

BiomediCALL 2020

CALL FOR INNOVATION IN LIFE SCIENCE





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BioWings BiomediCALL 2020

GENERAL CONTEST REGULATION

The BioWings project

BioWings is a project funded by the European Commission in the Horizon 2020 framework, under the Future and Emerging Technologies (FET) Open programme.

It is a Research and Innovation Action (RIA) aligned with the key goal of the FET programme: supporting the early stages of science and technology research towards the development of disruptive innovations.

Since June 2018, 7 European partners are cooperating to investigate the unique properties of a completely new class of smart actuating materials and facilitate the integration in biocompatible MEMS.

Scenario

Demographic trends, such as the rapid growth and ageing of the world population, are putting pressure on global healthcare systems, increasing the demand for smart, effective and affordable biomedical systems.

Micro-Electro-Mechanical-Systems (MEMS) are key components of such biomedical systems, enabling miniaturised devices with diagnostic, prognostic and therapeutic functionalities.

Although these systems are poised to revolutionize medical diagnostics and treatment approaches, the slow progress in the development of biocompatible actuator materials is still hindering this industry, preventing a host of new biomedical devices to enter the mainstream market.

BioWings proposes to solve this deadlock through the implementation of a completely new class of smart actuating materials to be integrated in biocompatible MEMS. This family of materials is based on highly defective cerium oxides, which display the following properties:

- 1. They are non-toxic and environmentally friendly, unlike the current lead-based actuators:
- 2. They show exceptionally high and still uncapped electrostrictive response under moderate electric fields, enabling low power consumption devices;
- 3. They are fully compatible with silicon-based technologies and many















other substrates, including metals and polymers.

Such results will be pursued by a multidisciplinary group of academic, industrial and medical partners, who will lay the foundations for a new paradigm in a new biocompatible and environmentally friendly actuator smart materials design and implementation, which will have considerable impact on the scientific, medical and industrial community.

Biowings BiomediCALL 2020: the BioWings University call for ideas

The main purpose of the "BioWings BiomediCALL 2020" contest is to encourage the generation of new product ideas and solutions based on **Smart** materials - such as piezoelectric (PE) and electrostrictive (ES) materials, in the medical domain as well as in other application scenarios.

Such ideas will extend the potential outreach of the BioWings technology and will foster the cooperation between the BioWings Consortium and the research community.

The best three Ideas will have the possibility to:

- Participate and pitch in one of the BioWings events;
- Explore a potential research cooperation in the BioWings project;
- Generate a project idea to be funded through the FET-Launchpad initiative (100 k€ for a Proof of Concept project);
- Generate a project idea for the upcoming Horizon Europe's Pathfinder call, awarding low TRL disruptive technologies with up to 4M€.

The Call is open to researchers, students and PhD from the following Universities:

- Technical University of Denmark (Denmark);
- **Lund University** (Sweden);
- Weizmann Institute of Science (Israel):
- École Polytechnique Fédérale de Lausanne (Switzerland).

Participation

1 - How to apply

Projects can be submitted by January 10th 2020 to December 31st 2020.

You can participate individually (Single-author) or as part of a team. Teams can involve a maximum of 6 participants.















The team will choose a name for the project and will appoint a coordinator (that must be indicated in the registration mail) who will be the only responsible for the communication with the Contest Organisation.

The single researcher or the group must be composed of University students, PhD candidates or researchers from one of the Universities participating to the BioWings project:

- Technical University of Denmark (Denmark);
- Lund University (Sweden);
- Weizmann Institute of Science (Israel);
- École Polytechnique Fédérale de Lausanne (Switzerland).

To register to the Contest and to submit the Idea, the single participant or the Team Coordinator must send the Idea Form (Annex 1 to this document) to the following address:

biowingsproject@gmail.com

The email should contain the reference to the "BioWings BiomediCALL 2020 Application" in the subject line.

2 - How to present the Idea

Single-author Ideas and co-authored Ideas are permitted and eligible.

The definition of single-author is a student that has written the Idea Form independently even though other researchers or contributors may have been involved in the project or subject matter. Researchers and contributors, such as supervisors or tutors who assisted in the preparation of the Idea Form, must be acknowledged.

The presentation/paper must be presented in English, the official language of Horizon 2020.

3 - Evaluation of the Ideas and Selection of the Winners

3.1 - Stage 1

The BioWings Consortium will establish an Internal Commitee to evaluate the submitted Ideas.

The Internal Committee is made by the team members of Day One Srl, the Open Innovation Lab partner of the Consortium, and of the project coordinator















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The Committee in composed of experts in innovation, research and business.

After the deadline for submitting the Ideas, the Internal Committee will first carry out an eligibility check, excluding the Ideas that:

- have been submitted by participants who do not meet the requirements set out in Section 1 of this document;
- show ideas that are not original (already realized, not disruptive) or whose realisation is clearly unfeasible;
- show ideas that are not in line with the objectives of the contest.

3.2 - Stage 2

The Internal Committee will communicate the outcome of Stage 1 evaluation by email to the identified coordinator within 30 days from the submission deadline.

At this stage, the Internal Committee could contact the single-author or the coordinator of an Idea to collect more information for the evaluation process.

The general criteria for the selecting the best Idea are:

- Assessment of the degree of innovation, originality and scalability of the proposed solution or business idea;
- Assessment of the potential market and competitors;
- Assessment of the soundness and defensibility of the intellectual property;
- Assessment of possible industrial or economic partnerships.

Selection, communication and award of the best Idea

The three winning Ideas will be selected and communicated within 60 days from the deadline for submitting the Ideas.

The winning teams will be informed via email and the results will be published on the BioWings website (www.biowings.eu).

The winning Teams will be invited (at the expenses of the BioWings Consortium) to present the Idea at the first project meeting.

If the BioWings Consortium evaluates the Idea positively, the winning Teams and the Consortium will discuss possible collaboration scenarios to further develop the project, and generate project ideas to be supported by national or European funding.















Intellectual property

APPLICANTS ARE STRONGLY ADVISED NOT TO SUBMIT CONFIDENTIAL INFORMATION.

Upon submission, the interested parties must authorize the BioWings Consortium and Day One Srl to process their personal data for the purposes that will be outlined in the dedicated privacy policy in accordance with the Regulation (EU) 2016/679 and repealing Directive 95/46/EC (General Data Protection Regulation).

All parties involved guarantee the confidentiality of the information received during the execution of the contest.

In case of claims from third parties about the originality of the Ideas proposed by the applicants, the BioWings Consortium assumes no responsibility for any errors or omissions in the provided paper/documents.

Discharge of Responsibility

The promoters of this initiative, BioWings Consortium and Day One Srl, do not assume any responsibility for technical, hardware or software malfunctions, network connection interruptions, user registration and application submission attempts that have failed and/or are incorrect, inaccurate, incomplete, illegible, damaged, lost, delayed, incorrectly addressed or intercepted, or any other issues regarding user registration and application submission that, for whatever reason, have not been received, including the delayed reception of electronic or other communications or any other technical problems related to registration/ application submission and content uploads within the scope of this initiative.

The promoters of this notice also decline all responsibility for the information provided and submitted by the start-ups and/or teams in and for the application form. Participation in the programs does not legitimize a start-up or a team to advertise themselves as partners of any of the promoters of the event nor does it allow them to advertise their own technology or activities using the names of the promoters.













