Participant Playbook

Defence & Security
24-26 March 2023

CASSINI
Hackathons & Mentoring

The 5th CASSINI Hackathon & Mentoring | 24-26 March

1 Hackathon

10 Locations around europe   **EU Space**

Hybrid   **Local**   **European**   **Global Themes**

▶ Space for defence & security

You?

In the 5th CASSINI Hackathon, participants are challenged to strengthen Europe's defence and security capabilities with the help of European space technologies.

The global security environment is becoming more contested, complex and interconnected. As armed conflicts and civil wars re-emerge on the EU's neighbourhood, new and unconventional security threats have emerged or grown stronger. In an increasingly interconnected world, Europe's security starts abroad. European citizens expect and deserve to live in a safe and stable environment. In the face of increased global instability, the EU needs to take more responsibility for its own security and increase its capacity to act autonomously.

Space data and services can enable novel and unique solutions for cross-terrain mobility and logistics, maritime threat intelligence and infrastructure network resiliency. We challenge participants to innovate with **earth observation data** from Copernicus and **satellite positioning and navigation services** from Galileo & EGNOS. Participants can also use other **public data** (reference maps, economic data, legal records, social media, marketplaces, computer networks, blockchains, etc.). In addition, participants should develop solutions **with cybersecurity in mind** from the start.
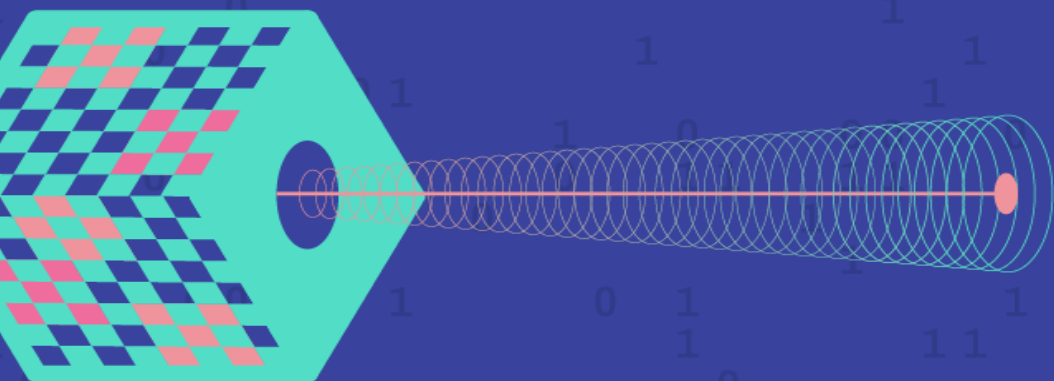
Applying is easy!

STEP 1 Choose your location

STEP 2 Apply as a hacker

STEP 3 Join the launch event

STEP 4 Form a team

STEP 5 Hack your way to success

CASSINI
Hackathons & Mentoring

CASSINI
Hackathons & Mentoring

Challenges

Space for Defence & Security

#1

Enabling cross-terrain mobility
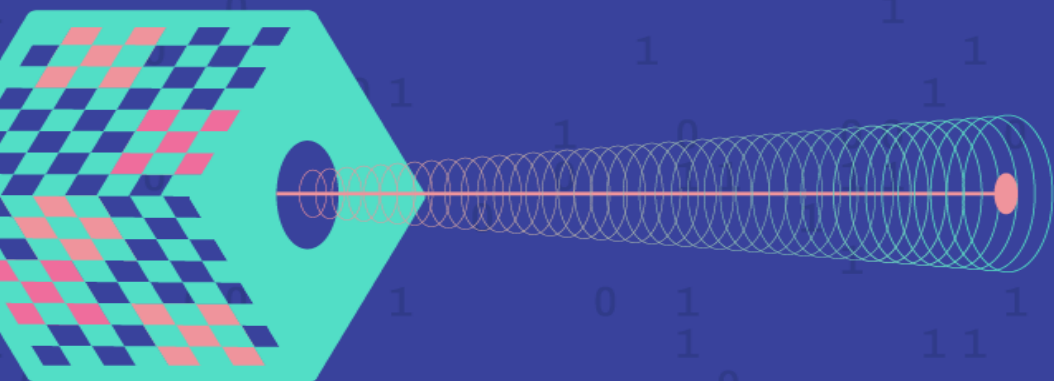
#2

Making the seas more secure

#3

Protecting our critical infrastructure

CASSINI
Hackathons & Mentoring

CASSINI
Hackathons & Mentoring

Hackathon

The CASSINI Hackathon event

Hackathon activities are split across three main events:

1. Big ideas campaign

6th – 17th March

2. THE HACKATHON
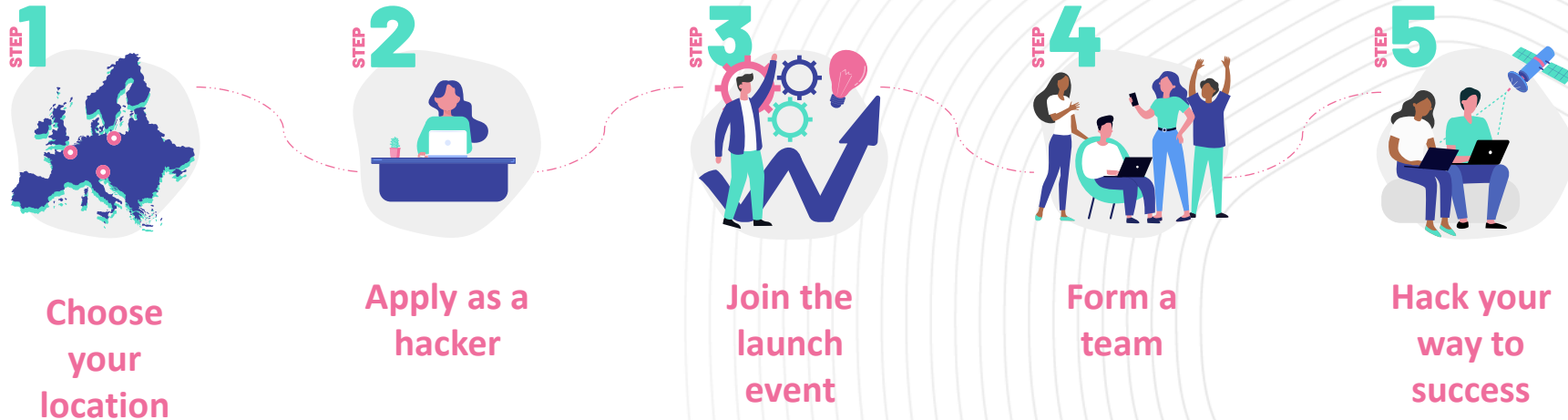24th – 26th March

3. Demo day + Awards

30th March

CASSINI
Hackathons & Mentoring

Get involved as a participant

Ready to apply your skills and knowledge to solve global challenges & make a positive impact?

We are looking for determined hackers with a passion for developing sustainable solutions. **No previous space experience is required.** Just choose a challenge that interests you, and leverage EU space technologies to uplift the financial industry! Follow this simple process to get involved:

STEP 1
Choose your location

STEP 2
Apply as a hacker

STEP 3
Join the launch event

STEP 4
Form a team

STEP 5
Hack your way to success

CASSINI
Hackathons & Mentoring

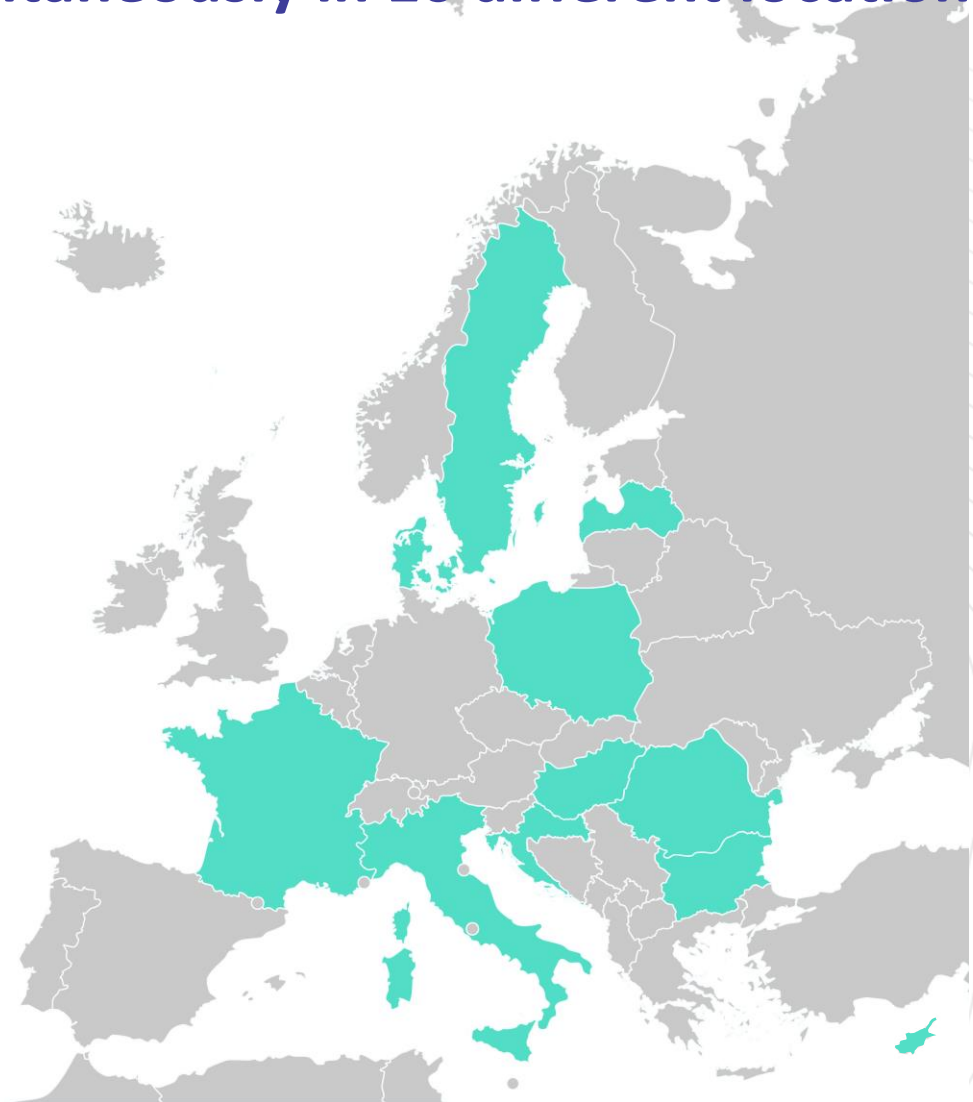# The 5th CASSINI Hackathon takes place simultaneously in 10 different locations around Europe

▶ All students residing in Europe, entrepreneurs, engineers, designers, researchers, policy makers, professionals, and others are welcome to participate. **No previous experience is required!**

On-site at one of the hackathon locations or remotely

No previous space experience is required!
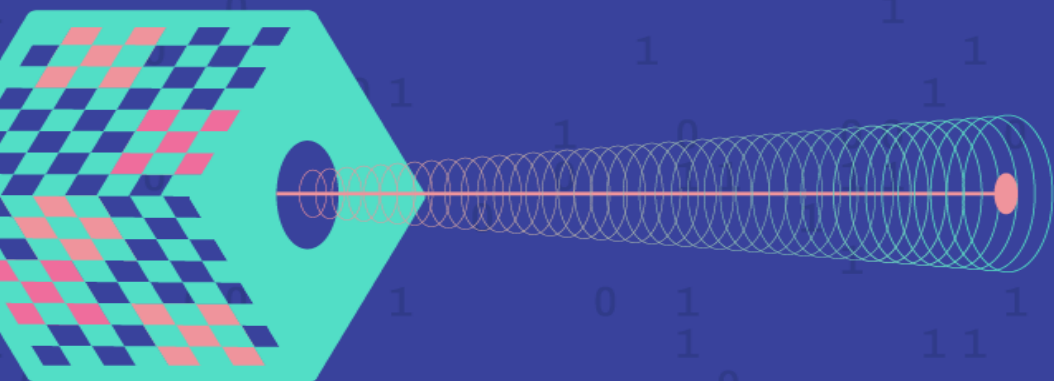
Check our 10 locations:

- **Bulgaria**
- **Croatia**
- **Cyprus**
- **France**
- **Hungary**

- **Italy**
- **Latvia**
- **Poland**
- **Romania**
- **Sweden**

CASSINI
Hackathons & Mentoring

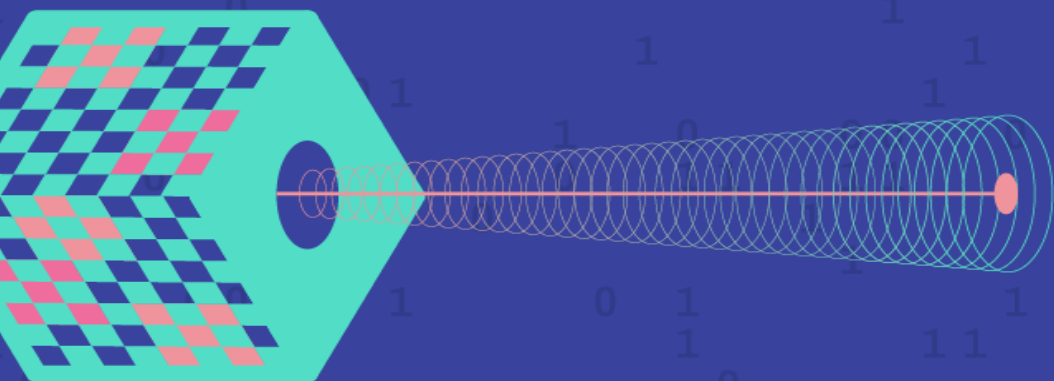Hackathon rules

Get to know the hackathon rules

- No development may start before the actual date and time of the Hackathon Weekend. Please do not begin hacking before **Friday 24th March 2023 at 19:00 CEST.**

- To ensure a level field for all contestants, all code must be created by the team, during the Hackathon Weekend.

- You are permitted to use publicly available or openly licensed APIs, SDKs, frameworks and other software libraries for your project.

- Any software development tools and/or programming language can be used.

- Teams that violate these rules will be automatically disqualified.

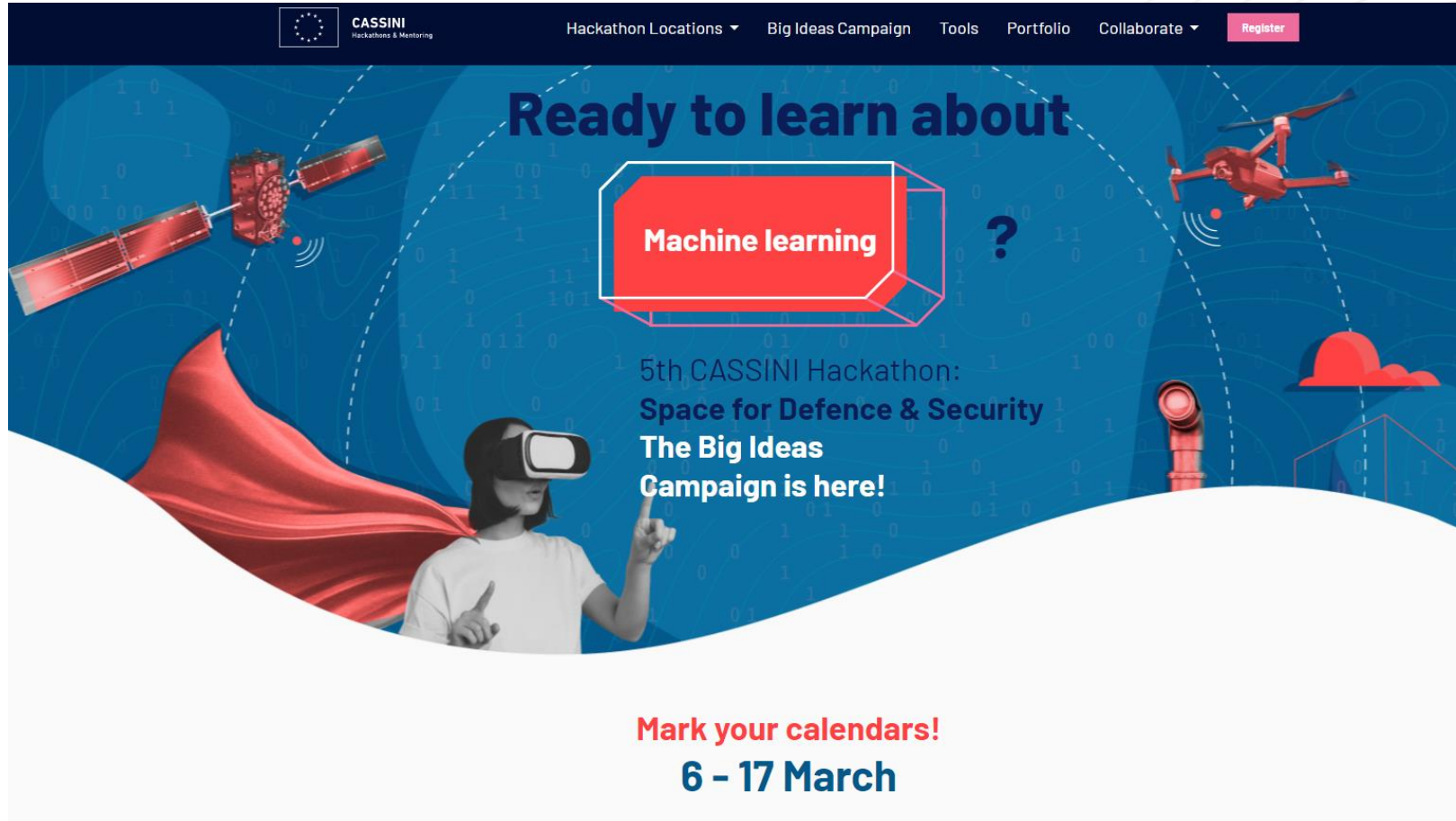**For full information about participating the CASSINI Hackathons, read the Terms & Conditions**
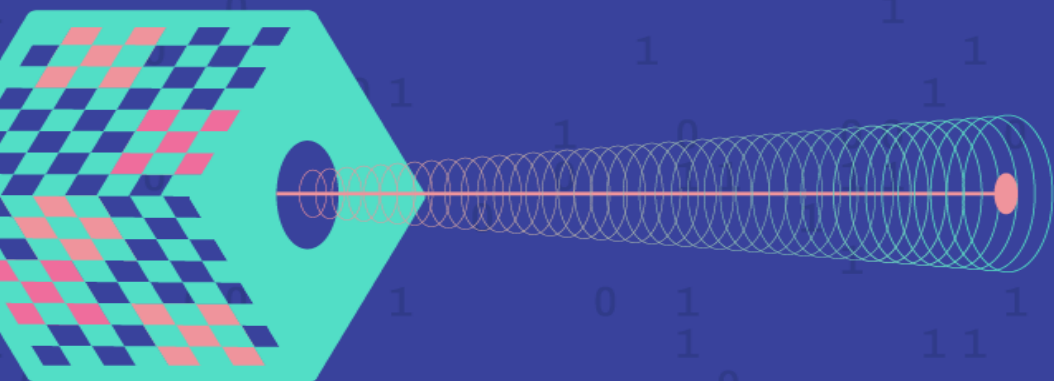
CASSINI
Hackathons & Mentoring

CASSINI
Hackathons & Mentoring

Big Ideas Campaign

Check the full Big Ideas Campaign agenda on the CASSINI Website

Hackathon Weekend & Demo Day Agenda

The Hackathon Weekend & Demo Day Agenda

Over the weekend, you can join the live stream via:

TAIKAI

In addition, there will be sessions led by local hackathon organisers that you can access.

Mar 24
Friday

19:00 **Welcome to the Space for Defence & Security [Live]**

→ Getting started

Mar 25
Saturday

9:00 **Kick-off Session & What's Ahead**

16:30 Check-in with the Teams
17:00 **Round-up of the day!**

CASSINI
Hackathons & Mentoring

The Hackathon Weekend & Demo Day Agenda

Over the weekend, you can join the live stream via:

TAIKAI

In addition, there will be sessions led by local hackathon organisers that you can access.

Mar 26
Sunday

10:00 Kick-off Session & What's Ahead

11:00 Pitching Crash Course

14:30 Submission deadline

14:35 Good luck to the Teams

→ Local pitch contest & award show

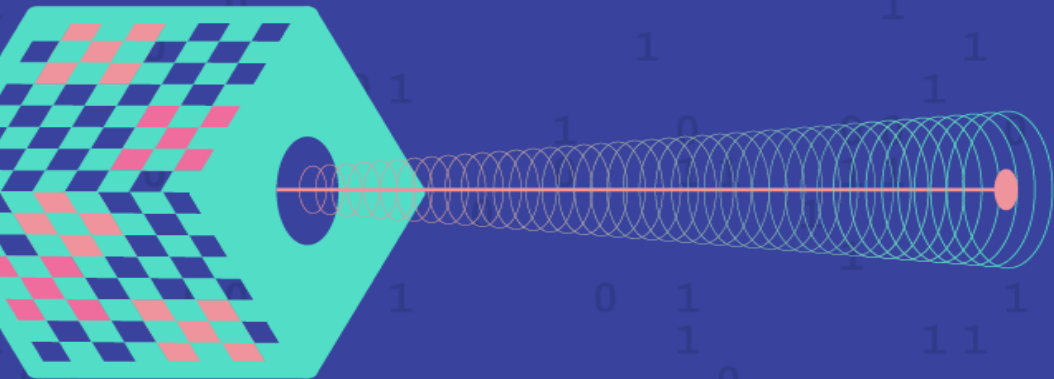**17:30 Closing Ceremony & Winners Announcement**

Mar 30
Thursday

18:00 Demo Day & Awards Ceremony

CASSINI
Hackathons & Mentoring

Copernicus DIAS

Introducing Mundi Web Services

Combining simple access to Copernicus and third-party data, cloud and big data technologies, Mundi accelerates your time to market for innovative services based on earth observation data.

- **Access to hackathon data cube:** Each participating team will have access to the data cube, prepared for the chosen thematic, through the Copernicus DIAS

- **Access to computing resources:** During the hackathon weekend, and afterwards for winning team, participating teams can work on their solution on the DIAS

- **A repository for datasets from participants:** Participants may add to the data cube with their own data to fully support their solution.

Mundi data cube includes:

- **Sentinel-1:** RAW, SLC,GRD, OCN
- **Sentinel-2:** L1C, L2A
- **Sentinel-3:** SRAL, OLCI
- **Sentinel-5P**

Documentation Youtube Channel

Help Desk Register

Mundi Web Viewer Mundi JupyterHub
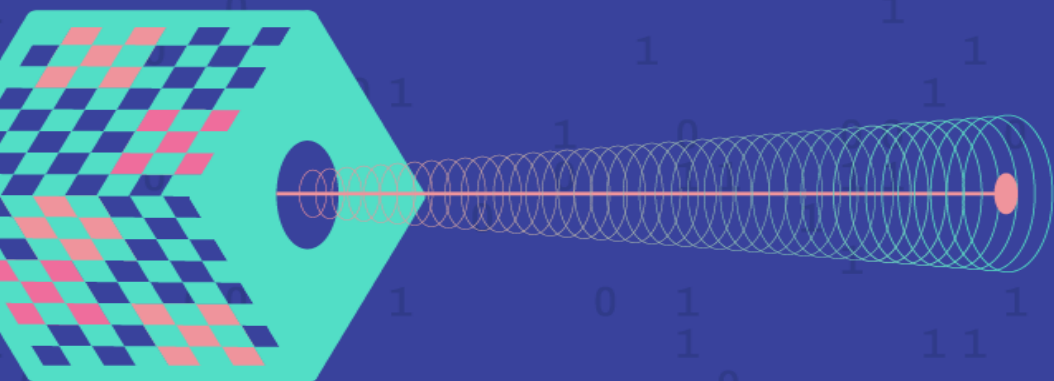
Mentoring Programme

In this section, you will learn about the mentoring programme available to the top 3 teams selected in the hackathon.

Each winner has access to 100 hours of mentoring

Three winning teams can benefit from **100 hours of mentoring** **spread across the six months following the event.**

How does it work?

Each team will have a lead mentor who will guide them through the mentoring programme.

The lead mentor will connect the teams with different expert mentors who are available in 5-hour blocks.
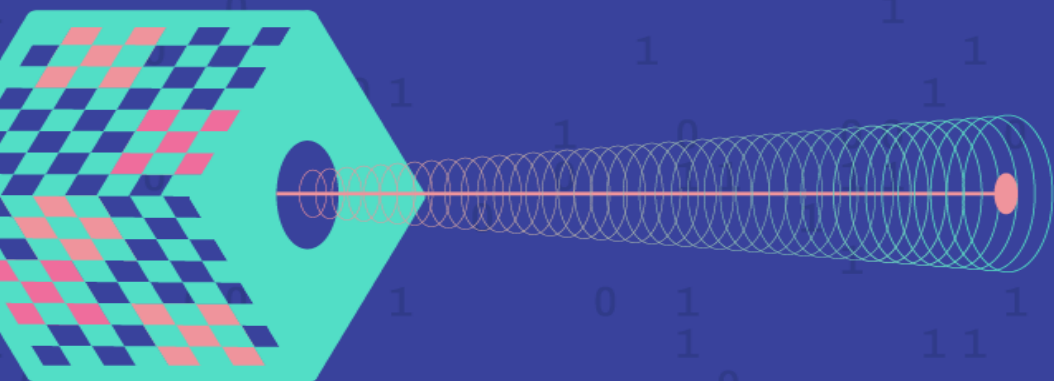
Teams will monitor their progress over the six months on their path to creating a sustainable and commercially viable solution!

Other resources

CASSINI
Hackathons & Mentoring

Connecting you with the EU Space programme

The EU Space programme consists of several flagship programmes including Europe's Earth observation, satellite navigation, secure communications and space situational awareness programmes. The 4th CASSINI Hackathon challenges participants to use data and signals from Copernicus, Galileo & EGNOS.

Copernicus is the European Union's Earth observation programme, looking at our planet and its environment to benefit all European citizens. It offers information services that draw from satellite Earth Observation and in-situ (non-space) data.

Galileo is Europe's Global Navigation Satellite System (GNSS), providing improved positioning and timing information with significant positive implications for many European services and users.

The European Geostationary Navigation Overlay Service (EGNOS) is Europe's regional satellite-based augmentation system (SBAS) that is used to improve the performance of global navigation satellite systems (GNSSs).

copernicus.eu

euspa.europa.eu/european-space/galileo/What-Galileo

euspa.europa.eu/european-space/egnos/what-egnos

The EU Space programme continued

The CASSINI Hackathons & Mentoring will look to engage participants with secure communications and space situational awareness in future editions.
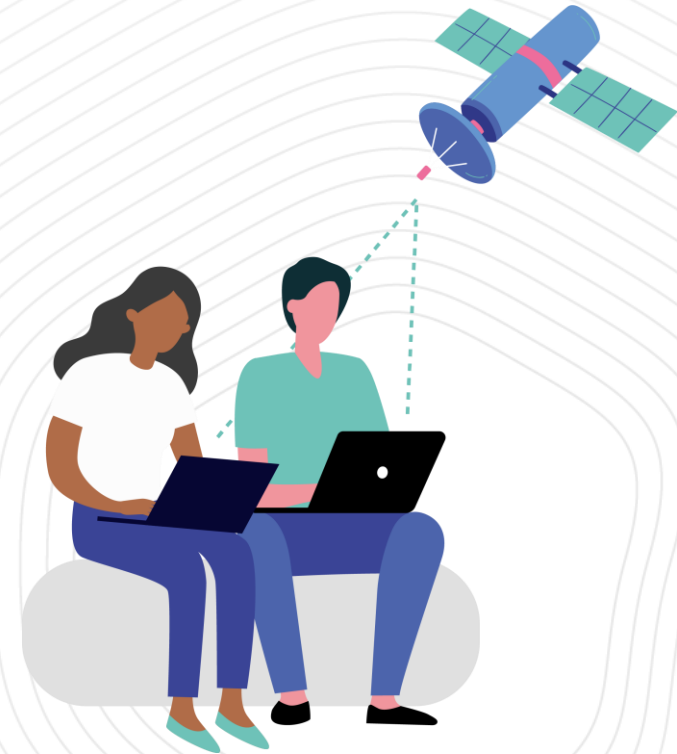
GOVSATCOM

The European Union Governmental Satellite Communications (GOVSATCOM) programme provides secure and cost-efficient communications capabilities to security and safety critical missions.

euspa.europa.eu/european-space/govsatcom

The Space Situational Awareness initiative will provide Europe and its citizens with complete and accurate information on objects orbiting Earth, on the space environment and on threats coming from space.

eusst.eu