

## PRESS RELEASE

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**Joint letter of intent with Portugal's research funding agency**

### **Fraunhofer drives intelligent agriculture forward**

**Fraunhofer signed a joint letter of intent in Lisbon yesterday with FCT (Fundação para a Ciência e a Tecnologia), the Portuguese research funding agency. The letter lays out plans to advance the digitalization of agriculture and forestry, including using digital technologies to manage agricultural and forest areas more precisely and sustainably. A joint task force will be set up to develop potential application areas and scenarios.**

"After ten years of successful partnership, we're taking our collaboration with Portuguese research institutions to a whole new level. We want to work together to drive forwards digitalization in the agriculture and forestry sector," says Prof. Reimund Neugebauer, President of the Fraunhofer-Gesellschaft. "To develop new solutions in this field, you need an excellent knowledge of information, software and energy technology in combination with sensors and new materials, and both parties complement each other perfectly in this regard. By expanding our activities in Portugal, we not only give fresh impetus to the topic of Agriculture 4.0 but also strengthen our research collaboration within the European Union."

"The Fraunhofer Portugal joint initiative has successfully contributed to fostering new research frontiers and to jointly creating new jobs that impact the Porto area in particular. The creation of the AICOS centre for ambient assisted living in collaboration with the University of Porto is blazing trails in the application of IT solutions for vulnerable people, including the elderly. To everyone who helped make this project a success, we extend our heartiest congratulations," says Manuel Heitor, Portuguese Minister for Science, Technology and Higher Education. "We are now launching a new phase of the Fraunhofer Portugal joint initiative that specifically addresses the emerging fields of precision agriculture and IT applications in the agro-businesses. Digital transformation is taking place in many fields of economic development and precision agriculture will change the way we view the agricultural sector today. This is a very important step for Portugal and for Fraunhofer, and it is an achievement that we can all be proud of."

"I am pleased that this area, which is important for agriculture and forestry, succeeds in bundling competences and expanding cooperation with international partners. I explicitly welcome the activities of the Fraunhofer-Gesellschaft. I hope that this cooperation will provide important momentum for our sector in Saxony", says Thomas Schmidt, Saxon Minister of State for Environment and Agriculture.

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#### **Editorial Notes**

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## Managing land more precisely and sustainably

Digitalization can also optimize agriculture and forestry. New IT technologies aid in achieving more efficient farmland and forest management, more precise pest control and better monitoring of plant growth. The requisite data is provided by satellites in space, drones that fly over fields, pastures and woodlands or by sensors attached to the agricultural vehicles of the future, these being small electrically driven vehicles that work cultivation areas autonomously and in swarms. But that's still some way off; digitalization must first fulfil its promise of modern, sustainable agriculture.

To advance agriculture 4.0, Fraunhofer joined the Portuguese research funding agency FCT in signing a letter of intent. It provides for a collaboration in "precision agriculture" between Europe's largest applied research organization and Portuguese research facilities, using digital technologies and communication interfaces for advanced process technology to optimize the use of agricultural and forest areas. Both partners have agreed to develop and test new technological approaches for improving the cultivation of wine, vegetables and grain. The scientists plan to use satellites, sensors, smart-phones, tablets and apps to collect, prepare and analyze agricultural data, improve irrigation systems, set up sustainable circulation systems for nutrients and test new solutions for energy-efficient agriculture and forestry. One of the first steps will be for a joint task force to develop potential application areas and scenarios. Among others Fraunhofer Institute for Ceramic Technologies and Systems IKTS will be part of this task force.

## Fraunhofer Center AICOS in Porto

Since 2008, Fraunhofer has maintained the Fraunhofer Center for Assistive information and Communication Solutions AICOS in Porto under the umbrella of the Associação Fraunhofer Portugal Research and in conjunction with the University of Porto. The scientists there are developing concepts and solutions for the information technology of tomorrow, creating, for example, new intuitive mobile devices and simplifying the interfaces between mobile phones and the Internet. In September 2017, Liliana Ferreira took over as director of the Fraunhofer Center in Porto. A Invited Full Professor of engineering at the University of Porto, the 37-year-old Portuguese native studied information technology as well as electronics and telecommunications technology. AICOS is slated to play an important role in the new precision agriculture project, contributing its IT expertise. For instance, the researchers plan to develop software tools to collect and analyze agriculture and forestry data and display it on mobile devices such as smartphones and tablets.