White Paper

India on its way to Brussels

How India is aligning its electronics industry with European rules, trade regulations and technology cooperation.

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Executive Summary

While Europe debates its dependence on China, India has gradually begun in recent years to align its electronics manufacturing more closely with international and European standards, both technically and from a regulatory perspective. Three key elements, based on official documents, illustrate this development.

First, India's Central Pollution Control Board (CPCB) regulates the restriction of hazardous substances in electronic products through the E-Waste (Management) Rules, 2022. The limits specified in these rules for six traditional RoHS substances correspond to the respective limits under EU RoHS. Furthermore, the CPCB requires technical documentation according to EN 50581 or EN IEC 63000:2018 to demonstrate RoHS compliance. The Indian regulations are therefore technically closely aligned with the European approach to conformity, even though India does not currently adopt the full range of substances covered by EU RoHS.

Secondly, India and the EU concluded negotiations on a free trade agreement in January 2026. The published text of the agreement includes a separate annex on the EU's CBAM border adjustment mechanism. This establishes a framework for cooperation on CO_2 pricing, emissions data, and practical preparations for CBAM, but does not constitute a general exemption for India from the European border adjustment mechanism. The agreement was not yet in force at the time of writing this white paper.

Thirdly, in July 2026, both sides further specified their cooperation in the semiconductor sector in Brussels. Among other things, a possible collaboration between the design centers of the India Semiconductor Mission and the pilot lines of the EU Chips Act was discussed. One of the aims is to facilitate access to advanced process design kits and cost-effective silicon prototyping.

For European OEMs considering India as an alternative or complement to China, this provides a more reliable picture than simple cost comparisons. India does not automatically become an "EU-compliant" manufacturing location. However, these developments show that technical standards, trade regulations, and technology cooperation are increasingly creating interfaces between India and Europe.

1. RoHS with European reference: the E-Waste (Management) Rules

India's central environmental authority, the Central Pollution Control Board (CPCB), regulates the restriction of hazardous substances in electronic products through the E-Waste (Management) Rules, 2022, which came into force on 1 April 2023 and have been supplemented by subsequent amendments. [1]

According to the official CPCB FAQ on the rules, new electrical and electronic equipment and its components must not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs), or polybrominated diphenyl ethers (PBDEs) above specified limits. [1] These limits are 0.1 percent by weight in homogeneous materials for lead, mercury, hexavalent chromium, PBBs, and PBDEs, and 0.01 percent for cadmium. [1]

These six substances and their respective concentration limits correspond to the relevant provisions of EU RoHS Directive 2011/65/EU. However, complete equivalence is no longer accurate: EU RoHS now covers a total of ten restricted substances and additionally includes the four phthalates DEHP, BBP, DBP, and DIBP. [1]

A second point from the same CPCB document is noteworthy. Registered manufacturers must declare that the technical documentation demonstrating RoHS compliance according to EN 50581 or EN IEC 63000:2018 is available and can be submitted to the authorities for inspection upon request. [1]

India is therefore using a technical standard closely aligned with the European RoHS compliance model for a significant part of its RoHS compliance requirements. For an Indian manufacturer already operating according to these standards, this can facilitate technical preparation for the European market.

Assessment

For an OEM relocating production to India or sourcing from India, this represents a concrete advantage over manufacturing locations whose national regulations deviate significantly from European requirements. An Indian supplier that professionally fulfills the applicable RoHS requirements and maintains the required technical documentation already possesses part of the technical foundation that is also relevant for the European market.

However, this does not replace independent testing or an EU declaration of conformity. In particular, the four additional substances covered by EU RoHS must be taken into account. The significant overlap can nevertheless shorten the path to EU conformity and facilitate cooperation with European OEMs.

Important: RoHS is only one part of European product conformity.

OEMs should therefore not equate the overlap in RoHS requirements with general EU conformity. Other European regulations relevant to electronic products, such as the REACH Regulation, the EU Battery Regulation, the Ecodesign Regulation or the Ecodesign for Sustainable Products Regulation (ESPR), and – depending on the product and its functions – the Cyber Resilience Act, are not automatically covered by India's RoHS and e-waste regulations.

For an OEM producing in India, this means that compliance with the Indian E-Waste Rules can provide an important basis for access to the European market, but does not replace a separate assessment of all EU requirements applicable to the respective product.

2. The Free Trade Agreement as a Framework for Dealing with Carbon Border Adjustment Measures

On 27 January 2026, the European Union and India announced the successful conclusion of negotiations on a free trade agreement at the 16th EU-India Summit in New Delhi, as confirmed by the European Commission in its official statement. [2]

The now-published treaty text contains a separate Annex 14-A – Carbon Border Adjustment Measures in Chapter 14. [4] The annex provides a framework for enhanced cooperation between

the EU and India on CO_2 pricing, emissions measurement, and preparation for the requirements of the European CBAM system. [4]

However, it is important to note that this arrangement does not provide for a general exemption of Indian exporters from CBAM, nor does it automatically recognize CO_2 costs paid in India. Rather, it provides a framework for regulatory and technical cooperation as well as for the exchange of information and experience related to CO_2 pricing and border adjustment. [4]

CBAM has been in its definitive phase since 1 January 2026. The system currently covers cement, iron and steel, aluminium, fertilizers, electricity, and hydrogen. Finished electronic products are not yet directly included in its scope. [4]

Nevertheless, the issue is relevant for electronics manufacturing. Steel and aluminium are used in enclosures, racks, heat sinks, and numerous other components and assemblies. Furthermore, the EU is expanding the scope of CBAM and, by 2026, had advanced proposals to extend it to certain downstream steel- and aluminium-intensive products. [4]

For Indian suppliers and OEMs producing in India, this means that the ability to collect, document, and track emissions data may become increasingly important in the long term.

3. Semiconductors: cooperation with the EU Chips Act

On 15 July 2026, the India-EU Trade and Technology Council met for the third time in Brussels, with the Indian Minister for Foreign Affairs, the Minister for Trade and the Minister of State for Electronics and Information Technology participating. [3]

In the joint statement published by the European Commission, both sides reaffirmed their intention to build robust and trustworthy semiconductor supply chains. [3] Specifically, they agreed, among other things, to a joint India-EU roundtable discussion during the Semicon India 2026 trade fair and to closer cooperation on semiconductor research, capacity building and advanced manufacturing. [3]

The intention to explore cooperation between the design centers of the India Semiconductor Mission and the pilot lines of the EU Chips Act is explicitly mentioned. One of the aims is to facilitate access to advanced process design kits and cost-effective silicon prototyping. [3]

This cooperation builds on a collaboration already agreed upon in 2023 between the Indian government and the European Commission regarding the semiconductor ecosystem. The key new aspect is the more detailed definition of the potential technical link between Indian semiconductor development and European pilot infrastructures.

However, there is no evidence yet of a fully implemented technical integration or a joint production program. The current agreement describes a cooperation that is to be further developed and explored. It is therefore a concrete next step, but not yet a mutual recognition of approvals or technical standards.

Assessment

For European electronics manufacturers, this does not mean that chips produced in India are automatically considered EU-compliant. The agreements provide frameworks for cooperation and do not replace European approval or conformity assessment procedures.

However, they point to a clear direction in which technological cooperation between India and Europe is moving. India and the EU are seeking to strengthen links between their semiconductor ecosystems – from design and research to pilot production and advanced manufacturing.

Anyone developing a sourcing and production strategy for the next five to ten years should therefore take this development into account. It is not yet a fully established system, but it demonstrates India's increasing technological compatibility with European development and manufacturing structures.

4. Conclusion

India will not become a European manufacturing hub overnight. Nevertheless, an increasingly strong connection is emerging between the two markets through technical standards, regulatory requirements, trade rules, and technological cooperation.

For European OEMs, the crucial question is therefore not whether India is already fully aligned with European standards. Rather, the decisive factor is how quickly and in which areas this compatibility will continue to increase.

The developments in RoHS, CBAM, and semiconductors illustrate three different dimensions of this process: existing technical requirements, new trade policy frameworks, and long-term technological cooperation.

This is a relevant factor for companies planning their production and sourcing structures for the coming years. India should not only be considered from the perspective of costs and production capacity, but increasingly also from the perspective of its regulatory and technological compatibility with Europe.

The journey to Brussels is therefore not a finished process. But it has already begun.

Sources

Central Pollution Control Board (CPCB), Government of India: *Frequently Asked Questions (FAQ) under E-Waste (Management) Rules, 2022*, January 23, 2024. Freely accessible via the official government website. The document contains the Indian RoHS substances, limit values, and requirements for technical documentation according to EN 50581 and EN IEC 63000:2018.

- **Official portal:** CPCB – E-Waste Management Rules

● **Direct link to the CPCB EPR portal:** CPCB – E-Waste EPR Portal

European Commission: *EU and India conclude landmark Free Trade Agreement*, 27 January 2026. The Commission confirms the conclusion of negotiations on the EU-India free trade agreement.

● **Press release:** European Commission – EU and India conclude Free Trade Agreement

European Commission: *Joint statement on the third meeting of the EU-India Trade and Technology Council*, 15 July 2026. The joint statement documents the agreed further cooperation on semiconductors as well as the planned cooperation between the design centers of the India Semiconductor Mission and the pilot lines of the EU Chips Act.

● **Joint statement:** European Commission – Third EU-India Trade and Technology Council Joint Statement

European Commission: *EU-India Free Trade Agreement – Text of the Agreements*, in particular Chapter 14 and Annex 14-A: *Carbon Border Adjustment Measures*, as well as the official information on the CBAM system. The agreement texts and CBAM information are freely accessible.

● **Official agreement texts:** EU-India Free Trade Agreement – Text of the Agreements
● **CBAM information portal:** European Commission – Carbon Border Adjustment Mechanism (CBAM)

Additional legal reference for comparison with EU RoHS:

● **Consolidated RoHS Directive:** EUR-Lex – RoHS Directive 2011/65/EU (Consolidated Text)
● **Delegated Directive (4 phthalates):** EUR-Lex – Commission Delegated Directive (EU) 2015/863

About the Author

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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