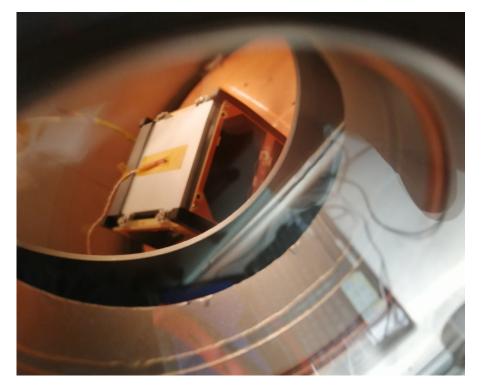
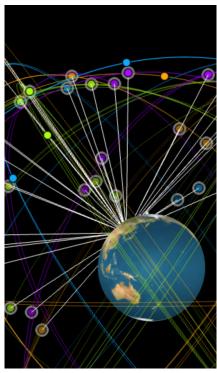
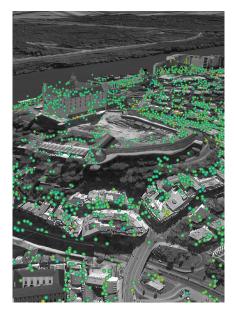
# Space Industry in **SLOVAKIA**



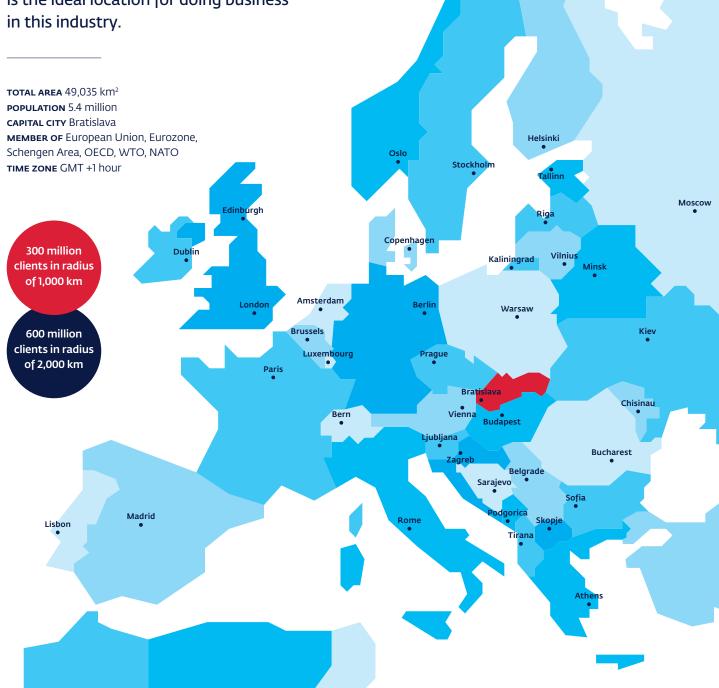






## Space Industry in **Slovakia**

The purpose of this publication is to present Slovakia's dynamically expanding segment of Space Industry in Slovakia. Herein introduced facts & figures serve to demonstrate sector strengths and to illustrate why Slovakia is the ideal location for doing business in this industry.

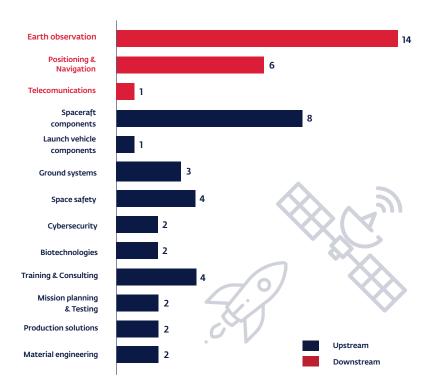


## Slovak Space Companies in Figures

Slovakia has more than 50 companies actively involved in the space sector. Although more than half of them are focused on the upstream segment, the majority of the space-related revenue is concentrated in software applications using Earth observation or positioning data.

On top of that, there are dozens of other companies with a strong potential of entering space - working in relevant sectors such as electronics, high precision machinery, industry 4.0 and ICT. Several of them already have initial experience with space projects.

#### Number of Companies Directly Involved in Space Sector



500 +

PEOPLE EMPLOYED BY
COMPANIES DIRECTLY INVOLVED
IN THE SPACE SECTOR

€ 115 mil +

REVENUE GENERATED BY COMPANIES DIRECTLY INVOLVED IN THE SPACE SECTOR



## SLOVAKIA – READY FOR YOUR LANDING



Strategic location within Europe with great export potential



Solid base of relevant key sectors



Strong R&D institutional and university network



High value-added growth rates in manufacturing within OECD



Stable and safe business environment

SARIO calculation compiled from data of 30 companies involved in the space sector (one company involved both in upstream and downstream).



Skills availability, high productivity & cost-efficiency



Competitive public incentives for innovative & tech projects



Strong international ties



ICT powerhouse with well-developed infrastructure & fast-growing space apps segment



Developed & steadily growing infrastructure network

### Introduction

## From Historical Experience to Current Development

Slovakia's active involvement in space engineering and astronautics began as early as 1970s, when the first space hardware development took place and the first Czechoslovak cosmonaut Vladimir Remek flew to space. Its crewed spaceflight record continued with Slovak citizen Ivan Bella, who spent seven days onboard the Mir space station in 1999.

Slovak researchers have been participating in a variety of space missions and projects, such as professional technical participation led by Dr. Ján Baláž in the historically first comet landing - Rosetta Mission in 2014, or analogue space missions of Dr. Michaela Musilová at the HI-SEAS analog research station in the USA.

In 2015 | The Commission for Space Activities in the Slovak Republic was established as an advisory body of the minister to efficiently coordinate activities of the relevant ministries, as well as academia and business.

In 2019 | Ministry of Education, Research, Development and Youth (MERDY SR) in cooperation with other relevant stakeholders released a Conceptual framework of Space Activities in Slovakia that will serve as a basis for the future Slovak space strategy. In the same year, Slovak Investment and Trade Development Agency (SARIO) started its activities aimed at space sector development and international cooperation support initiating the current dynamic growth of the Slovak space sector and preparing it for the Associate membership in ESA.

In 2020 | Preparations to establish the Slovak Space Office as a joint collaborative project started by MERDY SR and SARIO.

In 2021 | Space office was established at MERDY SR in January 2021 following governmental resolution. In May, activities to develop space industry ecosystem were entrusted by MERDY SR to SARIO. Today, these two departments form the Slovak Space Office.

In 2022 | Slovakia's Associate membership in ESA came into effect on 13 October, opening a new chapter of the country's European space cooperation.

In 2024 | The first Slovak space law and space strategy were adopted to set a proper framework for the sector's further development.







Source: European Space Technology Master Plan 2018 – ESA, Ministry of Education, Science, Research and Sport of the Slovak Republic

## **International 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 13th October 2022, Slovakia became an associated member of ESA, opening new opportunities for cooperation between Slovak companies and R&D institutions and their European partners.



#### **EUROPEAN UNION**

As a member state of the European Union, Slovakia is actively involved in all key components of the EU Space Programme including Galileo, EGNOS, Copernicus, or Govsatcom. Slovak companies and R&D institutions are taking part in Horizon Europe and European Union Agency for the Space Programme projects and activities.

#### Other International Involvement



**United Nations - COPUOS** 



International Astronautical Federation



**SLOVAKIA OFFICIALLY JOINED** THE ARTEMIS ACCORDS IN MAY 2024.



**EUMETSAT** 



**EUTELSAT IGO** 



SME4SPACE



International Telecommunication Union



Committee on Space Research



European Centre for Space Law



**EURISY** 



Space Climate Observatory



#### **COMPANIES - UPSTREAM**



#### **CTRL**

R&D and manufacturing of electromechanical components in accordance with ECSS, FAA, EASA, DO-254 standards. The company is active in sophisticated fields of cybernetics, artificial intelligence, robotics, measurement and control. With 5 projects it is the most successful Slovak company in ESA PECS calls. The company has recently established SAB CTRL Space - a joint venture with Italian S.A.B. Aerospace.







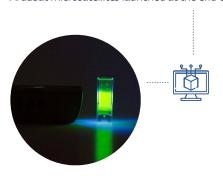
#### **ASTROS SOLUTIONS**

Provision of expertise in Space Situation Awareness segment, ground-based data acquisition and validation for space debris and near-earth asteroids, and development of new technologies, methods and products related to Space Safety and its Long-Term Sustainability. The company also has contracted multiple ESA projects.



#### **MYSPECTRAL**

Development of custom spectrometers, field spectrophotometers and spectrometric cameras for use in various industries, including food industry, optical metrology systems or space and stratospheric missions. The spectrometers have been successfully used in research missions in Antarctica, Americas, Australia, Asia and Europe, as well as in the ArduSat microsatellites launched at the end of 2013 and in early 2014.





#### **NEEDRONIX**

Needronix is a family-owned company specializing in the design, development and manufacturing of components for CubeSats and SmallSats. Its components are known for their reliability, miniature size, excellent performance and low power consumption. Needronix has already participated in 4 ESA projects. Two as prime contractor and two as subcontractor. Its components have been used on 11 missions. Needronix was one of the main integrators of the first Slovak satellite skCube and GRBAlpha nanosatellite, which was the world's first nanosatellite to detect gamma-ray bursts. Currently, Needronix is shipping components worldwide.



#### **STRATON TECHNOLOGIES**

Company focused on developing Unmanned Aerial Systems for highaltitude and stratospheric and specialized missions born from an award-winning Spaceport\_SK project. It specializes in atmospheric data collection and sensor calibration, supporting research in meteorology, environmental science, and future planetary exploration.



#### MASAM

Manufacturer of metallic component production for global aviation and space companies, creating a connection between private manufacturing sector with academic sector.

**COMPANIES - UPSTREAM** 





#### 3IPK

Software as a Service blockchain solutions for digital management of aerospace processes, products and supply chain. Its blockchain-based system for spacecraft components quality inspection reduces process costs and provides transparent information for all supply chain stakeholders. The company also has contracted multiple ESA projects.





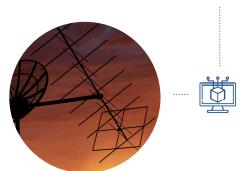
#### SPACEMANIC

Small satellite mission integrator focused on delivering end-to-end solutions - design, subsystem manufacturing and testing, spacecraft integration and testing, launch and deployment, and in-orbit operations (operating several Ground Stations in Central Europe). Spacemanic's engineers were involved in the project of the first Slovak satellite skCUBE which was fully developed in-house.



#### **GROUNDCOM**

Ground-satellite communication provider developing and operating a worldwide network of ground stations providing connectivity for satellites. Research & Development - participation on projects in radio-frequency and satellite communication fields.





#### TOUCH 4 IT

Software development & design company building innovative solutions by transforming technical knowledge to their digital products in sports, finance, retail, but also space sector. Successful ESA PECS project - SBAS Geometry Analysis Tool.



#### SPINEA

Developer of high-precision reduction gears, actuators and positioners for robotics. The company's products are used in automation and industrial robotics, in the field of machine tools manufacturing, in navigation and camera equipment, medical systems and many other fields. The company has been involved in multiple ESA projects.



#### M<sub>2</sub>M SOLUTIONS

Innovative technology company dedicated to developing supply chain management solutions using Industry 4.0 standards, developing smart solutions that cover the entire supply chain management. The company has contracted multiple ESA projects and a successful international Horizon Europe project focused on drone navigation in space.



#### **BIOX Technologies**

Experimental design and science support company specializing in biotechnology, process automation and environmental technology. Life support systems in the aerospace industry is one of their main R&D programmes. The company also has contracted multiple ESA projects.

**COMPANIES - DOWNSTREAM** 





#### **KAJO SERVICES**

Consultancy company offering a broad range of geo-services, geo-spatial information data stores primarily, for disaster risk reduction and management. The company also specializes in crowdsourcing and citizen science to collect observations about extreme weather events. Successful EU Horizon 2020 project.





NG AVIATION

#### **PHOTOMAP**

Operating in remote sensing, aerial photography, laser scanning, photogrammetry, land surveying and geodetic engineering by using cutting-edge technologies. Providing services to customers operating in defence, forest management, agriculture, mining, energy, and construction industries.



#### **MICROSTEP-MIS**

Development and manufacturing of customized monitoring and information systems, processing of acquired data, research and numerical modeling for airports, meteorological and seismological institutes, environmental authorities, industry, and municipalities. The company also has contracted an ESA project improving thunderstorm nowcasting using AI.



Specialized in the Digital Transition of the Civil & Military Aviation Industry, offering services and solutions that provide digital solutions, transforming the industry's information management and data exchange while fulfilling international regulatory compliance.





#### **GEODETICCA VISION**

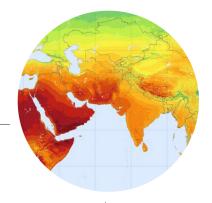
GeoAl company that leverages a powerful blend of geodesy, geoinformatics, and Al focused on crafting cutting-edge products and services designed for informed decision-making. The company also has contracted multiple ESA projects.



#### **AB MERIT**

R&D in the field of natural and technical sciences, interdisciplinary research: mathematical modelling, radiation, protection physics, industrial accident modelling. The company also has contracted multiple ESA projects.

**COMPANIES - DOWNSTREAM** 



### SOLARGIS

#### **SOLARGIS**

Company developing and operating data products and apps for a wide range of energy assessment needs from pre-feasibility to day-ahead solar power forecasting, enabling fast access to historical, recent, and forecast data for almost any location on the Earth.





#### SYGIC

Developer of GPS navigation software used by 200 million people including more than 1 million professional drivers. Top #2 app in the navigation category worldwide. Pioneer in hybrid navigation for smart devices such as Google Glass and Apple Watch.







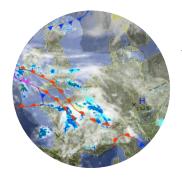
#### YMS

Development of technical and geospatial information systems as well as strategic decision-making analytics for industry and public services administering complex gas, water, forest and veterinary information systems, supplies intelligent technical, geographic and localisation systems. The company also has contracted multiple ESA projects.



#### AstraVigil

Monitoring of infrastructure stability and advanced situation awareness during evolving and complex deformation processes. The company is the Copernicus Masters Airbus & Sobloo Multi-Data Challenge 2019 Winner and has 2 successful ESA PECS projects.







#### IBL SOFTWARE ENGINEERING

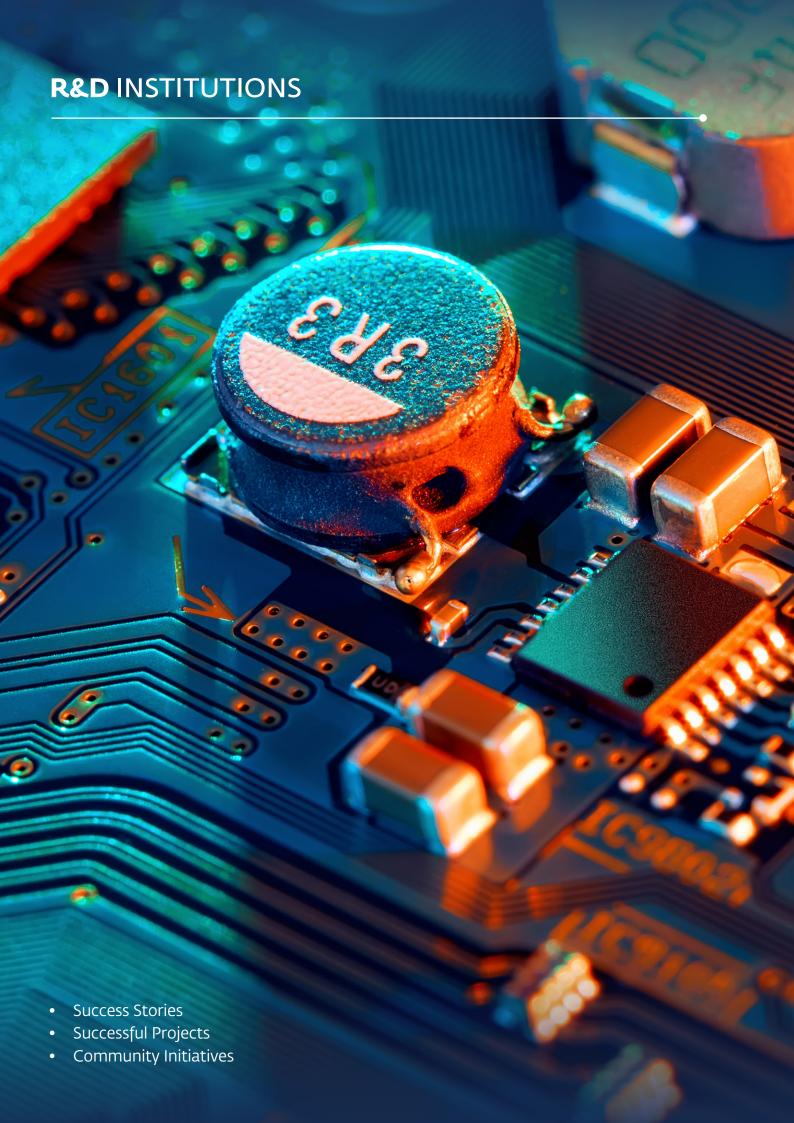
A company with already more than 40 years of experience in the field of meteorological information. It provides comprehensive and automated weather software solutions for meteorological services, aviation sector and other customers.

## Successful ESA Projects by Companies

#### BUSINESS-LED PROPOSALS SUCCESSFUL IN PECS CALLS 1-7, RPA 1, AND OPTIONAL PROGRAMS

	PROJECT NAME	COMPANY
PECS1	Development and preparation of a novel capacitive multiturn absolute rotary encoder for space applications (CAPMARE)	CTRL, s.r.o.
PECS2	Software tools for monitoring NATURA 2000 habitats by satellite images (NATURAsat)	Algoritmy:SK s.r.o.
	Stratospheric Autonomous Landing System Application (SALSA)	GOSPACE, s.r.o.
	Retrieval of Motions and Potential Deformation Threats using Sentinel-1 (remotIO)	Insar.sk, s.r.o.
	Distributed European Network of Ground Stations (DENGS)	Orbisys, s.r.o.
PECS3	Sentinel 2 based support of forest disturbance mapping and monitoring (Sen2ForMaM)	YMS, a.s.
	Sun sensor feasibility study – recap	NEEDRONIX, s.r.o.
	ESA-Sen2Agri connection with ESTE	ABmerit s.r.o.
	Arthrospira: Biomass Recovery	Biox Technologies, s.r.o.
PECS4	Wax Fuel Embedded Structure (WAFER) for Hybrid Rocket Motor	BOROSPACE, s.r.o.
	Adjustment of a Novel Capacitive Multiturn Absolute Rotary Encoder for Space Application – Beam Pointing System (CAPMARE2)	CTRL, s.r.o.
	SBAS Geometry Analysis Tool	Touch4IT, s.r.o.
PECS5	Blockchain Software Tool for Spacecraft Components Incoming and Outgoing Inspection	3IPK, a.s.
	NaturaSat - software for exploring Natura 2000 habitats by satellite data	Algoritmy:SK s.r.o.
	Slovak Automated Space Surveillance and Tracking Optical System	Astros Solutions s. r. o.
	Capacitive Absolute Sensor for Space Applications - CAPSE	CTRL, s.r.o.
	Ground Station Scheduling Broker	M2M Solutions, s.r.o.
	Sky Simulator for Fine Guidance Sensors	Trifid Automation, s.r.o.
	Design and qualification of a Capacitive Absolute sensor – EQM (CAPSE2)	CTRL, s.r.o.
PECS6	Blockchain-augmented configuration management for spacecraft engineering	3IPK, a.s.
	Preparatory activity for an ASIC development applicable for space sensors (CAPASIC)	CTRL, s.r.o.

	PROJECT NAME	COMPANY
	Ultra-high temperature thin coatings for aerospace industry	STATON, s.r.o.
PECS7 PECS6	Enhanced solar radiation nowcasting based on geostationary satellite data (NOWCASTSAT)	Solargis, s.r.o.
	Retrieval of Motions and Potential Deformation Threats using InSAR Geodesy (remotIO)	Insar.sk, s.r.o.
	Satellite-based delineation of yield productivity zones for Slovak crop fields (SatZones)	YMS, a.s.
	Validation of reentry models by using real optical measurements obtained by AMOS global network (AMOS-Reentry)	Astros Solutions, a.s.
	Space CARTOGRAPHER	GEODETICCA VISION, s.r.o.
	Formulation and Assessment of Multi-agent Active Debris Removal Application	Space scAvengers s.r.o.
	MELISSA Feeder	BioX Technologies, s.r.o
	Limnospira – Lipidom and Pathways	BioX Technologies, s.r.o
	dCorePQfabric	DECENT Group, a.s.
	Roadmap for EuroQCI optical ground station deployment in Slovakia – Study	Astros Solutions, a.s.
RPA1	Al4THOR – Al for Improved ThunderstormNowcasting from MSG and MTG	MicroStep, spol. s.r.o.
	Supply chain management for CPPAs & SpaceSystem Integrators	M2M Solutions, s.r.o.
	Illegal buildings detector	GEODETICCA VISION, s.r.o.
	ESTE4Space	ABmerit s.r.o.
GSTP	Design and Qualification of a CApacitive INcremental sensor (CAIN) for SADM XEO	CTRL, s.r.o.
В	Earth Observation Data Traceability Solution	3IPK, a.s.
RPA2	AERODROMATION	Geodeticca, s.r.o.
	Modular Motor Drive Electronic – MMDE	CTRL s.r.o.
	Utilizing IOTA for the initial Attitude Determination in a fast-response service based on multistation photometric data	Astros Solutions, s.r.o.
	Ephemeris Enhancement with Optical Passive Sensors for Laser Tracking in Momentum Transfer Applications (EE4LMT)	Astros Solutions, s.r.o.
	Automated Vision Control Systems for Space Equipment	M2M Solutions, s.r.o.
S2P	S2P S2-SD-03 Setup, Run, And Collaborate in International Remote Re-Entry Observation Campaigns	Astros Solutions, s.r.o.



### **R&D Success Stories**

#### **PUBLIC RESEARCH INSTITUTIONS & UNIVERSITIES**



#### SLOVAK ACADEMY OF SCIENCES

#### **Institute of Experimental Physics**

Direct participation in international space missions including Rosetta, BepiColombo, JUICE, and JEM-EUSO. Main focus on cosmic rays and space weather science. The institute has contracted multiple ESA projects.

#### Institute of Materials and Machine Mechanics

Development of materials for space use, participation in ESA GRADECET project. The institute has contracted multiple ESA projects.

#### **Astronomical Institute**

Representing Slovakia in two large European projects focused on the research of our Sun: the European Solar Telescope (EST) and the Solar Activity Monitor Network (SAMNet).

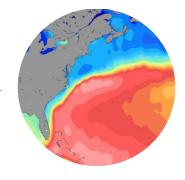




#### SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA

#### Faculty of Electrical Engineering and Information Technology

Participation in several international projects including manned Mars mission simulation. Currently launching National Center for Space Engineering and a Space Engineering study programme. The faculty has contracted multiple ESA projects.





#### TECHNICAL UNIVERSITY OF KOŠICE

#### **Faculty of Aeronautics**

Participation in several local and international projects including cubesats skCUBE and GRBAlfa. The first Slovak university to include a full space engineering programme into its curriculum. The first Slovak member of International Astronautical Federation and a university of four astronauts. The faculty has contracted multiple ESA projects.



#### **COMENIUS UNIVERSITY IN BRATISLAVA**

#### Faculty of Mathematics, Physics and Informatics

Space debris research and development of space surveillance and tracking technologies. Dynamical and chemical analysis of asteroids, meteoroids and meteorites. Study of the interaction of cosmic rays with material objects. The faculty has contracted multiple ESA projects.

#### UNIVERSITY OF ZILINA

#### Faculty of Electrical Engineering and Information Technology

The university is a leading technological institution in the northern central Slovakia recently taking its first steps in the space sector including active participation in the Spaceport\_SK incubation programme. One succesfull ESA PECS project focused on space hardware development involving local and foreign industry.



## Successful ESA Projects by R&D Institutions

#### RESEARCH-LED PROPOSALS SUCCESSFUL IN PECS CALLS 1-7, RPA 1, AND OPTIONAL PROGRAMS

	PROJECT NAME	ORGANIZATION
	Development of a Supporting Optical Sensor for High-Area-toMass- Ration Objects Cataloguing and Research (HamrOptSen)	Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics
	Simulating the cooling effect of urban greenery based on solar radiation modelling and a new generation of ESA sensors (SURGE)	Pavol Jozef Šafárik University in Košice
PECS1	Novel magnesium composite for ultralight structural components (MagUltra)	Slovak Academy of Sciences in Bratislava, Institute of Materials and Machine Mechanics
PE	Feasibility study to observe ionospheric disturbances by one pixel UV detector	Slovak Academy of Sciences in Košice, Institute of Experimental Physics
	Radiation induced terahertz wave and power generation in magnetic microwires (RIT)	Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and IT
	Space for Education, Education for Space (SEES)	Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and IT
	АТВІОМАР	National Forest Centre
<b>S</b> 2	Follow-up of feasibility study to observe ionospheric disturbances by airglow monitoring network (AMON-net)	Slovak Academy of Sciences in Košice, Institute of Experimental Physics
PECS2	GOCE-based high-resolution gravity field modelling in a space domain (GOCE-numerics)	Slovak University of Technology in Bratislava
	Additive manufacturing of Ceramic Components by FDM Technology (AM-FDC)	Slovak University of Technology in Bratislava
	Improvement of European capabilities for LEO objects tracking with optical passive sensors	Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics
	Laser Post-ionization Mass Spectrometer Platform for High Performance Meteorite Analysis – LaPoM2et	International Laser Center
PECS3	Slovak contribution to ESA- JUICE mission: Development of Anti- Coincidence Module ACM for Particle Environment Package PEP	Slovak Academy of Sciences in Košice, Institute of Experimental Physics
	SPACE::LAB – place to attract, educate and involve young generation in space science and engineering	Slovak Academy of Sciences in Košice, Institute of Experimental Physics
	Preparation for ATHENA Mission by establishing Slovak research team oriented to existing X-ray Missions and AGN Study	Slovak University of Technology in Bratislava, Advanced Technologies Research Institute
S4	Study of meteoroid composition by meteor spectroscopy and simulated ablation of meteorites	Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics
PECS4	TUKE Space Forum	Technical University of Košice, Faculty of Electrical Engineering and Informatics
	Potential solid lubricant for extreme temperatures based on vanadium boride	Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics
S5	SIREN Space Ionizing Radiation Experts Nursery	Slovak Academy of Sciences in Košice, Institute of Experimental Physics
PECS5	Space Engineering Through (True) Training (SETTT)	Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and IT
	University course Earth Observation with ESA missions	Technical University of Košice, Faculty Of Mining, Ecology, Process Control And Geotechnologies

## Successful ESA Projects by R&D Institutions

#### RESEARCH-LED PROPOSALS SUCCESSFUL IN PECS CALLS 1-7, RPA 1, AND OPTIONAL PROGRAMS

PROJECT NAME	ORGANIZATION
Towards quantification of non-photosynthetic vegetation from Copernicus Hyperspectral Imaging Mission for the Environment (Acronym: CHIME_NPV)	Institute of Landscape Ecology, Slovak Academy of Sciences
Feasibility study of data-driven Autonomous Service for Prediction of Ionospheric Scintillations (ASPIS)	Institute of Experimental Physics, Slovak Academy of Sciences
Advanced electronics with supercaps	University of Žilina, Faculty of Electrical Engineering
Hα and CN emissions as tracers of H2O molecules and organic compounds in meteoroids: a feasibility study and instrument design	Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics
Modelling the night sky brightness produced by space objects	Comenius University in Bratislava, Faculty of Mathematics, Physics and Informatics
Proposal for Slovak universities curriculum adaptation toward S2P market (SK-S2P-Edu)	Technical University of Košice
ENEUM: Enhancing Earth Observation Curriculum with a Focus on ESA Sensors	Pavol Jozef Šafárik University in Košice
Feasibility Study of Contact Capacitor Discharge Welding Gear for Space Debris Capture	Slovak Academy of Sciences in Bratislava, Polymery Institute
Small NEO characterization through Spectroscopy (SNEOS)	Comenius University, Faculty of Mathematics, Physics and Informatics, Department of Astronomy and Astrophysics
Academia & Industry Synergy for Slovakia SpaceAspirations (AISSSA)	Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and Informatics, Department of Nuclear and Physical Engineering
Introduction to Space Engineering – EDUSTU	Slovak University of Technology in Bratislava, Faculty of Mechanical Engineering
Study toward enhancing reliability and timeliness of Vigil mission predictions through Machine Learning	Slovak Academy of Sciences in Košice, Institute of Experimental Physics
Development of SCSS-Net: Solar Corona StructuresSegmentation algorithm by deep neural networks	Technical University of Košice, Faculty of Electrical Engineering and Informatics
Artificial space objects characterization using laboratory and ground-based optical measurements (ArtSPOC)	Fakulta matematiky, fyziky a informatiky Univerzity Komenského)
ESADOS (ESA Support for Aircrew Dosimetry Services)	Ústav experimentálnej fyziky Slovenskej akadémie vied, v. v. i.
Advanced air deContamination system for Long tErm spAce missioNs – CLEAN	Technická univerzita v Košiciach

15

RPA2

## **Community Initiatives**

INDUSTRY, EDUCATION, OUTREACH



#### SLOVAK ORGANISATION FOR SPACE ACTIVITIES

Outreach activities and promotion of the space sector, participation in several international and local projects. The organisation has developed and launched the first Slovak satellite skCube and now is involved in a small suborbital rocket development project as well as new cubesat and stratospheric baloon projects.





#### **EAST SLOVAK SPACE CLUSTER**

The newly established cluster fosters stronger collaboration among companies, universities, research centers, and other stakeholders located in the eastern part of the country.





#### SPACE::LAB

A hub for researchers, engineers and space enthusiasts located in Košice regularly organising various expert lectures and talks as well as competitions for students. It was created by one of the successful ESA PECS projects of the Institute of Experimental Physics (Slovak Academy of Sciences).



#### SLOVAK SPACE POLICY ASSOCIATION

A think-tank focused on analysing policy, governance, law and European space integration. The main role of SSPA is to increase the quality and expertise of information and boost public discussion about issues concerning the use of outer space and its impact on society and businesses.





### WOMEN IN AEROSPACE EUROPE REGIONAL NETWORK IN SLOVAKIA

The launch of WIA-Europe Slovakia Regional Network was initiated by the Slovak Space Office in 2024. It focuses on building a strong community for women in the Slovak space industry to actively support their involvement in the sector.

#### VYTAHCONF.

A community-led Space industry conference in Bratislava for scientists, engineers and entrepreneurs that brings international speakers and companies together to push the boundaries of the space industry.

## Space Governance in Slovakia

The Slovak Space Office is a joint project of Ministry of Education, Research, Development and Youth of the Slovak Republic and the Slovak Investment and Trade Development Agency.



- Ministry of Education, Research, Development and Youth of the Slovak Republic
   Is responsible for the overall coordination of space activities by inter-ministerial political coordination
   (at national and international levels), for space budget, and multilateral and bilateral intergovernmental cooperation.
- Slovak Investment and Trade Development Agency

  SARIO covers the implementation part of the agenda, especially developing the space ecosystem and helping new companies and startups participate in it, and supporting local and international partnership creation.

  The Industrial Branch of the Slovak Space Office is a contact point for international cooperation for the space agencies, offices, associations, businesses, and research entities. It aims to support Slovak entrepreneurs and researchers in integrating into European industrial structures and participating in international projects.

Space Policy Department













### Slovak Space Office

Space Industry Department

SARIO SLOVAK INVESTMENT AND TRADE DEVELOPMENT AGENCY











#### **DIVISION OF RESPONSIBILITIES AMONG MINISTRIES**

### MINISTRY OF EDUCATION, RESEARCH, DEVELOPMENT AND YOUTH OF THE SLOVAK REPUBLIC

Slovak Space Office – Space Policy Department

#### MINISTRY OF TRANSPORT OF THE SLOVAK REPUBLIC

Implementation of Galileo/EGNOS and Public Regulated Service (PRS), Space law coordination

#### MINISTRY OF ENVIRONMENT

Copernicus Programme cooperation

### MINISTRY OF ECONOMY (INCL. SLOVAK INVESTMENT AND TRADE DEVELOPMENT AGENCY SARIO)

Slovak Space Office – Space Industry Department

#### **MINISTRY OF INTERIOR**

GovSatCom Programme cooperation

#### MINISTRY OF FOREIGN AND EUROPEAN AFFAIRS

International legal and security policy aspects of exploitation and use of outer space

## Slovak Space Office Industry Branch

Our objective is to actively develop international professional cooperation of Slovakia with relevant actors in the space industry field.



#### **OUR SERVICES FOR FOREIGN ENTITIES**

### IDENTIFICATION OF PARTNERS

\_

Tailor-made search for potential cooperation partners among Slovak companies and researchers.

### SUPPORT WITH EXPANSION TO SLOVAKIA

-

Assistance with establishing your local branch in Slovakia including product facility and R&D partnerships.

#### **EVENT PARTNERSHIP**

\_

Cooperation on space industry events, provision of content, or identification of suitable speakers.

#### **OUR SERVICES FOR SLOVAK ENTITIES**

## SUPPORTING ENTRY TO THE SECTOR

\_

Comprehensive tailor-made sector entry consultancy for companies and researchers interested in joining the sector.

### CONNECTING LOCAL ECOSYSTEM

\_

Creating cooperation opportunities in the sector through matchmaking events with potential partners and clients.

## DEVELOPING INTERNATIONAL PARTNERSHIPS

\_

Supporting internationalization of the Slovak space companies and research institutions.

#### **6 YEARS OF SARIO IN SPACE**



COMPANIES ALREADY DIVERSIFYING THEIR ACTIVITIES TOWARDS SPACE



60
LOCAL AND INTERNATIONAL
COLLABORATIONS IN SPACE
SECTOR GENERATED



160+

OPPORTUNITIES TO ESTABLISH LOCAL AND INTERNATIONAL COOPERATION FOR SLOVAK COMPANIES CREATED



350+

FOREIGN COMPANIES, RESEARCH INSTITUTIONS AND OTHER ACTORS MAPPED IN THE PARTNER NETWORK



48
ENGAGED TEAMS IN HACKATHONS AND THREE ROUNDS OF



150%

INCUBATOR

INCREASE OF THE COMPANIES IN SPACE SECTOR

## Slovak Space Office Projects

The Slovak Space Office is a joint project of Ministry of Education, Research, Development and Youth of the Slovak Republic and the Slovak Investment and Trade Development Agency.



- EMERGING SPACE Emerging Space is the bi annual flagship event of SARIO focused on the current trends in the space sector with an emphasis on new countries, stakeholders, and domains involved. Its main target is to help the emerging space ecosystems grow and be a valuable member of the global space community. Over the past years, the international spin-offs and side events of Emerging Space were also an official part of many prestigious international platforms including UN COPUOS, International Astronautical Congress, or World EXPO in Dubai. At the same time, its local side-events are regularly held to help the Slovak space community to share experience and knowledge, or to inspire young generation of STEM and non-STEM experts to pursue space career.
- EUROPEAN SPACE ECOSYSTEM INTEGRATION SUMMIT Two successful editions of ESEIS were already held in Bratislava to foster integration between the well-established industry and emerging space ecosystems of European space. Building upon these foundations, the Slovak Space Office and ASD-Eurospace are committed to further advancing this initiative as the European Space Ecosystem Integration Summit (ESEIS) to jointly support building bridges and utilizing the full potential of the European space ecosystem. ESEIS contributes to making the European space ecosystem better integrated and more cohesive, and through that stronger and more competitive.



#### SPACEPORT\_SK

Supporting startup companies and young talents by providing offices, technical equipment, and expert mentoring.

The half-year programme offers premises and mentoring from host partners in multiple locations across Slovakia, support in fundraising and matchmaking with VC players, comprehensive mentoring from successful members of the Slovak space and start-up ecosystem, as well as feedback on the project from renowned foreign experts.

## Slovak Space Office Projects

 HACKATHONS The Industry Branch of the Slovak Space Office has organized four hackathons over the past four years, both independently and in collaboration with the CASSINI and Act In Space initiatives. These hackathons covered diverse topics, including Arctic protection, space safety, game development, or humanitarian and development aid in partnership with the UNDP.



#### CANSAT COMPETITION

In 2024, the Slovak Space Office organized the first Cansat competition in Slovakia. In this competition coordinated by the European Space Agency, high school students design and build a satellite the size of a tin can. During the finals, these cansats are carried to an altitude of about 1 kilometer, where their main mission begins. Fourteen teams from all around the country successfully qualified their cansats for flight at the finale and presented the results of their missions.

#### **OUTREACH ACTIVITIES**



Slovak Space Office - Industry Branch is regularly involved in outreach activities aimed at increasing knowledge about space technologies and their use, and attracting young generation to pursue space-related careers. These include local as well as international initiatives. Over the past years, SARIO supported popularisation activities through providing content for large-scale space exhibitions and conducted several informal discussions with students and children, for example discussion on "How to become an astronaut" at a major Cosmos Discovery space exposition in Bratislava.

#### **STAY IN TOUCH!**



Subscribe to our <u>newsletter</u> for Slovak companies, R&D institutions & educators to stay updated on current space tenders, projects, events or job offers.





Follow us on <u>LinkedIn</u> or <u>Instagram</u> to see what Slovak Space Office is currently working on.



Visit our website to read more about our projects: **www.spaceoffice.sk** 





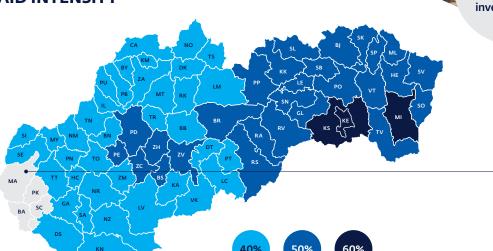




## Investment Incentives

The primary goal of the investment incentives is to motivate investors to place their new projects in regions with higher unemployment and to attract projects with higher added value.

## MAXIMUM REGIONAL INVESTMENT AID INTENSITY



#### **ELIGIBLE PROJECTS**

The Act on Investment Incentives divides the projects, which may be supported, into four categories:

- · industrial production
- technology centers
- combined projects of industrial production and technology center
- shared services centers

#### **ELIGIBLE COSTS**

- · Costs of land acquisition
- Costs of buildings acquisition & construction
- Costs of new technological equipment and machinery acquisition
- Intangible long-term assets licences, patents, etc.
- Rent of new land/building
- Total wage costs of all new employees calculated over a period of 2 years



additional incentives for medium-sized enterprises



additional incentives for small and micro-sized enterprises



additional incentives for projects related to critical technologies

#### FORMS OF INVESTMENT INCENTIVES

- · Corporate income tax relief
- Cash grant
- · Contributions for the newly created jobs
- Rent/Sale of real estate for a discounted price

Please contact us at invest@sario.sk for more information (including minimum conditions and critical technologies definition).

Positive regional
contribution of a new
investment projects shall
be concluded based on these
categories — investment location,
number of jobs created, average
gross monthly salary of new
employees, expected added value
and possible qualification of a
project respecting definition
of a priority area



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## AIM INVESTMENT AWARDS UAE 2022

CEE & TURKEY REGION
Best Investment Promotion
Agency in 2022



## **SARIO** Profile

Slovak Investment and Trade Development Agency (SARIO) is a governmental investment and trade promotion agency of the Slovak Republic. The agency was established in 2001 and it operates under the Ministry of Economy of the Slovak Republic.

## **01** INVESTMENT SERVICES

#### FOR POTENTIAL INVESTORS

- investment environment overview
- organization of the investor´s visits of Slovakia
- · starting a business consultancy
- sector and regional analyses
- investment incentives consultancy
- site location & suitable real estate consultancy

#### FOR ESTABLISHED INVESTORS

- identification of local suppliers, service providers
- assistance with expansion preparation and execution
- assistance with Industry 4.0 solutions and R&D implementation

## **02** FOREIGN TRADE SERVICES

#### IF YOU ARE LOOKING FOR

- Slovak supplier or subcontractor
- information about Slovak export/trade environment
- · sourcing opportunities
- forming a joint venture, production cooperation or other forms of partnership with a Slovak partner

#### SERVICES FOR EXPORTERS

- information on foreign territories
- customized search for foreign partners
- online database of business opportunities
- · export Training Centre
- · subcontracting assistance

## **03** SLOVAK SPACE OFFICE

#### **FOR SLOVAK ENTITIES**

- tailor-made sector entry consultancy
- startup creation through hackathons and incubation programs
- cooperation opportunities through matchmaking events
- internationalization of the Slovak space companies and research institutions

#### FOR FOREIGN PARTNERS

- customized search for local partners
- assistance with establishing branch in Slovakia
- · cooperation on space industry events

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#### SARIO IS YOUR ONE STOP SHOP FOR INVESTMENT & TRADE IN SLOVAKIA. TALK TO US TODAY!

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