Re-UNITA project

Research for UNITA

Deliverable nº 5.4

Report on the Seeding Proof of Concept Programme

Author: UNIZAR

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Abstract

This document is the WP5 reporting document for the calls of Seeding Proof of Concept held in 2023 and 2024.

Re-UNITA project aims at promoting the innovation in research in all its dimensions, providing a common framework of actions in our six universities.

Aside the common strategies and roadmap designed to design our R&I activities in our Alliance, piloting programs dedicated to Innovation in research have been implemented.

They tackle three main objectives:

- Promoting the innovation in research, and innovative research projects, and the possibility to exploit research results from our universities in private markets.

- Promoting the research activities of our researchers.

- Enhancing cooperation between our universities and especially in research innovative projects.

The **RE-UNITA PROOF OF CONCEPT PROGRAM** intends to share policies and practices related to research and innovation. In that sense, through a Proof of Concept (PoC) what is intended is to demonstrate or show a prototype of a concept, idea or technology in order to validate the feasibility and potential success of a project. Through the PoC project, a (typically) small-scale project aims to prove the viability of the subsequent idea or technology, and through that, gather feedback from stakeholders.

As of that, the RE-UNITA PROOF OF CONCEPT PROGRAM provided seed funding for a small proof of concept project among those presented by teams comprised of at least two UNITA partners. The objective of this call is to empower R&I based entrepreneurship in the UNITA community and to contribute to the cooperation between members of the different Universities of RE-UNITA project.

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Introduction

As planned in the initial project, two editions of the Seeding proof of concept program have been organized in the Re-UNITA project.

This programme was organized commonly by the 6 partners, aiming at promoting the innovation in research and collaborations within our institutions.

In total, 14 valid applications have been received, involving more than 35 researchers. For each edition, one winning project has been selected, receiving 3500€ to support the project's activities.

In this document, we precise the procedure followed, involving rules, evaluation and selection processes.

1. RE-UNITA SEEDING PROOF OF CONCEPT PROGRAM 2023

At the beginning of March 2023, we launched the FIRST CALL OF THE SEEDING PROOF OF CONCEPT PROGRAM in every University at the same time.

Figure 1 - Promotion of the 1st edition - UNIZAR website

Figure 3 - First edition - Flyer

The **RE-UNITA PROOF OF CONCEPT PROGRAM** intends to share policies and practices related to research and innovation. In that sense, through a Proof of Concept (PoC) what is intended is to demonstrate or show a prototype of a concept, idea or technology in order to validate the feasibility and potential success of a project. Through the PoC project, a (typically) small-scale project aims to prove the viability of the subsequent idea or technology, and through that, gather feedback from stakeholders. As of that, the RE-UNITA PROOF OF CONCEPT PROGRAM will provide seed funding for a small proof of concept project among those presented by teams comprised of at least two UNITA partners. The objective of this call is to empower R&I based entrepreneurship in the UNITA community and to contribute to the co-operation between members of the different Universities of RE-UNITA project.

To gather more information related to the RE-UNITA PROOF OF CONCEPT PROGRAM, please visit https://www.ubi.pt/Sites/unita/en/Pagina/unita_calls

1.1 Rules

These are the rules for applying to the RE-UNITA PROOF OF CONCEPT PROGRAM:

1 - Every team has to be composed by participants at least from 2 different Universities in the Alliance.

2 - Applications should consist in a 8-pages maximum report describing a Proof of Concept project.

3 - The team of the selected project will receive a budget of 3500 € to start its development.

4 - The call will close in **26th May 2023, 12h CET.**

5 - To apply for this call, please send the Application Report (available by accessing the link), to the address info.reunita@unizar.es and idominguez@unizar.es

The criteria for the evaluation of the different applications included:

1. Relevance of the problem to be solved (20%). From 0 (not at all) to 20 (total relevance).

2. Innovative approach of the proposed solution (40%) From 0 (not at all) to 40 (total innovative approach).

3. Project planning and budget use (20%) From 0 (not at all) to 20 (perfect project planning and budget use).

4. Impact of the solution in our society (20%).From 0 (not at all) to 20 (total relevance of the impact in society).

The jury for the evaluation was composed for 12 members: 6 external experts from the External Scientific Board and 6 representatives from the Universities involved.

1.2 Applications

In the first call, we received 5 valid applications:

A. New strategy to prevent the progression of neurdegeneration occurring in Amyotrophic Lateral Sclerosis (UBI-UNITO).

B. Teraherts Imaging of shales (UPPA-USMB).

C. Innovative tools to monitor sheep welfare during transport (UNIZAR-UNITO).

D. Convective Dissolution for CO_2 Storage (UPPA-UNITO).

E. Quality assessment of road and airport pavements usitn artificial intelligence (UBI-UPPA).

1.3 Evaluation

As a result of the evaluation, the result is the following:

1. New strategy to prevent the progression of neurdegeneration occurring in Amyotrophic Lateral Sclerosis- 154 points

2. Quality assessment of road and airport pavements usitn artificial intelligence- 137 points

3. Convective Dissolution for CO_2 Storage- 130 points

4. Teraherts Imaging of shale- 126 points

5. Innovative tools to monitor sheep welfare during transport- 118 points

The **winning** proposal is the project **"New strategy to prevent the progression of neurdegeneration occurring in Amyotrophic Lateral Sclerosis"**

CORRESPONDING RESEARCHER: **Ana Clara Braz Cristóvão**

UNIVERSITIES INVOLVED:

- Universidade da Beira Interior (UBI), Covilhã, Portugal

- Università degli studi di Torino (UniTo), Torino, Itália

- UBI Spinoff: NeuroSoV/Fastprinciple, LDA, Covilhã, Portugal

The public announcement of the winner took place during the 2023 SpinOff Forum held online on 22 June 2023.

2. RE-UNITA SEEDING PROOF OF CONCEPT PROGRAM 2024

At the end of March 2024, we launched the SECOND CALL OF THE SEEDING PROOF OF CONCEPT PROGRAM in every University at the same time.
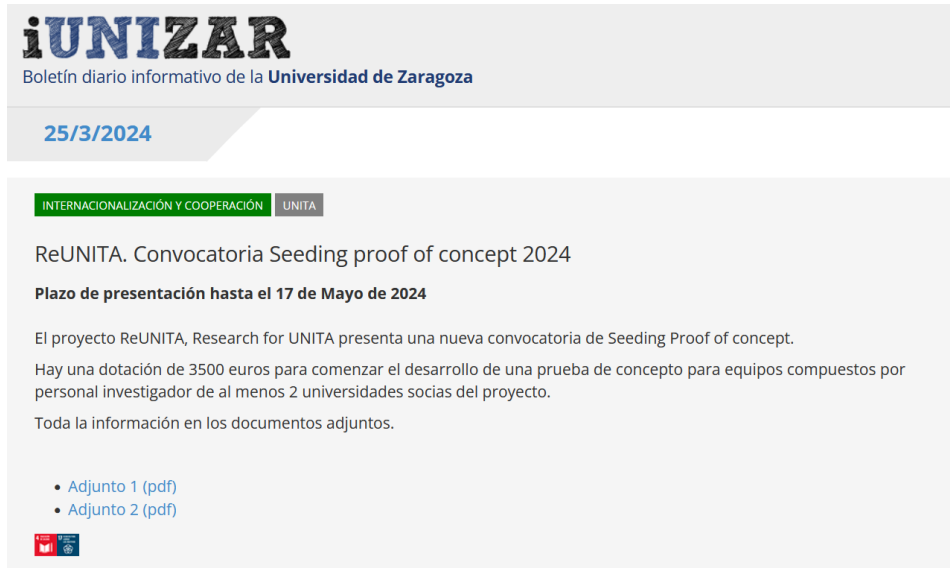

Figure 4 - Second edition promotion on UNIZAR Website

Figure 5 - Second edition flyer

2.1 Rules

This second call was governed by the same rules and maintained the criteria for the evaluation.

Related to the applications, the criteria were similar in the two calls:

1. Applications will consist on an 8-pages maximum report describing a Proof of Concept project; this report will follow the next guidelines:

   a) The report will have to introduce the project by describing the context, the problem to solve and the opportunities it may raise in the market, other solutions available if they exist and R&I results that support the Proof of Concept project (up to 2 pages).
   b) The report will also have to describe how the project is going to be developed, including a roadmap of proposed activities, a presentation of the team and its ability to perform these activities, and the innovative approach to the solution of the problem. A brief explanation of how the budget will be spent connected to a timetable of activities should also be included (up to 4 pages).
   c) The impact of the project has to be clearly addressed. Its innovation potential, which may include aspects such as IP policy, technology transfer, startup creation, etc. has to be openly defined (up to 2 pages).
   d) There will be a corresponding researcher from the team that will be the contact person for all the communications related to this call.
   e) A template of the report will be available for the participating teams as an annex to this document.

1. The team of the selected project will receive a budget of 3500 € to start its development. The team will cooperate with the UNITA project for informational and awareness-raising purposes, as well as for the defence of the project's objectives, always citing the name of the author, initiative and project.

2. The selected project will be disseminated through the communication channels of the UNITA constellation. The presented but not selected projects will be also disseminated in the community through the Re-UNITA newsletter/webpage.

The second call closed **in 17th May 2024, 12h CET**

2.2 Applications

For the second Seeding Proof of concept call, we received 9 applications:
  A. Innovative tools to monitor sheep welfare during transport (UNIZAR- UNITO).
  B. Language, Emotion and Mediation (UNIZAR, UNITO, UBI).
  C. MECAI Smart Energy Solutions: Monitoring Energy Consumption with AI (BRASOV, UVT).
  D. Methanol synthesis: new catalysts and reactors (UNIZAR, UNIBS, UBI).
  E. Resveratrol extraction with supercritical CO_2 for cosmetic application (GUARDA, UBI, UNITO).
  F. Self and Place. For an onto-anthropological foundation of environmental ethics (UNIZAR, UNITO, UBI).
  G. SmartPack: Revolutionizing Food Packaging with Intelligent Materials (UBI, UNITO, CASTELO BRANCO)
  H. Terahertz imaging of organic matter in shales (UPPA, USMB).
  I. Validation of a battery of normalising microRNAs in canine serum (UNIZAR, UNITO, UBI).

A Commission formed by the six members of the Re-UNITA external scientific board (ESB) and by one member of each University from the task force of the WP5 of project RE-UNITA, as listed in the UNITA Datacloud at the closing time of the call, judged the different applications.

2.3 Evaluation

The result of the evaluation of the nine proposals is the following ranking:

1. Validation of a battery of normalising microRNAs in canine serum-587 points.

2. Methanol synthesis: new catalysts and reactors-581 points.

3. SmartPack: Revolutionizing Food Packaging with Intelligent Materials-523 points.

4. Resveratrol extraction with supercritical CO_2 for cosmetic application-507 points.

5. Terahertz imaging of organic matter in shales-495 points.

6. MECAI Smart Energy Solutions: Monitoring Energy Consumption with AI-469 points.

7. Innovative tools to monitor sheep welfare during transport-468 points.

8. Self and Place. For an onto-anthropological foundation of environmental ethics-440 points.

9. Language, Emotion and Mediation-404 points.

The **winner** proposal is the project **" Validation of a battery of normalising mi-croRNAs in canine Serum"**

CORRESPONDING RESEARCHER: Inmaculada Martín Burriel

UNIVERSITIES INVOLVED:

- University of Zaragoza

- University of Torino

The public announcement of the winner took place during the 2024 SpinOff Forum held online on 6 June 2024.

Conclusion

All the activities and projects presented during the two editions of the Proof of concept are a demonstration of the tremendous potential offered by the UNITA Alliance.

In a wide range of scientific fields, collaborations between researchers from our universities have been initiated, and are well underway.

Their work, expertise and results are demonstrating advances that are likely to be exploited on public and private markets, with numerous local, national and European partners.

The ambition of the Seeding proof of concept, to reveal these value-adding opportunities to our community, has been achieved.

In addition to their participation in these Seeding proof of concept programs, we are keen to promote and enhance the value of the research projects, and in particular the winners. Thus, on social networks, websites and at various events organized during the Re-UNITA project, the winning projects were highlighted and presented, to inspire future research and innovation collaborations within the UNITA Alliance.