



# The State of the European Consulting Engineering Sector

**BAROMETER spring 2016**

**efca**



Representing  
FIDIC in Europe

### **EFCA Barometer Task Group**

David Cramér	STD –	Svenska Teknik&Designföretagen (Sweden)
Anya de Bie	ORI –	Organisatie van advies- en ingenieursbureaus – Organisation des bureaux d'ingénierie et de conseil (Belgium)
Henrik Garver	FRI –	Foreningen af Rådgivende Ingeniører (Denmark)

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## State of the consulting engineering sector; spring 2016

*The fragile stabilisation continues, expectations are slightly positive for the coming six months.*

The most important trend identified in this biannual survey of the European consulting engineering sector is a further stabilisation of markets in southern Europe following several years of decline, and an apparent slowdown, though still positive growth, in the markets of central and northern Europe.

The global size of the architecture and engineering market in Europe is around 350 billion, according to Eurostat.

Generally the sector is reflecting the gradual growth of European economies and their investment activity in gross fixed capital formation. The sector is influenced by the budget constraints of the governments in the European countries. The public sector has drastically reduced its investments. The market for engineering services is generally stabilising at a low level, as previously anticipated, and order stocks of most companies are slowly but steadily growing.

The main challenges as perceived by the sector are lack of qualified staff, lack of investments and low fees.

## INTRODUCTION

The Barometer Task Group of the European Federation of engineering Consultancy Associations (EFCA) has been conducting biannual surveys since 2012 to provide an overview of the consulting engineering sector in Europe, detailing developments for the latest six months and expected trends for the coming six months.

The Task Group has produced this report and analysis based on best available information on the current state of business (April 2016) collected through a survey by the member associations of EFCA for their respective countries.

### Respondents

ACEI	Ireland	OICE	Italy
APPC	Portugal	ORI	Belgium
ARIC	Romania	RIF	Norway
ATCEA	Turkey	SKOL	Finland
CACE	Czech Republic	STD	Sweden
FRI	Denmark	Syntec Ingénierie	France
HELLASCO	Greece	Tecniberia	Spain
NLingenieurs	Netherlands	USIC	Switzerland
OAI	Luxembourg	VBI	Germany

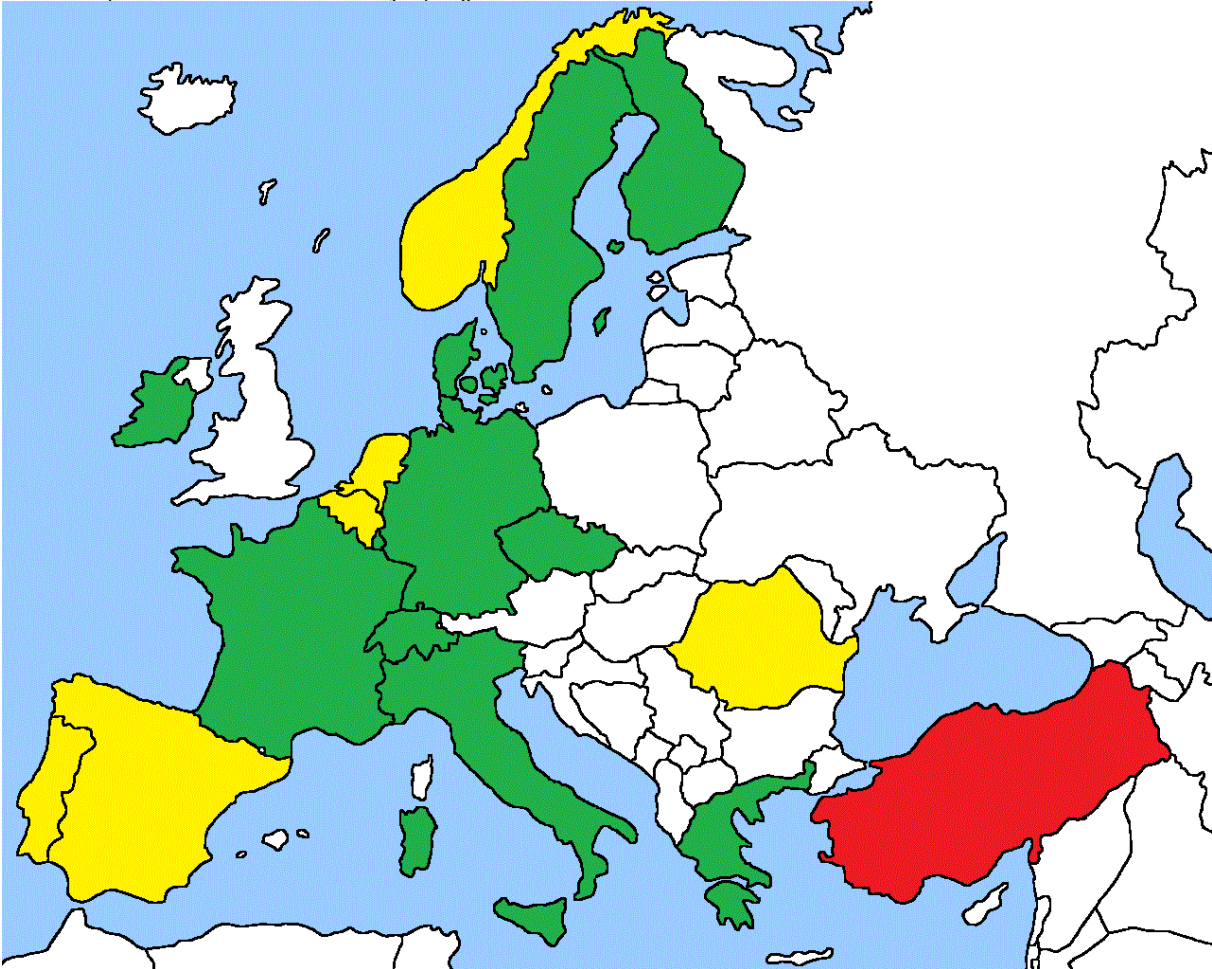
# SURVEY RESULTS

## Turnover

### Actual developments in turnover

The consulting engineering sector in Europe is showing a positive trend when it comes to the development of turnover. Turnover has increased on most markets, and for the first time since 2009, there is a real tendency towards revival for the overall market in Europe. We see growth in Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Sweden and Switzerland. A status quo in Belgium, the Netherlands, Norway, Portugal and Spain; and a decline in Turkey.

Turnover, past six months. EFCA survey, spring 2016.



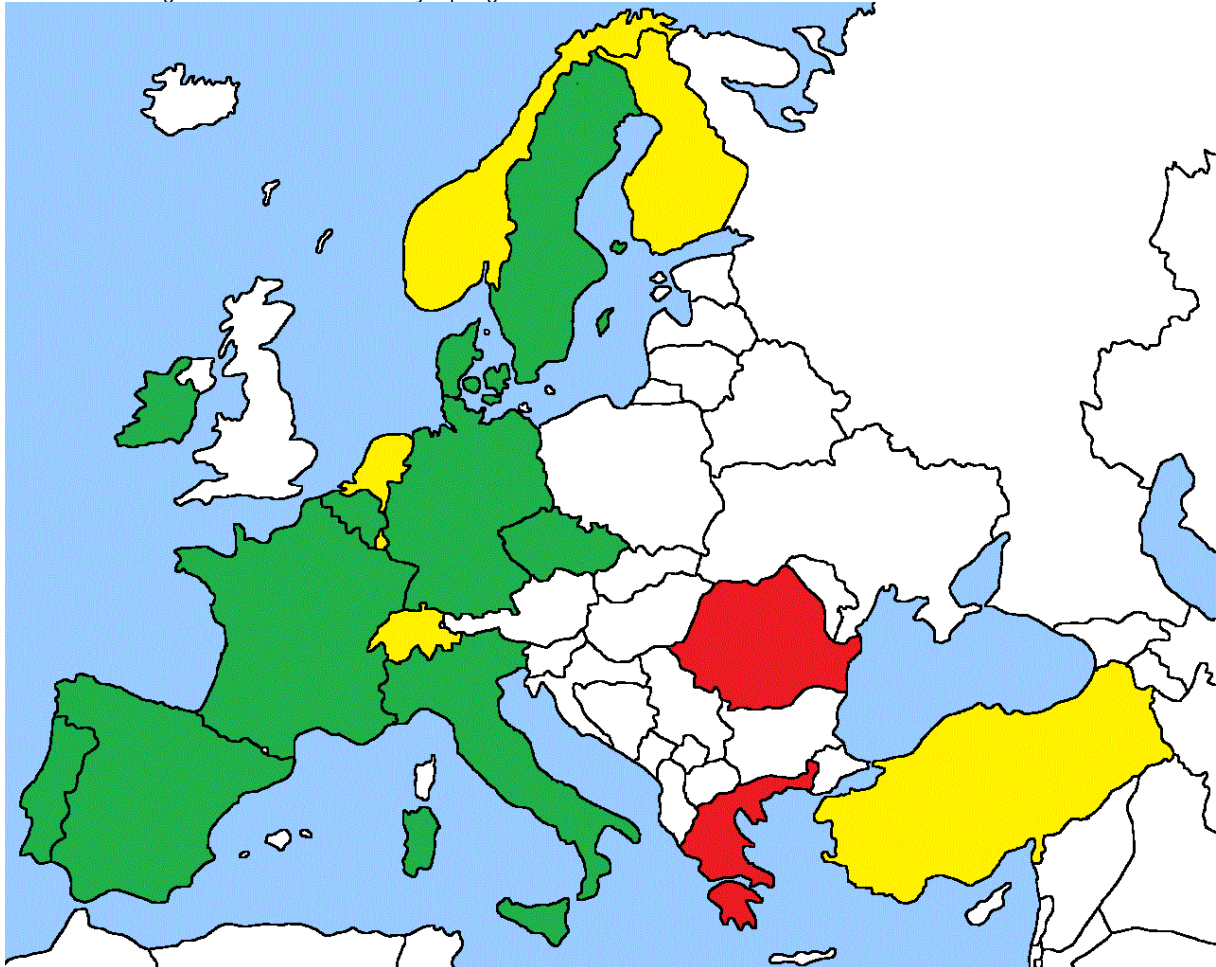
Turnover: increase ■ (green); stable ■ (yellow); decrease ■ (red).

Turnover for consulting engineering sectors – six month trends October 2015 to April 2016

## Expected developments in turnover

In the survey, respondents were asked about the expected development in turnover for the coming six months. Half of the consulting engineering associations expect the turnover in their country to increase and the other half expect it to remain stable. The positive development in both markets on the Iberian Peninsula that we saw for the first time in the fall of 2015 thus seems to continue. Out of the 18 countries providing data, only Greece and Romania are expecting turnover to decrease in the next six months.

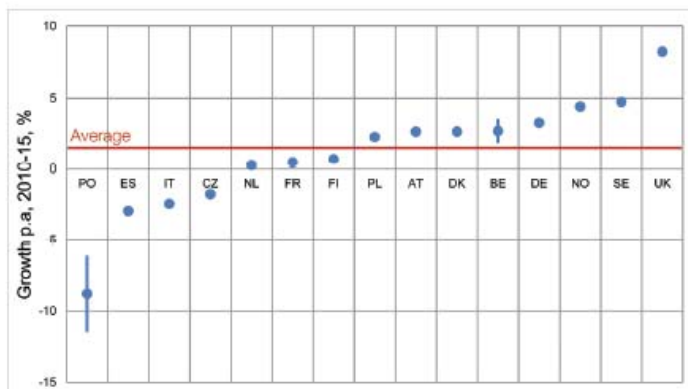
Turnover, coming six months. EFCA survey, spring 2016



Turnover: increase (green); stable (yellow); decrease (red).

## Turnover for consulting engineering sectors – expectations for coming six months

In the diagram below, from Bricad Associates, the annual growth rate for the period of 2010-2015 in demand for consulting engineering services around Europe is displayed. It shows that the UK has experienced the highest growth in demand over the period, followed by the Scandinavian countries. Portugal and Spain have experienced the steepest decline in demand, closely followed by Italy.

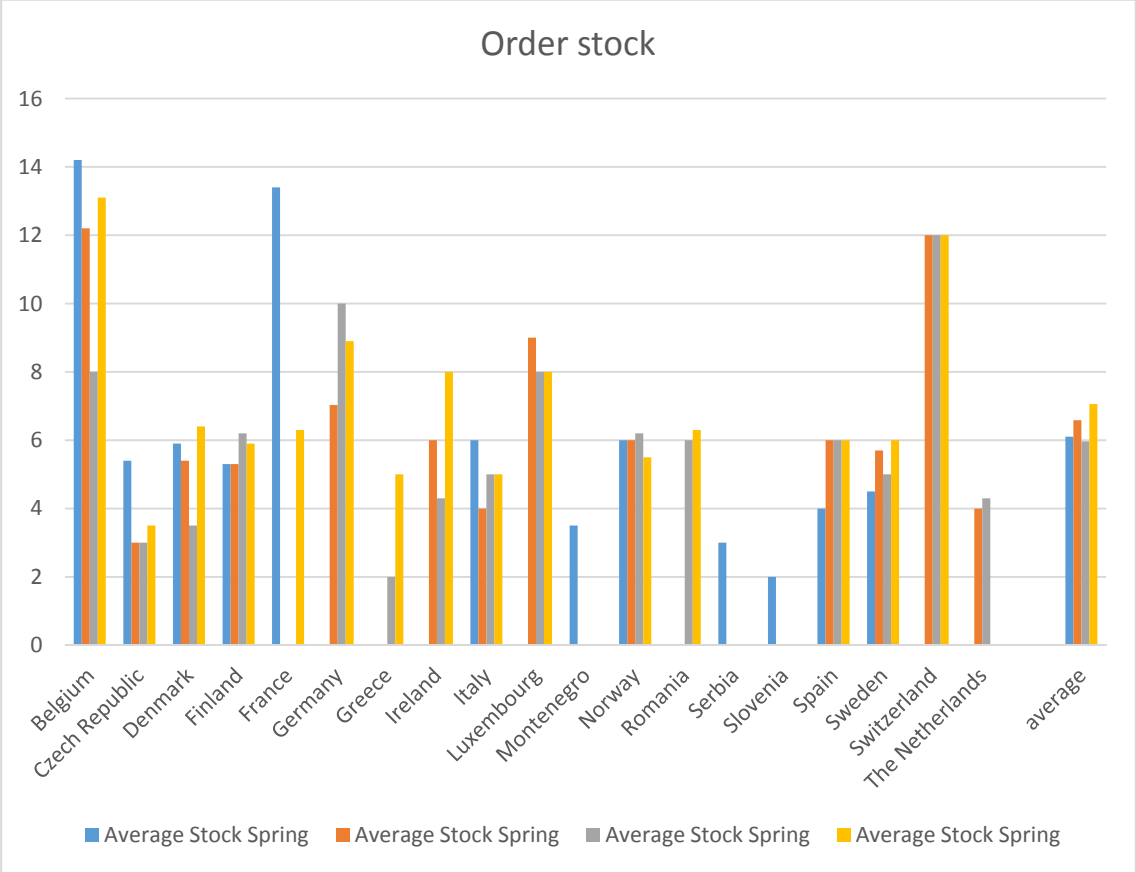


Source Bricad Associates, May 2016  
Annual growth rate for the demand for consulting engineering

# Market

## Average order stock<sup>1</sup>

By spring 2016, the average amount of work consulting engineers had ‘in stock’ in Europe (the ‘order stock’) was 7.1 months’ worth. Data are not available for all countries or surveys, but there is a general growing trend in order stock for the European market as a whole.



\* No data received from Serbia, Montenegro, Slovenia and The Netherlands

### Average order stock held by consulting engineering firms, 2013-2016 – by country

### Development in order stock

Overall, the average order stock of consulting engineering firms in Europe has been increasing over the past six months. In many countries, it has remained stable.

<sup>1</sup> The order stock in the survey is defined as ‘the total work that a firm has agreed to do in the future’. Example: The order stock is €1 million and the firm has 20 employees. The average annual turnover/employee is €100,000 and the current order stock/employee is €1 million/20 = €50,000/employee. The current order stock therefore represents €50,000/100,000 = 0.5 \* 1 year = 6 months’ work for the firm.

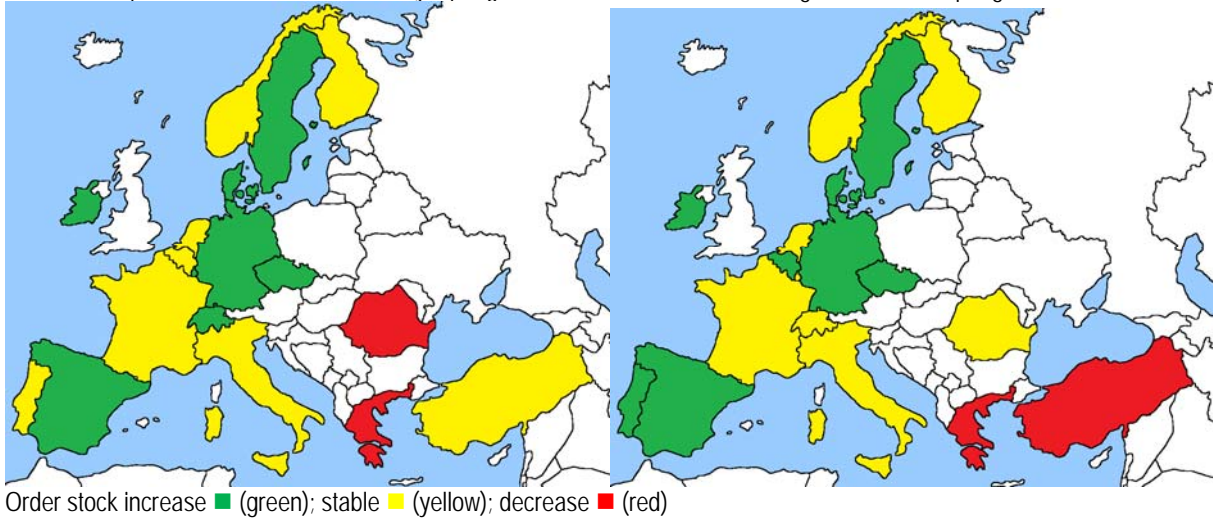
## Expected developments in order stock

Half of the associations that responded to the survey expect the order stock of their member firms to increase while the other half expect it to remain stable in the coming six months (from May 2016). Only Greece and Turkey expect a decline.

### Expected trends in order stock – EFCA survey. Spring 2016

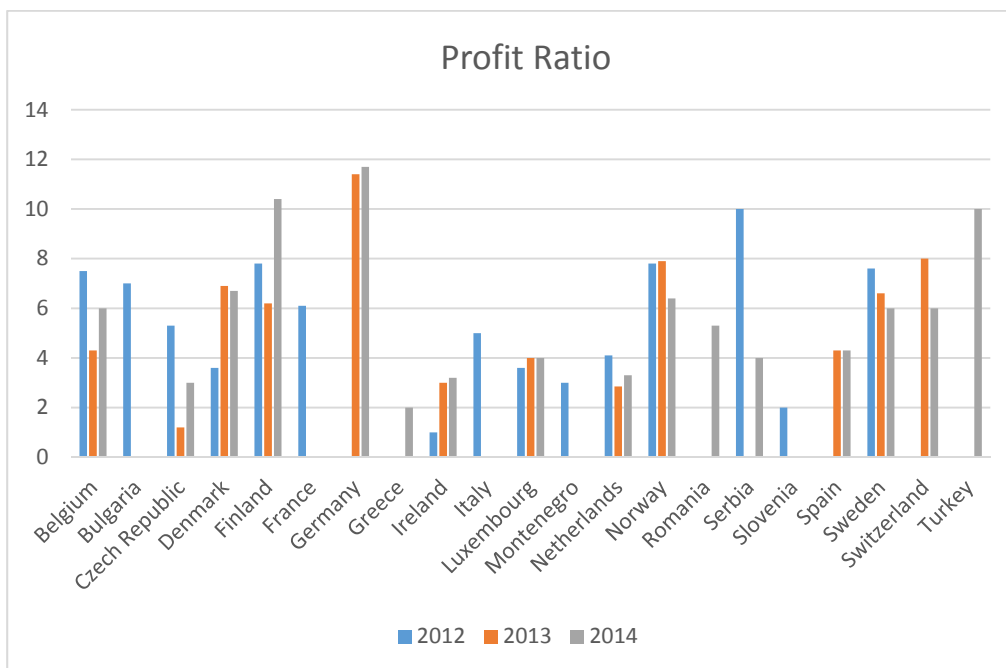
Order stock, past six months. EFCA Survey, spring 2016

Order stock, coming six months. Spring 2016.



## Profit

Once a year EFCA member associations are asked for the average profit ratio in their country based on the results of the previous financial year. Profit ratio is measured as EBITDA, 'earnings before interest, taxes, depreciation, and amortisation'. On average, the European profit ratio in 2014 was 5.6% of total turnover. When excluding Germany, which has the highest profit ratio, the European average was 5.2%, down from 5.8% in 2013 and from 5.4% in 2012.



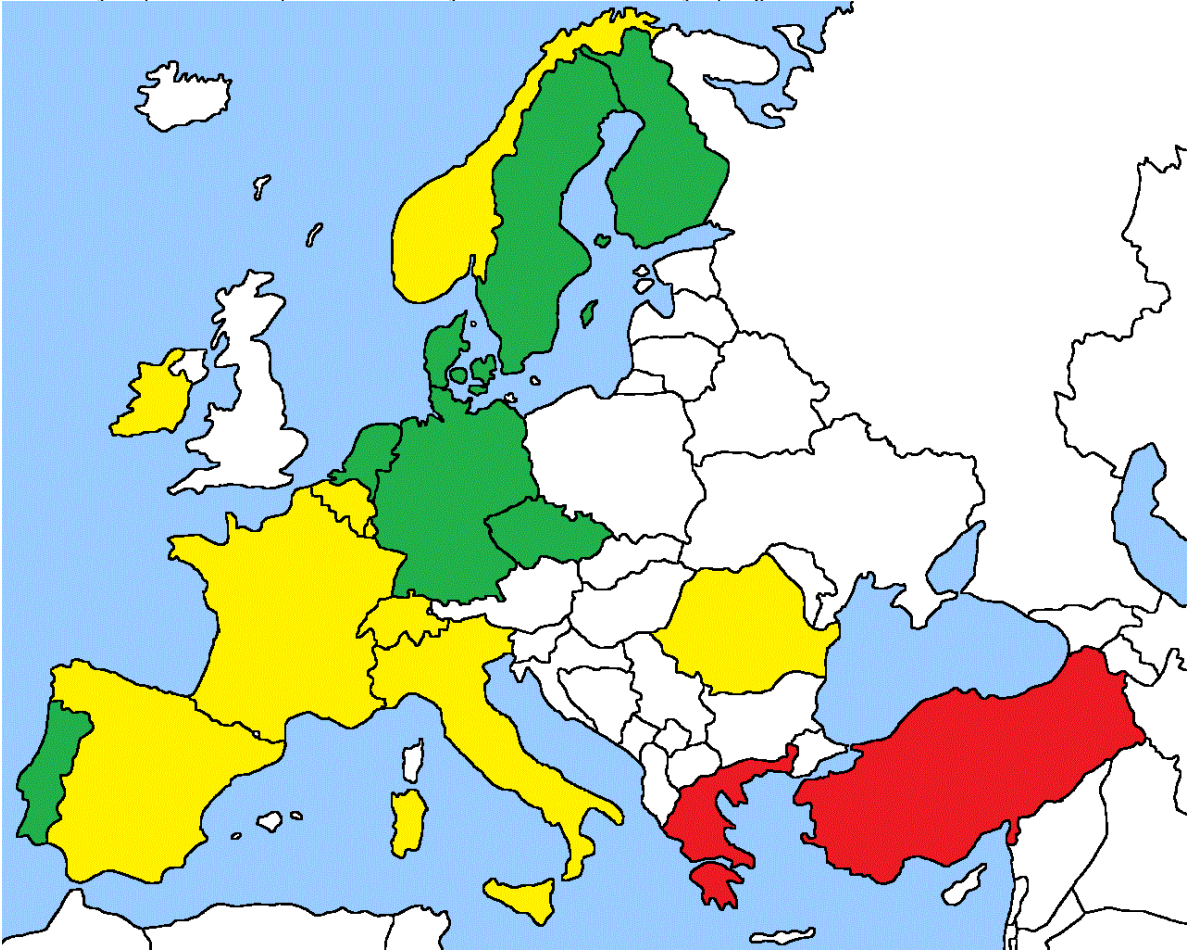
\* No data received from Bulgaria, France, Italy, Montenegro, Poland, or Portugal

Profit ratio for 20 European countries, 2012-2013-2014

For the countries that responded to the survey, there is an overall positive trend in the development of the profit margin.

### Expected developments in profitability

Profitability, expected development for the full year, 2016. EFCA survey, spring 2016

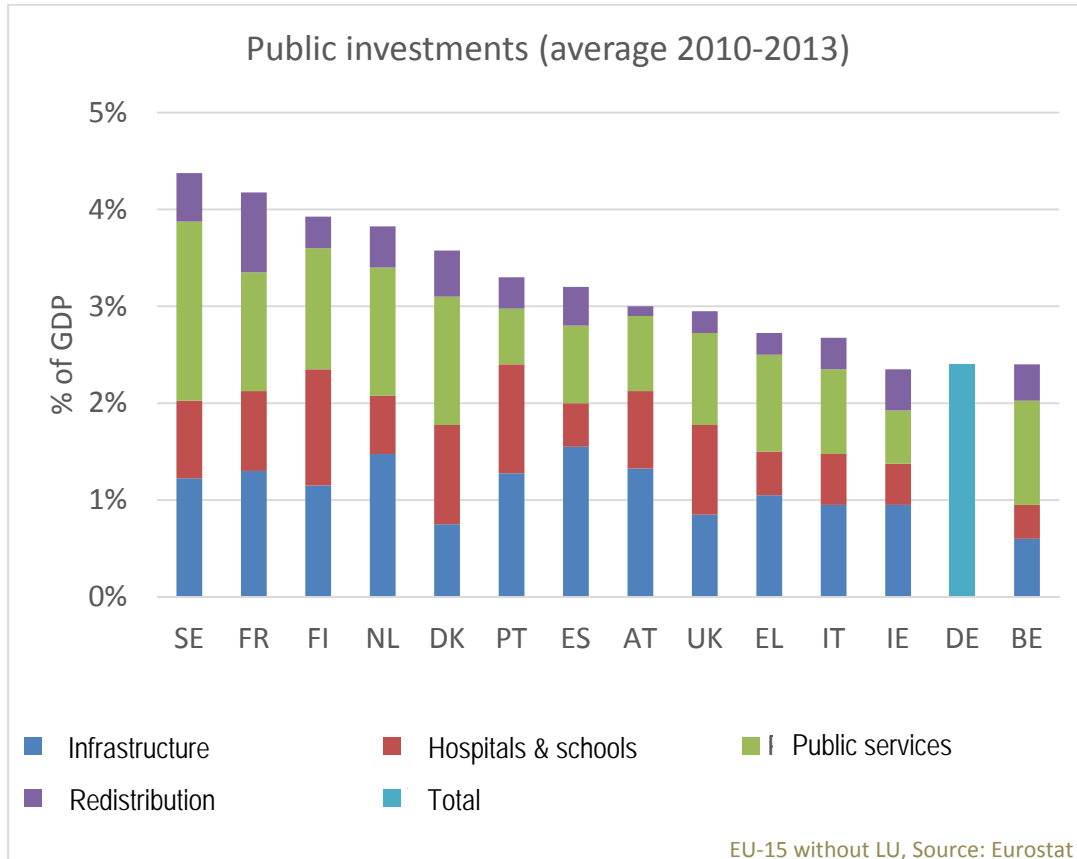


Profitability increase (green); stable (yellow); decrease (red)

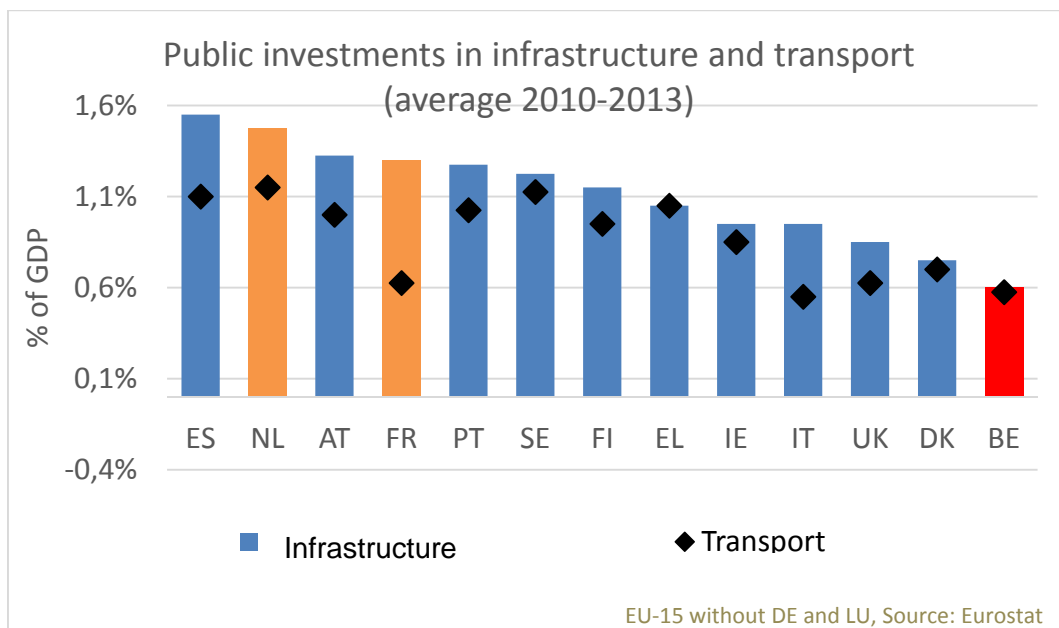
Half of the associations that responded to the survey expect profitability on their respective market to increase in 2016, compared to 2015. The other half expect profitability to remain stable. Only Greece and Turkey expect a decrease.



This graph gives an overview of the distribution of public investments in infrastructure as percentage of GDP for 14 European countries. The public investments are in health and education, transportation infrastructure (water, train, air, and road infrastructure) and public services. The public investments in the Scandinavian countries are around 4% of GDP. In Ireland, Germany and Belgium it is about 2.4 % of GDP.



The graph below illustrates public investments in transport infrastructure as percentage of GDP. The figure for infrastructure includes investments in all modes of transportation (water, air, road, rail, etc.) whereas Transport includes only road infrastructure. Spain invested almost 1.6% of GDP and Belgium only 0.6%.

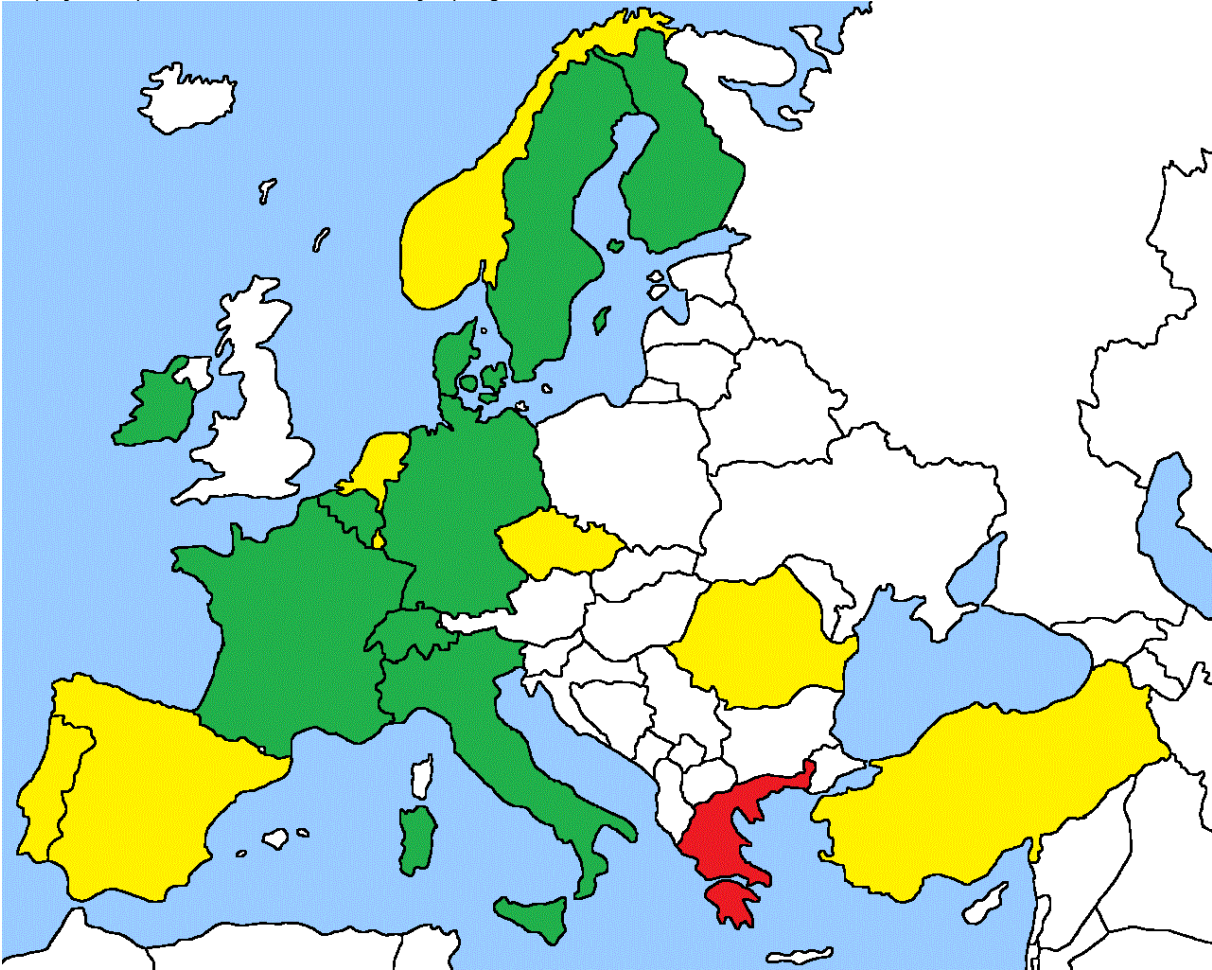


# Employment

## Actual developments in staffing

The trend in employment varies between the participating countries. The majority of EFCA member associations indicated that the number of staff (measured in 'full time equivalents' (FTE)<sup>2</sup>) in their member firms increased over the six months between October 2015 and April 2016. The map indicates where staff size has increased, been stable, or decreased.

Employment, past six months. EFCA survey, spring 2016.



Employment: increase ■ (green); stable ■ (yellow); decrease ■ (red).

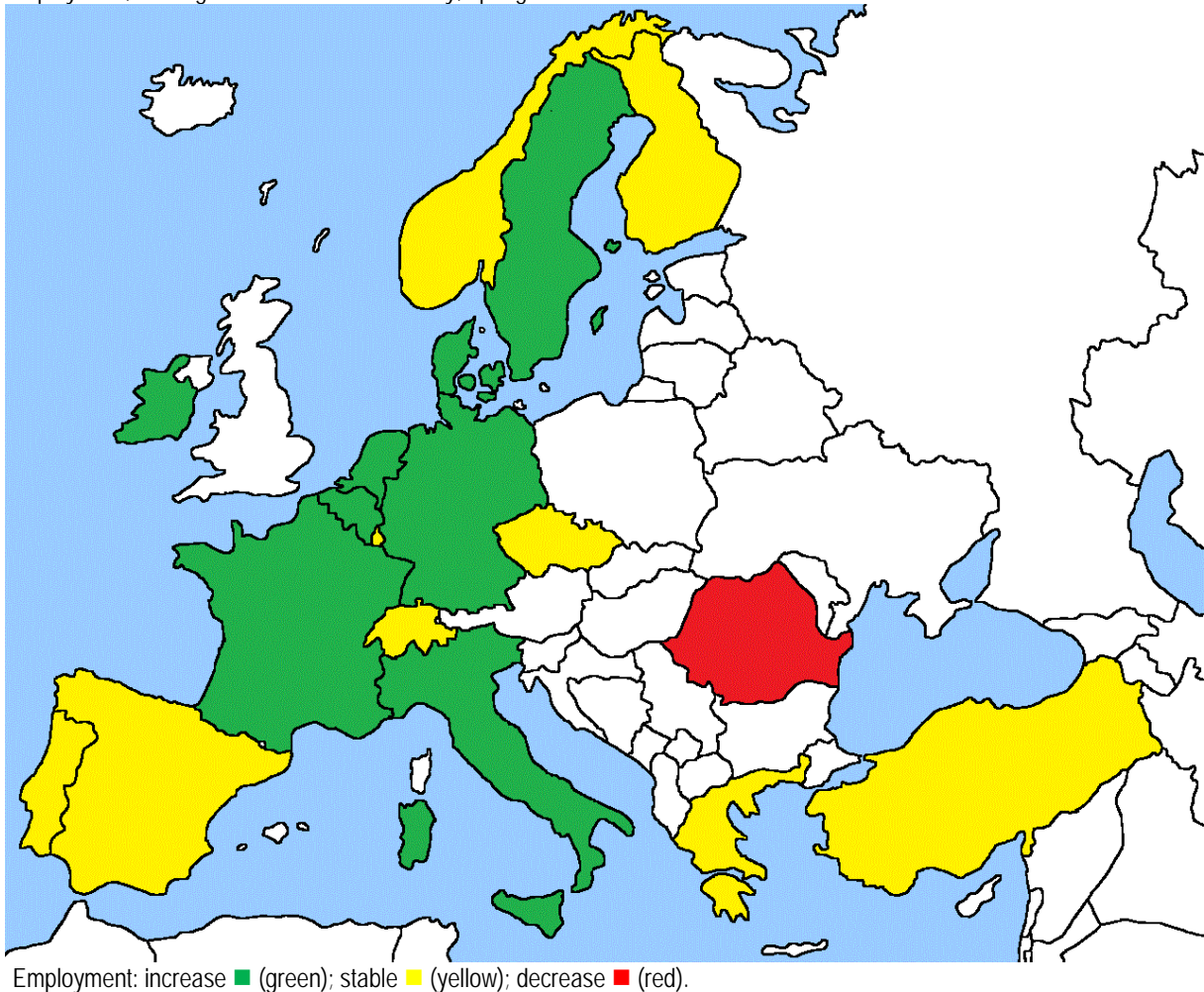
Developments in employment for consulting engineering sector – six-month trends 2015

<sup>2</sup> No. of staff/employees is defined as FTE, where the total number of hours worked by the staff in a company is divided by the equivalent of a full year's workload. Example: four half-time employees are counted as two employees.

## Expected developments in staffing

More than half of the participating associations expected employment (in their member firms) to continue to increase over the coming six months, from May onwards. This gives an indication that the industry is expecting growth to continue in the coming six to twelve months.

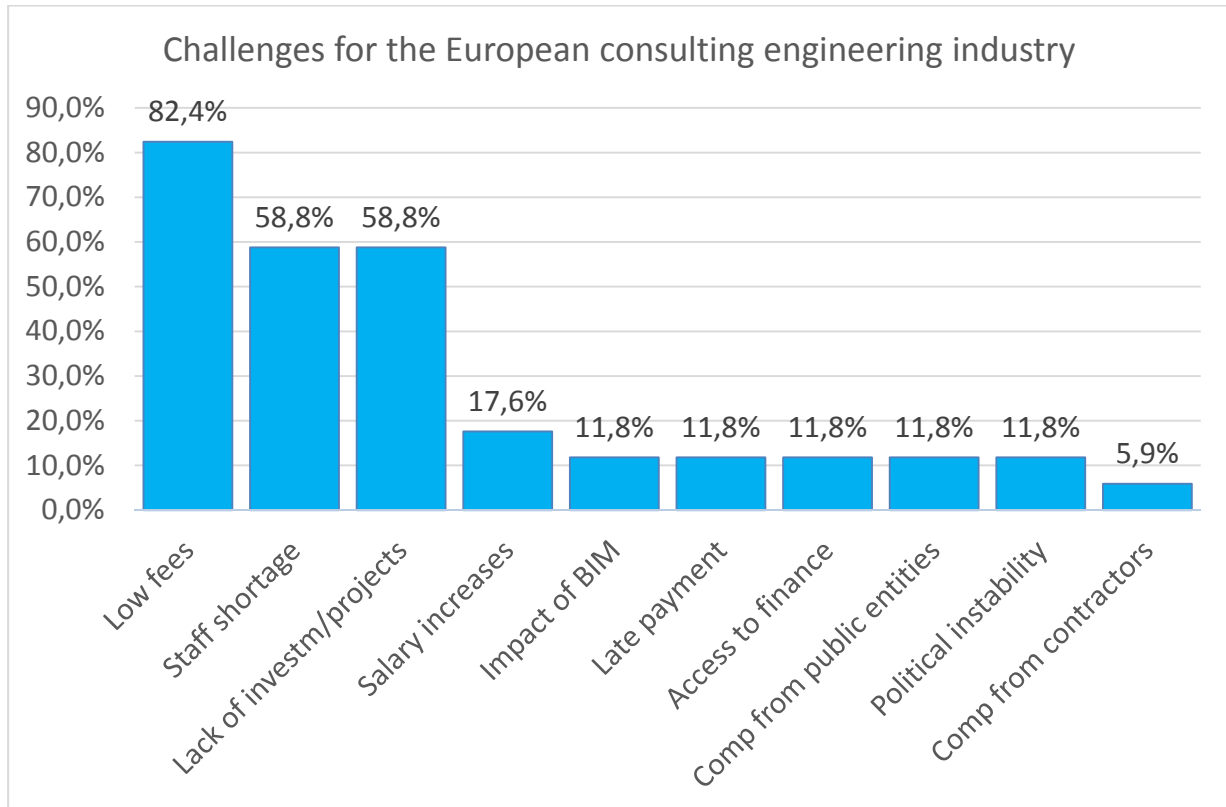
Employment, coming six months. EFCA survey, spring 2016.



Developments in employment for consulting engineering sector – expectations for the coming six months

## Challenges for the Consulting engineering industry in Europe

The participating associations were asked to select the three main challenges facing the sector in their respective countries. The results were quite conclusive; low fees is the main challenge. Shortage of qualified staff and lack of investments are the following two main challenges.



### Low fees

The main challenge for the consulting engineering industry across Europe is to obtain higher fees for the services. This means that the individual firms should consider a review of their business models. Public Procurement and the competition that goes with it, is a likely driver of low fees, as focus is on cost of services rather than quality of services.

### Lack of qualified staff

Ten out of seventeen countries namely Czech Republic, Denmark, Finland, France, Germany, Ireland, Luxemburg, Sweden, Switzerland and Turkey find that lack of qualified staff is one of the most importance challenges for the industry.

### Lack of investments

Lack of investments is the third major challenge for the European consulting engineering industry. As with lack of qualified staff, this is considered a major challenge by ten out of seventeen countries.

### BIM Building Information Modelling

BIM is an important issue in most countries. However, the impact of BIM in the market is not identified as a major challenge, although it can be expected to have a significant impact on the future of the consulting engineering business.

The cost of bidding/tendering is becoming more and more an issue. The services demanded during the bidding and tendering phase is not proportional to the size and complexity of the projects.

## CONCLUSIONS

This survey of the European national associations of consulting engineers shows that the market for their members' services is stabilising, albeit at a low level of activity in many of the countries. In most markets, this is an expected development. The industry has managed to keep a steady level of order stock.

The most significant trend emerging from the survey is that the markets in southern Europe are showing signs of recovery after several years of decline while those in central and northern Europe appear to be stabilising or slowing down.

### **Developments during 2015 and 2016**

Surveys conducted by EFCA (the European Engineering Consultancy Sector) among its member associations during the year give the impression of an industry on the road to recovery. In the latest survey (conducted in April 2016) for the EFCA Barometer report, the signals continue to be slightly positive and optimistic. Participating countries were Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Romania, Turkey, the Netherlands, Norway, Sweden and Switzerland.

Eight out of seventeen countries expected their incoming orders to increase over the next six-month period. These countries were Belgium, Czech Republic, Denmark, Germany, Ireland, Portugal, Spain and Sweden.

For 2016, seven out of the seventeen countries expect that their profit margins will improve, namely Czech Republic, Denmark, Finland, Germany, the Netherlands, Portugal and Sweden. Greece and Turkey anticipate a deterioration.

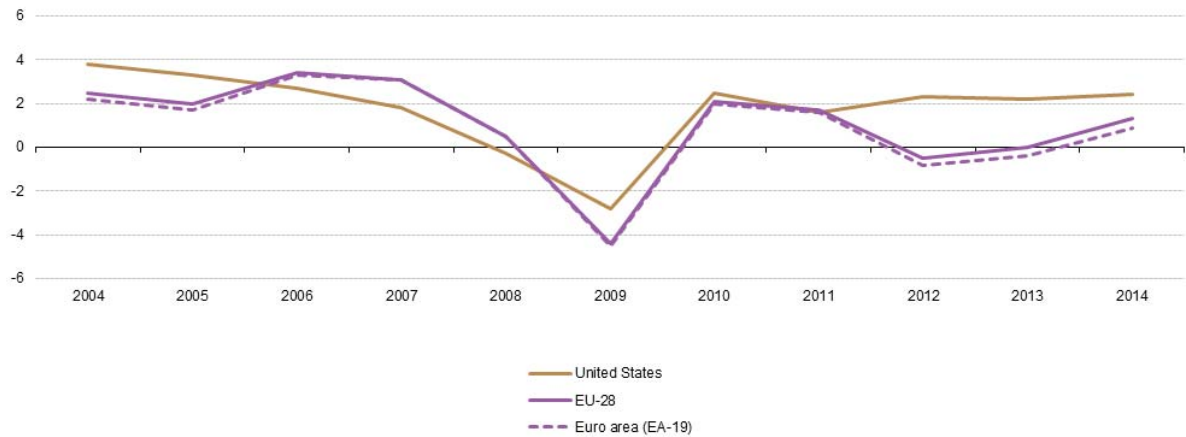
The conclusion of the survey is that order levels are improving all over Europe. With the improvement in order stock, the level of profitability can be expected to increase in the current year as well as next year. Greece and Turkey, however, are expected to face continued difficulties and are the exception to the rule in this survey.

In conclusion, activity in the consulting engineering industry in Europe appears to be following the general growth trend of European economies.

## Appendix 1 – Eurostat statistics relevant for the sector of architects and engineers

### Real GDP growth, 2004–14

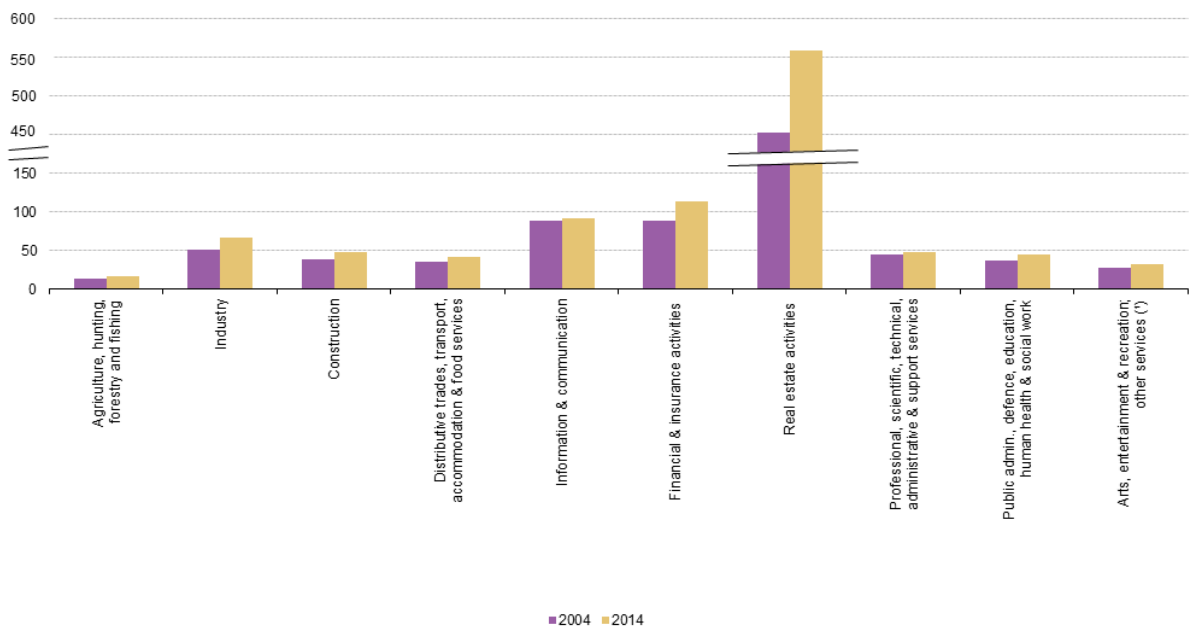
[http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Real\\_GDP\\_growth\\_2004%E2%80%9314\\_\(%25\\_change\\_compared\\_with\\_the\\_previous\\_year\)\\_YB15.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Real_GDP_growth_2004%E2%80%9314_(%25_change_compared_with_the_previous_year)_YB15.png)



Source: Eurostat (online data code: nama\_10\_gdp)

### Labour productivity, EU-28, 2004 and 2014

[http://ec.europa.eu/eurostat/statistics-explained/images/2/2e/Labour\\_productivity%2C\\_EU-28%2C\\_2004\\_and\\_2014\\_%28thousand\\_EUR\\_per\\_person\\_employed%29](http://ec.europa.eu/eurostat/statistics-explained/images/2/2e/Labour_productivity%2C_EU-28%2C_2004_and_2014_%28thousand_EUR_per_person_employed%29)



(\*) Includes also activities of household and extra-territorial organisations and bodies.  
Source: Eurostat (online data codes: nama\_10\_a10 and nama\_10\_a10e)

## Appendix 2 – definitions

EFCA	European Federation of engineering Consultancy Associations – the association for the engineering consultancy industry in Europe
ECB	European Central Bank
Turnover	Total revenues/sales
Profit ratio/margin	Turnover divided by profit, measured as EBITDA (earnings before interest, taxes, depreciation and amortization)
FTE	Full time equivalent. Number of staff/employees is defined as FTE, where the total number of hours worked by the staff in a company is divided by the equivalent of a full year's workload. <i>Example:</i> four half-time employees are counted as two employees according FTE
Order stock	The total work/assignments that the firm has agreed to do in the future
Order stock in months	Order stock defined by what it represents in time for the firm. How much time, how many months, does the workload of the current order stock represent for the whole firm? <i>Example calculation:</i> The order stock is €1 million. The firm has 20 employees. The average yearly (12 months) turnover/employee is €100,000. The current order stock/employee is: €1 million/20 = €50,000/employee. Order stock defined in months is: €50,000/€100,000 = 0.5 * 12 (months) = 6 months