


Advanced Technology Watch - Technology Focus on Sustainability in the Automotive industry in Europe

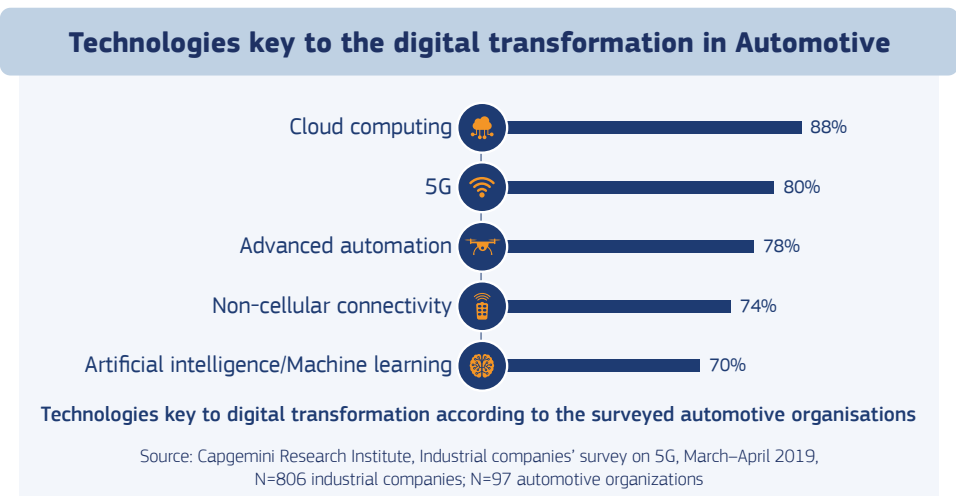
The automotive industry is one of the most important industries for the European economy, but global leadership in the market is shifting towards Asia. Low emission zones and emission performance standards in line with the European Green Deal are guiding innovation in the sector. As regulations in sustainability are becoming stricter, innovations that improve sustainability will enable automotive organisations to regain a strong competitive position.



The automotive sector is of much importance for Europe's economy, representing **6.1%** of total EU employment and over **7%** of EU GDP




Digital mastery in the automotive sector is lagging behind other industries, but recognised to be very important





Connectivity and the ability to process (unstructured) data streams are expected to have the most impact on the automotive industry in all innovation levels

Emerging technologies:
5G, Artificial Intelligence (AI),
Internet of Things (IoT)

<div style="display: flex; align-items: center;">  <div> <p>Vehicle Innovation</p> <ul style="list-style-type: none"> Smart sensors, autonomous driving Real time navigation, on lane level Electrified powertrains </div> </div>	<p>Vehicle innovations will lead to more sustainability by reducing traffic congestion, optimising navigation and avoiding traffic accidents.</p>
<div style="display: flex; align-items: center;">  <div> <p>Production innovation</p> <ul style="list-style-type: none"> Quality analytics Waste reduction </div> </div>	<p>In production innovations, connectivity and advanced algorithms will improve efficiency by reducing waste.</p>
<div style="display: flex; align-items: center;">  <div> <p>New business models</p> <ul style="list-style-type: none"> Car sharing Mobility as a Service (MaaS) </div> </div>	<p>Business models innovations will benefit from technologies as consumers and vehicles can connect everywhere and anytime.</p>

Innovations can contribute to sustainability goals and enable the digital transformation

Three key challenges have to be addressed to increase adoption of scaled digital initiatives



System integration

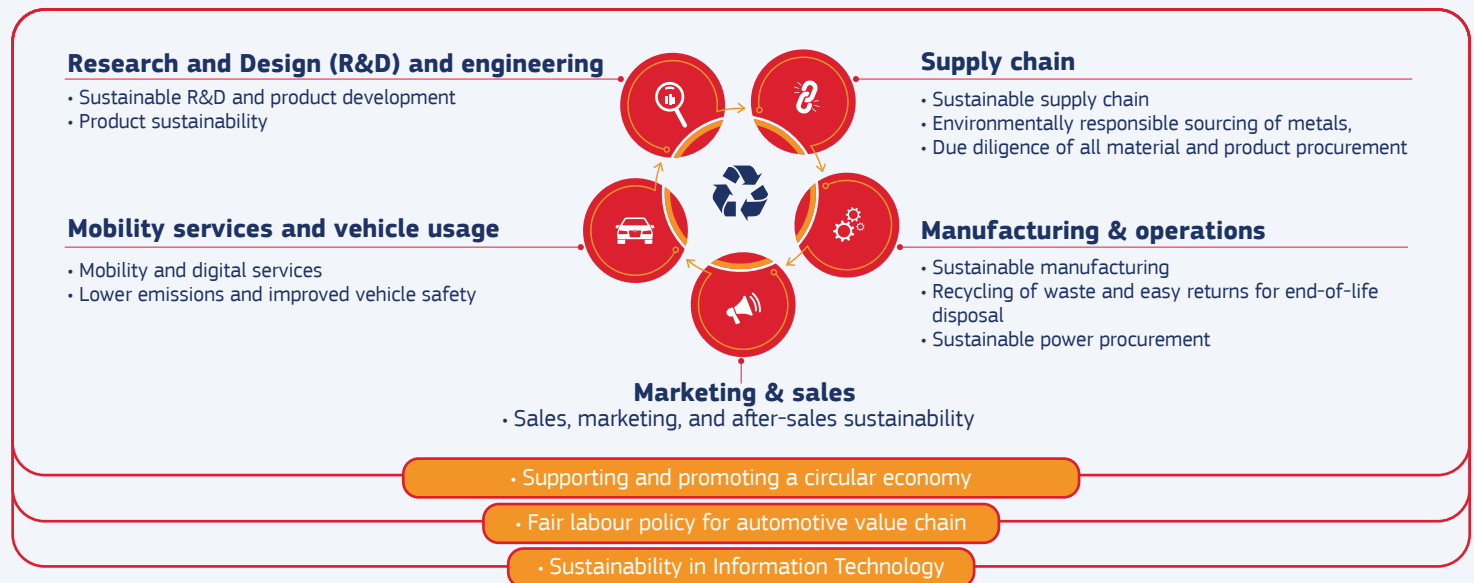


Data quality



Talent war

Fourteen areas of innovation have been identified with a potential for sustainability improvement



About the Advanced Technologies for Industry (ATI) project

The ATI project – funded by the European Commission – supports the **implementation** of Europe's new growth strategy with a systematic monitoring of **technological trends** and reliable, **up-to-date data** on advanced technologies.



The **Advanced Technology Watch Reports** explore the futuristic, upcoming technologies that are on the horizon of technology development today and that are characterised by high speed of evolution and a significant disruptive potential.

For more information, read the full Advanced Technology Watch Report Technology Focus on Sustainability in the Automotive industry in Europe here: <https://ati.ec.europa.eu/reports/technology-watch/technology-focus-sustainability-automotive-industry-europe>

