

Industry

Machine building and engineering is the largest industrial sector in Estonia

The history of Estonian machine engineering predates the first industrialisation of this Nordic-Baltic country in the 1870s, as the first coppersmith workshops developed into large-scale farming equipment manufacturers already in the first half of the 19th century, later specialising in manufacturing metal machinery for the many distilleries across the country. Another aspect driving the Estonian machinery industry forward has been the country's unique geopolitical location, connecting seaports on the western coast with the vast eastern hinterland by rail. Railroad rolling stock and maritime vessels needed maintenance and soon the larger machine-building companies became regional leaders in shipbuilding and steam engine manufacturing, with some companies branching out to aviation and even space satellites.

FROM INDUSTRIAL BEHEMOTHS TO MODERN ENTERPRISES

For the past century, Estonian engineers have primarily been schooled at Tallinn Technical University, known today as TalTech and famous for its world-class technical education. The legendary engineering class of 1958 can be credited with transforming the whole Estonian machine engineering industry to what it is today - innovative, competitive and efficient. The 1990s provided a worthy challenge for Estonian machine industry leaders, as the mission was to transform from large-scale centrally-managed behemoths to nimble and agile industrial enterprises, adapting from a planned economy to the opportunities of the free market. This was largely achieved thanks to the entrepreneurial and creative mindset of the leading engineers and emerging business managers.

The Federation of Estonian Engineering Industry takes pride in being the oldest specialised trade organisation in Estonia, dating back to 1936 and currently comprising over 115 members. The association is a key partner in building professional networks, partnership development and ensuring qualified progeny. The Estonian machine industry is determined to advance further in global supply chains, as the sector's export volume already exceeds 90% of total output and Estonian machine engineering companies have established themselves on global markets as reliable and inventive partners. The sector plays a pivotal role in Estonian economy, as it contributes 10% of the country's total export volume and manufactures equipment for a whole range of other industries in Estonia, while employing close to 125 thousand people among 7000 companies.



ALWAYS KEEN TO ADOPT EMERGING TECHNOLOGIES

The greatest assets of the machine building and engineering industry in Estonia are the high quality of products and the just-in-time mentality, complemented by a Nordic business culture and a focus on customer needs. Estonian manufacturers are quick to implement new ideas and technologies with a high level of digitalisation in both production and business management. Estonia is an ideal testbed for new technologies, as the workforce is accustomed to implementing new technological advancements and the route to smart factories is the shortest. The relatively compact size of the country allows for faster knowledge transfer inside the community and a shorter time-span for decision-making or partnership collaborations.

There are abundant success stories to demonstrate the high capability of the Estonian machine engineering industry, ranging from shipbuilding (BLRT, Baltic Workboats, Luksusjaht) to forestry (Hekotek, Palms), from trailers (Tiki Treiler, Respo Haagised) to various automotive industry components (Norma, Fortaco Estonia, AQ Lasertool). The high requirements of the global engineering industry have led Estonian machine industries to acquire all necessary certificates to prove worthiness, quality and safety. Other engineering sub-sectors demonstrating great potential and growth opportunities include the defence industry (Milrem, Threed), the medical supplies sector and wind generator equipment.

PIONEERING DIGITALISATION

The future is looking bright for Estonian machine engineering with the level and speed of digitalisation allowing the sector to run ahead of competitors in implementing Industry 4.0 principles. R&D collaboration between different partners is on the rise and engineering is a trade that keeps attracting young talents. Estonia's status as one of the leading digital nations in the world is evident in this sector as well, paving the way to new business models and innovative products. There are machines made of metal everywhere around us - there's a good chance you may be looking at a piece manufactured in Estonia just now.

