



## **Opportunities for Slovak Industry within the European Space Agency (ESA)**

October 2023

# SLOVAK SPACE OFFICE

INDUSTRY UNIT

POLICY UNIT

SARIO  
SLOVAK INVESTMENT AND  
TRADE DEVELOPMENT AGENCY

 **MINISTRY**  
OF EDUCATION, SCIENCE,  
RESEARCH AND SPORT  
OF THE SLOVAK REPUBLIC



**SECTOR  
DEVELOPMENT**



**INTERNATIONAL  
COOPERATION**



**OUTREACH**



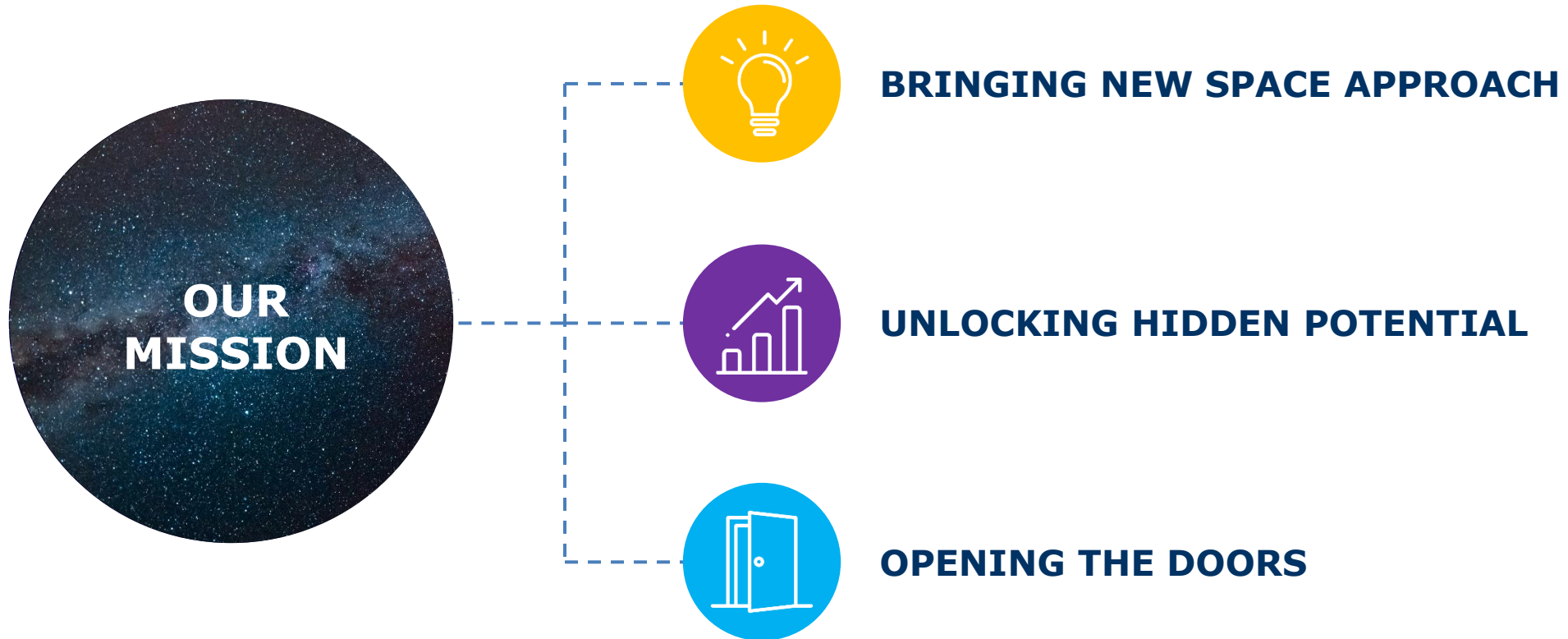
**POLICY  
COORDINATION**



**INTERNATIONAL  
COMMITMENTS  
(ESA, UN, EU)**



**SPACE  
BUDGET**





## **COMPANIES ALREADY ACTIVE IN SPACE**



## **R&D INSTITUTIONS AND UNIVERSITIES**

- Strong history involving R&D and crewed missions
- Current capabilities (Rosetta, BepiColombo, JUICE, JEM-EUSO)
- Positive trends (e.g. new study programmes)



## **COMPANIES WITH SPIN-IN TECHNOLOGIES**

# SPACE ECONOMY OVERVIEW

## SLOVAK SPACE COMPANIES IN FIGURES

Slovakia has **more than 45+ companies actively involved** in the space economy. On top of that, there are **more than 50 other companies** with a strong potential of entering space - working in relevant areas of sectors such as **electronics, high precision machinery, industry 4.0 and ICT**. Several of them already have initial experience with space projects.



### KEY FIGURES

**40+**

**Companies directly involved** in the space economy with 50+ more active in related areas

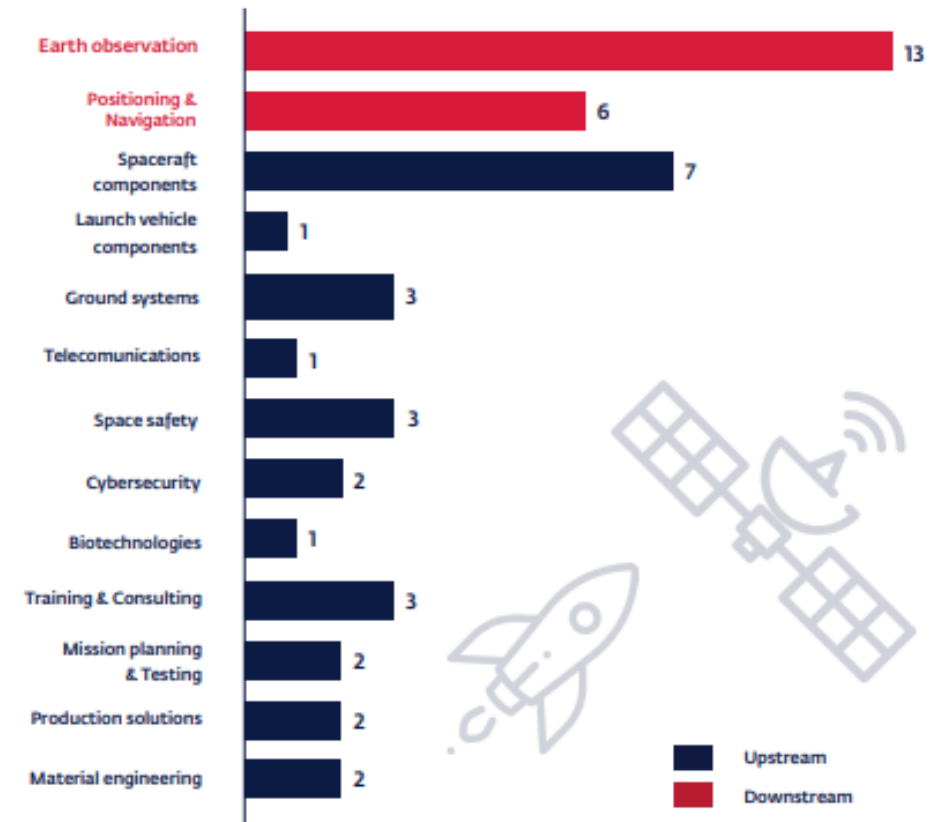
**550+**

**People employed** by companies directly involved in the space economy

**€ 120M+**

**Revenue generated** by companies directly involved in the space economy

## Number of Companies Directly Involved in Space Sector



# INTERNATIONAL SPACE COOPERATION

RELIABLE PARTNER IN EUROPEAN & GLOBAL STRUCTURES



## EUROPEAN SPACE AGENCY

After signing the Cooperation Agreement in 2010 and the European Cooperating State Agreement in 2015, Slovakia joined the Plan for European Cooperating States (PECS) of the European Space Agency (ESA). Since then, **ESA launched 7 PECS calls in Slovakia**. On 13. October 2022 Slovakia became an **Associate Member of the ESA**.

## EUROPEAN UNION

As a member state of the European Union, Slovakia is actively involved in all the key components of the EU space programme including **Galileo, EGNOS, Copernicus, SSA/SST, GovSatCom, or EDA**. Slovak companies and research institutions are also taking part in **Horizon Europe** space projects.



## OTHER INTERNATIONAL INVOLVEMENT



UNITED  
NATIONS -  
COPUOS



INTERNATIONAL  
ASTRONAUTICAL  
FEDERATION



EUMETSAT



EURISY



GROUP ON EARTH  
OBSERVATIONS



EUTELSAT IGO



SPACE CLIMATE  
OBSERVATORY



EUROPEAN CENTRE  
FOR SPACE LAW



COMMITTEE ON  
SPACE RESEARCH



INTERNATIONAL  
ACADEMY OF  
ASTRONAUTICS



INTERNATIONAL  
TELECOMMUNICATION  
UNION



EUREKA

# How to start doing business in space?

# Find your unique skills

## SCIENCE & EXPLORATION

### Exploring & Discovering

Exploring our Solar System and unlocking the secrets of the Universe

Science →

Exploration →

## SAFETY & SECURITY

### Monitoring & Safeguarding

Monitoring space and protecting our planetary environment

Space Weather →

Near-Earth Objects →

Space Debris →

Clean Space →

Safety and Security Applications →

## APPLICATIONS

### Connecting & Benefiting

Using space to benefit citizens and meet future challenges on Earth

Observing the Earth →

Future of Telecom →

Future of Navigation →

Downstream →

## ENABLING & SUPPORT

### Designing & Operating

Making space accessible and developing the technologies for the future

Access to Space →

Operations →

Technology →

Basic Activities →

## Find the first opportunity and let it growth!



# Spaceport\_SK

**Batch2** | 6 month incubation program

- ★ Facilities and coaching from hosting space companies in three locations
- ★ A package of online workshops on topics such as building an effective team, product prototyping, marketing, and legal aspects of a startup
- ★ Feedback on your project from reputable international partners
- ★ Connecting with a network of Slovak space companies and partners
- ★ Preparation to apply for ESA and EU grants
- ★ 3000€ prizemoney for the Demoday winner and opportunity to negotiate with partner investors for an investment of 150+k

**APPLY NOW >>>**

PARTNERS

BA ZA KE

SARIO SLOVAK INVESTMENT AND TRADE DEVELOPMENT AGENCY

SLOVAK SPACE OFFICE

3IPK, CTRL, ALITER TECHNOLOGIES, TECHNOLOGICKÝ INKUBÁTOR UMIZIA, IVA JO, UVP TECHNICH, row & slide, 000Ventures, MATHISON, InQ, CIVITTA, Nalgoo, eb INVESTMENT MANAGEMENT, CFSO SPACE


# How to start your business with ESA?

## DOING BUSINESS WITH ESA




**esa-star**  
Registration

More Details... Access ▾




**esa-star**  
Tendering

More Details... Access



**esa-star**  
Publication

More Details... Access ▾



**esa-star**  
esa-match

More Details... Access ▾

<https://doing-business.sso.esa.int/>

# What programmes are available for Slovak entities?

# Programme for Associate Member States

## Requesting Party Activities (RPA)

Slovak contribution: Approx 1 900 000 EURO per year

Annual call for Slovak Entities, including the opportunity to have subcontractors (max 20% of WP) from other ESA Member States

- To **complement** ESA optional programmes with activities falling outside their nominal scope;
- To **facilitate** the implementation of a holistic **national space policy**;
- To ensure wide support in the Country **for space development funding**;
- To give the best chance of securing the geographical return from ESA programmes by **increasing the capabilities and experience** of national **space industry to an appropriate level**;
- To **prepare the entities in that country for future subscriptions** to additional ESA optional programmes.

[https://www.esa.int/Applications/Observing\\_the\\_Earth/FutureEO/Introducing\\_FutureEO](https://www.esa.int/Applications/Observing_the_Earth/FutureEO/Introducing_FutureEO)

<https://slovak.space/>

# GSTP Element 1: Develop

**Slovak contribution: Approx 1 000 000 EURO per year**

The activities performed under Element 1 are dedicated to **maturing technologies and techniques, building components, making engineering tools and developing test beds** for ESA and National missions, all the way from an **engineering prototype, or breadboard**, up to **qualification**.

The objective of this core element is to **mature future space technologies**, while supporting **capability building** and **sustainability** across all the Participating States.

Companies and research institutes of **any size** can participate in this core element, with a **strong focus on SMEs**.

- 1) **De-Risk:** Smaller activities; contracts under €200k (or under €80k for studies); maximum of nine months;
- 2) **Advanced Manufacturing:** entities with a background in space to see how the use of advanced manufacturing; Up to €250k per activity; one year or less;
- 3) **Building Blocks:** building of capabilities in a given ESA Member State; preparing and developing enabling capabilities and the associated building blocks for space-related systems and sub-systems; up to €500k per activity; up to 18 months; Nominal technology development activities.

# FutureEO

**Slovak contribution: Approx 550 000 EURO per year**

FutureEO is ESA's Earth observation **research and development programme**.

- underpins the development of operational satellite missions dedicated to delivering **robust systematic data for services** that improve daily life and boost the economy
- Addresses challenges like: climate systems; atmospheric dynamics; societal issues etc.;
- **Objective:** Earth observation data exploited to their maximum potential to benefit society;
- Effective **mission operations, smart data** provision and the implementation of **innovative IT-solutions**, innovative **observation techniques**;
- **Focus on Applications:** Analysis tools, Processing tools, and Visualisation tools;
- Working with **commercial companies**, exploring **artificial intelligence**, benefiting from new **IT platforms** and exploring the world of **quantum computing**.

[https://www.esa.int/Applications/Observing\\_the\\_Earth/FutureEO/Introducing\\_FutureEO](https://www.esa.int/Applications/Observing_the_Earth/FutureEO/Introducing_FutureEO)

# Space Safety Programme

**Slovak contribution: Approx 575 000 EURO per year**

ESA's Space Safety Programme is dedicated to the protection of Europe and its economies from disruption to this critical infrastructure and fostering new commercial opportunities in the European space sector.

- monitoring **space weather**, assessing risks from solar events and utilising an early warning system that provides services tailored to European users;
- obtaining early **warnings of asteroids** on a collision course with Earth larger than 40 metres at least three weeks in advance;
- **deflecting asteroids** smaller than 500 metres at least ten years in advance of a potential collision with Earth;
- becoming a key player in a growing market of **space traffic coordination**;
- introducing a “**Zero-Debris Approach**” to space technologies and a circular economy in space;
- systematically assessing the **environmental impacts of space** activities and proposing greener technologies.

[https://www.esa.int/Space\\_Safety](https://www.esa.int/Space_Safety)

# The Open Space Innovation Platform (OSIP)

Slovak contribution via Basic Activities: Approx 375 000 EURO per year

The main entry point for novel ideas into ESA, both in response to **specific problems** and through **open calls for ideas**.

- Supports the **future competitiveness of European space industry** with **early technology development**, implemented through the **ESA Space Technology Strategy**;
- supports **individuals** and **legal entities** interested in interacting with ESA.

OSIP sources ideas through two routes:

- **Campaigns** search for solutions to specific questions and typically have a well-defined, relatively short timeline;
- **Channels** seek ideas and collaboration on more general topics and have a more open timeframe;

Proposals will be offered funding, typically through one of three paths: research at **PhD or post-doctoral level** co-funded by ESA and a host university, **early technology development activities**, or **system studies**.

[https://www.esa.int/Enabling\\_Support/Preparing\\_for\\_the\\_Future/Discovery\\_and\\_Preparation/The\\_Open\\_Space\\_Innovation\\_Platform\\_OSIP](https://www.esa.int/Enabling_Support/Preparing_for_the_Future/Discovery_and_Preparation/The_Open_Space_Innovation_Platform_OSIP)

<https://ideas.esa.int/servlet/hype/IMT?userAction=BrowseCurrentUser&templateName=MenuItem>

Newsletter | Slovenská vesmírna kancelária



Newsletter Slovenskej vesmírnej kancelárie je určený predovšetkým pre slovenské firmy a výskumno-vývojové inštitúcie. V rámci newsletteru vám budeme posielat aktuálne informácie o projektových výzvach, grantoch, súťažiach a iných príležitostiach, ako aj o rôznych zaujímavých podujatiach na Slovensku aj v zahraničí.

VÁŠ EMAIL \*

MENO

FIRMA

AKÉ INFORMÁCIE VÁS ZAUJÍMAJÚ

ODOSLAŤ

Podmienky ochrany osobných údajov si môžete [prečítať tu](#).



**Daniel ŠAGATH, PhD.**  
**International Cooperation Manager,**  
**Slovak Space Office - Industry Branch**

daniel.sagath@sario.sk, +421 915 828 792

**SLOVAK INVESTMENT AND TRADE DEVELOPMENT AGENCY (SARIO)**

Mlynské nivy 44/B  
821 09 Bratislava  
Slovak Republic