



WHITE PAPER

China's Role Is Changing

What this really means for European electronics manufacturing

An assessment based on publicly available sources — diversification rather than a loss of dominance

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July 2026

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Executive Summary

For decades, one premise in electronics manufacturing was virtually unquestionable: anyone wanting to produce competitively had to rely on China. This assumption still largely holds true – but it no longer tells the whole story. This white paper outlines the developments currently shaping global electronics manufacturing and their implications for European OEMs and EMS companies.

The available data paint a more nuanced picture. China's manufacturing output continues to grow, and in several areas of the electronics industry, the country has further strengthened its market position in recent years [1][2]. At the same time, many international OEMs are expanding their supply chains by establishing complementary manufacturing capacity outside China. This is primarily driven by geopolitical developments, regulatory requirements, and a greater focus on more resilient supply chains [3][4].

Europe could also benefit from this development. Industrial policy initiatives such as the EU Chips Act 2.0 and ReArm Europe, as well as increasing demand in areas such as electromobility, defense, and industrial automation, are providing additional impetus for the European electronics manufacturing market [5][6]. European OEMs are therefore increasingly faced with the question of how to combine global and European manufacturing capacities in such a way as to strengthen security of supply, competitiveness, and flexibility in the long term.

1. How Dominant Is China Still in Electronics Manufacturing?

1.1 China continues to grow — in absolute terms — and in many segments, in relative terms as well.

Headlines suggesting that China is in decline present only part of the picture. According to calculations by the McKinsey Global Institute, China's share of global manufacturing value added was almost 30 percent in 2024 – compared to around 19 percent in 2010 [1][2]. In investments in electronics sectors such as semiconductors and batteries, China even attracted 53 percent of all global investments in 2024 [2].

The American Enterprise Institute, in its analysis of US electronics supply chains, arrives at a similar conclusion: Despite tariffs and export controls, China has gained market share in virtually every segment of the electronics supply chain in recent years – with the exception of the most advanced semiconductors. According to the institute, China continues to export around 63 percent of the world's smartphones and 72 percent of computers [3].

1.2 Where things are actually changing

The key finding for OEMs, however, lies less in China's global market share than in the distribution of new investments and the changing risk management strategies of many companies. The Rhodium Group documents that China was able to reduce its import dependency in advanced electronics from 30 to 22 percent between 2015 and 2023 [4] – an indication that China itself is increasingly bringing value creation into its own country, while at the same time Western OEMs are building additional capacity outside China for risk reasons. Both movements are occurring simultaneously, without canceling each other out.

Bloomberg Intelligence estimated as early as 2022 that the US could reduce its technological dependence on Chinese supply chains by 20 to 40 percent by 2030 [5] – but with the explicit caveat that even in the most aggressive scenario, a company like Apple could move a maximum of around 20 percent of its manufacturing capacity out of China [5].

Assessment

For most OEMs, the objective is not to replace China, but to broaden the geographical footprint of their supply chains. In this context, the term "China+1" often describes current developments more accurately than "decoupling" or "de-risking".

2. Why location calculations for OEMs are still changing

2.1 Labor costs: The dwindling advantage

China's traditional wage cost advantage has decreased significantly in recent years. According to data from the Chinese National Bureau of Statistics, compiled by Trading Economics and China Briefing, the average annual wage in China's manufacturing sector was around 108,000 yuan in 2024 and is projected to rise to approximately 115,000 yuan by 2026 [6]. Taking into account non-wage labor costs, total labor costs per production hour are now around US\$6.50 to US\$6.70, which is considerably higher than comparable figures in Vietnam, India, or Mexico [7][8].

In a comprehensive study comparing global labor rates, the Reshoring Institute concludes that China can "no longer be considered a low-wage country"; the most favorable locations among the countries studied are now India, Mexico, and Vietnam [7]. The effect is particularly evident in the coastal provinces, where most electronics clusters are located and where wages have historically risen fastest [6][8].

2.2 Automation equalizes manufacturing output worldwide

A second, often underestimated effect: The placement performance of modern SMT lines has largely standardized internationally. Systems from leading manufacturers – for example, from Germany, Japan, or Singapore – achieve comparable levels of technical performance regardless of the production location. Therefore, the decisive factor for competitiveness today is less the machine itself than its efficient use. Rather, engineering expertise, the degree of automation, setup times, and the ability to closely integrate development and manufacturing are crucial.

For European EMS providers – particularly in the medium-volume and high-mix manufacturing – this development improves competitive conditions. China's historical cost advantage, which stemmed primarily from high economies of scale, is diminishing in many applications. At the same time, factors such as proximity to development, short response times, and flexibility in product modifications are gaining importance.

2.3 The TCO perspective: more than just the unit price

A traditional unit price comparison overlooks a significant cost factor: the capital tied up along the supply chain. Longer transport routes to Asia mean higher safety stock levels and thus tied-up capital, which is often avoided with European manufacturing. Shorter lead times, lower inventory levels, and a faster response to demand fluctuations often improve the total cost of ownership (TCO) of European manufacturing compared to purely price-driven sourcing from Asia – especially during product launches, frequent engineering changes, and with professional obsolescence management.

3. Political drivers in Europe

3.1 EU Chips Act 2.0 (June 2026)

On 3 June 2026, the European Commission presented the proposal for a “Chips Act 2.0” – part of a broader “Technological Sovereignty Package” [9][10]. According to the Commission, the original Chips Act of 2023 mobilized more than €52 billion in public and private investment and created around 46,000 jobs directly and indirectly [10][11]. Nevertheless, the European Commission sees Europe as still dependent on third countries, particularly in advanced chip manufacturing and parts of semiconductor design [9].

The new proposal focuses on four key areas: improved investment conditions, targeted demand-side measures, including public procurement, strengthening the supply side with accelerated permitting processes (maximum twelve months), and measures to reduce strategic dependencies [11][12]. The stronger demand focus is particularly noteworthy: while the first Chips Act primarily strengthened the manufacturing and research sectors, the Commission now aims to specifically boost European demand for chips manufactured in Europe [10]. Relevant for the EMS ecosystem: the proposal is explicitly intended to include downstream value chain stages such as packaging and system integration [12].

Critics put the current record into perspective: The European Court of Auditors and the Bruegel Institute point out that under the first CHIPS Act, only around €13.75 billion in approved state aid had actually been disbursed by the beginning of 2026 – significantly less than the approximately US\$39 billion in grants and loans approved under the US CHIPS Act by January 2025 [13]. The proposed CHIPS Act 2.0 thus builds on the existing support framework while simultaneously setting new priorities in demand-stimulation and resilience.

3.2 ReArm Europe / Readiness 2030: Defense electronics as a new demand driver

European defence spending increased by 62.8 percent between 2020 and 2025, reaching an estimated €381 billion in 2025, of which around €130 billion was for investments [14][15]. The ReArm Europe programme, or “Readiness 2030”, presented in March 2025, aims to mobilise up to €800 billion in additional defence investment; the SAFE instrument provides loans of up to €150 billion for this purpose [14][15].

This development could create additional demand for European electronics manufacturing. Five priority areas identified by the Commission – air and missile defense, cyber and electronic warfare, drones, munitions, and strategic enablers – are all electronics-intensive [15][16]. Analyses based, among others, on data from Goldman Sachs and ING see the defense industry as an important growth driver for European industry as a whole [16]. At the same time, according to the Munich Security Conference, the fragmentation of the European procurement market – historically, only 9 percent of contracts went to suppliers from other EU Member States [16] – shows how much coordination work is still needed to ensure that this demand actually benefits European EMS providers.

3.3 Supply chain regulation: The CSDDD after the Omnibus — weaker than assumed in previous analyses

Previous assessments assumed that stricter EU supply chain rules, such as the Corporate Sustainability Due Diligence Directive (CSDDD), would create a structural advantage for European EMS providers because audits and verification are easier to conduct within the EU. This assessment needs to be updated: As part of the Omnibus I simplification package, the CSDDD was significantly scaled back in February 2026 [17][18]. The directive will now only apply to companies with at least 5,000 employees and €1.5 billion in net turnover (or €1.5 billion in EU turnover for non-EU companies); mandatory EU-wide

civil liability has been removed, and the implementation deadline has been postponed to July 2029 [17][18].

For European OEMs and EMS providers, this means that while the regulatory landscape remains relevant, particularly for very large companies and their supply chains, it represents a significantly weaker structural competitive advantage than previous analyses had assumed. This brings the operational advantages of regional supply chains back into focus for European OEMs and EMS providers. These advantages include, in particular, shorter decision-making processes, greater transparency along the supply chain, and the ability to react more quickly to changes in demand or development.

4. The European EMS Market: Figures and Forecasts

4.1 Market size today

Market analyses of the European EMS market arrive at different, but broadly consistent, figures depending on the definition used. Mordor Intelligence estimated the market at approximately US\$76.8 billion for 2025 and approximately US\$80.8 billion for 2026 [19]. A broader definition, which additionally includes Electronic Contract Manufacturing and design services, arrives at higher figures in the range of €120 to €140 billion for 2025 [20][21]. The differences arise primarily from the respective market definitions – for example, the distinction between classic EMS services and extended value chain stages such as engineering, design, or Electronic Contract Manufacturing – and not from fundamentally different assessments of market development.

4.2 Forecasts until 2030/2031

Despite methodological differences, the available studies paint a consistent picture of a structurally growing market: Mordor Intelligence forecasts growth to around US\$103 billion by 2031 (CAGR of around 5 percent) [19]. Other, broader market definitions arrive at CAGR values of around 4.7 percent for 2033 [21]. The studies unanimously identify the electrification of the automotive sector, driver assistance systems, industrial automation and IIoT, medical technology, and increasingly also defense electronics as key growth drivers [19][20][21].

4.3 Assessment by the EMS Strategy Group

Despite differing calculation methods, the published market studies paint a largely consistent picture: the European EMS market is expected to continue growing in the coming years. From the perspective of the EMS Strategy Group, several structural developments support this trend. These include the diversification of global supply chains, investments in the European semiconductor and defense industries, and the increasing importance of regional manufacturing structures for technologically demanding and highly regulated products. However, actual market development will continue to be influenced by geopolitical, economic, and technological conditions.

5. Central and Eastern Europe as an engine of growth

5.1 Poland as an example

Within Europe, Central and Eastern Europe in particular is developing at an above-average rate. According to several market analyses, Poland is among the most dynamic EMS locations in Europe [22][23]. In its 2026 trade report, the Polish government itself points to the country's geographical location, EU membership, and industrial base as structural advantages in the context of nearshoring and friendshoring [24]. Examples of this include investments in additional manufacturing capacities and new prototyping and engineering centers by international EMS companies in Poland [20][23].

5.2 Why CEE benefits structurally

Frequently cited location advantages include competitive cost structures within the EU single market, a well-developed industrial infrastructure, a skilled workforce, and short supply routes to the main Western European OEM locations [20][23]. Additionally, an industry analysis by the consulting firm Procurement Pro indicates a market volume of approximately €5.8 billion for Polish consumer electronics manufacturing (2025), with an annual growth rate of 3.8 percent between 2019 and 2024 [25]. However, it should be noted that some of these growth figures originate from supplier and marketing sources within the region itself and should therefore be interpreted with caution.

6. Limits of diversification — what is realistic

6.1 China remains indispensable in many segments

Any objective assessment of the diversification trend must also consider its limitations. With a share of almost 30 percent of global manufacturing value added, China remains the world's largest production location [1][2]. The high level of supply chain integration, the complete component clusters, and the existing economies of scale are difficult to replicate in other locations in the short term. Furthermore, many diversification strategies continue to rely on Chinese suppliers or investments – but increasingly also outside of China [3][4].

6.2 Investment data puts the diversification narrative into perspective

As shown in Section 1, China's share of global electronics investment has actually increased recently, not decreased [2]. Bloomberg Intelligence itself explicitly points out that even in the most aggressive diversification scenario, a large proportion of manufacturing capacity will remain in China [5]. For European OEMs, there is much to be said for viewing this development as a gradual expansion of their supply chain strategy, rather than as a short-term replacement of existing manufacturing structures in China.

6.3 Skills shortage in Europe as a brake on growth

The shortage of skilled workers is one of the biggest challenges to the further expansion of European electronics manufacturing. In particular, qualified SMT technicians, test engineers, and specialists in complex manufacturing processes are in short supply in many places. Developing the necessary expertise takes time and can limit the pace of capacity expansion in Germany and other European industrial locations.

7. What this means in practice for European OEMs

- **Diversify supply chains strategically:** Not “China or Europe”, but a balanced combination of existing manufacturing capacities in China with additional European or Central and Eastern European locations.
- **Consider the total cost of ownership (TCO):** In addition to the unit price, factors such as capital commitment, delivery times, flexibility and risks along the supply chain should also be considered when deciding on a location.
- **Assess regulatory developments realistically:** The CSDDD remains relevant, but its influence on location decisions is less than originally expected after the Omnibus adjustments.
- **Monitor emerging demand drivers:** Programs such as the Chips Act 2.0 and ReArm Europe could further support demand for electronics manufacturing in Europe in the coming years.
- **Evaluate Central and Eastern Europe as a strategic option:** The region is increasingly developing into an independent manufacturing location within Europe and not just a cost-effective addition to Western European production structures.

8. Conclusion

Global electronics manufacturing is not undergoing a fundamental shift away from China, but rather a phase of increasing diversification. China is expected to remain the world's leading manufacturing location for the electronics industry for the foreseeable future and to retain its central role in many segments. At the same time, more and more companies are investing in additional production and supply chain structures outside of China to spread risks more broadly and increase their security of supply.

This development opens up new opportunities for Europe. Industrial policy initiatives, investments in future technologies, and the growing importance of resilient supply chains strengthen the competitiveness of the European EMS market. At the same time, the shortage of skilled workers and international competitive pressure show that these opportunities will not automatically lead to additional value creation.

For European OEMs, this does not mean choosing between China and Europe. Rather, it is about developing a balanced manufacturing strategy that balances cost, supply security, technological capability, and resilience. Companies that diversify their supply chains early and base their location decisions on a holistic assessment rather than solely on unit costs can strengthen their long-term competitiveness.

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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 advancement and optimization of their electronics manufacturing operations – from high-level planning to operational execution. Our core expertise lies in the strategic relocation of manufacturing volumes to European EMS providers, 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 to secure and fortify supply chains. Upon request, we manage projects closely until a successful serial production ramp-up is achieved.

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