



REPUBLIC OF SLOVENIA
MINISTRY OF THE ECONOMY,
TOURISM AND SPORT



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Head of Slovenian Space Office
Head of the Slovenian Delegation to ESA

UN/Austria Symposium 2023

Country Case: SLOVENIA

National Policies &
Space Eco-System
Supporting
Climate change





Area

20.273 km²



Population

2.110.547 (1, 2022)



Official language

Slovenian,
also Hungarian and Italian in their
respective ethnically mixed areas



Capital

Ljubljana, 293.218 population (1, 2022)



Climate

Alpine, Pannonian, Mediterranean



Average temperatures

July 21°C, January 0°C



Highest peak

Triglav, 2.864 m



Length of coastline

46,6 km



Currency

euro (EUR)

Membership:

- EU-28 (2004)
- OECD (2010)
- NATO (2004)





PRIME Minister

Support and high direction of national space activities.

Interministerial Working Group

Coordination of the Government guidelines and activities for the space sectors.

SSO (Slovenian Space Office)

Ministry of the Economy, Tourism and Sport

Elaborates and implements the national space policy strategic documents.

Slovenia in Europe and in the World



Association Agreement with ESA
signed in 2016, upgraded in 2020



- Member of COPUOS – 2021 (UN Committee on the Peaceful Uses of Outer Space)
- International Relations & Agreements



Slovenian Space Sector



REPUBLIC OF SLOVENIA
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Slovenian Space Office

I FEEL SLOVENIA

GREEN. CREATIVE. SMART.

Slovenian companies create products and services with the desire to deliver smart solutions that benefit the environment, society and business.

Slovenian Space Sector



Special focus on highly specialized
niche products and services

RADOMES

„HUMAN
CENTRIFUGE“ IN
PLANICA

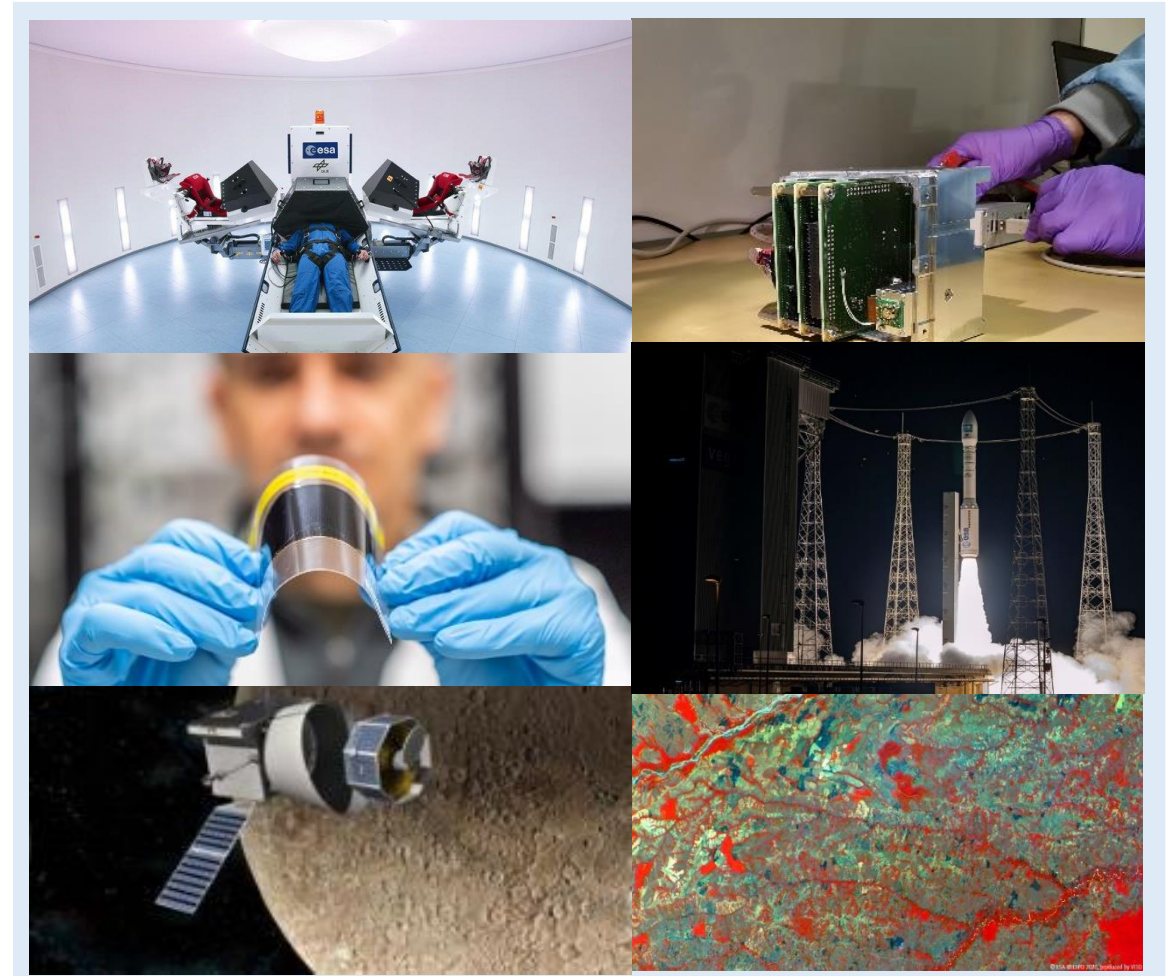
ARTIFICIAL
INTELLIGENCE

NEW
MATERIALS

EARTH
OBSERVATION

NANO- AND
SMALL
SATELLITES

CONTROL AND
MEASURING
EQUIPMENT



Slovenia – Diverse Ecosystem

Slovenia possess a diverse ecosystem, with players active throughout most of the value chain

Upstream

Midstream

Downstream



Navigation

SatCom

Earth Observation

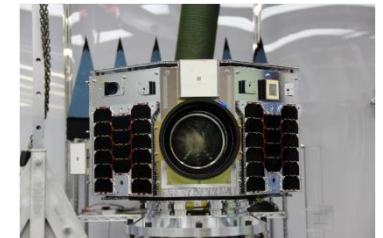
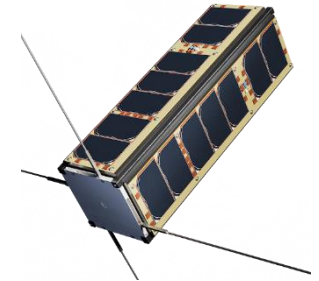
We already have global players



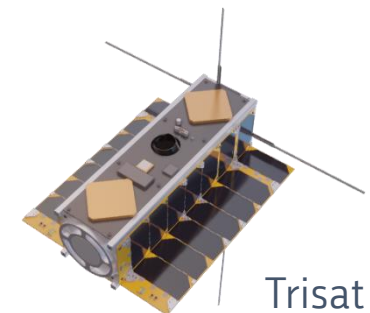
- ➔ **First Slovenian satellites launched into Space:**
 - *A satellite with interactive real-time video streaming and multispectral imaging at*
 - *2.8 m ground resolution,*
 - *One satellite provides valued ionizing radiation measurements from a Medium Earth Orbit at an altitude of approximately 6000 km.*
- ➔ **Slovenian Equipment used at the ESA launch site in French Guiana and Artemis Mission**
- ➔ **Faculties and Research institutes involved in international projects.**

To be continued ...

Trisat-R



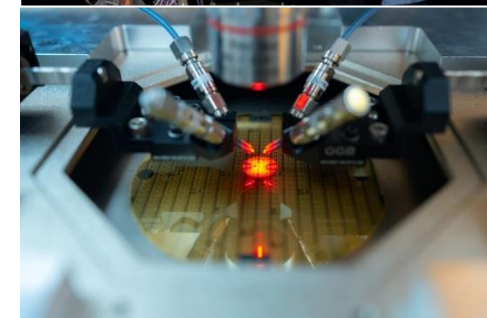
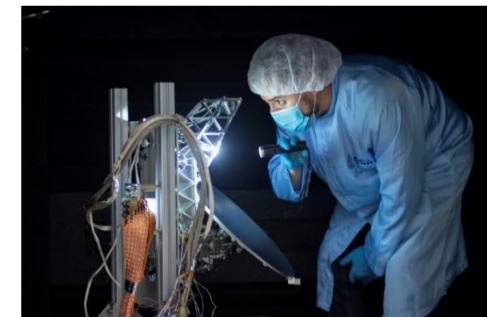
Nemo HD



Trisat

We already have global players

- ➔ A Slovenian company has become as one of the **leading EO (Earth Observation) downstream players in the world.**
- ➔ A **leading company in the field of control systems** not only in the space industry (also in the nuclear industry, etc.).
- ➔ **Successful 3D printing company** gradually entered the field of space.
- ➔ A company, which provides **online mapping services**: detection and analysis of water surfaces and flooded areas in Africa.
- ➔ **Faculties and Research institutes** involved in international projects.





Montage: JL Flanner

Challenges

- Temperature rise in the last 60 years by 2.4 degrees Celsius
- More frequent heat waves (and more severe drought episodes)
- the heat load increases
- More frequent floods and droughts, etc.

Results & Success Factors

- ✓ Better awareness of climate change
- ✓ Initiatives for green energy production
- ✓ Some applications of climate change projections' data in healthcare, forestry, agriculture etc.
- ✓ National mobile alarm system for extreme weather & natural disasters

Limitations & Gaps

- Need for more sector oriented information on impacts of climate
- need for adaptation in urban areas (water management, urban green space, heat islands), **Agriculture:** lack of irrigation systems
- Need for climate risk and vulnerability assessments

What Slovenia offers for cooperation:

- A dynamic industrial system with a lively startup & tech community
- Strong research community
- Increasing resources invested space in the national framework

Following Presentations will follow from Slovenia:

TOPIC	WHO	COMPANY / INSTITUTION
Nemo-HD Satellite Data and Digital Twins of SDG Hotspots	Mr Tomaž Rodič	SPACE-SI
Nemo-HD Microsatellite and Ground Station Infrastructure for Agile Acquisitions of Multispectral Data and Video	Ms Ana Urbas	SPACE-SI
Future seasonal rainfall patterns and impact on landslide prone areas in Slovenia	Ms Mateja Jemec Auflič	Geological Survey of Slovenia
Use of Earth Observation data for enforcement of sustainable agriculture - good practice from EU Common Agriculture Policy	Mr Grega Milčinski	Sinergise d.o.o.


Thank you!




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