

TECHNOLOGY IN ACTION



Succeeding at electronics manufacturing in Europe



Orgalim's Technology in Action series showcases how the technology industries we represent are shaping a future that's good for Europe's economy and society – and how the right policy framework can help them do even more.

Challenge

As the green and digital economy takes off in Europe, demand is surging for electronics for renewable energy, for decarbonising industry, for the automotive sector, for medical devices, and many other applications. Electric cars, for example, have five times more electronics than conventional internal combustion engine cars. Renewable energy requires electronics for power management, inverters and more. The development of 5G connectivity technologies is also increasing the demand for electronic manufacturing services (EMS).

Where is all this electronic tech coming from? Lately, not so much from Europe: while Europe used to have a bigger market share of producing electronics and printed circuit boards (PCBs), today it represents less than 3% of a market that is dominated by China. How can European electronics manufacturing companies compete and thrive to meet the growing demand?

Solution

"We have a term in the organisation - problemability. It is both a problem and an opportunity at the same time," says Simas Rutkauskas, CEO of Teltonika EMS in Lithuania.

For EMS companies in Europe to compete, the main challenge, apart from the supply of raw materials, is speed and flexibility. Time-to-market is a critical

indicator for customers, so to compete globally it is important for most European EMS manufacturers to be fast.

Herein also lies the opportunity. Manufacturing closer to home reduces transportation time. It also responds to the tendency of European companies to relocate production closer to home for geopolitical reasons, for convenience and for ease of communications.

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Simas Rutkauskas, CEO, Teltonika EMS

Teltonika EMS is not only tapping into that trend simply by being located in the EU, it is strategically building its competitive advantage by becoming a one-stop shop, so that customers can get the full range of services in one place. This makes communication and project



Robotic assembly ensures high accuracy and efficiency

development easier, quicker and more flexible, and meets the needs of European electronic manufacturers. For start-ups that want to develop new products but do not have the necessary competencies and equipment, the company's ability to offer its knowledge and competencies adds to the appeal.

Meanwhile the higher cost of labour in Europe is becoming less relevant, thanks to automation technologies. Teltonika has been steadily investing in automation to increase productivity – “the only way we could remain competitive and pay good salaries to our employees,” as Mr Rutkauskas explains.

Teltonika installed its first surface mount technology (SMT) line in 2006 and its first advanced robots in 2017, prioritising the most labour-intensive and repetitive processes. Today there are two automated lines for the assembly of vehicle monitoring systems, with a third one planned. The company has also automated universal processes that can be applied to all its products, for example using a product packaging robot.

As for the impact on employees, Mr Rutkauskas points out that people are often still afraid that the introduction of automated systems will lead to redundancies. However, the company's workforce now stands at 600, up from 200 people when automated systems were first introduced. “Automated systems create new jobs and encourage those who need it to requalify. We believe

that the bigger risk is not to introduce robotic systems as all jobs could be lost.”

Robotics have also helped to reduce energy costs per product, as well as CO₂ emissions in production. The company reports it averaged 74.6 g CO₂e/unit in 2021, down from 162.7 g CO₂e/unit in 2020. The 2022 target is to stay within 20 g CO₂e per unit produced.

Policy implications

When it comes to legislation, “as a manufacturing company we want stability so that we can focus our organisational energy on creating value rather than adapting to new rules and regulations,” says Mr Rutkauskas.

A level playing field is another obvious priority. Currently, Mr Rutkauskas points out, you can bring in circuit boards manufactured outside the EU without customs tax and manufacture electronic devices. But if you want to buy the raw materials to make the boards yourself, you have to pay customs duties on imported raw materials. This is one of the reasons why it is not profitable to produce PCBs in Europe. “We would recommend that Europe review those customs duties that hinder the development of the engineering industry and strengthen the global competitiveness of its manufacturers. This is just one example, and how many more are there?”

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- [EU Chips Act](#)
- [Advanced Manufacturing](#)
- [New Legislative Framework](#)



About Teltonika EMS

Teltonika EMS is part of the Teltonika IoT Group, that unites more than 2400 employees in 20 countries and 31 offices. Based in Vilnius, Lithuania, the company manufactures IoT devices, telematics and telecommunications electronics products, for transport management and control equipment and industrial routers. It is also actively working to increase the share of products for the energy and healthcare sectors in its portfolio, predicting that the renewable energy sector will be the biggest growth area.

teltonika-ems.com

Orgalim represents Europe's technology industries, comprised of 770,000 innovative companies spanning the mechanical engineering, electrical engineering, electronics, ICT and metal technology branches. Together they represent the EU's largest manufacturing sector, generating annual turnover of over €2,000 billion, manufacturing one-third of all European exports and providing 11 million direct jobs. Orgalim is registered under the European Union Transparency Register – ID number: 20210641335-88 | All rights reserved @ October 2022, Orgalim aisbl | Editeur responsable: Malte Lohan, Director General



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