# Benchmark**Index**

## A European Study

Business Link

Cranfield UNIVERSITY
School of Management

REACTE

If economic growth is to continue to be developed it is essential that our thriving 3.7 million small businesses are encouraged to compete on the world stage. The ability of a company to compare themselves to their competitors internationally is, therefore, essential.

Benchmarking is an invaluable first step for any organisation wishing to improve its performance.

The Small Business Service's Benchmark Index has reached a pre-eminent position around the world in the sphere of small business benchmarking and enables companies to build on their strengths and address their weaknesses to help boost productivity.

I am delighted to publish this report and am confident its findings will fundamentally help small firms across the world get to the future first.

**Nigel Griffiths** - Minister for Small Business

## Contents

Benchmark Index is arguably the world's most extensive benchmarking resource for small businesses. It's aim is simple - **to help improve the competitiveness and profitability of businesses.** It is run by the Small Business Service (an Executive Agency of the DTI) and, in the UK, is delivered by 700 trained advisors from Business Link operators, trade associations, and private business support organisations. Benchmark Index holds the financial data of over 156,000 companies and, with the completion of this project, has a database of benchmarked performance data for a further 5,000.

This project builds on the existing benchmarking methodology and good practice, drawing on the comprehensive investment and experiences of the SBS and Benchmark Index. Its aim was to develop and support a network of 9 centres within Europe, each delivering benchmarking services as part of an integrated business support service.

Project partners were selected based on: their expertise; their ability to demonstrate that they had the necessary business support infrastructure and network to deliver the service; and who were backed by an appropriate government department or ministry. The partners are:

1. **WIFI der Wirtschaftskammer Österreich** - Austria
2. **Fraunhofer Institute/IPK** – Germany
3. **EOMMEX** – Greece
4. **Enterprise Ireland** – Ireland
5. **ECIPAR** – Italy
6. **KDI** - Netherlands
7. **IAPMEI** - Portugal
8. **SPRI** - Spain
9. **Enterprise Agency of East Kent** – UK

These organisations have worked together to develop a comprehensive database of international company benchmarking information, which can now be used to provide enhanced benchmarking services locally.

The Internet is used as the interface between each participant and the main Index database and each centre has its own internet 'Gateway', built around a common framework, but looking, feeling and operating directly in line with the existing local support mechanisms.

The benchmark process, which is facilitated throughout by a trained advisor, is simple and practical and centres on the completion and analysis of an in-depth questionnaire aimed at gathering performance information about a company across all key business areas.

This data, which is treated with the strictest confidence, is then input into a secure database where it is used to provide the advisor and the company with performance comparisons against other companies, which can be selected using a wide range of criteria. By analysing these comparisons, it is possible for the advisor and the company to highlight the company's strengths and weaknesses. Once this is done, the company is well prepared to develop its strategy for the future growth.

The benchmark process, which is facilitated by a trained advisor throughout, is **simple** and **practical**

# Executive summary

Developing best practice through benchmarking is a critical activity in business. Companies worldwide have embraced the concept but with varied levels of success. Some have created significant market advantages, whilst others have fared less favourably. To survive and excel in today's turbulent world economy, businesses need to continually re-think and re-invent their structures, products, processes and markets. They must persistently strive to be quicker to market, more customer focused, more innovative, more nimble, more flexible, and develop the capability to handle rapid change.

Crucially these needs can be supported by continuously benchmarking one's performance with the world's best, adapting best practices when identified, and innovating to become world class. This type of comparing, studying, adapting, and learning from others is not only becoming more commonplace, but in many industries is virtually mandatory for future success.

Organisations can no longer compare against their competitors, just within their sector, or even within their country. Trade barriers are falling. Transactions that cross international borders are rising sharply and financial markets are opening up. Competition now is on a global basis, and just one superior performer (regardless of whether they are based in Japan, Germany, the US or the UK, etc.) can raise the competitive threshold world-wide.

Improving organisational performance is an issue that concerns every manager in every organisation. Within this context, the definition of performance has become wider in recent years and does not only refer to the financial aspect of the firm. Managers now have a balanced view of the organisation and must manage and improve all aspects from shareholders' requirements to customer satisfaction to employee motivation to corporate social responsibility.

This report builds on these themes and aims to provide some insights to help managers and public policy makers set an appropriate course for future development. Relying on data gathered using Benchmark Index, the report presents performance comparisons and potential lessons from the manufacturing and service sectors in eight European countries:

- Austria
- Germany
- Greece
- Ireland
- Italy
- Portugal
- Spain
- United Kingdom

The organisations that took part in the study, from all the different countries, used Benchmark Index as the main tool to submit data that allowed over 60 performance measures to be calculated under the general headings of finance, customers, suppliers, employee, growth and future investments.

Over 50% of the manufacturing and service sample spend nothing on R&D.

Over 25% of firms in the EU sample of manufacturing firms are destroying value by pumping money into organisations that are achieving less than the cost of capital.

The bottom 25% of manufacturing firms report double the complaints per customer than the top 25%

There is a huge gap between the Best and the Rest! Across the sample EU countries, the bottom 25% firms (both manufacturing and service) are generating less than half the sales turnover per employee, and less than 15% of the profit levels of the top 25% firms.

Across the EU countries in the manufacturing sample, upper quartile firms invest 5-10 times as much of their turnover in capital as lower quartile firms do.

**Employees are not happy!** The rate of employee recruitment in the sample firms is significant. The bottom 25% of manufacturing firms have to recruit over 20% of their employees annually to replace leavers (30% of these leavers are reported to have joined for less than six months).

# Austria

## Overview of the economy

Austria has a well-developed market economy and high standard of living. The economy is closely tied to other EU economies, especially Germany's. Since 1990, when the Austrian government offered facilities to companies which settle down in Austria, the external investments have been increasing.

Austria encouraged the foreign investors by highlighting an increasing productivity and by establishing an advantageous tax system for companies. Moreover, membership in the EU has drawn an influx of foreign investors attracted by Austria's access to the single European market and proximity to EU aspirant economies.

On the other hand, and for some years now, Austrian investments have turned to central Europe. Austria comes after Germany and Netherlands and is number 3 of the investors in Eastern Europe.

In Austria, industry is divided into big sectors: chemical industry; textile and clothing industry; metal industry and mechanics industry. Electric and electronic industry are also very dynamic. Tourism represents an important part of the Austrian GDP. Indeed, the income of the tourism sector did not stop growing throughout the 1980's.

## Country Scorecard - Austria

**Essential facts and Statistics**

| | |
|---|---|
| Land Area | 83,850 sq km |
| Population | 8.1 m (1999) |
| Population Growth (%) | 0.3 (average 1995-2000) |
| Official Language | German |
| European Union Ranking | by area 11th largest<br>by population 11th largest |
| Currency | EUR |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 220.7bn (2000, at market exchange rate) |
| GDP Growth (%) | 2.5 (avg 1996-2000); 3.2 (2000) |
| GDP Per capita | Eur 27,065 (2000-at market exchange rate) |
| Inflation (%) | 1.4 (avg 1996-2000); 2.4 (avg 2000) |
| GDP % of EU total | 2.55 |
| Labour force | 3.7 million (1999) |
| Unemployment rate | |

**Structure of economy**

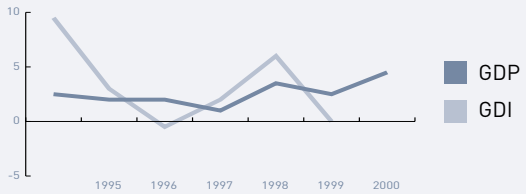
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 01.60 | 0.4 | 3.0 |
| Industry | 30.50 | 1.9 | 1.7 |
| Services | 67.90 | 1.9 | 2.2 |

**Foreign trade**

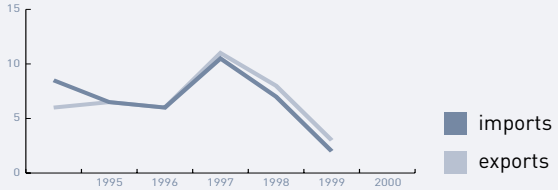
| | | |
|---|---|---|
| Export | Eur 73.44bn (2000 est) | |
| Main export partners (%) | EU | 64.2 (Ger/35, Ita/8.7, Fra/4.5) |
| | Switzerland | 5.9 |
| | USA | 5 |
| | Hungary | 3.9 |
| Import | Eur 76.26bn | |
| Main export partners (%) | EU | 70.3 (Ger/42.5, Ita/7.9, Fra/5.3) |
| | USA | 5.4 |
| | Switzerland | 3.0 |
| | Hungary | 2.8 |

- **Constitutional Federal Democracy**
- **The head of state is the president, and the government is led by the chancellor**
- **The national parliament has two houses**: the Bundesrat (upper house) consists of 64 delegates from the provincial parliaments; the Nationalrat (lower house) has 183 members elected by proportional representation
- **President elected for a 6-year term**
- **Chancellor elected for a 4-year term**

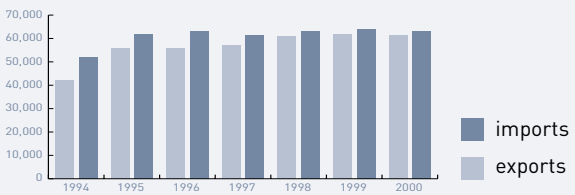
Growth of investment and GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



## Overview of the economy

Germany possesses the world's third most technologically powerful economy after the US and Japan.

The car industry is one of the most important sectors of the German Industry. With about 6700 companies, the mechanical engineering represents the sector with the highest number of companies in the German industry. Other industries rank Germany among the world's largest and most technologically advanced producers of iron, steel, coal, cement, chemicals, machinery, machine tools, electronics, food and beverages; shipbuilding; and textiles. Corporate restructuring and growing capital markets are transforming the German economy to meet the challenges of European economic integration and globalization in general.

However, in Germany, structural market rigidities - including the substantial non-wage costs of hiring new workers - have made unemployment a long-term, not just a cyclical, problem. The development of the technologies of the future should play a key role in the abolition of the unemployment and in the decrease of the pollution rate. For that purpose, the federal government focuses particularly its initiatives in the sectors of education, research and technology.

## Country Scorecard - Germany

**Essential facts and statistics**

| | |
|---|---|
| Land Area | 356,970 sq km |
| Population | 82.2m (mid-2000 estimate) |
| Population Growth (%) | 0.2 (avg 1996-2000) |
| Official Language | German |
| European Union Ranking | by area 4th largest<br>by population 1st largest |
| Currency | EUR |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 2.44trn (1999) |
| GDP Growth (%) | 1.5 (avg 1995 -1999); 3.0 (2000) |
| GDP Per capita | Eur 29,851 (1999) |
| Inflation (%) | 1.4 (avg 1996-2000); 2.0 (avg 2000) |
| GDP % of EU total | 26.04 |
| Labour force | 40.5m (1999 est.) |
| Unemployment rate (%) | 9.9 (2000 est.) |

**Structure of economy**

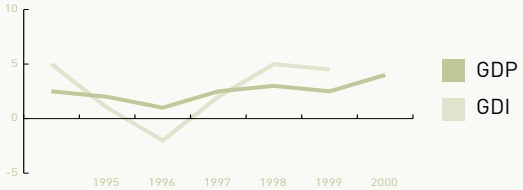
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 01.0 | 2.2 | 1.8 |
| Industry | 30.60 | 0.3 | 0.6 |
| Services | 68.40 | 1.9 | 1.8 |

**Foreign trade**

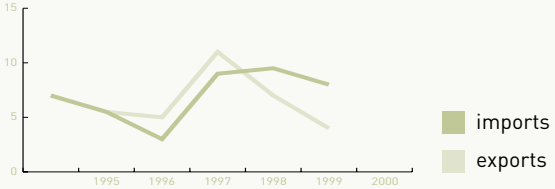
| | | |
|---|---|---|
| Export | Eur 671.7bn | (f.o.b., 2000 est.) |
| Main export partners (%) | EU | 55.3 (Fra/11.3, UK/8.3, Ita/7.3, Neth/6.3, Benelux/5.1) |
| | USA | 10.1 |
| | Japan | 2.0 (1999) |
| Import | Eur 586.87bn | (f.o.b., 2000 est.) |
| Main import partners (%) | EU | 52.2 (Fra/10.5, Neth/7.6, Ita/7.4, UK/6.9, Benelux/5.6) |
| | USA | 8.1 |
| | Japan | 4.9 (1999) |

- **Constitutional Federal Democracy with elections held every four years**
- **Legislative Bodies: The federal parliament comprises directly elected lower house (Bundestag) and an upper house (Bundesrat), which consists of delegations from the governments of the individual states**
- **The legislative bodies elect the Chancellor who is the head of Government**
- **16 federal states (Lander) have their own constitutions, governments, administrative agencies & independent courts**
- **Federal constitution is binding on states, and the federal parliament is responsible for major legislation and policy**

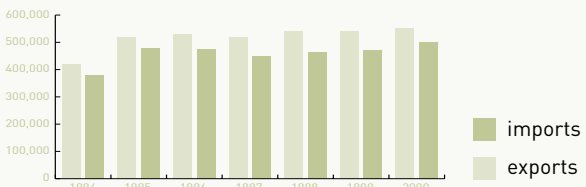
Growth of investment and GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



# Greece

## Overview of the economy

Greece has a mixed capitalist economy with the public sector accounting for about half of GDP. The economy has improved steadily over the last few years, as the government has tightened policy in the run-up to Greece's entry into the EU's Economic and Monetary Union (EMU) on 1 January 2001.

The merchant navy - which represents 50% of the European fleet (Greece has the 3rd largest merchant fleet in the world) - and tourism are the two key sectors of the economy of Greece. Tourism provides a large portion of GDP and foreign exchange earnings. Greece is a major beneficiary of EU aid, equal to about 4% of GDP.

## Country Scorecard - Greece

**Essential facts and statistics**

| | |
|---|---|
| Land Area | 131,957 sq km |
| Population | 10.5m (2000) |
| Population Growth (%) | 0.2 per year (avg 1996-2000) |
| Official Language | Greek |
| European Union Ranking | by area 8th largest<br>by population 7th largest |
| Currency | EUR |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 127.8bn (2000 at market exchange rate) |
| GDP Growth (%) | 3.4 (avg 1996-2000); 4.1 (2000) |
| GDP Per capita | Eur 12,109 (2000-at market exchange rate) |
| Inflation (%) | 4.9 (avg 1996-2000); 3.1 (avg 2000) |
| GDP % of EU total | 1.48 |
| Labour force | 4.32m (1999) |
| Unemployment rate (%) | 11.3 (2000 est) |

**Structure of economy**

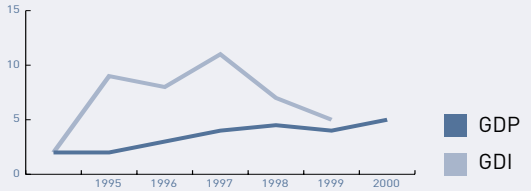
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 12.00 | 0.4 | n/a |
| Industry | 20.00 | 1.1 | n/a |
| Services | 67.90 | 2.5 | n/a |

**Foreign trade**

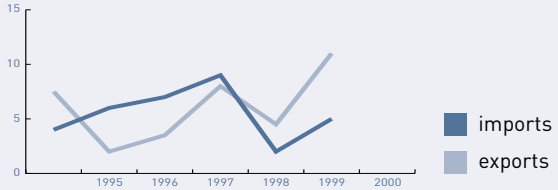
| | | |
|---|---|---|
| Export | 18.36bn | (f.o.b., 2000) |
| Main export partners (%) | EU | 49.0 (Ger/15, Ita/13, UK/6) |
| | USA | 6.0 (1999) |
| Import | Eur 39.39bn | (c.i.f., 2000) |
| Main import partners (%) | EU | 66.0 (Ita/15, Ger/15, Fra/9, UK/6) (1999) |

- **Constitutional Democracy**
- **Greece is a parliamentary republic in which the Prime Minister and the government hold executive powers**
- **Legislative Body: Parliament**
- **The president is elected by the 300-member parliament and serves a five year term**

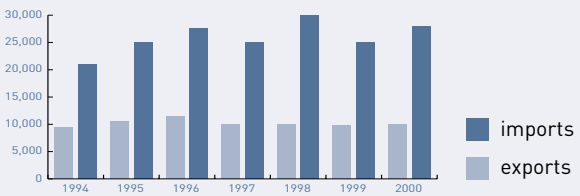
Growth of investment and GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



## Overview of the economy

Ireland is a small, modern, trade-dependent economy with growth averaging a robust 9% in 1995-2000. Over the past decade, the Irish government has implemented a series of national economic programmes designed to curb inflation, reduce government spending, increase labour force skills, and promote foreign investment.

In recent years, the Irish economy has produced extraordinary results. The Irish GDP increased by 44% between 1994 and 1998. At the same time, its national debt fell by half, from 120% of the GNP to 58% in 1998. The Irish economy has the fastest growth in the OECD. In addition, since it joined the European Union in 1973, Ireland has enjoyed great economic stability and has opened up to the international market.

Although exports remain the primary engine for Ireland's robust growth, the economy is also benefiting from a rise in consumer spending and recovery in both construction and business investment.

Agriculture, once the most important sector, is now dwarfed by industry, which accounts for 38% of GDP and about 80% of exports and employs 28% of the labour force.

## Country Scorecard - Ireland

**Essential facts and statistics**

| | |
|---|---|
| Land Area | 68,890 sq km |
| Population | 3.84m ( April 2001 estimate) |
| Population Growth (%) | 1.12 (2001 est.) |
| Official Language | Irish and English |
| European Union Ranking | by area 10th largest<br>by population 14th largest |
| Currency | EUR |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 95.18bn (2000 est.) |
| GDP Growth (%) | 9.9 (2000 est.) |
| GDP Per capita | Eur 25,101.7 (2000 est.) |
| Inflation (%) | 5.6 (2000) |
| GDP % of EU total | 0.93 |
| Labour force | 1.82m (2000est.) |
| Unemployment rate | 4.1% (2000) |

**Structure of economy**

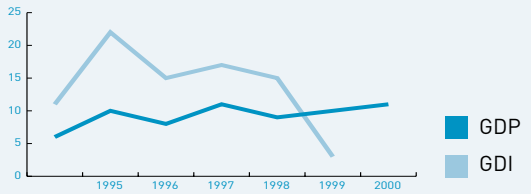
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 5.10 | n/a | n/a |
| Industry | 40.20 | n/a | n/a |
| Services | 54.70 | n/a | n/a |

**Foreign trade**

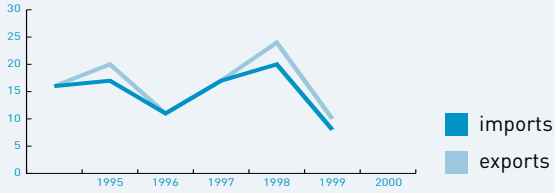
| | | |
|---|---|---|
| Export | Eur 85.4bn | (f.o.b., 2000) |
| Main export partners (%) | EU | 59.0 (UK/19, Ger/9, Fra/7) |
| | USA | 20.0 |
| Import | Eur 53.11bn | (f.o.b., 2000 est.) |
| Main import partners (%) | EU | 54.0 (UK/29, Ger/6, Fra/5) |
| | USA | 18.0 |
| | Japan | 5.0 |
| | Singapore | 4.0 (2000) |

- **Constitutional Democracy**
- **Legislative body: Parliament divided into the Senate and the Chamber of Deputies**
- **Head of State: the President - elected by Parliament**
- **Prime Minister named by President**
- **Presidential elections every 7 years**
  **Legislative bodies' elections every 5 years**
- **Executive power lies with the cabinet, which is nominated by the prime minister and must be approved by parliament**

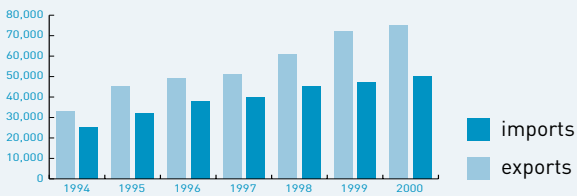
Growth of investment and GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



# Italy

## Overview of the economy

Italy is a member of the G7 (the group of the 7 most industrialised countries) and in the last 10-15 years, Italy has progressed from being an economy based on agriculture to an economy which is principally based on industry.

Italy has a diversified industrial economy with roughly the same total and per capita output as France and the UK. The Italian capitalistic economy remains divided into a developed industrial north, dominated by private companies, and a less developed agricultural south, with more than 20% unemployment (in spite of the exploitation of mining deposits in Sicily, Southern Italy remains essentially an agricultural). The North is very industrialised, especially in the automobile field (Fiat, Lancia, Alfa Romeo), the textile industry and petrochemistry. Most raw materials needed by industry and more than 75% of energy requirements are imported.

## Country Scorecard - Italy

**Essential facts and statistics**

| | |
|---|---|
| Land Area | 301,300 sq km |
| Population | 57.7m (1999) |
| Population Growth (%) | 0.2 (avg 1995-2000) |
| Official Language | Italian |
| European Union Ranking | by area 6th largest<br>by population 2nd largest |
| Currency | EUR |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 1.36trn (1999, at market exchange rate) |
| GDP Growth (%) | 1.8 (avg 1995 -1999); 1.4 (1999) |
| GDP Per capita | Eur 23,578 (1999, at market exchange rate) |
| Inflation (%) | 2.9 (avg 1995-1999); 1.6 (avg 1999) |
| GDP % of EU total | 14.20 |
| Labour force | 23.4m (2000) |
| Unemployment rate (%) | 10.4 (2000 est.) |

**Structure of economy**

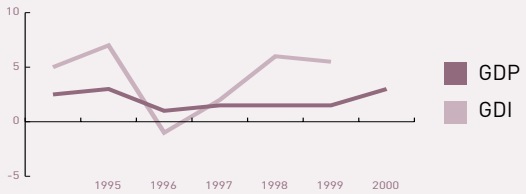
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 2.9 | 1.7 | 5.5 |
| Industry | 31.60 | 1.1 | 1.6 |
| Services | 65.50 | 1.5 | 1.2 |

**Foreign trade**

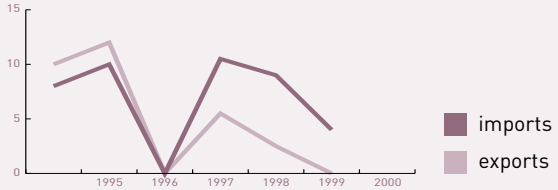
| | | |
|---|---|---|
| Export | Eur 280.1bn | (f.o.b., 2000) |
| Main export partners (%) | EU | 56.8 (Ger/16.4, Fra/12.9, Neth/2.9) |
| | USA | 9.5 (1999) |
| Import | Eur 268.9bn | (f.o.b., 2000) |
| Main import partners (%) | EU | 61.0 (Ger/19.3, Fra/12.6, Neth/6.3, Spa/4.4) |
| | USA | 5.0 (1999) |

- **Constitutional Democracy**
- **Legislative body: Parliament divided into the Senate and the Chamber of Deputies**
- **Head of State: the President who is elected by Parliament**
- **Prime Minister named by President**
- **Presidential elections every 7 years**
  **Legislative bodies' elections every 5 years**
- **Executive power lies with the cabinet, which is nominated by the prime minister and approved by parliament**

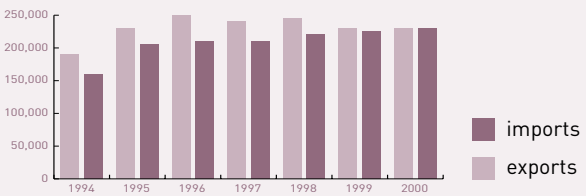
Growth of investment and GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



## Overview of the economy

Since its membership in the European Community in January 1986, Portugal has been recording excellent results, as evidenced by the main macro-economic indicators. Exceeding even the most optimistic forecasts. Portugal is an upcoming capitalist economy with a per capita GDP two-thirds that of the four big West European economies.

Portugal has succeeded in conducting the modernisation of its economic structure in a climate of progress and stability, all the while reinforcing its position at the European as well as the international levels. Moreover, strong economic growth is currently underway. Average annual growth for the period 1996-2001 is estimated at 3.4% against 2.6% for all of the 15 countries of the European Union. This growth has been encouraged by significant foreign investment - a veritable driving force for the country's economic development.

## Country Scorecard - Portugal

**Essential facts and statistics**

| | |
|---|---|
| Land Area | 92,080 sq km |
| Population | 9.98m (1999) |
| Population Growth (%) | 0.2 (avg 1995-1999) |
| Official Language | Portuguese |
| European Union Ranking | by area 9th largest<br>by population 9th largest |
| Currency | EUR |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 131.7bn (1999, at market exchange rate) |
| GDP Growth (%) | 3.3 (avg 1995-1999); 3 (1999) |
| GDP Per capita | Eur 131,85 (1999-at market exchange rate) |
| Inflation (%) | 2.6 (avg 1996-2000); 2.9 (avg 2000) |
| GDP % of EU total | 1.24 |
| Labour force | 5m (1999) |
| Unemployment rate (%) | 4.3 (2000 est.) |

**Structure of economy**

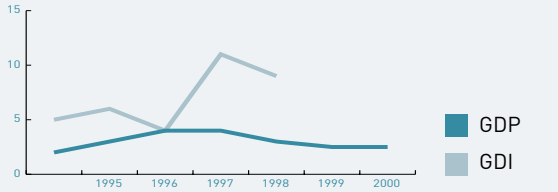
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 03.70 | 0.4 | n/a |
| Industry | 33.40 | 2.7 | n/a |
| Services | 62.90 | 2.3 | n/a |

**Foreign trade**

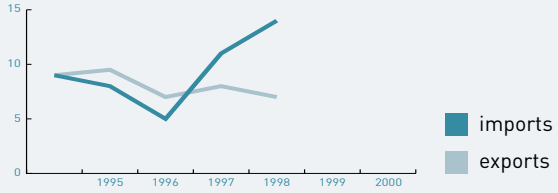
| | | |
|---|---|---|
| Export | Eur 30.33bn | (f.o.b., 2000 est.) |
| Main export partners (%) | EU | 83 (Ger/20, Spa/18, Fra/14, UK/12, Neth/5, Benelux/5) |
| | USA | 5 (1999) |
| Import | Eur 47.64bn | (f.o.b., 2000 est.) |
| Main import partners (%) | EU | 78 (Spa/25, Ger/15, Fra/11, Ita/8, UK/7, Neth/5) |
| | USA | 3 |
| | Japan | 3 (1998) |

- Presidential Parliamentary Democracy
- Prime Minister named by the President
- Legislative bodies: The National Assembly and Council of Ministers
- President elected every 5 years
- The parliament is a single, 230-seat chamber, elected by a system of proportional representation for a term of four years

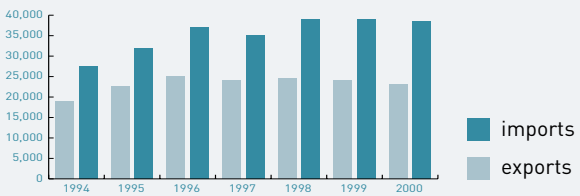
Growth of investment and GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



# Spain

## Overview of the economy

Spain's mixed capitalist economy supports a GDP that on a per capita basis is 80% that of the four leading West European economies. Spain benefits from a very dynamic economy oriented towards South America. All the indicators of its internal market are improving.

The economy of the Spain has for several years been registering healthy results. This economic vitality is illustrated by the numerous investments of this country's companies in Latin America in the sectors of telecommunications, energy and banks. These investments in 1999 were, for the first time, superior to the investments of the United States in this region of the world.

Another strong point of Spanish economy is its 3.7% rate of growth in 1999. This rate is explained by a strong internal demand and, at the same time, by an improved household power of purchase and the strong financial situation of companies.

## Country Scorecard - Spain

**Essential facts and statistics**

| | |
|---|---|
| Land Area | 504,782 sq km |
| Population | 39.4m (1999) |
| Population Growth (%) | 0.1 (avg, 1995-1999) |
| Official Language | Spanish, Basque, Catalan, Galician & Valencian |
| European Union Ranking | by area 2nd largest<br>by population 5th largest |
| Currency | EUR |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 693.4bn (1999, at market exchange rates) |
| GDP Growth (%) | 3.3 (avg 1995 -1999); 3.7 (2000) |
| GDP Per capita | Eur 17,605 (1999, at market exchange rates) |
| Inflation (%) | 2.9 (avg 1995-1999); 2.3 (avg 1999) |
| GDP % of EU total | 6.62 |
| Labour force | 17m (2000) |
| Unemployment rate (%) | 14 (2000 est.) |

**Structure of economy**

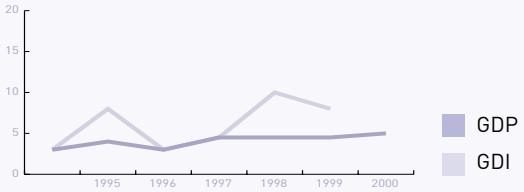
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 3.5 | n/a | -2.1 |
| Industry | 31.7 | n/a | 3.4 |
| Services | 64.8 | n/a | 4.3 |

**Foreign trade**

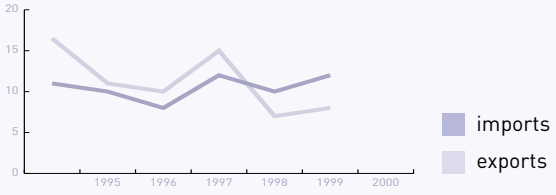
| | | |
|---|---|---|
| Export | Eur 140.03bn | (f.o.b., 2000 est.) |
| Main export partners (%) | EU | 71 (Fra/20, Ger/12, Ita/9, Pgl/9, UK/8) |
| | Latin America | 6.0 |
| | USA | 5 (2000) |
| Import | Eur 178.85bn | (f.o.b., 2000 est.) |
| Main import partners (%) | EU | 68.0 (Fra/18, Ger/16, Ita/9, UK/7, Benelux/8) |
| | USA | 8.0 |
| | OPEC | 5.0 |
| | Latin America | 4.0 |
| | Japan | 3.0 (1999) |

- **Hereditary Constitutional Monarchy**
- **Legislative Body: Parliament**
- **Parliament divided into Chamber of Deputies and the Senate**
- **The parliament, or Cortes, is bicameral; real power resides in the 350-seat lower house (Congress of Deputies); the upper house (Senate) has 208 directly elected members and 51 regional representatives**
- **Parliament is elected for a maximum four-year term, but early discussion is possible**

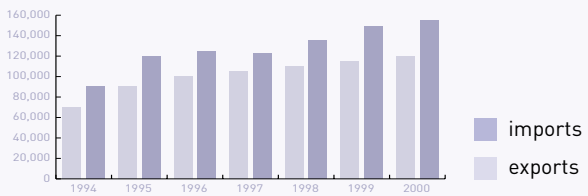
Growth of investment and GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



## Overview of the economy

The UK, a leading trading power and financial centre, deploys an essentially capitalistic economy, one of the quartet of trillion dollar economies of Western Europe. Its economy is firmly based on the private sector which is responsible for 80% of the country's production and employment. The services sector has been recording the most rapid growth and represents approximately two-thirds of the GNP. Over the past two decades the government has greatly reduced public ownership and contained the growth of social welfare programs.

Services, particularly banking, insurance and business services, account for the largest proportion of GDP while industry continues to decline in importance (now approximately 30% of the GNP). The last 20 years have been marked by the growth of the petroleum and offshore gas (N. Sea) industries, while the textile industry still occupies a preponderant place. High-tech industries, such as chemicals, pharmaceuticals, aerospace & electronics, naval & aeronautic constructions, railway & electrical materials, are also well-developed. Agriculture is intensive and highly mechanised producing 60% of food needs through only 1% of the labour force. The UK has large coal, natural gas, and oil reserves; primary energy production accounts for 10% of GDP, one of the highest shares of any industrial nation.

In spite of a slow-down in growth, employment is experiencing new highs never before recorded.

## Country Scorecard - United Kingdom

**Essential facts and statistics**

| | |
|---|---|
| Land Area | 244,100 sq km |
| Population | 59.7m (mid-year, 2000) |
| Population Growth (%) | 0.23 (2001 est.) |
| Official Language | English (England, Scotland, & Northern Ireland), English & Welsh (Wales) |
| European Union Ranking | by area 7th largest<br>by population 3rd largest |
| Currency | Pounds Sterling |

**Economic Indicators - Gross Domestic Product**

| | |
|---|---|
| Eur | 1.58trn (2000 est.) |
| GDP Growth (%) | 3 (2000 est.) |
| GDP Per capita | Eur 26,500 (2000 est.) |
| Inflation (%) | 2.4 (2000 est.) |
| GDP % of EU total | 15.92 |
| Labour force | 29.2m (1999) |
| Unemployment rate (%) | 5.5 (2000 est.) |

**Structure of economy**

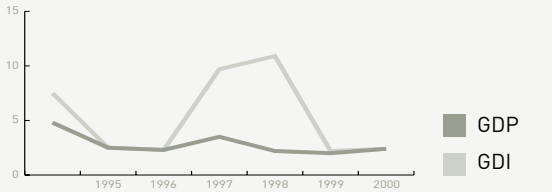
| | % of GDP 1999 | Average Annual growth 1990–00 | 1999 |
|---|---|---|---|
| Agriculture | 01.60 | -0.2 | 1.3 |
| Industry | 27.50 | 1.3 | 0.4 |
| Services | 70.80 | 3.0 | 2.8 |

**Foreign trade**

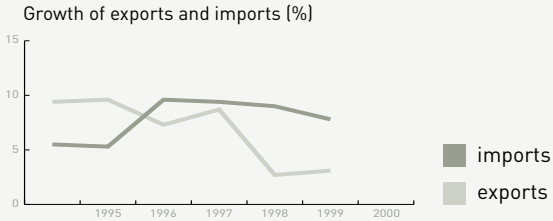
| | | |
|---|---|---|
| Export | Eur 328bn | (f.o.b., 2000) |
| Main export partners (%) | EU | 58.0 (Ger/12, Fra/10, Neth/8) |
| | USA | 15.0 (1999) |
| Import | Eur 377bn | (f.o.b., 2000) |
| Main import partners (%) | EU | 53.0 (Ger/14, Fra/9, Neth/7) |
| | USA | 13.0 |
| | Japan | 5.0 (1999) |

- **Hereditary monarchy and mainly centrally run democracy headed by a Prime Minister. Elections held every 5 years**
- **In May 1999, Scotland obtained their own Parliament and Wales their own Assembly and thus for both, a greater degree of self rule**
- **In Scotland, the Scottish Parliament will be able to make laws in respect of health services, education, local government, housing, criminal and civil justice, and economic development. It also has limited power to change the tax regime imposed by Westminster. The Welsh Assembly has less power than in Scotland, e.g. they cannot pass their own laws or raise taxes**

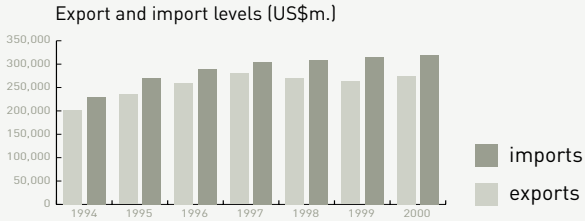
Growth of investment & GDP (%)




Growth of exports and imports (%)




Export and import levels (US$m.)



The country comparisons have been broken down into two categories – manufacturing and service. Table 1, below, provides a breakdown of how many companies are included in the analysis for each of these two broad sectors. Clearly there are differences within sectors when it comes to the benchmarking data, so ideally the analysis would be carried out at the sectoral rather than category level. To date, however, insufficient data is available to make this practical so we decided to carried out a category based analysis, making explicit the caveats that should be applied to this data when appropriate.

## Manufacturing Sector

For the manufacturing category there was sufficient data to allow the analysis to be carried out for eight countries (see table 1. below). These data are analysed from a financial and non-financial perspective in the sections that follow.

**Financial performance**
Within The Benchmark Index there are two sub-categories of measure to track the financial performance of firms. These are – (i) sales and profit performance, (ii) value creation and asset management.

**Colour coding**
In the graphs throughout the Manufacturing and Service categories each country

**Table 1: Sample Breakdown**

| Country | Sample size | |
|---|---|---|
| | Manufacturing | Service |
| Austria | 147 | 46 |
| Germany | 110 | 54 |
| Spain | 185 | 81 |
| Greece | 77 | 17 |
| Ireland | 161 | 12 |
| Italy | 159 | 37 |
| Portugal | 186 | 3 |
| UK | 76 | 39 |
| **Total** | **1101** | **289** |

## There is a huge gap between the Best and the Rest!

Across the sample EU countries, the bottom 25% manufacturing firms are generating less than half the sales turnover per employee, and less than 15% of the profit levels of the top 25% firms.

Within the manufacturing sector sample, UK firms achieve the highest pre-tax profit per employee, albeit having one of the lowest sales turnover per employee.

Variations between countries in terms of the manufacturing firms' performance is also noticeable. This suggests that there are differences, and thus learning opportunities between countries, in various areas such as demand and sales generation, and in terms of efficiency and effectiveness of operations.

Within all sample EU countries, the top 25% of manufacturing firms achieve at least double the sales turnover per employee. Within the top 25% of EU firms in terms of sales turnover per employee, there seem to be two groups. The first is led by Germany and also contains Spain, Ireland and Italy. Firms in these countries appear to be achieving around 1.5 times the sales turnover per employee than that of the other group, which includes the UK, Greece, and Portugal. Indeed, all three countries in the second group are achieving sales turnover per employee that is lower than the EU median.

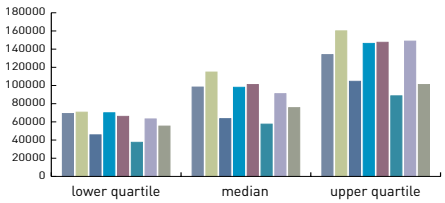
the bottom 25% of manufacturing firms are generating **less than 15%** of the pre-tax profit per employee that the top 25% are achieving

In terms of pre-tax profit per employee, there appear to be huge variations between the top 25% and bottom 25% firms in all EU countries, and indeed between the countries themselves. Across the EU sample, the bottom 25% manufacturing firms seem to be generating less than 15% of the pre-tax profit per employee that the top 25% are achieving. In terms of countries, Germany, Austria and Portugal are achieving pre-tax profits per employee that are lower than the EU median while the UK, Italy and Ireland are beating the median by a healthy margin. As Italy and Ireland are both achieving high sales turnover per employee ratings, these results are consistent with their high sales tunover. It is interesting however that the UK is the EU leader in terms of pre-tax profits per employee (although it has one of the lowest sales turnover per employee ratings, second only to Portugal). At the same time, the EU leader in generating sales turnover per employee (Germany) has the second worst pre-tax profit per employee record (across the top 25%, bottom 25%, and the median readings).

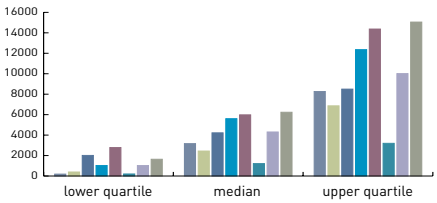
Across the sample EU countries, 1.4% of the sales turnover of lower quartile firms forms their pre-tax profit. This compares with 10.6% for upper quartile firms. The difference between lower and upper quartile pre-tax profit as a % of sales turnover is greatest in the UK manufacturing sector (although UK lower quartile firms are still leading the sample countries in this category). In the UK, lower quartile firms generate just 3.5% pre-tax profit as a % of sales turnover, whereas upper quartile firms generate 18.8%. The variation between upper and lower quartile firms is smallest in Portugal where upper quartile firms generate 5% pre-tax profit as a % of sales turnover, while lower quartile firms generate 0.6%.

The variations revealed here between countries are huge and may be consequences of many factors. Having a higher pre-tax profit as a percentage of turnover can be due to excellent utilisation of resources and superior processes leading to cost advantages. However, it could equally be due to the other side of the equation; selling price (assuming same number of customers). Indeed, the UK, which is leading the pack in pre-tax profit per turnover, has been recently shown to have the highest consumer prices for wide range of items.

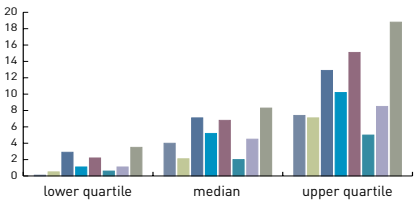
Sales turnover per employee (E)




Pre-tax profit per employee (E)




Pre-tax profit/turnover (%)



# Value creation & asset management

Sales and profit performance are only part of the picture and their major weakness as measures is that they do not establish whether or not a firm is creating value. Asset management is the key to achieving high returns on capital employed and net assets.

Depending on the firms' strategy, there can be short and long terms visions and tactics. There may be a need to accept low returns for short periods of time, for example, during major periods of investment. In the longer term, however, it is essential that the return on capital employed and the return on net assets is driven up.

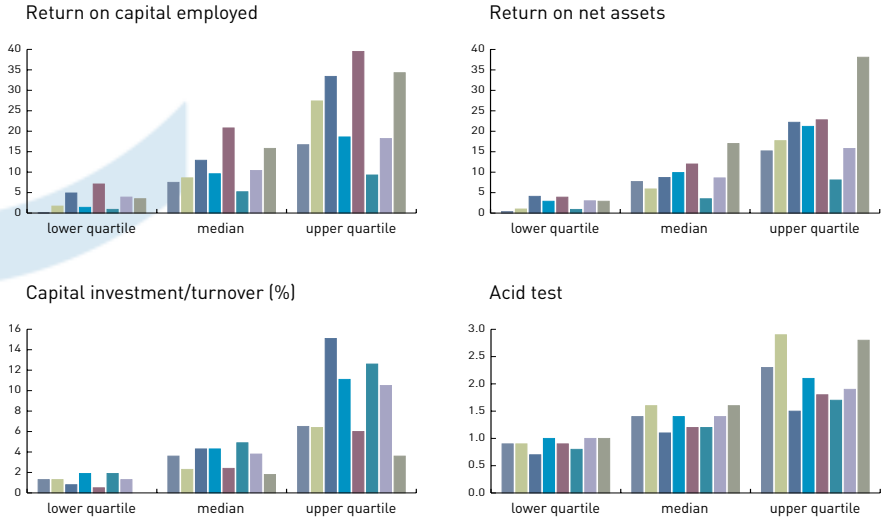
All organisations, whatever life stage they are, require investment. Investment, depending on the firms' size, risk factors, and management views can come from banks, venture capitalists or private finance - a key role of management is to minimise the amount of capital that has to be invested and, more importantly, to maximise the return on that investment.

Two significant levers for driving up returns can be identified through Benchmark Index data – cash management and overhead management.

It is commonly accepted that today the cost of capital is in the region of 8-10%. Therefore, if an organisation is generating less than 8-10% return on capital employed, then the capital that has been invested will effectively be worth less at the end of the investment period than it was at the start. Why is this? Because investors can achieve a guaranteed return of approximately 3-4% by placing their money in no risk bonds. They also need to take account of the fact that inflation, which is roughly 2-3%, will result in their money becoming worthless over time. And they need to consider the tax they have to pay on any returns they receive (equivalent to another 3%). Hence if the return on capital employed is less than 8-10% the firm is effectively destroying value. Over 25% of firms in the EU sample firms fall into this category. In fact, the average (median) return on capital employed is more than 10% (i.e. firms that are not destroying value) only in UK, Greece, and Italy according to the data. Data from Portugal shows that not even the top 25% firms there are achieving a return on capital over 10%.

The acid test compares the value of liquid assets to the value of current liabilities. If the ratio is less than 1 it means that the organisation does not have enough liquid assets to cover its current liabilities. Over 25% of firms in the EU sample are in this position. If their creditors called in their debts tomorrow 25% of the sample across Europe would go bust. Clearly, there is a major gap between upper and lower quartile firms across Europe with the top 25% firms reporting double or more the ability of the bottom 25% firms. The healthiest upper quartile firms in this regard seem to be in the UK and Germany while the weakest positions are in Greece and Portugal.

A significant reason why so many firms have a problem with the acid test is that they have very little, if any, cash in the bank. Lower quartile firms have, on average, less than 1% of their sales turnover as cash in the bank. Even the median firms only have around 2.5% of their sales turnover as cash in the bank. Interestingly upper quartile firms are cash rich and have, on average, 8.1% of their sales turnover as cash in the bank. Within the upper quartile, there are also significant variations between countries where the UK,



Greece, Ireland, and Spain reported double the percentage of turnover kept as cash in banks than the other countries (around 10%), with German upper quartile firms reporting just under 5%. There might be a lesson there as rather than simply leaving cash in the bank, some of these firms should be looking to expand their investments.

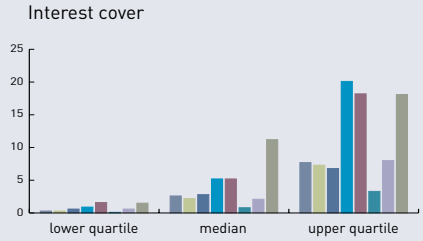
Interest cover measures the proportion of profits that are required to cover interest payments. On this dimension of performance the difference between upper and lower quartile firms varies between 7 and over 15 depending on country. That is, some firms are spending 7 - 15 times as much of their profits as others to simply cover interest payments. The countries particularly badly hit by this are the UK, Ireland, and Italy. These three countries' top 25% firms reported double the interest cover of all others. It is interesting to note here that both the UK and Ireland have previously scored the highest cash in bank as percentage of turnover.

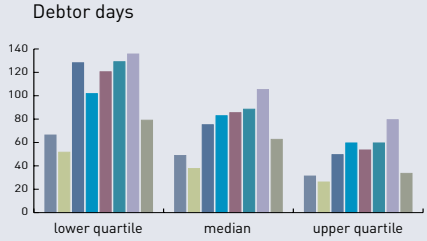
Interest payments are not the only reason why firms have such small amounts of cash. The average number of debtor days across the entire sample is around 73 days. Even upper quartile firms suffer with an average number of debtor days of just under 50. This compares very favourably with lower quartile firms, however, who have to wait on average of 101 days before their debts are settled. Firms in the German manufacturing sector are the ones to learn from, who reported, by far, the least number of debtor days and the upper quartile firms there managed to drive down debtor days to 26 days, closely followed by Austria then the UK. The problem of high debtor days seems to be worst in Spain where for the bottom 25% firms, it takes an average of 136 days.

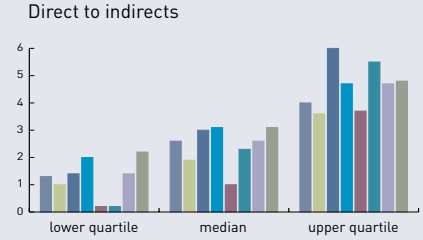
In terms of overhead management, the bottom 25% firms require around 2.5 times as many indirect employees as do upper quartile firms with the same number of direct employees. There can, of course, be several reasons for this, but one explanation is that lower quartile firms have poor control over their business processes – hence they require far greater management intervention. In this area, leading organisations have always excelled by having the vision and ability to measure and optimise the performance of 'support' processes like finance, IT, and HR. The chance for the lower quartile firms to learn from the upper quartile firms is clearly available across the sample EU countries.

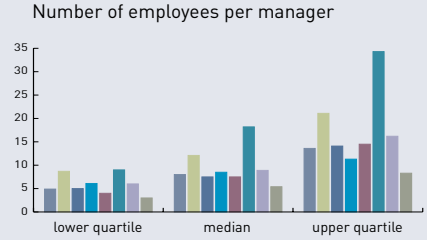
Overall, and as an average of the sample countries, mangers are responsible for just under ten employees (apart from Portugal who reported almost double that number). Managers in upper quartile firms are responsible for approximately two and a half times as many employees as are managers in lower quartile firms. This lends support to the argument that the lower quartile firms require more management intervention because they have not taken control of their basic business processes. Leading organisations have all aimed to improve employee capability, and thus responsibility, and through empowerment reduce the need for control (trimming the layers of management and reducing management intervention). Coupling this with the wide discrepancies in debtor days that were observed earlier, it is clear that there is a requirement for many firms to undertake some fundamental process management initiatives.

the bottom 25% of firms require around **2.5** times as many indirect employees as do upper quartile firms with the same number of direct employees



# Customer perspective

## In today's highly competitive global market place it is essential that firms deliver excellent customer service.

Three issues are worth bearing in mind when reviewing this data. First, research evidence suggests that only one in ten people who feel like complaining actually do complain. Second, zero complaints per customer may not be a good thing. It is highly unlikely that all of the firm's customers are satisfied all of the time. Zero complaints per customer might simply indicate that the firm does not make it easy for frustrated customers to complain and has no mechanism in place for capturing, and presumably resolving, complaints once they are received. Finally, it is important to note that we live in a highly competitive age where customer is king. Customers now have vast choice of products and services, and the internet is giving more power to these customers by providing knowledge and the ability to compare products and services globally. In this context of customer power, it is crucial for firms to realise that no customer dissatisfaction (absence of complaints) does not equate to customer satisfaction. Moreover, those attributes that satisfy or even delight your customer today will soon become 'standard' and the continuous strive for improvement and innovation must go on.

those attributes that satisfy or even delight your customer today will soon become 'standard' and the continuous strive for improvement and innovation must go on

Of course, customer service is a multi-dimensional concept and it is in recognition of this that Benchmark Index captures data on – complaints per customer, complaints per order, order value of complaints as a percentage of turnover, orders not delivered on time as a % of total orders and orders rejected during warranty as a % of total orders.

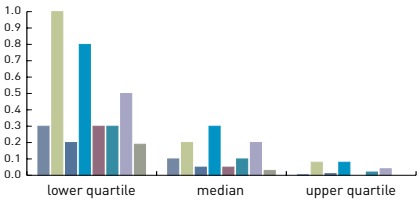
Once again there are considerable variations between the upper and lower quartile performers. On the whole, the bottom 25% of firms in the sample EU countries are reporting at least double the complaints per customer reported by the top 25% (who are reporting no more than 1 complaint per 1000 customers). However, within the bottom 25% firms of the sample, there are huge differences between countries where Germany and Ireland were reporting double the complaints per customer of all the other countries. It is not clear if this is due to better measurement systems that capture such data, cultural differences that encourage people to complain more often, or simply due to more defectives in the outputs of those firms.

The complaints per order data however draws a more revealing picture. While it is still showing a similar trend of the top 25% of firms having less than one fourth of the complaints per order of the bottom 25% firms, the data within the bottom 25% firms shows a more balanced picture where all countries have somewhat equal percentages (with the UK being the lowest reporting just over 3 complaints per 1000 orders). This data suggests that while they cannot track complaints per customer, firms seem to be able to track complaints by orders, a reflection of most traditional accounting systems where unit cost is measure basis.

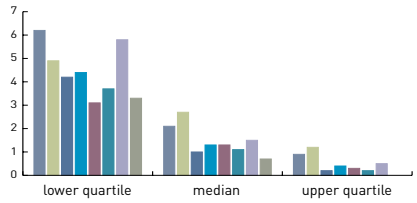
The comments made earlier do apply to both these measures, namely that a low number of complaints per order may not be symptomatic of good performance. Instead it may highlight the fact that the organisation does not make it easy for customers to complain.

The order value of complaints as a percentage of turnover is a particularly important measure as it illustrates what proportion of the firm's total order value is the subject of customer complaints. The bottom 25% performers receive complaints totalling about 2 % of their orders by turnover.

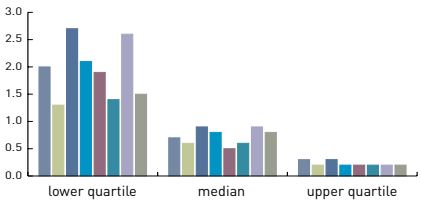
Complaints per customer (%)



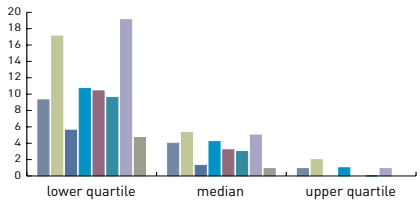

Complaints per order (%)



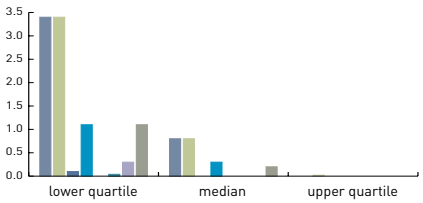

Order value of complaints/turnover (%)




Order not delivered on time (%)




Order rejected during warranty (%)



This 2% of turnover comes straight off the bottom line and is accompanied by a substantial set of hidden costs – i.e. the cost of collecting the faulty goods/services, replacing them, scrapping them (if necessary) and re-building the relationship with the customer. Within the bottom 25% firms in the EU sample, the UK, Germany and Portugal seem to have the least order value per complaints/turnover. While expected in the case of the UK (who reported the least complaints per customer and per order), it is interesting to see Germany in this category as firms there reported the highest complaints per customer. Upper quartile firms claim that the order value of complaints they receive is less than 0.2% on average. Again, this highlights the gap and learning opportunities.

A key dimension of customer service for many organisations is delivery on time. The definition of 'on time' can vary from sector to sector, but the benchmark definition is 'on time in full' (OTIF) – i.e. everything the customer ordered should be delivered in full at the time requested by the customer.

The data reveals huge difference between upper and lower quartile firms. While the top 25% firms are reporting almost perfect records of on time delivery (averaging 99.4%), the bottom 25% firms are averaging no more than 88.5%. Moreover, while the top 25% firms are demonstrating similar traits in all countries, the bottom 25% do demonstrate variations between countries with Germany and Spain reporting the worst performance records (83 and 81% respectively), the UK and Greece are reporting better results (96% and 95% respectively). Once again, this data suggests that there is much the lower quartile performers can learn from their upper quartile peers.

The final measure is the % of orders rejected during warranty. While the top 25% firms in all the countries have again reported almost perfect results (almost 0% in all countries), the lower quartile performers have another significant problem, one which varies enormously between countries. While the bottom 25% in Portugal, Italy and Spain all reported almost 0% (potentially raising questions about the warranty procedures in these countries and customer awareness of them), the UK and Ireland reported about 1%, and Germany and Austria lead the sample by just over 3%. This data could have several implications. Firstly, for those who did report a percentage, and as with complaints, this comes with significant hidden costs and is something that needs further investigation. More importantly, the data stresses the extent of the gap within the German manufacturing sector where the top 25% and bottom 25% seem to have a large gap. Finally, in those countries where both the top 25% and bottom 25% firms reported almost 0% of orders rejected during warranty. If that truly was the case, then it would prove a valuable learning opportunity to see how they achieve such excellent performance. More realistically, this raises questions about the enforcement of such rules and regulations (customer warranty rights), the customer's awareness of such rights, or even the firms' own procedures that might make it difficult for their customers to reject a product during warranty.


Case Study

## Peterson of Dublin

Peterson of Dublin in Ireland has manufactured smoking pipes since 1865 and earned an enviable reputation for the quality of its traditionally manufactured products. It is one of the top three companies in the world in its sector, and customer demand from around the globe has increased consistently over the past three years. But Benchmark Index analysis revealed some fundamental problems: Without major changes the seemingly healthy company was heading toward crisis.

Benchmark Index results proved to be the catalyst the company needed to make fundamental changes

The production constraints inherent in the traditional working methods have resulted in static sales and long lead times, thereby damaging customer satisfaction. While the company is financially strong, Benchmark Index analysis showed there is a real potential for disaster if it does not solve its customer service problems.

Comparison with other manufacturers in Ireland and the UK showed Peterson enjoyed excellent profitability. But Benchmark Index revealed it also had a below average return on capital employed, poor cash flow management and the worst debtor days in the sector at a massive 387. Stock turn is also very low at 2.7 per annum, because of a huge volume of work in progress.

The most alarming discovery from Benchmark Index analysis was the dismal level of customer satisfaction, with half of all orders generating complaints. While everything that gets to the smoker is good quality, the sellers and distributors were not satisfied because of incomplete or late deliveries.

Benchmark Index results proved to be the catalyst the company needed to make fundamental changes. Managers identified the top ten issues for immediate action and set targets for all the key performance indicators. The change programme is now well underway, with numerous improvements already apparent. Managers are totally committed to the process and plan to undertake benchmarking again to measure their progress toward more competitive standards.

# People - the employees perspective

At the heart of all organisations are people.
It is becoming increasingly clear that the engine for organisational development is not capital and equipment, but managers and people who do the work.

Without altering human knowledge, skills, and behaviour, change in technology, processes, and structures is unlikely to yield long-term benefits. Managing business productivity is essentially becoming synonymous with managing people effectively.

Benchmark Index collects people performance data under several different headings - new employees, total leavers, early leavers, days lost to absenteeism, accidents, number of employees per manager, directs compared with indirects and graduates as a % of employees. Some of this data was presented early when the question was explored – are the countries featured in Benchmark Index managing overheads well? This section will concentrate on the remaining data.

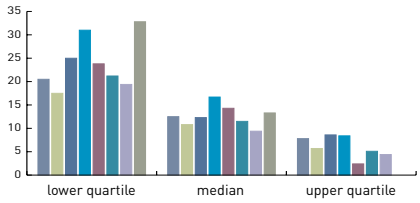
The rate of employee recruitment in the sample firms is significant. Lower quartile firms have to recruit over 20% of their employees annually. Even upper quartile firms have to recruit around 5% of their employees annually. If the reason for this high rate of recruitment was rapid expansion of firms, then it would be an attractive position. However, the picture varies between country to country. For example, when looking at the total number of leavers/total employees, for most countries in the sample's bottom 25% firms, it is almost equal to the percentage of those recruited, i.e. new employees are needed to replace leavers. However, in the case of the UK and Spain, the lower quartile firms seem to be recruiting at a faster pace than they are loosing employees, and thus expansion might be the reason here. As for top 25% firms, they all seem to be recruiting at the same rate they were loosing employees.

Without altering human knowledge, skills, and behaviour; change in technology, processes, and structures is unlikely to yield long-term benefits.

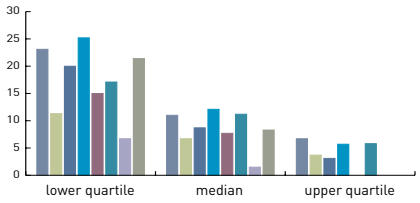
Recruiting employees and hiring others comes with large cost bundles (all the way from advertising and interviewing to induction and training) and ideally for firms, must be an activity undertaken for growth (i.e. reducing the % of leavers should be an aim for most organisations and even upper quartile firms have some improvements to make).

One of the more interesting, and for some countries concerning, results is how many of the annual leavers are within the category of 'early leavers' (those who joined the firm in the last 6 months). For lower quartile firms, and in all countries apart from the UK and Spain, a considerable percentage of leavers are early ones, over 30% in countries like Greece, Ireland, and Austria. The reason that this is particularly concerning is that it suggests that the firm's employee recruitment and induction processes are not under control. People leaving their jobs within six months generally do so for one of two reasons. Either they prove to be incapable of doing the job and are therefore dismissed. Or they decide that they do not wish to do the job, in which case they leave. In either event, and given the bundle of associated costs, the individual concerned should never have been offered the job in the first place. The top 25% of firms in the sample seem to be getting it right and all have reported 0% of early leavers. Again, more proof that people management is one of the key characteristics of leading firms.

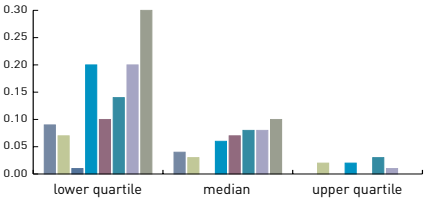
New employees/total employees (%)



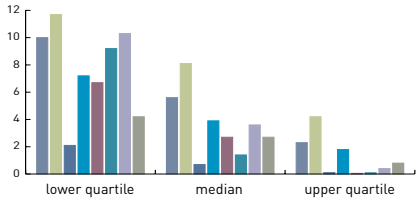

New leavers/total employees (%)




Accidents per employee




Days lost to absenteeism per employee



*When you need to identify weak areas of your business and focus on those in need of improvement, I cannot think of a more cost-effective tool than Benchmark Index.*

*Tom Crayford - Coblands Nurseries (UK)*

Overall, and looking at the total leavers/total employees across the countries of the sample, the median % is just over 5% which suggests a moderate level of satisfaction from employees with their organisations. This seems to be more true in Spain where the percentage is less than 2% as opposed to a median of 12% in Ireland. However, in comparing countries, it is difficult to assess employee satisfaction relying on a measure of number of employee leaving as this could be affected by various factors, least of all the country's employment laws and economic climate.

It is generally accepted that an alternative measure of employee satisfaction and motivation is absenteeism. Lower quartile firms lose, on average, 7.7 days a year per employee through absenteeism. To put this in perspective this is equivalent to a 1000 person firm losing 35 person years through absenteeism for every year worked! (assuming a person year has 220 working days).

Absenteeism is worst in the lower quartile performers in Germany, Spain, Austria, and Portugal. Combining this with the total leavers/total employees percentage in the bottom 25% firms, we can see that Austria, Portugal, Ireland, and Italy reported high figures in both measures, potentially reflecting less employee motivation than other countries' lower quartile firms like the Germany who report high absenteeism, but low leavers number (or the UK who seem to have the opposite situation).

In the top 25% firms, absenteeism does not seem to be an issue, apart from in Germany where the number of days is double that of any other country. In fact, Germany has the highest number of days lost to absenteeism while Greece reported the lowest numbers. The question this raises, of course, is how are the upper quartile firms in all the countries managing absenteeism, and how are Greek companies keeping the number at those low levels?

In terms of accidents per employee, a measure of employee motivation and indeed the effectiveness of the health and safety procedures in the firm, it is clear that there is a gap between the top 25% firms (who all reported virtually zero accidents) and bottom 25% firms whose measures were concerning, although varied a lot between countries. Within the bottom 25% firms, Greece reported the least number of accidents per employee while the UK data reported that almost one in three employees, on average, has an accident every year. Other countries reporting similarly concerning data are Spain and Ireland whose measure reported one in five. Clearly, these lower quartile firms have a lot to learn from upper quartile organisations, and indeed from other countries. The data might also suggest that measuring and recording employee accidents might fall under different rules and regulations between countries, i.e. the gap could be due to different measurement procedures. Whatever the reasons are, the bottom 25% firms have a lot to learn from top 25% in all countries in this regard.

Lower quartile firms lose, on average, **7.7 days** a year per employee through absenteeism. To put this in perspective this is equivalent to a 1000 person firm losing **35 person years** through absenteeism for every year worked

In the upper quartile absenteeism in Germany is double that of any other country in the survey

# Supplier performance

In recent years there has been an increasing trend for firms to outsource non-core activities. In most cases this was done as a cost reduction exercise and to focus on core competencies.

However, as the trend grew and encompassed most of the firms' direct inputs and indirect support processes, it did result in firms becoming ever more reliant upon their suppliers. This, coupled with the growing recognition that significant cost can be taken out of supply chains, has resulted in significant interest in improving supplier performance.

Benchmark Index captures data about supplier performance using several different measures, most notably - % of sub standard supplies by value,% supplies delivered on time by value, turnover/number of suppliers and stock turns. Lower quartile performers in all the countries sampled report that, on average, 3.2% of the supplies they buy-in (by value) are sub-standard, with the worst performing manufacturing sector being in Austria where 7.7% of supplies are said to be sub-standard. This equates to 7700 parts per million. In other countries the numbers for lower quartile firms varies from 0.4% in Greece to just over 3% in the UK and Germany. The international benchmark for quality in, for example, the electronics and automotive sectors is now less than 20 parts per million. World-class organisations today pursue Six Sigma performance where they are striving, and achieving virtually error free outputs (through process improvement and supplier partnerships), and aim for 3.4 parts per million defects. The scope for improvement, then, in the lower quartile performers is substantial. On the other had, the kind of performance to strive for seems to be abundant in the top 25% performers in all countries in the sample who all reported virtually zero sub standard supplies. Thus the chances for learning exist in all countries.

In the top 25% firms, absenteeism does not seem to be an issue, apart from in Germany where the number of days is double that of any other country.

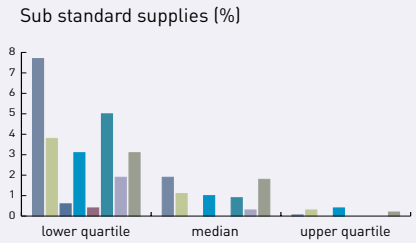
In terms of the bottom 25% firms in sample countries, the supplies that many firms receive are not only sub-standard, but they are also often late. The bottom 25% performers report that of supplies they receive (by value), less than 80% arrive when they are due. This is one of the few measures where there are large variations across the countries. Countries here demonstrate massive variations, while the UK, Ireland, and Austria's bottom 25% reported between 70-80% supplies delivered on time, countries like Greece, Italy, and Portugal all reported less than 30%. In contrast, the upper quartile performers claim to receive over 97% of supplies on time in all countries. Thus, the variation in performance between lower quartile firms can not be attributed to country related issues (infrastructure, etc.) as top performers seem to be getting it right. So, why do so many lower quartile firms have such problems with their suppliers?

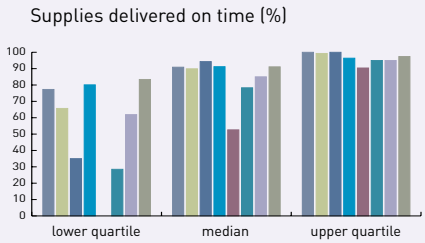
One possible reason is that they simply have too many suppliers to deal with. The ratio sales turnover to number of suppliers provides an indication of how many suppliers a company requires to support it achieving its turnover. The variation from lower quartile to upper quartile performers is massive, and suggests that upper quartile performers use one tenth (or less) of the number of suppliers that lower quartile performers use in all sample countries. Of course, using less suppliers means that the organisation requires less overhead and can focus resources on building relationships with a limited number of suppliers. This, sometimes termed supplier management or partnership programme, should lead to improved supplier performance. Looking at the variations between the sample countries, and within the top 25% performers within each country, we can see that some

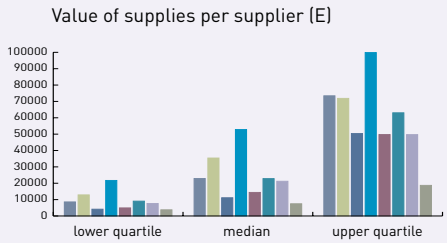
**Austria**

**Greece**

In the lower quartile of manufacturing companies in Austria **7.7%** of bought-in supplies are sub-standard. This compares to just **0.4%** in Greece




have even bigger consolidated supplier bases like Germany, Austria, and Ireland. However, one has to be careful in interpreting data derived from this measures as the number of supplier and value of each is highly dependent on the industries measured and the concentration of these industries within a country. For example, if most of the firms in the German sample were auto manufacturers, you would expect their supplier base to be larger than an Austrian sample dominated by, say, chemical processing firms.

It is not only external control in the supply chain that is a problem for many firms in the data set. Lower quartile performers report that they achieve, on average, 5 stock turns per year, which contrasts with the average 17 stock turns per year achieved by the upper quartile performers. Comparing performance of the top 25% firms, and the median, between countries, it is clear that Austria, followed by the UK, are leading in stock turns. Again, this could be a reflection of best practice being implemented within internal operations management, one that can prove a learning opportunity for many. It could also be a reflection of the countries' sample structure as discussed previously. Finally, stock turns can also be a function of the overall supply chain management activities as a lot of managing internal levels has to do with your current customer order levels and planning systems. World-class organisations, through effective collaboration across the supply chain (e.g. collaborative planning), are achieving stockless production and Just in Time delivery levels.

lower quartile companies achieve just 5 stock turns per year compared to higher quartile companies who achieve over 17

5

17

## Case Study

### Taroni's Foundry

"It is necessary to compete more and more with foreign rivals," says Massimiliano Taroni, "so it is essential to measure your competitiveness against businesses in other countries. Using Benchmark Index to compare your company with others is very beneficial to strategic planning."

in this field, work must be accepted when there is a demand...not when you are perfectly ready to do it

Competing on a global scale was not on the agenda when his father Roberto Taroni and a partner originally set up Taroni's Foundry in 1974. The business worked from a converted stable in Lugo, Italy measuring less than 30 square metres – only enough room for two people to work. The first year's turnover for the foundry was little more than 5,000 Euros and the business remained small until the early 1990s, when the partnership was dissolved. Over the past decade, however, the company has grown rapidly, with sales rising from 206,000 Euros in 1990 to 1,550,000 Euros a decade later. The business now carries out gravity chill casting for a wide variety of aluminium alloy products ranging from nautical accessories and furniture lamps to sumps and flanges for oil-pressure equipment.

End users in engineering, car manufacturing and other industries are attracted to the firm because of rapid responses to customer needs. "Grapes must be picked when they are ripe," says Massimiliano, "and in this field, work must be accepted when there is demand – not when you are perfectly ready to do it."

# Building for the future

Satisfying customers and employees today is all very well, but for a firm to survive and prosper in the long term it is essential that appropriate investments in new products, processes and ways of working are made continually.

It is already established that change is upon us, but the same factors that caused it, have also altered the nature of change itself. Change has become the foremost business issue of our day and has entered the corporate lexicons as a word describing a mixed blessing. On the one hand, change represents opportunity and innovation; on the other hand; threat, disorientation, and upheaval. The future will be for those who invest now and build their capabilities and competitive advantage.

Benchmark Index data set contains significant information about the investments made by manufacturing firms in the EU countries in the sample, using the measures – capital investment, marketing expenditure, training expenditure, training days/employees, training expenditure/employees, ratio of graduates to employees and R&D expenditure.

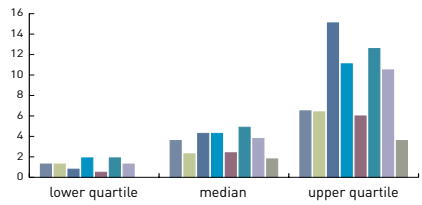
Across the EU countries in the sample, upper quartile firms invest 5-10 times as much of their turnover in capital investment as lower quartile firms do. The biggest difference is between the upper and lower quartile in Greece where upper quartile firms invest 15 times as much of their turnover as lower quartile firms do. The lowest difference is in the UK (the UK also has the lowest average investment across the whole sample).

In terms of R&D, well over half of the sample spend nothing on R&D. On average, the median spend by firms in the countries in the sample spend a mere 0.25% of their turnover on R&D. Even the upper quartile performers spend, on average, a mere 1% of their turnover on R&D. Austria and Ireland lead the pack in upper quartile companies as they seem to invest over double what firms in other countries spend followed closely by the UK and Germany leaving the other countries in with worrying levels of investment of less than 1% even from their top 25% performing firms. Various factors could be in play here including the type of manufacturing sectors that were included in the sample as well as national governmental policies on promoting such investments.

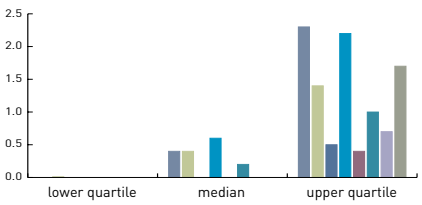
The figures for training expenditure are even more worrying. On average, the median spend by firms in the countries in the sample is a mere 0.1% of their turnover with lower quartile firms investing virtually nothing in some countries like the UK, Spain, Greece, and Portugal. Similar figures can be seen when reviewing training expenditure per employee, which ranges from nothing per annum for the lower quartile for some countries (UK, Spain, Portugal, Italy) to Eur320 per annum for the upper quartile performers in Ireland (with the upper quartile average just under Eur200 per annum). Coupling these figures, it would be hard to believe that these firms are engaging in high quality training. One reason might be that they do employ highly trained people rather than build their skills once they have joined the firm. If the firms included in the database are pursuing this strategy then it would be reasonable to expect that they would employ a high number of graduates. In fact, even in upper quartile firms, fewer than one employee in 5 has a degree at best (in Greece and Spain) while in lower quartile firms, it is reported that nobody has a degree in countries like the UK, Italy, and Ireland. This clear lack of investment in training and hiring graduate employees has serious implications in an age that is being termed 'the knowledge economy' where it is forecasted that the future will fall to those that develop, manage and exploit knowledge to its full potential.

The contrast between marketing expenditure as a % of turnover and R&D and training expenditure as a % of turnover is interesting. On average firms in the sample spend 0.5% of their turnover on marketing. This contrasts with the 0.35% of turnover they spend on R&D and training put together.

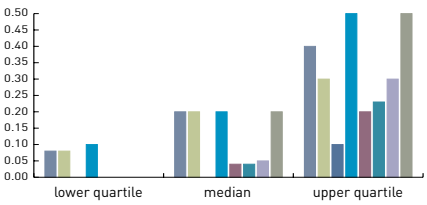
Capital investment/turnover (%)



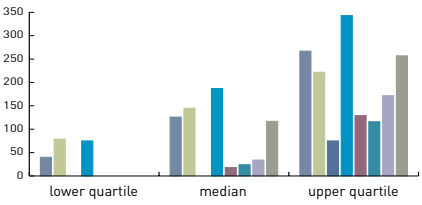

R&D expenditure/turnover (%)



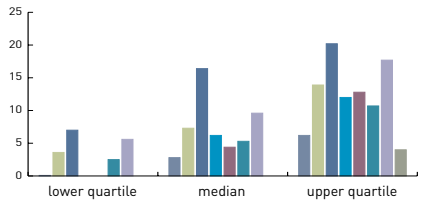

Training expenditure/turnover (%)



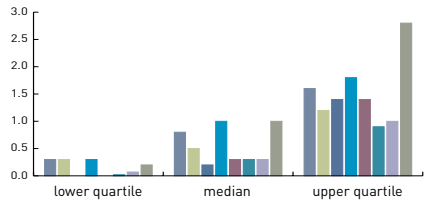

Training expenditure per employee (E)




Graduates/employees (%)




Marketing expenditure/turnover (%)



## In today's increasingly global market place it is becoming even more important for companies of all sizes to take their place on the world stage.

There are changes in regulatory and governmental roles that are resulting in a new competitive climate. Trade barriers are falling. Transactions that cross international borders are rising sharply and financial markets are opening up rapidly. The data provided from Benchmark Index for the countries under study provides mixed messages in this regard, some of them concerning.

On the whole, while firms seem reasonably successful in raising new income, little of this income comes from new markets or geographic regions.

Around 25% of the companies benchmarked across the EU countries in the sample did not generate any new income from new customers, products or markets. On the other hand, upper quartile companies achieved new income of over 15% of sales turnover. The sample median across Europe does not exceed 10%. Clearly, the growth message is not on that is taken to heart by most organisations.

**25%** of the companies benchmarked across the EU countries in the sample did not generate any new income from new customers, products or markets

Few firms are attempting to generate new income by accessing new geographic regions. The median across the European firms samples is almost zero and even the upper quartile firms are, on average, generating only 3% of their sales turnover from pastures new. However, this average is affected by the Austrian firms who are clearly outperforming all other countries with more than 8% of income generated from new geographies. This is potentially fuelled by Austria's economic policy which lead to penetrating markets into Eastern Europe.

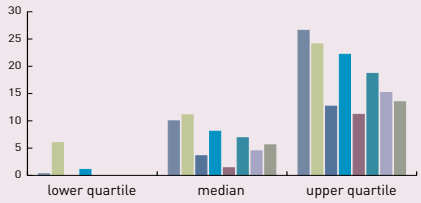
A similar picture is clear when looking at income from new segments. Again lower quartile firms generated no income here and the sample median is less than 1%. The top 25% performers in all countries have an average with around 5% (again lead by the Austrian firms outperforming the average by generating around 9% of new income from new segments). The data is clearly showing best practices being implemented successfully in Austrian firms who, interestingly reported the highest % of turnover to be spent on R&D.

In terms of product development, again the picture is worrying as the overall sample mean reveals that less than 3% of income has been generated from new products. Here, there is a better picture as upper quartile firms in all countries are doing considerably better than their lower quartile counterparts by generating almost 10% of their income from new products (compared to virtually nothing for the bottom 25% firms). A gap well worth addressing as clearly much learning can take place within each country.

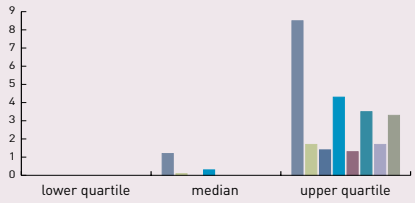
Finally, the data shows clearly that most firms across the EU sample at hand generate most of their new income from new customers (basically marketing lead, but from pervious data not within new sectors nor with new products or propositions, just pure old fashioned marketing within own sector and with similar offerings, resulting in many cases in tough competition, price wars, and eroding profits margins). The bottom 25% firms seem to recruit around 5% new customers (as a percentage of their total customers) while the top 25% firms manage more than 20% (with UK firms managing around 35% most probably linked with the UK upper quartile firms having the highest expenditure on marketing, almost double the firms in other countries).

Of course, more is not necessarily good. The key issue is - why do firms need new customers? Is it because demand for their products is growing, or is it because they keep losing their existing customers?

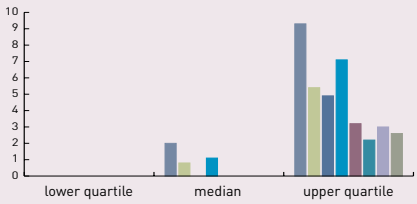
Total new income/turnover (%)



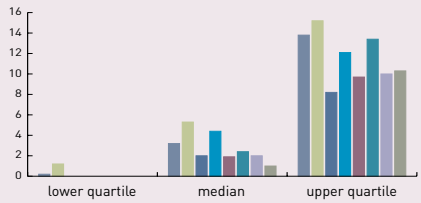

Income from new geographies (%)



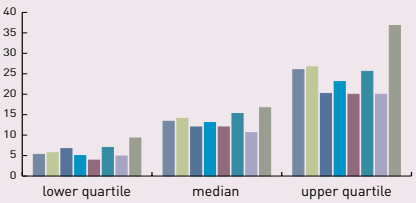

Income from new segments (%)




Income from new products (%)




New customers/customers (%)



# Service Sector

The benchmarking data gathered from the service sector should generally be treated with caution, mainly due to the small sample sizes included in the analysis (see Appendix 3. for more details). The countries included were those whose sample sizes were deemed significant for analysis. Greece, Ireland, and Portugal were not included in the analysis due to insufficient sample sizes.

## Sales & profit performance

### The service sector in the sample countries reveals a picture similar to that of the manufacturing sector:

Upper quartile firms are achieving double to quadruple the sales turnover per employee as their lower quartile counterparts. They are also achieving much higher pre-tax profits per employee (in fact, lower quartile firms in Germany and Austria have both reported no pre-tax profits per employee).

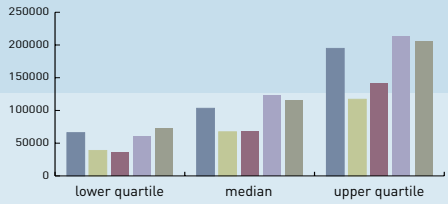
In terms of pre-tax profit/turnover, the top 25% firms in the sample are achieving between 5-20% while the bottom 25% firms are achieving less than 2%. The implications for lower quartile firms is the need for a serious look at the business model and service offering (if they are not achieving any profits), and a re-look at the cost base and resource utilisation efficiency.

In terms of country performance, the data again reveals that the UK is leading the sample by more than double on the pre-tax profit per employee. It is interesting to see both Austria and Spain reporting sales turnover per employee very close to UK firm levels, but reporting only about one third of the profits per employee reported by UK firms. Again an indication of potential UK best practice in cost base management and resource allocation, potentially premium prices for services, or a combination of both.

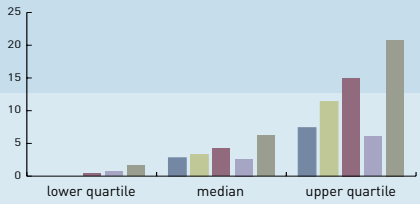
4X

Upper quartile firms are achieving double to **quadruple the sales turnover** per employee as their lower quartile counterparts!

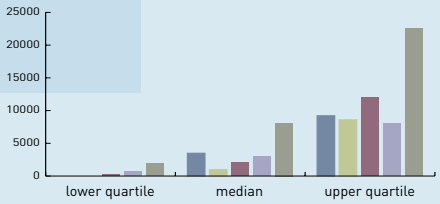
Sales turnover per employee (£)




Pre-tax profit/turnover (%)




Pre-tax profit per employee (£)



The data provided by the sample organisations here is drawing a worrying picture for many service firms in the EU sample under study.

In terms of return on capital employed, well over 40% of the sample firms seem to be destroying value (achieving return on capital less than 8-10%). In fact, some lower quartile organisations in Germany and Austria reported negative return on capital, and in the same countries, even the upper quartile organisations were not achieving more than 8-10%. Again, the UK firms seem to be leading the sample by far and reported return on capital of more than 15% on average with only the lower quartile organisations appearing to destroy value. This data highlights a strength in the UK's service economy in comparison to its European counterparts, and thus learning opportunities available.

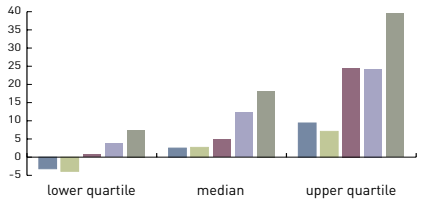
The top 25% of firms have an average of **12%** of their turnover as cash in the bank, whereas the bottom 25% have on average just **1%**

On the other hand, the Acid test shows that the financial position of service firms is not as bad and compares with the manufacturing sector. Again, there are about 25% of the sample (mainly all lower quartile firms) that had a ratio less than 1, i.e. if the debtors called in their debts tomorrow, these would go bust. However, the remainder of the sample shows an acceptable financial position given the previous issue with return on capital. Arguably, and in general, service organisations would always be in a better position in terms of liquidity compared to the financial sector due to the absence of major investments in machinery and facilities, and to that extent, the Acid test was not totally surprising. This is clearly reflected in the cash the firms have in the bank as a percentage of turnover. While the average is about 3% (with the bottom 25% firms having 1% of turnover as cash in the bank), the top 25% firms have an average of around 12% of their turnover as cash in the bank, with UK organisations reporting over 16%. Again, implications are that this might not be the best investment of that cash and does pose questions regarding these firms investment in growth strategies.

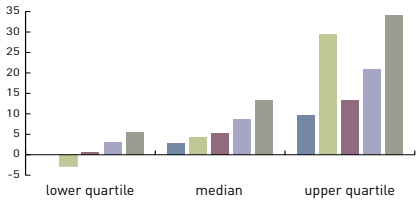
well over 40% of the sample firms seem to be destroying...

value

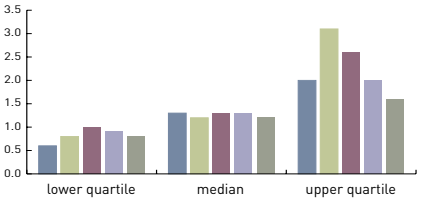
Return on capital employed



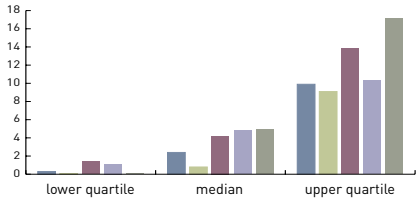

Return on net assets




Acid Test




Cash in bank/turnover (%)



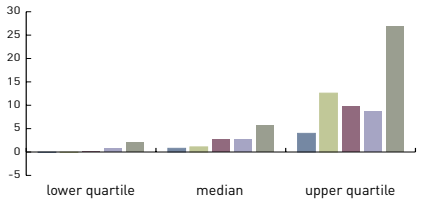
# Value creation & asset management (cont)

Interest cover (proportion of profits required to cover interest payments) shows huge differences between upper and lower quartile firms, with variation ranging from 10-12 times as much. Again, and similar to the manufacturing sector, the UK firms seem to have the highest proportion followed by Germany. In addition to the interest covers, the variations are also huge in terms of the debtor days between upper and lower quartile firms (average of 60 days for the sample – slightly better than the manufacturing sector). The better performers here are the upper quartile firms in the German and Austrian firms (reporting having driven down debtor days to just over 20 days) while the worst performers seem to be lower quartile firms in Italy who reported over 160 days.

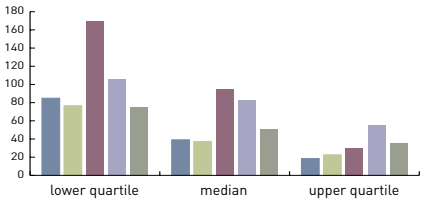
As for overhead management, service organisations seem to be doing marginally better in all countries than manufacturing sector, and again there are large variations between the top 25% and bottom 25% firms who seem to require, on average, 2.3 times as many indirect employees to do what upper quartile firms do with the same number of direct employees. This has implications on the effectiveness of the processes and ability of management to control them in lower quartile firms. These variations between the top 25% and bottom 25% firms are largest in Germany and Italy where the bottom 25% firms are on par with European sample, but the top 25% seem to be performing much better than their counterparts in the sample. This picture is mirrored in the data about the number of employees per manager. Overall, and as an average of the sample, the manager is responsible for just under 8 employees (less than in the manufacturing sector who manage an average of 10). Managers in the top 25% firms seem to be managing around double the number of employees as in the bottom 25% firms, potentially due to superior processes and employee training where the need for control and supervision by middle management is minimised (the essence of horizontal process management and flat organisation structures). However, it is also interesting to see that upper quartile firms in Italy have by far exceeded, by at least double, all the other firms in the sample.

Interest cover (proportion of profits required to cover interest payments) shows huge differences between upper and lower quartile firms, with variation ranging from **10-12 times** as much.

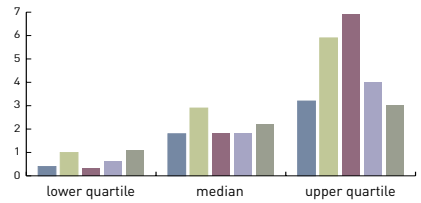
Interest cover



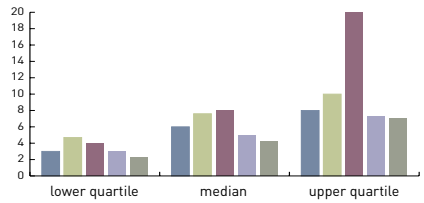

Debtor Days




Direct to indirects




Number of employees per manager



The customer data in the sample across all measures used emphasises the huge differences between the top 25% and the bottom 25% of firms in all the sample countries and clearly demonstrates the opportunities for learning for those in the median and lower quartiles

In terms of variations between countries, the data was very similar to all countries in the sample apart from Germany where the lower quartile firms have reported higher percentages of customer complaints, complaints per order, value of complaints, and even orders rejected during warranty. The implications of this data can be either the need for these firms to take more focused action on process improvement, or that they actually deploy more rigorous measurement process that allow them to capture such data. Measurement of customer data as required in Benchmark Index is not easy for many service providers and has proved a difficult concept for them due to lack of tangible products and characteristics as in the manufacturing sector.

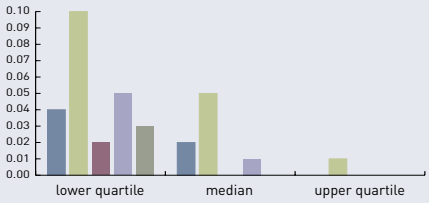
upper quartile firms reported less than 0.5% complaints per order while the lower quartile ones reported a worrying average of over **2%**

A more detailed look at the data shows that service firms in the sample countries reported, on average, about 3 complaints per customer and about 2 complaints per order. This suggests that contrary to the manufacturing sector, they seem to be better at recording customer complaints in any form. Moreover, and for both measures, the gap between upper and lower quartile firms is considerable – complaints per customer range from 0.2 complaint per thousand customers for the top 25% firms to 5 for the bottom 25% ones. A similar gap is obvious in the complaints per order data.

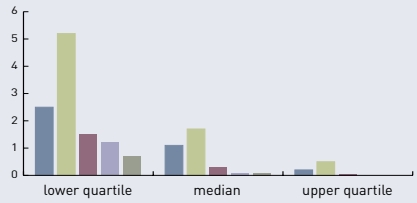
As for the order value of complaints/turnover percentages, the upper quartile firms again reported less than 0.5% while the lower quartile ones reported a worrying average of over 2%. Customer complaints are direct results of inefficient service delivery processes or service design and according to world class organisations, are wholly avoidable. The worrying picture is accentuated when we see that these firms spend 2% of their turnover on order value of customer complaints while their average spend on R&D or Training is virtually zero, i.e. they are still operating in the detection and fixing mode and not in the prevention mode.

Customer complaints are there for various reasons, and one of them is on-time delivery where, again, the top 25% firms seem to report almost perfect records while the bottom 25% firms are reporting 1-8% of orders not being delivered on time, with the worst performers being Germany and Austria. Moreover, Germany and Austria's lower quartile organisations also reported having the worst percentage of orders rejected during warranty (as opposed to the UK, Spain, and Italy's lower quartile firms who all reported almost zero percentages).

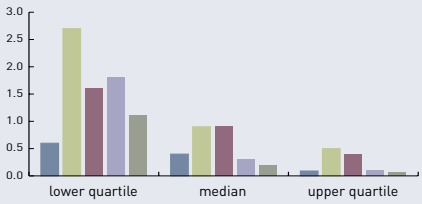
Complaints per customer (%)



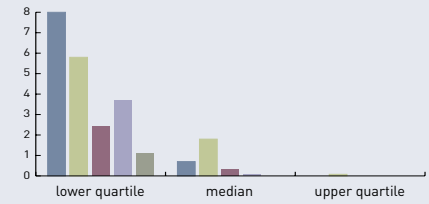

Complaints per order (%)



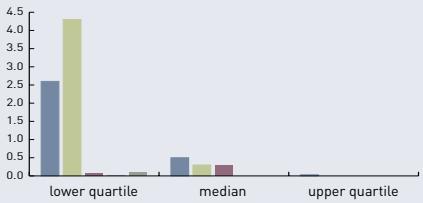

Order value of complaints/turnover (%)




Order not delivered on time (%)




Order rejected during warranty (%)



# People - the employees perspective

While the average rate of recruitment is close to firms in the manufacturing sector, the lower quartile firms in the service sector in the sample countries have a higher rate of recruitment (about 25% or their employees are recruited annually).

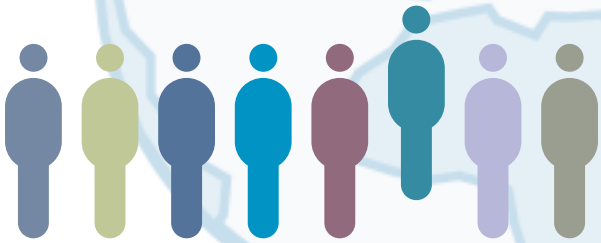
This is in comparison to 5% average for upper quartile firms. Again, these would be acceptable results if lower quartile firms were growing and need the resources, but the rate of leavers is clearly showing the opposite, i.e. lower quartile firms seem to be recruiting to fill the gaps left by leavers. On average across the sample, around 10% of employees seem to leave annually. While these might be seen as 'normal' attrition rates in the new fast moving economy, organisations need to be weary of the costs of employees leaving and subsequent hiring and training. These costs are on top of the knowledge and experience lost in age where the 'war for talent' is spreading globally. Of these costs, it is potentially early leavers that cost the most as they go through the recruitment process, undertake the induction, make their few early, and sometime expensive, mistakes, and leave. While the top 25% firms report zero percentages of early leavers, the bottom 25% firms average 6% of total employees (with Austria reporting the worst results).

Whilst the top 25% firms report zero percentages of early leavers, the bottom 25% of firms average 6% of total employees

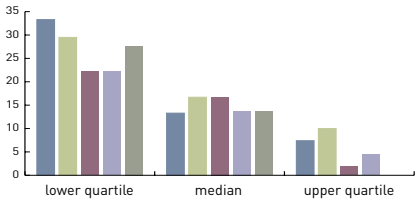
On the three above measures, the gap between upper and lower quartile firms is obvious and clearly demonstrates a massive learning opportunity in the art and science of people management.

Other measures that reflect people management and satisfaction are the days lost to absenteeism per employee and accidents per employee. For both measures, the gap is considerable between upper and lower quartile firms. The problem of employee absenteeism seems to be worst in Germany (as indeed the manufacturing sector reported). As for accidents per employee, and while the average is almost zero across the whole sample, the lower quartile service organisations still reported an average of 0.05 accidents per employee, with Italy reporting the highest numbers.

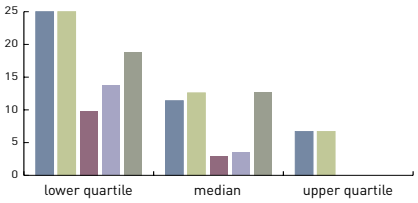
we are now in the age where the '**war for talent**' is spreading globally



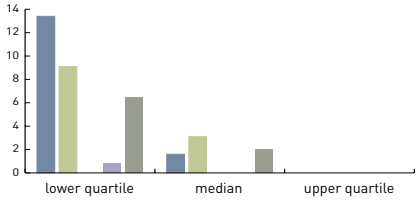
New employees/total employees (%)



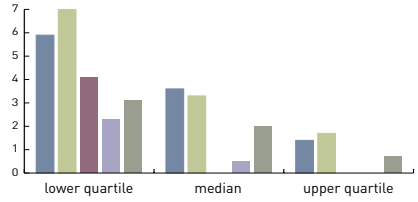

Total leavers/total employees (%)



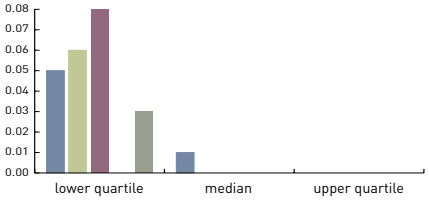

Early leavers/total employees (%)




Days lost to absenteeism per employee




Accidents per employee



Supplier performance for the service organisations in general reflects a better picture than that of their manufacturing counterparts. Still, there is a major gap between the upper and lower quartiles.

While the top 25% firms report that none of the supplies they receive are substandard, their lower quartile counterparts reported an average of 3% (with Austria reporting over 7%).

As for on-time delivery, again, the top 25% firms reported an almost perfect record of suppliers with over 99% received on time while the bottom 25% firms had no more than 50% of their supplies delivered on time. The gap here is quite significant and no major differences were reported between countries (apart from Italy whose lower quartile firms seem to be receiving none of their supplies on time). In an age when collaboration has become essential, this gap requires serious consideration in terms of partnership process improvement across service supply chains.

As for the value of supplies per supplier, again the upper quartile firms reported higher values (3 to 7 times more than lower quartile organisations) which reflects the potential fragmentation of lower quartile firms' supplier base. However, this measure should be interpreted with caution as, assuming lower quartile organisations were all smaller in size or consumption than upper quartile ones, then the value of supplies per supplier does reflect their resource consumption and not necessarily the size of their supplier base.

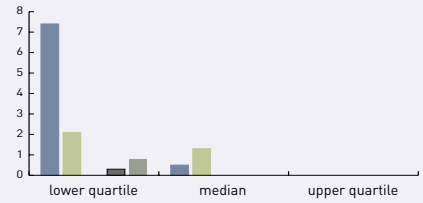
Finally, and in terms of stock turns, the gap between the top 25% and bottom 25% firms is also large as (apart from Italy who reported a sevenfold gap), all other countries in the sample reported a fourfold gap.

the bottom 25% of companies in the sample receive only

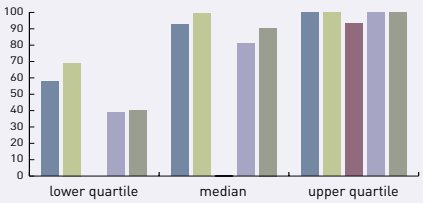
**50%**

of their supplies **on time**

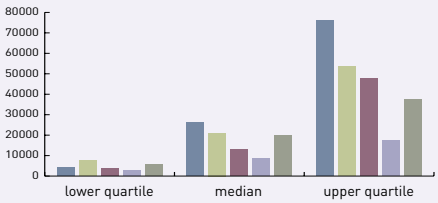
Sub standard supplies (%)



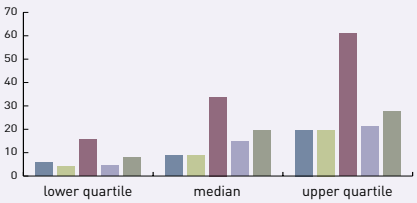

Supplies delivered on time (%)




Value of supplies per supplier (E)




Stock turns



# Building for the future

The data provided by the service firms in the sample countries reflected a wide and concerning gap between top and bottom performers, and also revealed some interesting comparisons between the manufacturing and service sectors across the sample.

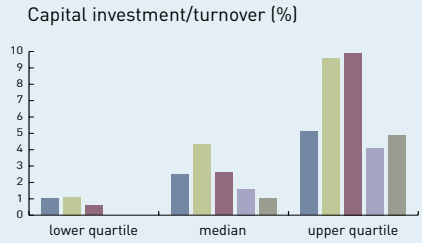
In terms of capital investment/turnover, the average for upper quartile firms is around 6% (close to the manufacturing sector average), but the major investments seem to be in Germany and Italy. The UK, which was leading the service sector in terms of results, falls short of the expectation here. As for lower quartile firms, the average is less than 1% across the sample.

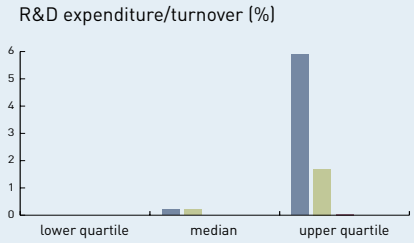
The picture is very worrying when we look at R&D expenditure were had it not been for the top 25% service firms in Austria reporting a 6% investment, the whole sample average would be close to zero. Clearly, R&D investment are easier to relate to, and for some justify, in the manufacturing scene, but service organisations that want o compete and survive the new world economy must invest more in developing new service and indeed researching new and advanced service delivery processes.

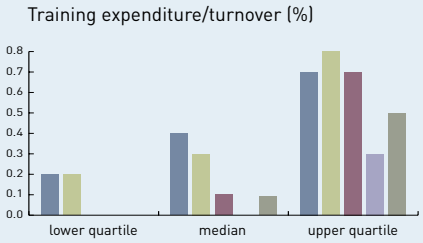
the service sector reported a higher percentage of turnover spent on training than the manufacturing sector (almost double in most cases)

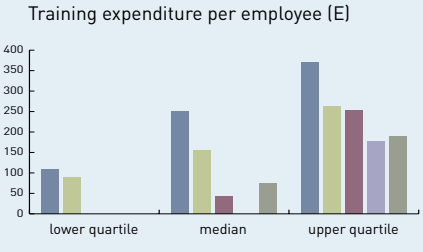
As for training, and in general, the service sector reported a higher percentage of turnover spent on training than the manufacturing sector (almost double in most cases) albeit still remaining a small percentage compared to what is being spent on dealing with customer complaints and fixing errors. Moreover, the gap between upper and lower quartiles here is more than four times the expenditure, with lower quartile firms in the UK, Spain, and Italy spending nothing on training. A similar picture is reflected by the training expenditure per employee figures. These numbers have serious implications and are somewhat surprising. Given that the sector under study is the service sector where people, their knowledge, skills, and abilities, are arguably their main competitive advantage, these levels of spending on training do not reflect that notion, even in the best performing organisations in the sample. That might be understandable if these organisations were hiring trained and skilled people with the required knowledge, but the ratio of graduates/employees does not reflect such an approach to knowledge acquisition. Overall, the average percentage of employees who hold degrees in service firms across the sample is less than 20% with some firms in the lower quartile (e.g. the UK) reporting none. Upper quartile firms reported higher averages, and were led, by far, by Italy and Spain who reported more than 70% holding graduate degrees.

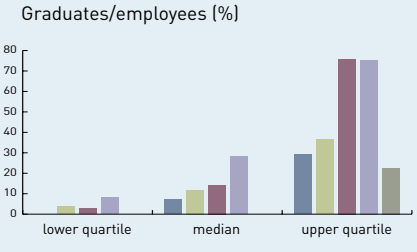
It is now interesting to note that on average, the sample firms spend 1.5% of their turnover on marketing (with upper quartile firms averaging over 2% and even lower quartile firms averaging just under 0.5%). These percentages are slightly higher than the manufacturing sector, and the majority of the spend on marketing takes place in the UK, Germany, and Austria. While this spend is obviously resulting in good turnover (as shown by earlier results), it is concerning to see the lack of spending of developing the growth sustainability enablers like training and research. While marketing can help milk an existing market, the training and research levers can help open new markets. The following data describes how well the sample firms are expanding and growing.

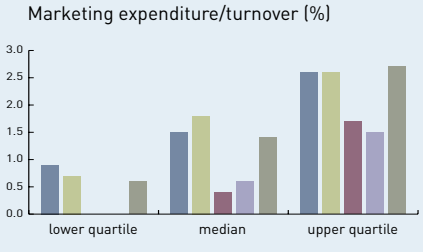


## The data about market growth and penetration for the service sector revealed a huge gap between the top 25% and bottom 25% firms.

Across all measures for growth, the lower quartile firms only managed to report growth from new customers (where even there they managed only 5% increase as a percentage of their customer base).

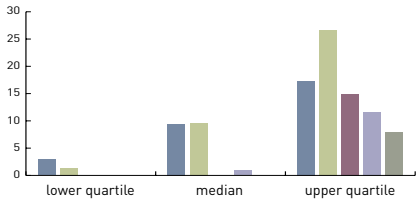
As for upper quartile firms, there was some growth reported in total new income as a percentage of turnover (an average of 15% with Germany reporting over 25%). The sources of this growth showed no one single trend as German firms noted the main reason of income from new products, Italian firms reported income growth from new geographies, and Spanish firms reported new segments. Even though, all these percentages were modest ones (even for the top 25% firms). These numbers have serious implications as they were not expected. With the advent of e-commerce and the EU cross trade policies, these numbers were expected to be much higher across the sample. This leaves much to be questioned on the spread of e-commerce practices, and the actual adoption of EU trade and cross border commerce.

*One of the most beneficial features of Benchmark Index is the opportunity to look at every aspect of the company from the analysis of economic and financial indicators to the employees' and customers' satisfaction*

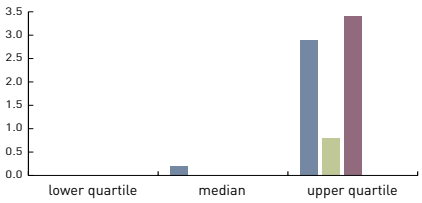
*Massimiliano Taroni*
*Taroni's Foundry (Italy)*

## In the upper quartile there was no discernible trend as to the source of new income, with wide variations between the countries.

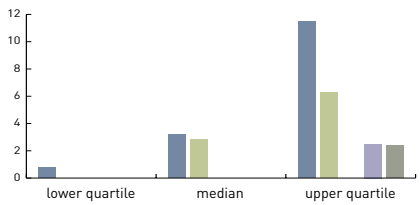

Total new income/turnover (%)



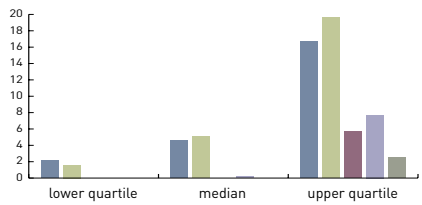

Income from new geographies (%)



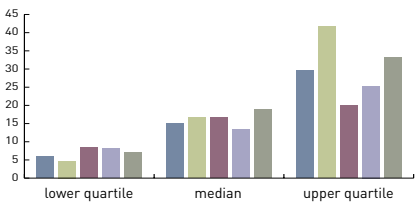

Income from new segments (%)




Income from new products (%)




New customers/customers (%)



# Benchmarking Impact

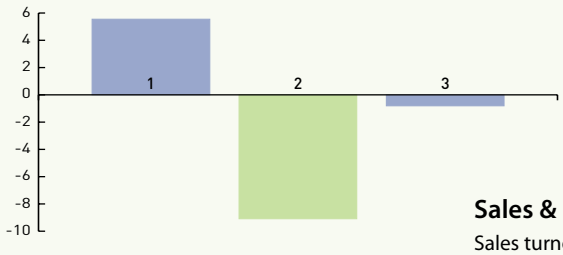
The table below shows the change in performance between the first and second benchmark. The data is for 68 companies whose performance was benchmarked on two occasions. The gap between the two benchmarks was greater than six months.* The 68 companies come from both service and manufacturing and from the various European countries. The data presented is the average performance.

**All Sectors and All Countries**

| Variable | 1st B'mark | 2nd B'mark |
|---|---|---|
| Sales turnover per employee (Euro) | 105489 | 111343 |
| Pre-tax profit per employee (Euro) | 9770 | 9692 |
| Pre-tax profit/turnover (%) | 8.8 | 8 |
| Return on capital employed | 11.3 | 8.2 |
| Return on net assets | 14.5 | 13.1 |
| Acid Test | 1.7 | 1.7 |
| Cash in bank/turnover (%) | 6.6 | 5.4 |
| Interest cover | 18.3 | 17.8 |
| Debtor days | 68.1 | 64.7 |
| Direct to indirects | 3.2 | 3.2 |
| Number of employees per manager | 13.1 | 11.5 |
| Complaints per customer (%) | 1.2 | 1.1 |
| Complaints per order (%) | 4 | 3.6 |
| Order value of complaints/turnover (%) | 3.3 | 3 |
| Order not delivered on time (%) | 8.2 | 6.9 |
| Order rejected during warranty (%) | 1.3 | 1.1 |
| New employees/total employees (%) | 16.2 | 17.1 |
| Total leavers/total employees (%) | 10.6 | 8.8 |
| Early leavers/total employees (%) | 3.2 | 3.6 |
| Days lost to absenteeism per employee | 6.1 | 6.4 |
| Accidents per employee | 0.07 | 0.09 |
| Sub standard supplies (%) | 3.7 | 2.7 |
| Supplies delivered on time (%) | 71.2 | 70.4 |
| Value of supplies per supplier (Euro) | 31395 | 36759 |
| Stock turns | 13.8 | 14.4 |
| Capital investment/turnover (%) | 7.7 | 8.6 |
| R&D expenditure/turnover (%) | 1.6 | 0.6 |
| Training expenditure/turnover (%) | 0.3 | 0.2 |
| Training expenditure per employee (Euro) | 93.8 | 117.7 |
| Graduates/employees (%) | 13.1 | 10.8 |
| Marketing expenditure/turnover (%) | 1.2 | 1.2 |
| Total new income/turnover (%) | 16 | 18.9 |
| Income from new geographies (%) | 1.8 | 2.2 |
| Income from new segments (%) | 3.7 | 4.1 |
| Income from new products (%) | 11.4 | 11.4 |
| New customers/customers (%) | 20.5 | 21 |

## Sales & profit performance is contradictory with the pre-tax profits as a % of turnover dropping even though turnover per employee has increased

**Sales & profit performance**
% change between first and second benchmark



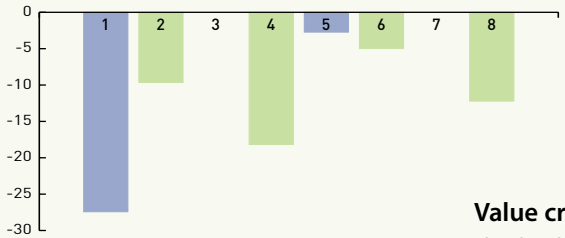

1. Sales turnover per employee
2. Pre-tax profit/turnover
3. Pre-tax profit per employee

### Sales & profit performance

Sales turnover per employee has increased but profit per employee has declined. These results are concerning as they potentially note that while organisations have managed to increase sales and/or prices, they have not dealt effectively with the cost base and actually had decreasing profit margins from the sales .

## Debtor days, interest cover and cash in bank (% of turnover) have all dropped highlighting the positive impact of benchmarking

**Value creation and asset management**
% change between first and second benchmark

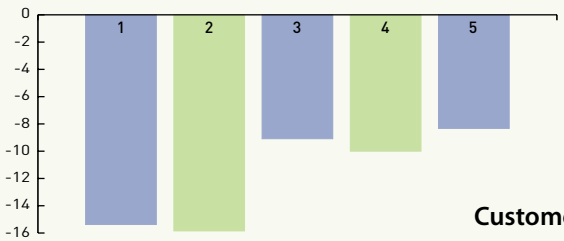



1. Return on capital employed
2. Return on net assets
3. Acid test
4. Cash in bank/turnover
5. Interest cover
6. Debtor days
7. Direct to indirects
8. No. of employees per manager

### Value creation & asset management

The data here reveals a positive impact that benchmarking might have had as debtor days, interest cover, cash in bank (as a percentage of turnover) have all dropped. However, the number of employees per manger has also dropped signifying the need for additional management interventions. On the other hand, and while RONA and ROCE have both dropped, this does not particularly mean that more firms are destroying value as due to economic conditions and interventions by central banks worldwide, the cost of capital has also dropped leaving the percentage of firms that are seen to destroy value the same at around 25%.

**Customer**
% change between first and second benchmark




1. Orders rejected during warranty
2. Orders not delivered on time
3. Order value of complaints/order
4. Complaints per order
5. Complaints per customer

## On-time delivery to customers improved by an average of 15%

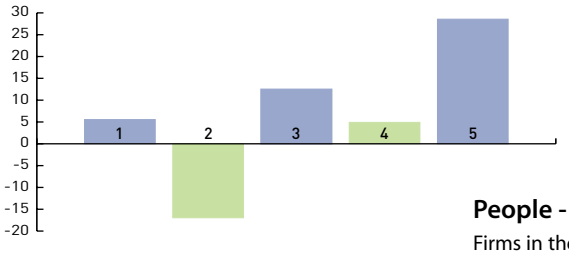
### Customer

The data relating to customer complaints all reveals a positive impact as all the measures moved in the right direction with some improvements in on time delivery averaging 15%.

* *It takes time for many improvements to be seen and ordinarily a minimum of twelve months is left between benchmarks. The number of second benchmarks in this sample reflects the short duration of this project. The time between first and second benchmarks is unlikely to be sufficient for significant improvements to be seen. This needs to be remembered when interpreting the results in this section*

# Benchmarking Impact (cont)

**People - Employees**
**% change between first and second benchmark**



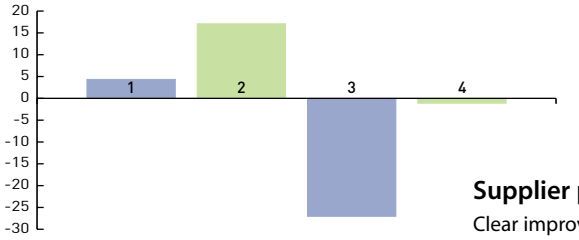

1. New employees/total employees
2. Total leavers/total employees
3. Early leavers/total employees
4. Days lost to absenteeism per employee
5. Accidents per employee

## ...in terms of people management, firms have a long road ahead

### People - employees

Firms in the sample do not seem to have taken positive action to improve the satisfaction and motivation of their employees. In fact, some measures reported had dramatically worsened in performance like the number of accidents per employee increasing by over 20%. One positive result is the reduction of total leavers which is balanced by an increase in early leavers. In terms of people management, firms seem to have a long road ahead, and in an age where knowledge is fast becoming the key to success, action can not be delayed.

**Supplier performance**
**% change between first and second benchmark**



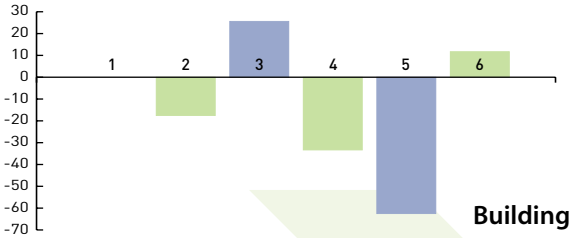

1. Stock turns
2. Value of supplies per supplier
3. Sub-standard supplies
4. Supplies delivered on time

## supplier performance is improving in all areas through faster stock turns and a reduction in sub-standard supplies

### Supplier performance

Clear improvements have been achieved in this category and it seems the awareness and improvements in supply chain management are having an impact. All the measures moved in the right direction with stock turns increasing, and the value of supplies per supplier moving in a similar direction while the amount of sub standard supplies received dropped by over 20%.

**Building for the future**
**% change between first and second benchmark**




1. Marketing expenditure/turnover
2. Graduates/employees
3. Training expenditure per employee
4. Training expenditure/turnover
5. R&D expenditure/turnover
6. Capital investment/turnover

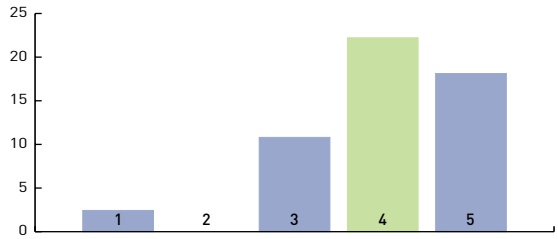
## investment in the future is worryingly low with falling expenditures in R&D and training

### Building for the future

The measures in this category present a worrying picture, one that nonetheless reflects the economic turbulence that was witnessed in the past two years. Although the training expenditure per employee has increased slightly, as a percentage of turnover both R&D and training expenditures have dropped from what were initially low and concerning levels. At the same time, marketing expenditure remained at the same levels. These results, while worrying, are partially understandable due to the volatile conditions that dominated the past period where only the very brave (and visionary) invested in research and training.

growth & penetration is improving but mainly through the exploitation of new geographies and not through the development of new products

**Market growth & penetration**
% change between first and second benchmark




1. New customers/customers
2. Income from new products
3. Income from new segments
4. Income from new geographies
5. Total new income/turnover

### Market growth & penetration

Positive results have been reported in terms of growth and penetration. Total new income as a percentage of turnover has grown by just under 20% and the data shows it mainly came from new geographies (over 20%) and new segments. A worrying note here is none of this new income came from new products, reflecting the poor investment and interest in research and development.

Case Study

## Fraunhofer-IPK

Results from the Benchmark Index have totally overturned the previous cynicism of automotive components manufacturer Fraunhofer-IPK of Berlin, Germany. When it carried out unstructured comparisons with direct rivals, the company concluded there was no reason to make any changes. Benchmark Index proved to be a real eye-opener.

The company has now implemented a comprehensive change programme to address the shortcomings identified. The company in based in one of the eastern states of Germany, where it employs 380 staff and sells automotive components such as axle drive shafts, clutch housings and gearwheels. Ninety six percent of annual sales worth 51 million Euros are to German motor manufacturers.

Benchmark Index results showed the company was lagging behind in a number of key areas

Benchmark Index results showed the senior managers that Fraunhofer-IPK was lagging behind many competitors in a number of key areas. Benchmarking compared Fraunhofer-IPK with similar companies throughout Europe. So the conclusions were far more robust than previous comparison studies carried out by the company.

Any tendency toward complacency was swept away by Benchmark Index. The company immediately changed its internal reporting system so managers can see key financial and operational ratios such as Input Quota: Turnover, Labour Utilisation Quota: Pre tax Profit. Operating Expenditure: Pre tax Profit and Operating Profit: Turnover. Senior managers within the business group that owns Fraunhofer-IPK were so impressed they decided to evaluate the same ratios for every company in the whole group.

Benchmark Index had such an impact on the company that it also undertook a process benchmarking project with a special focus on quality management. Fraunhofer-IPK is no longer cynical: Benchmark Index has revolutionised the way the company operates and is helping it to become more competitive.

The company has now implemented a comprehensive change programme to address the shortcomings identified by Benchmark Index

# Appendix 1. Benchmarking Glossary

The data provided to Benchmark Index is used to analyse company performance across a comprehensive range of measures. The glossary below explains how each of the measurement criteria is calculated.

**Accidents per employee (#)** - this measures the number of accidents per employee. It demonstrates the level of commitment to safety that the organisation displays and importance that is attached to providing a safe working environment.
Calculated as: (no. of accidents or incidents / no. of employees)

**Acid test (short term assets / current liabilities)** - this ratio measures the company's liquidity, and it's ability to pay all their short-term liabilities instantly.
Calculated as: (debtors + stocks + cash in bank) / (creditors + short term loans + other current liabilities)

**Capital investment / turnover (%)** - this is an indication of how much the company continues to invest in itself.
Calculated as: (capital Investment / turnover) x 100%

**Cash in bank / turnover (%)** - small companies find the non availability of cash their largest problem. This ratio gives an indicator as to the accessibility of cash. Companies which hold too much cash may however not be investing their funds to the best advantages of their business.
Calculated as: (cash in bank / turnover) x 100%

**Complaints per customer (%)** - this is a method of assessing the average number of complaints per customer independent of number of orders and customers. The trend for this measure can be useful to indicate improvement in performance.
Calculated as: (no. of recorded customer complaints / no. of customers) x 100%

**Complaints per order (%)** - this is a method of assessing customers satisfaction with the product and services supplied. It is sometimes desirable to seek complaints from customers as it is better to know that they are not happy with the product or service in order to put it right. However, it is important to look at the nature of complaints to ensure that repeat ones are rectified as soon as possible. The trend for this measure can be useful to indicate improvements in performance, and is also a key indicator for lost business.
Calculated as: (no. of recorded customer complaints / no. of orders received) x 100%

**Days lost to absenteeism per employee (#)** - this measures the amount of time that people spend away from work due to sickness, unexplained absence and other reasons why people do not attend work on a 'voluntary' basis.
Calculated as: (absenteeism rate / no. of employees)

**Debtor days (days)** - this is the debtor value divided by turnover and represents the average collection period that customers take to pay their bills. It is an indicator of profitability and customer relationships.
Calculated as: (debtors / turnover) x 365

**Directs to indirects (#)** - this measures the number of employees directly involved in output-related activities compared with supporting activities
Calculated as: (no. of employees directly involved in the provision of service or product / (no. of employees - no. of employees directly involved in the provision of service or product))

**Early leavers / total employees (%)** - this indicates the extent to which the organisation has been successful in recruiting and selecting people who are right for the position and right for the organisation. A large ratio of early leavers to employees indicates a mismatch of expectations between the individuals recruited and the organisation or job that they were recruited to perform.
Calculated as: (no. of people who leave within six months of joining / no. of employees) x 100%

**Graduates / employees (%)** - this looks at the ratio of graduates to all employees. It is one way of assessing the level of education that is incorporated within the organisation.
Calculated as: (no. of graduates / no. of employees) x 100%

**Income from new geographies (%)** - this identifies how successful a company is being at developing new geographical territories.
Calculated as: (turnover from new geographical markets / turnover) x 100%

**Income from new products (%)** - this measures a company's success rate at developing and introducing new products.
Calculated as: (turnover from new products/services / turnover) x 100%

**Income from new segments (%)** - this identifies the ability of a company to generate sales from new market segments.
Calculated as: (turnover from new market segments/turnover) x 100%

**Interest cover** - this ratio indicates the proportion of profit taken up by interest payments. The larger the ratio the less vulnerable a company is to a fall in profits or a rise in interest rates.
Calculated as: pre-tax profit / interest paid

**Marketing expenditure/turnover (%)** - this is an indication of the company's investment in its marketing activity.
Calculated as: (marketing expenditure / turnover) x 100%

**New customers/customers (%)** - this figure, expressed as a percentage, identifies the growth in customer numbers regardless of new business generated.
Calculated as: (No of new customers / No of customers) x 100 %

**New employees/total employees (%)** - this is a measure of the relative experience level of a workforce. A higher figure signifies a low experienced workforce or it may reflect a high growth rate.
Calculated as: (no. of new employees / no. of employees) x 100%

**Number of employees per manager (#)** - this measures the number of employees to each manager / supervisor. It enables organisations to see the appropriateness of their level of management and supervision.
Calculated as: (no. of employees / no. of managers)

**Orders not delivered on time (%)** - this shows how well a business is meeting its commitment for delivery promises. A lower figure indicates better performance.
Calculated as: (no. of orders which were not delivered when promised / no. of orders received) x 100%

**Orders rejected during warranty (%)** - this shows how satisfied customers are with the quality of the products supplied. The lower the percentage, in general, the better, as it means that more orders are supplied with which customers are satisfied.
Calculated as: (no. of orders rejected during the specified warranty period / no. of orders received) x 100%

**Order value of complaints / turnover (%)** - this figure expressed as a percentage measures the total dissatisfaction of customers independent of the number of orders and customers.
Calculated as: (order value of recorded complaints received / turnover) x 100%

**Pre tax profit per employees (Eur)** - this is pre-tax profit divided by the number of employees. It is an indicator of profitability.
Calculated as: pre-tax profit / no. of employees

**Pre tax profit / turnover (profit margin, %)** - this is the profit before tax expressed as a percentage of turnover. It is an indicator of profitability and growth and provides a useful comparison for how well the costs have been controlled.
Calculated as: (pre-tax profit / turnover) x 100%

**R&D expenditure / turnover (%)** - this is an indication of the company's investment in the future, of its capacity to be innovative.
Calculated as: (R&D expenditure / turnover) x 100%

**Return on capital employed (ROCE, %)** - this is the profit before tax expressed as a percentage of the capital employed, where capital employed is taken to be the aggregate of shareholders' funds, long term loans, and long term liabilities. It is an indicator of both profitability and growth as it measures how effectively the business is using its funds in growing the size of the business itself.
Calculated as: pre-tax profit / (shareholder's funds + long term loans + other long term liabilities) x 100%

**Return on net assets (RONA, %)** - this is the profit before taxes expressed as a percentage of net assets (fixed, intangible and intermediate assets plus current assets less creditors and other current liabilities). It is an indicator of both profitability and growth regardless of method of financing.
Calculated as: pre-tax profit / (total assets - other current liabilities - creditors) x 100%

**Sales turnover per employee** - this is the ratio of sales divided by the number of employees. It is an indicator of profitability.
Calculated as: turnover / no. of employees

**Stock turns (#)** - this is the turnover divided by stocks, giving the number of times stocks are turned over during a year, or how quickly stocks are moved through the business. It is an indicator of profitability.
Calculated as: (turnover / stocks)

**Sub standard supplies (%)** - this figure highlights the quality of suppliers expressed on a percentage of total purchases.
Calculated as: (value of supplies which are sub standard on delivery / value of bought in materials) x 100%

**Supplies delivered on time (%)** - this percentage measures the ability of a company's suppliers to deliver on time. A higher figure demonstrates use of reliable suppliers.
Calculated as: (value of supplies delivered on time / value of bought in materials) x 100%

**Total leavers / total employees (%)** - this measures the rate at which the staff of an organisation turnover per year. It can give an indication as to how happy staffs are with their workplace, it can also demonstrate the effectiveness of the selection procedures in terms of getting the right people in the right positions.
Calculated as: (no. of people who leave the organisation / no. of employees) x 100%

**Total new income / turnover (%)** - this identifies the ability of a company to generate additional turnover from new customers.
Calculated as: (turnover from new geographical markets + turnover from new market segments + turnover from new products and services / turnover) x 100%

**Training expenditure / turnover (%)** - this is an indicator of the company's investment in its employees.
Calculated as: (training expenditure / turnover) x 100%

**Training expenditure per employees (Eur)** - this measures the company's financial investment in its employees, expressed as an average training spend per employee.
Calculated as: (training expenditure / no. of employees)

**Value of supplies per supplier (Eur)** - this ratio measures the average value of business for each supplier. A higher figure demonstrates a minimising of supplier relationships.
Calculated as: (value of bought in materials / no. of suppliers used for delivery of core products and services)

# Appendix 2. Public policy implications

To build on the findings in this report and support performance improvement in participating organisations and countries, it is clear from the issues involved that it will take a joint effort between the employees, management, investors, regulators, and policy makers.

Thus, open communication, through reports like this, is crucial to establish a common ground. In that context, the following points are some conclusions drawn to advise public policy makers based on the analysis undertaken.

- The gap between the top 25% firms and bottom 25% one in all countries is huge and there is an immediate opportunity to reduce that gap by cross learning. Focus on transfer of best practice via benchmarking studies, best practice reports, and benchmarking visits. Main areas that can be immediately highlighted include: cost base management and optimisation, supplier partnership management.
- The study revealed a low focus on organisational people (employees) in an age where knowledge is believed to be the future competitive edge. Focus on Training and Skills Development - The new world of work is introducing flexible working hours, knowledge workers, working from home, etc. While these patterns emerge, organisations must change the way they deal with their people to achieve maximum benefit. It is firmly believed that the success of an organisation lies more in its intellectual and systems capabilities than in physical assets. Without altering human knowledge, skill, and behaviour, change in technology, processes, and structures is unlikely to yield long-term benefits. National efforts to support people development and intellectual capital management would go a long way in generating the required awareness.
- The study revealed the potential positive effects of benchmarking on improving performance. However, some areas did not improve (or even worsened). This shows that while conducting the benchmarking exercise is useful, the real benefit will only be achieved if clear action plans and follow ups result from that exercise. An understanding should be established that participating in studies such as this is only the first step in a never ending improvement journey.
- Across the sample countries, there seemed to be a worrying lack of investment in building for the future (mainly research and development and training). This might have been affected by the economic volatility in the past year or so which most probably undermined investment confidence. However, the future, as it always is, will not be a continuation of the past and organisations must involve in innovative research to keep ahead. Research and Development can be encouraged as part of a national policy via providing tax benefits to such activities, providing research forums, facilitating organisational cooperation with dedicated research centres and educational establishments.
- There is also a lack of growth-targeted activities. Organisations in the sample do not seem to have enough efforts to expand into new markets, geographies, or new segments. This is partially due to lack of R&D, but also it seems that not many have taken up sophisticated e-commerce initiatives or built on the EU open trade agreements. Despite the common perception that organisations are embracing the internet and e-business, there seems to be little evidence to support this as the impact so far seems limited. The real impact of the internet is still to be felt. It is anticipated that it will change the way firms do business in the near future and organisations must be prepared for that. A national effort to focus on these areas and provide guidance and awareness will provide the required impetus.
- There seem to be several cross-country learning opportunities were organisations in some countries seem to be leading. Such areas include the business performance of the service sector in the UK, the growth strategy and activities in Austria, and financial management (asset management) in Germany.

The gap between the top 25% of firms and the bottom 25% in all countries is **huge** and there is an immediate opportunity to reduce that gap by cross learning

This report relied on the Benchmark Index methodology to gather the data required. The data was gathered from nine* European Countries from both the manufacturing and service sectors as the table below shows.

| Country | Sample size | |
|---|---|---|
| | *Manufacturing* | *Service* |
| Austria | 147 | 46 |
| Germany | 110 | 54 |
| Spain | 185 | 81 |
| Greece | 77 | 17 |
| Ireland | 161 | 12 |
| Italy | 159 | 37 |
| Portugal | 186 | 3 |
| United Kingdom | 76 | 39 |
| **Total** | **1101** | **289** |

The following notes are useful to keep in mind when reading the report and drawing conclusions.

- All data presented in the report is in Euro. In the country overview profiles, the facts gathered from various sources were converted from US$ to Euro on an exchange rate of 1.162 (29th of Jan 2002).
- A significant number of the UK manufacturing companies were first benchmarked before Jan 2001. While for the other countries most of the benchmarks were carried out in 2001. We may not be comparing the same accounting time periods. This may go some way to explain why the UK companies average turnover per employee is low compared to Germany, Ireland, Spain and Italy.
- In the manufacturing samples, and for some of the countries the influence of one specific industry sector may be coming through. For example around 37% of the Portuguese companies come from the chemical sector. This may partly explain why this country's manufacturing sector average capital investment/turnover (%) was so high.
- In the manufacturing samples, and while most companies were able to provide the financial information for the benchmarking exercise, the deficiency tends to be present when it comes to information about customer complaints, orders not delivered on time and warranty.
- In the service samples, and due to the sample sizes involved in the service sector this data should generally be treated with caution. Greece, Ireland and Portugal were not included in the analysis due to insufficient sample sizes.
- In the service sector sample for Austrian data, data for the return on Capital Investment (ROCE) should be treated with caution since very few companies provided this information.
- In the service samples, and for some of the countries, the influence of one specific industry sector may be coming through. For example, the Austrian data has a large sample of retail companies (no other nation has as large a proportion). The influence of the retail companies may be impacting the average performance when it comes to profit, RONA and debtor days.

** The Netherlands also took part, however at the time of drafting this report there was insufficient Dutch data to make any meaningful comparisons. As such, the Netherland have been excluded from this analysis*

# Appendix 4. Benchmark Index Analysts

Data analysis in this publication has been carried out by the Centre for Business Performance at the Cranfield School of Management, Cranfield University. The analysis has been headed by the Centre's Director, Professor Andy Neely with support from Dr. Marek Szwejczewski and Dr. Yasar F. Jarrar

**Professor Andy Neely** BEng MA PhD
**Director, Centre for Business Performance**
Professor Andy Neely is Director of the Centre for Business Performance at Cranfield School of Management and Professor of Operations Strategy and Performance. Prior to joining Cranfield University he held a lecturing position at Cambridge University, where he was a Fellow of Churchill College. Andy has been researching and teaching in the field of business performance measurement since the late 1980s. He chaired the first and second international academic conferences on performance measurement, in July 1998 and July 2000 respectively and co-ordinates the Performance Measurement Association, an international network for those interested in the subject. He has completed numerous research and consulting projects and authored over 100 books and articles, including "Measuring Business Performance", which was published by the Economist. He has consulted to and worked with a wide variety of organisations including 3M, Accenture, Aventis, British Aerospace, British Airways, British Telecom, DHL, Diageo, Hogg Robinson, KPMG, NatWest, Pilkington, Posten, Reckitt and Colman, Rolls Royce Aerospace and Schering.

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**Senior Research Fellow in Operations Management**
Marek is responsible for the administration and is involved in the judging of the Management Today/Cranfield School of Management Best Factory Awards scheme. His first degree is in Economics and he completed his Master of Science in Computer Integrated Manufacturing at Cranfield University in 1991. Prior to joining Cranfield he worked for eight years in marketing management. He has worked in various industry sectors, ranging from retailing to telecommunications and, prior to coming to Cranfield was Marketing Manager with Motorola. After completing his MSc, Marek joined the Operations Management Group at the School of Management, to work on the Best Factory project. His current research interests are manufacturing strategy, performance measurement and world class manufacturing. He is the author and co-author of a number of articles and reports on manufacturing performance and strategy and supply chain management.

**Dr. Yasar F. Jarrar** BSc MSc PhD
Yasar joined the Centre for Business Performance in January 2001 as a Research Fellow, and is currently involved in applied research for sponsoring organisations (DHL, Bank of Scotland, Arla Foods, BTCellnet, Greggs of Yorkshire and Accenture). Currently, major research areas include Performance Measurement and Management, Customer Relationship Management and Six Sigma. Yasar is also involved in research projects for NGO's like the Productivity and Standards Board (Singapore) and The Government of Dubai (e-government initiative). Yasar is currently an Honorary Visiting Fellow in Total Quality Management at the European Center for Total Quality Management, University of Bradford, UK, and has been an invited speaker in numerous national and international events. Yasar also previously worked as a Quality Management Consultant and Industrial Engineer in the Middle East.

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