



e-shape solutions: Unlocking the potential of Earth Observation data for climate change and urban

24th February 2023

8.30 - 13.15 CET

Kalkara, Malta

Malta Council for Science and Technology

e-shape

An event co-organised by



The Malta Council for
Science & Technology

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ACTING COLLECTIVELY TO
BRIDGE SPACE AND SOCIETY

Space Research Fund

- Launched by MCST in Collaboration with ESA in 2018
- Malta was considered to have a strong ICT Sector
- Fund is based on downstream application
- To date 14 applications out of 29 have been awarded funding



The Fund as a Mechanism

Scope

- To provide financial support for research, development & innovation in Satellite downstream activity
- To tackle societal challenges in Malta
- To allow Maltese entities to be able to apply for more competitive space-related calls within the EU Framework
- To encourage cooperation between public, private and academic institutions
- To establish an active Space Sector in Malta



Scope of the National Space Strategy

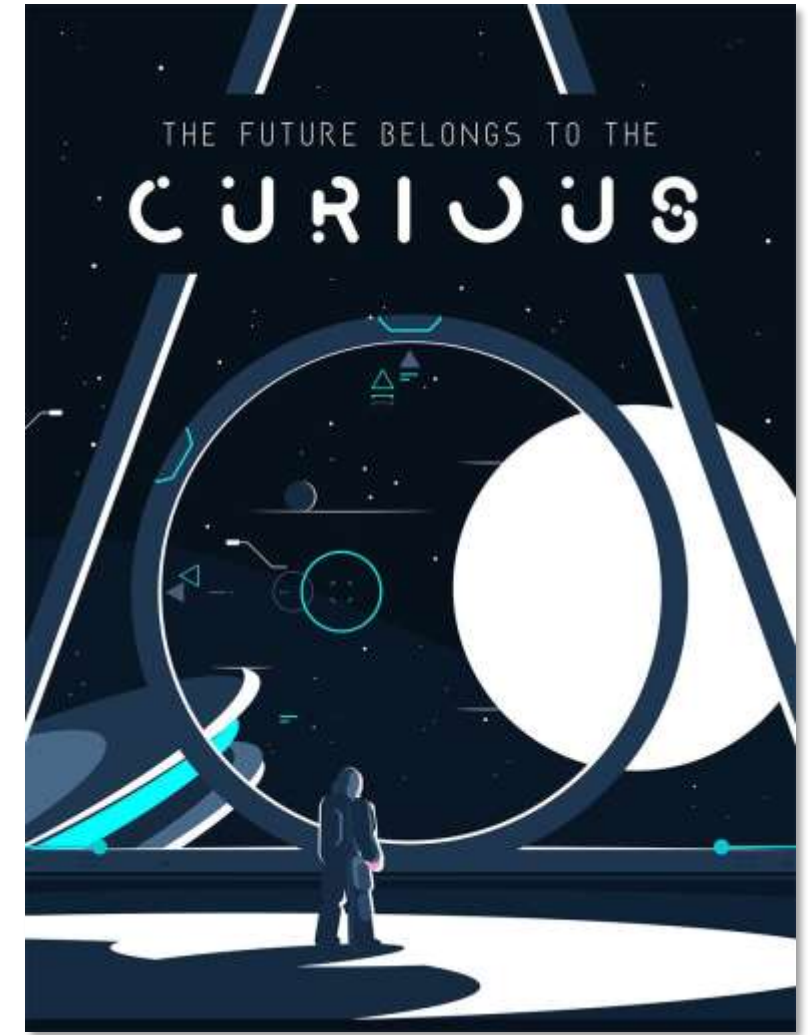
Five Pillars of Malta's Space Strategy

Foreign Direct Investment & Space business attraction	Development of an agile & sustainable space sector & a Malta Space Hub
Space innovation	Development of space upstream & downstream research activities
Development of human capital	Develop talent & relevant skills through education
International regulatory compliance	Establishing a legal framework for registration of space objects, exploration & utilising of resources
Emerging technologies	Development of research & commercial application of emerging technologies



MCST's Space Research Fund

- Financial support for R&D&I in the downstream Earth Observation (EO) sector
- Capacity building measure to jump start the EO sector
- Research Stream 1: Technology Concept Research (TRL 1 to 4)
- Research Stream 2: Applied Technology Development (TRL 5+)
- All Maltese Legal Entities: Private Entity, Public Entity, Public RDI
- Total Funding €150,000: De Minimis or GBER or State Aid Not Applicable
- Project Duration: 20 months across two stages.
- Consortiums: Sole Beneficiary, Public – Private, Public – Public, Private – Private
- Eligible Costs: Personnel (Salaries), Specialized Equipment, Consumables, Subcontracting



Funded Space Research Projects 2019 - 2022

Space Research Applications:

- Culture & Heritage (EO4HBCS)
- Chlorophyll measurements (Water Colours)
- Healthcare (Satellite4Health)
- Coastal Management (SIPOBED, Coastal Sage)
- Marine Biology (MAARES)
- Water Management Agriculture (Warm EO)
- Weather – Scirocco Wind (Aerotox)
- Bee Management – (BEEPOLL)
- Groundwater outflows discharges – (BathMalta)
- Underground Water Detection – (Demuwa)
- Earth Observation Database – (Stream)

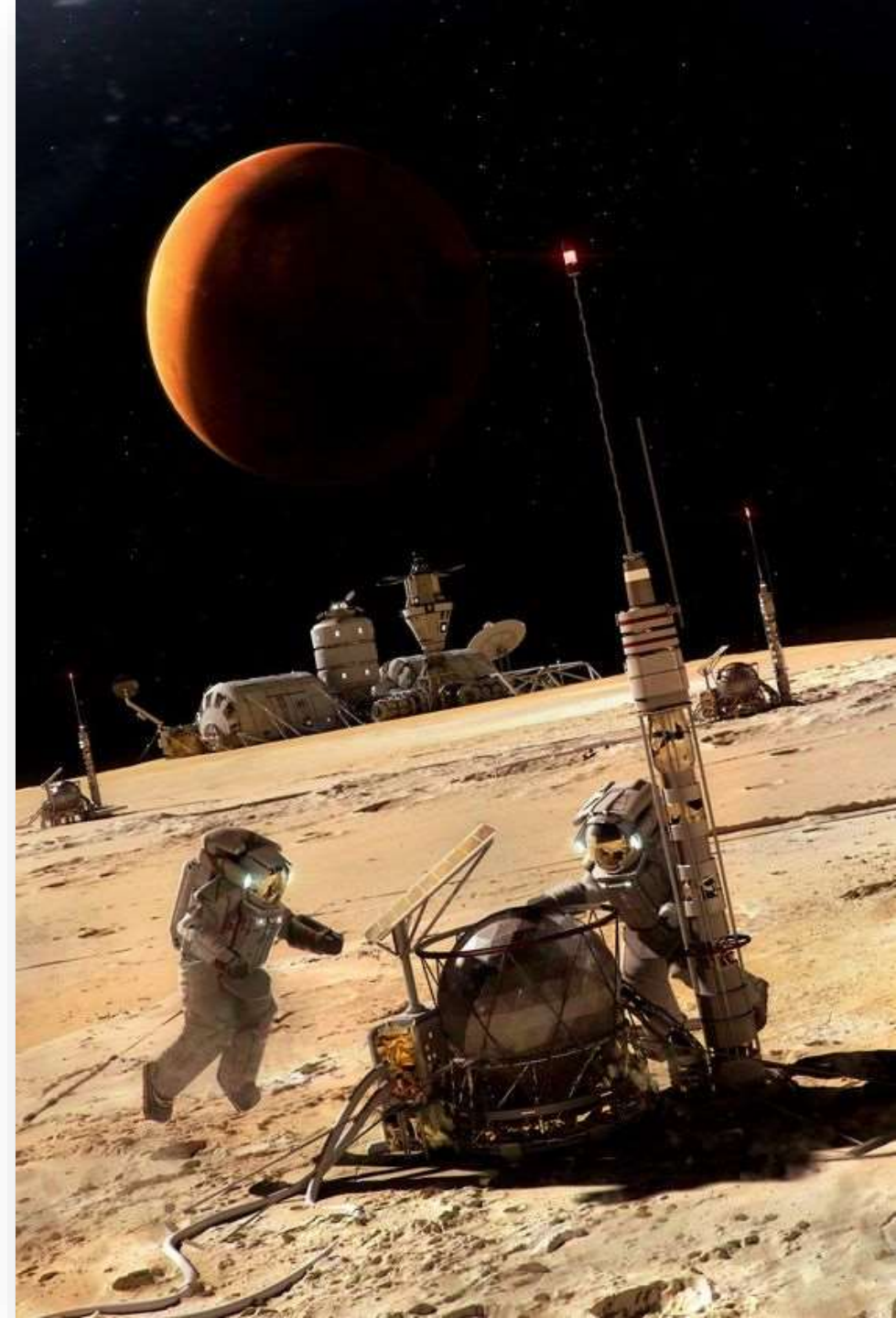


MCST's Space Upstream Thematic Programme 2023

Space Upstream

Manufacturing, Research & Development to assist:

- Transportation of items into space
- Space Exploration
- Developing related ground technology



Research & Development in Space Upstream

- Advanced Manufacturing
- Artificial Intelligence
- Autonomy & Robotics
- Bio Tech
- Blockchain
- Communications
- Computing
- Energy
- Materials
- Nano Tech
- Propulsion
- Quantum Computing and Communication
- Sensors
- Space Architecture & Ergonomic Interior Design
- Health and Nutrition
- Extended Reality (Virtual & Augmented Reality)



Malta's Potential in the Space Upstream

- Satellite Situation Awareness (SSA) Technology
- Bio Tech
- Health & Biological Research
- Pico Satellite Technology Development
- Quantum Communication
- Debris impact assessment tech on Satellites
- Extended Reality (Virtual & Augmented Reality)
- Armour from debris impact & payload ice cube technology
- 3D Printing
- Space Architecture
- Decompression in Space
- Materials
- Agriculture & Food Processing
- Electronic Engineering
- Artificial Intelligence
- Micro & Nano Tech



Space Upstream Fund

- Launch during the Second Quarter of the Year
- Funding of €100,000 per project: De Minimis or GBER or State Aid Not Applicable
- Public research institutions, Public Sector & Private Sector
- Consortiums: Sole Beneficiary, Public – Private, Public – Public, Private – Private
- Eligible Costs: Personnel (Salaries), Specialised Equipment, Consumables, Subcontracting
- Research Stream 1: Technology Concept Research (TRL 1 to 4)
- Research Stream 2: Applied Technology Development (TRL 5+)



Launch Dates

Space Research Fund (Earth Observation)

Launch March 2023

Thematic Programme Space Upstream Fund

Launch June 2023

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Thank you!



www.e-shape.eu