

FRAUNHOFER INSTITUTE FOR MICROELECTRONIC CIRCUITS AND SYSTEMS IMS

PRESS RELEAS

PRESS RELEASE

31. 01 .2019 || Page 1 | 3

Fraunhofer IMS as a partner of the EU-Project "EnABLES"

Enable energy solutions for IoT applications with the development of self-sufficient sensors – this is the mayor goal of the European initiative "EnABLES". 10 European research institutes are working together on this project. Also on board is the Fraunhofer- Institute for Microelectronic Sensors and Systems IMS in Duisburg.

The number of networked and intelligent devices in context of Internet of Things (IoT) is increasing fast – within 2025 there will be an estimated number of one billion IoT-applications. With this Development comes an increasing need of energy- all of these applications need electricity. "The EU-project EnABLES is looking for possibilities to reduce the power consumption of these IoT-Devices for more sustainability. By integrating energy-harvesting solutions the need of a battery change is supposed to be avoided. For this we also want to contribute our share", says Dr. Gerd vom Bögel from the Fraunhofer IMS.

As part of the EU-Research and infrastructure project also funded by the EU all participating institutes share their know-how and infrastructure with others. Part of this is the free access to simulations, labs and also concept- and feasibility studies for interested parties from industry and applied science. Base for the joint research are the subareas energy-harvesting, energy storage, power management and system integration. "In context of the EnABLES project supporting mostly developers and producers of IoT applications is very important. The offer ranges from technologies and simulation models all the way to the design of devices and systems", explains Gerd vom Bögel. All EnABLES partners share the basic knowledge about energy-conversion technology and the experience concerning their use in IoT applications. This knowledge is now supposed to be used to support the implication of these technologies. The range of services extends from feasibility studies to development support with a process beginning with simulations and ending with the testing of a produced prototype, each depending on the requested



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application. Fraunhofer IMS for example supports the EnABLE project with the feasibility PRESS RELEASE study of a completely wireless sensor (energy supply and measurement transmission via radio) for Industry- and building applications or a performance measurement of a newly developed harvester-IC.

31. 01 .2019 || Page 2 | 3

EnABLES activities

One of the first steps taken in the project was to build the "Start-community" a platform for all partners to connect with each other. Thereby the cooperation of the partners is supposed to be strengthened also by common research work, considering the respective needs and possibilities. Furthermore another online portal was built to enable the contact and communication with other Researchers and Labs, this can be found at: www.enablesproject.eu. Interested people can easily register to get more information. Concrete requests about support concerning services of the EnABLES partners can also be send in without any obligations.

The EnABLES project is funded in context of the "Horizon 2020" from the European Union. Following European institutes are working together: Tyndall National Institute (Irland), CEA Leti & Liten (Frankreich), Fraunhofer IMS (Deutschland), Fraunhofer IIS (Deutschland), imec (Niederlande), Karlsruher Institut für Technologie (Deutschland), Politecnico Di Torino (Italien), Universität Bologna (Italien), Universität von Perugia (Italien) und die University of Southampton (Großbritannien).

Fraunhofer IMS

Since 30 years scientists at Fraunhofer IMS in Duisburg deal with the development of microelectronic circuits, electronic systems, microsystems and sensors. Because of its comprehensive know-how, the access to technology and the high-quality development work the Institute is a worldwide recognized partner for the industry. In eight business units Fraunhofer IMS is dedicated to applied research, advance development for products and their applications. Stable, efficient and marketable technologies and procedures that are used in extremely many branches take center stage in contract work.www.ims.fraunhofer.de/en



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Pictures and captions

PRESS RELEASE

31. 01 .2019 || Page 3 | 3



The logo of the EnABLES project.

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Representatives of the EnABLES partners at a project meeting in Cork (Ireland). On the right, Dr. Gerd vom Bögel from Fraunhofer IMS.

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