

BOSCH HEADS SILICON CARBIDE CHIP CONSORTIUM - November 22, 2021

Bosch is main a consortium of 34 <u>corporations</u>, universities, and analysis institutes from seven European <u>international</u> locations within the Europe-funded Rework undertaking to ascertain a resilient silicon carbide (SiC) semiconductor provide chain.

"The intention of the Rework undertaking is to safe a number one position for Europe in new applied sciences based mostly on silicon carbide," mentioned Bosch Automotive Electronics division VP, Jens Fabrowsky.

Scheduled to run till 2024, the publicly-funded undertaking is specializing in 5 use circumstances within the automotive, trade, renewable power and agriculture sectors.

Bosch notes silicon carbide semiconductors show higher electrical conductivity and allow larger switching frequencies, whereas additionally guaranteeing a lot much less power is dissipated within the type of warmth.

As well as, energy digital purposes with SiC chips might be operated at a lot larger temperatures, with the end result an easier cooling system is required, which additionally saves power. Silicon carbide additionally has a better electrical area power, which means elements product of the fabric might be smaller in design, whereas delivering a better energy conversion effectivity.

In contrast with typical silicon chips, the German provider says specialists consider this may end in an power saving of as a lot as 30%, relying on the place the elements are used.

The target of the Rework undertaking is to ascertain a resilient European provide chain for the manufacturing of energy digital purposes based mostly on SiC energy semiconductor gadgets. Demand for such expertise is ready to develop quickly, particularly with respect to energy-intensive purposes akin to electrical car powertrains, EV cost spots and energy provide <u>infrastructure</u>.

This undertaking has a price range of greater than EUR89m (US\$100m) and is funded by the European Union in addition to nationwide our bodies. It brings collectively gamers alongside the SiC worth chain in Austria, the Czech Republic, France, Germany, Italy, Spain and Sweden.

Companion <u>corporations</u> embody, amongst others: Aixtron, Danfoss, EV Group, Premo, Saint-Gobain, Semikron, Soitec, STMicroelectronics and Valeo-Siemens Automotive.

Scientific organisations collaborating embody Brno College of Know-how, CEA Leti, Fraunhofer IISB and College of Sevilla.

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