

The background of the cover features a complex, abstract circular design. It consists of numerous concentric rings and arcs in various colors including blue, red, yellow, and grey. Some of these arcs have arrows pointing in different directions, creating a sense of dynamic movement and interconnectedness. The overall effect is reminiscent of a stylized globe or a complex network diagram.

The State of the European Consulting Engineering Sector

BAROMETER autumn 2016



EFCA Barometer Task Group

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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 (November 2016) collected through a survey by the member associations of EFCA for their respective countries.

Respondents

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

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Executive summary: State of the European consulting engineering sector; autumn 2016

Market stabilisation continues and expectations are positive for the coming six months.

The most significant trend emerging from the autumn 2016-barometer survey of the consulting engineering markets in Europe, is that we can identify a stabilisation of the markets in southern European countries but at a lower level than before the crisis in 2008. The northern European countries have, for several years, seen positive growth, and these markets appear to be stabilising at a high level.

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

The sector in general is reflecting the growth of European economies, particularly the level of investment in gross fixed capital formation. The sector is influenced by the budget constraints of the governments across Europe, as the public sector has reduced its investments, the market for engineering services is affected. However, in spite of retraction in the public market, the order stocks of many consulting engineering companies are growing, due to an increase in private sector demand. The most significant effect of this is, that across the European continent, an increasing number of companies encounter difficulties finding qualified staff.

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

One of the challenges is the increasing competition from contractors. This challenge can be disruptive for the building industry, and poses both threats and opportunities for consulting engineering companies.

A second increasing challenge is political instability which is affecting the market. Some factors are not predictable such as the Brexit-related uncertainty, the geopolitical tensions and security threats in Europe and the outcome of elections and referenda across Europe in 2017.

Market developments during 2016 and expectation for 2017

In this EFCA Barometer report (data collected in November 2016), the market signals are positive. Nine out of nineteen countries expect an improvement in order stock over the next six-month period. Of the remaining ten countries in the survey all, except for Turkey, expect orders to be at an unchanged level.

In addition, eight countries expect turnover to increase in the first half of 2017, and importantly, the survey shows an increase in profitability. Finally, there is an expectation that numbers of staff will increase in 10 out of 19 countries.

In conclusion, activity in the consulting engineering industry in Europe is improving. However, Greece and Turkey are expected to face continued difficulties and are the exception to the rule in this survey.

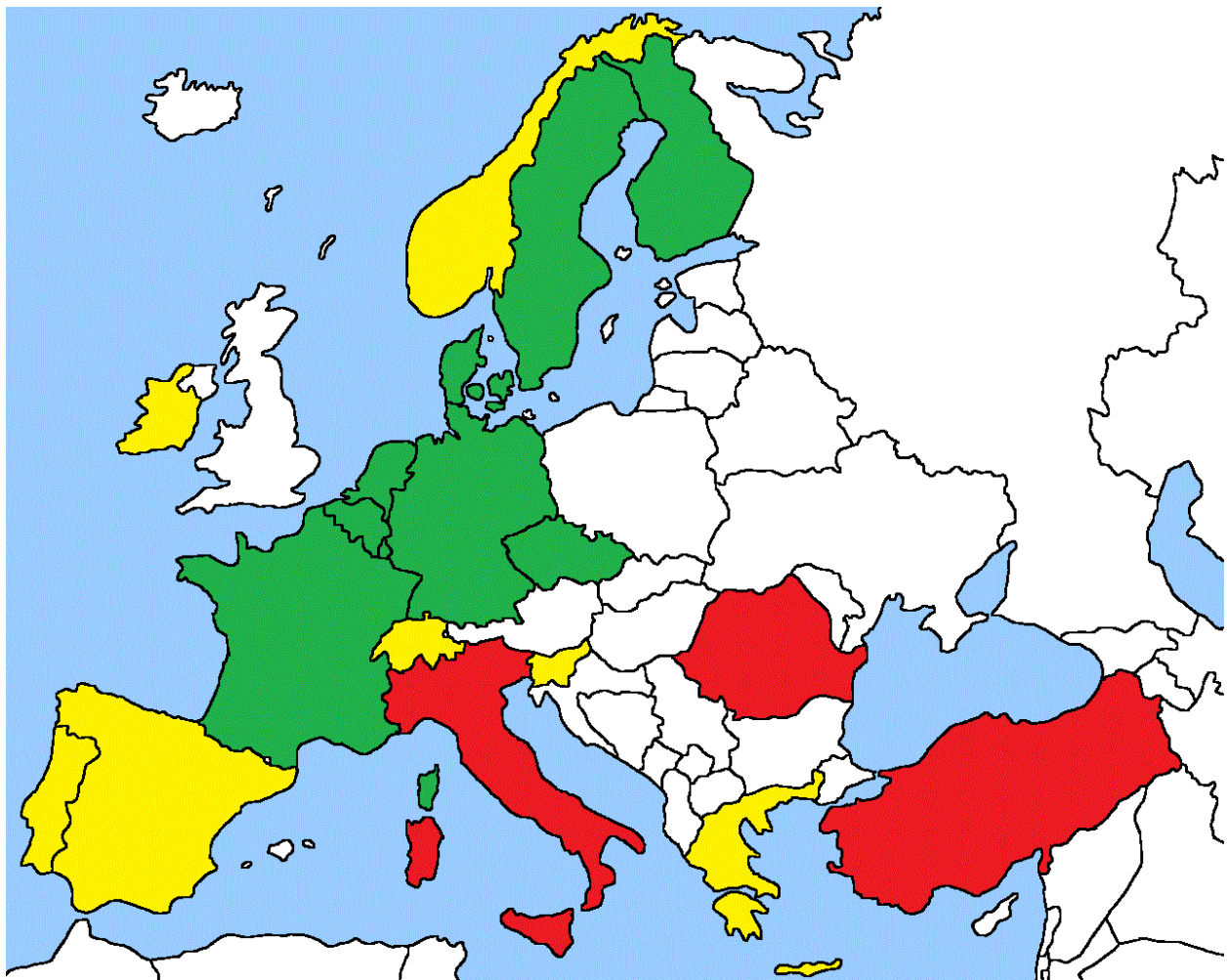
EFCA Barometer Task Group, December 2016

SURVEY RESULTS

Turnover

Actual developments in turnover

The consulting engineering sector in Europe is showing a positive trend in turnover development. The increasing turnover has continued in most markets and seems to show a first real tendency of revival for the overall market in Europe. We see a growth in Belgium, Czech Republic, Denmark, Finland, France, Germany, Luxembourg, The Netherlands and Sweden. A status quo in Ireland, Portugal, Spain, Greece, Slovenia, Switzerland and Norway; and a decline in Italy, Romania and Turkey.



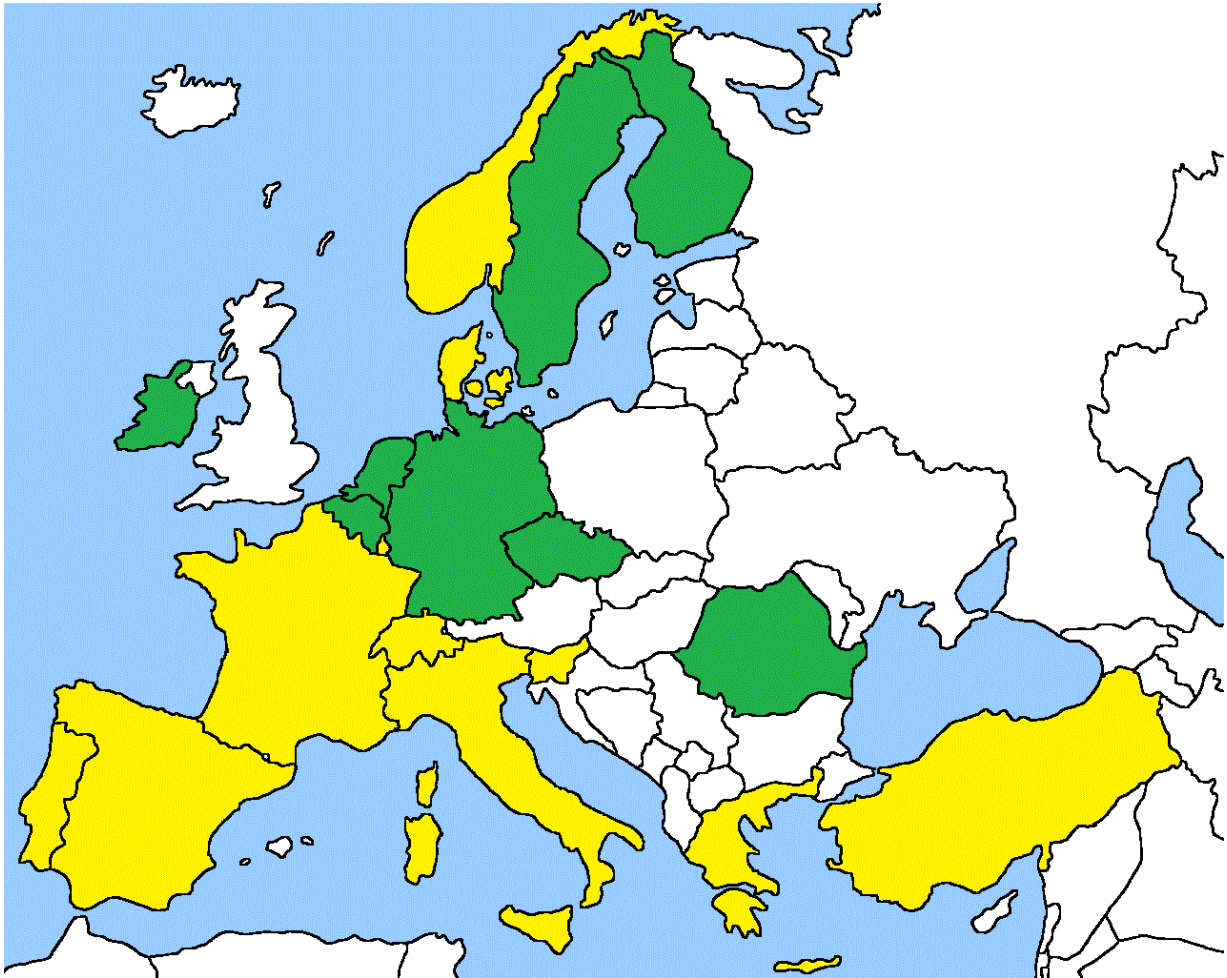
Turnover, past six months. EFCA survey, autumn 2016.

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

Turnover for consulting engineering sectors – six months' trends April 2016 to November 2016

Expected developments in turnover

In the survey, respondents were asked about the expected development in turnover for the coming six months. 11 out of the 19 of the consulting engineering associations expect the turnover in their country to remain stable and 8 expect it to increase. The “stable-growth” development in both markets on the Iberian Peninsula that we saw for the first time in the fall of 2015, thus seems to continue.



Turnover, coming six months. EFCA survey, autumn 2016

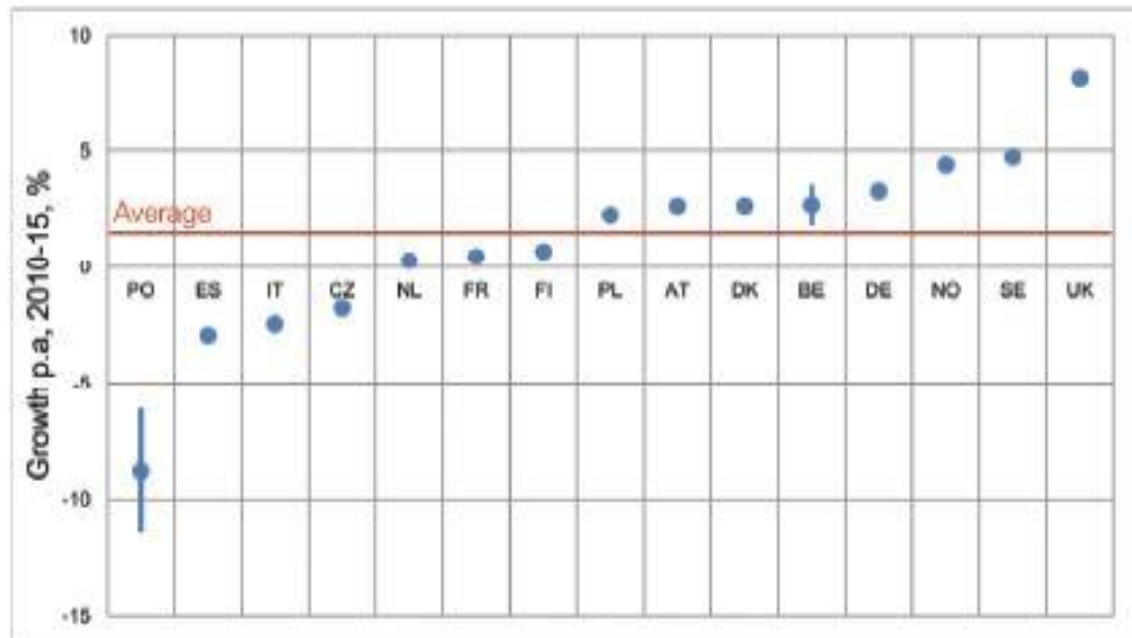
Turnover: increase ■ (green); stable ■ (yellow); decrease ■ (red).

Turnover for consulting engineering sectors – expectations for coming six months

In the diagrams 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 largest decline in demand, closely followed by Italy.

Source Bricad Associates, May 2016

1. The annual growth rate in the demand for consulting engineering services for 2010-2015



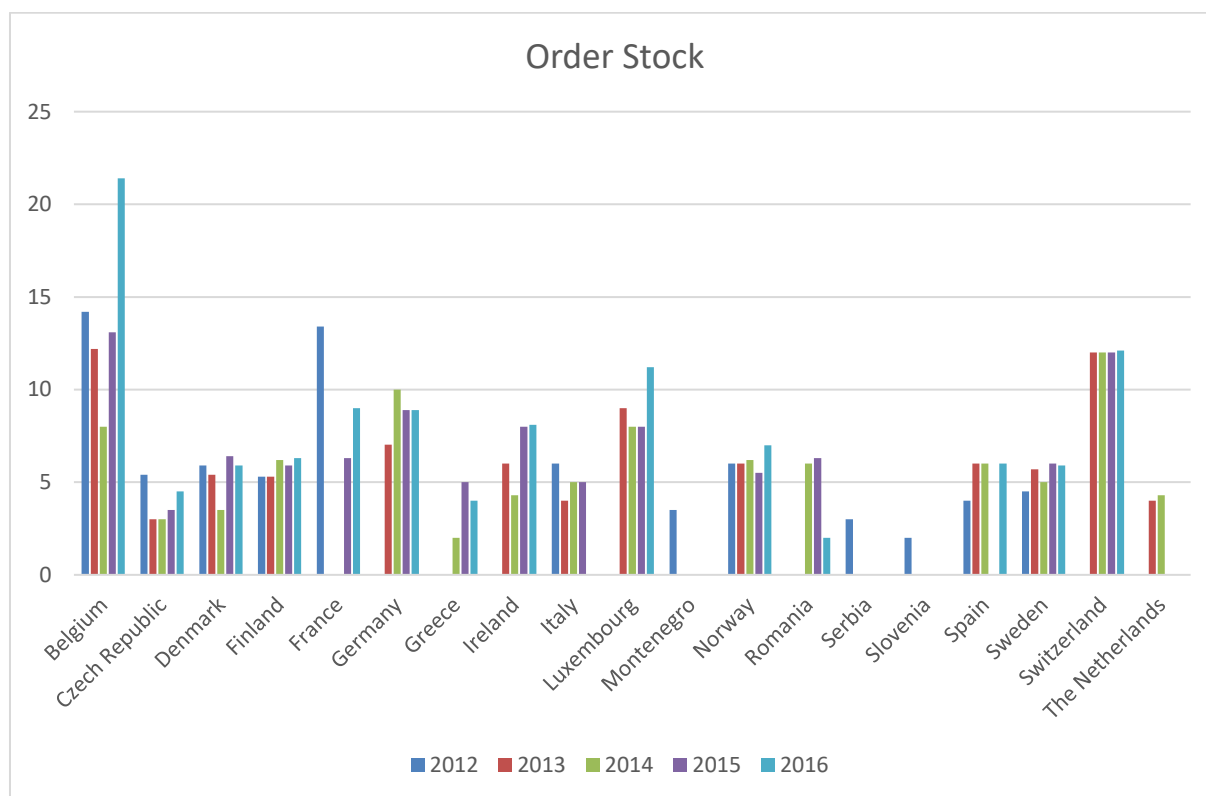
The total demand for consulting engineering services estimated from investment (GDPf) requiring design



Market

Average order stock¹

By autumn 2016, the average amount of work consulting engineers had 'in stock' in Europe (the 'order stock') was 8.6 months' worth. Data are not available for all countries or surveys, but there is a general trend towards growing order stocks for the European market as a whole.



* No data received from Ireland, Italy, Slovenia, The Netherlands and Turkey

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

Developments in order stock

On the whole, the average order stock of the consulting engineering sectors in Europe has been increasing over the past six months. Only in Greece and Romania there was a decline in the past six months. In many countries order stocks remained stable.

Expected developments in order stock

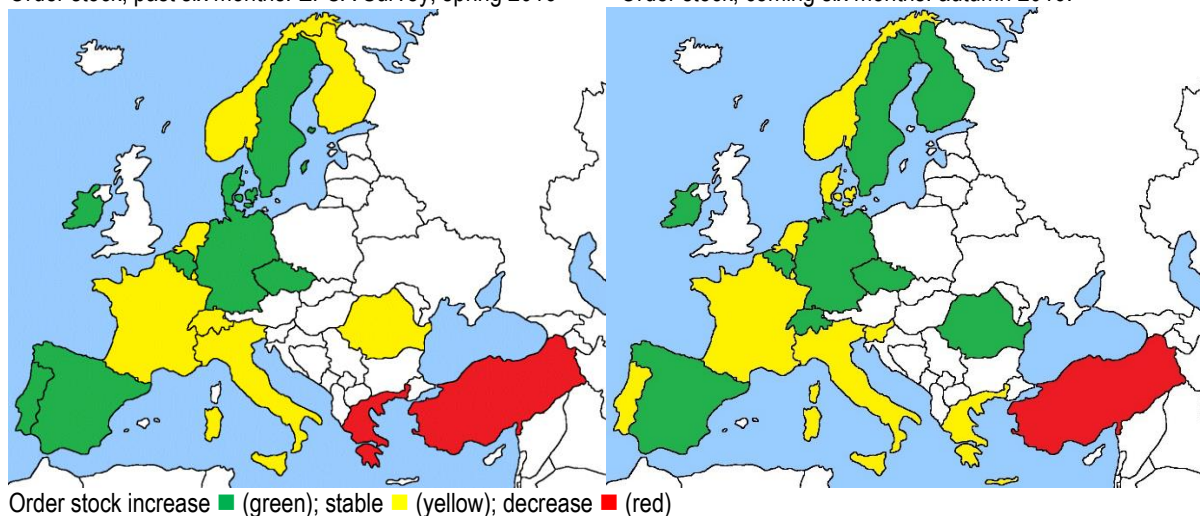
9 out of the 19 of the responding associations are expecting order stocks of their member firms to increase while the other half are expecting it to remain stable in the coming six months (from November 2016).. Only Turkey is expecting a decline.

¹ 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 trends in order stock – EFCA survey autumn 2016

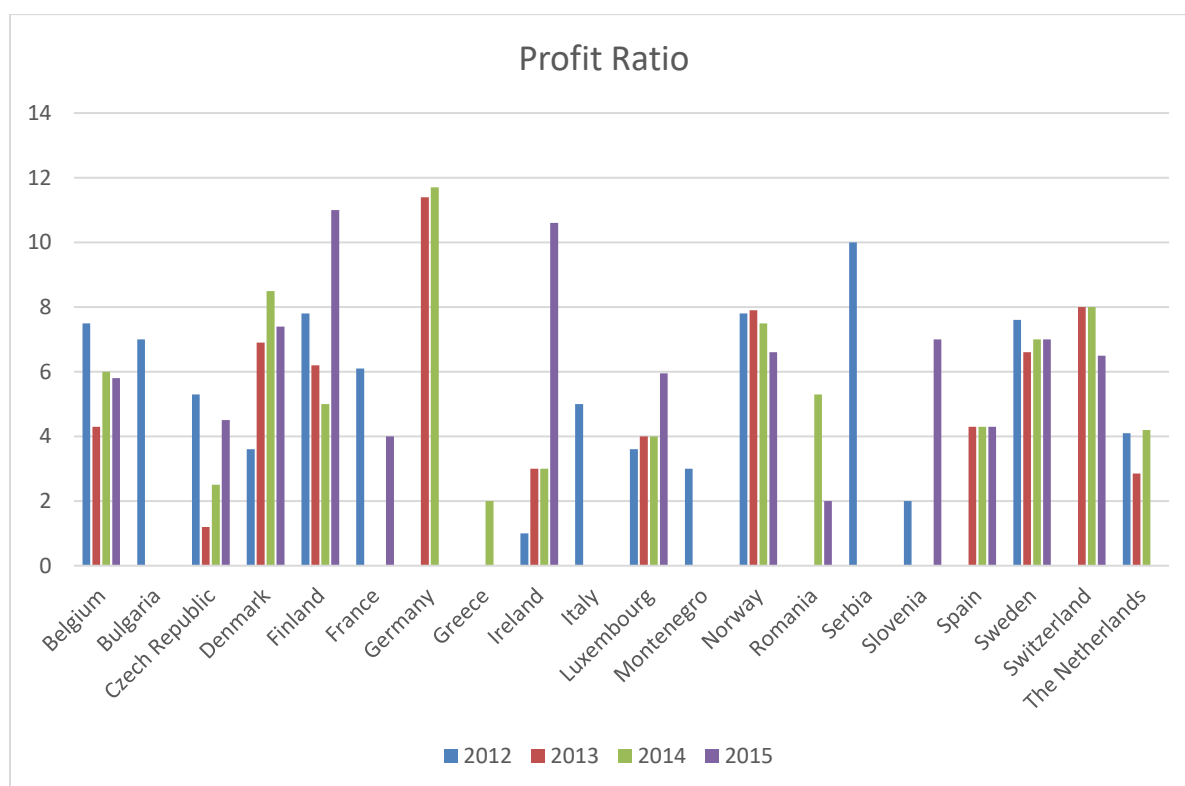
Order stock, past six months. EFCA Survey, spring 2016

Order stock, coming six months. autumn 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 2015 was 6,9% of total turnover. When Germany, with the strongest ratio figures, is excluded, the European average was 5.2%, down from 5.8% in 2014 and from 5.4% in 2013.



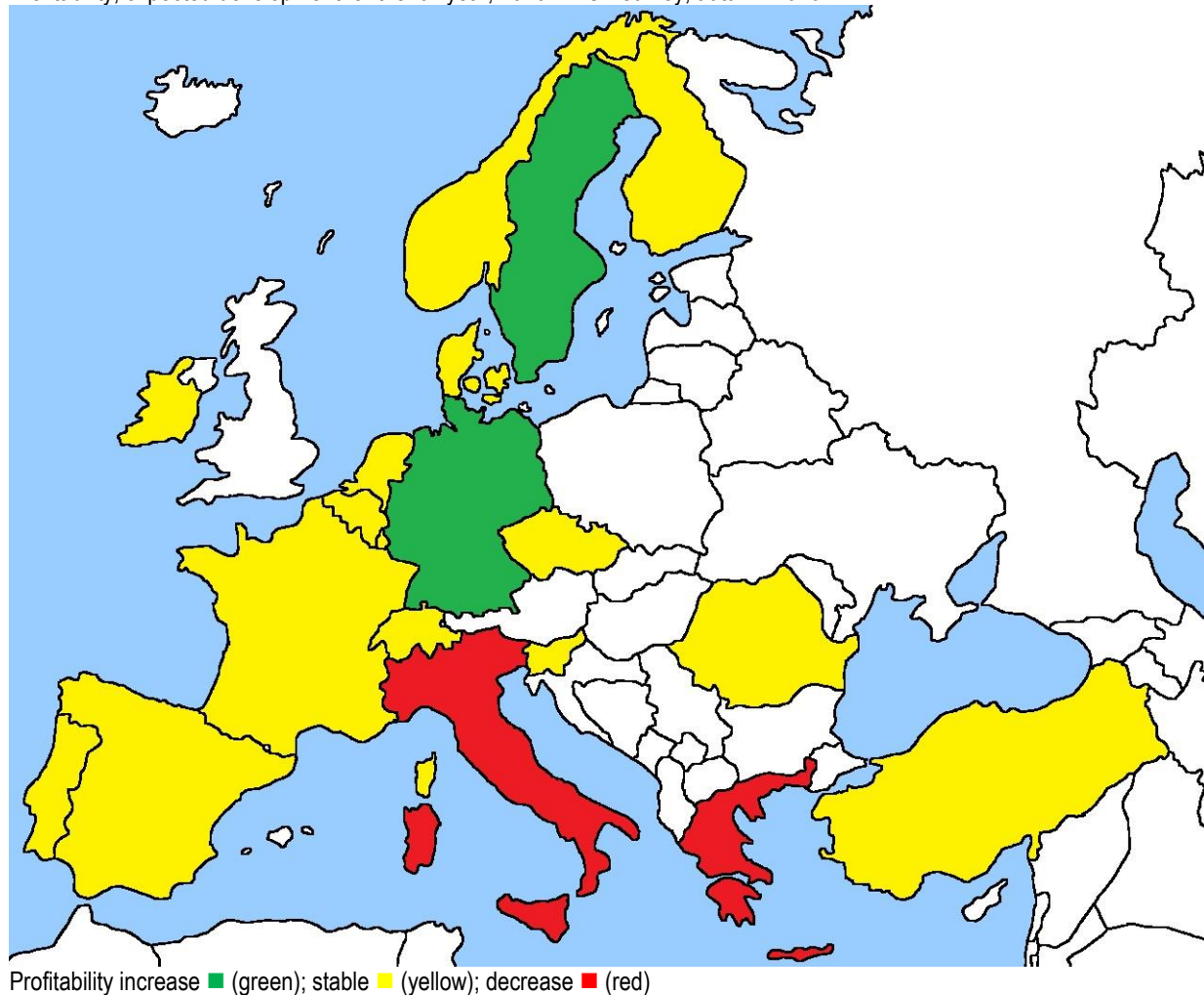
* No data received from Portugal, Germany, Greece, Ireland, Italy, The Netherlands and Turkey

Profit ratio for 20 European countries, 2012-2013-2014-2015

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, autumn 2016



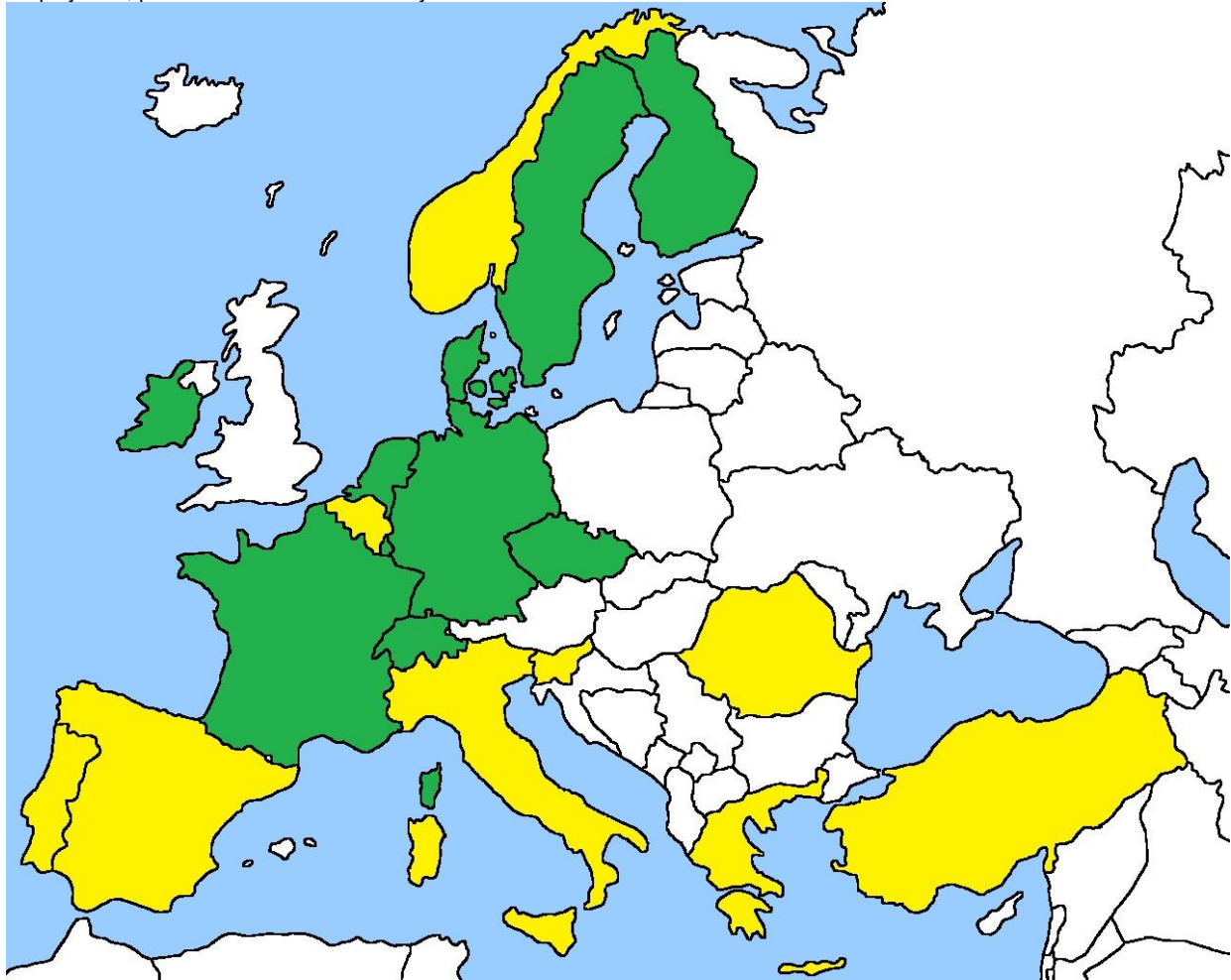
15 out of the 19 responding associations are expecting profitability on their respective market to remain stable in 2016, compared to 2015. Germany and Sweden are expecting profitability to increase. Only Greece and Turkey are expecting a decrease.

Employment

Actual developments in staffing

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

Employment, past six months. EFCA survey autumn 2016.



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

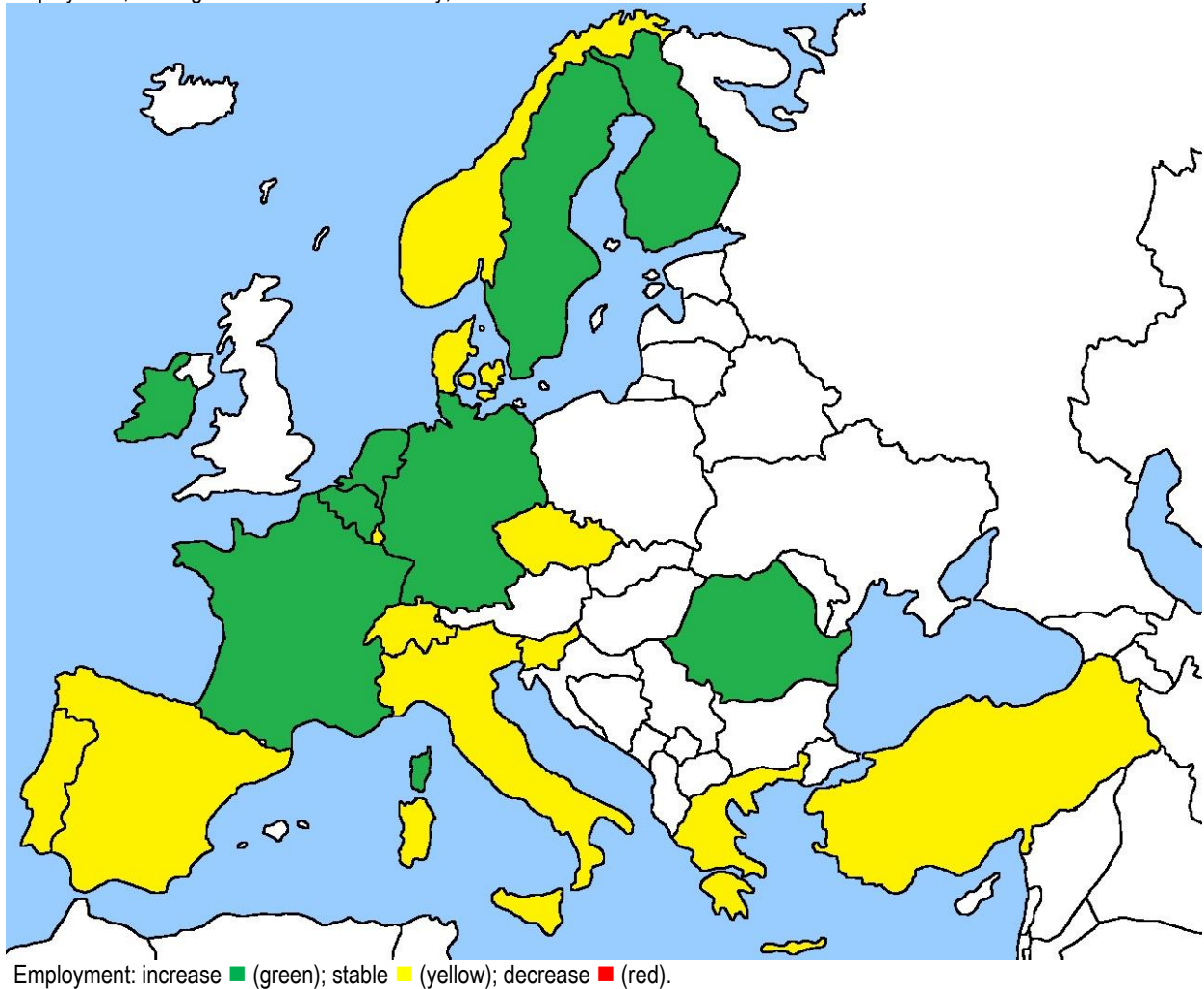
Developments in employment for the consulting engineering sector – six-month trends 2016

² 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 work load. Example: four half-time employees are counted as two employees.

Expected developments in staffing

Since May 2016 more than half of the participating associations saw employment (in their member firms) growing and are expecting this to continue in the coming six months. 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, autumn 2016.

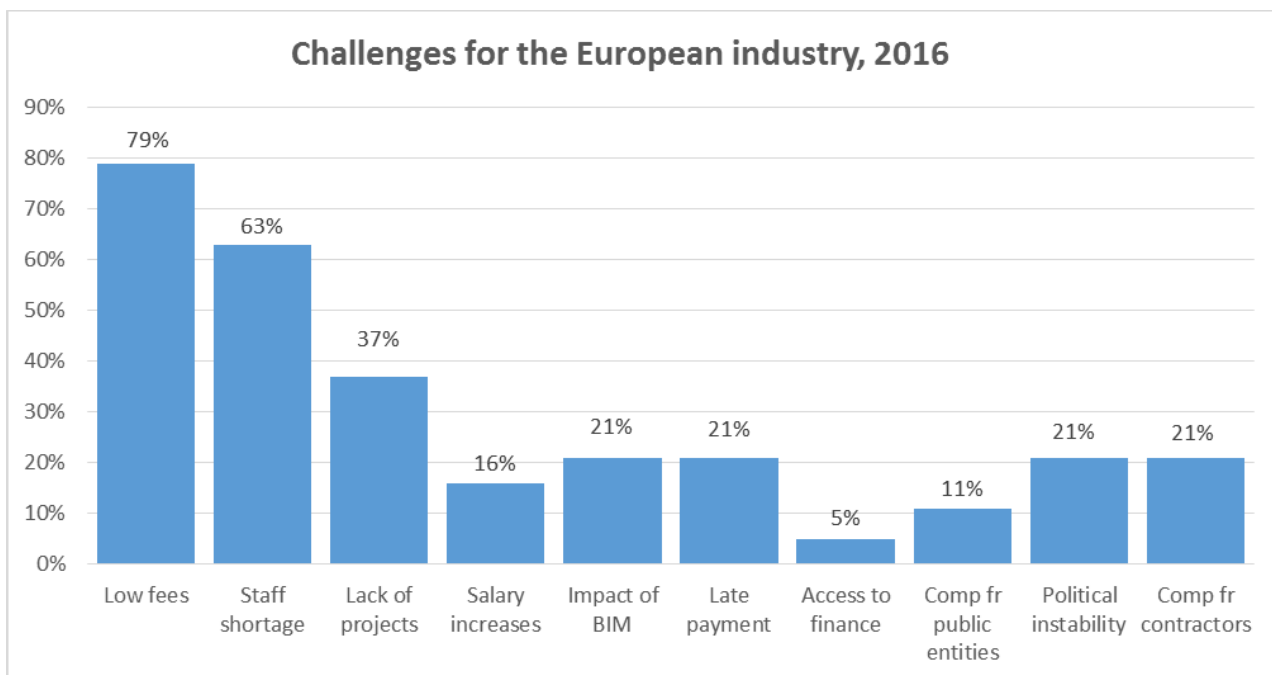
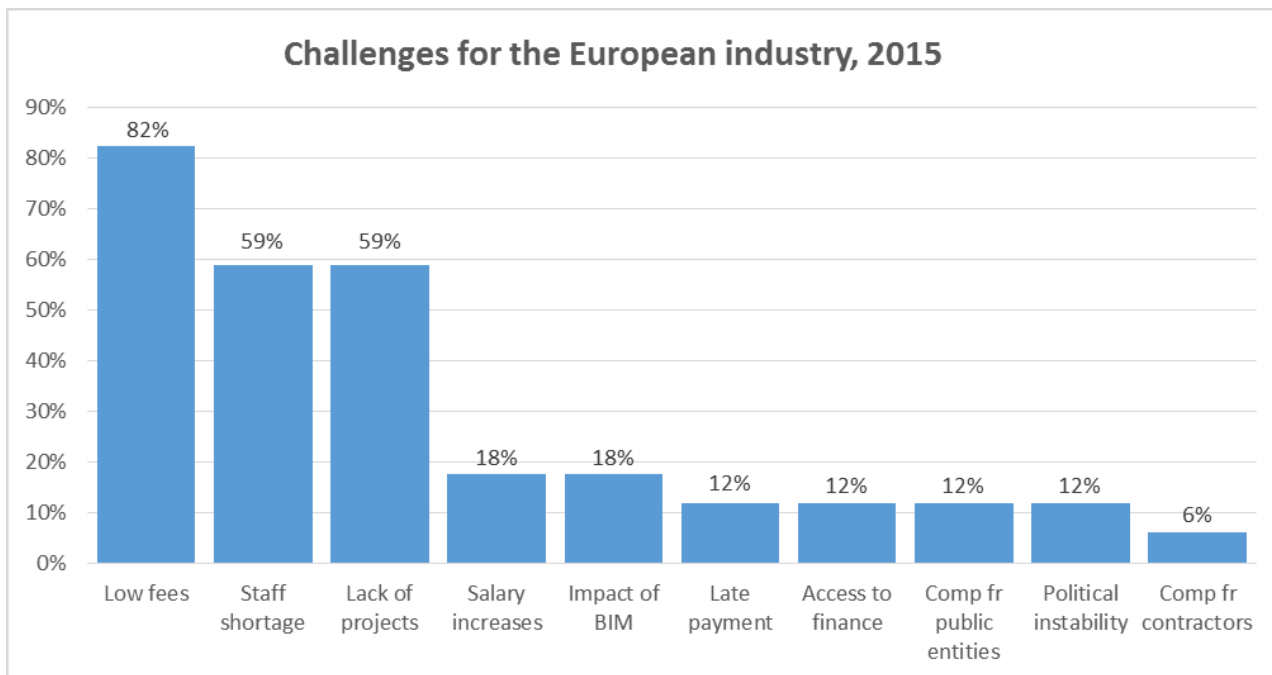


Developments in employment for the consulting engineering sector – expectations for the coming six months

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.

In the graphs below you can see and compare what companies perceived to be the main challenges in 2015 and 2016.



The 3 main challenges remain also in 2016 the same namely:

Low fees

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

Lack of qualified staff

Twelve out of nineteen countries namely Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Netherlands, Slovenia, Sweden, Switzerland and Turkey find that lack of qualified staff is one of the most important 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.

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

Some new challenges emerge

Competition from Contractors

What seems to be a very important signal for our sector is the perception that competition from contractors is increasing.

Political instability

Europe is on the edge of instability. Some of the factors are not predictable such as the Brexit-related uncertainty, the geopolitical tensions and security threats in Europe and the effect of a more inward looking USA as well as the outcome of future elections in France and Germany.

In some of the countries integrity is an issue.

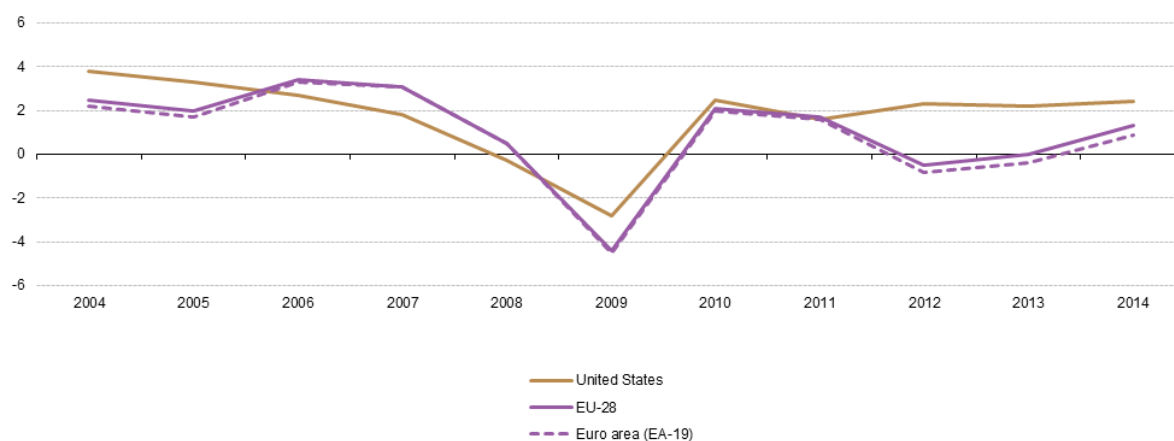
When looking at what companies perceived to be the major challenges to the consulting engineering industry in 2016 compared to what they answered in 2015, signs of an improving market are apparent. Low fees is still the main challenge, but there are slightly fewer Member Associations that have earmarked it as being the main challenge; 79% in 2016 and 82% in 2015. At the same time shortage of staff has increased in frequency, to 63 % in 2016 from 59 % in 2015. Also lack of projects has fallen to 37% in 2016 from 59 % in 2015.

This indicates that companies have more work to do and they are increasingly finding it difficult to fill all their vacant positions. Low fees is continuing to be an important threat to growth and improved profitability around the continent.

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

Real GDP growth, 2004–14

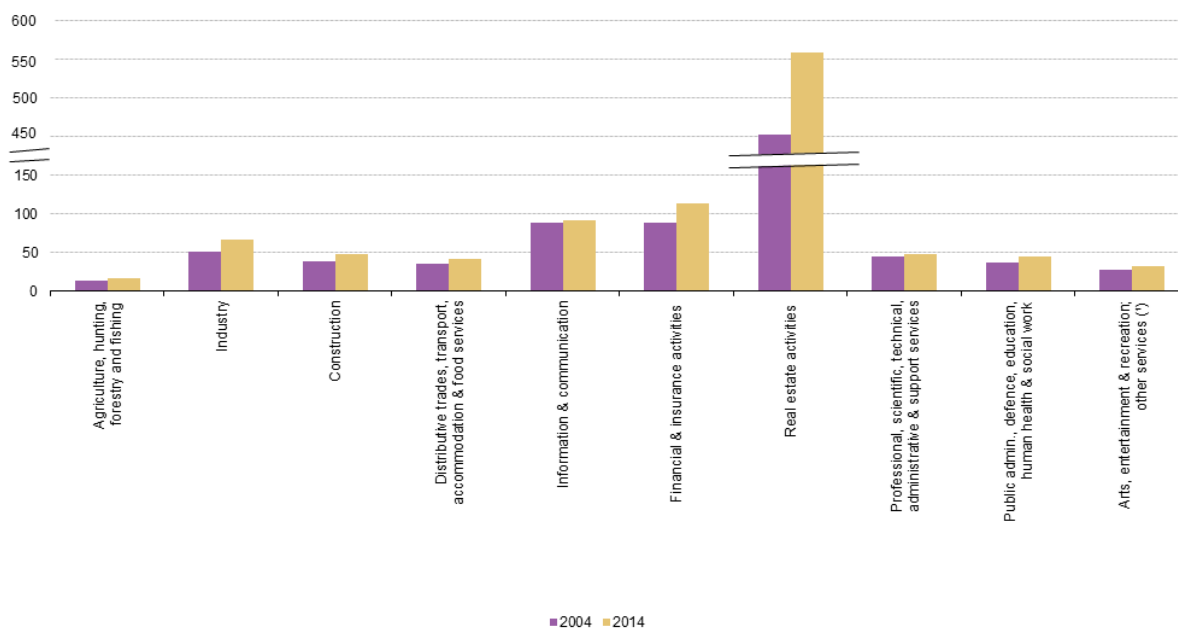
[http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Real_GDP_growth_2004%E2%80%9314_\(%25_change_compared_with_the_previous_year\)_YB15.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Real_GDP_growth_2004%E2%80%9314_(%25_change_compared_with_the_previous_year)_YB15.png)



Source: Eurostat (online data code: nama_10_gdp)

Labour productivity, EU-28, 2004 and 2014

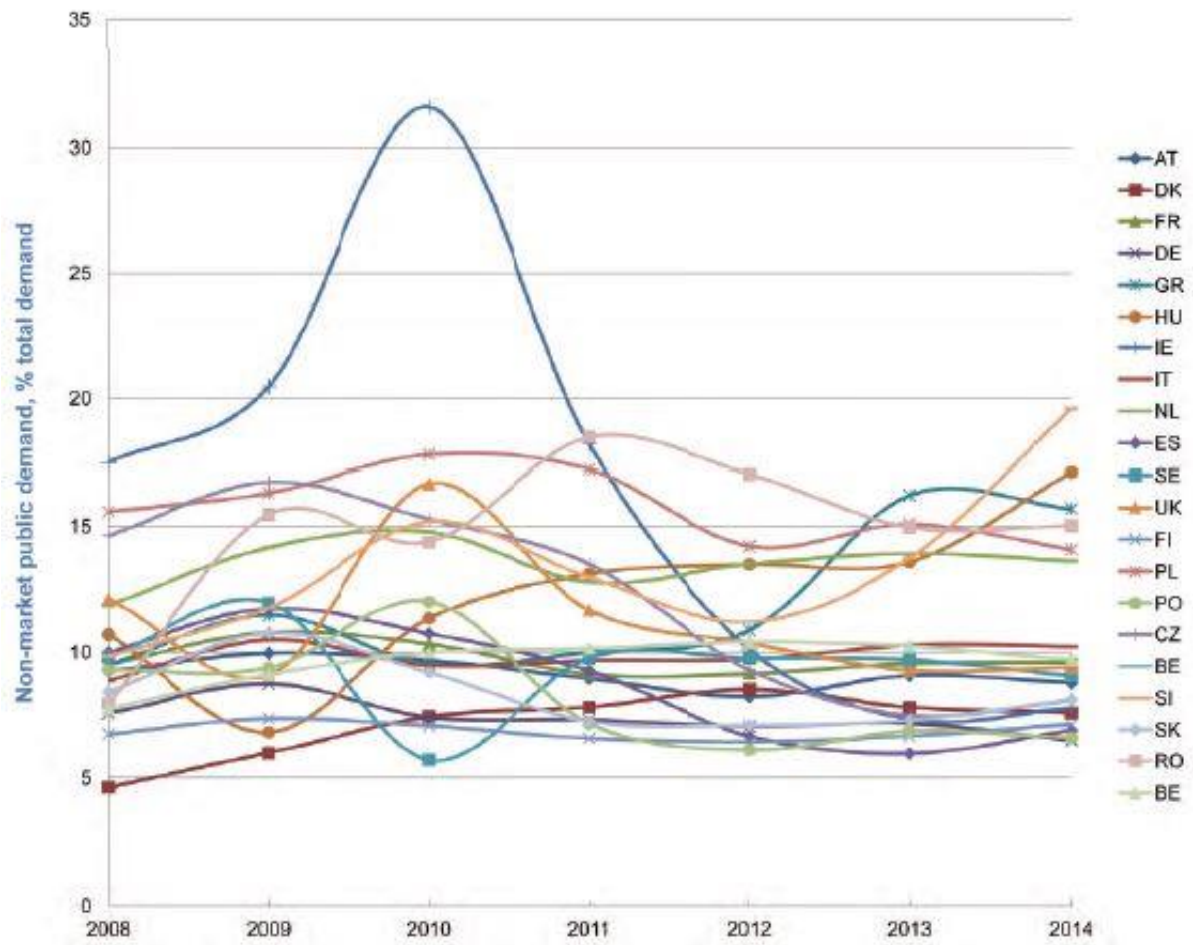
http://ec.europa.eu/eurostat/statistics-explained/images/2/2e/Labour_productivity%2C_EU-28%2C_2004_and_2014_%28thousand_EUR_per_person_employed%29



(*) Includes also activities of household and extra-territorial organisations and bodies.
Source: Eurostat (online data codes: nama_10_a10 and nama_10_a10e)

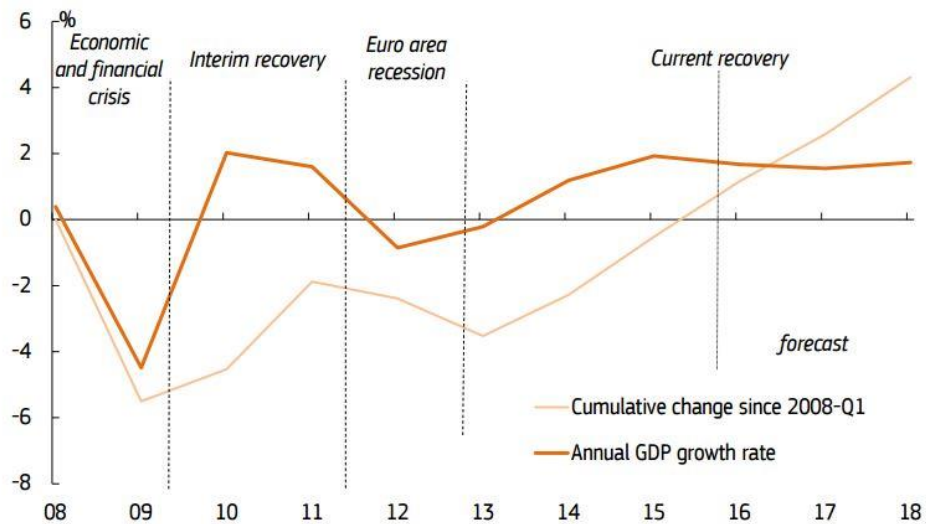
Non Market Public sector EU 20 2018-2014

Source Bricad Associates, May 2016



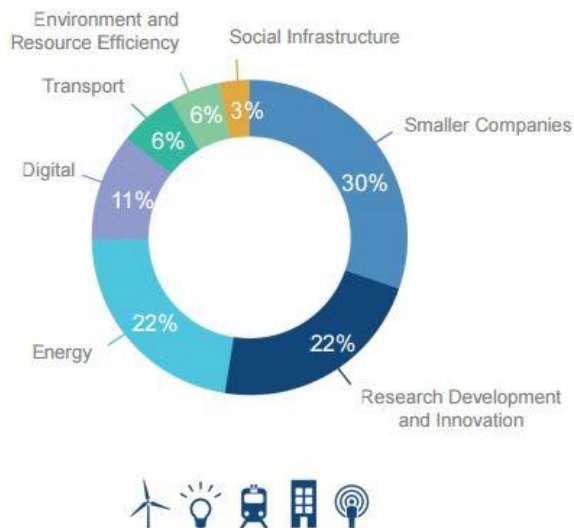
Modest growth in challenging times

Euro area GDP: annual growth rate and cumulative change, 2008-18



Jean-Claude Juncker, State of the Union Address European Parliament, 14 September 2016

EUROPEAN FUND FOR STRATEGIC INVESTMENTS INVESTMENT BY SECTOR



324 approved transactions in 27
of the 28 EU Member States
as of 26 September 2016

LOOKING INTO THE FUTURE OF THE EUROPEAN FUND FOR STRATEGIC INVESTMENTS



The European Fund for Strategic Investments will provide at least €500 billion by 2020, and aims for €630 billion by 2022

Appendix – definitions

EFCA	European Federation of engineering Consultancy Associations – the sole 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 years work load. <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 work load 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