

Economic Outlook

Technology Industries of Finland

3 | 2023

Global And Finnish Economic Outlook

Economic outlook weakened during the summer – Finnish technology industry holding up for now

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Technology Industries in Finland

Order books are thinner and new orders decline – contraction is still moderate

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Economic outlook weakened during the summer – Finnish technology industry holding up for now

Economic outlook has weakened during the late spring and summer of 2023, in particular in the eurozone. It already seems very clear that the remainder of the year will be challenging. The only question now is how difficult the situation will eventually become. In the best-case scenario, we will escape with relatively minor damage, but recent data indicates that the risk of weaker development has increased.

According to the outlook published by the International Monetary Fund IMF at the end of July, the global economy is projected to grow 3.0 per cent in both 2023 and 2024. The forecast for 2023 is modestly higher than predicted in the April outlook. The IMF says that this is due to the financial markets appearing sanguine and the US debt ceiling standoff having been resolved.

The eurozone is projected to grow 0.9 per cent in 2023 and 1.5 per cent in 2024. In Germany, the economy is expected to contract by 0.3 per cent in 2023. Overall, developing economies are projected to grow very slowly in the next few years.

The IMF projects the Chinese economy to grow 5.2 per cent in 2023. This could be described as optimistic, considering the fact that so far, China has found 2023 more difficult than expected. Quick recovery was expected after a challenging 2022 marked by strict lockdowns.

According to IMF, global headline inflation in the baseline is set to fall from 8.7 percent in 2022 to 6.8 percent in 2023 on the back of lower commodity prices. Core inflation is expected to remain high, however, and the IMF revised its projection for 2024 slightly upward.

The employment situation in both the United States and Europe has remained remarkably strong despite uncertainty and weakening demand. This suggests that both areas face significant challenges with the supply of skilled labour. Core inflation is likely to remain persistent because of wage pressures due to the skills shortages and the tight labour market situation.

Central banks are in a difficult situation. According to the Indices, producer prices are clearly declining, in particular in the upstream (raw materials, parts, components). As regards goods, it is possible that inflation will slow down remarkably quickly, even

leading to deflation. On the other hand, the service sector, where wages are the main source of inflationary pressure, is likely to see further price increases.

The European Central Bank ECB introduced yet another interest rate increase at the end of July. At the moment, it seems that there may be a pause in rate hikes, at least for a while. The ECB is expected to monitor the situation for now, keeping a close eye on the labour market, for example. It is likely that the (core) inflationary pressures will not ease until the labour market situation deteriorates somewhat, and thus we will not see rate cuts until unemployment starts to rise.

Eurozone manufacturing output is contracting

The eurozone manufacturing PMI readings have been falling since January. The reading for July was the weakest since the financial crisis if we ignore the COVID pandemic. The PMI reading for July was 43, which points to a clear contraction in manufacturing in the eurozone. Readings below the 50 mark suggest a contraction in output.

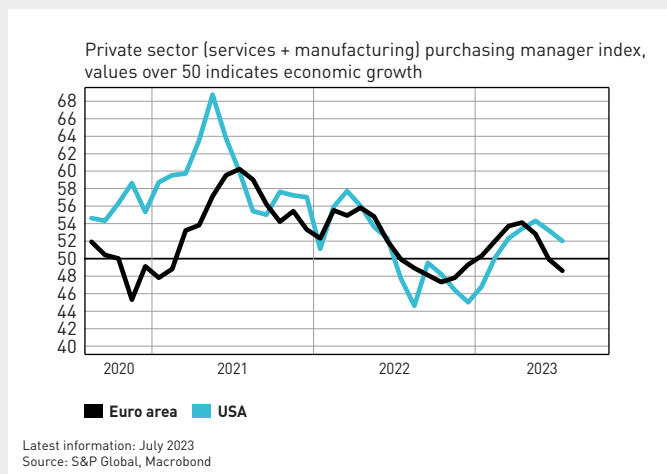
Practically all PMI indicators point to a weakening of the economic cycle: new orders are contracting, order books are thinning, delivery times are shortening, both input and output prices are falling, demand is declining and projected outlooks are gloomier... Concerns are heightened by the fact that many of these indicators are now as weak as they were during the financial crisis.

According to the PMIs, employment is also slightly down in the manufacturing sector, due to the weakened overall situation. A clear decline in employment would be a strong signal of a sharper downturn, but we have yet to see it.

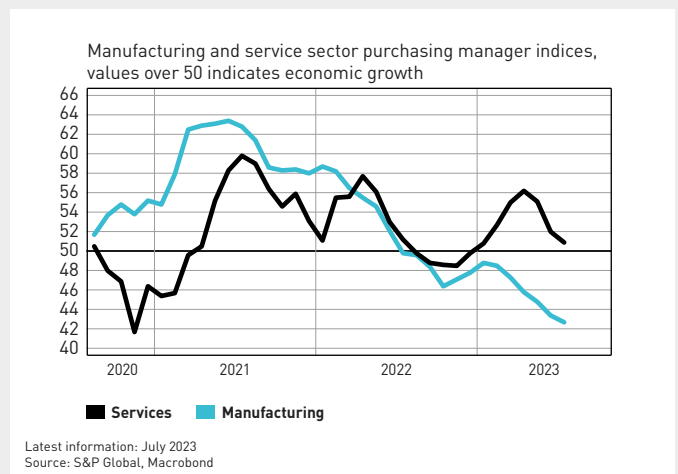
Manufacturing outlook is gloomier now than in the spring, and the remainder of 2023 is likely to be very challenging for manufacturing in Europe. Based on current data, output can be expected to contract somewhat in the remainder of the year. This will have an impact on the demand of the Finnish technology industry in 2023.

In the spring, it still seemed that growth in the service sector would boost the eurozone economy enough to avoid a contraction in

In the euro area outlook weakened during late spring and summer



In the euro area, the industrial situation continued to deteriorate – the situation in the service sector has also worsened



its GDP. Back then, the sentiments were significantly different in manufacturing and services. While the difference was still notable in the summer, it seems that activity on the service sector has also slowed down. According to the PMIs, service sector is also experiencing close to zero growth in July.

Overall, the eurozone situation has taken a turn for the worse in 2023, and the remainder of the year will be challenging. While a rapid contraction in output remains unlikely, it is nevertheless increasingly more likely and we should be prepared for a rapidly deteriorating situation.

While the current manufacturing situation in the United States is better than in Europe, it is not particularly good there either. Manufacturing PMI in the United States has been getting closer to the 50 point mark – and growth – but remains just below it. This points to stagnant growth also in the US manufacturing sector.

China's economy is also experiencing zero growth, at least according to the PMIs. The situation in China is somewhat disappointing because 2023 was expected to be a year of strong recovery after 2022, which was marked by strict lockdowns. Recovery in China seems to be weaker than expected.

Consumer confidence no longer improving in Finland, business confidence has weakened

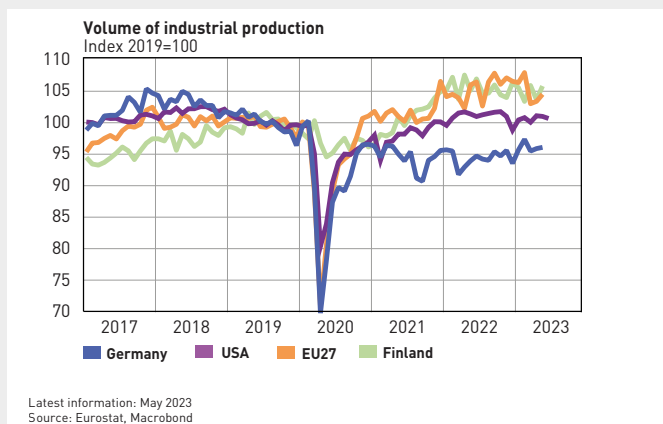
Consumer confidence has recovered in early 2023 from the record-low level recorded at the turn of the year when concerns about

energy prices were at their highest. Worryingly, it now seems that the recovery has stalled, and consumer confidence remains below the long-time average. Only very few are considering purchases of durable goods or new consumer loans. This suggests that consumers will not be giving a boost to the economy. Consumers estimated the threat of unemployment to be at an average level. Should there be more widespread concerns over job security, it is likely to have a fairly considerable impact on consumer confidence and behaviour.

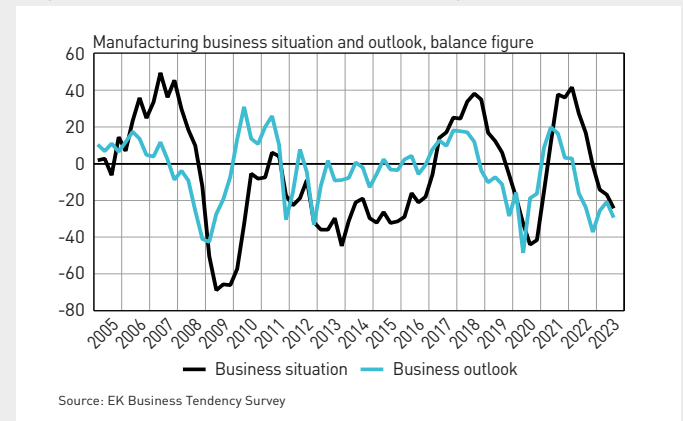
According to the recent Business Tendency Barometer published by the Confederation of Finnish Industries, the situation in manufacturing continued to deteriorate in the second quarter of 2023. Projected outlook has also become slightly more pessimistic. Insufficient demand has quickly emerged as the main obstacle to growth. Disruptions caused by capacity shortages or the unavailability of raw materials have decreased almost at the same rate. Despite the deterioration of the overall situation, problems with skill shortages persist. While the economic cycle has cooled down, skilled employees are still hard to find.

Overall, the rest of 2023 will be challenging for the Finnish economy. It is still most likely that we will escape with relatively minor damage, but as the outlook has become increasingly bleak during the summer, the risk of greater problems in the remainder of the year has increased.

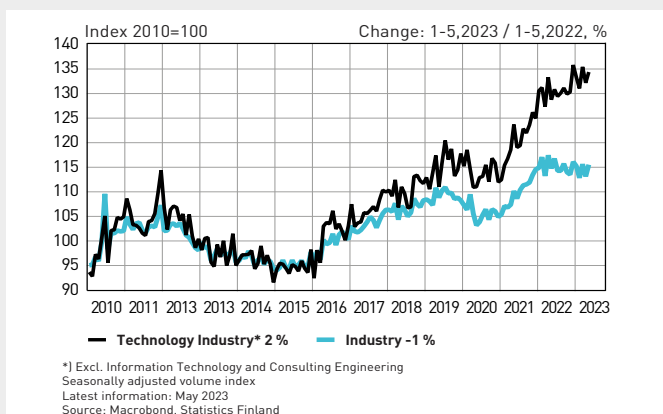
Industrial production growth stalled worldwide



The business cycle in the manufacturing is constantly deteriorating— Pessimism about future increased again



Volume of Industrial Production in Finland



Recovery of consumer confidence appears to have stalled for now



Order books are thinner and new orders decline – contraction is still moderate

The turnover of technology industry companies in Finland grew by approximately 15 per cent in 2022 from 2021. Turnover grew in all main sectors. Output growth and the significantly higher level of prices contributed to turnover growth in 2022. Turnover in Finland in 2022 exceeded EUR 100 billion for the first time, totalling EUR 105 billion. Between January and April of this year, turnover was 1 per cent higher than twelve months earlier.

The monetary value of new orders in the April-June period was 9 per cent lower than in the previous quarter and 5 per cent lower year-on-year.

The balance figure for tender request in July was -13. The figure remained unchanged from the previous quarter. The data collected in July indicates that demand has continued to weaken. However, the decline in demand has remained relatively moderate, and there are no broader indications of a drastic turn for the worse yet.

At the end of June, the value of order books was 6 per cent lower than at the end of March and 4 per cent lower than in June 2022.

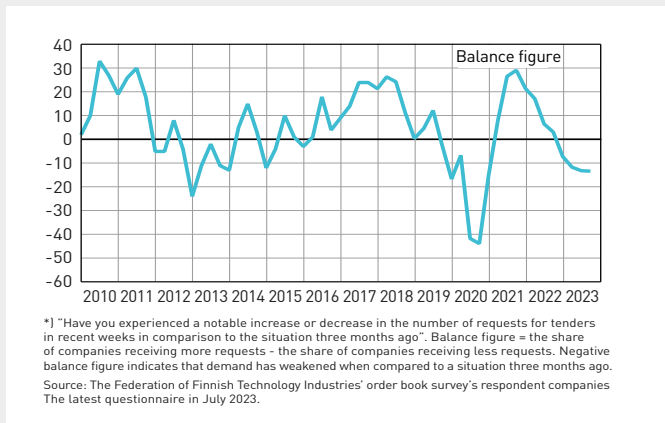
Judging from order trends in the first half of 2023, the turnover of technology industry companies is expected to stagnate or even to contract in the remainder of the year.

The number of personnel employed by technology industry companies in Finland at the end of June was 0.2 per cent lower than at the end of March. At the end of June, the industry employed approximately 335,000 people. According to the personnel survey by Technology Industries of Finland, the number of employees affected by lay-off procedures at the end of June was approximately 6,000. The number of lay-offs remains clearly below the average. Technology industry companies provided approximately 21,000 summer jobs in 2023, which is the highest number on record.

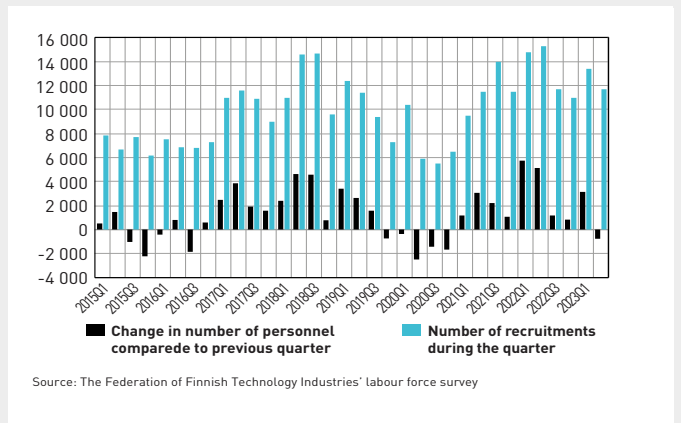
Recruitment of new employees were at a good level in the April-June period. In total, recruitments came to 11,700. Some companies were increasing their personnel, others were hiring new employees due to retirements and employee turnover.

It seems that, similar to order and output volumes, personnel numbers have peaked for now. While experts are still in high demand in many technology industry companies, it is likely that the total number of employees will not grow significantly during rest of 2023. On the other hand, there should be no rapid decline in the number of personnel either.

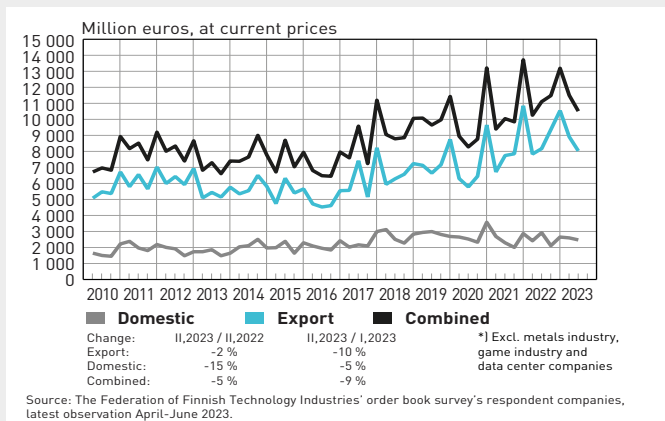
Tender requests* received by the technology industry companies in Finland



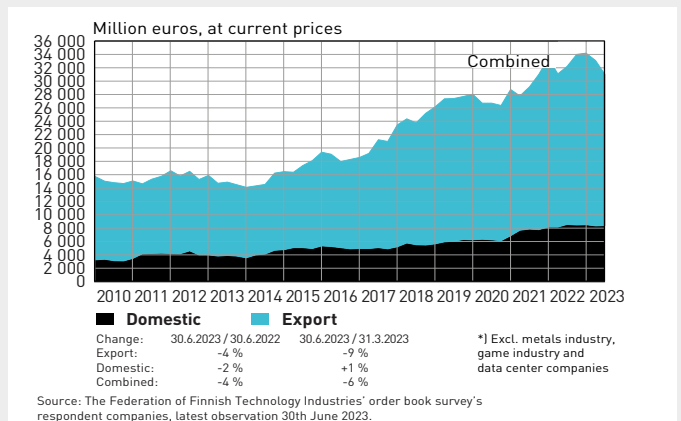
Growth in headcount stalled in the technology industry in Finland



Value of new orders in the technology industry* in Finland



Value of order books in the technology industry* in Finland





Electronics and Electrotechnical Industry in Finland

Value of new orders fell 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 16 per cent in 2022 from 2021. In 2022, their turnover in Finland amounted to approximately EUR 21 billion. Between January and April of this year, turnover was 5 per cent lower than twelve months earlier.

The value of both new orders and order books decreased in the April-June period from the previous quarter. Typically for the sector in recent years, order volumes can fluctuate strongly from one quarter to another.

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 April and June was 19 per cent lower than in the

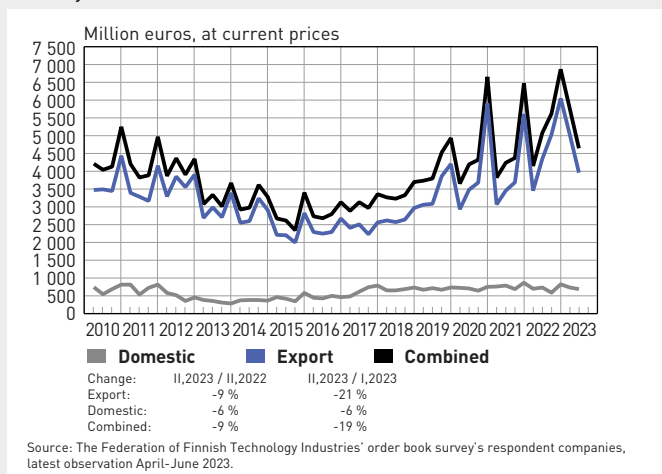
preceding quarter and 9 per cent lower than in the corresponding period in 2022.

At the end of June, the value of order books was 15 per cent lower than at the end of March and 7 per cent lower than in June 2022.

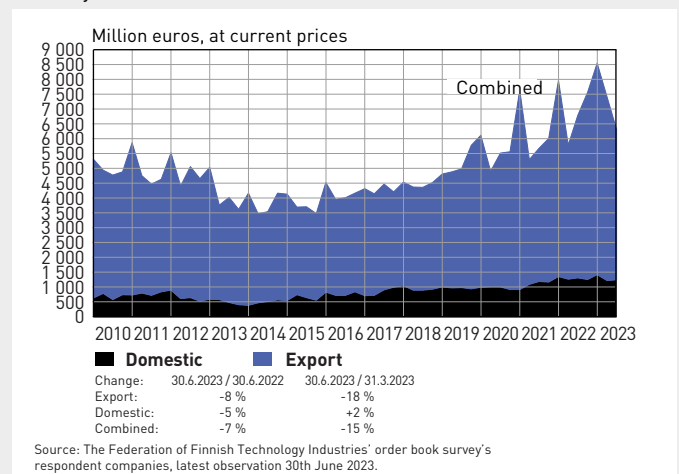
Judging from order trends in early 2023, the turnover of electronics and electrotechnical industry companies is expected to stagnate or to contract in the remainder of the year.

The number of personnel employed by electronics and electrotechnical companies in Finland at the end of June was 0.3 per cent higher than at the end of March. The industry employed approximately 41,600 people in June.

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

Value of order intake practically unchanged – order books slightly thinner

The turnover of mechanical engineering companies (machinery, metal products and vehicles) in Finland increased by 12 per cent in 2022 from 2021. In 2022, their turnover in Finland amounted to approximately EUR 38 billion. Between January and April of this year, turnover was 11 per cent higher than twelve months earlier.

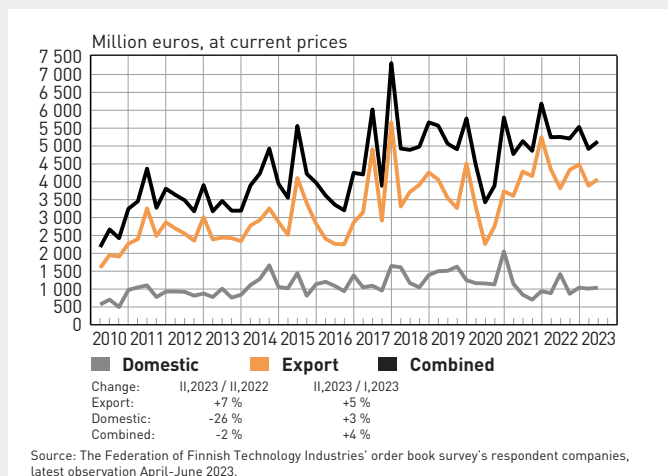
The value of new orders in mechanical engineering increased by 4 per cent in the April-June period from the preceding quarter. Year-on-year, the value of new orders decreased by 2 per cent. The industry received several large orders from the defence industry in the second quarter, which increased the order intake. Without these orders, order intake would have decreased slightly.

At the end of June, the value of order books was 4 per cent lower than at the end of March and 3 per cent lower than in June 2022. It remains necessary to consider that the shipyards' share of the total value of order books is exceptionally large.

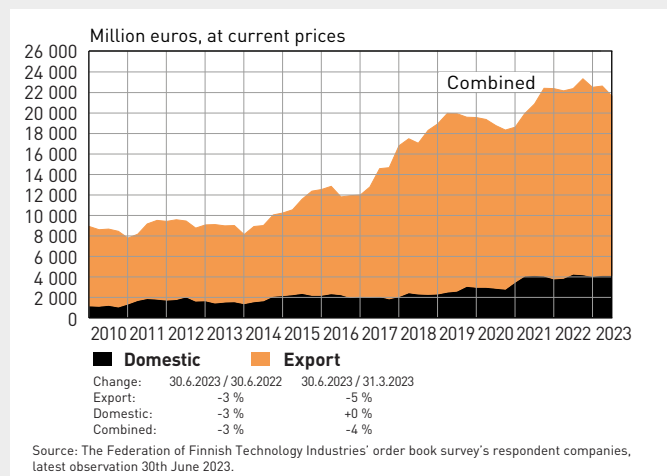
Judging from order trends in early 2023, the turnover of mechanical engineering companies is expected to stagnate or to contract in the remainder of the year.

The number of personnel employed by mechanical engineering companies in Finland at the end of June was 0.7 per cent lower than at the end of March. The industry employed approximately 137,200 people in June.

Value of new orders in the mechanical engineering in Finland



Value of order books in the mechanical engineering in Finland





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Metals Industry in Finland

Significant drop in turnover

The turnover of metals industry companies (steel products, non-ferrous metals, castings and metallic minerals) in Finland increased by 32 per cent in 2022 from 2021. In 2022, their turnover in Finland amounted to EUR 19 billion. The sharp rise in producer prices in early 2022 contributed significantly to the turnover growth, but the prices fell quickly during the second half of the year. Between January and April of this year, turnover was 14 per cent lower than twelve months earlier. Lower producer prices in comparison to 2022 have contributed to the significant drop in turnover.

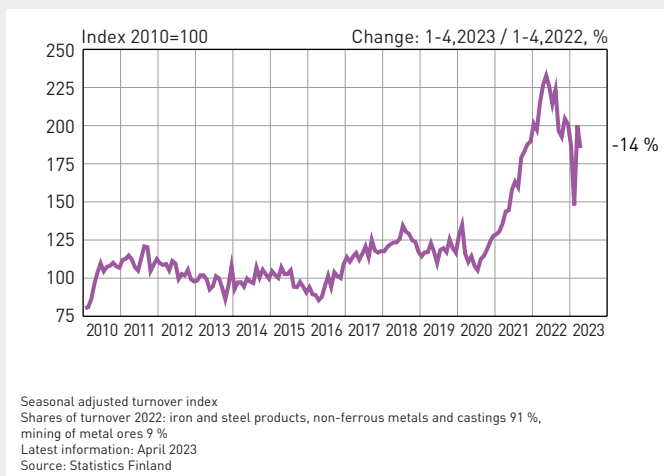
The total production of steel products, non-ferrous metals, castings and metallic minerals in Finland in the January-May 2023 period remained unchanged year-on-year.

The number of personnel employed by metals industry companies in Finland at the end of June was 0.4 per cent lower than at the end of March. The industry employed approximately 16,000 people in June.

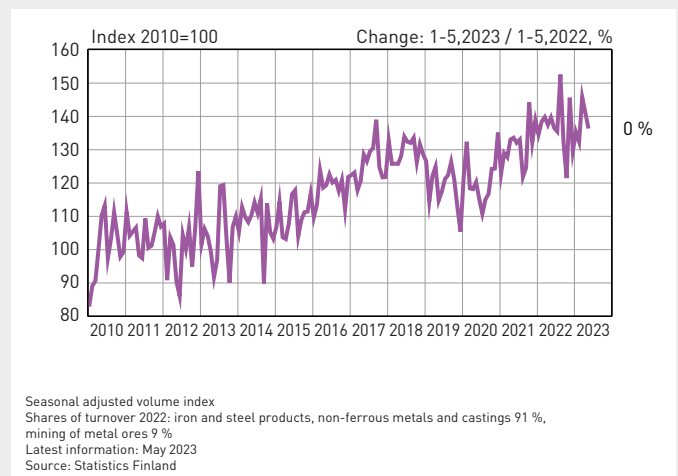
Year-on-year, global steel production decreased by 7.0 per cent between January and June. Production fell by 10.9 per cent in the EU and by 3.5 per cent in North America. In Asia, production was up by 0.7 per cent.

China, India, Japan and the United States were the largest producers in early 2023. China accounted for approximately 57 per cent of global steel production.

Turnover of the metals industry in Finland



Production volume of the metals industry in Finland





Consulting Engineering in Finland

New orders and order books declining

The turnover of consulting engineering companies (industrial, social and construction expert services) in Finland increased by 9 per cent in 2022 from 2021. In 2022, their turnover in Finland amounted to more than EUR 7 billion. Between January and April of this year, turnover was seven per cent higher than twelve months earlier.

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 April and June was 9 per cent lower than in the preceding quarter and 17 per cent lower than in the corresponding period in 2022.

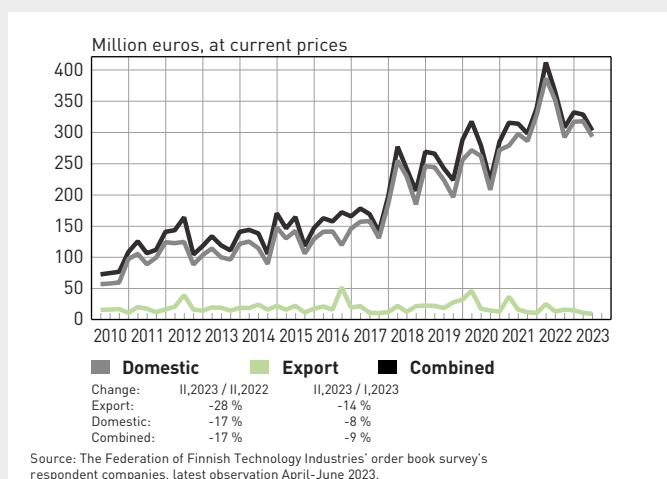
At the end of June, the value of order books was 3 per cent lower than at the end of March and 3 per cent lower than in June 2022.

There has been a change in the respondent profile of the consulting engineering companies taking part in the Federation of Finnish Technology Industries' survey. For this reason, we are seeing elevated levels of order intake and order books in comparison to previous reports. However, the quarterly and year-on-year changes remained unchanged.

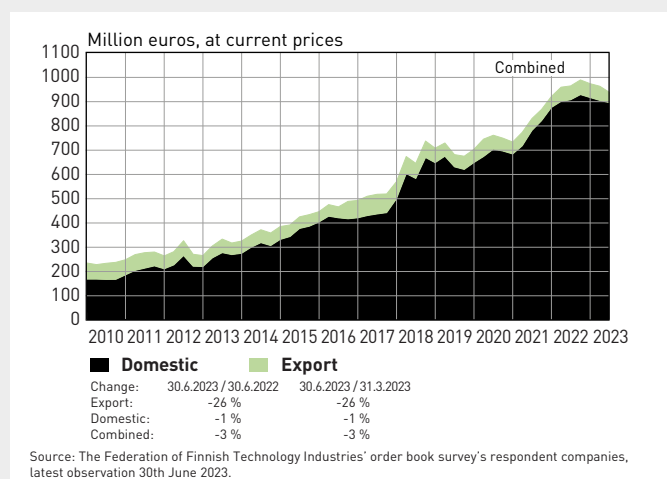
Judging from order trends in early 2023, the turnover of consulting engineering companies is expected to stagnate or even contract in the remainder of the year as a result of the poor performance of the construction sector.

The number of personnel employed by consulting engineering companies in Finland at the end of June was 0.4 per cent higher than at the end of March. The industry employed approximately 54,900 people in June.

Value of new orders in the consulting engineering in Finland



Value of order books in the consulting engineering in Finland





Information Technology in Finland

New orders fell from the previous quarter

The turnover of information technology companies (IT services and software) in Finland grew by 10 per cent in 2022 from 2021. In 2022, their turnover in Finland amounted to approximately EUR 19 billion. Between January and April of this year, turnover was 8 per cent higher than twelve months earlier.

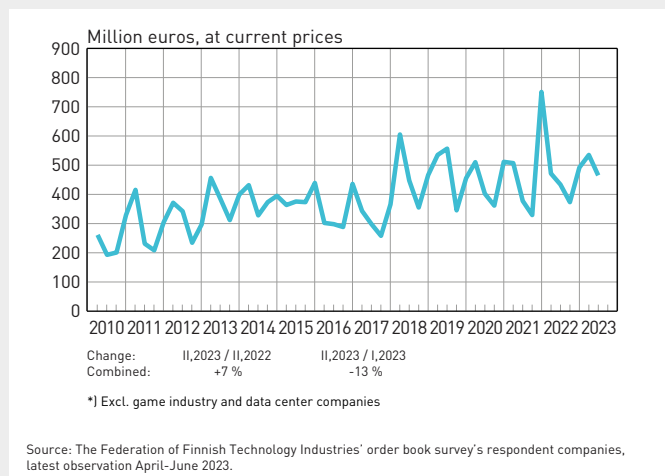
The information technology companies that took part in the Federation of Finnish Technology Industries' survey of order books reported that the monetary value of new orders between April and June was 13 per cent lower than in the preceding quarter, but 7 per cent higher than in the corresponding period in 2022. Game industry and data centre companies are not included in the survey. Typically for the sector, order volumes can fluctuate strongly from one quarter to another.

At the end of June, the value of order books was 1 per cent higher than at the end of March, and relatively unchanged from June 2022.

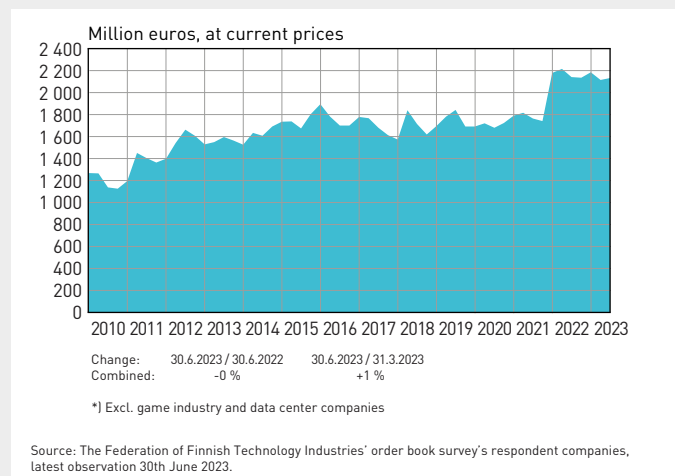
Judging from order trends in early 2023, the turnover of information technology companies is expected to continue to grow in the remainder of the year.

The number of personnel employed by information technology companies in Finland at the end of June was up 0.2 per cent from the end of March. The industry employed approximately 85.200 people in June.

Value of new orders in the information technology* in Finland



Value of Order Books in the Information Technology* in Finland



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Information based on the situation on 10 August 2023

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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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**Technology Industries
of Finland**