Economic Outlook

Technology Industries of Finland

4 | 2021

Global And Finnish Economic Outlook
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Cover image: Liisa Takala

Europe's recovery maintains momentum, but at slower pace and subject to greater risks

Economic recovery has continued in Finland and throughout the world. While corona-related risks weigh on the outlook somewhat, in the end, direct impacts of the pandemic seem to have remained quite moderate.

However, it is important to remember that in many emerging countries, vaccination coverage is measured at low single digits, which means that billions of people are still unvaccinated. We cannot rule out the risk of virus mutations and can only hope that the current vaccines will protect us against them.

The economic outlook published by the International Monetary Fund IMF in mid-October was the first in a long time to revise down the 2021 outlook from the previous forecast. The drop is very moderate, but nevertheless indicates that the growth momentum has weakened. IMF also pointed out that uncertainty is growing again. The growth forecast for 2022 remained unchanged at 4.9 per cent.

The Purchase Managers' Indices also indicate that the economic recovery is losing momentum. The PMI figures for both manufacturing and services have dropped from the peaks reported during the summer. Outlook in manufacturing continues to be clouded by the serious shortages of raw materials and components.

Thus, it seems likely that development in the remainder of 2021 will fall short of expectations to a certain extent. However, it is reassuring that the figures indicate that demand in manufacturing in Europe remains at a good level.

As before, it is hard to say exactly how long demand will stay this strong. Pre-pandemic levels will be regained at some point, and the impacts of economic stimulus will cease. On the other hand, green transition and digitalisation will require significant investments in new technologies and cleaner production over the coming years and decades. Time will tell whether this will translate into additional investments or whether this means reduction of investments in other areas. In any case, green transition is an important business opportunity for the Finnish technology industry.

While manufacturing output is still expected to grow in Europe, PMIs in China signal that manufacturing output is close to contracting again. It is of concern that companies operating in China report that weak demand, in particular for export orders, weighs on the growth of production. Chinese companies are also burdened by significant increase in production costs as well as energy shortages.

During the autumn, inflation has remained relatively high in both the United States and Europe. In Europe in particular this is mainly due to significantly higher energy costs. Core inflation has remained moderate.

Inflation expectations for 2021 have increased somewhat. However, the baseline outlook remains unchanged and inflation is expected to slow down after the pandemic-related price volatility passes.

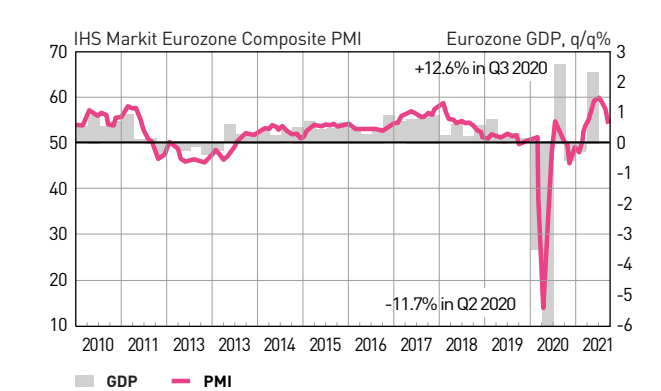
Material and component shortages

The biggest single issue facing global manufacturing today is the poor availability of materials and components. The mismatch between demand and supply has also resulted in significant and widespread rise of costs. The cost of raw materials and components has increased, the same is true for logistics and there has been a sharp surge in energy prices.

In Germany for example, manufacturing output during the autumn has dropped considerably from the level reported in early 2021. The automotive industry in particular is burdened by the shortage of semiconductors, which is largely paralyzing production. Naturally, the problems of the industry pass down the subcontracting chain.

The impact of the material and component shortages varies between individual companies. The unprecedented and damaging nature of the situation is brought home by the fact that a company may not be able to deliver a machine worth a million euros due to its inability to source a component worth a few cents. This has inflated order books throughout Europe. Unfortunately, it seems that many challenges will continue to have an impact long into next year.

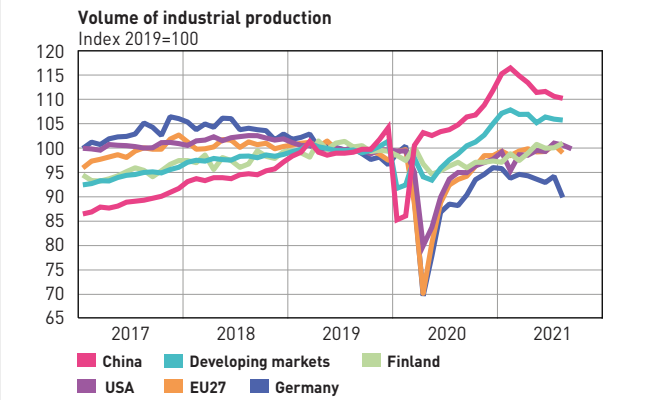
The euro area economy continues to grow, albeit at a slower pace



Eurozone Manufacturing and Services Purchasing Managers' Index, 50 = no change from previous month

Latest information October 2021
Source: IHS Markit, Eurostat

Supply chain challenges are a major challenge for the manufacturing industry



Latest information: August 2021
Source: Eurostat, CPB, Macrobond

In terms of demand, the overall situation in Europe remains quite good for now. However, concerns and risks have increased. We could see demand waning much sooner that we would have expected just a short while ago.

Higher costs impact profitability

Thea ability of companies to raise the price of their products because of increased cost of production varies greatly. While some companies are currently benefiting from rising prices, others are taking a big hit. In extreme cases, a company may decide to pay the contractual penalties for cancelling the order rather than deliver at the agreed price and considerable loss.

It is very likely that the relative profitability of companies will decrease somewhat this year – even in comparison to the pandemic year 2020.

In terms of competitiveness, it is somewhat reassuring that companies are facing similar challenges all over the world. The global increase in costs has thus not created any significant competitive advantage or disadvantage.

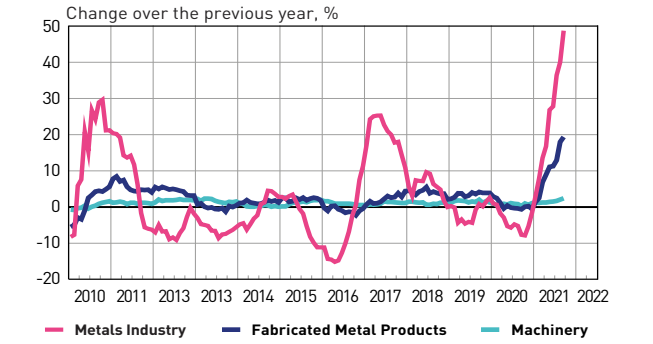
Economic situation highlights the importance of cost competitiveness

According to the analysis published by the Bank of Finland in August, the competitiveness of Finland in relation to the eurozone will decline, maybe even considerably, during the coronavirus crisis. This is largely due to the fact that labour costs in Finland have increased relative to the competitors.

Other forecasters have published similar data. Most if not all economic analysts have warned against labour market decisions that could weaken cost competitiveness. They have rightly recognised the difficulty of catching up with the competitors if we let our cost competitiveness erode.

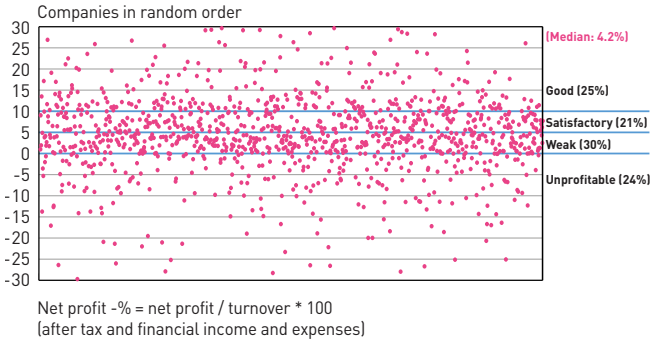
Today's relatively good economic situation combined with a somewhat weaker outlook as well as growing uncertainty and higher risks is a tricky combination. It is under such circumstances that Finland has often made bad decisions in terms of cost competitiveness. Hopefully, we have learned from those mistakes and can avoid repeating them.

Development of producer prices in the Finnish technology industry



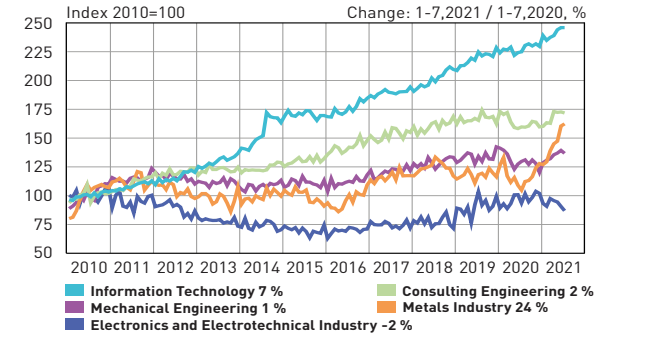
Latest information: September 2021
Source: Eurostat, Macrobond

Net Profit in the Member Companies of Technology Industries of Finland in 2020



Source: Statistics Finland

Turnover of the Technology Industry in Finland



Seasonally adjusted turnover index
Shares of turnover in 2020: mechanical engineering 40 %, electronics and electrotechnical industry 22 %, information technology 19 %, metals industry 12 %, consulting engineering 8 %
Source: Macrobond, Statistics Finland. Latest information: June 2021.

Economic Forecasts for Finland

Forecaster	Date	Change in GDP, %			Change in private Consumption, %		Change in Exports, %		Change in Investments, %		Inflation, % *		Unemployment rate, %	
		2021	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Danske Bank	15.9.2021	3,3	3,0		3,5		6,5		4,0		1,8		7,1	
Nordea	1.9.2021	3,5	3,0	2,0	3,5	1,2	5,3	3,5	4,1	3,5	1,7	1,7	6,8	6,4
OP-Pohjola	17.8.2021	3,6	3,0	1,4	3,5	1,5	8,0	3,0	3,5	2,0	1,3	1,5	7,0	6,6
Ministry of Finance	27.9.2021	3,3	2,9	1,4	3,8	2,0	5,8	3,4	2,8	2,6	1,6	1,7	6,8	6,4
Bank of Finland	16.9.2021	3,5	2,8	1,3	4,6	1,3	5,5	3,0	3,2	2,4	1,5	1,6	6,9	6,7
ETLA	20.9.2021	3,5	3,0	1,7	3,6	1,8	9,3	3,4	3,4	2,4	1,6	1,4	7,0	6,9
PTT	14.9.2021	3,7	4,0		4,5		9,5				1,6		7,3	
PT	16.9.2021	3,0	3,5	1,8	4,0	1,5	8,7	5,0	3,3	2,1	1,3	1,3	5,7	5,2
European commission	7.7.2021	2,7	2,9		3,6		7,0		3,4		1,6		7,2	
IMF	12.10.2021	3,0	3,0	1,5			5,8	2,0			1,6	1,6	6,8	6,7
Average		3,3	3,1	1,6	3,8	1,6	7,1	3,3	3,5	2,5	1,6	1,5	6,9	6,4

*) European commission and IMF report Harmonized Index of Consumer Prices
Updated 1.11.2021

Order intake falls short of expectations – demand remains at a good level

The turnover of technology industry companies in Finland grew slightly in 2020 from 2019. Turnover grew in electronics and electrotechnical industry as well as in information technology. Turnover fell in mechanical engineering and the metals industry. In consulting engineering, turnover remained at the 2019 level. In the January-July period of this year, turnover was 4 per cent higher than twelve months earlier. In 2020, the turnover of technology industry companies in Finland amounted to approximately EUR 82 billion.

Order intake for the third quarter of 2021 fell short of expectations. The monetary value of new orders in the July-September period was 6 per cent lower than in the second quarter of the year, but 7 per cent higher year-on-year. The drop from the previous quarter indicates that it is likely that the technology industry has already passed the peak in growth momentum.

At the company-level, 53 per cent of the companies participating in the survey reported that the value of their order intake in the third quarter was lower than in the previous quarter, 12 per cent had seen no change and 35 per cent reported an increase. There is a clear change from the results for the first and second quarter of the year, when a large majority of companies reported that their order intake was up from the previous quarter.

On the other hand, the number of tender requests received by companies remained at a healthy level during the autumn. The balance figure for October was +22. The positive figure indicates that demand has remained at a good level in the third quarter.

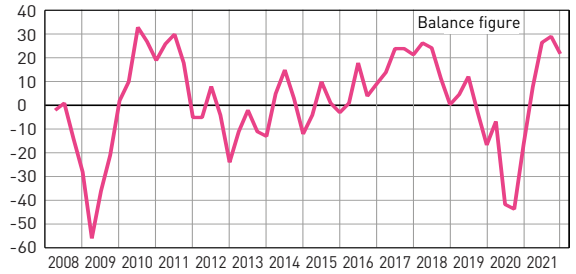
At the end of September, the value of order books was 5 per cent higher than at the end of June and 16 per cent higher than in September 2020. It is important to note that shipyards' share of the total value of books remains exceptionally large. The books include all orders yet to be delivered, which means that they are currently inflated by the delivery problems caused by material and component shortages.

Judging from order trends in the first three quarters of the year, the turnover of technology industry companies in the remainder of 2021 is expected to be higher than in the corresponding period last year. In the coming months, the significant increase in production costs will boost industry turnover, while at the same time, the delivery problems caused by the material and component shortages will have a negative impact.

The number of personnel employed by technology industry companies in Finland increased further. At the end of the third quarter, the industry employed approximately 319,000 people, up 2,000 from the second quarter. The number of employees affected by lay-off procedures was approximately 5,000 at the end of September.

Recruitment of new employees continued to pick up in the July-September period. In total, recruitments came to approximately 14,000. Some companies were increasing their personnel, others were hiring new employees due to retirements and employee turnover.

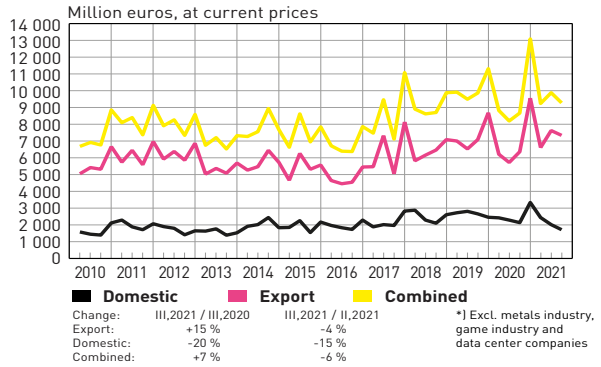
Tender requests* received by the technology industry companies in Finland



*) "Have you experienced a notable increase or decrease in the number of requests for tenders in recent weeks in comparison to the situation three months ago".
Balance figure = the share of companies receiving more requests - the share of companies receiving less requests. Positive balance figure indicates that demand has improved when compared to a situation three months ago.

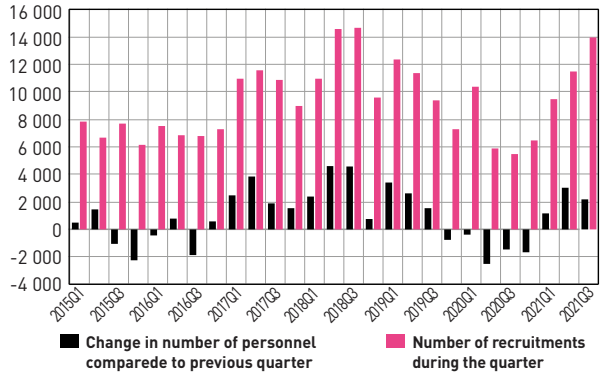
Source: The Federation of Finnish Technology Industries' order book survey's respondent companies The last questionnaire in October 2021.

Value of new orders in the technology industry* in Finland



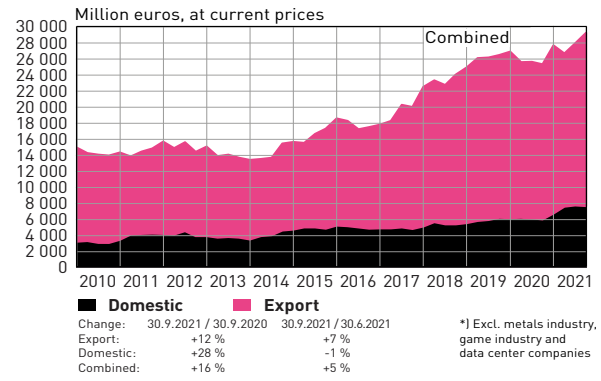
Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation July-September 2021.

The number of employees in the technology industry in Finland continued to grow in Q3



Source: The Federation of Finnish Technology Industries' labour force survey

Value of order books in the technology industry* in Finland



Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 30th September 2021.

Electronics and Electrotechnical Industry in Finland

Value of new orders up slightly from the previous quarter

The turnover of companies in the electronics and electrotechnical industry (telecommunications equipment, electrical equipment and medical technology) in Finland grew by approximately 4 per cent in 2020 from 2019. Despite good level of demand, turnover for the January-July period was approximately two per cent lower than twelve months earlier. In 2020, their turnover in Finland amounted to slightly less than EUR 18 billion.

The value of both new orders and order books increased slightly in the July-September period from the previous quarter.

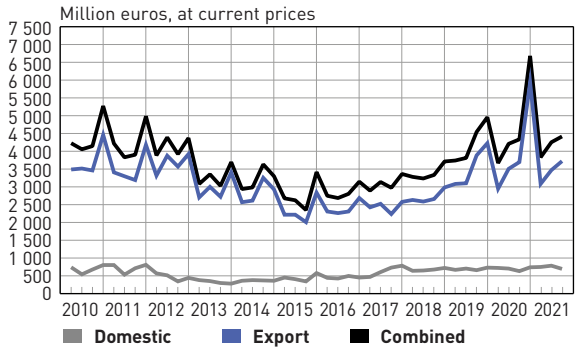
The electronics and electrotechnical companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between July and September was 4 per cent higher than in the preceding quarter and 2 per cent higher than in the corresponding period in 2020.

At the end of September, the value of order books was 6 per cent higher than at the end of June and 8 per cent higher than in September 2020.

Despite the good level of demand and order books, the shortage of semiconductors and components is a serious burden for companies and turnover development for the remainder of 2021 is expected to fall clearly short of expectations.

The number of personnel employed by electronics and electrotechnical companies in Finland at the end of September was 2.8 per cent higher than the 2020 average. The industry employed 39,300 people, approximately 1,100 more than the 2020 average.

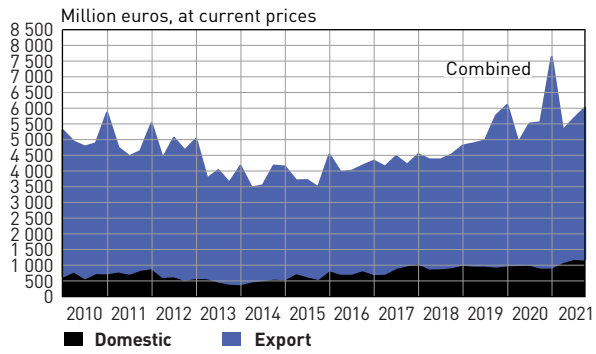
Value of new orders in the electronics and electrotechnical industry in Finland



Change:	III,2021 / III,2020	III,2021 / II,2021
Export:	+1 %	+7 %
Domestic:	+10 %	-11 %
Combined:	+2 %	+4 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation July-September 2021.

Value of order books in the electronics and electrotechnical industry in Finland



Change:	30.9.2021 / 30.9.2020	30.9.2021 / 30.6.2021
Export:	+5 %	+8 %
Domestic:	+26 %	-2 %
Combined:	+8 %	+6 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 30th September 2021.

Mechanical Engineering in Finland

Order intake falls clearly short of expectations and disappoints

The turnover of mechanical engineering companies (machinery, metal products and vehicles) in Finland decreased by approximately 2 per cent in 2020 from 2019. Between January and July of this year, turnover was 1 per cent higher than twelve months earlier. In 2020, their turnover in Finland amounted to more than EUR 32 billion.

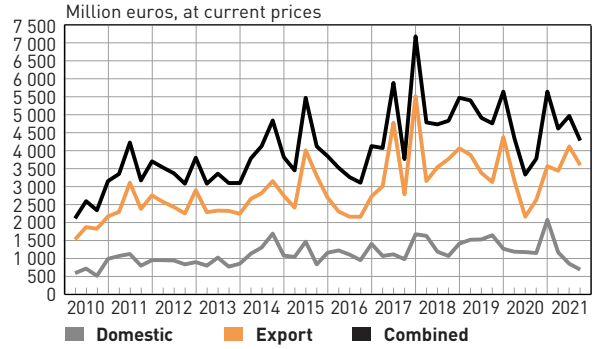
The value of new orders in mechanical engineering in the July-September period fell by as much as 14 per cent from the previous quarter. Year-on-year, the value of new orders increased by 13 per cent.

At the end of September, the value of order books was 5 per cent higher than at the end of June and 19 per cent higher than in September 2020. It remains necessary to consider that the shipyards' share of the total value of order books is exceptionally large.

Judging from order trends in the first three quarters of the year, the turnover of mechanical engineering companies in the remainder of 2021 is expected to be higher than in the corresponding period last year. The large increase in production costs will boost industry turnover, while at the same time, the delivery problems caused by the shortages of materials and components will have a negative impact.

The number of personnel employed by mechanical engineering companies in Finland at the end of September was up 1.9 per cent from the 2020 average. The industry employed 135,500 people, approximately 2,500 more than the 2020 average.

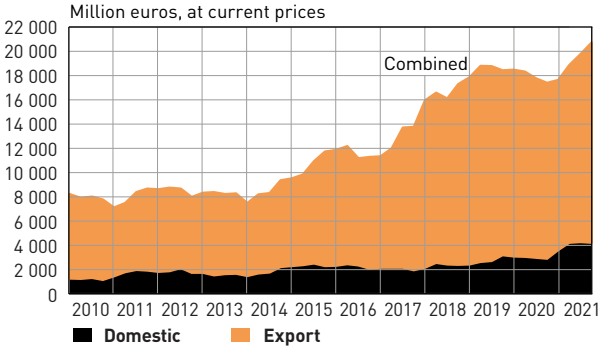
Value of new orders in the mechanical engineering in Finland



Change:	III,2021 / III,2020	III,2021 / II,2021
Export:	+37 %	-13 %
Domestic:	-40 %	-19 %
Combined:	+13 %	-14 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation July-September 2021.

Value of order books in the mechanical engineering in Finland



Change:	30.9.2021 / 30.9.2020	30.9.2021 / 30.6.2021
Export:	+14 %	+6 %
Domestic:	+46 %	-1 %
Combined:	+19 %	+5 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 30th September 2021.

Metals Industry in Finland

Strong turnover growth

The turnover of metals industry companies (steel products, non-ferrous metals, castings and metallic minerals) in Finland decreased by approximately 4 per cent in 2020 from 2019. In January-July 2021, their turnover was up by as much as 24 per cent year-on-year. The rise in producer prices has contributed significantly to the turnover growth in the metals industry. In 2020, their turnover in Finland amounted to slightly less than EUR 10 billion.

The total production of steel products, non-ferrous metals, castings and metallic minerals in Finland in the January-August period increased by approximately 9 per cent year-on-year.

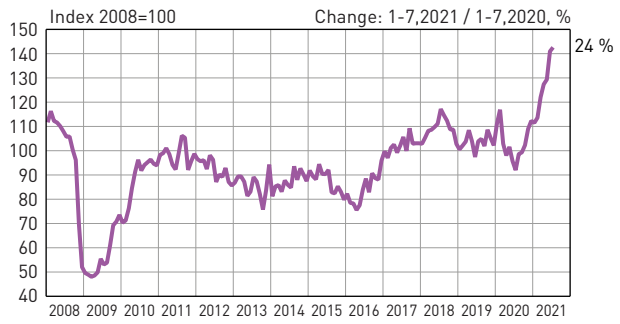
The number of personnel employed by metals industry companies in Finland at the end of September was at the 2020 level. At the end of September, the industry employed approximately 16,100 people.

In comparison to the corresponding period in 2020, global steel production increased by slightly less than 8 per cent between January and September. Production increased by 5.5 per cent in Asia, by 19.4 per cent in the EU and by 19.2 per cent in North America.

However, global steel production has decreased in recent months. In September 2021 for example, production was as much as 9 per cent lower year-on-year. In recent months, production volumes fell the most in Asia, to a large extent due to problems related to the availability of energy and coal in China.

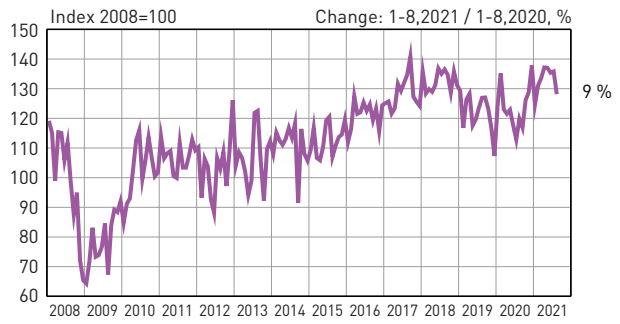
China, India, Japan, the United States and Russia were the largest producers in the first three quarters of 2021. China accounted for approximately 55 per cent of global steel production.

Turnover of the metals industry in Finland



Seasonal adjusted turnover index
Shares of turnover 2020: iron and steel products, non-ferrous metals and castings 89 %, mining of metal ores 11 %
Latest information: July 2021
Source: Statistics Finland

Production volume of the metals industry in Finland



Seasonal adjusted volume index
Shares of turnover 2020: iron and steel products, non-ferrous metals and castings 89 %, mining of metal ores 11 %
Latest information: August 2021
Source: Statistics Finland

Consulting Engineering in Finland

Value of order books continues to grow

The turnover of consulting engineering companies (industrial, social and construction expert services) in Finland decreased by 0.3 per cent in 2020 from 2019. Between January and July of this year, turnover was 2 per cent higher than twelve months earlier. In 2020, their turnover in Finland amounted to more than EUR 6.5 billion.

The value of new orders in consulting engineering fell in the July-September period from the previous quarter. However, order books strengthened further.

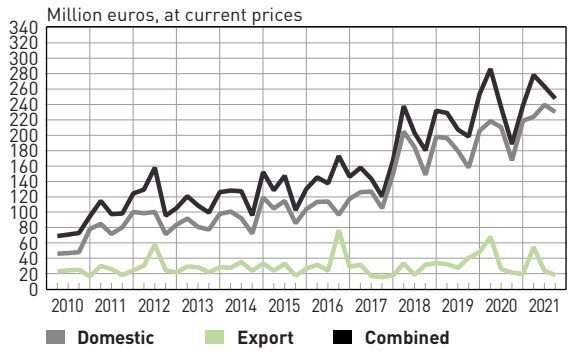
The consulting engineering companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between July and September was 6 per cent lower than in the preceding quarter, but 31 per cent higher than in the corresponding period in 2020.

At the end of September, the value of order books was 4 per cent higher than at the end of June and 15 per cent higher than in September 2020.

Judging from order trends in the first three quarters of the year, the turnover of consulting engineering companies in the remainder of 2021 is expected to be higher than in the corresponding period last year.

The number of personnel employed by consulting engineering companies in Finland at the end of September was 1.9 per cent higher than the 2020 average. The industry employed 54,500 people, approximately 1,000 more than the 2020 average.

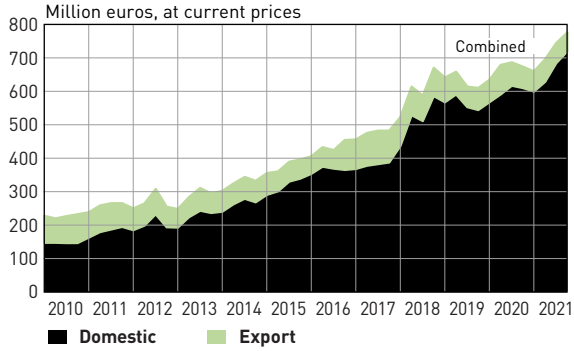
Value of new orders in the consulting engineering in Finland



Change:	III,2021 / III,2020	III,2021 / II,2021
Export:	-16 %	-24 %
Domestic:	+37 %	-4 %
Combined:	+31 %	-6 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation July-September 2021.

Value of order books in the consulting engineering in Finland



Change:	30.9.2021 / 30.9.2020	30.9.2021 / 30.6.2021
Export:	-12 %	-6 %
Domestic:	+18 %	+5 %
Combined:	+15 %	+4 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 30th September 2021.

Information Technology in Finland

New orders drop year-on-year

The turnover of information technology companies (IT services and software) in Finland grew by less than 5 per cent in 2020 from 2019. In January-July 2021, their turnover was up 7 per cent year-on-year. In 2020, their turnover in Finland amounted to more than EUR 15 billion.

Order intake for the July-September period was lower than in the previous quarter. The value of order books remained practically unchanged. Typically for the sector, order volumes can fluctuate strongly from one quarter to another.

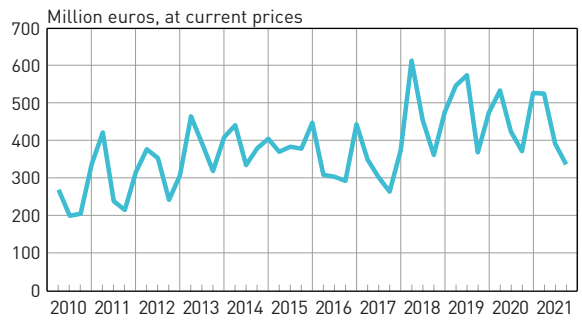
The information technology companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between July and September was 14 per cent lower than in the preceding quarter and 10 per cent lower than in the corresponding period in 2020. Game industry and data centre companies are not included in the survey.

At the end of September, the value of order books was 1 per cent lower than at the end of June, but 2 per cent higher than in September 2020.

Judging from order trends in the first three quarters of the year, the turnover of information technology companies in the remainder of 2021 is expected to be higher than in the corresponding period last year.

The number of personnel employed by information technology companies in Finland at the end of September was 1 per cent lower than the 2020 average. The industry employed 73,600 people, approximately 800 less than the 2020 average.

Value of new orders in the information technology* in Finland

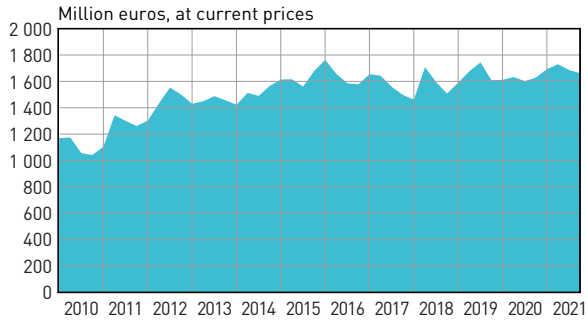


Change:	III,2021 / III,2020	III,2021 / II,2021
Combined:	-10 %	-14 %

*) Excl. game industry and data center companies

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation July-September 2021.

Value of Order Books in the Information Technology* in Finland



Change:	30.9.2021 / 30.9.2020	30.9.2021 / 30.6.2021
Combined:	+2 %	-1 %

*) Excl. game industry and data center companies

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 30th September 2021.

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Information based on the situation on 4 November 2021

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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.

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