

It Takes Many to Tango: What Does It Take to Turn Science into Change?

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*A prosperous country is a country that strongly invests in research and innovation. In Malta, **Xjenza Malta** is the governmental agency responsible for ensuring that local and international research and innovation funds are appropriately allocated to support the country's development. **THINK** set out to learn more about the agency, its way of working, and how it helps researchers, institutions, and businesses to invest in research.*

Research and innovation are fundamental for a country's 'competitiveness, prosperity, and societal resilience' (European Commission, Directorate-General for Research and Innovation, 2024). Strategic plans enable governments and funding bodies to prioritise fields of research and align national or organisational priorities towards a common goal. Through these plans, research and innovation (R&I) funding programmes are created to channel resources towards the agents that need it. It is through these mechanisms that research labs, universities, institutes, and companies can fund their work and respond to society's questions and needs.

According to the European Innovation Scoreboard, which compares the R&I performance of European countries, Malta is considered a 'moderate innovator', ranking 21st out of 39 (in 2024). Malta's direct and indirect government support of R&I at the business level and R&I expenditure in the public sector are listed as relatively weak, indicating a need for further investment and regulation.

THE MALTESE CASE

Locally, Xjenza Malta (formerly known as MCST, the Malta Council for Science and Technology) serves as the government agency coordinating the country's efforts towards scientific research, technological innovation,

and science communication. Working in collaboration with national and international entities, the agency manages the public money invested in R&I and space research and technology. These funds are directed towards thematic research programmes that align with the agency's and the European Commission's values, including the promotion of gender equality and research security. The latter ensures that the knowledge developed at the national level is safeguarded and that potential threats to economic and national security are mitigated.

To achieve these ambitious goals, Xjenza Malta operates through several specialised units:

- Policy and Strategy Unit – Acts



as a liaison within Malta's R&I ecosystem, fostering connections between the Maltese government, national stakeholders, including research entities, and European bodies. It facilitates access to European funding for research and plays a leading role in the design, coordination and implementation of the National R&I Strategic Plan.

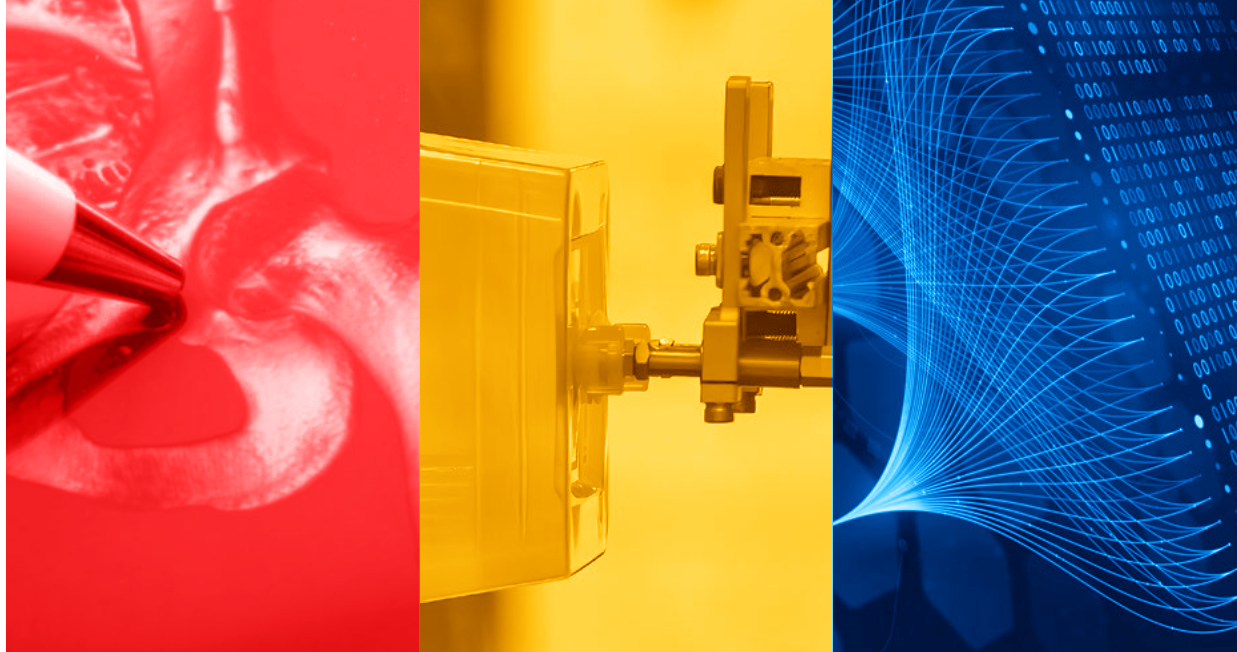
- R&I Unit – Manages the national funding streams which are designed to support the implementation of both the National R&I Strategic Plan and the National R&I Smart Specialisation Strategy. The funding streams include: FUSION, which supports local R&I to develop market-ready solutions; Thematic Programmes,

which target specific market needs; and the Research Networking Scheme, which facilitates international collaborations and supports researchers in publishing their results.

- Internationalisation Unit – Develops, launches, and manages transnational R&I funding initiatives to strengthen international collaboration, including bilateral and multilateral funding schemes such as the SINO-Malta Fund, and Horizon Europe co-funded partnerships. The Unit also offers networking and capacity-building support to help local researchers establish a stronger presence in the global research community.
- Framework Programme Unit

– Hosts the National Contact Points (NCPs) and Programme Committee delegates for the EU Framework Programmes for Research and Innovation, thereby supporting Malta's participation in these initiatives.

In 2023, Xjenza Malta, together with the Ministry for Education, Sport, Youth, Research and Innovation, adopted Malta's National Research and Innovation Strategic Plan for 2023-2027. According to Xjenza, this strategy 'lays the foundations for a revitalised and well-governed national R&I system built on short- and medium-term measures, and a long-term vision'. In parallel, Xjenza is also expanding its work in space research. To support the growing space sector locally, and back ➤



the Malta National Space Strategy, the agency is drafting new legislation, fostering international collaboration, and supporting R&I in the field.

MALTA'S UNIQUE OPPORTUNITIES

Malta's population boom, the increasing reliance on private means of transport, and the focus on the green transition are the current local challenges. According to Xjenza Malta, these imminent shifts in our society's fabric brought on by these changes are key opportunities for local R&I. Science-driven decisions, new technologies, and citizen participation can enable a better future if R&I is 'mainstreamed' and embedded into public and private culture, promoting science literacy and new funding programmes.

The University of Malta is no stranger to Xjenza Malta and its R&I supporting initiatives. For years, the agency has provided numerous funding opportunities, often resulting in exciting, one-of-a-kind projects.

One notable example highlighted by the Xjenza team is MaltaHip. Between 2016 and 2020, this project (featured in **THINK, Issue 47**), spearheaded by Prof. Pierre Schembri-Wismayer, received €200,000 from the Xjenza Malta FUSION Programme to develop

a total hip joint replacement, featuring a patented triple-cylinder implant that showed superior durability. Developed by the UM team in collaboration with local industrial partners, the project later evolved into a spinout company, Garland Surgical Ltd., which attracted further investment from Malta Enterprise and additional seed funding. The company is now advancing regulatory approvals and clinical trials, with the potential to significantly improve global hip replacement outcomes.

Another example mentioned by the agency is the DataDear project. The project received €161,000 through the Xjenza Malta FUSION programme to create a FinTech tool that integrates accounting platforms via API, thereby streamlining global financial workflows. Spearheaded by Neville Micallef of Scope Solutions, with the University as partner, the initiative resulted in a widely adopted product used by more than 5,000 professionals worldwide. This example illustrates how Malta's targeted R&I funding can effectively nurture the tech sector by transforming local innovation into scalable international solutions.

The team at Xjenza also discussed the VacuUM (Seal-less Mould Vacuum System) project. Funded by the Xjenza Malta FUSION programme,

the project, led by Prof. Arif Rochman, developed a seal-less vacuum system that enhances efficiency and reduces maintenance in manufacturing. Conducted in collaboration with Toly Products, the project produced a commercially viable solution that reflects the success of industry-academia partnerships in driving innovation with practical applications.

A PATH TOWARDS HORIZON EUROPE FUNDING

Xjenza Malta acts as the contact point between the local government and the European Commission, representing Malta in the EU Framework Programmes for R&I. The European Commission's EU Framework Programmes ensure the development of science and technology and the implementation of R&I policies.

As priorities evolve, so do the topics eligible for funding. The current Framework Programme (2021-2027) is called Horizon Europe and highlights the European Commission's commitment to delivering 'innovative solutions to green, digital, health and innovation challenges' through its funding schemes. The Horizon Europe Support Schemes 'incentivise the local participation and increase the chance of success within the Horizon Europe Programme,' Xjenza

points out. The schemes provide financial assistance for networking and brokerage events, mentoring, and training to improve proposal quality and promote international collaboration.

Malta's participation in Horizon Europe is facilitated through Xjenza Malta's Framework Programme Unit, which guides Maltese researchers, stakeholders, academia, SMEs, and public bodies in accessing these EU funds for R&I. The unit's activities are divided into two specialised functions: acting as the National Contact Point, 'promoting and facilitating the local community's participation in the funding programme', and the Programme Committee, representing the national interests in the drafting process of the Horizon Europe Work Programmes.

'The Framework Programme, currently Horizon Europe, is the whole programme itself, while Work Programmes are the detailed implementation plans of the Framework Programme. They are usually adopted for a period of 2 years,' says Xjenza Malta. 'While these Work Programmes are developed by the European Commission with input from experts and advisory groups, the role of Xjenza's programme committee is to provide feedback and opinions on these before they are published. Work Programmes need to be approved by the Programme Committees.'

The Framework Programme Unit provides guidance throughout all stages of the grant process. During the application stage, it connects local stakeholders to specific Horizon Europe funding calls, organises information sessions for interested parties, helps entities to identify international and local partners for the proposal, and



provides training in the application process. Additionally, it offers advice on proposals and during the projects' implementation, collects feedback to improve the drafting process for each programme and manages national support schemes. National support schemes, funded through Maltese government resources, are designed to enhance Malta's participation in Horizon Europe.

COMMUNICATION IS KEY

It is not enough to research. Communicating new findings and ensuring a scientific culture in a knowledge-based society is essential to creating communities with a thriving environment for innovation and progress. For this reason, Xjenza Malta hosts an annual R&I Expo to showcase concluded projects which they supported. This event raises awareness of ongoing local and transnational research activities and their outcomes, and provides researchers with the opportunity to present their work to the general public.

Through Esplora, a science centre with interactive exhibits located at the historical Villa Bighi in Kalkara, Xjenza Malta ensures that different generations value scientific literacy, curiosity, and lifelong learning,

contributing to a future where R&I are integral in the design of industry, government and civil society.

Esplora also organises science shows and planetarium sessions. The centre is a hands-on environment that invites exploration of science, technology, engineering, arts and mathematics (STEAM), inspires lasting interest in careers in these fields, and complements the national school curriculum. The science centre also provides training and professional development for educators and helps schools to develop learning programmes adapted to different needs.

Through its efforts to develop effective policies, promote science communication, engage with local research, and support local actors to secure funding, it is clear that Xjenza Malta is at the forefront of national R&I support initiatives. **T**

Further Reading

European Commission: Directorate-General for Research and Innovation. (2024). European Innovation Scoreboard 2024. <https://projects.research-and-innovation.ec.europa.eu/en/statistics/performance-indicators/european-innovation-scoreboard/eis-2024#/eis>