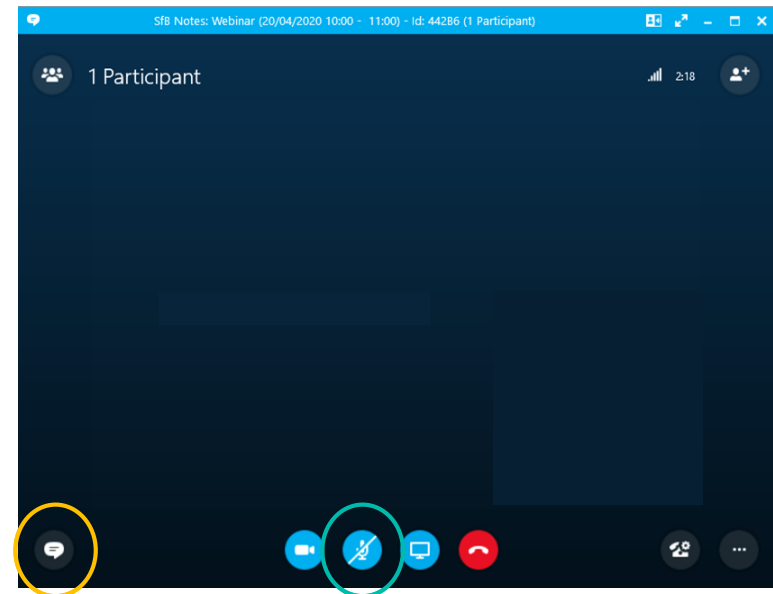Davide Coppola

WELCOME TO THE WEBINAR!

Before we start...

- Due to the number of attendees, please **keep your microphones muted** at all times and switch off the webcam function

- You can use the **conversation function** anytime to submit your questions. They will be addressed during the Q&A at the end of the webinar

European Space Agency

AGENDA

- **ESA introduction**

- **ESA's Commodities Kick Start Competition**
  - Introduction and objectives
  - Areas of interest
  - Value of Space
  - How to apply

- **Guest speakers**
  - Marco Favarato (ENEL Global Trading)
  - Will Rowley (Decom North Sea)

- **Open Questions & Answers session**

THE EUROPEAN SPACE AGENCY

Purpose of ESA

To provide for and promote, for exclusively peaceful purposes, cooperation among European states in space research and technology and their space applications.

Facts and figures

- Over 50 years of experience

- 22 Member States

- 8 sites across Europe and a spaceport in French Guiana

- Over 80 satellites designed, tested and operated in flight

space transportation

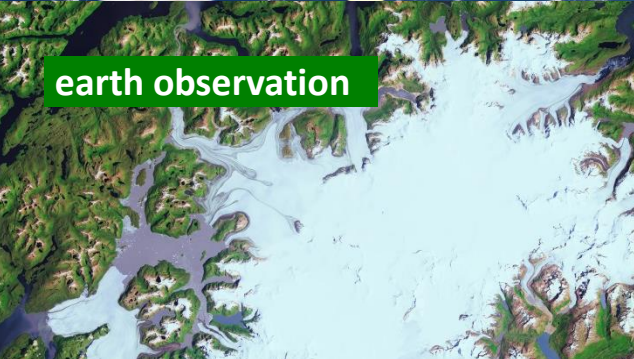science

human spaceflight

earth observation

telecommunications and applications

navigation

exploration

operations

technology

ESA SPACE SOLUTIONS

➔ MARITIME

➔ HEALTHCARE

➔ TRANSPORT

➔ ENVIRONMENT

➔ AGRICULTURE

➔ MEDIA

➔ ENERGY

➔ EDUCATION

➔ AVIATION

➔ FINANCIAL

➔ SPACE WEATHER

➔ EARTH OBSERVATION

➔ SATELLITE NAVIGATION

➔ SATELLITE COMMUNICATION

➔ HUMAN SPACEFLIGHT TECHNOLOGIES

→ **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

Giulia Manzetti

European Space Agency

COMMODITIES

ESA's Kick-Start Competition

Commodities: An Introduction

Commodity: a basic good, raw material or primary agricultural product

They can generally be divided into three categories:

- Agricultural Commodities, which include food crops, livestock and industrial crops (like lumber, rubber and wool).

- Metal Commodities, which comprise precious metals (e.g., gold, silver, platinum and palladium) and base metals (e.g., aluminium, nickel, steel, iron ore, tin and zinc)

- Energy Commodities, which include petroleum products, natural gas, heating oil, coal, uranium (for nuclear energy), ethanol (as a gasoline additive) and electricity.

Commodities Kick-Start

Since the topic of commodities is so vast, the "Commodities Kick Start" has been split into three competitions:

Part 1: Agricultural Commodities
Competition opens 06 July 2020 and closes 11 September 2020.

Part 2: Metal Commodities
Competition opens 14 September and closes on 30 October 2020.

Part 3: Energy Commodities
Competition opens 03 November and closes on 18 December 2020.

Energy Commodities Kick-Start

Winners of the competition will run a 6 month study, called a Kick-Start.

During the Kick-Start, teams will look at:

1. Engaging with users
2. Assessing the technical feasibility
3. Developing the business model and plan

Kick Start activities typically cost €80K and each winning team will receive:

- 80% funding by ESA up to €64K for SMEs*
- 75% funding by ESA up to €60K for non-SMEs

Visit: https://business.esa.int/funding/intended-tender/commodities

*SMEs, or 'Small and Medium enterprises', are defined here: EU recommendation 2003/361.
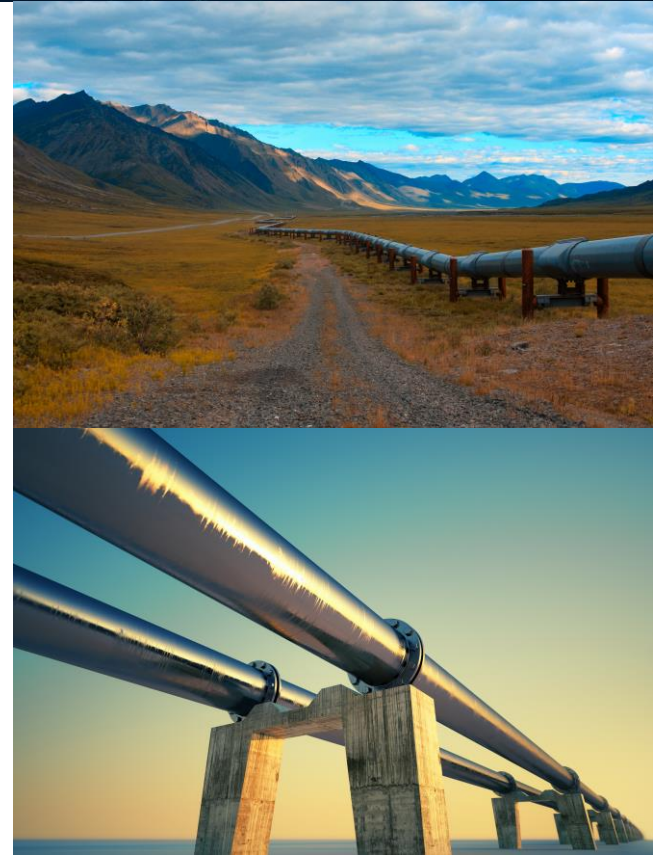
Relevant Energy Commodity Ideas

- Ensure the safe, secure and efficient transport and storage of energy commodities across the chain.

- Offer a source of "alternative data" to help commodity traders assess and predict the way the energy commodity market will move.

- Detect illegal activities along energy supply chains

- Improve resilience in disaster situations. Applications to prevent, monitor the impact of, and help clean up man-made disasters would be beneficial.

- Help environmental agencies to inspect, monitor and enforce regulations to ensure that water, land, air, people and wildlife are protected.

- ….and others!
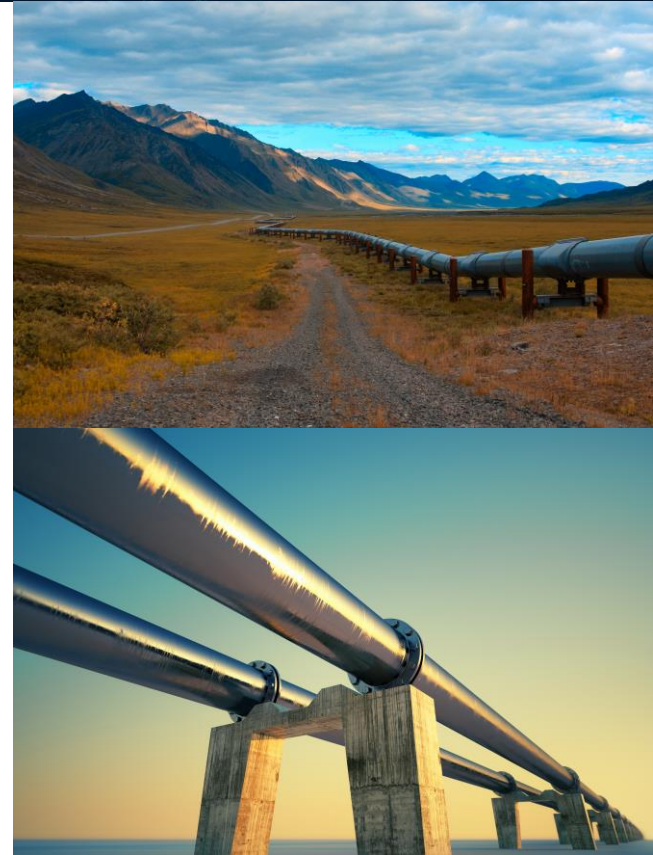
VALUE OF SPACE

Earth Observation

- SatEO + AI or ML, can provide insight into energy commodities markets (e.g. by observing stockpiles, transportation of goods, activities along points of the supply chain)
- Monitor impacts of extracting commodities e.g. satellite imagery detecting oil spills, contaminated water etc.
- Mapping to detect potential risks (e.g. natural hazards) and ensure extraction is not affecting protected areas
- Satellite imagery could help secure the supply chain by detecting infrastructure issues (e.g. pipeline damage) and illegal activities (e.g. pipeline theft)

Satellite Navigation

- SatNav can be used to improve transport routes of commodities and for geo-tagging data e.g. from drilling equipment
- SatNav can help guide autonomous vehicles and machinery used on oil and gas sites.

Satellite Communications

- SatCom provides broadband internet, video and reliable communications to harsh and remote regions.
- It can be used as a primary communication means or as back-up to terrestrial networks, enhancing robustness and resilience.

Who Can Apply?

- ESA Space Solutions can provide funding for Kick Starts to any company residing in the following 18 Member States: **Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, and Sweden.**

- Teams from the following countries are not eligible: **United Kingdom, Greece, Austria** and **Switzerland**

- If you are considering applying, you must inform your National Delegation to obtain a **letter of authorisation** allowing the funding of the proposed activity.

- Contact details of each **National Delegate** can be found here: https://artes-apps.esa.int/national-delegations

- **Germany, Luxembourg,** and **Ireland** have pre-authorised funding. Teams residing in these countries do not need to contact their National Delegate.

How to Apply

1. **Register** by completing online questionnaire on ESA-STAR Registration - minimum 'light registration': https://esastar-emr.sso.esa.int

2. **Download** the official tender **documentation** (Invitation to Tender) via EMITS from 03 November 2020: http://emits.sso.esa.int/emits/owa/emits.main

3. **Create** 'Bidder Restricted Area' in ESA-STAR

4. **Write your proposal** and obtain **Letter of Authorization** from National Delegation.

5. **Submit** your proposal via 'Bidder Restricted Area' in ESA-STAR Tendering by 18 December 2020 at 13:00 CET
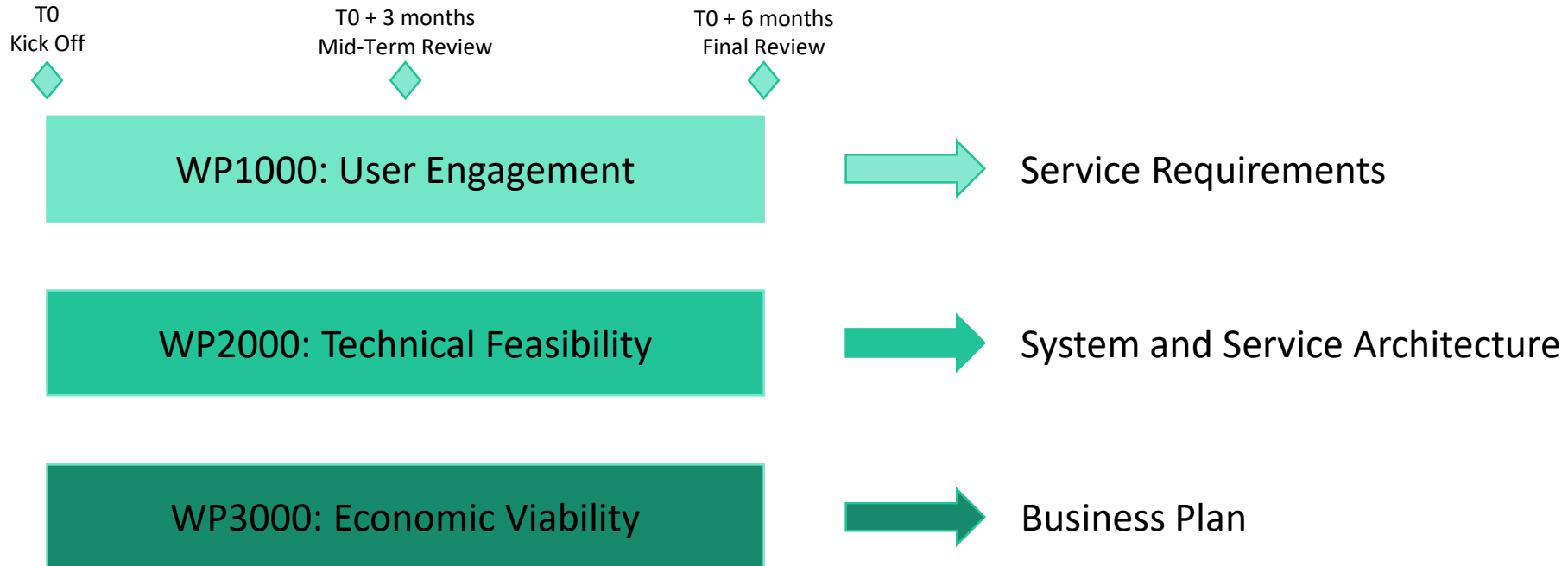
Proposal Template

Your Proposal should include the following information:

1) Executive Summary (max 1 page)

2) Business Potential (max 5 pages)

3) Technical Concept (max 5 pages)

4) Team and Resources (max 3 pages)

5) Management (max 4 pages)

6) Financials (max 2 pages)

Overall Aim

Kick Start — Explore the technical feasibility and commercial viability of a service

Demonstration Project — Develop the application and pilot the service with end users on board.

Operational service — Ultimate aim is to have an economically sustainable service

COMMODITIES
ESA's Kick Start Competition

To find out more: https://business.esa.int/funding/intended-tender/commodities

Marco Favarato

Head of Innovability Global Trading
marco.favarato@enel.com

WILL ROWLEY
INTERIM MANAGING DIRECTOR
Decom North Sea

CHALLENGES/ESA COMMODITIES
27 OCTOBER 2020

decomnorthsea.com

CONNECTING CAPABILITY WITH OPPORTUNITY

Decom North Sea is the single topic, multi-region membership organisation that connects capability with opportunity across the offshore late-life & decommissioning sector.

We are an independent, not-for-profit body that is committed to supporting the development of the late-life & decommissioning business.

Representatives of the UK and Scottish Governments, industry regulators, oil companies and service companies sit on our Board.

Our membership of ~300 UK, European and international companies represents the full range of companies active in the offshore late-life & decommissioning sector, globally.

decomnorthsea.com

CONNECTING CAPABILITY WITH OPPORTUNITY

Decom North Sea is a multi-region, not-for-profit membership organisation centred on the late-life & decommissioning sector and focused on connecting your capability with business opportunities

Connecting
Through our directory and facilitation services you can connect your capability with business opportunities in the UK and internationally

Networking
Through our networking services you can interact effectively at a wide range of physical and online events from workshops and webinars to technical forums and high profile sector conferences

Knowledge Sharing
Through our online members portal, technical forums and events you have the ability to access and share knowledge through the members community

Market Intelligence
Access market information, data and perspectives from official sources and key analysts to spot business opportunities

Information & Updates
Keep updated with member's only online access to the Members Portal with unique resources, sector information and shared knowledge & experience

Recognition & Awards
Raise your profile and be recognised by your peers for contribution and achievement through the internationally recognised Decom Awards

Influence & Advocacy
Through our accessibility to governmental organisations, regulators, technology institutes, sector academia and other trade associations you have the opportunity to influence and inform the direction of the sector

Global Connections
Through our accessibility to governmental organisations, partner relationships and contacts in key international markets you can

Facilitated introductions
Connecting you with key individuals to across the membership to advance business development and collaboration opportunities

Opportunity development
Access to supporting initiatives and activities to open new opportunities through sector development, connections to associated markets or new geographies

Lessons learnt & Specialist Contact
Access to key lessons learnt and direct contact with global specialists or participation in specialist forums tackling sector challenges

Guidelines & Standards
Input into the development of new guidelines and standards for the sector to advance safety, environmental protection and facilitate innovation in practices and processes

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CONNECTING CAPABILITY WITH OPPORTUNITY

Delivering tangible value to members

Looking for new opportunities

Understanding & influencing

Market data
Unique webinars & forums
Intelligence & insight
Detailed project data
Discussion & understanding
Internationalisation & diversification

Guidelines & reporting
Peer interaction
Regulatory insight
Decommissioning Leadership Group
Supply Chain Database
Case Studies

Market **Development**

Connecting **Positioning**

National & international contacts
Buyers & influencers
Senior industry contacts
Direct introductions
One-to-ones
Active support network

Conferences
Sponsorship
Member's Showcase
Sector recognition
Capability Matrix
Unique events

Business development & relationship building

Marketing & positioning

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SECTOR ISSUES

The North Sea offshore oil & gas sector is a mature sector that is in its **late life phase** and heading towards increasing decommissioning activity.

- It is a high-cost area and with relatively low commodity prices, economics are challenging.

- COVID-19 restrictions and precautions have also made offshore operations even more challenging as facilities are old and with confined space.

- Infrastructure continues to age with the majority of facilities working beyond their original design life

- There is also a growing number of facilities having to cease production due to a single unforeseen technical issue that immediately makes a platform uneconomic

SECTOR CHALLENGES

Key challenges faced widely across the sector:

- **Practical need to reduce manpower levels and personnel transportation**
  - To reduce costs and reduce personnel density to reduce COVID-19 risks
- **Requirement for increased flexibility to manage and deal with major technical issues**
  - To increase resilience and keep operations live
- **Need for greater understanding of the variability of integrity across facilities and their risks in relation to other infrastructure**
  - To increase resilience and reduce the 'domino effect' of multiple shutdowns
  - To create greater flexibility to mitigate &/or quickly work-around an unforeseen challenge