

Joint Declaration of Intent

between

FUNDAÇÃO PARA A CIÊNCIA E A TECNOLOGIA, FCT I.P., a public institute with administrative and financial autonomy under the terms set out in its Organic Law, Decree-law no. 55/2013, of April 17, Portuguese taxpayer no. 503904040, with head office at Av. D Carlos I, no. 126, in 1249-074 Lisboa, herein represented by its President, Professor Paulo Ferrão, with powers for this declaration,

- hereinafter referred to as "**Foundation**" or "**FCT**" -

and

Fraunhofer Gesellschaft zur Foerderung der angewandten Forschung e.V., having its seat at Hansastr. 27c, in 80686 Munich, Germany, represented by its President, Professor Reimund Neugebauer, with powers for this declaration

- hereinafter referred to as "**Fraunhofer**" -

- together hereinafter referred to as "**Parties**" -

Preamble

Ten years after the signature of an "Agreement for the funding model for a Fraunhofer center/institute in Portugal", which was negotiated and concluded between the Foundation and Fraunhofer, these Parties want to agree on conditions for expanding and strengthening of their long-term collaboration focused on emerging technologies, exploring further mutual interests in science and technology oriented towards social well-being, job creation, economic growth and quality of life.

In addition to the successful cooperation in the frame of Fraunhofer Portugal and its Research Center for Assistive Information and Communication Solutions (AICOS, as located in Porto), the parties agree on strengthening their collaboration in the field of precision agriculture, making use of advanced information and communication technologies in combination with advanced process technology and material science.

WHEREAS, the Foundation is the public body with the statutory mission of promoting, following-up and evaluating science and technology programs and projects, including human resources qualification;

WHEREAS, Fraunhofer is Europe's largest institution for applied research with more than 24,500 employees in 69 institutes, an annual budget close to 2.1 billion Euros, two thirds of which are earned with industrially and publicly funded projects. As a link between academic research and business practice, FhG contributes considerably to technology transfer between among universities and industry;

WHEREAS, FCT is interested in developing a strategic cooperation with Fraunhofer across all areas of science and technology, including services for precision agriculture, making use of advanced information and communication technologies in combination with advanced process technology and material science;

WHEREAS, Fraunhofer during the year 2017 has made a preliminary assessment of the potential for collaborations with related R&D-institutions in Portugal and, after the visit of several institutes has made up its mind that the scientific and technological infrastructure is well advanced and predominantly coinciding with international standards and the scientific personnel is internationally competitive;

WHEREAS, both parties are interested in promoting forms of collaboration in an European context, leading to successful proposals for funding on a competitive basis, namely through the existing and future EU-Research-Framework-Programs, as well as in facilitating research groups to attract private funding as co-sponsoring for their research work.

Now, therefore the parties are interested to promote the following:

1. Establish and strengthen a new collaboration in the field of "Precision Agriculture" between Fraunhofer Institutes and Portuguese research institutions.
2. Assess possible options to enable long term sustainable co-operations, including a strengthening of the institutionalized presence of Fraunhofer in Portugal (the option to establish a new center dedicated to the theme "Precision Agriculture", shall be part of such an assessment), or the establishment of long-term research networks between Fraunhofer and Portuguese research institutions.
3. The cooperation of Fraunhofer and Portuguese research institutions will be focused but not limited to the following topics :
 - Smart agriculture and forestry in Mediterranean areas including smart sensors and digital solutions
 - Early detection of pests and diseases using advanced monitoring systems
 - Exploring combinations of ceramic filtration, thermal and electrical treatments for the low-input stabilization and quality treatment of wines and waste streams
 - Earth Observation Data Platform for Support to Wine Production in the "Região Demarcada do Douro"
 - Water resources for irrigation: quantity, quality and spatial localization.
 - Sustainable agriculture by means of closed cycles for nutrients, water and energy on local and regional level.
 - The integration between rain fed and irrigated agriculture and the sustainability of the territory.
 - Irrigated summer crops and new added value products.
 - Energy sustainable agriculture.

- Full resource use and integrated valorization of crops from agricultural and agro-forestry systems
4. Set up a Task Force formed by representatives of both Parties to assess and elaborate schemes for the further strengthening of collaborations in the field of Precision Agriculture. The Task Force will be co-chaired by one representative of each Party, one to be named by FCT and the other by Fraunhofer, as described below. Additional institutions may be invited, such as Portuguese universities and Fraunhofer Portugal AICOS.

Representatives of the Foundation for Science and Technology, FCT:

- Helena Pereira (Co-Chair);
- João Lima (INIAV);
- Teresa Pinto Correia (ICAMM, University of Évora);
- Tim Hogg (University of Trás os Montes e Alto Douro, UTAD)


Representatives of Fraunhofer:

- Ingolf Voigt (Co-Chair);
- Liliana Ferreira (Fraunhofer Portugal AICOS);

Further members will be named by Fraunhofer subsequent to the signature of this DoI.


5. The two co-chairs of the Task Force will prepare a proposal for the further strengthening the collaboration to be submitted to the presidents of Fraunhofer and FCT by the end of the first trimester of 2018.

**FUNDAÇÃO PARA A CIÊNCIA
E A TECNOLOGIA I.P.**



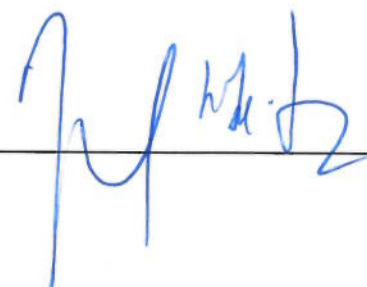
Prof. Dr. Paulo Ferrão,
President of FCT

**FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG
DER ANGEWANDTEN FORSCHUNG E.V.**



Prof. Dr. Reimund Neugebauer
President of Fraunhofer

The agreement is confirmed and duly authorized by the *Portuguese Minister for Science, Technology and Higher Education, Manuel Heitor*:



; Date: 7/12/2017