The European Electronics Value Chain: Stimulating Innovation and Boosting Competitiveness

IPC — Association Connecting Electronics Industries, is the only trade association representing the entire supply chain of electronics manufacturing including printed circuit boards designers and fabricators, assembly companies, suppliers, and original equipment manufacturers. Our global membership includes more than 5.600 company sites, of which 759 are located in Europe. Electronics are at the heart of almost all industries today, from aerospace and military, to automotive, information technology, telecom, manufacturing, retail, and healthcare.

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>60%</td>
</tr>
<tr>
<td>Asia</td>
<td>26%</td>
</tr>
<tr>
<td>Europe</td>
<td>15%</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>2%</td>
</tr>
</tbody>
</table>

About 80% of IPC members are small- and medium-sized businesses, but some are large household names. We employ more than 2.4 million Europeans* in well-paid jobs.* Oxford Economics Study: Evolving Employment Trends in the European Electronics Sector

What Does IPC Do?

We collaborate with the electronics industry to help our members achieve success amidst constant and often dramatic technological change.

**Standards:** Accepted worldwide, IPC standards help ensure superior quality of electronics products and services, environmentally friendly operations, and intellectual property protection. IPC standards serve as practical guides for implementation of and compliance with EU legislation and voluntary schemes.

**Training and Certification:** IPC training and certification programmes play a key role in addressing the workforce challenges facing Europe’s electronics industry. In response to the growing skills gap, IPC has launched an EU Workforce Champions Initiative which will provide relevant workforce training to 500,000 Europeans over the next five years.

**Research:** IPC has been the industry’s trusted source for market research for more than 60 years. IPC offers proprietary data and insights to help members and stakeholders, including policymakers, make informed decisions.

**Advocacy:** IPC government relations staff keep track of legislation and regulations around the world and advocate for pro-growth, pro-innovation, science-based policies.
Policy Priorities for the new European Commission and European Parliament

With the next EU legislative cycle about to begin, IPC would like to take this opportunity to outline its policy priorities focused on ensuring the right policy and regulatory environment to stimulate innovation in the electronics value chain and stimulate its competitiveness in Europe. Our positions have been informed by discussions with a wide range of industry players, big and small, representing different facets of the electronics supply chain.

1. Policy making that follows the Better Regulation principles and facilitates deployment of standards to encourage technological innovation

   • IPC believes that any new EU regulatory measures should be in line with Better Regulation principles, and that an impact assessment should be carried out when measures are likely to have a significant socio-economic impact. The effect of new measures on innovation, in particular for SMEs, should be put at the core of the EU impact assessment methodology.

   • In many cases, voluntary schemes, co-regulation and standardisation minimise bureaucratic burdens, generate innovative solutions, and achieve policy objectives in more efficient and costeffective ways than prescriptive regulation. EU policy makers should promote the use of voluntary alternatives that achieve policy objectives in lieu of regulation in areas such as sustainability of supply chains. Standards can play a key role in facilitating the industry’s compliance with voluntary schemes.

   • Standards fulfil a number of functions, including ensuring compatibility between products (promoting open and competitive markets), ensuring transparency and effective exchange of information throughout the supply chain, and creating consumers’ trust that new products, services and technologies meet socially desired minimum levels of quality and safety. Inconsistent, unclear and overlapping regulations pose an obstacle to the uptake of standards. Policy makers should attempt to deliver clear and coherent requirements to facilitate successful deployment of these solutions.

2. Environmental policy that provides more certainty and incentivises sustainable innovation across the supply chain

   • IPC calls on EU officials to work towards a balanced environmental and chemicals policy that ensures both environmental and consumer protection, while safeguarding the competitiveness of European manufacturing. We welcome the European Commission’s recent efforts to clarify the interface between chemicals legislation and other EU laws but continue to see great potential to remove overlaps to ensure coherence and predictability as well as the need to improve enforcement of current laws for a level-playing field. As the transition to a Circular Economy will continue to be of crucial importance, IPC calls for maintaining the risk-based approach for the safe and sustainable use of chemicals in the circular economy.

   • The Commission has identified the availability of information on substances of concern in products across all actors in the supply chain and to waste operators as one of the key concerns in the area of circular economy with the objective to promote non-toxic materials cycles. Recognised industry standards play a crucial role in the supply chain communication on substances in articles. For example, IPC is developing the revised IPC-1752B supply chain data exchange standard as a global cross-sector solution to help the industry report on the presence of REACH Candidate List substances in articles into a new European Chemicals Agency (ECHA) database from January 2021, in accordance with the requirements of the revised Waste Framework Directive. The EU needs to continue its efforts to strengthen market surveillance to ensure non-compliant products are taken off the market in order to level the playing field for companies playing by the rules.
• Lack of certainty related to substitution of hazardous substances is one of the primary concerns for IPC members, in particular SMEs, as substitution requires significant cost, effort and years of planning. In collaboration with cross-sector groups and individually, IPC provides scientific input on substance usage in the electronics industry, such as Pb-lead, to support science-based policymaking.

• IPC supports increased funding that allows for attention and dedication to “Green Chemistry” to bring safer chemistries and processes to the market and to avoid regrettable substitutions. EU institutions can incentivise innovation and recognise that resources and time are required to develop, test and evaluate safer alternatives that achieve a particular function, and scale-up these alternatives for broader application.

3. EU agenda for responsible value chains that supports proactive industry efforts

• The EU has the potential to set the trend and lead global efforts to facilitate responsible conduct in global value chains. This agenda should build on proactive industry efforts that are underway and support policy objectives further through effective voluntary measures.

• IPC standards enable traceability across the electronics value chains and are a practical tool for companies to carry out their human rights and sustainability due diligence.

• IPC has long been involved in addressing responsible sourcing of minerals and has two standards committees supporting data exchange and due diligence of responsible sourcing of minerals. The IPC-1755 Conflict Minerals Data Exchange Standard, for instance, is a single, crossindustry standard facilitating and improving due diligence data transfers along the entire global supply chain. The Standard is currently being reviewed to fully support voluntary reporting under the EU Conflict Minerals Regulation.

• As a member of the European Partnership for Responsible Minerals, IPC educates and supports SME suppliers with the responsible sourcing of minerals in the electronics industry and helps to increase awareness of the importance of responsible minerals sourcing and share due diligence knowledge.

4. EU trade policy that reduces obstacles to global value chains integration

• The electronics industry relies on sophisticated global value chains through which services, raw materials, parts and components are exchanged between countries to support intermediate and final production of goods.

• Given the importance of these global value chains, IPC is a strong advocate for a rules-based, level trade system and supports measures that reduce barriers to the free circulation of goods.

• Trade agreements concluded by the EU with other countries and regions should seek to lower tariff and non-tariff barriers, including harmonisation of quality and safety standards.

• IPC supports Europe’s objective to ensure a reduction in technology being used for human rights violations through a robust export control regime. We call for a balanced system, aligned with international best practices, that allows innovative businesses to grow and expand without placing undue constraints on them.
The electronics sector is particularly concerned with future EU-UK trade relationships. The key concerns are the negative effects stemming from restrictions in the free movement of goods and imposing tariffs on components and products as well as the sector’s need for highly skilled labour. The EU needs to continue to strive to avoid a no-deal Brexit, whilst mitigating as much as possible the negative effect of a possible no-deal Brexit for the industry.

5. **EU industrial policy that better recognizes the strategic importance of the electronics value chain to European economic and technological competitiveness**

- Electronics manufacturers constitute a horizontal industry that cuts through every vertical sector of the economy from aerospace and defence to agriculture and consumer technologies. The EU industrial policy and its related regulatory framework should embrace the opportunity to strengthen this strategically important industry through investment in research and workforce initiatives. European electronics manufacturers constitute a fundamental building block in every EU industrial priority, and its strategic significance should be recognized and incorporated into planning accordingly.

- Digital transformation is a unique opportunity to improve manufacturing processes to the benefit of the workforce through the adoption of “enabling technologies” and to the benefit of industrial competitiveness through the use of big data and machine-to-machine communication. IPC is helping the electronics sector to make the best of digital technologies, including through its Connected Factory Exchange Initiative, an electronics manufacturing industry developed standard that forms the backbone of Industry 4.0 applications.

- Advanced manufacturing, which relies heavily on digitalisation, robotics and automation, opens new horizons for the European electronics industry. This trend is making manufacturing cleaner and safer than in the past, but it is placing new skills requirements on workers. The chronic shortage of adequately skilled workers and the changes in skills required are some of the most difficult challenges facing the electronics industry in Europe. IPC is committed to providing relevant workforce training to half a million Europeans over the next five years and calls on policy-makers to include all the segments of the electronics sector in the elaboration and implementation of training/skills strategies based on thorough sectoral assessments of skills gaps and needs.

- Furthermore, IPC recognizes the importance of the industry’s contribution to the EU objective of a climate neutral economy by 2050. The electronics industry plays and will continue to play a pivotal role in providing technologically feasible pathways toward achieving Europe’s ambitious greenhouse gas emissions reduction goals. In addition to drastically reducing its own carbon footprint, the electronics industry enables significant energy efficiency in other sectors (smart grids, smart buildings, smart mobility, smart logistics, less resource-intensive manufacturing, etc.). This dual position means that IPC is unique in its influence to enable achievement of the 2050 objective.

IPC stands ready to work with the European Commission, the Parliament and all relevant stakeholders over the upcoming policy cycle on specific initiatives in the above mentioned areas, and to contribute to these debates with positions reflecting the interests of all the electronics supply chain’s actors supported by sound evidence.