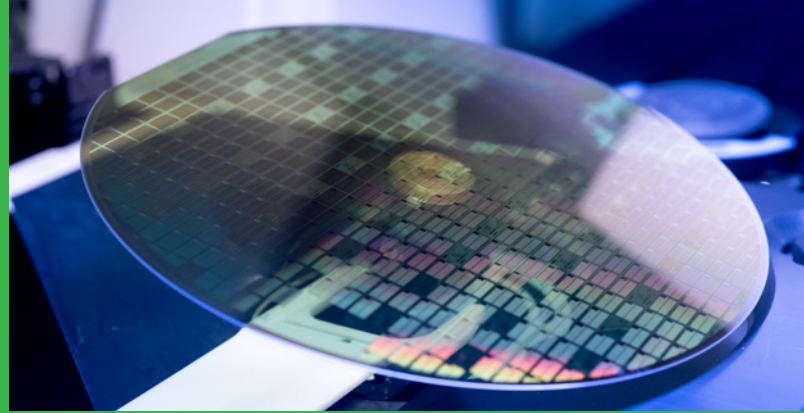


The project receives funding from the Key Digital Technologies Joint Undertaking (KDT JU) under Grant Agreement No 101007237. The JU receives support from the European Union's Horizon 2020 research and innovation programme and Germany, France, Italy, Sweden, Austria, Czech Republic, Spain.



Trusted European SiC Value Chain for a greener Economy

Visit our web-page at: <https://sic-transform.eu>

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TRANSFORM is an R&D project aiming to build a complete and competitive supply chain in EUROPE for Power electronics based on SiC semiconductor technology.

The Energy Challenge and the TRANSFORM Project

Among today's major challenges are clean energy and decarbonization of our economy. These are directly influenced by increasing the efficiency in conversion of electrical energy from the primary supply to the end user by power electronics systems that use semiconductor materials. Silicon Carbide (SiC) comes into play at this point by allowing operation at higher temperatures and higher electrical potential leading to smaller components and higher power conversion efficiency. These parameters directly influence the performance of the application and its environmental impact. Depending on the application, 6-30% gain is expected by using SiC instead of Si.

TRANSFORM consortium brings together key European players among the complete SiC value chain: from materials and substrates to inverters and converters significantly increasing energy efficiency by providing a competitive, ready-to-industrialize technology, strengthening Europe's technological sovereignty in this critical field.

The consortium is built with 33 partners from 7 EU countries and a total budget of 89.3 Mio €. The project started 1st of May 2021 and runs for 3 years.

5 different use cases are developed:

- » Traction Inverter for electrical vehicles
- » Bidirectional On-Board Charger for electrical vehicles
- » DC/DC converter for precision farming
- » Industrial machine battery charger
- » HV DC/DC converter for photovoltaic string

