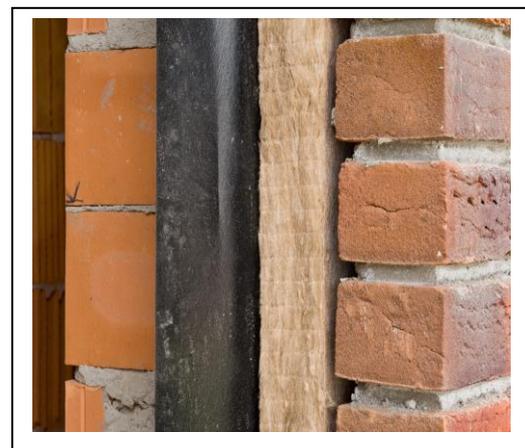


Power electronics for green energy efficiency

→ *The project accelerates the market uptake of Advanced Power Electronics (Advanced PE) by companies, especially small and medium sized enterprises (SMEs), in the Baltic Sea Region (BSR) for the efficient conversion, transmission and consumption of energy.*

Priority area	Natural resources
Specific objective	Energy efficiency
Project acronym	Green PE
Lead Partner	University of Southern Denmark
Project partners	3 DE, 3 LT, 3 SE, 2 DK, 2 EE, 2 LV, 2 PL
Project budget*	Total EUR 3,1 MM
*preliminary figures before contract signature	



Summary

The novel technologies behind Advanced PE allow more than 50% of energy savings by enabling the efficient control and conversion of electrical power and the reduction of energy losses in all stages of the energy supply chain.

The corresponding market, which is expected to grow annually by 7.4% from 2014-2020, is driven by the demand for an increase in energy efficiency to enable renewable energy production, efficient energy transmission and intelligent consumption (e.g., within e-mobility and smart buildings). Thus the novel technologies foster the transition towards green growth and green society.

The market uptake of Advanced PE is challenged by technical and economic barriers as well as knowledge gaps which are difficult to be overcome by companies from the energy supply chain in the BSR. As a result, these companies tend to choose conservative technology management and R&I strategies with regard to Advanced PE. At the same time innovative start-ups and SMEs from component and element level to system integrators – need to accelerate the innovation cycle and market acceptance of the energy efficient novel technology.

The project aims to demonstrate solutions to overcome these barriers faster and to increase the capacity of companies to adopt their business and R&I strategies to the potentials of Advanced PE. The project provides a transnational collaboration platform for research institutions and companies especially innovative start-ups and SMEs to transfer knowledge and build up R&I alliances across borders. The partners demonstrate the technical feasibility, reliability and cost efficiency of the novel technology and strengthen the industry's confidence in Advanced PE. The transnational approach creates a critical mass of expertise and collaboration for the still premature market for Advanced PE.

The project involves widely BSR companies in the development of a technology and product roadmap enabling them to define their technology and business strategies (e.g., adequate technology, timing of investments). The project carries out three demonstration pilots in the market sectors renewable energies, e-mobility and smart buildings with 8 companies and 7 research institutions. In addition the research partners consult 14 BSR companies supporting their R&I strategy development. All project results will be spread across the BSR via dedicated technology marketing measures, thus advancing the BSR capacities in the enabling technology.

The project obtains support from the STRING partnership contributing to the green growth strategy (Letter of Support). KIC InnoEnergy as Europe's largest public-private innovation partnership focused on climate change, states strong interest to collaborate with the project, too (Letter of Support).