



WHITE PAPER

Lithuania as a European Electronics Manufacturing Hub

How PCB manufacturing, electronics assembly and targeted talent development are shaping a new industrial cluster for European OEMs

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1. A New Industrial Cluster Is Emerging in Lithuania

Lithuania is increasingly gaining attention as a location for electronics and high-tech manufacturing in Europe. What makes the current development particularly interesting is that it goes beyond conventional electronics assembly. The country is building capabilities across several stages of the electronics value chain, including PCB manufacturing, electronics assembly, electronic components, plastics and mechanical components, engineering and applied research.

The most visible example of this development is the High-Tech Hill Technology Park in Vilnius. On 18 September 2025, Teltonika and TLT opened four new factories there for printed circuit boards, electronics assembly, electronic components, and plastics and mechanical components. According to the companies, the first phase represents an investment of more than €320 million and creates annual production capacity for more than 30 million electronic devices.

For European OEMs, this raises a strategic question that goes beyond simply selecting another EMS supplier. Is Lithuania developing into a regional electronics manufacturing hub that can become an independent building block within a European supply chain architecture?

Assessment

Lithuania should no longer be viewed simply as another country on an EMS supplier list. The combination of new PCB capacity, vertically integrated manufacturing and targeted talent development makes the country a potential building block for a more resilient European electronics manufacturing structure

2. PCB Manufacturing as a Strategic Core

One of the most notable elements of the current development is the new PCB factory operated by TLT in Vilnius. The facility covers approximately 33,000 square metres, with a planned investment of around €143 million, a substantial part of which is allocated to production equipment.

Teltonika describes the factory as one of the most advanced PCB facilities in Europe and as the first newly built PCB factory in Europe in around two decades. This is a company statement that has also been reported by industry media, rather than an independently established market statistic. This distinction should be taken into account when assessing the claim.

The significance extends beyond the individual factory. Europe has experienced a long-term decline in domestic PCB manufacturing and has become increasingly dependent on Asian suppliers. New PCB capacity at significant industrial scale therefore addresses an important part of the electronics supply chain.

For European OEMs, PCB availability is becoming an increasingly relevant supply-chain factor. A European source can potentially shorten lead times, simplify logistics and provide an additional sourcing option for products where excessive dependence on Asian suppliers is considered a supply-chain risk.

3. Vertical Integration as a Competitive Advantage

A particularly interesting aspect of the Lithuanian development is that PCB manufacturing and electronics assembly are being established within the same industrial ecosystem.

The new electronics assembly facility in Liepkaľnis covers approximately 22,700 square metres and includes ten SMT lines, five packaging lines, a robotic warehouse and laboratory facilities. Teltonika states that the facility provides additional production capacity of around 18 million units per year.

The first phase of High-Tech Hill therefore combines several manufacturing disciplines within one industrial environment: PCB manufacturing, electronics assembly, electronic components, plastics and mechanical components.

Teltonika explicitly identifies vertical integration as a key advantage, particularly in reducing dependence on external suppliers and Asian supply chains.

For OEMs, this can be relevant in several ways. A production transfer may involve fewer independent suppliers, PCB manufacturing and assembly can be coordinated more closely, and production changes can potentially be implemented within a more integrated manufacturing environment.

However, vertical integration within this ecosystem does not replace the internationally oriented sourcing of semiconductors and other electronic components. Modern semiconductors, memory devices, power semiconductors and other critical components continue to depend on global supply chains.

The strategic advantage of an integrated manufacturing location therefore does not lie in complete self-sufficiency. It lies in reducing selected external dependencies and providing additional opportunities to diversify manufacturing and supply-chain risks.

Vertical integration does not automatically make a facility economically superior. Cost, capacity, technology, quality and flexibility still need to be assessed independently.

4. Talent Development as a Strategic Priority

Industrial infrastructure alone is not sufficient to establish a sustainable electronics manufacturing location. Lithuania is therefore also investing in the development of technical talent.

In June 2026, the Lithuanian Ministry of the Economy and Innovation (EIMIN) announced 260 monthly scholarships for students starting STEM programmes at regional higher education institutions. The scholarships amount to €200 per month for the full four-year bachelor's degree and apply to students in Klaipėda, Šiauliai, Panevėžys, Utena, Alytus and Marijampolė.

Supported fields include computer science, computer engineering, software systems, digital technologies and cybersecurity, as well as electrical, mechanical, chemical, manufacturing and automation engineering, electronics and robotics and other disciplines relevant to technology-intensive industries.

The programme is running for the sixth consecutive year in 2026.

Industry is also becoming increasingly involved in education and skills development. Companies including Continental Automotive Lithuania, HELLA Lithuania, Kitron, Teltonika Networks and Littelfuse LT participate in initiatives aimed at increasing the number of students in engineering-related fields. Teltonika also operates its own education and scholarship programmes within the broader High-Tech Hill environment.

Assessment

The combination of government support, industrial involvement and a strong STEM orientation among students directly addresses one of the structural challenges facing European manufacturing locations: the need for qualified technical personnel.

5. An Existing Industrial Foundation

Lithuania is not starting from zero. According to Invest Lithuania, more than 200,000 people are employed in the country's manufacturing sector. Invest Lithuania publications have also highlighted the country's strong STEM orientation among students in higher education.

Established EMS activities already exist in the country. Kitron, for example, has operated in Kaunas since 1995 and provides electronics manufacturing and engineering services. Its Lithuanian operation manufactures complex electronic products ranging from circuit boards to complete end products and serves industries including industrial equipment, medical technology, defence and aerospace, energy and telecommunications.

The presence of an established industrial ecosystem with manufacturing experience, engineering capabilities and existing supplier relationships can be an important advantage compared with a location where such capabilities would first have to be developed from scratch.

6. Investment Incentives Provide Additional Flexibility

Lithuania uses financial and administrative incentives to attract major industrial investments.

Under the so-called Investment Highway, qualifying large-scale projects can, under defined conditions, benefit from a 0% corporate income tax rate for up to 20 years. Additional benefits include accelerated planning and permitting procedures, streamlined migration procedures for skilled employees, accelerated infrastructure development and a direct government contact point.

For large-scale projects, the general eligibility threshold is at least €20 million in capital investment and at least 150 newly created full-time jobs. For projects in Vilnius, the thresholds are higher at €30 million and 200 new full-time jobs.

There is also a second eligibility structure for manufacturing projects creating between 20 and 149 new full-time jobs, or between 20 and 199 jobs in Vilnius. Additional salary requirements apply to this category.

For these manufacturing projects, the average gross remuneration of newly created jobs must meet defined thresholds relative to the average salary in the respective municipality. The exact eligibility therefore depends on factors including investment volume, employment, location, remuneration structure and other statutory requirements.

For a larger electronics manufacturing project, these tax and administrative incentives can have a meaningful impact on the overall investment and operating cost calculation.

Lithuania also operates seven **Free Economic Zones (FEZs)** with industrial infrastructure and tax incentives. They are located in Kaunas, Klaipėda, Šiauliai, Panevėžys, Kėdainiai, Marijampolė and Akmenė.

For an EMS company considering a new manufacturing facility, these locations can provide alternatives to the capital Vilnius, particularly for labour-intensive projects, larger land requirements or projects that can benefit from regional investment incentives.

The location decision should therefore be based on the specific manufacturing concept rather than on the capital city alone.

7. Location Advantages at a Glance

From the perspective of European OEMs, Lithuania offers several structural advantages.

EU membership

Lithuania is a member of the European Union and part of the EU Single Market. This can simplify regulatory, customs and logistics considerations compared with manufacturing locations outside the EU.

Technical talent

The country has an established manufacturing workforce and a strong focus on STEM education, supported by targeted government and industry initiatives.

Electronics ecosystem

Existing EMS and electronics manufacturers provide an established industrial knowledge base and an existing pool of engineering and manufacturing expertise.

Infrastructure

Lithuania combines road and rail connections with the Port of Klaipėda, the developing Rail Baltica corridor and international airports.

Investment environment

Tax incentives, accelerated administrative procedures and government support are available for qualifying investment projects.

Taken together, these factors create an increasingly deep European manufacturing environment with growing electronics and technology capabilities.

8. Limitations and Risks Should Not Be Ignored

Lithuania should not be presented as a perfect manufacturing location.

The domestic labour market is constrained by the country's relatively small population. As high-tech manufacturing capacity continues to expand, competition for experienced engineers, production specialists and managers may increase.

Labour costs are also only one part of the overall calculation. An EMS project should be evaluated on the basis of Total Cost of Ownership, including labour, energy, logistics, material sourcing, inventory, taxes, financing, quality costs, investment incentives and the cost of transferring production.

The actual performance of the selected EMS provider remains equally important. A strong national manufacturing environment does not automatically mean that every individual supplier has the required technology, capacity, quality level or engineering capabilities.

9. Relevance for European OEMs

Lithuania can be considered for several manufacturing strategies.

European EMS outsourcing

Using a Lithuanian EMS provider for European production.

Second sourcing

Adding a second European manufacturing source to an existing supply chain.

PCB sourcing

Using European PCB manufacturing as part of a more resilient electronics supply chain.

Production relocation

Transferring existing manufacturing from another European or non-European location.

Regional manufacturing

Serving customers in Northern, Central and Eastern Europe from a Baltic manufacturing location.

Integrated manufacturing

For suitable products, PCB manufacturing, electronics assembly and mechanical manufacturing can potentially be combined within one industrial ecosystem.

10. Conclusion

Lithuania deserves increasing consideration in European EMS and electronics manufacturing strategies. Its attractiveness does not result from a single factor, but from the combination of new PCB capacity, expanding electronics assembly, engineering talent, government support, investment incentives, EU integration, logistics and an increasingly technology-oriented industrial base.

The new PCB capacity is particularly significant. The establishment of a large-scale new PCB manufacturing operation in Lithuania demonstrates that major investments in European electronics manufacturing remain possible when industrial scale, technology, capital and a supportive investment environment come together.

At the same time, Lithuania is developing EMS and related manufacturing capabilities around this infrastructure.

This development should not, however, be interpreted as a move towards complete European self-sufficiency in electronics supply chains. Even a vertically integrated manufacturing ecosystem remains dependent on international supply chains for semiconductors and many other electronic components.

The strategic benefit therefore lies primarily in additional European manufacturing capacity, the potential shortening of selected supply chains and the ability to diversify dependencies more deliberately.

For OEMs, the result is more than another country on an EMS supplier list. Lithuania can become a potential building block within a more resilient European electronics manufacturing architecture.

The individual EMS provider must nevertheless continue to be assessed independently. Technology, quality, capacity, engineering competence, financial stability, supply-chain performance and customer fit remain essential evaluation criteria.

As a manufacturing location, however, Lithuania deserves considerably closer attention.

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Dirk Kaussen is Founder and Managing Director of EMS Strategy Group. With around 40 years of experience in the electronics industry — including founding and managing his own electronics manufacturing company in Germany — he brings deep expertise in manufacturing processes, EMS partner selection, supply chain stability, relocation projects, and risk management. His approach combines practical solutions with a direct connection to industrial reality.

About the EMS Strategy Group

EMS Strategy Group supports industrial enterprises in the strategic and operational advancement of their electronics manufacturing. Our core expertise lies in the strategic relocation of manufacturing volumes, the selection of qualified EMS partners, the establishment of new production capacities, and the expansion of existing manufacturing structures.

Furthermore, we design resilient supply chain frameworks, conduct comprehensive risk assessments, and guide dual-sourcing strategies, with operational support through to a successful series production ramp-up.

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