Lm'000

	Code of Product Classi-fication	Product	Mining and quarrying	Manufacturing	Construction	Transport, storage and Communication	Real estate, renting business activities	TOTAL OUTPUT	IMPORTS OF GOODS AND SERVICES (CIF)	TRADE AND TRANSPORT MARGINS	TAXES ON PRODUCTS	SUBSIDIES ON PRODUCTS	TOTAL SUPPLY
	CPA	**A17 level**											
2000	C	Products from mining and quarrying	5,462	33	13	-	-	**5,508**	3,252	424	135	-	**9,319**
2001	C		7,002	-	51	14	-	**7,067**	3,584	509	132		**11,292**

Table 7.2: USE Table extract Products from Mining and Quarrying
Source: National Statistics Office - News Release 112/2004
National Statistics Office - News Release 5/2005

Lm'000

	Code of Product Classi-fication	Product	Mining and quarry	Manufacturing	Construction	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	Transport, storage and communication	Real estate, rentibusiness activiti	Other community, socand personal servactivities	TOTAL INTERMEDIATE CONSUMPTION	GROSS CAPITAL FORMATION	EXPORTS OF GOODS AND SERVICES (FOB)	TOTAL FINAL DEMAND
	CPA	**A17 level**											
2000	C	Products from mining and quarrying	1,418	2,067	4,702	-	-	12	7	**8,206**	**474**	**639**	**9,319**
2001			45	3,249	7,199	6	156	22	14	**10,691**	**147**	**454**	**11,292**

These figures indicate that in 2000 a total of Lm 9,319,000 worth of product were used out of which Lm 5,462,000 equivalent to 59% were supplied by the mining and quarrying industry, while Lm 4,702,000 worth of product were utilised by the construction industry.

In 2001 a total of Lm 11,292 worth of product were used, an increase of 20% on 2000, out of which Lm 7,002,000 equivalent to 62% were supplied by the mining and quarrying industry, while Lm 7,199,000 worth of product were utilised by the construction industry.

8.0 Consultants

The complexity of today's construction projects necessitate the input of a spectrum of specialised skills which are normally acquired through consultancy services. The consultancy sector therefore constitutes another relevant sector within the construction industry.

Consultancy inputs may be required at various stages of projects typically at the planning, design or execution stages of a project, at an environmental impact assessment stage or in the operations and maintenance of buildings.

In order to be able to establish the demands and trends for consultancy inputs the various specialities that require such inputs in the various cycles of the construction industry need to be established. Another relevant stratification is the quantification of the consultancy work input in the three categories used in this report namely housing, non-residential buildings and infrastructure.

The quantification of the demand for expert input in the various specialisations should also provide a measure for determining whether the current educational system is providing for the development of such expertise or whether the required training is being sought overseas. Such input can determine the existence and need for continuous professional development for those players that are involved in the construction industry.

At present no statistics are available to quantify this demand. Requests have been made to the relevant professional bodies and to a large corporation in order to obtain any available data. It should be noted that while the data made available is still very limited, initial indicators are now available. The following captures the data that has been made available.

An awareness survey carried out by the Chamber of Engineers in October 2005 indicates that 3% of the respondents (members of the Chamber) are providing consultancy services. The qualifications of the consultants are evenly distributed between the mechanical and electrical streams and the relevant areas of specialisation identified are building services and health and safety.

Consultancy services related to infrastructure projects undertaken by a large corporation:

- geotechnical structural consultants in respect of tunnel projects - total value during 2005 related to the geological investigation approximately Lm 25,000; and

- underwater surveyors in respect of the periodic monitoring of quays, piers and other marine structures – total value in 2005 approximately Lm3,000.

9.0 Capacity

The strength, or otherwise of the construction industry may also be determined from a number of other parameters such as the:

- level of unemployment prevailing in categories of workers within the sector;
- pay packages being offered to employees within the sector; and
- level of educational infrastructure available for the sector and its level of appraisal by employers within the industry.

This section will attempt to establish each of the aforementioned parameters with a view to initiating a mapping of these figures thereby enabling year on year comparisons to be made where appropriate.

9.1 Employment within the Construction Industry

Employment levels are usually a measure of how the construction industry has expanded or contracted from a previous measurement level. An increase in the number of employed persons in the sector is likely to reflect an industry which is healthy and which is offering a strong stimulus to the employment market and to the economy. At the same time, the level of unemployment measures the negative aspects of the industry's performance. It is also important to analyse the unemployment figures closely for the absence of unemployed persons could well be a signal of a shortage of labour. Such a scenario should lead to the development of alternative strategies such as the importation of foreign labour or the re-skilling of other workers to rehabilitate them for employment within the construction industry.

ETC-provided data has been provided to the authors and those categories that are thought to be in some way related to the construction industry, both from a technical as well as an administrative standpoint, have been summarised in Table 9.1. If one were to summarise some of the main observations that could be put forward from the data submitted, the construction industry is likely to be experiencing the following:

- a significant surplus of plasterers, painters, carpenters and heavy truck drivers as evidence by the high number of employed persons in these categories;
- spare capacity still exists for the employment of plumbers, welders, tile layers, assembling labourers, aluminium workers and steel fixers as there are still a small number still registering for this type of work;
- within the administrative portion of the industry there is a surplus in clerical staff, watchmen as indicated by the high number of people seeking this type of employment.

However one needs to interpret this data with caution as one needs to determine the level of compliance with existing legislation on the part of employers in informing the competent authorities on their actual staff complements.

Table 9.1 – Level of Unemployment By Occupation Description (Source: ETC, 2006)

OCCUPATION DESCRIPTION	2005 Unemployed	2004 Unemployed	2003 Unemployed	2002 Unemployed
PLASTERERS	168	86	84	84
PAINTERS AND RELATED WORKERS	97	63	62	38
CARPENTERS AND JOINERS	78	64	40	30
DRIVER HEAVY TRUCK/TRAILER	62	101	0	0
PLUMBERS AND PIPE FITTERS	42	32	24	20
WELDERS AND FLAMECUTTERS	33	49	62	34
TILE LAYER FLOOR, WALL	32	23	25	26
ASSEMBLING LABOURERS	27	54	41	35
ALUMINIUM WORKER	26	18	12	10
LABOURERS IN BUILDING CONSTRUCTION	15	33	36	26
STEEL FIXER	11	6	4	3
RESTORER BUILDING	9	0	0	0
CONCRETE SHUTTERER	7	5	5	2
SOFFIT LAYER	7	5	5	4
MASON, BUILDER,TRADITIONAL MATERIALS	7	4	4	4
DRIVER/OPERATOR CRANE	5	14	24	23
DRAUGHTSPERSONS	5	5	2	3
STONE CUTTER & CARVER	4	4	6	2
LABOURER/HELPER UNSKILLED	3	737	741	706
FOREMAN , GENERAL FOREMAN	3	7	13	7
DRIVER BULLDOZER/TRACTOR	3	4	2	4
STONEMASONS & BRICKLAYERS	3	1	1	2
CONCRETE WORKERS	3	0	1	0
PLASTERER GYPSUM	2	9	6	6
ELECTRICIAN, BUILDING	2	7	7	2
STRUCTURAL-METAL PREPARERS AND ERECTORS	2	4	5	4
STEEL WORKER	2	3	5	3
MINERS AND QUARRY WORKERS	2	1	1	0
ARCHITECTS, TOWN AND TRAFFIC PLANNERS	1	0	0	0
BUILDING AND FIRE INSPECTORS	1	0	0	0
BUILDING CARETAKERS, SEXTON	1	0	0	1
LABOURERS IN MINING AND QUARRYING	1	0	0	0
MARBLE LAYER	1	0	0	0
CARPENTERS ASSISTANTS AND SANDERS	0	13	69	65
TILE LAYER ASSISTANT	0	4	6	5
WELDER ASSISTANT	0	3	15	10
SURVEYOR, QUANTITY (ARCH, ENG NOT CLAS)	0	3	5	2
ALUMINIUM WORKER ASSISTANT	0	1	8	11
CIVIL ENGINEERS	0	1	1	0
DRIVER HEAVY TRUCK	0	0	97	107
ARCHITECT JUNIOR	0	0	1	0
ARCHITECTS, ENGINEERS AND RELATED PROFES	0	0	0	0
PLANNER (4 COLOUR PLANNER)	0	0	0	0
CIVIL ENGINEERING TECHNICIANS	0	0	0	0
ESTATE AGENTS	0	0	0	0
CONTRACTOR	0	0	0	0
BUILDING FRAME AND RELATED TRADES WORKER	0	0	0	0
STONEMASONS & BRICKLAYERS ASSISTANT	0	0	0	0
SLIP FORM ERECTORS	0	0	0	0

BUILDING FINISHERS AND RELATED TRADES	0	0	0	0
ROOFERS	0	0	0	0
PAINTERS, BUILDING STRUCTURE CLEANERS	0	0	0	0
LABOURERS	0	0	0	0
FORM WORK ERECTORS	0	0	0	0
CLERKS GENERAL DUTIES	84	264	311	284
CLERKS JUNIOR	82	62	0	0
WATCHPERSON	66	160	178	172
HANDYMAN	61	217	218	217
SECRETARIES	58	31	26	24
RECEPTIONISTS AND INFORMATION CLERKS	57	122	115	86
SECURITY OFFICER	56	19	18	13
EXECUTIVE/ADMINISTRATIVE OFFICER	35	50	55	44
ADMINISTRATIVE OFFICER	9	5	2	9
MANAGERS IN CONSTRUCTION	5	3	2	4
MANAGERS IN PRODUCTION/CONSTRUCTION	4	0	0	0

Moreover it is also important to try and ascertain whether certain categories of workers that are listed as seeking employment do actually have the skills required for employment within the construction industry. To this effect ETC, BICC and representatives of the construction industry might wish to explore the particulars of this data even further.

One also needs to bear in mind the claims that have been made from within the construction industry that continue to indicate that the industry cannot find the human resources that it requires to pursue its current workload. In fact, the construction industry has called upon the authorities to allow them to use foreign labour in order to meet the shortfall that they are experiencing.

9.2 Comparison of Pay Packages

The Labour Force Survey (December 2005) estimates that the average wage in Malta amounts to Lm 5197. A sectorial analysis of the various economic activities shows that the average wage in the Mining and Quarrying Sector is equivalent to Lm 6102.24, that within the Construction Sector is established at Lm 4797.23 and that within the Real Estate, Renting and Business Activities was Lm 5393.12. All sectors show a rise on the previous report for 2004.

Without entering into the merits of potential under-declarations in salaries that could exist, it is evident that wages within the Construction Industry are lower than the average national wage. This could be the result of lower wages in the semi skilled and unskilled workers which, due to their higher numbers, could drag down the average for the sector.

The salaries within these three sectors must also be seen within the context of the minimum average sectorial wage which is that for Hotels and Restaurants and which averages Lm 4252.25 and highest paid sectors such as Financial Intermediation where wages average at Lm 6957.60.

9.3 Educational Infrastructure Available

There are a number of educational institutions that offer formal and informal courses that are related to the construction industry. In the main these include:

- the University of Malta;
- MCAST;
- ETC;
- BICC;
- Heritage Malta; and
- Malta University Services.

9.3.1 University of Malta

The University of Malta offers a number of degree courses that are related, directly or indirectly, to the Construction Industry. Essentially the Faculties which offer these degree courses are the following:

- Faculty of Architecture and Civil Engineering
  - Bachelor of Engineering and Architecture (Honours)
- Institute for Masonry & Construction Research
  - Postgraduate Diploma and degree of Master of Science (MSc) in Conservation Technology for Masonry Buildings
- International Institute for Baroque Studies
  - Master of Arts in Baroque Studies
- International Environment Institute
  - Diploma in Environmental Science
  - Master of Science in Environmental Planning & Management
- Faculty of Engineering
  - Bachelor of Engineering (Honours)
  - Master of Science in Engineering
  - Master of Philosophy
  - Doctor of Philosophy

The relevant course descriptions may be accessed at http://www.um.edu.mt.

9.3.2 MCAST

MCAST has a number of institutes through which it offers a number of courses namely the:

- Institute of Information and Communication Technology
- Institute of Art and Design
- Institute of Electronics Engineering
- Institute of Building and Construction Engineering
- Maritime Institute

- Institute of Community Services
- Institute of Business and Commerce
- Institute of Agriculture

Of particular relevance, although not strictly the only one, is the Institute of Building and Construction Engineering which offers the following specific courses:

- Foundation Course in Building & Construction (1 year full time)
- Certificate Course in Painting & Decorating or Plastering or Tile Laying or Glazing (1 year part time)
- Certificate Course in Masonry Skills (2 years part time)
- Certificate Course in Stone Heritage Skills (2 years part time)
- Course Leading to Awards in Engineering Skills Fabrication or Pipework/Plumbing or welding or Woodwork (3 years part time)
- Technician Certificate Course in Draughtsmanship (1 year full time & 3 years part time)
- Certificate Course in Heating, Ventilation and Air Conditioning (1 year full time and 3 years part time)

Further information may be obtained from http://www.mcast.edu.mt.

9.3.3 Employment and Training Corporation (ETC)

The ETC offers Apprenticeship Schemes that are effective vocational education and training programmes based on the dual system, whereby the apprentice follows a tuition course at an educational institution and carries out job training at a recognised employer workplace. There are two main schemes:

- Technician Apprenticeship Scheme (TAS); and
- Extended Skill Training Scheme (ESTS).

The apprentice, the training provider and the ETC enter into an agreement laying down the rights and obligations of all parties during the said apprenticeship. Apprentices are obliged to attend an educational institution to acquire the theory related to their calling. Government departments, Parastatal organisations and private firms provide on-the-job training with the latter employing the largest number of apprentices.

The Technician Apprenticeship Scheme courses offered related to the Construction Industry include:

- Draughtsman
- Electrical Engineering Technician
- Mechanical Engineering Technician

The Extended Skills Training Scheme courses offered related to the Construction Industry include:

- Building Trades;

- Maintenance Fitter
- Electrical Installation
- Mechanical Fitter
- Fabrication
- Plumbing/Pipework
- Graphic Design
- Ceramist
- Stone Carver
- Woodcarver

The ETC also offers course aimed at helping persons seeking employment, or alternative employment, to acquire new, or improve their existing skills. The courses that can be considered to be potentially related to the Construction Industry include;

- Aluminium (90 hours)
- Assistant Electrician and Plumber (120 hours)
- Electrician Licence A (280 hours)
- Landscape Gardening (520 hours)
- Refrigeration and Air Conditioning (160 hours)
- Tile Laying and Plastering (240 hours)
- Welding (240 hours)
- Advanced Welding (200 hours)
- Woodwork and Spray Painting (480 hours)
- Foundation Course in Health and Safety (15 hours)
- Foundation Course in Electrical Engineering (90 hours)
- Foundation Course in Mechanical Engineering (90 hours)
- Project Management (50 hours)
- Purchasing and Materials Management (45 hours)
- Quality Assurance Systems and Control (30 hours)

Further details on the range of schemes and courses offered by ETC may be found on http://www.etc.org.mt.

9.3.4 Building Industry Consultative Council (BICC)

The BICC also offers a number of courses that are specifically aimed at those working within, or wishing to work within, the Construction Industry. These include:

- Safety Card
- Masonry
- Middle Management in Construction
- Concrete Technology
- Rubble Wall Builders

Further information may be obtained from http://www.bicc.gov.mt.

9.3.5 Heritage Malta

Heritage Malta offers course at a Vocational, Undergraduate and Postgraduate whilst it offers also other courses in the following areas of study:

Vocational

RIFFIED LEVEL (HS1)

The Riffied Level offers introductory tuition and subjects studied include:

- Theory of conservation and restoration
- History of architecture
- Limestone studies
- Occupational health and safety
- Basic recording techniques and documentation
- Cleaning techniques
- Pointing and repair
- Protection and maintenance

SEWWEJ LEVEL (HS2)

This level builds on the topics previously covered by the Riffied level (HS1), but these are developed in further details. New topics presented include:

- Deterioration mechanisms
- Coordinated science
- Building quantities

Basic Core tools taught during these studies are:

- Stone dressing
- Toweling
- Painting
- Carpentry
- Electrical
- Plumbing

Undergraduate

The following undergraduate courses are offered:

- Bachelor in conservation and restoration studies
- Bachelor in documentation studies.

Postgraduate

The following postgraduate courses are offered:

- Master of Arts in Cultural heritage Management
- Masters in Applied Conservation
- Master of Science in Conservation Science

Other Courses

Heritage Malta also offers the following courses:

- Introductory Course to Conservation-Restoration
- Certificate Course in History and Theory of Conservation-Restoration
- Certificate Course in Caring for Your Treasures and Historic Buildings
- Certificate Course in Architectural and Archaeological Sites.

9.3.6 Malta University Services Limited

Malta University Services Limited offers a number of short courses aimed at enhancing the continuous professional development of individuals. Of interest to the Construction Industry are the following:

- Managing for Success
- First-time Managers
- Production and operations Management
- Introductory Course in Autocad 2D
- Autocad 3D Modelling and Static rendering Course
- Health & Safety Management
- Six Sigma
- TQM: Total Quality Management
- ISO 9000 – A Management Briefing
- Water treatment and Quality
- Materials Engineering
- Building services Engineering
- Electrical Installation
- Baroque Conservation

Further details are available on http://www.mus.com.mt

9.4 Utility of Content

During interviews undertaken with Contractors, respondents were asked specifically upon their assessment of the utility of content that courses currently available to the construction industry offer. Contractors felt that there was little training provision available, particularly in basic skills. They stated that although they felt that the school for tradesmen in stonework was doing a good job, it did not satisfy the needs of contractors within the construction industry. The current trend is for them to train their employees at the workplace. The on the job training which they provide ranges from skills needed in using stone and other materials to skills needed to drive the heavy machinery that is usually used on construction sites, road works and other types of work. There was a general consensus that there needs to be some sort of training provision that can be provided at post-secondary level where young persons could be taught the range of skills needed within this sector such that there will be more skilled workers available on the market. Employers complained that it was difficult to find people working within this sector, and it was common to lose their employees, often after they have completed their training and become skilled workers. They envisaged that some sort of apprenticeship within the construction industry is possible and that the government should support their economic sector through more investment in providing skilled workers.

Contractors also commented on the courses currently provided by the BICC. Many of them were aware of the courses offered and in fact they nearly all had some of their employees who had followed one of the courses and obtained the necessary certification. They felt that the service being provided was good and served the sector well and hoped that more courses offering training in other skills related to the construction industry could be developed and offered to workers and prospective workers in order to ensure that contractors be able to find skilled people when needed.

10.0 Trend Survey

One of the key objectives of the State of the Construction Industry Report is the conducting of a Trend Survey amongst a representative sample of contractors in order to analyse the various trends that are occurring within the industry, particularly in terms of:

- turnover and future outlook;
- employment, existing, past and projected;
- current profit levels and future outlook;
- projected investment;
- outlook for the construction industry;
- reasons for not opting to expand business; and
- training.

The findings of this Trend Survey are based on a sample of 30 contractors derived from as wide a spectrum as possible in order to ensure the representativeness of the sample. At the outset it must be pointed out that the initial surveys were distributed electronically but this method failed to attract the deired response albeit most contractors having an e-mail address. Consequently, telephone interviews had to be resorted to in order to enable the desired number of interviews to be made.

10.1 Nature of Business

Contractors were classified by their activity and three broad catagories were chosen namely:

- general building and civil engineering works;
- road works and infrastructure; and
- quarrying.

These catagories were retained to be the major ones into which stakeholders could be grouped and provide the full coverage required. Of the contractors surveyed the following subdivision was obtained in terms of the respondees' participation in the aforementioned sectors:

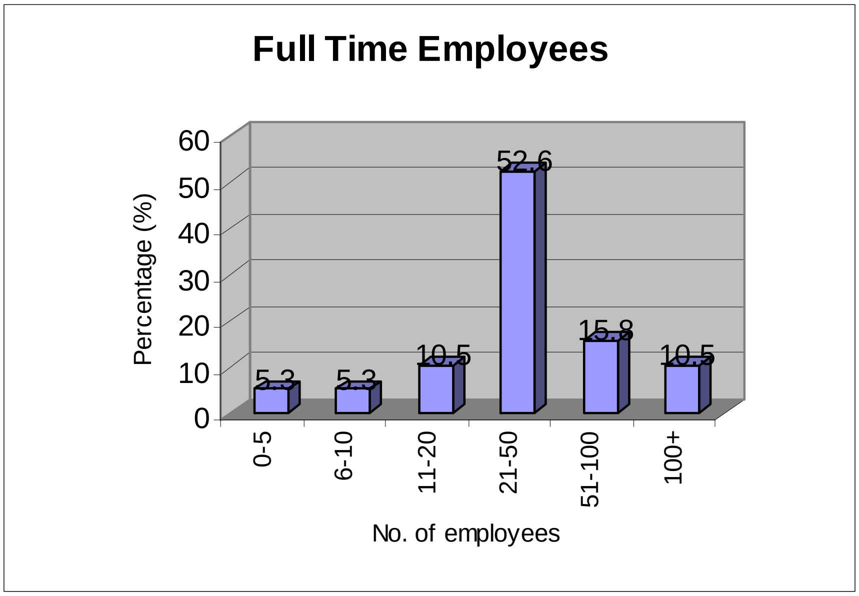
- 59% conducted general building and civil engineering works;
- 22% were involved in road works and infrastructure;
- 19% were involved in the quarrying sector.

This is deemed to be an acceptable distribution but is again advisable that the BICC publicises this type of work it is carrying out, seeking to foster better contact between the Council and small to medium sized contractors, possibly subdivided by their business activity. This would enable contractors to be more familiar with the ongoing work of the council whilst at the same time the Council or its Consultants would have a better opportunity to tap into the knowledge of these stakeholders when conducting similar exercises.

10.2 Current Employment

One of the key aspects of this survey was to examine the level of employment currently being engaged in the sector. The results are summarised in Figure 10.1 hereunder.

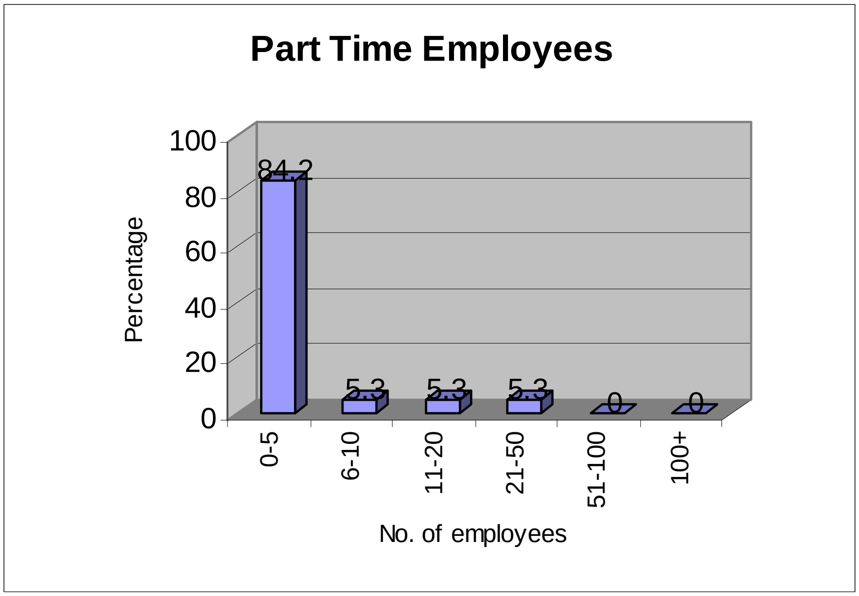
Figure 10.1 : Current Full Time Employment



It is evident that the majority of construction firms (52.6%) employ over 20 people in their activity. However it is also significant to note that 26.3% of those interviewed employ over 50 people and are therefore a key employer within the employment market as well as within the construction industry.

On the other hand, part-time employment in the construction industry is very limited. This has also been confirmed from employment statistics released by the National Statistics Office. In fact, as shown in Figure 10.2, 84.2% of respondents stated that their part-time complement was in the region of 0-5 persons with most of these stating that they did not employ any part-time workers.

Figure 10.2 : Current Part Time Employment

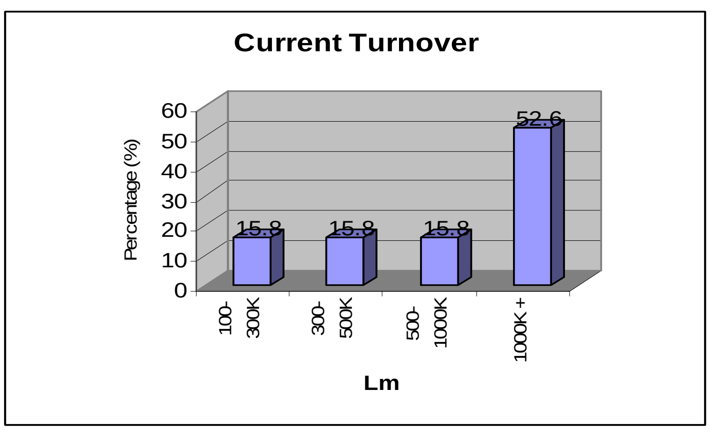


Notwithstanding the fact that there seems to be some part-time employment in the 6-50 categories, what is significant is that the large companies, presumably those who employ the major full time complement, do not seem to resort to the employment of persons on a part-time basis.

10.3 Turnover

Turnover is an important indicator to determine the amount of work that is being generated within the industry. This is important not only to establish the liquidity within the sector but also to determine the levels of orders that prevail. Seven (7) turnover bands were selected and the results obtained are summarised in Figure 10.3.

Figure 10.3 : Turnover

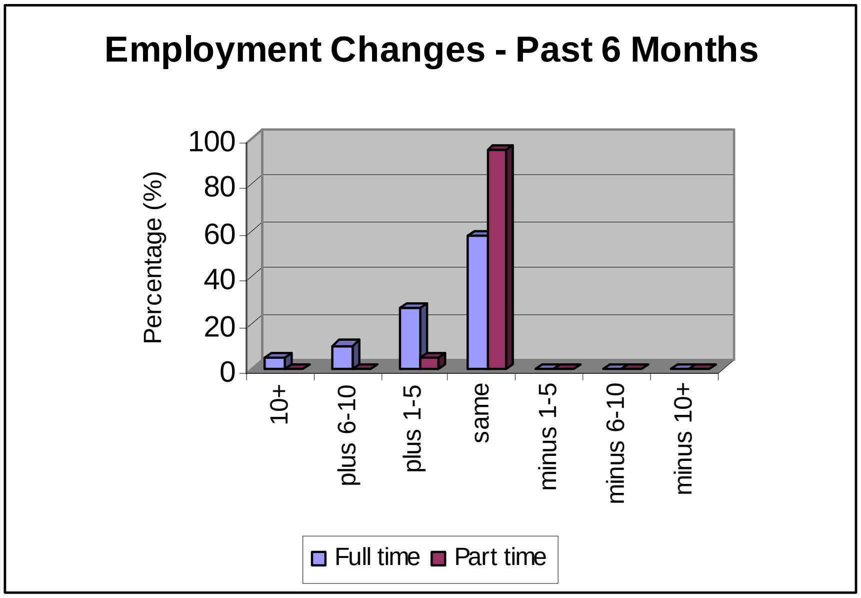


The results highlight the high percentage of contractors whose turnover exceeds Lm 1,000,000. Otherwise, there is an even distribution amongst the 100-300K, 300-500K and the 500-1000K brackets. This is a clear indication of the strength and importance of these entities to the construction industry as well as to the economy as a whole. A second important factor is the absence of the lower end of the spectrum type of contractors. This is mainly due to the difficulty in contacting such persons as well as their reluctance to participate in such surveys.

10.4 Employment Trends During the Last 6 Months

Trends in employment figures are also a prime indicator of the well-being of the sector. Consequently, respondents were asked to map out their increase or decrease in employees, both on a full time and part time basis, over the past 6 months.

Figure 10.4 : Employment Trends Over the Past 6 Months

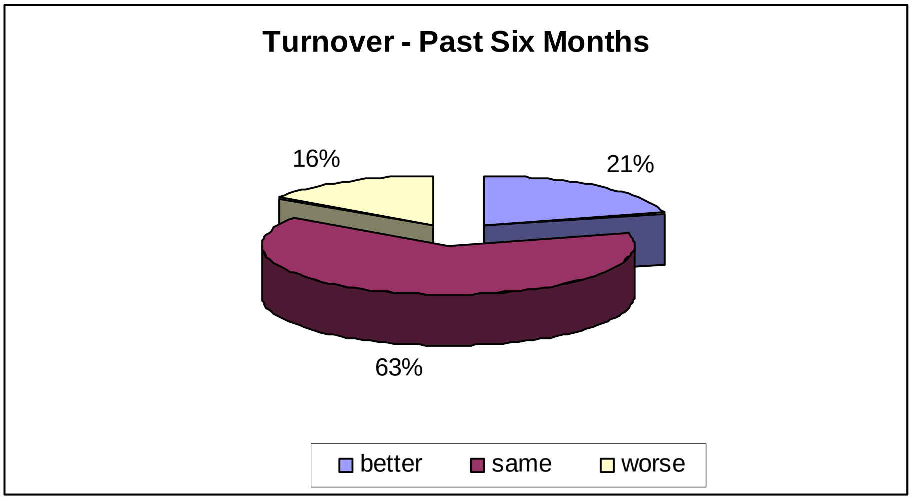


The salient feature that was observed was that respondents have, over the past 6 months, not laid off any of their workforce. Additionally, one can see signs of growth in employment patterns as evidenced by the 5.3% who employed more than 10 additional workers, 10.5% who employed between 6 and 10 workers and 26.3% who increased their workforce by 1 – 5 employees. There were no major changes in part-time employment. This implies a certain stability within the sector and offers some indication that these firms are experiencing, or are about to experience, growth in their business.

10.5 Turnover during the past 6 months

Although the quantification of turnover is an important factor in order to establish the health of the industry, its performance over distinct periods can offer the entrepreneur or investor with a better outlook as to the likelihood of business within the sector. Consequently, respondents were asked to describe whether their turnover had, in general, been better, the same or even deteriorated over this period.

Figure 10.5 : Turnover patterns during the last six months



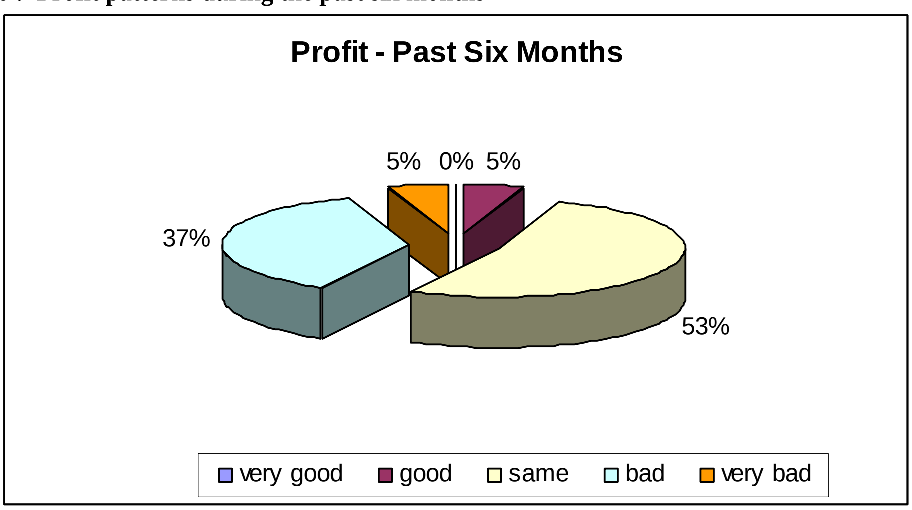
The majority of those surveyed (63%) declared that their turnover had remained constant over the period under review. However, it is significant to note that this time around 21% of respondents actually expressed that they had suffered an increase in turnover compared to the 16% who claimed to have fared worse.

So whilst the figures for turnover seem to reinforce those for employment, the scenario seems slightly better than that for 2004. However it is hard to draw any firm conclusion on the outlook of the sector which needs to be closely monitored for any changes in growth/shrinkage rates.

10.6 Profits during the past 6 months

Profits are, to a certain extent, related to turnover. However, whilst turnover usually signals the levels of orders and extent of works carried out, profits reveal the increase in worth of the company to the shareholder, and consequently the potential to further expand the business.

Figure 10.6 : Profit patterns during the past six months

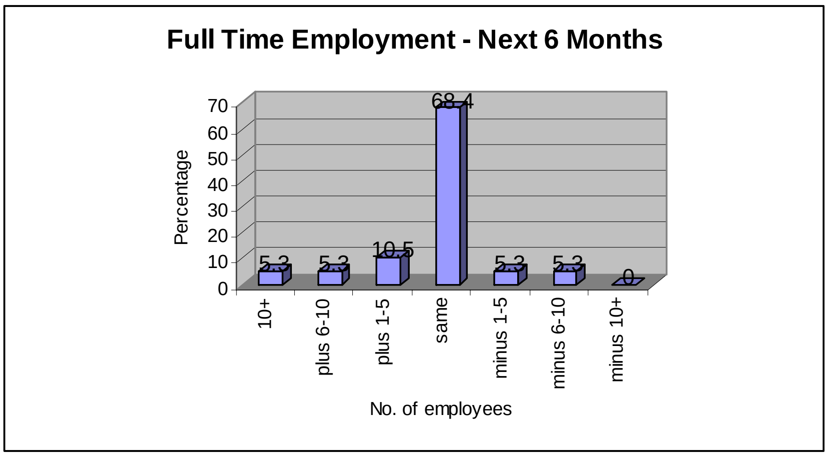


The data in respect of profit shows that whilst the position of the construction industry may, at the moment, be stable there is still a possibility of embarking upon a downtrend. This is because whilst 53% of respondents indicated that their profits had remained at the same level during the past 6 months, a significant 37% declared that they had actually experienced a decline in profits over the same period. These figures are considered to be very significant for if future trend surveys were to confirm this downturn this could seriously imply that the construction industry is set for a recession. One may also argue that this scenario where there is an improved turnover but a regressive profit quantum may be due to contractors working for a lower margin that may be due to increases in materials, services and other primary products.

10.7 Future Employment Scenario

Another aim of the trend survey is to obtain an indication of how the main players (contractors) in the industry think that their potential employment will be during the next six months. This is indicative for it reflects the potential of an upside or downside within this sector.

Figure 10.7 : Future Employment Scenario

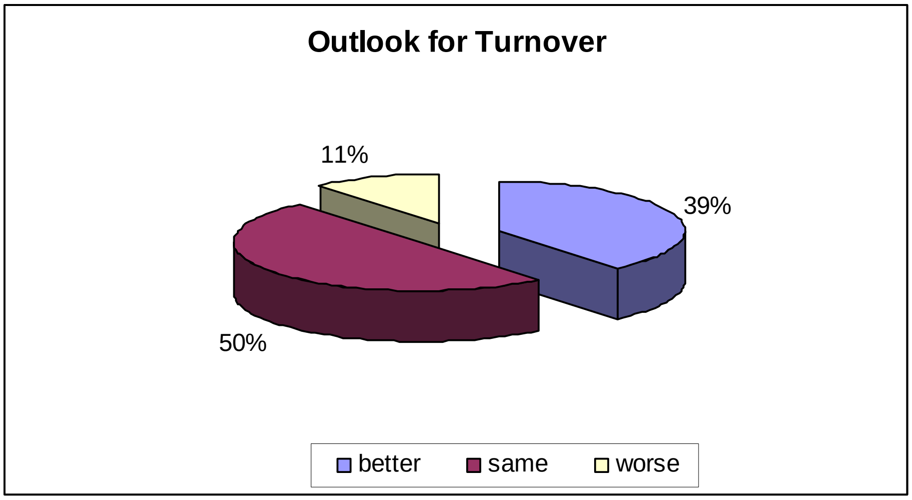


There is strong evidence that respondents do not feel that the forthcoming six months will offer much scope for expansion. In fact 68.4% of respondents said they envisage that their workforce will remain at the same levels as it is today whilst all respondents were categorical about not increasing their part time workforce. However, there seems to be a slight upturn in expectations from last year as 20% of respondents think they will increase their workforce.

10.8 Future Turnover

The outlook for future turnover is in itself an indicator of the orders that are being expected by contractors.

Figure 10.8 : Outlook for Future Turnover

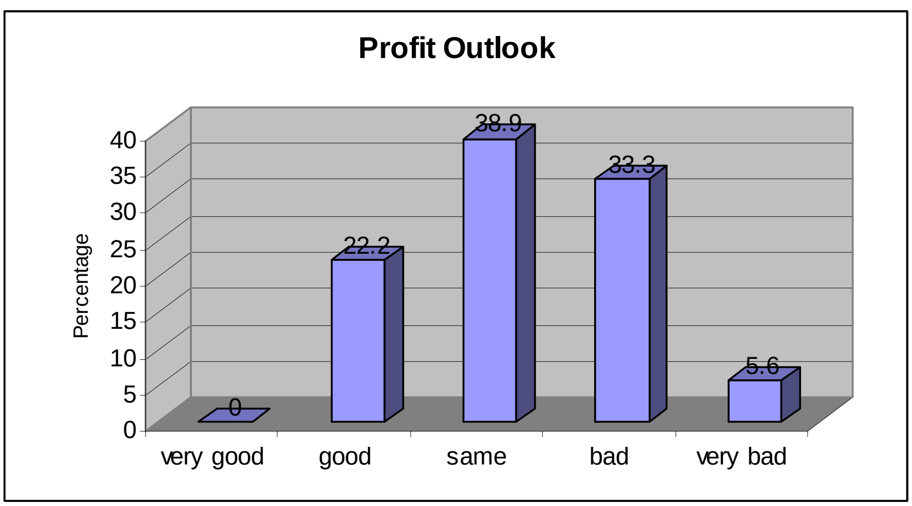


One notes that although 50% of respondents expect the same level of turnover to prevail, a significant 39% expect their turnover to be better than current levels. This is a strong improvement from 2004 figures but one has to remain cautiously optimistic that this has the same effects on profits. This reinforces the respondents' previous expression of the fact that their turnover over the last six months had generally remained the same or had improved. Although outlook for future turnover may be conditioned by the turnover performance of the past six months it is important to monitor the actual figures as they materialise.

10.9 Future Profits

As stated earlier, profits are a measure of the increase in shareholder wealth and as such are a very important indicator as to the growth that companies in the sector may afford.

Figure 10.9 : Future Profit Outlook



The data collected once again suggests an improvement on the perceptions expressed last year. This results from the fact that the majority of respondents (38.9%) feel that their profits will remain the same over the coming six months with 22.2% having a positive outlook whilst

38.9% having a negative to very negative outlook. Notwithstanding the improvement registered over last year one needs to remain very cautious about the sector as the negative perceptions still outweigh the positive ones.

10.10 Future Investment in Machinery

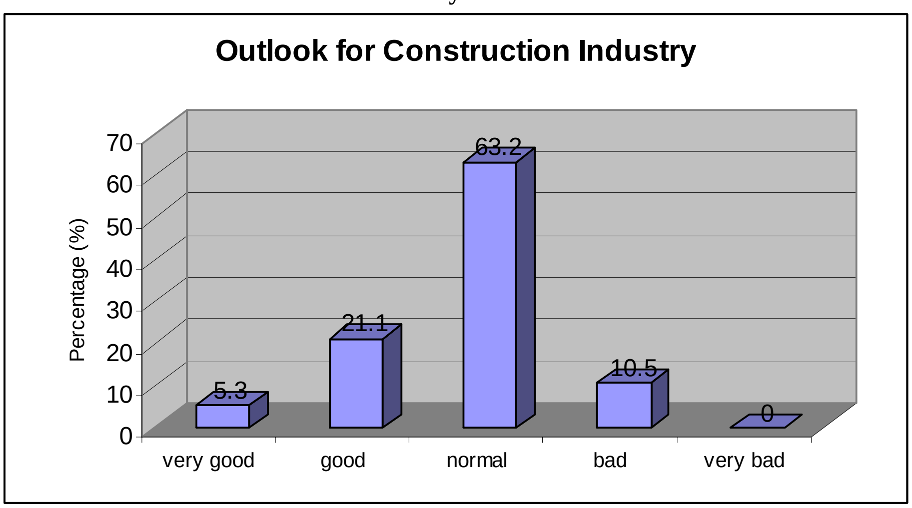
Investment in machinery is a key indicator of a business's intention to pursue its current operations at the same level or its intention to further intensify its activities. A failure to invest in new machinery usually signifies a slowdown in the company's activities and as such contractors' opinions on the future commitments in this respect may also help to shed light on the anticipated volume of work they are expecting.

The survey has produced a hung result with respondents equally divided between those who intend to invest further in machinery and those who do not envisage such a scenario. Although these statistics once again are an improvement on last year's figures, one has to appreciate how finely balanced things are within the sector and how easily the situation can tilt to either side of the balance..

10.11 Outlook on the Construction Industry Sector

Having examined specific aspects that are prime indicators of the well being, or otherwise of the construction industry, respondents were asked to comment upon their overall outlook for the construction industry with a view to obtaining a holistic dimension of the sector.

Figure 10.10 : Outlook for the Construction Industry



Responses to this question confirm the trends that have been established through previous indicators. The outlook is better than that for 2004 but still stable with the majority of respondents (63.2%) opting for a stable outlook. Notwithstanding there are signs of recovery. It is thus safe to conclude at this stage that the construction industry needs to be closely monitored in order to address those issues that might be a threat or risk to its well being.

10.12 Issues Hindering Business Expansion

A healthy construction industry is not only one that registers an increase in turnover and profits but one that uses such funds with a view to expanding the business with a view to increasing productivity and work orders accordingly. Consequently, respondents were given a number of options that could be key factors that mitigate against expanding their business. The factors included in the survey were:

- delays in the issue of building permits;
- lack of skilled workers;
- lack of loan facilities;
- delays in payments made by clients;
- lack of demand;
- unwillingness to expand business;
- any other issues.

It is evident that the main reason to which contractors attribute the lack of expansion in their business is the delays that are encountered in the issuing of development permits by MEPA (61.1%) with tardiness of payments following (33.3%). The remainder attributed this to a lack of skilled workers.

The second main reason quoted was the tardiness with which contractors receive payments (36.8%) which confirms the concerns raised in the identification of the main problem. This is followed by the lack of skilled workers (33.3%) which again reflects the reasons given for the foremost problem encountered. The remainder is equally divided amongst MEPA delays, lack of work opportunities and those who do not wish to expand their activity.

The third problem identified is equally representative of late payments and difficulty in obtaining bank loans (33.3% each) and the lack of skilled workers (22.2%) followed by the lack of work opportunities (11.1%).

Therefore, simply from an observation of the strongest preferences expressed it is evident that the main three reasons being attributed as causing contractors difficulty in expand their business are the following (in order of importance):

1. delay in the issue of development permits from MEPA;
2. delays in payments by clients; and
3. lack of skilled workers.

10.13 Training Issues

Training is a key element in order to secure an efficient and competitive workforce that can adapt to the continually evolving standards within the trade. Moreover, training is also vital for the re/skilling of workers who wish to enter the industry. Training can be specific to the skill in which a worker intends to practice and may also be of a general nature focusing on specific issues such as health and safety.

Respondents were in fact asked four main questions in this respect namely whether employers were:

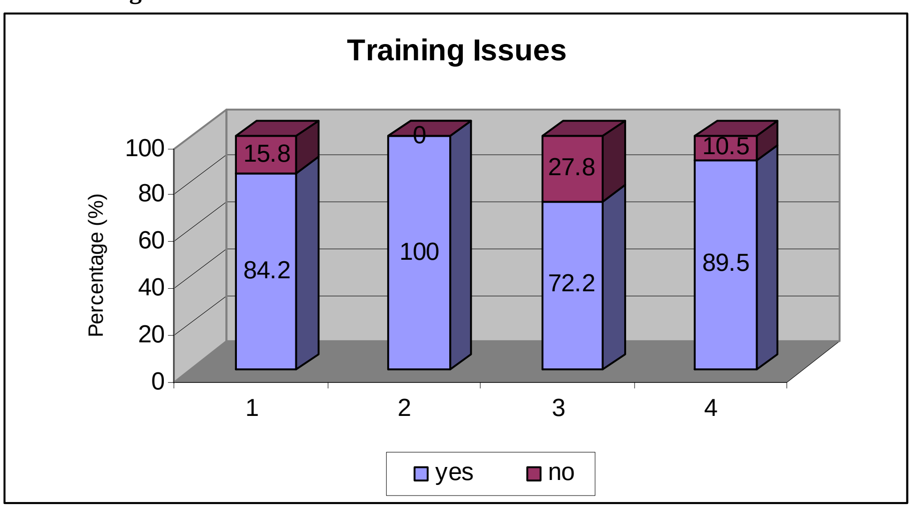
- willing to train their workers during normal working hours;
- aware of courses being organised by ETC and MCAST;
- interested in additional information on this kind of training; and
- aware of the Health and Safety Courses.

The results are presented in Figure 10.11.

It is evident that an absolute majority of employers are aware of the courses being offered by ETC, MCAST as well as in respect of Health and Safety. Commitment levels have also improved from last year and in fact when respondents were asked whether they would be prepared to train their workforce during normal working hours 84.2% responded in the affirmative. One needs to see whether this will actually happen. However the fact that the majority of respondents seem ready to accommodate training during working hours is positive.

There is no doubt that the awareness campaigns on the material available for training purposes have had their success. However, one needs to move on from awareness towards execution by finding a suitable medium, or set of incentives, to allow employers to favour the continuing professional development of their employees.

Figure 10.11 – Training Issues



LEGEND

1. Willing to train workers during normal working hours
2. Aware of courses being organised by ETC and MCAST
3. Interested in additional information on training opportunities
4. Aware of Health and Safety courses

It is not possible at this stage to determine the factors which may have led to an improvement in attitude. It is probably a case of the various factors working in synergy with each other. Notwithstanding, it is still very hard to obtain a willingness on the part of contractors to participate in this kind of survey. This is not a problem which is exclusive to this sector as the same problems have been encountered in other sectors. However, the State of the

Construction Industry Report 2004 was a milestone in preparing a specific document for use within the construction industry. It is equally important to sustain this effort and this 2005 Report evidences that. However, the BICC needs to foster a better working relationship with sector representatives and constituents in order to facilitate the awareness raising efforts that are required to make such work possible.

11.0 Commencement Notices

Earlier sections of this report have aimed at establishing the demand and trend within the construction industry through an analysis of development permits issued. While this provides a valid indicator, cognisance has been taken of the fact that not all development permits issued result in actual development as some may not be followed upon by applicants. In addition there can be delays between the actual issuing of the permit and the commencement of works which create a shift between the picture provided by an analysis of the permits and the actual period of construction activity. Commencement notices provide the ideal source of information that could give a better representation of the ongoing construction activity at a specific period of time. Available data with respect to commencement notices is not considered reliable and MEPA has provided data in respect of compliance certificates issued. This data has been used to draw some observations with respect to the demand picture as established in earlier sections of this report for housing and non-residential development.

11.1 Housing

Table 11.1 below presents the total number of approved housing units and the total number of compliance certificates issued per year for the period 2001–2005. Over the period 2001 to 2005 there has been an upward trend in the number of compliance certificates issued annually. This reflects the upward trend in approved units. The total number of compliance certificates issued over the five year period amount to just over 50% of the total number of units approved for development during this period. This indicates that a substantial number of units are still in the development phase or are yet to commence development. A trend towards large residential developments can also contribute to lengthy construction timeframes which would result in substantial differences in the number of approved units and compliance certificates issued within a short time window. In order to attempt to further substantiate or otherwise this possible trend a further analysis has been done and is captured in Table 11.2.

Table 11.1 – Dwellings: Units Approved and Compliance Certificates
Source: MEPA

	2001	2002	2003	2004	2005
Total no of units approved	**4180**	**5481**	**6128**	**6707**	**9081**
Growth	**1811**	**1301**	**647**	**579**	**2374**
Compliance Certificates Issued	**2582**	**2555**	**2719**	**4975**	**3884**
Growth	**(153)**	**(27)**	**164**	**2256**	**(1091)**

Table 11.2 – Dwellings: Units Approved and Development Permits
Source: MEPA

	2001	2002	2003	2004	2005
Total no of units approved	**4180**	**5481**	**6128**	**6707**	**9081**
No of permits issued	**1299**	**1422**	**1321**	**1497**	**2181**
Factor: Units to Permits	**3.2**	**3.9**	**4.6**	**4.5**	**4.2**

11.2 Non Residential Development

With respect to non residential development it is difficult to drawn conclusions from compliance certificates as these tend to be larger projects which have a longer construction duration when compared to housing. The data available is however being presented in Table 11.3 below as over a longer period of time it can highlight those areas where development permits are not resulting in building projects.

Table 11.3 – Non Residential Development permits and Compliance Certificates
Source: MEPA

	1999	2000	2001	2002	2003	2004	2005	TOTAL	%
Manufacturing/Industrial									
Permits	101	74	41	57	18	24	33	348	
Compliance certificates	2	11	21	12	11	11	14	82	*23*
Offices									
Permits	19	41	39	54	19	38	25	235	
Compliance certificates	5	9	9	18	7	8	3	59	*25*
Shops and Retail Services									
Permits	59	89	118	108	44	33	47	498	
Compliance certificates	8	14	18	22	24	20	16	122	*25*
Restaurant/Cafe/Bar									
Permits	29	33	34	49	24	39	41	249	
Compliance certificates	2	5	0	4	3	5	7	26	*10*
Car parking and Vehicle Garaging									
Permits	124	175	162	154	134	121	116	986	
Compliance certificates	22	58	68	59	53	76	70	406	*41*
Community and Health Services									
Permits	30	30	16	30	32	26	8	172	
Compliance certificates	6	6	6	4	6	9	4	41	*24*
Warehousing (Commerce/Industry storage)									
Permits	33	30	28	37	28	33	39	228	
Compliance certificates	20	28	12	25	17	10	11	123	*54*
Recreational									
Permits	24	22	21	56	31	25	26	205	
Compliance certificates	2	12	4	6	8	2	5	39	*19*
Mixed Office and Retail									
Permits	17	13	12	16	12	12	21	103	
Compliance certificates	4	4	8	5	10	13	9	53	*51*
Hotel/Tourist Accommodation									
Permits	22	19	26	13	15	17	22	134	
Compliance certificates	0	0	2	2	4	6	3	17	*13*
Educational									
Permits	18	22	14	33	28	16	23	154	
Compliance certificates	0	2	0	2	3	1	3	11	*7*

12.0 Health and Safety

The number of accidents at construction sites has been a worrying statistic to the principal stakeholders involved within the sector. Admittedly, the construction industry is a risky and accident prone sector. Notwithstanding, we have witnessed a number of bad practices that outline the lack of health and safety practices at construction sites. At the same time we have seen awareness levels climb significantly to the extent that accidents at the workplace statistics have now become part of our quarterly data set.

12.1 Scope of Occupational Health and Safety (OHSA) Act

The OHSA Act Cap. 424 was published on 17th November 2000, part III of the Act concerning the establishment, the functions and the conduct of the Authority was brought into force on the 3rd May 2001. The Act was brought into force in its entirety on the 29th January 2002. The Act declares the protection of occupational health and safety to be considered of public interest. Moreover it provided for the establishment of an Authority to be responsible for ensuring that the physical, psychological and social well being of all workers in all work places are promoted and to ensure that they are safeguarded by whoever is so obliged to do.

On the other hand, the Act places an obligation upon employers to ensure the health and safety at all times of all persons who may be affected by the work being carried out for them. At the same time the workers have their own responsibilities by which they are expected to abide. The measures that need to be taken by an employer to prevent physical and psychological occupational ill-health, injury or death, shall be taken on the basis of the following general principles of prevention that is by:

(*a*) the avoidance of risk;
(*b*) the identification of hazards associated with work;
(*c*) the evaluation of those risks which cannot be avoided;
(*d*) the control at source of those risks which cannot be avoided;
(*e*) the taking of all the necessary measures to reduce risk as much as reasonably practicable, including the replacement of the hazardous by the non-hazardous or by the less hazardous;
(*f*) giving collective protective measures priority over individual protective measures;
(*g*) adapting the work to the worker, particularly in so far as the design of work places, the choice of work equipment and the choice of working and production methods are concerned, in particular with a view to alleviating monotonous work and work at a predetermined work-rate, and to reducing their effect on health;
(*h*) by adapting to technical progress in the interest of occupational health and safety; and
(*i*) by the development of a coherent overall prevention policy which covers technology, the organisation of work, working conditions, social relationships and the influence of factors related to the working environment.

The employer has the duty to provide such information, instruction, training and supervision as is required to ensure occupational health and safety. Moreover, it shall also be the duty of an employer to ensure that at work places wherein a sufficient number of workers are employed, there shall be elected, chosen or otherwise designated a person or persons to act as the Workers' Health and Safety Representative or Representatives, and who shall be consulted in advance and in good time by the employer on matters which may affect occupational health and safety.

The Act stipulates that the duty of every worker is to safeguard one's own health and safety and that of other persons who can be affected by reason of the work which is carried out. Moreover, it shall be the duty of every worker to co-operate with the employer and with the Health and Safety Representative or Representatives at the work place on all matters relating to health and safety.

On its part, the Occupational Health and Safety Authority shall:

(*a*) apply the provisions of this Act and of any regulations or orders made thereunder;
(*b*) establish strategies in consultation with the Chief Executive Officer, by which the general national policy relating to occupational health and safety, indicated to it by the Minister, may be implemented;
(*c*) advise the Minister regarding the making of regulations to promote, maintain and protect a high level of occupational health and safety;
(*d*) monitor compliance with relevant occupational health and safety legislation and to take enforcement action;
(*e*) prepare regulations or Codes of Practice required to promote, maintain and protect a high level of occupational health and safety;
(f) promote the dissemination of information regarding occupational health and safety, and the methods required to prevent occupational injury, ill health or death;
(*g*) promote education and training on occupational health and safety, and emergency and first aid response at work places;
(*h*) collate and analyse data and statistics on occupational injuries, ill health and deaths, and on matters ancillary to occupational health and safety;
(The Authority may request data or information on any matter related to occupational health and safety, and such data or information shall be provided forthwith and that any such data or information shall be deemed to have been given and received under the obligation of confidentiality).
(*i*) keep registers of such plant, installations, equipment, machinery, articles, substances, or chemicals and intended for use at work which in the opinion of the Authority provide a serious occupational health and safety risk;
(*j*) carry out any investigation on any matter concerning occupational health and safety, including but not limited to the investigation of any accident, injury, disease or death occurring as a result, or by reason of, any association with work, as well as investigations to ascertain the level of occupational health and safety provided at any work place, and the duty of the Authority to secure the enforcement of any provision of this Act shall not be reason to debar the carrying out of such investigations;
(*k*) promote and carry out scientific research aimed at better methods of preventing occupational ill health, injury, or death;
(*l*) keep registers of persons competent to give advice on matters related to occupational health and safety.

12.2 Legislative Instruments Related to the Construction Industry

Currently there are two sets of construction-specific legislative instruments, as follows:

- L.N. 281/2004 - Work Place (Minimum Health and Safety Requirements for Work at Construction Sites) Regulations, 2004; and
- The Code of Practice for the Building Industry.

Essentially, the Legal Notice establishes minimum standards and various administrative structures that are required to be in place before a construction project starts. It also assigns a number of legal responsibilities upon the client for whom a project is to be carried out.

The Code of Practice on the other hand, is only intended to provide guidance on good practice - the non-observance of the Code does not by itself constitute a contravention. However in view of the "onus of proof" principle found in all OHS legislation, it up to an employer to show, usually to the satisfaction of a Court of Law, that the measures that he was taking offered a better level of protection than those outlined in the Code, or that it was unreasonably practicable for him to implement the provisions found therein.

It also has to be stressed that the majority of existing OHS legislation in force, is also applicable to the sector - for example:

- L.N. 282/2004 - Work Equipment (Minimum Safety and Health Requirements) Regulations 2004;
- L.N. 185/2004 - Work Place (Minimum Health and Safety Requirements for the Protection of Workers from Risks arising from exposure to Noise) Regulations, 2004 (these are to be replaced, probably in January by others which are more stringent);
- L.N. 41/2004 - Work Place (Minimum Requirements for Work) (Confined Spaces and Spaces having Explosive Atmospheres) Regulations, 2004;
- L.N. 379/2003 -Protection of Workers in the Mineral Extracting Industries through Drilling and Workers in Surface and Underground Mineral Extracting Industries Regulations, 2003;
- L.N. 123/2003 - Protection of Workers from the Risks related to Exposure to Asbestos at Work Regulations, 2003;
- L.N. 35/2003 - Protection against Risks of Back Injury at Work Places Regulations, 2003;
- L.N. 11/2002 - Workplace (First Aid) Regulations, 2002;

There are others which can similarly apply, such as the Protection of Young Persons Regulations. Furthermore, there are a multitude of standards, as issued by the Malta Standards Authority which are applicable. It is also envisaged that, shortly, the Authority will also launch a Code of Practice for the Safe Use of Cranes.

Proposed regulations and policies include two sets of regulations that will be introduced shortly:

- amendment regulations to those already published on noise, and

- another set which establishes minimum standards for the protection of workers from the health and safety risks arising from exposure to vibrations. The risks referred apply in particular to whole body vibration and hand-arm vibration.

The Authority will also be launching a system for the intimation of penalties when there exists a contravention. A standard Operating Procedure for the implementation of the system has been widely circulated, and the Authority is now in the process of reviewing the comments received. Basically, the system proposed by the Authority classifies contraventions into three different classes - one for which a warning letter will be issued, another where legal action will immediately be initiated, and a third where the contravener will be requested to pay a penalty or face judicial proceedings.

The Authority has also been trying to solicit more cooperation from local councils, in the implementation of the law. To date all attempts have not had the desired success.

12.3 Court Judgements

At this stage it is also interesting to provide a brief overview of the salient Court decisions that have been delivered. During the last year, there were ten cases relating to construction decided by the Courts of Magistrates. Eight were found guilty and fined between Lm200 and Lm1000. Two others were acquitted - one because the accused was wrongly charged, while in the second case, the defence was totally based on evidence of third parties (the original complainants). However, they failed to turn up in Court and the accused was acquitted. 26 other cases are waiting to be appointed before the law Courts.

12.4 Courses

The OHSA also organizes a number of courses namely

- Introduction to Occupational Health & Safety
- First Aid & Safety At Work
- Principles of Risk Assessments

The OHSA has also organised the following courses:

- Introduction to Health & Safety (12 hr);
- The Workers' Health & Safety Representative (16 hr);
- Risk Assessment 4 half days (16 hr);
- Managing Stress at Work 1 half day;
- Radiation Safety;
- Ergonomics 1 half day;
- Personal Protective Equipment 1 half day;
- First Aid & Safety At Work 20 hours;
- Asbestos 2 half days;
- Chemical agents at work 2 half days;
- Course for the Furniture Manufacturing Sector 4 full days or twice a week in the evenings;

- Course for the Construction Sector 4 full days or twice a week in the evenings.

12.5 Statistics

Despite all the safeguards and improvements that have manifested themselves throughout the years there are still a number of fatalities and accidents that unfortunately occur throughout the year. This section aims to characterise in a numerical manner the occurrences of such circumstances.

During 2004, there were twelve (12) fatalities at the place of work of which ten (10) took place within the construction industry. This represents an 83% of all occurrences which is very high. Unfortunately data for the previous years available in the public domain is incomplete and as such comparisons cannot be made.

Table 12.1 Statistics 2003 – Construction fatalities as a percentage of total fatalities

eu15	be	dk	de	gr	es	fr	ie	it	lu	nl	at	fi	se	ukc_m	no
26.5	20.2	17.6	18.9	45.6	34.2	25.1	25.4	28.5	n/a	22.1	16.7	30.6	17.9	31.7	18.6

It is evident that the rate in Malta is by far higher than in any of the EU-15 countries taken individually or as an aggregate.

Another interesting statistic is that relating to the number of accidents at work by economic activity as reported to the Department of Social Security. These statistics are based on the claims for injury benefit and as such, the totals being reproduced hereunder do not necessarily represent the number of unique accidents throughout the year but serve as a basis for identifying the impact that the construction industry may have on such accidents.

Table 12.2 – Accidents at Work

	2003	2004
Mining & Quarrying	19	20
Percentage of Total	0.40	0.49
Construction	571	615
Percentage of Total	12.03	15.16
Real Estate, Renting and Business Activities	172	175
Percentage of Total	3.62	4.31
Total	***4746***	***4056***

Although a data series of 2 years is not sufficient to provide a statistically significant trend, one may observe that whilst the number of accidents in the *Mining & Quarrying* and the *Real Estate, Renting & Business Activities* sectors remained relatively the same, their percentage of total accidents/claims manifests a slight increase. Within the construction sector one can witness an increase of 7.7% in the number of occurrences as well as an increase of slightly over three (3) percentage points in the percentage of total accidents/claims registered.

Table 12.3 - Statistics 2003 – Construction injuries as a percentage of total injuries

eu15	be	dk	de	gr	es	fr	ie	it	lu	nl	at	fi	se	ukc_m	no
18.1	16.1	10.9	16.2	29.1	26.0	16.3	24.2	15.5	28.4	10.5	17.4	15.9	10.0	13.6	11.4

Comparing 2003 data, Malta fared positively in comparison to the EU-15 aggregate and only Denmark, The Netherlands, Sweden and Norway had lower injury rates for the construction industry.

It is interesting to close this section by quoting from an extract of an ILO Fact Sheet on Safety at Work which states:

"As a major employment generator in many parts of the world, construction is also a sector associated with a proportionately high number of job-related accidents and diseases. Despite mechanization, the industry is still largely labour-intensive, while working environments are frequently changing and involve many different parties. The industry also has a long tradition of employing migrant farm labour from lower-wage economies and much employment is precarious and short-term. According to ILO estimates…

- *Each year there are at least 60,000 fatal accidents on construction sites around the world. This is one fatal accident every ten minutes.*
- *One in every six fatal accidents at work occurs on a construction site.*
- *In industrialized countries, as many as 25% to 40% of work-related deaths occur in on construction sites, even though the sector employs only 6% to 10% of the workforce.*
- *In some countries, it is estimated that 30% of construction workers suffer from back pains or other musculoskeletal disorders."*

13.0 Construction Products Directive

The Construction Products Directive (Council Directive 89/106/EEC), has the objective of ensuring the free movement of all construction products within the Union by harmonising national laws with respect to the essential requirements applicable to these products in terms of health, safety and stability. Construction products are defined as those products produced with a view to their incorporation in a permanent manner in construction works which include both building and civil engineering works.

Essentially construction products may only be placed on the market if they are fit for their intended use. In this regard, they must be such that works in which they are incorporated satisfy, for an economically reasonable working life, the essential requirements with regard to mechanical strength and stability, safety in the event of fire, hygiene, health and the environment, safety in use, protection against noise and energy economy and heat retention. Products complying with the relevant technical specifications will be eligible for 'CE marking' and may be placed on the market.

The Annexes to the Directive contain detailed information on:

- the essential requirements;
- European technical approval;
- the attestation of conformity with the technical specifications: methods of control, systems of attestation, competent bodies, marking, certificate and CE declaration of conformity; and
- the certification and inspection bodies and the testing laboratories.

Locally the Directorate for Consumer and Industrial Goods within the Malta Standards Authority (MSA) is the technical advisory arm in respect of the free movement and safety of construction products. The MSA is responsible for harmonizing local legislation to reflect the Construction Products Directive (CPD) through the publication of consultation papers and the introduction of the relevant regulation. The MSA has over the past years also organised a number of events on the application of the CPD.

The implementation of the CPD has a direct impact on the construction products on the market and on those facilities/operations that locally produce products for incorporation in construction.

The CPD applies to any construction product, which is produced for incorporation in a permanent manner in construction works including both building and civil engineering works; e.g. cement, building limes, aggregates, pre-cast paving blocks, thermal insulation products, fixed fire-fighting systems, etc.

The CPD has been transposed by the Construction Products Regulations, 2001(L.N. 270 of 2001), issued under the Product Safety Act (CAP 427).

13.1 Overview of the Construction Products Regulations (subsidiary legislation 427.12)

Purpose

These regulations regulate the technical characteristics of construction products in order to ensure that they are suitable for construction works and that they are fit for their intended use. Construction products must satisfy the following essential requirements where the works are subject to regulations containing such requirements.

1. Mechanical resistance and stability
2. Safety in case of fire
3. Hygiene, health and the environment
4. Safety in use
5. Protection against noise
6. Energy, economy and heat retention

These essential requirements are given concrete form in Interpretative Documents published in the Official Journal of the European Communities.

Relevant Articles: Article 2.1, Article 3.1.18 and Schedule I

Applicability

These regulations apply to all imported products as well as those products manufactured locally.

No person may manufacture, import, place on the market or put into service any construction product which does not comply with the provisions of these regulations.

Relevant Articles: Article 4 and sub-clauses.

Conformity Requirements

Products may be placed on the market only if they are fit for there intended use and satisfy the essential requirements. Products which are neither covered by harmonized standards nor covered by a European Technical approval may be placed on the market if they satisfy national provisions.

These products are CE marked.

Products classified as minor parts (and included in a list of products drawn up by the European Commission) may be placed on the market if the manufacturer issues a declaration of compliance with the acknowledged rule of technology.

The use of products that satisfy the provisions of these regulations cannot be impeded.

Relevant Articles: Article 5 and sub-clauses and Article 6.1.

<u>Attestation of Conformity, CE marking, and Certificates of Conformity</u>

The CE marking indicates that products either comply with:

a) the harmonized European standards as published in the Official Journal of the European Communities; or

b) a European technical approval as listed in Schedule IV; or

c) national technical specifications where harmonized standards do not exist.

The regulations establish the model of the CE mark and the methods and systems relating to the attestation of conformity with the technical specifications. Methods of control of conformity include

(a) initial type-testing of the product by the manufacturer or an approved body;

(b) testing of samples taken at the factory in accordance with a prescribed test plan by the manufacturer or an approved body;

(c) audit-testing of samples taken at the factory, on the open market or on a construction site by the manufacturer or an approved body;

(d) testing of samples from a batch which is ready for delivery, or has been delivered, by the manufacturer or an approved body;

(e) factory production control;

(f) initial inspection of factory and of factory production control by an approved body;

(g) continuous surveillance, judgement and assessment of factory production control by an approved body.

The choice of the procedure for a given product or family of products is specified by the Commission and is captured in Schedule III.

The manufacturer, or his local authorised representative, is responsible for the attestation that products are in conformity with the requirements of these regulations.

Depending on the product, either a declaration of conformity by the manufacturer or a certificate of conformity issued by an approved certification body shall entitle the manufacturer, or his local authorised representative, to affix the corresponding CE marking on the product itself, on a label attached to it, on its packaging or on the accompanying commercial documents.

Relevant Articles: Article 6 and sub-clauses, Article 8 and sub-clauses, Article 9 and sub-clauses, Article 10.1, Schedules II and III.

Withdrawal and Prohibition from the Market

Where it is ascertained that a product declared to be in conformity with the terms of these regulations does not comply with the regulations, measures shall be taken to withdraw those products from the market, prohibit the placing thereof on the market or restrict free movement thereof.

The Director of Consumer Affairs is empowered to take appropriate action against whom soever made the declaration of conformity.

Relevant Articles: Article 7 and sub-clauses and Article 10.2 and sub-clauses.

EC Declaration of Conformity

EC certificates or declarations of conformity are to be kept and be made available for inspection for a period of 10 years from when the product is first supplied in Malta or from the date of affixing of the CE mark when this is affixed in Malta.

A person who supplies a construction product which does not bear the CE marking is required to provide all information necessary to the Director of Consumer Affairs for the purposes of ascertaining whether the product satisfies the requirements of these regulations or is one to which these regulations do not apply.

Relevant Articles: Article 9.3 and 9.4.

List of harmonised standards in force

Products covered and Official Journal reference (extract from Schedule III).

- Precast concrete products , Thermal Insulating products, Membranes, Doors, Windows and related products - L129 14/07/95
- Gypsum products, Structural Bearings, Chimneys, Flues and specific products - L268 10/11/95
- Fixed Fire fighting systems - L254 08/10/96
- Sanitary appliances - L254 08/10/96
- Circulation Fixtures - L254 08/10/96
- Curtain walling - L254 08/10/96
- Geotextiles - L254 08/10/96
- Structural timber products - L073 14/03/97
- Wood based panels - L198 25/07/97
- Waste water engineering products - L198 25/07/97
- Cement, Building limes and other hydraulic binders - L229 20/08/97
- Reinforcing and prestressing steel for concrete - L240 02/09/97
- Fasteners for Structural timber - L268 01/10/97
- Masonry products - L299 04/11/97

- Floorings - L331 03/12/97
- Structural metallic products and ancillaries - L080 18/03/98
- Roof coverings, rooflights, roof windows and ancillary - L194 10/07/98
- Internal and external wall and ceiling finishes - L194 10/07/98
- Aggregates - L287 24/10/98
- Road construction products - L287 24/10/98
- Membranes (revision of decision 95/204/EC) - L029 03/02/99
- Thermal insulating products (revision of decision 95/204/EC) - L029 03/02/99
- Doors, windows, shutter, blinds, gates and related building hardware (revision of decision 95/204/EC) - L029 03/02/99
- Precast normal/lightweight/autoclaved aerated concrete products (revision of decision 95/204/EC) - L029 03/02/99
- Products related to concrete, mortar and grout - L184 17/07/99
- Construction Adhesives - L184 17/07/99
- Space heating appliances - L184 17/07/99
- Pipes, tanks and ancillaries not in contact with water intended for human consumption - L184 17/07/99
- Flat glass, profiled glass and glass block products - L077 28/03/2000

14.0 Environmental Considerations

Any intervention is likely to have a knock on environmental impact. The construction industry is no exception to this phenomenon. However, it is an industry that operates within a tight regulatory environment with the main regulator being the Malta Environment and Planning Authority which is today's Malta's regulator in both development control as well as environment protection. It is impossible to describe in detail the various aspects of the environmental impacts that may result from the construction industry. Notwithstanding, the reader is invited to browse through the various on-line documentation that is hosted within the MEPA website, www.mepa.org.mt, for a suite of documents related to both development control and environment protection. However, at this stage it is worth mentioning the four-yearly publication of the State of the Environment Report which provides a comprehensive dossier of all environment related parameters. To date the 1998 and 2002 Reports have been published whilst the 2006 Report is likely to be published during the course of this year. Moreover, MEPA has also prepared a Draft Sustainable Development Strategy for Malta, "consisting of an overarching vision and principles, listing the aspirations of government, civil society and the private sector in this regard, and outlining methods of implementation, taking into account Malta's capacities and constraints".

It would be impossible to try and quantify all possible environmental impacts resulting from the construction industry and its inter-relationships. Consequently, a number of key parameters are being chosen to highlight certain trends. The parameters chosen are:

- Solid waste generation and disposal;
- Water production;
- Wastewater generated;
- Power generation;
- Land use.

14.1 Solid Waste Generation and Disposal

There are a variety of activities that generate waste. The construction industry generates significant amount of construction and demolition related waste. Moreover, additional housing and commercial units also contribute to the generation of other waste streams in line with the nature of the development. The solid waste deposited in landfills between the period 1999-2005 is shown in Figure 14.1.

The greatest proportion of waste is generated by the construction related sectors. On average, during the period 1995-2005, mining and quarrying contributed around 75% of the total waste stream. It is important to note that the drop in construction waste since 2002 is not the result of a lack of production of waste from this sector but is a result of a change in disposal patterns. In fact, disused quarries are now being used for the disposal of construction related waste, and therefore all that waste from the industry that is disposed in these quarries is recorded under the mining and quarrying sector.

Table 14.1 – Generation of solid waste by sector (in '000 tonnes) – Environment Statistics 2006, NSO

	1999	2000	2001	2002	2003	2004	2005
Agriculture & Forestry	5.05	6.40	7.66	7.06	8.18	8.92	10.86
Mining & quarrying	822.39	1068.91	799.44	1094.85	1167.13	2187.78	1196.31
Construction	133.99	152.93	190.26	247.97	171.81	28.17	9.36
Manufacturing industries	31.32	26.53	25.80	25.60	28.52	24.62	19.07
Sewage & refuse disposal	10.71	7.37	13.85	9.29	7.80	3.61	0.19
Municipal waste	166.86	178.91	193.22	203.77	215.77	225.91	228.35
Other sectors	17.32	24.90	21.66	12.67	17.92	17.27	24.96
Total	**1187.64**	**1465.95**	**1251.89**	**1601.21**	**1617.13**	**2496.28**	**1489.10**

14.2 Water Production and Wastewater Generated

Water is a commodity that is usually related to human activity. The main demands for water are generated through the domestic, industrial and agricultural sectors. It is therefore opportune to look at the water production from all sources. It is interesting to note that total production has been on the decrease for the past 2 years and is significantly lower than 1999 values.

Table 14.2 – Water production by hydrological year (million m^3) - Environment Statistics 2006, NSO

	1999	2000	2001	2002	2003	2004	2005
Total Production	37.30	35.14	33.61	34.05	34.17	32.78	31.04
Uses							
Agriculture & Forestry	1.25	0.94	1.14	0.89	0.82	0.98	0.64
All industrial activities	1.14	1.74	1.33	0.98	1.13	0.85	0.89
Households	11.32	11.59	11.44	12.31	12.62	12.84	11.18
Other activities	3.71	4.47	4.09	4.43	4.40	3.87	3.54
Apparent losses	19.88	16.40	15.61	15.44	15.20	14.24	14.79

Similarly, sewage discharges follow the patterns of water production. Water consumption by households has peaked during the period 2002-2004 but has since subsided to the lowest values since 1999. Households are the main water consumers and hence the main sewage producers by volume.

14.3 Land Use

Land use is a key parameter that demonstrates the impact of construction activities on the territory. The Environmental Statistics 2006 produced by the NSO summarises the situation as per Table 14.3.

Table 14.3 – Land use by Category – Environment Statistics 2006

Land Use	% Cover
Green urban areas	0.5
Non irrigated arable land	0.4
Industrial/commercial units	2.1
Airports	1.2
Mineral extraction sites	1.2
Salines	0.1
Discontinuous urban fabric	21.0
Continuous urban fabric	1.2
Agricultural land	46.8
Port areas	0.7
Transitional woodland/shrub	0.6
Complex cultivation patterns	0.9
Sparsely vegetated areas	2.8
Irrigated land	0.3
Coniferous forest	0.4
Sclerophyllous vegetation	18.3
Vineyards	0.2
Mixed forest	0.5
Dump sites	0.1
Sport and leisure facilities	0.6
pastures	0.1

Perhaps one of the most relevant statistics is that the urban fabric constitutes 22.2% of the whole of the territory whilst agricultural land makes up 46.8% of the same territory. The latter has declined by around 27% in the period between 1970 and 2005.

14.4 Power Generation and Consumption

The generation of power to meet consumption demands is another indicator of the extent of development within the territory. This is because the demand for electricity is derived from the various sectors that constitute the built up area of the Maltese Islands. Table 14.4 summarises power generated and consumption over the period 1995/96 – 2001/02.

Table 14.4 – Power Generation and Consumption in 000 Kw hours
Source: NSO News Release 106/2004

	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/01	2001/02	2002/05
Generated	1657514	1685931	1720514	1840346	1916623	1943350	2055073	NOT AVAILABLE
% Increase		1.53	2.05	6.96	4.14	1.39	5.75	
Industrial	509876	452620	406844	477003	477379	482908	504760	
% Increase		11.23	10.11	17.24	0.08	1.16	4.53	
Commercial	367397	411940	348835	423731	457142	503660	501582	
% Increase		12.12	15.32	21.47	7.88	10.18	0.41	
Domestic	430413	461779	501996	463668	539796	540265	561907	
% Increase		7.29	8.71	7.64	16.42	0.09	4.01	

It is clear that power generation has seen an annual year-on-year increase for the whole of the period under review. Within the Industrial, Commercial and Domestic sectors there has been a general net increase save for a few year-on-year decreases which were mainly recouped in subsequent years.

Recent statistics (Environment Statistics 2006, NSO) show the maximum demand for electricity in MW, the results of which are summarised in Table 14.5.

Table 14.5 – Electricity Maximum Demand MW - Environment Statistics 2006, NSO

1999	2000	2001	2002	2003	2004	2005
294.33	301.08	315.33	323.00	354.00	346.58	363.00

Table 14.5 on its part demonstrates year-on-year rise during the period 1999-2003, with a drop in 2004 at levels still above 2002, and with 2005 levels spiralling to an all time high.

14.5 Regulation of Construction Sites

Government seems intent to publish new Regulations aimed at addressing the management of construction sites with a view to address certain inconveniences such as the noise, dust and visual impacts amongst others. The extent of these regulations is not yet known but it is expected to contribute towards minimising the impact of the construction industry on the surrounding environment.

15.0 Energy Efficiency

Undoubtedly Maltese construction has been criticised in terms of the lack of energy efficient techniques employed. In particular the increase in demand from power during hot or cold periods is generally considered to be indicative of the energy spent to maintain comfortable ambient conditions.

The construction industry can clearly play a key role in the attainment of a more efficient use of energy through:

1. The use of construction products whose characteristics (e.g. thermal resistance,) and performance (e.g. airtightness of doors and windows, efficiency of boilers, fans, cooling units) allows for an efficient use of energy to be made; and
2. The use of building designs that allow for an efficient use of energy to be made.

15.1 Legislation

A number of relevant regulations are currently in force, while others are expected to be introduced within the coming months.

Subsidiary Legislation 427.12

Title: Construction Products Regulations

Relevant EU Directive: Council Directive 89/1061, as amended by Council Directive 93/68/EEC.

Purpose and Applicability: These Regulations establish as an essential requirement of construction products the need for the products to allow for the heating, cooling and ventilation installations to be designed and built in such a way that the amount of energy required in use is low, while having regard to the climatic conditions of the location and the occupants.[8]. Such a requirement is applicable to construction products installed in construction works subject to energy economy and heat retention regulations related to space heating, space cooling, humidity control, sanitary hot water production or ventilation.

Subsidiary Legislation 427.17

Title: Efficiency Requirements for New Hot-water Boilers Fired with Liquid or Gaseous Fuels Regulations

Relevant EU Directive: Council Directive 92/42/EEC.

[8] Schedule I of the Construction Products Regulations states '6. Energy economy and heat retention: The construction works and its heating, cooling and ventilation installations must be designed and built in such a way that the amount of energy required in use shall be low, having regard to the climatic conditions of the location and the occupants.

Purpose and Applicability: These regulations, establishes the efficiency requirements applicable to new hot-water boilers fired by liquid or gaseous fuels with a rated output of no less than 4 kW and no more than 400 kW.

Subsidiary Legislation 427.25

Title: Energy Efficiency Requirements for Ballasts for Fluorescent Lighting Regulations.

Relevant EU Directive: Council Directive 2000/55/EEC.

Purpose and Applicability: These Regulations establish the maximum power consumption of ballasts and is applicable to electric mains-operated ballasts for fluorescent lighting sources but excludes ballasts integrated in lamps, ballasts designed specifically for luminaries to be mounted in furniture and which form a non replaceable part of the luminaire which cannot be tested separately from the luminaire and ballasts to be exported from the Community,

EU Directive on the Energy Performance of Buildings (2002/91/EC)

There are at present no legally enforceable standards with respect to relevant building design characteristics, though substantial work has been undertaken in this respect. It is anticipated that new legislative requirements will shortly be enacted in order to harmonise local legislation with the EU Directive on the Energy Performance of Buildings.

This Directive lays down requirements as regards:

(a) the general framework for a methodology of calculation of the integrated energy performance of buildings;

(b) the application of minimum requirements on the energy performance of new buildings;

(c) the application of minimum requirements on the energy performance of large existing buildings that are subject to major renovation;

(d) energy certification of buildings; and

(e) regular inspection of boilers and of air-conditioning systems in buildings and in addition an assessment of the heating installation in which the boilers are more than 15 years old.

The Building Construction Industry Department (BCID) within the Ministry for Resources and Infrastructure is responsible for establishing the national standards and regulations that meet the requirements of this Directive.

In view of these requirements in October 2005 the Building Industry Consultative Council (BICC) launched for public consultation a draft guidance document that will form the basis of the National Building Regulations. These regulations will establish the minimum energy performance standards for buildings as required by the Directive. Additional documents that will establish the national methodology for the calculation of the energy certification and the system of certification to be used for boilers and air conditioners will also need to be drawn up.

15.2 Draft Building Regulations

The following provides an overview of the relevant section of the Draft Building Regulations.

Part F – Conservation of fuel, energy and natural resources

Aim: The regulations require buildings to be designed and constructed as to secure, insofar as is reasonably practicable, the conservation of fuel, energy and other natural resources.

The regulations require that reasonable provision be made for the conservation of fuel and power in a building by:

(i) limiting the heat loss in winter and the heat gain in summer through the fabric of the building;

(ii) controlling the operation of the space heating, and hot water systems;

(iii) controlling the operation of the space cooling systems;

(iv) limiting the energy loss from water storage vessels and water service pipework;

(v) limiting the energy loss or gain from water pipes and air ducts used forspace heating and cooling;

The above requirements apply to dwellings and other buildings whose floor area exceeds thirty square meters.

(vi) installing artificial lighting systems that use no more fuel and power than is reasonable in the circumstances and making reasonable provisions for controlling such systems;

This applies only to buildings and parts of buildings including their external areas where more than one hundred square metres of floor area is to be provided with artificial lighting and does not apply within dwellings.

(vii) providing sufficient information with the heating and cooling services so that building occupiers can operate and maintain the services in such a manner as to use no more energy than is reasonable in the circumstances.

The Draft Regulations also require that buildings incorporate in there design and construction:

(i.) a cistern of adequate size and proportions for the clean storage of roof water run-off; and

(ii.) measures to reduce adverse effects of solar radiation, wind and rain while exploiting the benefits of these climatic variables, according to the seasons.

15.3 Current Energy Demand

The total energy that is used by buildings in order to maintain appropriate comfort levels (temperature, humidity, ventilation, and lighting) can provide an indication of the energy efficiency of current buildings. Energy demand in this respect is primarily addressed through electric power and fuels. Figures with respect to the total electricity consumption by consumers categorised into the three levels of Domestic, Commercial and Industrial have been analysed.

15.3.1 Electricity Consumption

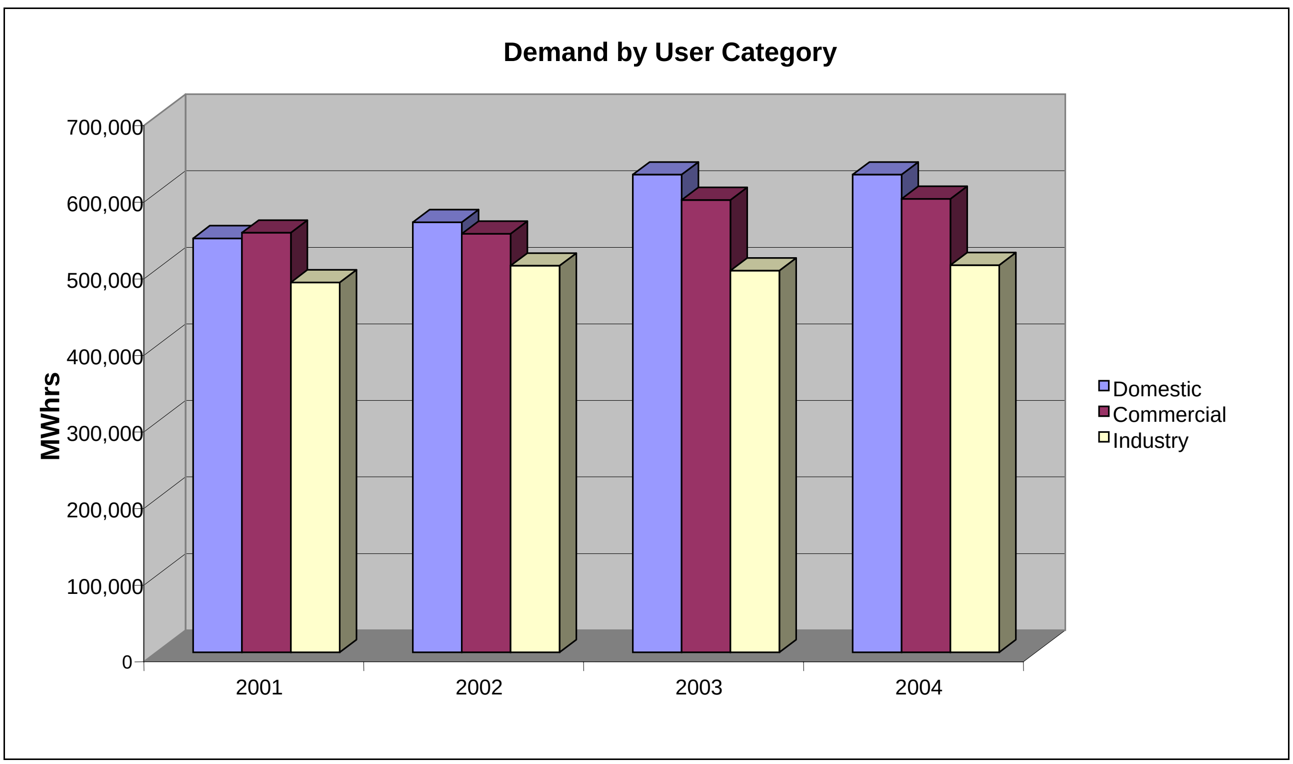
Figure 15.1 captures available data in respect of the total electricity consumption by user category for the period 2001 to 2004.

Domestic demand makes up the largest component of electricity demand and is also the area that has experienced the largest growth over the 2001 to 2004 period. Yearly demand increased during the period 2001 to 2003 and has been stable at 2003 figures during 2004. The largest increase was registered in 2003 with an increase of 11% in demand over 2002 figures.

Commercial demand also registered a high increase in 2003 of 8% over 2002 figures, with demand for 2004 remaining stable at 2003 figures.

Industrial demand has been fluctuating with an increase of 4.5% being registered in 2002 over 2001 figures. Demand in the 2002 to 2004 period has remained relatively stable.

Figure 15.1: Electricity Consumption by User Category 2000 - 2004
Source: MRA



Domestic Consumption

Table 15. 1 Domestic Consumption per Person
Source :Enemalta Corporation

	2001	2002	2003	2004
Domestic Demand (yearly total in MWhrs)	540,470	561,474	623,728	623,672
Population[9]	394,641	397,296	399,867	402,668
Consumption per person	1.37	1.41	1.56	1.55
% yearly increase		3.19	10.37	-0.70

Table 15.1 confirms that the increase in consumption in 2003 can be related directly to an increase in the consumption per person.

Maximum Demand for Electricity

Table 15.2 captures available data in respect of the maximum demand for energy recorded each month over the last 5 year period.

Table 15. 2 Electricity Maximum Demand (MW)
Source : MRA

	2001	2002	2003	2004	2005
Jan	314	369	358	369	389
Feb	326	319	395	361	402
Mar	297	299	345	345	378
Apr	266	284	303	301	316
May	275	271	282	286	311
Jun	313	344	379	356	378
Jul	348	359	395	387	403
Aug	342	367	397	386	411
Sep	340	324	390	366	377
Oct	312	312	338	326	324
Nov	290	296	304	319	313
Dec	361	332	362	357	354

Note: Maximum Demand | 90% of Maximum Demand

From the data presented in Table 15.2 and the chart in Figure 15.2 the following conclusions can be drawn.

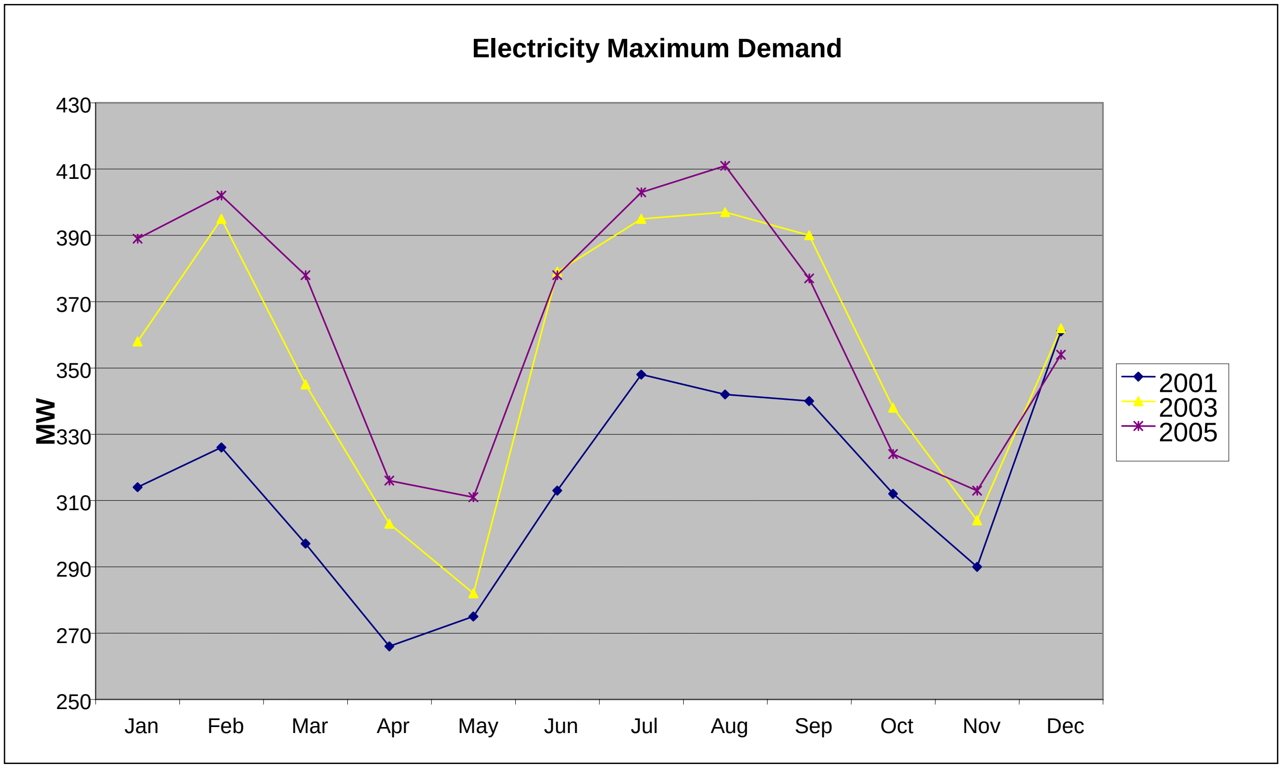
[9] Total population including foreigners resident in Malta. Source NSO Demographic Review for the years 2001 to 2004

- Over the past 5 years the maximum demand reached each month is showing a steadily increasing trend with the exception of the month of December. One should also note that while in 2001 and 2002 high demand (90% or over of yearly peak) was reached during 5 months of the year. This high level of demand has for the past 3 years been reached during 7 months of the year.
- The months of January to March have seen an average yearly increase in maximum demand of just under 20MW.
- The months of April to May have seen an average yearly increase in maximum demand of just over 10MW.
- The months of June to August have seen an average yearly increase in maximum demand of just over 15MW.
- The month of September has seen an average yearly increase in maximum demand of just under 10MW.
- The months of October to December have recorded a relatively low increasing trend in maximum demand.

During the last 3 years the peak in maximum demand has shifted from the winter months to the summer months and has been reached in the hottest months of the year, July and August.

The above would indicate that the peaks in demand are caused by the increased use of equipment that is utilised to maintain comfortable ambient conditions in buildings namely air conditioning equipment.

Figure 15.2: Electricity Maximum Demand per Month
Source: MRA



Appendix I – NACE Classifications

NACE Classifications

Mining and Quarrying

10	Mining of coal and lignite; extraction of peat	
10.1	Mining and agglomeration of hard coal	101
10.10	Mining and agglomeration of hard coal	1010
10.2	Mining and agglomeration of lignite	102
10.20	Mining and agglomeration of lignite	1020
10.3	Extraction and agglomeration of peat	103
10.30	Extraction and agglomeration of peat	1030
11	Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying	
11.1	Extraction of crude petroleum and natural gas	111
11.10	Extraction of crude petroleum and natural gas	1110
11.2	Service activities incidental to oil and gas extraction, excluding surveying	112
11.20	Service activities incidental to oil and gas extraction, excluding surveying	1120
12	Mining of uranium and thorium ores	
12.0	Mining of uranium and thorium ores	120
12.00	Mining of uranium and thorium ores	1200
13	Mining of metal ores	
13.1	Mining of iron ores	131
13.10	Mining of iron ores	1310
13.2	Mining of non-ferrous metal ores, except uranium and thorium ores	132
13.20	Mining of non-ferrous metal ores, except uranium and thorium ores	1320
14	Other mining and quarrying	
14.1	Quarrying of stone	141x
14.11	Quarrying of ornamental and building stone	1410x
14.12	Quarrying of limestone, gypsum and chalk	1410x
14.13	Quarrying of slate	1410x
14.2	Quarrying of sand and clay	141x
14.21	Operation of gravel and sand pits	1410x
14.22	Mining of clays and kaolin	1410x
14.3	Mining of chemical and fertilizer minerals	142x
14.30	Mining of chemical and fertilizer minerals	1421
14.4	Production of salt	142x
14.40	Production of salt	1422
14.5	Other mining and quarrying n.e.c.	142x
14.50	Other mining and quarrying n.e.c.	1429

Construction

45	Construction	
45.1	Site preparation	451
45.11	Demolition and wrecking of buildings; earth moving	4510x
45.12	Test drilling and boring	4510x
45.2	Building of complete constructions or parts thereof; civil engineering	452
45.21	General construction of buildings and civil engineering works	4520x
45.22	Erection of roof covering and frames	4520x
45.23	Construction of motorways, roads, airfields and sport facilities	4520x
45.24	Construction of water projects	4520x
45.25	Other construction work involving special trades	4520x
45.3	Building installation	453
45.31	Installation of electrical wiring and fittings	4530x
45.32	Insulation work activities	4530x
45.33	Plumbing	4530x
45.34	Other building installation	4530x
45.4	Building completion	454
45.41	Plastering	4540x
45.42	Joinery installation	4540x
45.43	Floor and wall covering	4540x
45.44	Painting and glazing	4540x
45.45	Other building completion	4540x
45.5	Renting of construction or demolition equipment with operator	455
45.50	Renting of construction or demolition equipment with operator	4550

Real estate, Renting and Business activities

70	Real estate activities	
70.1	Real estate activities with own property	701x
70.11	Development and selling of real estate	7010x
70.12	Buying and selling of own real estate	7010x
70.2	Letting of own property	701x
70.20	Letting of own property	7010x
70.3	Real estate activities on a fee or contract basis	702
70.31	Real estate agencies	7020x
70.32	Management of real estate on a fee or contract basis	7020x
71	Renting of machinery and equipment without operator and of personal and household goods	
71.1	Renting of automobiles	711x
71.10	Renting of automobiles	7111x
71.2	Renting of other transport equipment	711x
71.21	Renting of other land transport equipment	7111x
71.22	Renting of water transport equipment	7112
71.23	Renting of air transport equipment	7113
71.3	Renting of other machinery and equipment	712
71.31	Renting of agricultural machinery and equipment	7121
71.32	Renting of construction and civil engineering machinery and equipment	7122
71.33	Renting of office machinery and equipment, including computers	7123
71.34	Renting of other machinery and equipment n.e.c.	7129
71.4	Renting of personal and household goods n.e.c.	713

71.40	Renting of personal and household goods n.e.c.	7130
72	Computer and related activities	
72.1	Hardware consultancy	721
72.10	Hardware consultancy	7210
72.2	Software consultancy and supply	722
72.21	Publishing of software	7221
72.22	Other software consultancy and supply	7229
72.3	Data processing	723
72.30	Data processing	7230
72.4	Database activities	724
72.40	Database activities	7240
72.5	Maintenance and repair of office, accounting and computing machinery	725
72.50	Maintenance and repair of office, accounting and computing machinery	7250
72.6	Other computer related activities	729
72.60	Other computer related activities	7290
73	Research and development	
73.1	Research and experimental development on natural sciences and engineering	731
73.10	Research and experimental development on natural sciences and engineering	7310
73.2	Research and experimental development on social sciences and humanities	732
73.20	Research and experimental development on social sciences and humanities	7320
74	Other business activities	
74.1	Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	741
74.11	Legal activities	7411
74.12	Accounting, book-keeping and auditing activities; tax consultancy	7412
74.13	Market research and public opinion polling	7413
74.14	Business and management consultancy activities	7414x
74.15	Management activities of holding companies	7414x
74.2	Architectural and engineering activities and related technical consultancy	742x
74.20	Architectural and engineering activities and related technical consultancy	7421
74.3	Technical testing and analysis	742x
74.30	Technical testing and analysis	7422
74.4	Advertising	743
74.40	Advertising	7430
74.5	Labour recruitment and provision of personnel	749x
74.50	Labour recruitment and provision of personnel	7491
74.6	Investigation and security activities	749x
74.60	Investigation and security activities	7492
74.7	Industrial cleaning	749x
74.70	Industrial cleaning	7493
74.8	Miscellaneous business activities n.e.c.	749x
74.81	Photographic activities	7494
74.82	Packaging activities	7495
74.85	Secretarial and translation activities	7499x
74.86	Call centre activities	7499x
74.87	Other business activities n.e.c.	7499x