

MELiSSA



MICRO-ECOLOGICAL
LIFE SUPPORT SYSTEM
ALTERNATIVE

Opportunities for MELiSSA-derived downstream services within ESA's Space Solutions

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2022 MELiSSA Conference
TOULOUSE – 10NOV2022



WHO / WHAT WE ARE

- A **BUSINESS-oriented** initiative, with a number of (fast-track) funding tools, transversal across ESA, originated in 2007
- Hosted under TIA directorate but not necessarily requiring SATCOM
- An optional Programme (i.e, ND approval required)
- A team focused and coaching you on activities creating **IMPACT**



WHO / WHAT WE ARE NOT

- A place to do fundamental Research and pure R&D
- A bank: we fund projects based on contracts
We do not offer grants
- A babysitter: we will not find the idea & write the proposal for you 😊

SOCIO-ECONOMIC IMPACT

Deliver **social value** and **economic sustainability**



SPACE USE

Expand the utilization of space in **new markets** and **user communities**



INDUSTRY COMPETITIVENESS

Strengthen European Industry competitiveness on global space and non-space markets



ESA SPACE SOLUTIONS

The largest space innovation network in the world

The go-to place for great business involving space to improve everyday life.





Supporting European start-ups and SMEs to develop businesses using space technology and data.

Offering funding, business and technical support to help to generate successful business and create jobs.



Space tech, users & markets

Space Technology...

-  Earth Observation
-  Satellite Navigation
-  Satellite Communication
-  Spaceflight Technologies
-  Space Weather

... coupled with...

- Big Data analytics
- VR/AR
- Artificial Intelligence
- Mega-constellations
- Crowdsourcing
- IoT
- Cybersecurity
- Blockchain
- 5G (<https://artes.esa.int/esa-5g6g-hub>)

... to serve Users & Market

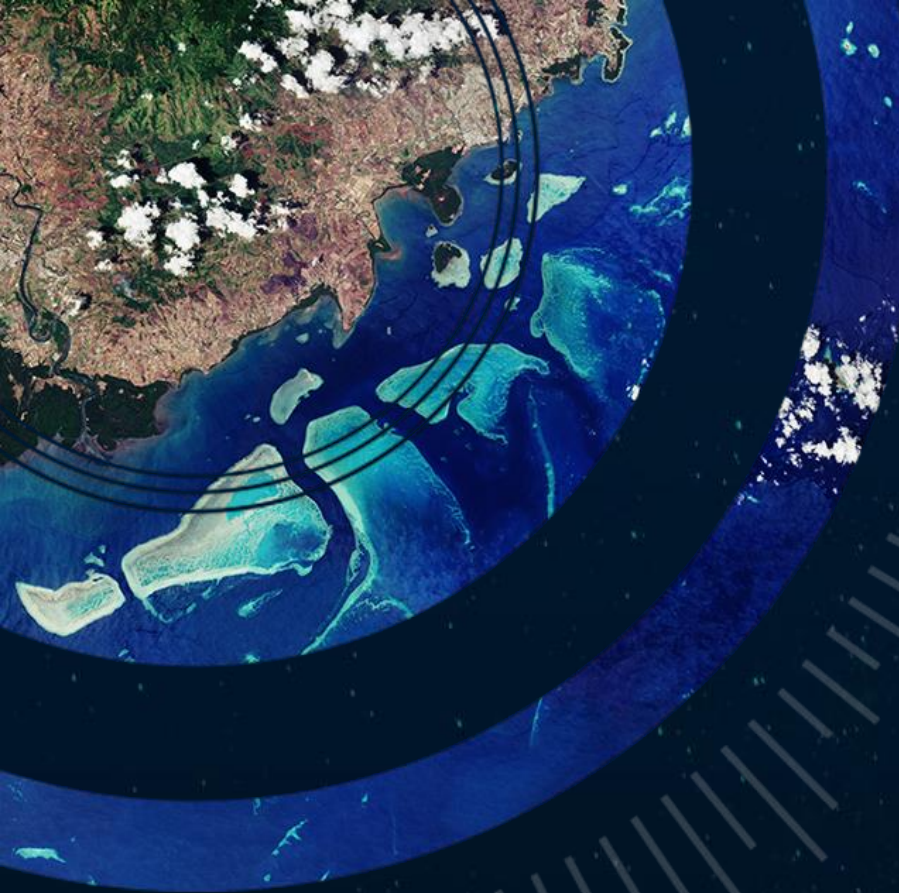
-  Maritime
-  Agriculture
-  Environment
-  Healthcare
-  Financial
-  Transport
-  Education
-  Media
-  Energy
-  Aviation

Relevance for MELiSSA (and ESA)

- Golden opportunity to valorise & promote outcomes of your work
- Trendy hot topics (Air / Water / Food / Wastes / Environment)
- Green is at the heart of ESA's Agenda 2025
- Closing the loop will contribute to sustain MELiSSA (ESA/NDs)

CREATING
A CIRCULAR
FUTURE





MARITIME



SPACE WEATHER



HEALTHCARE



TRANSPORT



EARTH OBSERVATION



ENVIRONMENT



AGRICULTURE



SATELLITE NAVIGATION



MEDIA



ENERGY



SATELLITE COMMUNICATION



EDUCATION



AVIATION



HUMAN SPACEFLIGHT TECHNOLOGIES



FINANCIAL

ESA SPACE SOLUTIONS OFFERS



Zero-equity funding (from €50k to €2M+ per activity)



A personalised ESA consultant



Technical support and commercial guidance



Tailored project management support



Access to our international network of ESA and partners



Access to our network of investors



Credibility of the ESA brand

FROM CUSTOMER DEMAND TO OPERATIONAL BUSINESSES ON EARTH





Funding schemes BASS – How to Apply

Entry point

Type of activity

Total cost/price of activity & funding

Direct
Negotiation

Feasibility studies

Max 500k Eur, 50-80% funded by ESA
(can be 100% for research contributions)

Demonstration projects

No max amount, 50-80% funded by ESA
(depending of wishes of the delegation)

Feasibility studies

Max 200k Eur, 50-100% funded by ESA

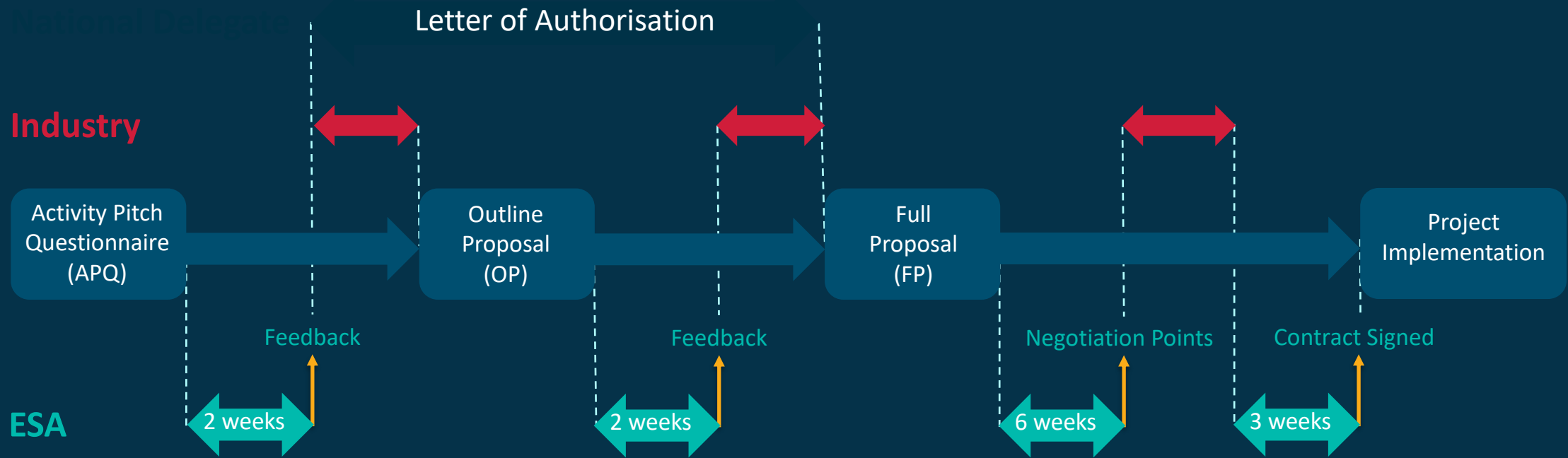
Invitation to Tender
(Open competition)

Kick-Starts

60k price for ESA, 75-80% funded by ESA



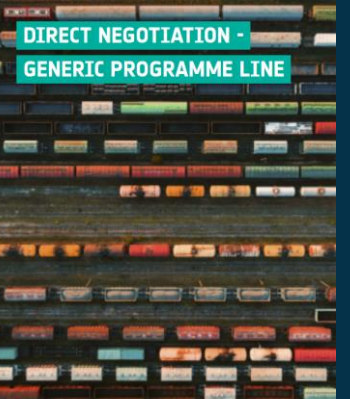
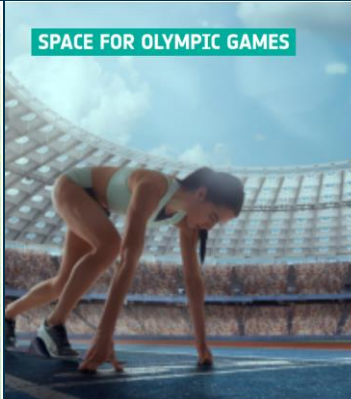
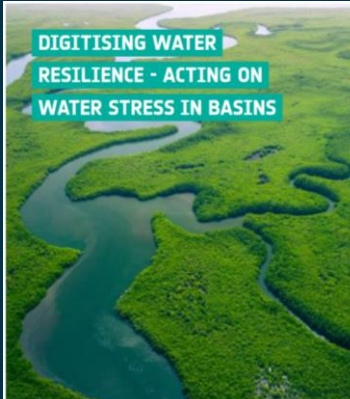
Roadmap for Direct Negotiation for Demo Projects





Where to find the information

business.esa.int



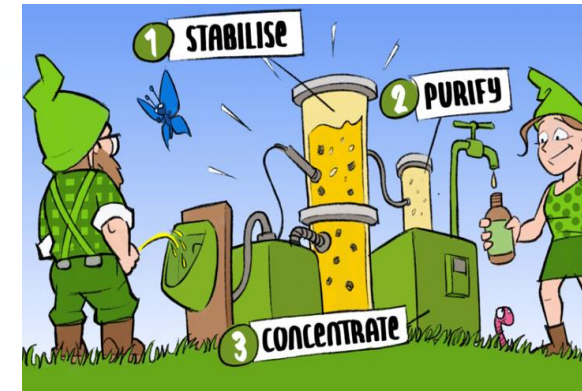
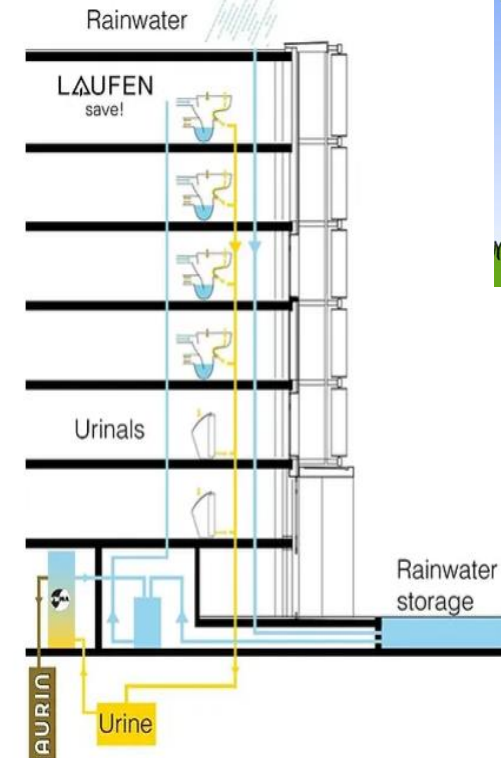
A CONCRET EXAMPLE

VUNANEXUS (CH)

- Demonstration Project led by Vuna (CH)
- 2 services based on urine treatment technology:
 - 1) decrease pressure on water treatment facilities
 - 2) production and commercialisation of a fertiliser using by-products
- Project under preparation (nearing proposal submission)



System provider for nutrient recovery
From liability to resource



Credits: Vuna & VunaNexus

COLLABORATION OPPORTUNITIES

- A. **MELiSSA community members can lead (Prime) / be part (subco / user) of Feasibility Studies or Demonstration Projects funded by ESA Space Solutions**

- B. **ESA Space Solutions and MELiSSA community can jointly identify relevant topics and ESA Space Solution funds dedicated initiatives targeting those areas (e.g. MELiSSA / ECLSS specific calls), helping to team up with other stakeholders maybe more commercially focused.**



QUESTIONS?

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