The Malta Council for Science & Technology

FUSION The R+I Programme

GOVERNMENT OF MALTA
MINISTRY FOR RESEARCH, INNOVATION AND THE CO-ORDINATION OF POST COVID-19 STRATEGY

FUSION

THE NATIONAL R&I FUNDING PROGRAMME

MALTA COUNCIL FOR SCIENCE AND TECHNOLOGY R&I PROGRAMMES UNIT

Grants Week - 9th July 2021

Ms. Abigail Aquilina - Executive (R&I Programmes)

01

Introduction

INTRODUCTION TO FUSION

- FUSION is a national funding programme that drives and supports local Research and Innovation. It provides the necessary support for researchers and technologists to turn their innovative ideas, into a market-ready reality.
- The FUSION programme has been developed further this year as part of the MCST's drive to support the local research community.

INTRODUCTION TO FUSION

- Since 2014, the FUSION programme has provided over € 12 million in funding for Research and Innovation.
- FUSION incorporates a wide portfolio of funding programmes, which accommodate an extensive technology readiness spectrum, and also range from ones which are non-thematic to others which are more specific and niche, thus raising the level and profile, of R&I in Malta.

RESEARCH EXCELLENCE PROGRAMME

Research Excellence Programme

Bottom-up, Early stage, Basic research

COMMERCIALISATION VOUCHER PROGRAMME

Special Programmes

Address immediate, national needs or market failures

May only run once

Commercialisation Voucher Programme

IP, Commercialisation and Feasibility studies prior to applied research

Pre-requisite to TDP

INFECTIOUS DISEASES PROGRAMME

Technology Development Programme

Applied Research following Feasibility Assessment

Collaborative

(Possibility of a Lighter Programme)

CVP Optional Vouchers

TECHNOLOGY DEVELOPMENT PROGRAMME

02

Research Excellence Programme

INTRODUCTION TO RESEARCH EXCELLENCE PROGRAMME

- A fundamental activity that has not been adequately addressed by funding initiatives till 2019 was early-stage research.
- Thus, the Research Excellence Programme was designed by MCST, and a pilot call was launched during October 2020, in order to improve the quality of research on the Maltese Islands.

INTRODUCTION TO RESEARCH EXCELLENCE PROGRAMME

- The primary aim of the Research Excellence Programme is to spur the growth of new knowledge through experimental evidence following scientific hypotheses.
- It does this by funding novel, early-stage research which boasts a high degree of scientific excellence, through a bottom-up, non-thematic approach.
- The programme is intended to support projects of national and international relevance, with the possibility of commercial applications, which could add to the Maltese economy.

INTRODUCTION TO RESEARCH EXCELLENCE PROGRAMME

- For projects with commercial applicability, the Research Excellence Programme targets research, development and innovation, at the initial Technology Readiness Levels, between TRL 1 and TRL 4.

TRL 1	**Basic principles observed and reported**
TRL 2	**Technology concept and/ or application formulated**
TRL 3	**Analytical and experimental critical function and/ or characteristic proof-of-concept**
TRL 4	**Scientific & process validation in laboratory environment**

AIMS OF THE RESEARCH EXCELLENCE PROGRAMME

01 **To build capacity in new, multidisciplinary areas**

02 **To generate new knowledge and build capacity for future areas**

03 **To fund early-stage, impactful research and which could ultimately lead to new avenues for economic growth**

04 **To strengthen and contribute existing collaborations**

PROGRAMME DESIGN AND PARAMETERS

- Only **sole applicants** are eligible to apply under the Research Excellence Programme, and thus there should only be **one beneficiary** as an applicant.
- Applicants need to be established/ incorporated by the date of application submission.
- **Entities eligible** to apply are:
  - Maltese Public Entities
  - Maltese Public Research and knowledge dissemination organisations
  - Higher Education Institutes
  - Maltese Industrial Entities
  - Professional Bodies, NGOs and Non-profit making entities

PROGRAMME DESIGN AND PARAMETERS

- With respect to financing, eligible entities should opt for either of the below options:
  - Option A: The state aid *de minimis* regulation applies, and projects are financed at 90% of the eligible costs
  - Option B: State aid is not applicable, and projects are 100% financed
- Pre-financing of awarded projects is provided at 75%, with a 25% retention.

PROGRAMME DESIGN AND PARAMETERS

- Projects must have a **duration of 12 months**.
- The maximum possible grant is that of **€ 50,000** inclusive of indirect costs. **All eligible costs are supported by a 10% indirect cost.**
- The Research Excellence Programme is launched as a **single call per year**, **during the first quarter**.

PROGRAMME DESIGN AND PARAMETERS

- Projects are evaluated on the basis of the below criteria:
  - **Scientific Excellence (50%):** Is the research innovative and ambitious in the contexts of its field? Are the aims and objectives of the project clear and within the scope of the programme?
  - **Impact (25%):** To what degree will the research impact the research community, industry or society at large? Will the research result in interdisciplinary advancement?
  - **Implementation (25%):** Does the proposed workplan meet the aims and objectives of the project, as is it feasible?

CALL STATISTICS

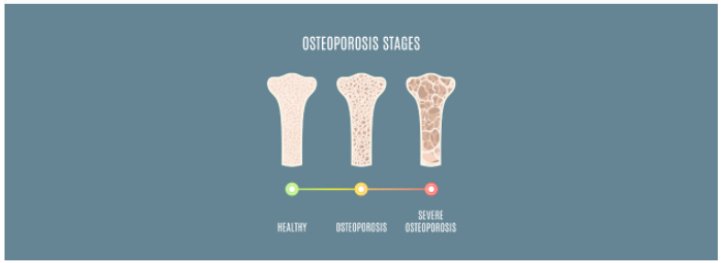
	CALL 2020	CALL 2021
Number of Applications	35	37
Number of Awarded Projects	7	11
Amount of Funding	€ 337,876	€ 540,037
REP Funded Projects	6 Projects from the University of Malta 1 Project from MCAST	7 Projects from the University of Malta 4 Projects from Other Entities

GeOM: Unravelling the Genetic determinants of Familial Osteoporosis in Malta

Newspoint > News > 2021 > April > GeOM: Unravelling the Genetic determinants of Familial Osteoporosis in Malta

In Research 13:20, 07 Apr 2021

Share:



Researchers from the University of Malta will be investigating the underlying genetic factors contributing to osteoporosis in several affected Maltese families. The study will be made possible thanks to the Research Excellence Programme (2020), a €50,000 grant awarded by the Malta Council for Science and Technology (MCST).

The team, led by Dr Melissa Marie Formosa from the Department of Applied Biomedical Science at the Faculty of Health Scie

Ms Chanelle Cilia (PhD st

EDGE: Assembling the Genomes of Two Endemic Plant Species

Newspoint > News > Features > 2021 > February > EDGE: Assembling the Genomes of Two Endemic Plant Species

In Projects 08:12, 11 Feb 2021

Share:

Limonium melitense at Dwejra, Gozo (Photo credit: Maria Galea)

An interdisciplinary research team from the University of Malta, is amongst the awardees of The Research Excellence Programme of the MCST with the project "Endemic *De novo* GEnomes" (EDGE).

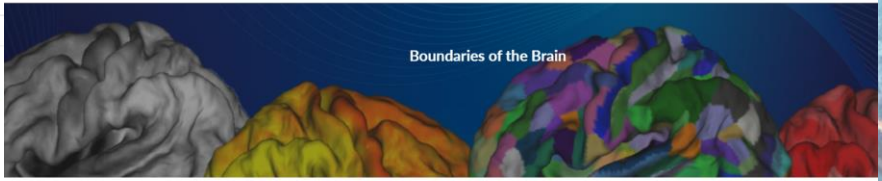
The team is headed by Dr Jean-Paul Ebejer from the Centre of Molecular Medicine and

um.edu.mt/projects/bob

Current students - Staff - Sign In

L-Università ta' Malta

STUDY - ABOUT - RESEARCH - ACADEMIC ENTITIES - SERVICES -



BOB

The Boundaries of the Brain (BOB) Project fundamentally asks two simple questions:

1. Are the boundaries of the brain sharp or smooth?
2. Can answering this question give new clues for diagnosing brain disorders?

This project has been awarded as a result of the Malta Council for Science & Technology (MCST) Research Excellence Programme 2020 Call

UM | NEWSPOINT

News Events Notices COVID-19 About Get Published!

"Our work on epilepsy is never really complete... always more to figure out"

Newspoint > News > 2021 > February > "Our work on epilepsy is never really complete... there's always more to figure out"

In Community 11:17, 11 Feb 2021

Share: 3

On 8 February, 2021, we celebrated International Epilepsy Day, to raise awareness on a condition that affects 60 million individuals across the globe. The success of this campaign on a yearly basis is a small victory for all those who dedicate their lives to promoting this cause.

But these small victories should not deter us from the fact that more research is desperately needed to understand more about the condition; they should act as a boost to keep going.

"Our work on epilepsy is never really complete ... there's always more to figure out", says Prof. Giuseppe Di Giovanni, Professor at the Department of Physiology & Biochemistry within the Faculty of Medicine & Surgery.

RESEARCH EXCELLENCE PROGRAMME

03

Technology Development Programme

INTRODUCTION TO TECHNOLOGY DEVELOPMENT PROGRAMME

- The Technology Development Programme provides financial support for research, development and innovation within the **SMART Specialisation Areas** identified in Malta's National Research and Innovation Strategy 2020.
- Priority areas are set though the selection process of the **precursor Commercialisation Voucher Programme.**

INTRODUCTION TO TECHNOLOGY DEVELOPMENT PROGRAMME

- The Technology Development Programme is a research and development funding programme, as it targets research at the Technology Readiness Levels between **TRL 4 and TRL 7**, where the technology developed is **commercialised**.

TRL 4	**Scientific & process validation in laboratory environment**
TRL 5	**Scientific & process validation in relevant environment**
TRL 6	**Technology demonstrated in relevant environment**
TRL 7	**System prototype demonstration in an operational environment**

AIMS OF THE TECHNOLOGY DEVELOPMENT PROGRAMME

01 **To fund applied, innovative research and ensure knowledge transfer**

02 **To build on the successful outcomes of the CVP**

03 **To commercialise developed technologies which have market potential**

04 **To establish collaborations between public entities and industrial entities**

PROGRAMME DESIGN AND PARAMETERS

- Applicant must be a **consortium**, which is composed of at least one Maltese Public Entity and one Maltese Industrial Entity.
- No single entity can have more than 75% of the allocated grant value.
- A pre-financed grant of up to **€ 295K** can be requested in order to fund R&I costs such as personnel, equipment, consumables etc.
- The project can have a duration of between **1 to 3 years**.
- There are a **further € 5,000** for the organisation of a half-day event.

PROGRAMME DESIGN AND PARAMETERS

- With respect to financing, eligible entities should opt for **either of the below options**, depending on their legal status and activities:
  - **Option A (GBER):** Co-financing rate depends on the entity size, effective collaboration and research activity; certain costs are not eligible (Travel, Dissemination and Equipment).
  - **Option A (*de minimis*):** Co-financing rate of 75% of eligible costs.
  - **Option B:** Co-financing rate of 100% of eligible costs.

PROGRAMME DESIGN AND PARAMETERS

- The Technology Development Programme is launched as a **single call per year**, **during the first quarter**.
- Projects are evaluated on the basis of the below criteria:
  - **Effectiveness of consortium and resources (30%)**
  - **Coherence and effectiveness of proposal implementation (30%)**
  - **Exploitation of results and dissemination (20%)**
  - **Commercialisation and further development (20%)**

TDP SUCCESS STORIES

- Since 2015, **over 50 beneficiaries** have benefitted of the FUSION R&I: Technology Development Programme.

fihi FOOD INSPECTION USING HYPERSPECTRAL IMAGING

Memento

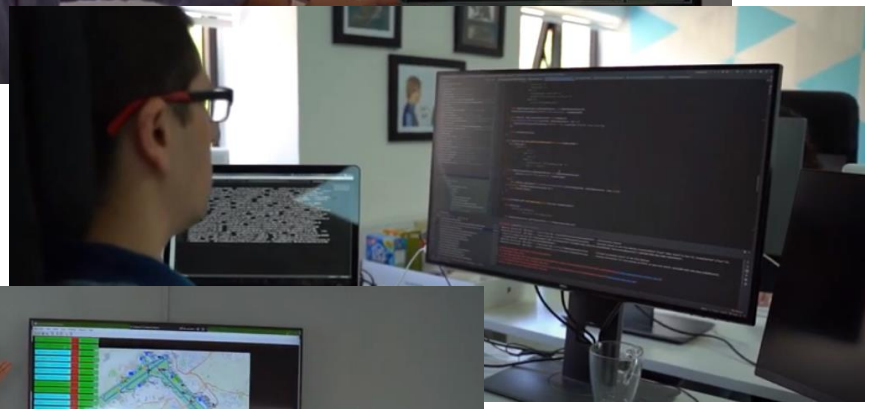
DATADEAR

- This technology was developed by DataDear Consortium, represented by Scope Solutions and the University of Malta.
- It is a project which received **€ 161,000** in funds through FUSION.
- DataDear project serves as a cloud-based solution for finance and business professionals.
- Its objective was to create a series of innovative tools which help SMEs transition their business to the cloud, without having to reinvent all internal processes and reports, whilst retaining the ability to push data in the cloud from familiar software i.e., existing spreadsheets.

SATMET

- This technology was developed by SATMET Consortium, represented by the University of Malta (led by the Institute of Aerospace Technologies) in collaboration with HandsOn Systems and Malta Air Traffic Services.
- It is a project which received **€ 194,000** in funds through FUSION.
- SATMET project developed an innovative solution for engineless taxiing based on the use of self-driving electric tow trucks to tow aircraft between the gate and the runway, hence reducing emissions, noise and maintenance costs.

SATMET



Thank you for your attendance and interest.

For further information, and to schedule one-to-one meetings kindly contact us.

https://mcst.gov.mt/ri-programmes/fusion/

Ms. Abigail Aquilina: abigail.aquilina@gov.mt