

# ESA Introduction for industry in Associate Members

*Or – Understanding how to work with ESA in 15 minutes!*

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→ THE EUROPEAN SPACE AGENCY

- This presentation is intended as an **overview and introduction** to ESA organisation and operation in a **simplified** manner.
- It is **intended for industry** as a help to ‘understand the ESA world and way of functioning’ so that you can **work more effectively with ESA**
- It is NOT either exhaustive nor comprehensive, rather provides a high level/simplified introduction to each subject

*It should be noted that things change on a daily basis and while every effort has been made to ensure the correctness of the information herein as of 06/03/2023, it is subject to change.*



# ESA overview

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# Member States (as of November 2022)



## ESA consists of:

### 22 Member States:

AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IT, GR, HU, IE, LU, NL, NO, PT, PL, RO, SE, UK.

### 4 Associate Members:

Slovenia, Latvia, Lithuania and **Slovakia**

### 4 European Cooperating States:

Bulgaria, Cyprus, Croatia and Malta, of which 2 are part of the PECS (Bulgaria and Cyprus)



**Canada** has a special status and takes part in some programmes under a long-standing Cooperation Agreement.

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# 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**.”

Article 2 of ESA Convention



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# Purpose of ESA



**In simple terms, for Industry ESA can be thought of as having 2 main roles:**

1. Funding the development, launch and operations of complex space missions via a prime contractor

- Strong need to get into international supply chains

2. Acting as a development funding agency for new technologies, products and services

- Strong need to have clear product and business plans to get most out of ESA development funding
- ESA acts more as a partner than a customer





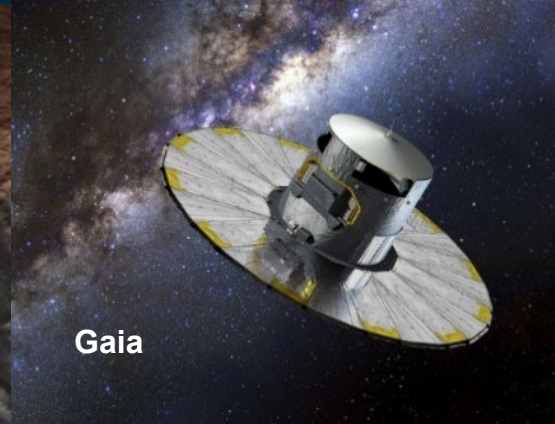
# Examples of ESA Science and Exploration



SOHO



Mars Express



Gaia



Huygens

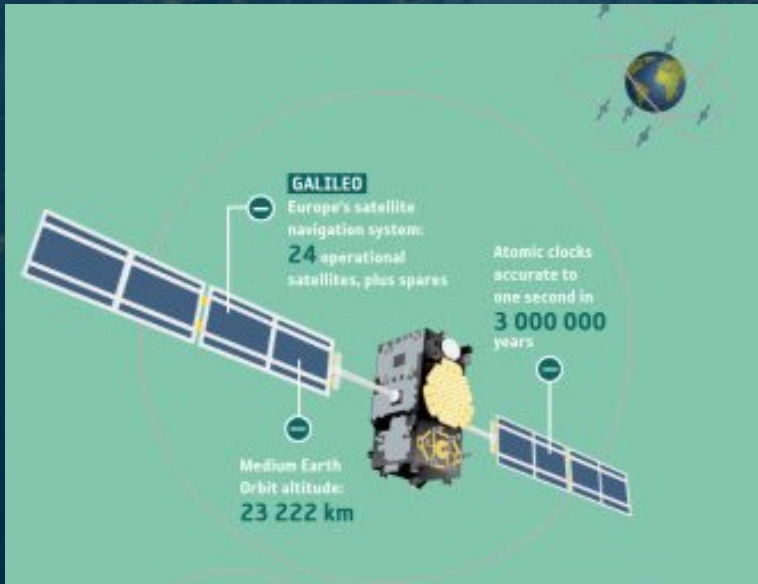
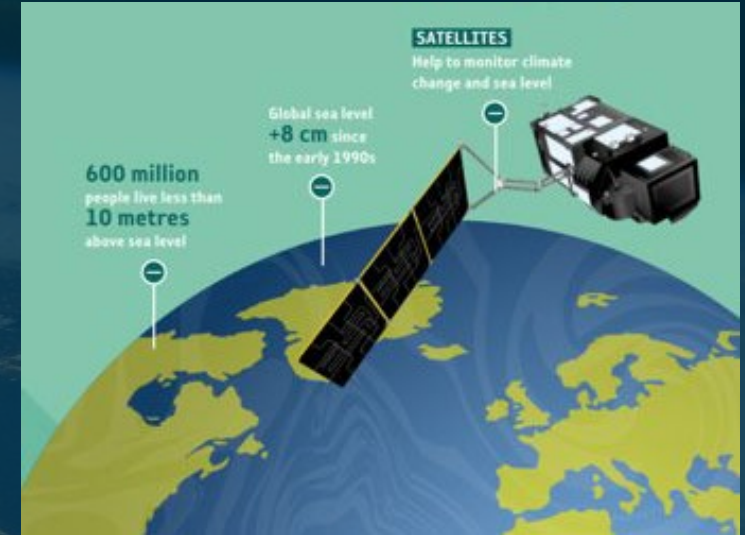


BepiColombo



# Examples of ESA helping on Earth

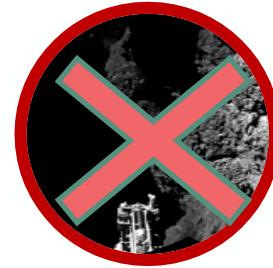
- ESA builds the weather satellites for Eumetsat, providing improved weather forecasts that benefit everyone.
- ESA uses satellites to monitor the health of our planet and to understand how it works. ESA satellites provide a global picture of land use, sea conditions and ice thickness.



- Working with the European Commission, ESA has built Galileo, the world's single most accurate satellite navigation system, serving more than 1.5 billion smartphones and devices.

# Activities and Programmes

- **Mandatory Activities** (each Member State is obliged to contribute pro rata its GNP)
- **Optional Programmes** (each Member State chooses how much to contribute).
- Approx 85% of ESA funding is Optional
- As AM, Slovakia does not contribute to the Scientific Programme nor the TDE element
- As AM, Slovakia gets an **RPA Scheme** – a National technology and competence development fund administered by ESA



space science



human spaceflight



exploration



**earth  
observation**



launchers



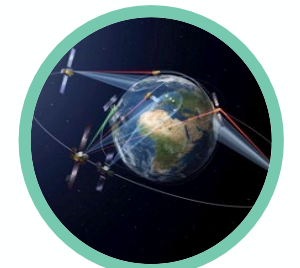
navigation



**operations**



**technology**



telecommunications

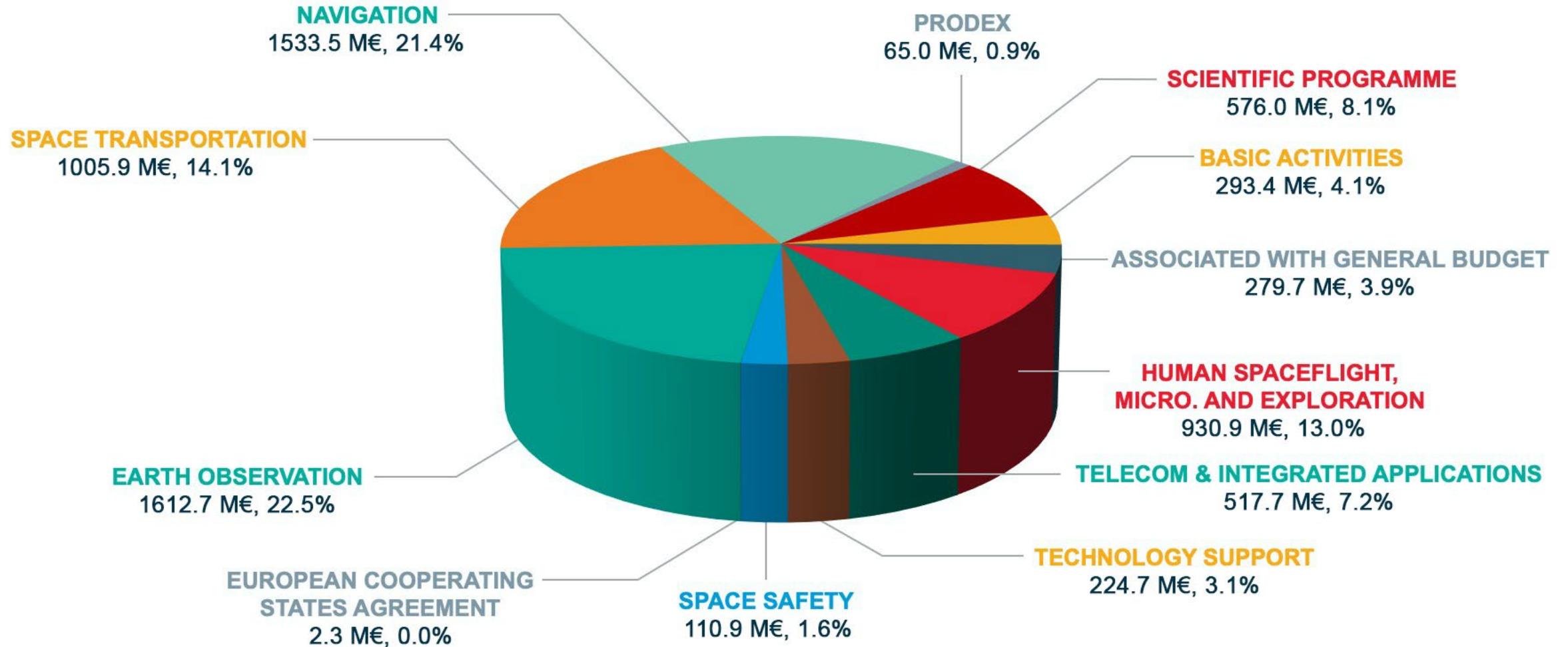
\* Countries fund optional programmes where they have enough competence, capability and capacity to make it worthwhile

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# ESA BUDGET BY DOMAIN FOR 2022: 7.15 B€\*



\*includes activities implemented for other institutional partners

Note: Almost 85% is in the optional programmes

- ESA programmes are managed by ESA via contracts with INDUSTRIAL teams.
- Industrial Teams are led by a Prime Contractor (Prime) and composed of Sub-Contractors – **getting into these supply chains is KEY**
- ESA works on the principle of Equitable Return, at highest level – ESA spends in each country only the money contributed by that country, but this must be won in open competition.
- Science payloads are generally financed by National Funding (not ESA funding) and scientists carry out the research using the data from the spacecraft.

High level summary: In principle, each country gets back what it puts in.  
No more, no less: But you must win this by being in supply chains or winning direct development contracts (mainly in open competition)



# Key Points of Contact

Who can help you find your way around...

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## Dissemination and creation of ESA career opportunities (seconded/ YGT/trainee positions; HR day)

Help desk Q&A - Briefing ITT  
process & face to face  
consultations / PoC ESA & LSIs.

Technical Officer, proposal assessment, debrief support, negotiations.

Activity Milestone Reviews, TO surveys, industry visits, meetings and additional (adhoc):

- Training support: Proposal writing, EO User Groups, PA&QA, etc.
- B2B Meetings, LSI day, ESA company visits
- Finding opportunities for co-funded/parallel contracts for key companies.

## Reporting and inputs to Industrial Policy & PECS Committees / PBs / External Relations / DG:

- Country Assessment / Charters / Agreements / Evolution inputs
- Annual Report

## Inputs and coordination with CIP-PTS/ELI-E/D-TEC

Communication of scheme objectives and opportunities across other programmes.

Identification and implementation of co-funding opportunities with other programmes.

## Slovakia CDO:

**Kay.Van.Der.Made@ext.esa.int**



# Industry

- Interface with BICs and Industry associations: Scouting new companies
- Information distribution from Delegates, ESA and related to ITTs
- Assistance in finding international partners
- Assistance in preparation for audits
- Assistance (proof reading/ advice) in proposal writing
- Assistance in preparation of visits
- Assistance and advice in negos and debriefs

# Delegates

## Feedback on company performance and issues

Advice as requested related to industrial matters

## Assistance with information distribution

# ESA

## Assistance with company visits

## Assistance with information distribution

## Other Industrial Coordinators

## Assistance in developing international cooperations

What	When
Publication in esa-star	~ 8 March 2023 (Wk. 10)
Deadline for submission of Proposals	17 April (Wk. 16), 13:00 hours (Amsterdam time zone)
First communications to Bidders	~29 May 2023 (Wk. 22)
Contract	Beginning Q3 2023

Delegates represent their Government and their Industry in ESA. They:

- Represent the interests and views of the country (Government and Industry) at the ESA Programme Boards and Committees.
- Interact with national bodies to support ESA programmes.
- Act as contact point for other delegates and industry.
- Ensure good two-way communication with their industry.

Delegate approval is needed for many ESA activities – **you need clear and regular communication with your delegates**

Your Space Office point of contact: [spaceoffice@sario.sk](mailto:spaceoffice@sario.sk)



# How to do business with ESA

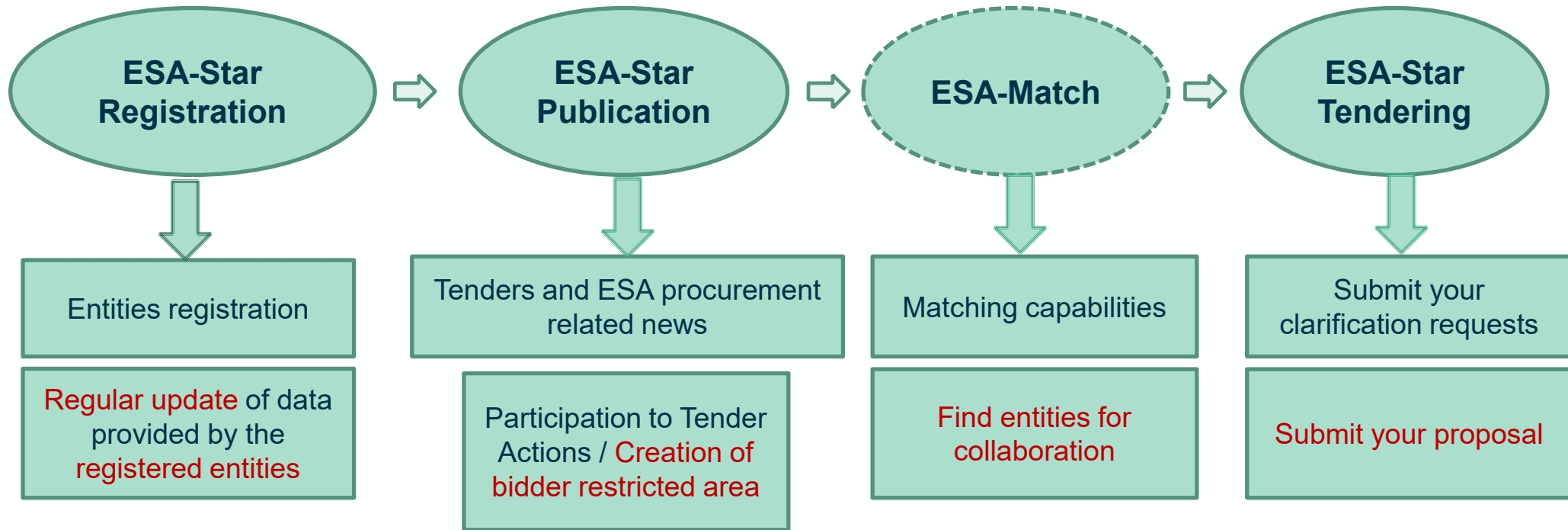
## How and where to find information

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- ESA awards **CONTRACTS** to achieve given objectives/results for a fixed amount of money.
- In ESA contracts – the prime contractor OWNS the IPR
- Competitive tendering is the principle.
- All open tenders (ITTs) are available online (ESA-star Publication)
- Selection is based on a Tender Evaluation Board's assessment of the submitted proposals.
- ESA's tendering process is designed to be transparent, impartial, independent, non-discriminatory and avoids conflicts of interests. **All reviewers sign confidentiality and non-interest declarations for each review. Multiple independent reviewers assess each proposal.**
- Technology development contracts are followed by a Technical Officer who is there to help you.

# How and where to find information

**ESA-Star** is the main toolset for **Registration of Entities**, Publication of **Invitation-to-Tenders (ITT)** and **Tendering**



**Video:**

[http://www.esa.int/spaceinvideos/Videos/2016/03/Bidder\\_Restricted\\_Area\\_creation\\_and\\_structure](http://www.esa.int/spaceinvideos/Videos/2016/03/Bidder_Restricted_Area_creation_and_structure)



# How and where to find information - Overview

- ESA star Publication
  - **Notifications preferences should be set to reflect your interest and programme eligibility (e.g., subscriptions)**
  - Check regularly (all ITT are announced via ESA STAR here)
  - Technical documents, standards
- ESA-match
  - Create your entity profile
  - Networking – find potential consortium partners and be found!
- ESA Technical Officers and Technical support, country desk
  - Consultations
  - Technical support
  - Network / potential partner knowledge
- Delegation
  - Access to ESA Programme documents (Work Plans)
  - Contact with ESA (country/industry – ESA)
- Industry Days (in ESA, in country, programme specific)
- Harmonisation (coordinated by delegation)
- ESA conferences (state of the art, promotion, networking)



**New capabilities and countries in European space Conference**

22-24 May 2023, Noordwijk, NL

NEW MEMBER STATES

AM Associate Members

→ PECS

1. Dedicated thematic sessions

2. Networking opportunities and social events

3. Poster session

4. Free training course sessions

5. ESA presentations about needs and opportunities

Registration open: October 2022, closes December 2022

NCCES Conference Website ([eventsair.com](https://eventsair.com))

→ THE EUROPEAN SPACE AGENCY

# Help with learning about the space industry

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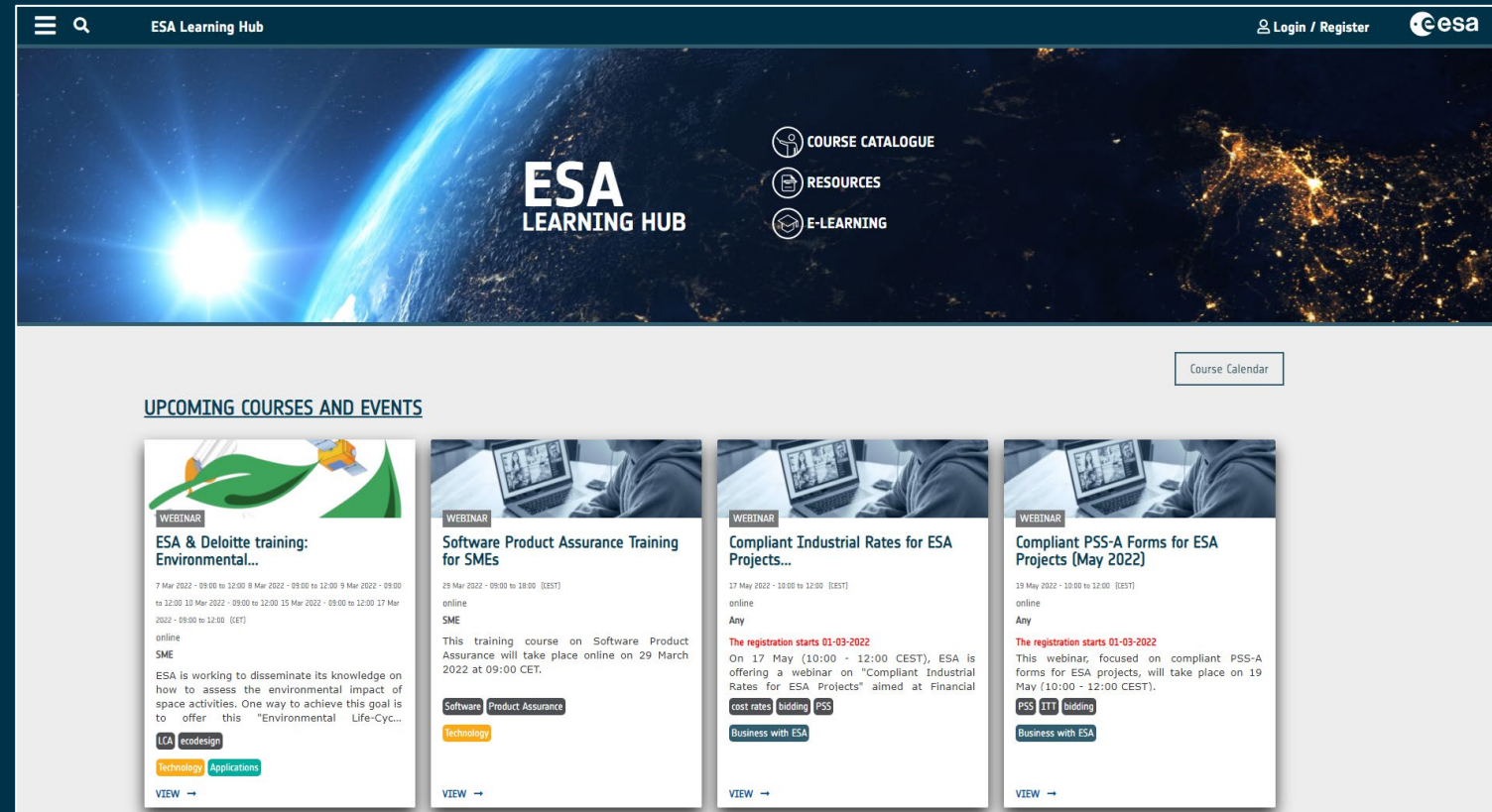
# Training courses offered to AM



Course/ Service	NMS/AM	Notes
Proposal writing (3 or 4 days)	In country	Hands on course for 'full' ESA ITT (>2M Euro contracts)
Proposal writing EXPRO (1-day)	In country	Course for 'EXPRO' ITTs and responding to a SoW
Proposal writing (mini course)	@Briefings	Course for responding to open calls
PSS forms and rate calculation	In country / online	PSS forms and audited rates intro / See Learning Hub
PA/QA course	In country / online	2 Days, SW and HW introduction / See Learning Hub
HR Events	In country	Evening event for young people
EEE components	online	See Learning Hub
ECSS Introduction	In country / online	Introduction on how to get started using ECSS for those who never have
ESA Overview	In country	General overview of ESA for industry
Intro for new Delegates	In country	Adhoc per request
Space Project Management and Control	In Country	Targeted at start ups and SMEs doing business with ESA
Intellectual Property Rights	N/A	
Product and Business Development Planning	TBD	Coming soon



- Registration to on-site and online courses and events
  - e.g. Product Assurance, R&D proposal writing, ECSS, EEE, and many more
- e-learning materials
  - e.g. IP + patents lecture series, PSS Forms, Cost Rates, ECSS
- Other information resources



<https://learninghub.esa.int>