



POLSA

Space Tech Expo
Bremen, 2022.11.15

Exciting Times Ahead for Space Agencies

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President of Polish Space Agency

- ▶ Poland in European Space Agency from 2012
- ▶ POLSA established in 2014: executive agency of the Ministry of Economic Development and Technology

- ▶ Polish Space Sector:
 - ~400 companies, 12000 employees
 - instruments in >80 missions
 - 14 satellites launched, +5 in 2023

Poland's National Space Program

Strategic Objective

- ✈ Building space scientific and industry potential to fulfill national needs and to become fully competitive at international market

Specific Objectives – follow the objectives of National Space Strategy

- ✈ Building national space sector competences and increasing its competitiveness
- ✈ Having data use growth (administration, science, industry and society)
- ✈ Leveraging the satellite technologies
to increase the country's security and defense

Priorities

- 1. Poland's capacity for spacecraft construction and launches;**
- 2. National Satellite Earth Observation System (MicroGlob constellation);**
- 3. National Satellite Information System (EO data handling & applications);**
- 4. National Space Security System (SSA, towards STM).**

**~600 M€
for 2023-27**

Key questions for space agencies

► Top of the agenda?

- New goal:
build space infrastructure to satisfy the needs of modern societies

► Most exciting development?

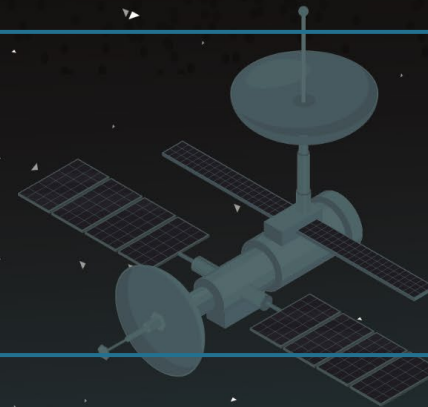
- Rapid growth of space tech applications, like the Internet in 1990'es

► Challenges we face?

- New role:
create ecosystem for the above

► How to prepare for these challenges?

- law/regulation, competitive market, qualified workforce, ...



Today satellites' systems in orbit are **an infrastructure**, as much needed as roads, airports, power lines, internet fibers etc.

Basic elements: **telecommunication, navigation, Earth observation, space weather, planetary defence, scientific instrumentation**

Application areas & examples:

- ▶ Navigation & Logistics
- ▶ Internet, TV broadcasting
- ▶ Agriculture & forestry
- ▶ Architecture
- ▶ Crisis prevention & handling



Billions for millions

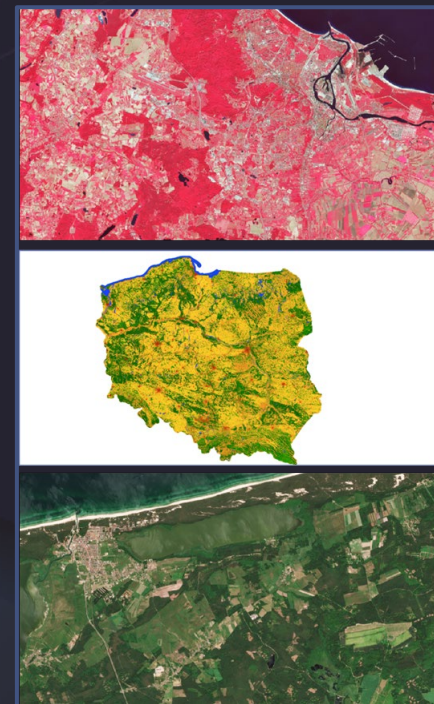
Studies on return from investment for space tech shows typically 4:1 ratio. This is valid for exploratory missions, not taking into account space use.

Investing millions in satellite infrastructure will bring billions for economies and societies.

Just imagine:

- ▶ 10% more food from hectare
- ▶ 10% less losses due to flooding
- ▶ 10% of forest saved from fire

Nota Bene: **economical impact of the internet is thousands times larger than the revenues of internet providers**



To support tech development and growth of the market:

- National space programmes and international cooperation
- European Space Agency, EUSPA, Horizon Europe
- Funding agencies, investors, public-private partnerships



To prevent chaos and avoid conflicts:

- Space Traffic Management
- Law on planetary resource utilisations (Artemis Accords etc.)
- Planetary defence

