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REPUBLIC OF ESTONIA  
MINISTRY OF EDUCATION  
AND RESEARCH



## OSKA study of the machinery, metal and electronics industry and motor vehicle maintenance and repair

### *Key findings*

**According to the OSKA forecast, employment in the main occupations of the machinery, metal and electronics industry and the motor vehicle maintenance and repair sectors will remain at current levels over the next decade, but the demand for specialists with higher education will increase.**

- The demand for machinery, metal and electronic products is growing worldwide.
- Employment in the main occupations of the machinery, metal and electronics industry will increase by approximately 1000 workers, or almost 3% by 2031, and stay the same in the motor vehicle repair sector.
- There will be a marked increase in the demand for workers in the process and automation field, i.e. the number of engineering, mechatronic engineering and technician jobs will increase. As a result of the increase in the production of own products and integrated solutions, a slight increase in jobs is forecast in specialties such as metal product finishing, assembly of machinery and metalworking devices and electronics.
- In the motor vehicle maintenance sector, a slight increase in diagnosticians is expected due to technological advancements in motor vehicles.
- The trend is towards more research-intensive production and increasing the share of own production.
- In order to compete internationally and extend the value chain, it is necessary to increase the manufacturing and export of higher value-added and own products.

Technological advances and the geopolitical situation will have a major impact on the sector in the coming decade. The increasing demand for product quality and supply capacity, as well as labour shortages and labour costs are putting pressure on automation and digitalisation of work processes. The general trend is towards the minimisation of the share of labour in production costs, but in terms of return on investments, industrial automation in Estonia is more likely to increase production volume than reduce employment. Environmental trends have an impact on the development of products and services, but do not significantly affect employment.

**There is a shortage of one third of engineers and other highly educated specialists in the sector. There is an imbalance between training supply and demand for skilled workers. Vocational education has been disproportionately focused on educating motor vehicle technicians and car paint technicians.**

- Development in the field is limited by a shortage of engineers and other specialists with a technical higher education, and the insufficient supply of new graduates. The machinery, metal and electronics industry faces a shortage of one third of highly educated graduates to meet labour demands.
- The issue is in the disparity between the variable popularity of vocational education specialities and the demands of the labour market. The number of graduates in the automotive specialities far exceeds labour demands, while there is a shortage of graduates who can work in the machinery, metal and electronics industry.
- For jobs requiring higher education, a higher technical education needs to be obtained. All skilled workers do not necessarily need to be educated at degree level. Many occupations can also be accessed through training courses. Overall, around three quarters of skilled workers should be educated at degree level.
- To balance training supply, it is important to find ways of steering young people towards specialties with high levels of shortages in the labour market.
- The machinery, metal and electronics industry is forecast to need approximately 610 new graduates each year, while the actual number of graduates is 450. The motor vehicle maintenance sector needs 140 graduates each year, while the actual number of graduates is 280.
- The number of people of working age in Estonia is decreasing. Therefore, to compensate for labour shortages, there is a continued need for foreign labour in the manufacturing industry, both in production workers and high-level specialists.
- There are different standards and certifications to ensure product quality. These depend on the business's activities and the demands of the target market and partners. A number of main occupations (e.g., engineers, electronics industry employees, welders, vehicle inspectors) require proof of competence and continuous training.

**Industrial companies in the sector are major exporters. Exports of the machinery, metal and electronics industry account for one sixth of total business exports. Mechanical engineering and the electronics industry are among the most important growth sectors in Estonia, with exports accounting for 70-90% of sales.**