

# Economic Outlook

Technology Industries of Finland

2 | 2018

**Global And Finnish  
Economic Outlook**  
Growth slows down  
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Orders remain at  
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## Growth slows down as uncertainty rises

The global economy experienced strong, broad-based expansion in 2017. Year 2018 also started off with robust growth. However, the growth rate has slowed down in the February to April period. The change is indicated both by industrial production data since February and by the purchasing managers' index. The CEO index also indicates weaker expectations for the coming months. This change is mostly due to the rising tide of protectionism alongside with other geopolitical problems.

While tariffs between the United States and other countries are yet to be enforced, they have already had an impact on corporate investment and other business activities. Similarly, Russia's and the Western countries' sanctions on each other significantly hamper trade between them. In practice, exports from the EU countries to Russia have not grown since 2015. New forms of protectionism are also likely to emerge. Indications of this have been presented already. Rising uncertainty will affect corporate investment decisions first, which in turn will hold back manufacturing, international trade and services.

The International Monetary Fund (IMF) issued its most recent World Economic Outlook report in April. In it, the IMF voices a concern over rising protectionism and its possible effects. Despite these trends, the IMF did not revise down its growth forecast – at least not yet. Global economy is expected to grow at a rate of slightly less than 4 per cent in 2018, same as last year. Emerging market and developing economies continue to be the engine of growth, with GDP growth of some 5 per cent. In the United States, growth will reach the targeted 3 per cent, while the rate in the EU will be slightly over 2 per cent.

The changes to the US tax code have given the US economy a boost. Unlike in Western Europe, the growth of manufacturing and services has accelerated over the past months in the US. Positive development has continued in the US housing market too. The effects of possible tariffs on imports to the US and retaliatory tariffs on imports from the US on the US economy are yet to be seen.

Industrial production in the EU has expanded for five consecutive years and exports for eight. The results of the purchase manager and CEO surveys since January indicate that they expect growth to slow down and outlook to become weaker.

## Finland's GDP needs to grow 3 per cent a year to catch up with the rest of the EU area

Finland has fallen behind the pace of recovery in the rest of the euro area since 2008. In terms of GDP growth, Finland lags behind by 8 per cent, whereas for exports the gap is as much as 35 per cent. Finland's recent rate of economic growth is not enough to narrow the gap.

The IMF expects the euro area to grow by 2.4 per cent in 2018 and by 2.0 per cent in 2019. The rate is expected to slow gradually to 1.4 per cent between 2020 and 2023. If the euro area develops as expected, Finnish GDP growth needs to be 3 per cent per year to catch up. At that rate, Finland would be on a par with the rest of the EU by the end of the next parliamentary term.

In comparison with other euro countries, growth in Finland is slow across all key economic indicators from industry turnover to exports, productivity and investments.

Industry continues to provide 80 per cent of Finland's export revenue and 90 per cent of goods export revenue. Goods exports from Finland may have reached a high point in the early spring of 2017 as they have plateaued since then. Growth is held back by the significant reduction in production capacity since the financial crisis.

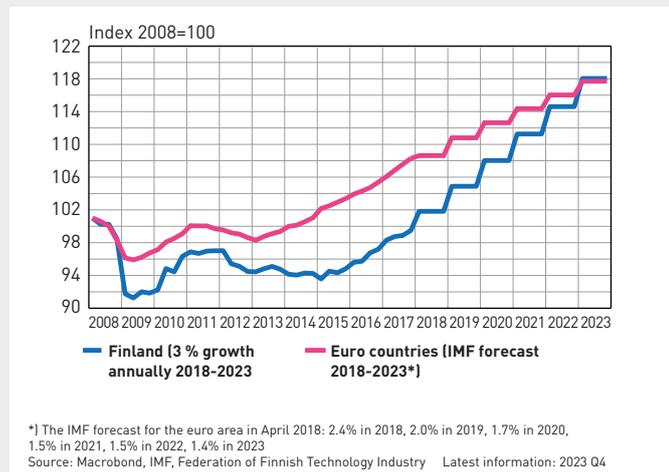
Due to the reduction in the activities of large manufacturing enterprises, in real terms, the total turnover of manufacturing industry in 2017 was EUR 24 billion below the level reported in 2008. Three quarters of this contraction has taken place in large enterprises with a minimum of 500 employees.

It might be possible to overcome this growth paradox if investments and productivity were picking up faster in Finland than in main competitor countries. However, this is not the case.

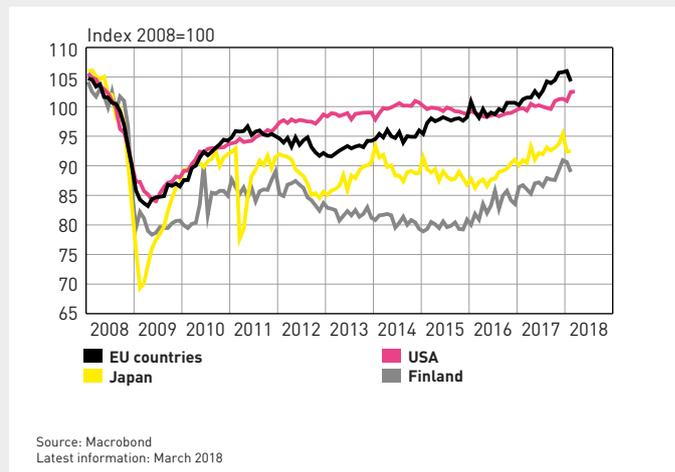
Investment is vital to improve productivity. Investment into production and intangible assets can improve productivity in manufacturing in particular, which benefits from the ability to scale production. Investments in automation, robotics and other digital solutions can bring about significant leaps in productivity.

However, development of productivity in Finland remains very poor in comparison with the rest of the EU. Since 2008,

Overcoming the Gap in GDP Will Require 3.0% Growth in Finland Annually in 2018-2023



In Development of Industrial Production, Finland Has a Gap of 15% Compared to the EU Average



manufacturing productivity development in Finland has fallen 25 per cent behind the EU average, and 20 per cent behind that of Sweden and Germany.

The gap is significant at national level, too. In terms of GDP, Finland's productivity trails 6 per cent behind the EU average and grows more than 4 per cent slower than in Sweden or Germany.

The modest development of business investment in Finland is a key explanation for this. The Finnish business investment rate (fixed investment in relation to value add or GDP) remains significantly lower in comparison to other small countries in Europe. In Sweden, business investment rate is as much as six percentage points higher than in Finland.

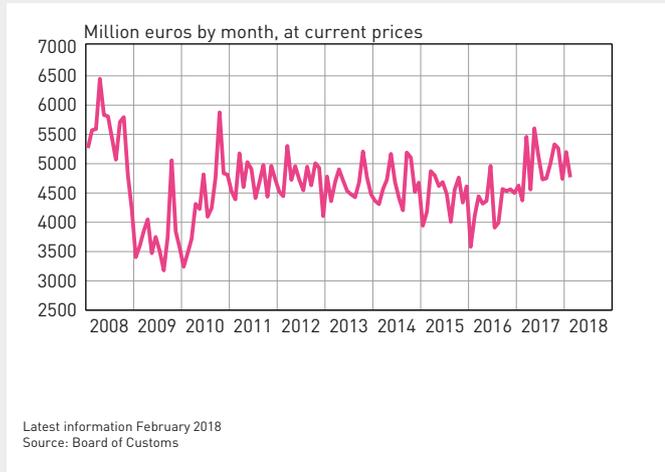
Accelerating economic growth as well as investment and productivity should again become an imperative of economic policy

in Finland. After the depression in the 1990s, Finnish governments successfully enforced such policy. Finland's current economic and tax policy threatens the ability to sustain sufficient growth momentum. This can already be seen in the development of productivity and exports.

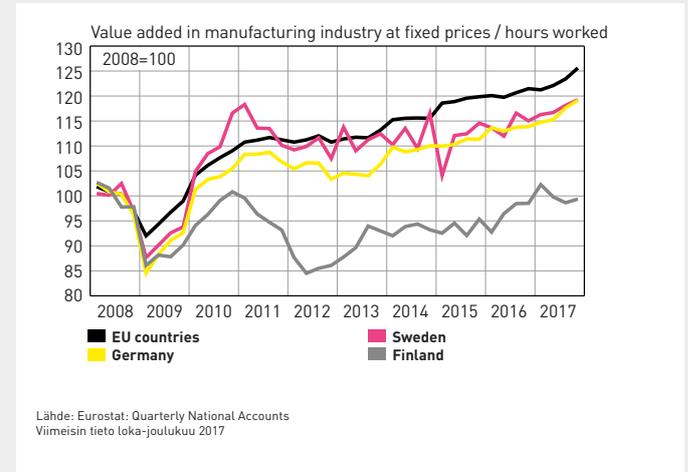
When the next downturn comes, Finland's public sector is already over-indebted. Reversing the debt development is not possible without strong, long-term economic growth.

Finland's economic policy should set a target of 3 per cent GDP growth for the 2018-2023 period.

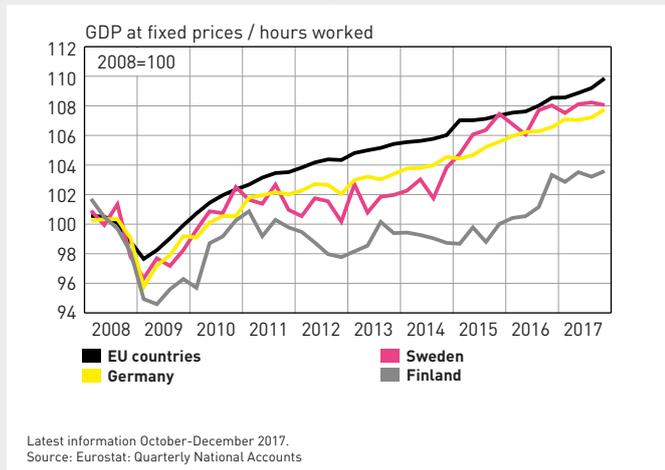
The Value of Finnish Goods Exports Has Not Increased after Spring 2017



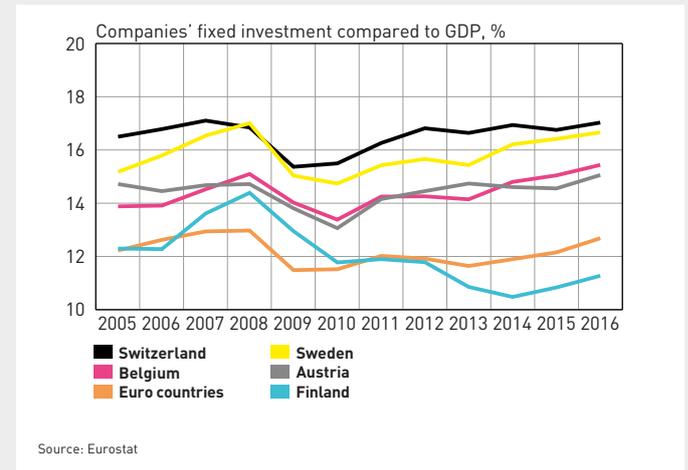
In Productivity Development, Finland Has a Gap of 25% Compared to EU Average and 20% Compared to Sweden and Germany



In Productivity Development of the National Economy, Finland Has a Gap of 6% Compared to EU Average and 4% to Sweden and Germany



Investment Rate of Companies in Finland Is Completely Inadequate to Close the Gap between Finland and Other Small European Countries



## Orders remain at a high level

The turnover of technology industry companies in Finland grew by 9 per cent in 2017 from 2016. In January 2018, the turnover was up 3 per cent year-on-year. About half of the increase has been attributable to volume growth and half to increase in sales due to rising world market prices of raw materials and components. In 2017, the turnover amounted to EUR 73.5 billion. In 2008, prior to the financial crisis, the turnover of technology industry companies in Finland totalled EUR 85.7 billion.

The value of technology industry companies' new orders and order books remained high between January and March. Significant quarterly variations have occurred in recent times, mostly due to large ship orders and new long-term service contracts. The effect of these orders will be reflected gradually in the industry turnover and Finnish export volumes, lasting several years.

The technology industry companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between January and March was 20 per cent lower than in the preceding quarter, but 17 per cent higher than in the corresponding period in 2017. Of the respondents, 54 per cent reported that the number of new orders was up since the October-December period, 38 per cent said it was down and 8 per cent said it had remained stable.

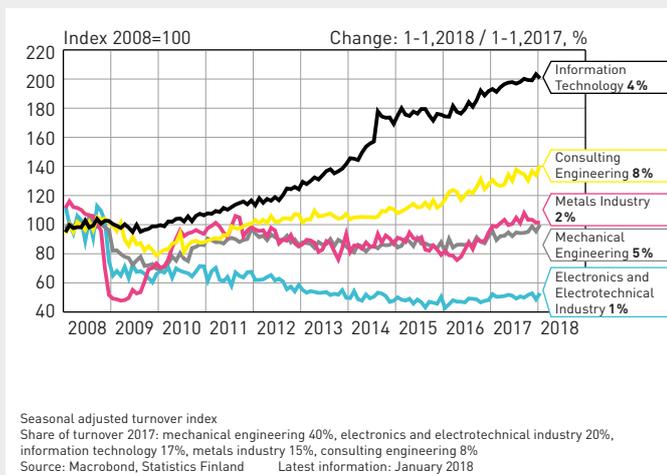
At the end of March, the value of order books was 1 per cent higher than at the end of December, and 24 per cent higher than in March 2017. Fifty-nine per cent of companies reported an increase in the number of orders from December, while 31 per cent reported a drop and 10 per cent had seen no change.

Judging from order trends in recent months, the turnover of technology industry companies is expected to be higher in the spring of 2018 than in the corresponding period last year.

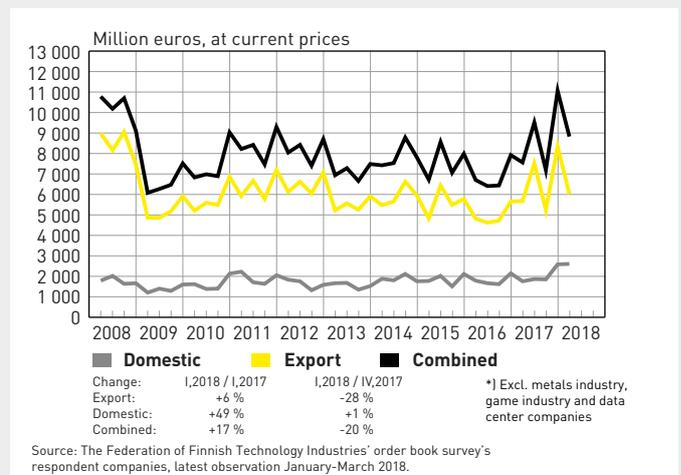
The number of personnel employed by technology industry companies in Finland grew by slightly less than 2 per cent between January and March 2018 from the 2017 average. At the end of March, the industry employed 302,000 people, up 5,500 from 2017. In comparison to the previous quarter, personnel increased in 43 per cent of technology industry companies, decreased in 32 per cent and remained unchanged in 25 per cent.

The recruitment activities of technology industry companies remained robust between January and March. They recruited a total of 11,000 new employees between January and March. In 2017, total recruitments came to 42,500. Sixty-two per cent of these employees were hired by SMEs. Some companies were increasing their personnel, while others were hiring new employees due to retirements and employee turnover.

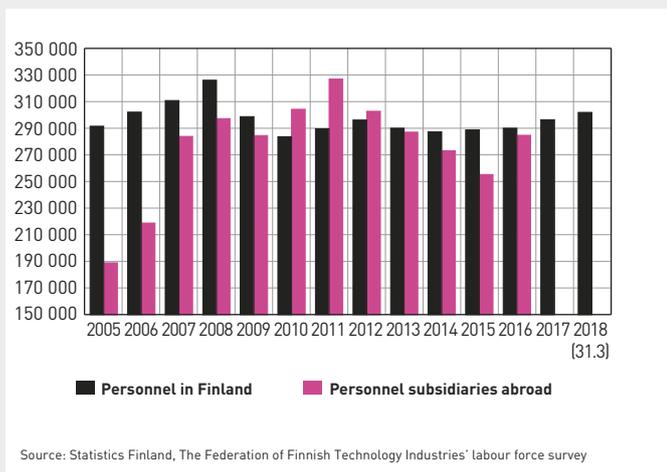
Growth in Turnover of the Technology Industry in Finland Has Slowed Down



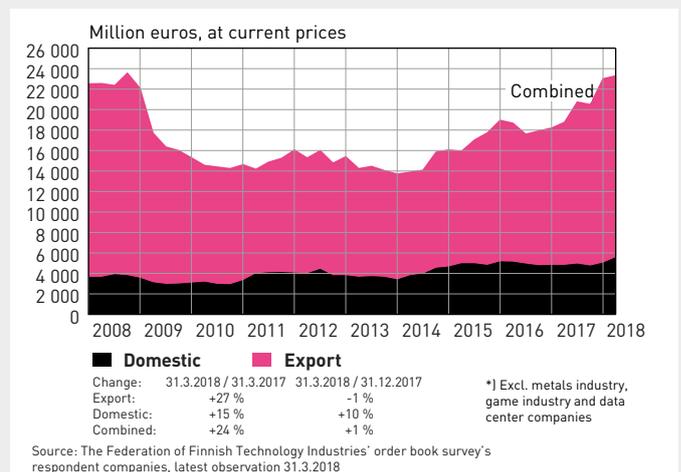
Value of New Orders in the Technology Industry\* in Finland



Technology Industry Personnel in Finland and Abroad



Value of Order Books in the Technology Industry\* in Finland





## Electronics and Electrotechnical Industry in Finland

### Orders up from last year

The turnover of companies in the electronics and electrotechnical industry (telecommunications equipment, electrical equipment and medical technology) in Finland grew by 8 per cent in 2017 from 2016. The turnover was up only slightly in January 2018 from January 2017. In 2017, the turnover amounted to EUR 14.3 billion. In 2008, prior to the financial crisis, the industry turnover in Finland totalled EUR 30.4 billion.

Year-on-year, both new orders and order books grew between January and March in the electronics and electrotechnical industry. However, they were slightly down from the previous quarter.

The electronics and electrotechnical companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between January and March was 3 per cent lower than between October

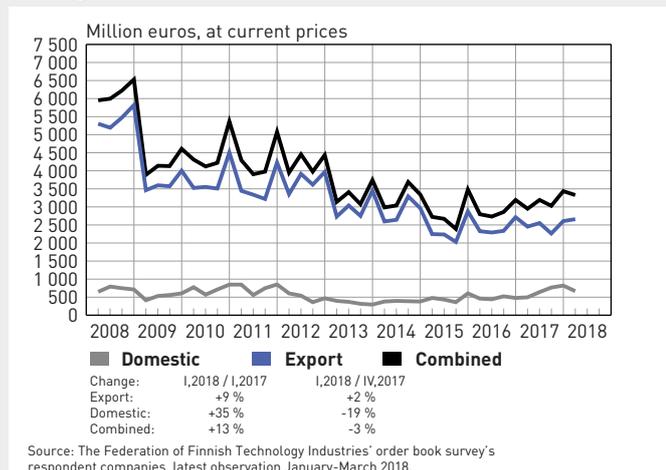
and December, but 13 per cent higher than in the corresponding period in 2017.

At the end of March, the value of order books was down 4 per cent from the end of December, but 5 per cent higher than in March 2017.

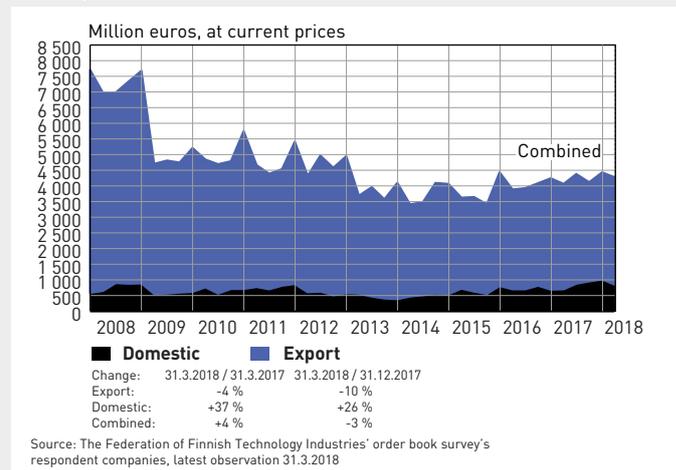
Judging from order trends in recent months, the turnover of electronics and electrotechnical industry companies is expected to remain approximately at the same level in the spring and summer of 2018 as in the corresponding period last year.

The number of personnel employed by electronics and electrotechnical companies in Finland grew slightly between January and March 2018 from the 2017 average. At the end of March, the industry employed some 39,000 people, up 100 from 2017.

Value of New Orders in the Electronics and Electrotechnical Industry in Finland



Value of Order Books in the Electronics and Electrotechnical Industry in Finland





## Mechanical Engineering in Finland

### Continued high level of orders

The turnover of mechanical engineering companies (machinery, metal products and vehicles) in Finland increased by 7 per cent in 2017 from 2016. In January 2018, the turnover was up 5 per cent year-on-year. In 2017, the turnover amounted to EUR 27.7 billion. In 2008, prior to the financial crisis, the industry turnover in Finland totalled EUR 33.3 billion.

Both new orders and order books remained at a high level between January and March in mechanical engineering. Significant quarterly variations have occurred in recent times, mostly due to large ship orders. The effect of these orders will be reflected gradually in the industry turnover and Finnish export volumes, lasting several years.

The mechanical engineering companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between January

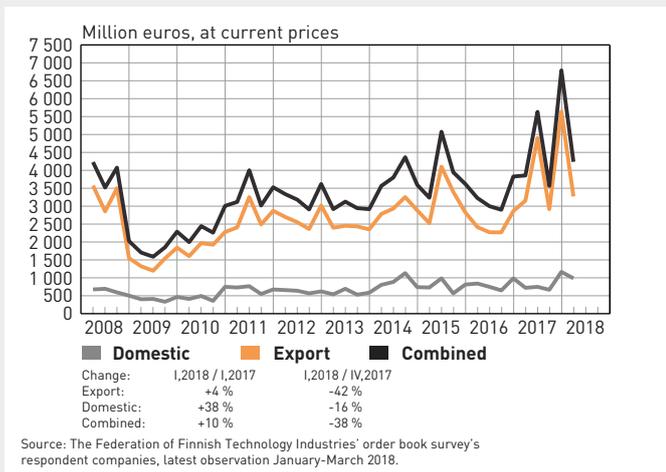
and March was 38 per cent lower than in the preceding quarter, but 10 per cent higher than in the corresponding period in 2017.

At the end of March, the value of order books was slightly up from the end of December, and 33 per cent higher than in March 2017.

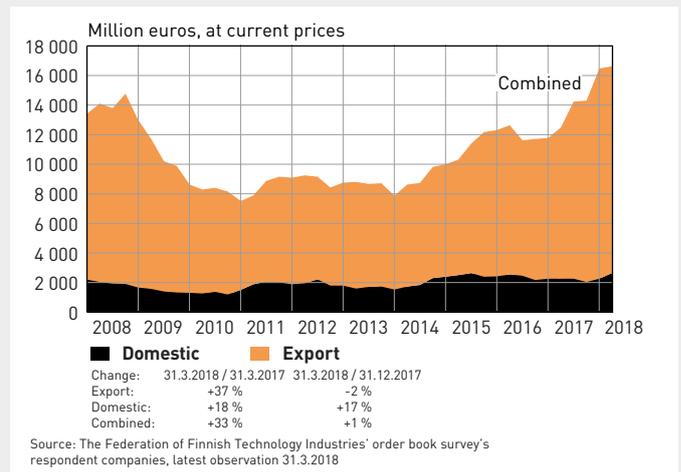
Judging from order trends in recent months, the turnover of mechanical engineering companies is expected to be higher in the spring and summer of 2018 than in the corresponding period last year.

The number of personnel in mechanical engineering companies in Finland grew by slightly more than 2 per cent between January and March from the 2017 average. At the end of March, the industry employed some 131,000 people, up 2,800 from 2017.

Value of New Orders in the Mechanical Engineering in Finland



Value of New Orders in the Mechanical Engineering in Finland





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## Metals Industry in Finland

### Turnover growth has slowed down

The turnover of metals industry companies (steel products, non-ferrous metals, castings and metallic minerals) in Finland grew some 21 per cent in 2017 from 2016. In January 2018, the turnover was up 2 per cent year-on-year. In 2017, the turnover amounted to EUR 10.9 billion. In 2007, prior to the financial crisis, metals industry turnover in Finland totalled EUR 11.1 billion.

Most of the recent growth in the turnover of metals industry companies is attributable to the rise in sales prices. This is due to the favourable development in world market prices of steel products and non-ferrous metals after early 2016. Producer prices in Finland were up some 20 per cent in 2017 from 2016. In January-February 2018, they were up 4 per cent year-on-year.

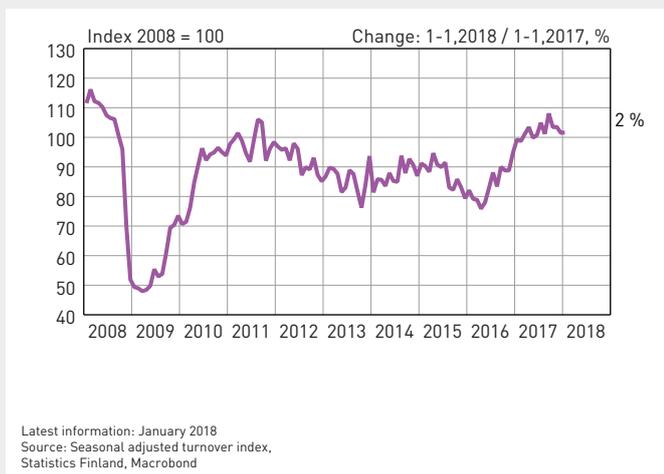
Total production of steel products, non-ferrous metals, castings and metallic minerals in Finland between January and February increased by 3 per cent year-on-year.

In comparison to the corresponding period in 2017, global steel production increased by 4 per cent during January and February. Production increased by five per cent in Asia, but fell slightly in Northern America. There was no change in the EU.

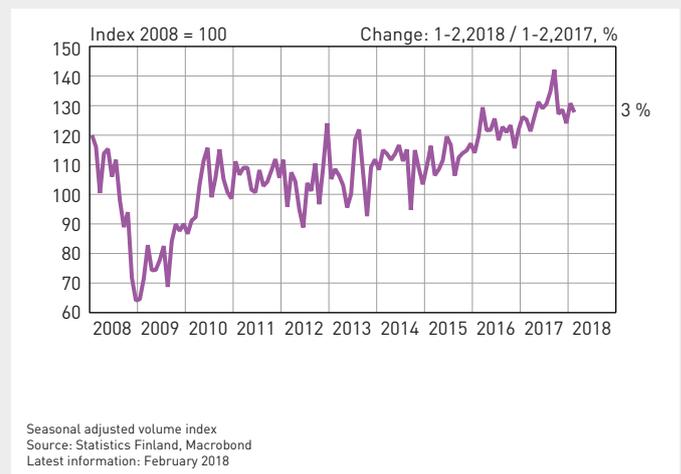
China, India, Japan, the United States, South Korea and Russia were the largest producers. In Russia, production was down 5 per cent in early 2018 from the corresponding period in 2017. China accounted for 49 per cent of global steel production in February.

The number of personnel employed by metals industry companies in Finland grew by 2 per cent in the January-March period from the 2017 average. At the end of March, the industry employed some 15,400 people, up 300 from 2017.

Turnover of the Metals Industry in Finland



Production Volume of the Metals Industry in Finland





## Consulting Engineering in Finland

### Strong order growth continues in early 2018

The turnover of consulting engineering companies (industrial, social and construction expert services) in Finland grew by 8 per cent in 2017 from 2016. In January 2018, the turnover was also up by 8 per cent year-on-year. In 2017, the turnover amounted to EUR 6.2 billion. In 2008, prior to the financial crisis, the industry turnover in Finland totalled EUR 5.5 billion.

Strong growth of both new orders and order books continued in the consulting engineering sector in the January-March period. Typically for the sector, order volumes fluctuate strongly from one quarter to another.

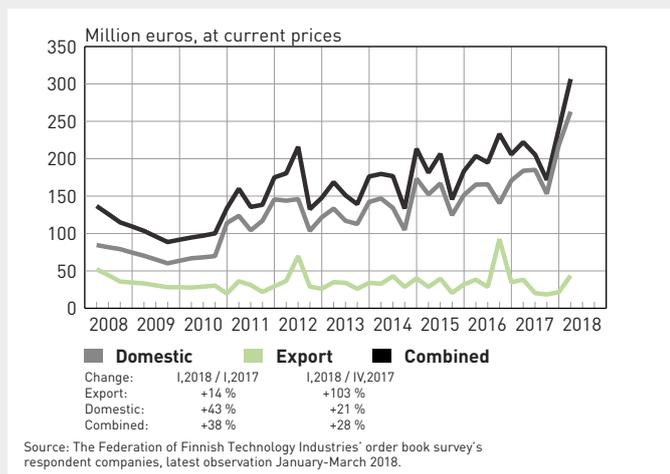
The consulting engineering companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between January and March was 28 per cent higher than in the preceding quarter and 38 per cent higher than in the corresponding period in 2017.

At the end of March, the value of order books was 11 per cent higher than at the end of December and 19 per cent higher than in March 2017.

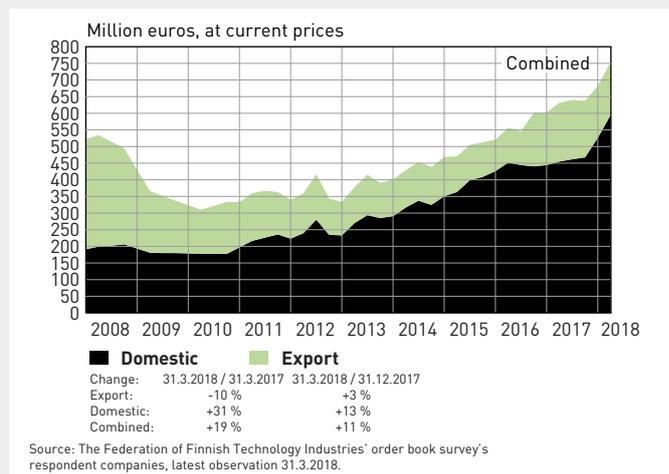
Judging from order trends in recent months, the turnover of consulting engineering companies is expected to be higher in the spring and summer of 2018 than in the corresponding period last year.

The number of personnel in consulting engineering companies in Finland grew by 3.5 per cent between January and March 2018 from the 2017 average. At the end of March, the industry employed some 53,900 people, up 1,800 from 2017.

Value of New Orders in the Consulting Engineering in Finland



Value of Order Books in the Consulting Engineering in Finland





## Information Technology in Finland

### Favourable order development in comparison to last autumn

The turnover of information technology companies (IT services and software) in Finland grew by 8 per cent in 2017 from 2016. In January 2018, the turnover was up 4 per cent year-on-year. In 2017, the turnover amounted to EUR 12.4 billion. In 2008, prior to the financial crisis, the industry turnover in Finland was EUR 6.7 billion.

Growth has been distributed unevenly between IT companies in the past year. The sales of software and data processing services grew by 6 per cent in total in 2017, but the turnover of data centres and web portals grew by 18 per cent in total.

Order development in information technology was more favourable in the January-March period than in late 2017. Total value of order books is now growing again.

The information technology companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between January and March was 60 per cent higher than in the preced-

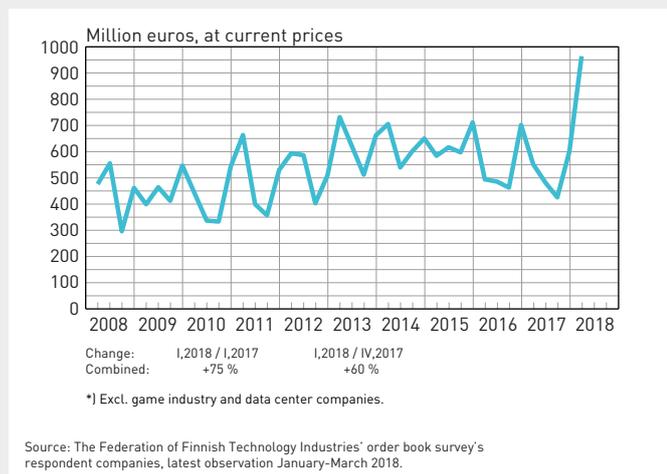
ing quarter and 75 per cent higher than in the corresponding period in 2017. Game industry and data centre companies are not included in the survey.

At the end of March, the value of order books was 17 per cent higher than at the end of December. Order books also expanded by 4 per cent from March 2017.

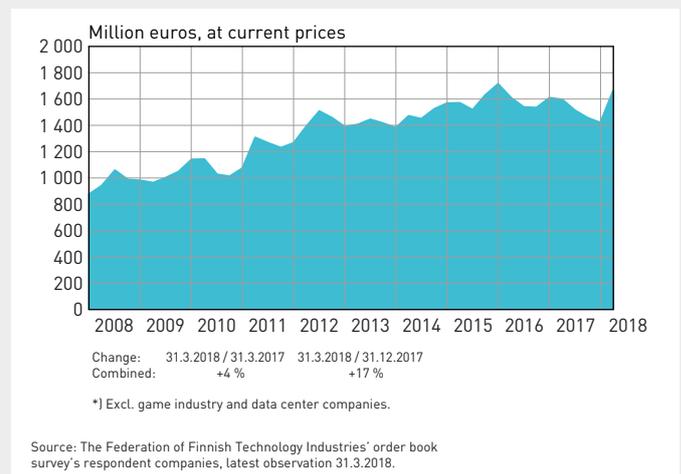
Judging from order trends in recent months, the turnover of information technology companies is expected to be slightly higher in the spring and summer of 2018 than in the corresponding period last year.

The number of personnel in information technology companies in Finland grew by slightly less than 1 per cent in 2018 from the 2017 average. At the end of March, the industry employed some 63,100 people, up 500 from 2017.

Value of New Orders in the Information Technology\* in Finland



Value of Order Books in the Information Technology\* in Finland



## ECONOMIC OUTLOOK 2 | 2018

Information based on the situation on 26 April 2018

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Please visit the homepage of the Federation of Finnish Technology Industries for additional information on technology industry turnover, exports, investments, personnel and the development of producer prices: [www.techind.fi](http://www.techind.fi).

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**Itella Green**



**Technology Industries  
of Finland**