Economic Outlook

Technology Industries of Finland

2 | 2024

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ECONOMIC OUTLOOK 2 | 2024

Information based on the situation on 8 May 2024
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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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Cover photo: Liisa Takala

Technology industry production is declining and order intake is weak

Now that winter has yielded to spring, it can be stated that the past six months went largely as expected for the economy and Finnish industry in both good and bad. On a positive note, a severe recession has been avoided, and as things now stand this will hold true during the rest of the year as well. On the other hand, the mood in winter was downbeat and the downswing in production that was forecast in the autumn has materialised. Based on the latest data, it is likely that the difficulties in the industry will continue at least until after the holidays.

In April, the International Monetary Fund (IMF) revised its global growth forecast. The forecast for global economic growth makes for monotonous reading: the growth forecasts for 2023, 2024 and 2025 are 3.2 per cent annually. In historical terms, the forecast growth rate is quite slow.

The most striking forecast made by the IMF is that performance in Europe will be extremely poor. While the growth figures for the United States for 2023–2025 are 2.5, 2.7 and 1.9 per cent, the figures for the eurozone are only 0.4, 0.8 and 1.5 per cent. If these forecasts hold true, Europe will lag badly behind the United States in terms of growth. This situation raises legitimate concerns about Europe's ability to attract investment and encourage companies to grow.

Great expectations for interest rate cuts

Central banks' interest policy was perhaps the economic issue that was watched most closely throughout the winter. In the United States, the economic outlook is relatively strong and inflation is likely to be more persistent than in Europe. As things now stand, it looks like the United States will have to wait longer than Europe for interest rates to start declining.

The European economy is substantially weaker than the United States. It seems increasingly likely that the European Central Bank will implement the first interest rate cut quite soon — currently, it is thought that this will most likely occur in June.

There are great expectations about the interest rate cut(s). Company surveys in Europe suggest that the expectations of companies about the future have slightly improved on quite a broad front. These expectations are without a doubt largely linked to anticipated interest rate cuts. However, it is uncertain how strongly and on what schedule a slight decrease in interest rates will impact on demand. To be clear, it is highly unlikely that interest rates will be cut significantly in the near future. Rather, these cuts will be extremely moderate. The reaction may well turn out to be relatively muted, with the effects not being seen clearly until 2025.

That said, economic activity and demand should, at least in theory, start to pick up gradually in the latter half of the present year on the heels of lower interest rates.

Industrial production continues to decline in Europe

Times have remained challenging in European industry during the first months of the year. Information on actual production volumes indicates that the industrial production volume has been clearly heading downward for over a year. Based on the Purchasing Managers' Indices (PMIs), there is no end on the horizon for this decline.

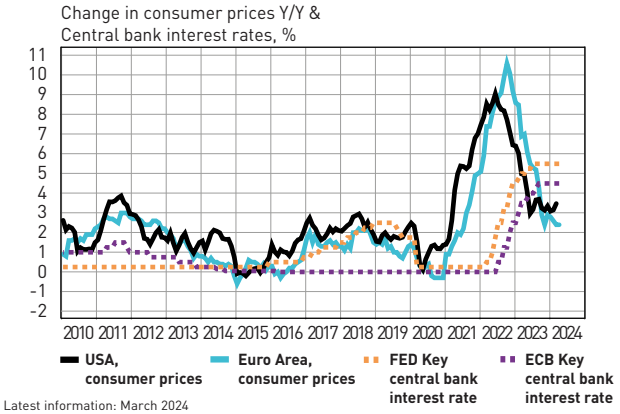
Unfortunately, the latest European Purchasing Managers' Indices (PMIs) make for dismal reading. Production is expected to keep trending downward, with the inflow of new orders remaining weak and order books continuing to shrink.

However, companies' assessments of the future have taken a slight turn for the better. That said, there is as yet very little evidence of a tangible turnaround.

Although some time ago, the PMIs indicated that European industrial companies were more or less in the same situation, signs of divergence between different countries have been evident in the first months of the year. Whereas industry in Germany, France and Austria has remained in very difficult straits, the situation has already begun to improve significantly in southern European countries such as Spain and Italy, in both of which technology is a key industrial sector.

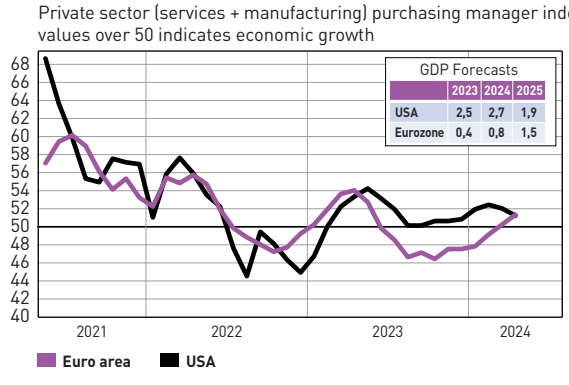
PMIs in the United States indicate that industry has grown slightly. Although the development of industrial production in the United States has been rather anaemic on the whole in recent years, the statistics show that industrial investments have surged. Investment growth is clearly linked to U.S. IRA package-related investment grants and tax incentives. This surge in investments strongly suggests that the future trend in industrial production in the United States will be quite favourable.

Inflation and key central bank interest rates in the USA and eurozone



Latest information: March 2024
Source: Macrobond, FED, EKP

Purchasing managers' index slightly improved in the eurozone



GDP Forecasts

	2023	2024	2025
USA	2,5	2,7	1,9
Eurozone	0,4	0,8	1,5

Latest information: April 2024
Source: S&P Global, IMF, Macrobond

The Finnish manufacturing industry continues to face a difficult situation

According to the Business Tendency Barometer published by the Confederation of Finnish Industries EK, the cyclical situation of the entire manufacturing industry remains extremely weak. Companies' assessments of how the situation will develop have also improved in Finnish industry.

As in the European PMIs, the Finnish Business Tendency Barometer does not as yet show a concrete turn for the better. Rather, it would seem only that companies have become more hopeful about an upswing. This greater sense of hope is clearly linked with expectations that interest rates will begin to decline.

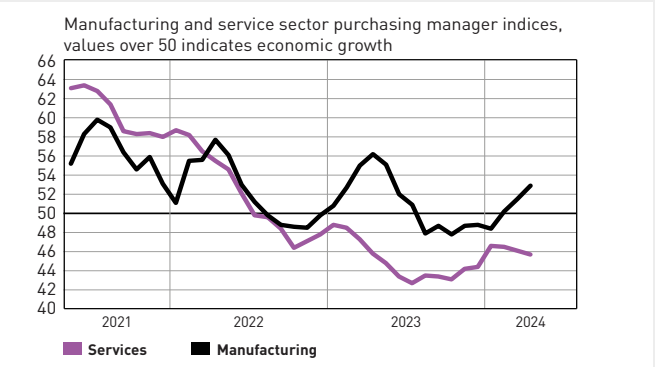
Finland's technology industry is still suffering from weak demand

The situation and outlook for the Finnish technology industry also remain challenging. Demand remained weak in early 2024, and order intakes have been even more meagre than before. Companies are consuming their order backlogs to keep production up and running. Order books have continued to shrink for over a year now.

The number of requests for tender received by technology companies continued to decline in April compared with the early months of the year, but not as substantially. The data for April indicates an obvious risk that order intakes will not pick up significantly in this quarter, either.

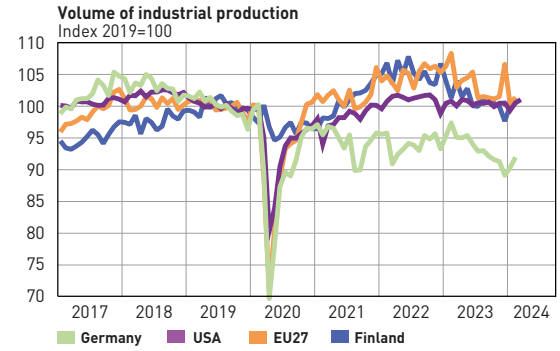
The ongoing weak demand and order intakes clearly point out that the situation will remain difficult. In spite of everything, technology companies have sought to hold on to their employees. The number of personnel decreased only slightly compared with the previous quarter. However, it will take some time before demand can be expected to pick up. The production and employment situation at companies will continue to become more difficult until expectations of a turn for the better are realised in the form of improved order intakes.

Industrial production continues to contract in the eurozone in the early months of the year



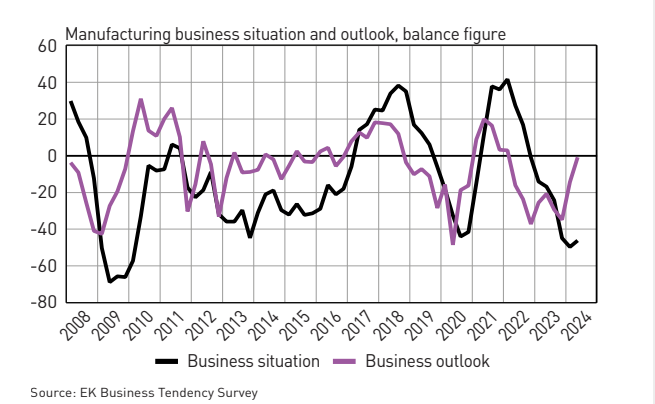
Latest information: April 2024
Source: S&P Global, Macrobond

Industrial production in Europe continues to decline



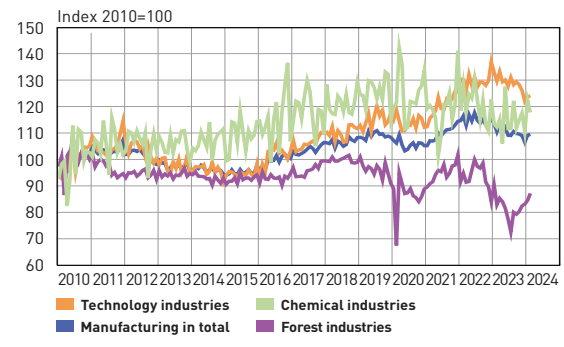
Latest information: February 2024
Source: Eurostat, Macrobond

Turn for the better in manufacturing business expectations – assessment of the current situation is very weak



Source: EK Business Tendency Survey

Volume of industrial production in Finland



*) Excl. Information Technology and Consulting Engineering
Seasonally adjusted volume index
Source: Macrobond, Statistics Finland. Latest information: February 2024.

Demand remained weak in the first months of the year – order intakes decreased

In 2023, the turnover of technology industry companies in Finland declined by approximately 4 per cent on 2022. Turnover decreased in the electronics and electrotechnical industry and the metals industry. Turnover grew in mechanical engineering, the consulting sector and information technology. Their turnover in Finland amounted to approximately EUR 100 billion in 2023. Last year, turnover began to decline due to lower producer prices. In 2023, average production volumes in the technology industry were on a par with 2022, although they began to decline significantly towards the end of the year.

The monetary value of new orders in the January–March period was 15 per cent lower than in the previous quarter and 22 per cent lower year-on-year.

The balance figure for tender requests in April was -10. Data collected in April indicates that the overall demand situation in the market has remained weak throughout the spring. Although the balance figure was still negative, more companies reported that they had received a higher number of requests for tender.

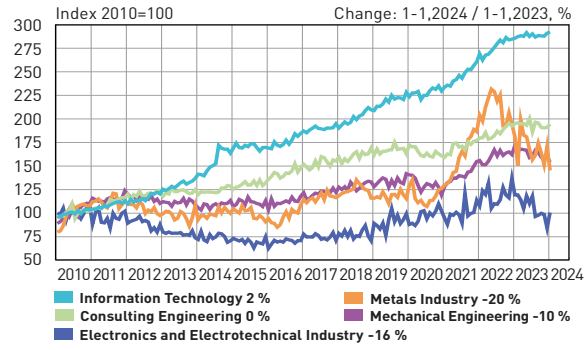
At the end of March, the value of order books was 2 per cent lower than at the end of December and 15 per cent lower than in March 2023. The value of order books has now decreased continuously for over a year.

On the basis of order trends in the first months of the year, the turnover of technology industry companies is expected to contract over the next six months.

The number of personnel employed by technology industry companies in Finland at the end of March was 0.2 per cent lower than at the end of December. At the end of March, the industry had approximately 333,000 employees. According to the personnel survey by Technology Industries of Finland, the number of employees affected by lay-off procedures at the end of March was approximately 17,000.

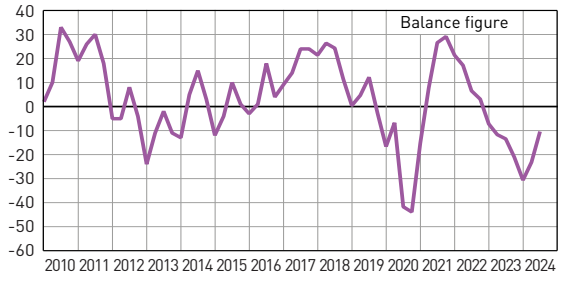
Recruitment of new employees remained at a moderate level in the January-March period. In total, recruitments came to 9,600. Some companies were increasing their payroll, while others were hiring new employees due to retirements and employee turnover.

Turnover of the technology industry in Finland



Seasonally adjusted turnover index
Shares of turnover in 2022: mechanical engineering 37 %, electronics and electrotechnical industry 20 %, information technology 18 %, metals industry 18 %, consulting engineering 7 %.
Source: Macrobond, Statistics Finland. Latest information: January 2024.

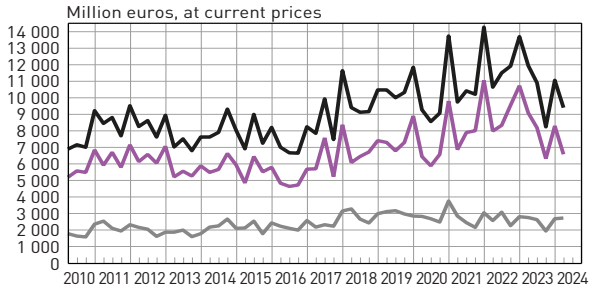
Tender requests* received by the technology industry companies in Finland



*) "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. Negative balance figure indicates that demand has weakened when compared to a situation three months ago.

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies
The latest questionnaire in Janurary 2024.

Value of new orders in the technology industry* in Finland

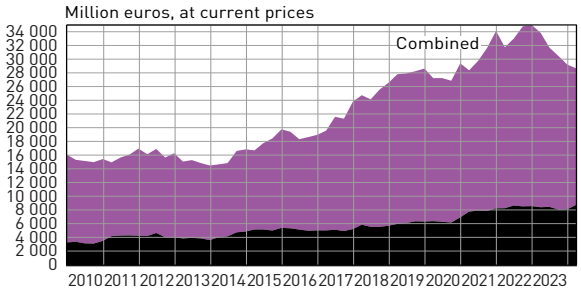


	I,2024 / I,2023	I,2024 / IV,2023
Change:		
Export:	-28 %	-20 %
Domestic:	-1 %	2 %
Combined:	-22 %	-15 %

*) Excl. metals industry, game industry and data center companies

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation January-March 2024.

Value of order books in the technology industry* in Finland



	31.3.2024 / 31.3.2023	31.3.2024 / 31.12.2023
Change:		
Export:	-22 %	-6 %
Domestic:	4 %	8 %
Combined:	-15 %	-2 %

*) Pl. metallien jalostus, pelialan ohjelmistoyritykset ja datakeskukset

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 31st March 2023.

Electronics and Electrotechnical Industry in Finland

Value of new orders is declining

The turnover of companies in the electronics and electrotechnical industry (telecommunications equipment, electrical equipment and medical technology) in Finland declined by approximately 11 per cent in 2023 from 2022. In 2023, their turnover in Finland amounted to more than EUR 19 billion.

The value of both new orders and order books decreased in the January-March period from the preceding quarter and the corresponding period of the previous year. As has been typical for the sector in recent years, order volumes can fluctuate strongly from one quarter to another.

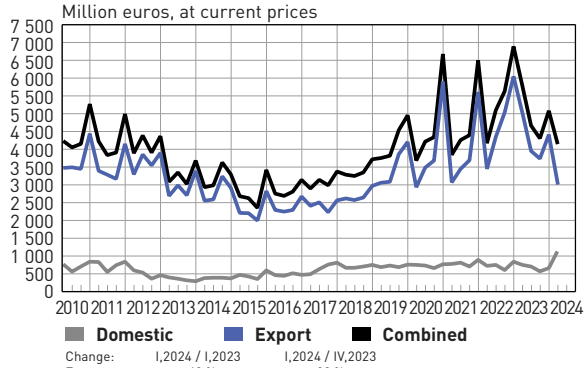
The electronics and electrotechnical companies that took part in Technology Industries of Finland's survey of order books reported that the monetary value of new orders between January and March was 19 per cent lower than in the preceding quarter and 29 per cent lower than in the corresponding period in 2023.

At the end of March, the value of order books was 8 per cent lower than at the end of December and 16 per cent lower than in March 2023.

On the basis of order trends in the first months of the year, the turnover of electronics and electrotechnical industry companies is expected to contract over the next six months.

The number of personnel employed by electronics and electrotechnical companies in Finland at the end of March was 0.6 per cent higher than at the end of December. The industry had approximately 40,900 employees in March.

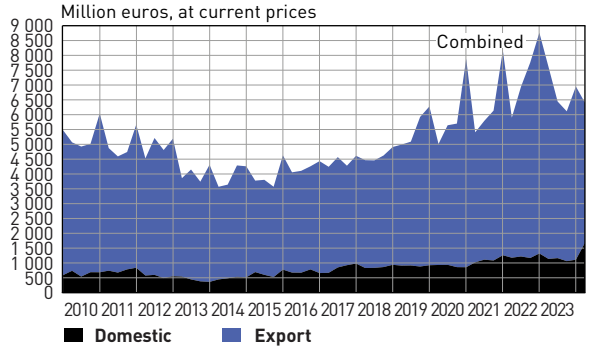
Value of new orders in the electronics and electrotechnical industry in Finland



Change:	I,2024 / I,2023	I,2024 / IV,2023
Export:	-40 %	-32 %
Domestic:	46 %	66 %
Combined:	-29 %	-19 %

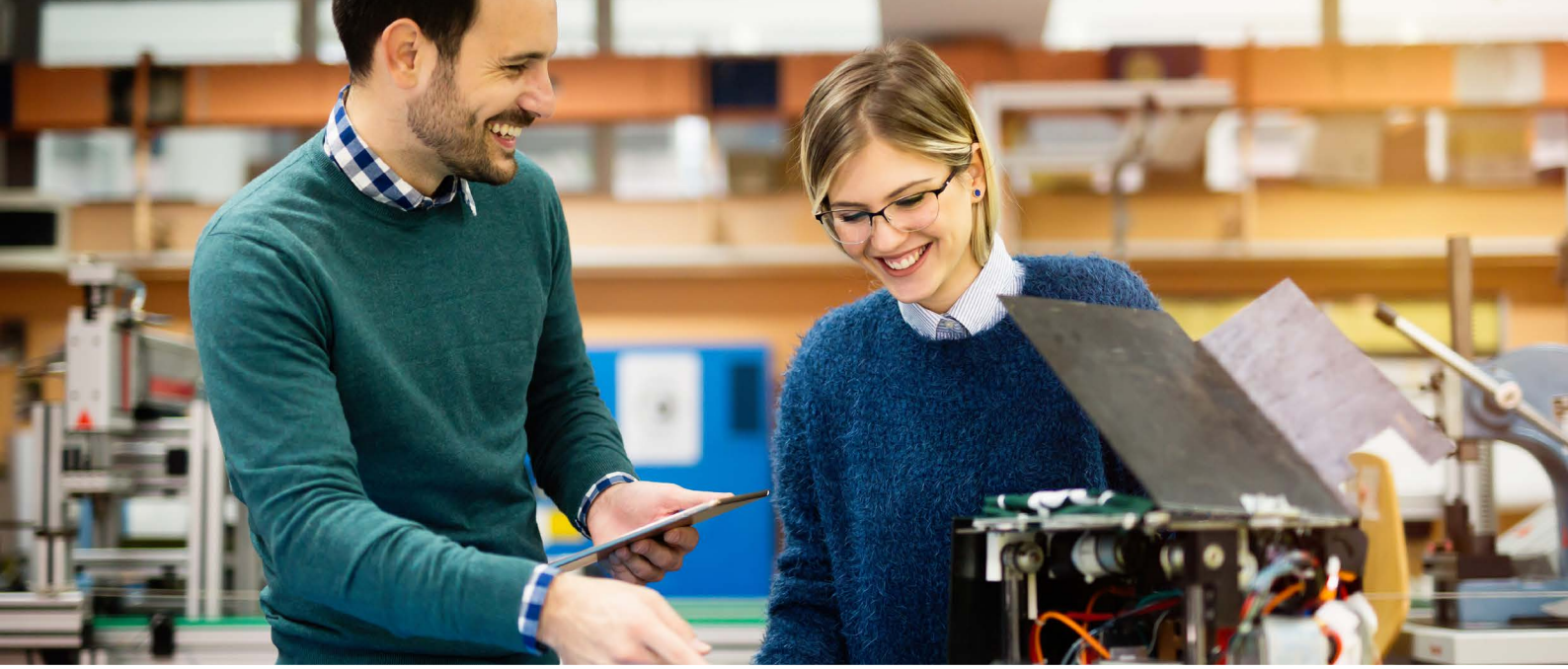
Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation January-March 2024.

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



Change:	31.3.2024 / 31.3.2023	31.3.2024 / 31.12.2023
Export:	-27 %	-19 %
Domestic:	47 %	51 %
Combined:	-16 %	-8 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 31st March 2023.



Mechanical Engineering in Finland

Downward trend continues in the value of new orders

In 2023, the turnover of mechanical engineering companies (machinery, metal products and vehicles) in Finland increased by slightly under two per cent on 2022. Their turnover in Finland amounted to approximately EUR 39 billion in 2023.

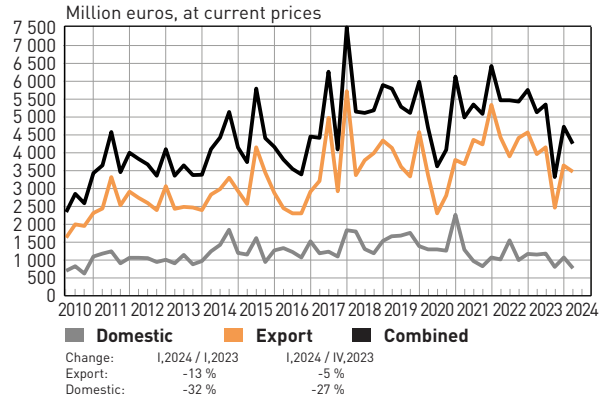
The value of new orders in mechanical engineering fell by 10 per cent in the January-March period from the preceding quarter. Year-on-year, the value of new orders decreased by 17 per cent. Order intake has trended downward for more than a year.

At the end of March, the value of order books was on a par with the end of December and 18 per cent lower than in March 2023. It should be noted that shipyards have an exceptionally large share of the total value of order books.

On the basis of order trends in the first months of the year, the turnover of mechanical engineering companies is expected to contract over the next six months.

The number of personnel employed by mechanical engineering companies in Finland at the end of March was 0.2 per cent higher than at the end of December. The industry had approximately 137,600 employees in March.

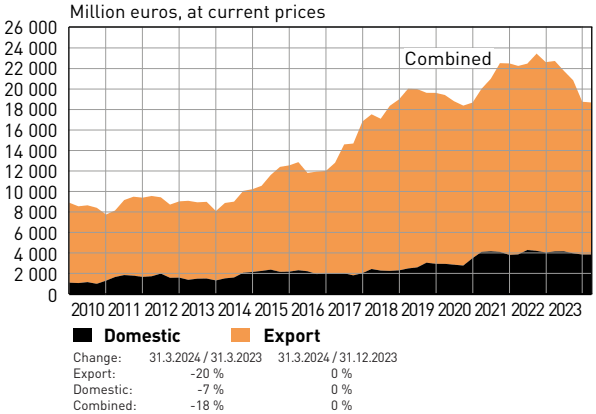
Value of new orders in the mechanical engineering in Finland



Change:	I,2024 / I,2023	I,2024 / IV,2023
Export:	-13 %	-5 %
Domestic:	-32 %	-27 %
Combined:	-17 %	-10 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation January-March 2024.

Value of order books in the mechanical engineering in Finland



Change:	31.3.2024 / 31.3.2023	31.3.2024 / 31.12.2023
Export:	-20 %	0 %
Domestic:	-7 %	0 %
Combined:	-18 %	0 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 31st March 2023.

Metals Industry in Finland

Turnover fell significantly last year – production volumes remained relatively stable

The turnover of metals industry companies (steel products, non-ferrous metals, castings and metallic minerals) in Finland decreased by 19 per cent in 2023 from 2022. In 2023, their turnover in Finland amounted to more than EUR 15 billion. Turnover began to fall due to the strong decline in producer prices last year.

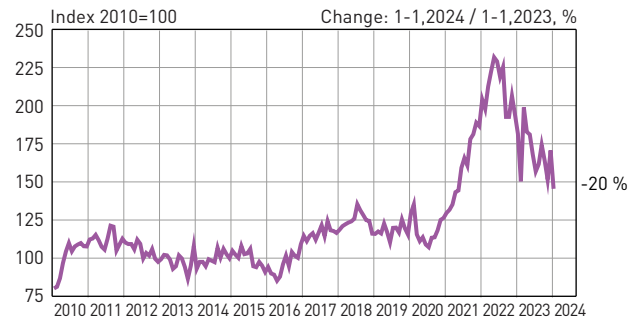
The total production of steel products, non-ferrous metals, castings and metallic minerals in Finland in the January-February period of 2024 decreased 4 per cent year-on-year.

The number of personnel employed by metals industry companies in Finland at the end of March was 1.2 per cent higher than at the end of December. The industry had approximately 16,200 employees in March.

Steel production saw slight global growth of 0.5 per cent in January-March 2024 compared to the corresponding period of last year. Production volumes have decreased in the EU (-1.4%), North America (-1.9%) and Asia (-0.4%).

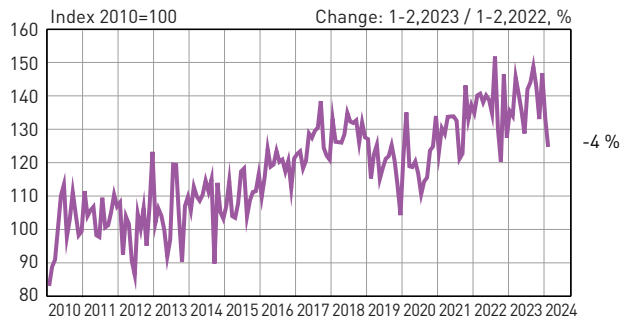
China, India, Japan and the United States were the largest producers in early 2024. China accounted for approximately 55 per cent of global steel production.

Turnover of the metals industry in Finland



Seasonal adjusted turnover index
Shares of turnover 2022: iron and steel products, non-ferrous metals and castings 91 %, mining of metal ores 9 %.
Latest information: January 2024
Source: Statistics Finland

Production volume of the metals industry in Finland



Seasonal adjusted volume index
Shares of turnover 2022: iron and steel products, non-ferrous metals and castings 91 %, mining of metal ores 9 %.
Latest information: February 2024
Source: Statistics Finland

Consulting Engineering in Finland

Value of new orders declining

The turnover of consulting engineering companies (industrial, social and construction expert services) in Finland increased by slightly less than 4 per cent in 2023 from 2022. In 2023, their turnover in Finland amounted to almost EUR 8 billion.

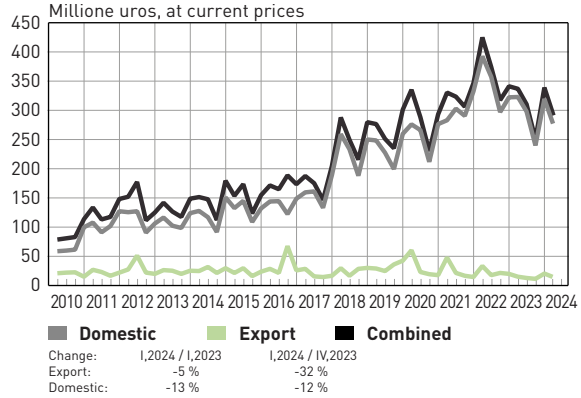
The consulting engineering companies that took part in Technology Industries of Finland's survey of order books reported that the monetary value of new orders between January and March was 14 per cent lower than in the preceding quarter and 13 per cent lower than in the corresponding period in 2023.

At the end of March, the value of order books was 2 per cent lower than at the end of December and 8 per cent lower than in March 2023.

On the basis of order trends in the first months of the year, the turnover of consulting engineering companies is expected to contract over the next six months.

The number of personnel employed by consulting engineering companies in Finland at the end of March was 0.8 per cent lower than at the end of December. The industry had approximately 53,500 employees in March.

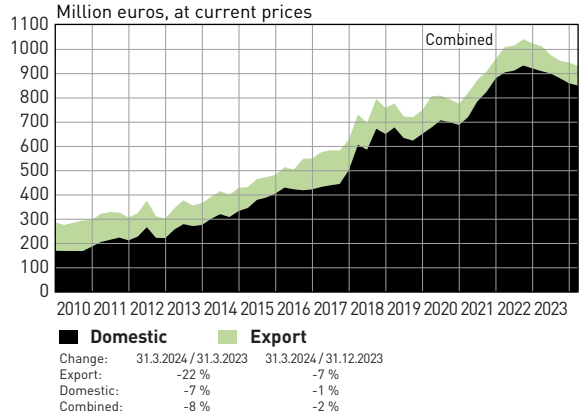
Value of new orders in the consulting engineering in Finland



Change:	I,2024 / I,2023	I,2024 / IV,2023
Export:	-5 %	-32 %
Domestic:	-13 %	-12 %
Combined:	-13 %	-14 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation January-March 2024.

Value of order books in the consulting engineering in Finland



Change:	31.3.2024 / 31.3.2023	31.3.2024 / 31.12.2023
Export:	-22 %	-7 %
Domestic:	-7 %	-1 %
Combined:	-8 %	-2 %

Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 31st March 2023.

Information Technology in Finland

Value of new orders fell from the previous quarter

In 2023, the turnover of information technology companies (IT services and software) in Finland grew by 4 per cent on 2022. Their turnover in Finland amounted to approximately EUR 19 billion in 2023.

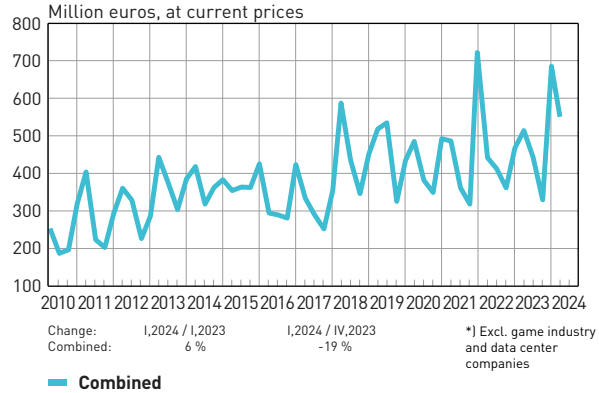
The information technology companies that took part in Technology Industries of Finland's survey of order books reported that the monetary value of new orders between January and March was 19 per cent lower than in the preceding quarter, but 6 per cent higher than in the corresponding period in 2023. 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 March, the value of order books was 3 per cent higher than at the end of December and 5 per cent higher than in March 2023.

On the basis of order trends in the first months of the year, the turnover of information technology companies is expected to grow over the next six months.

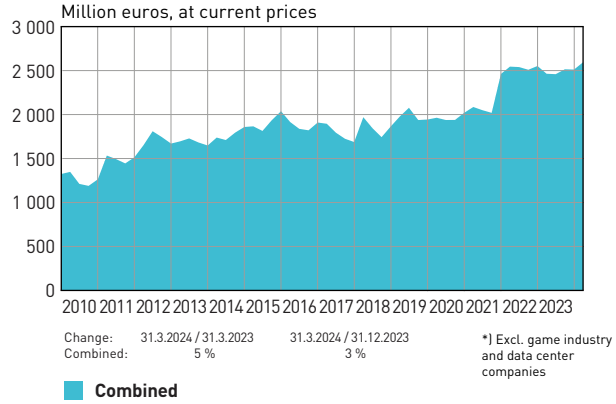
The number of personnel employed by information technology companies in Finland at the end of March was down 0.6 per cent from the end of December. The industry had approximately 85,100 employees in March.

Value of new orders in the information technology* in Finland



Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation January-March 2024.

Value of Order Books in the Information Technology* in Finland



Source: The Federation of Finnish Technology Industries' order book survey's respondent companies, latest observation 31st March 2023.

Personnel increased slightly both in Finland and in international subsidiaries in 2023

Finnish technology industry companies employed a total of 614,000 people on average in 2023. Domestic operations accounted for 335,000 jobs, while 279,000 people worked abroad. Staff numbers in Finland increased by 1.5 per cent last year, or approximately 5,000 people. Staff numbers in international subsidiaries increased by 0.5 per cent, or by approximately 1,500 people.

According to the quarterly survey by Technology Industries of Finland, personnel numbers at the end of March were down 0.2 per cent from the end of December. At the end of March, technology industry companies employed approximately 333,000 people in Finland.

Staff numbers in international subsidiaries grew by one per cent in the electronics and electrotechnical industry, 6 per cent in consulting engineering, and 7 per cent in information technology. Staff numbers abroad shrank by almost one per cent in mechanical engineering and by 8 per cent in the metals industry.

In regional comparison, technology industry personnel grew by 0.6 per cent in advanced markets. In emerging markets as well as Asia and Oceania, staff numbers were down slightly, 0.3 per cent. In Western Europe, personnel numbers were up by almost 2 per cent. In North America, staff numbers were down by 2 per cent.

Significant business restructuring affected personnel numbers abroad again in 2023.

As much as 44 per cent of foreign staff employed by Finnish technology industry companies is located in low-cost economies in emerging regions.

Staff numbers abroad have stabilised at the current level in recent years. Also, there have been no significant changes in the locations of staff by region in recent years. A third are in Asia (with the highest number in China and India) and nearly one third in Western Europe.

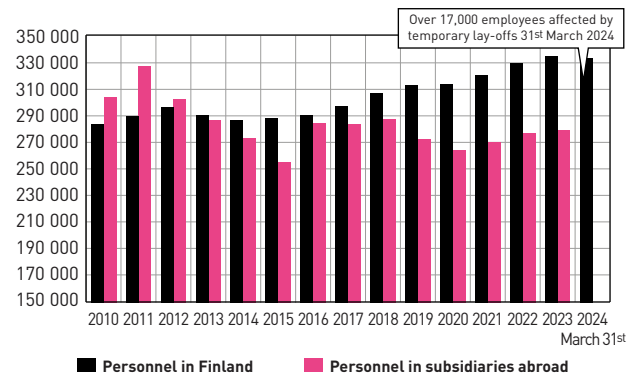
The ten largest concentrations of foreign subsidiaries in 2023, measured by number of staff, are as follows: China (42,700), India (35,200), United States (25,900), Germany (18,700), Poland (16,800), Sweden (14,300), France (9,800), United Kingdom (7,600), Norway (7,200) and Italy (6,500).

In March–April 2024, Technology Industries of Finland conducted a survey of the number of domestic and international staff employed by its member companies/foreign subsidiaries at the end of 2023, by country.

Foreign subsidiaries are companies in which the Finland-based parent company has a share of at least 50 per cent. The number of international staff can change by way of company acquisition/divestment, expansion/reduction of operations, or increase/decrease in the percentage of ownership.

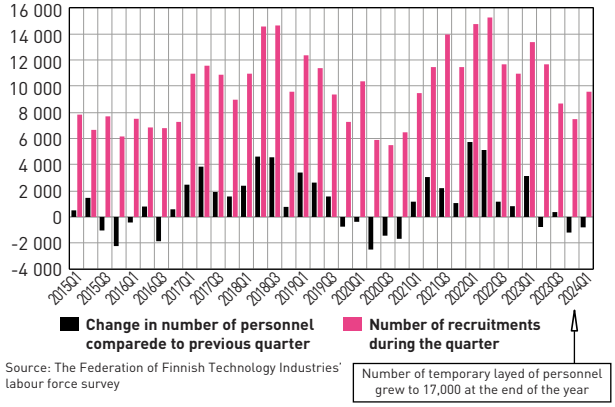
The number of staff in Finland by the end of March 2024 was investigated as part of the quarterly survey. Information on lay-offs and recruitments was gathered separately.

Headcount in the technology industry



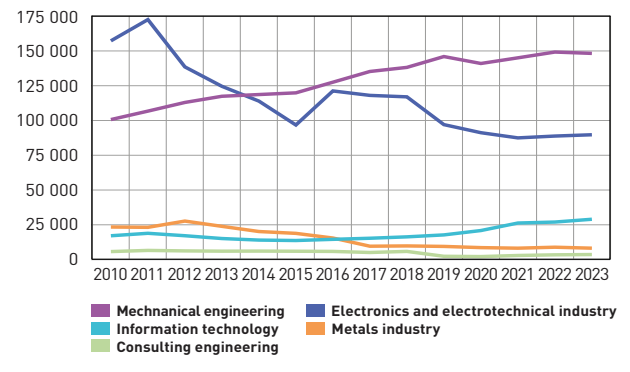
Source: Statistics Finland, The Federation of Finnish Technology Industries' labour force survey, Macrobond.

Development of personnel numbers and recruitments in the technology industry in finland



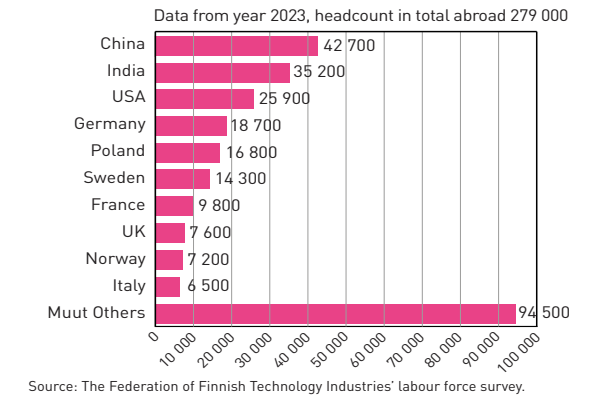
Source: The Federation of Finnish Technology Industries' labour force survey

Technology Industry Personnel in Subsidiaries Abroad by Industry



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

Technology Industry Personnel in Subsidiaries Abroad by Country



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

Technology Industries
of Finland