



# Strategic Perspectives

## Themes of Czech Space Activities



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# Czech Space Office

- Administration and advisory centre supporting space in CR
- Contact point for collaboration with ESA
- Supports decision-making/financing bodies:
  - Ministry of Education, Youth and Sports; Ministry of Transport
  - Ministry of Environment; Ministry of Defense; Ministry of Industry & Trade
  - Parliament
- Supports Czech R&D bodies:
  - Technology development – institutes, companies, universities
  - Research organizations – academia, universities, companies
- Czech Republic representation in international institutions  
ESA bodies, EU boards, IAF, Eurisy

# Topics of presentation

- Czech activities in frame of ESA
  - PECS projects + SWARM
  - Czech future possibilities in GSTP5-1,2
- Topics of Czech space activities outside the ESA
  - Czech grants selection
- Conclusions



# ESA's themes with Czech participation

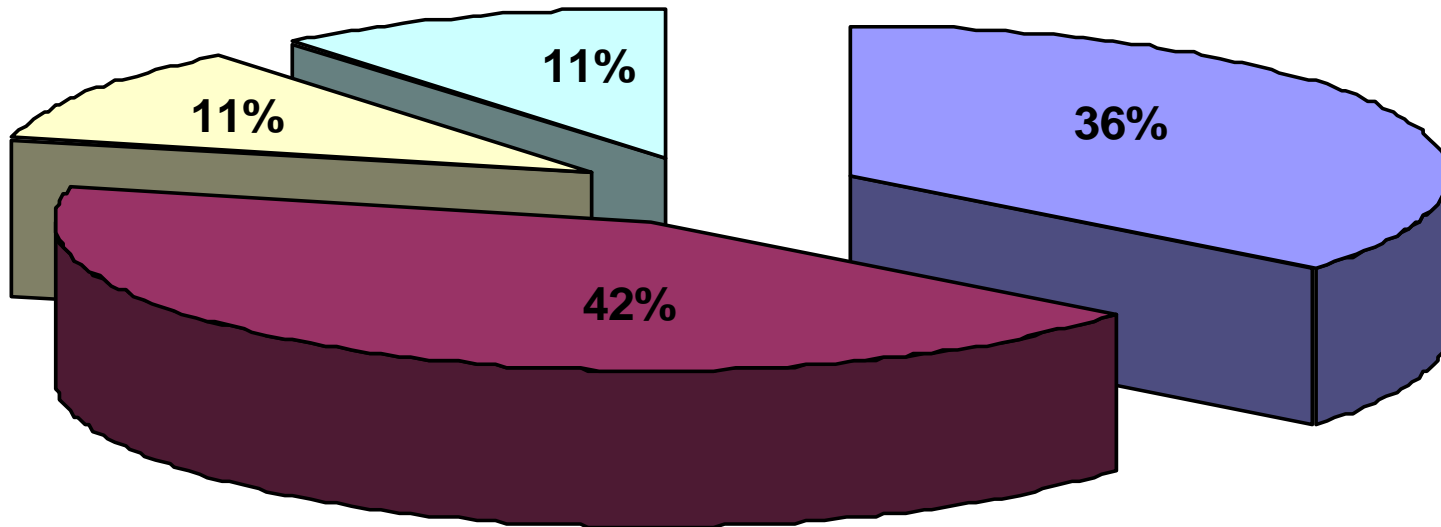
# PECS projects

(Plan for European Cooperating States)

<b>PECS projects</b>	<b>Earth Observation</b>	<b>Science</b>	<b>Industrial Technology</b>	<b>Telecom Navigation</b>	<i>total</i>
<b>ground segment</b>			<b>2</b>		<i>2</i>
<b>payload</b>	<b>1</b>	<b>3</b>			<i>4</i>
<b>research</b>	<b>1</b>	<b>9</b>		<b>1</b>	<i>11</i>
<b>services</b>	<b>8</b>			<b>2</b>	<i>10</i>
<b>technology</b>			<b>1</b>		<i>1</i>
<b>TOTAL</b>	<i>10</i>	<i>12</i>	<i>3</i>	<i>3</i>	<b>28</b>

# PECS projects

(Plan for European Cooperating States)

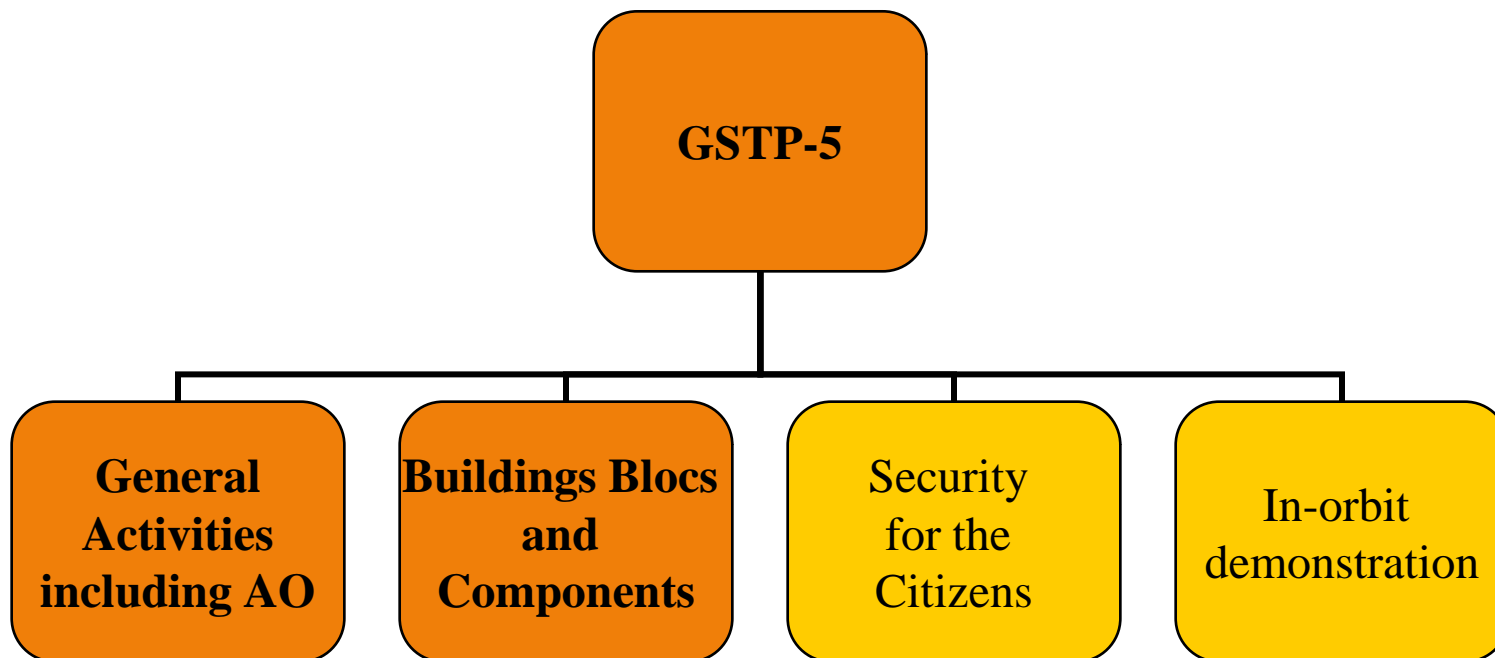


■ Earth Observation ■ Science ■ Industrial Technology ■ TelNav

# General Support Technology Programme

General Support Technology Programme (**GSTP 5**): 3,2 M€ till 2013

- pre-development of identified technologies
- developing generic/cross-cutting technologies
- except telecom



# Number of expresses of interest in GSTP5 themes

GSTP5-1	
<b>GENERIC TECHNOLOGIES AND TECHNIQUES</b>	<b>22</b>
<b>EARTH OBSERVATION</b>	<b>11</b>
<b>HUMAN SPACEFLIGHT AND EXPLORATION PREPARATION</b>	<b>8</b>
<b>SPACE TRANSPORTATION AND RE-ENTRY TECHNOLOGIES</b>	<b>1</b>
<b>NAVIGATION</b>	<b>1</b>
<i>TOTAL</i>	<b>43</b>

GSTP5-2	
<b>SPACE SEGMENT SW</b>	<b>2</b>



# Topics of Czech space activities outside the ESA

# Czech grants selection

- The most space related projects: 60
- Budget for year 2009: 6,75 M€
- Involved grant institutions:
  - Grant Agency of AS CR
  - Grant Agency of CR
  - Ministry of Education
  - Ministry of Industry and Trade
  - Ministry of Transport
  - Ministry of Agriculture

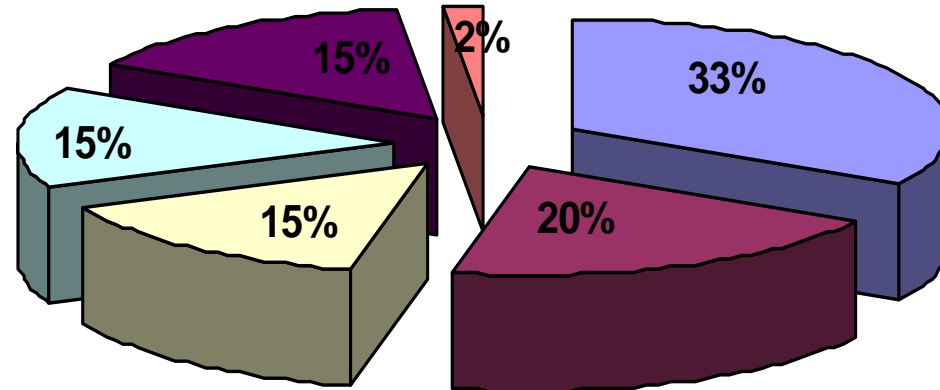
# Czech grants selection

by Service Domain

Science	<b>20</b>
Generic Technologies & Techniques	<b>12</b>
Earth Observation	<b>9</b>
Telecommunication	<b>9</b>
Navigation	<b>9</b>
Human Spaceflight / Manned Exploration Preparation	<b>1</b>
Space Transportation	<b>0</b>
<b>T O T A L</b>	<b>60</b>

# Czech grants selection

by Service Domain



- Science
- Generic Technologis & Techniques
- Earth Observation
- Telecommunication
- Navigation
- Human Spaceflight / Manned Exploration Preparation

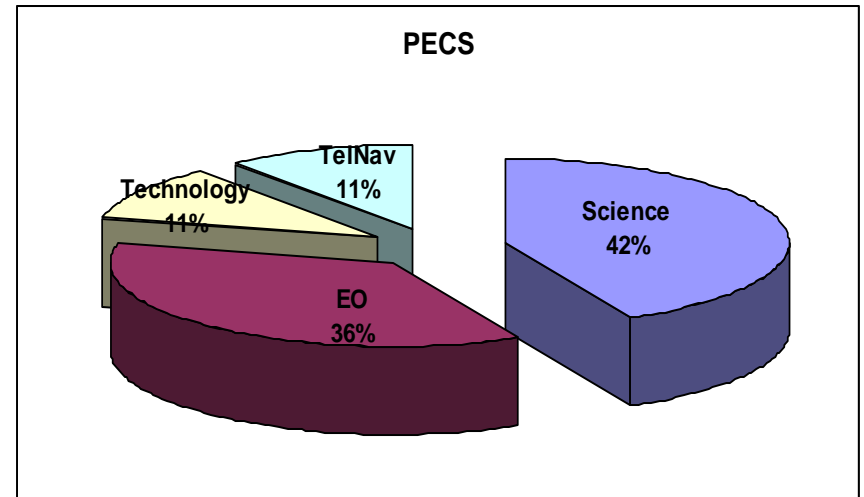
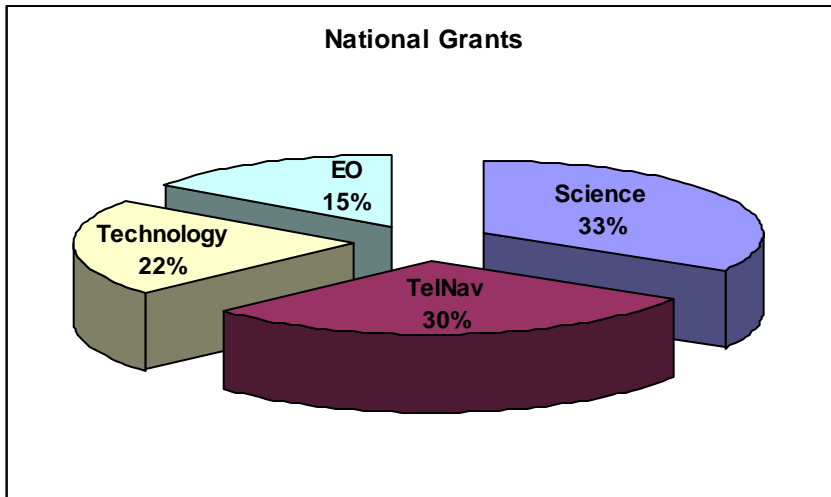
# Czech grants selection

## by Technology Domain

S/C Environment & Effects	<b>14</b>
System Design & Verification	<b>9</b>
Space System Software	<b>8</b>
Life & Physical Sciences	<b>5</b>
Structures & Pyrotechnics	<b>5</b>
Flight Dynamics (FD) & GNSS	<b>4</b>
OTHERS	<b>4</b>
Spacecraft Power	<b>3</b>
Optics	<b>2</b>
On-Board Data Systems	<b>1</b>
RF Payload Systems	<b>1</b>
Mission Operations and Ground Data Systems	<b>1</b>
Automation, Telepresence & Robotics	<b>1</b>
Mechanisms & Tribology	<b>1</b>
EEE Components and quality	<b>1</b>
<b>TOTAL</b>	<b>60</b>

# Conclusions

Domain structure of projects is similar in both funding and implementation categories



# Additional information

## Czech Space Office contact persons:

- EO: [sobra@czechspace.cz](mailto:sobra@czechspace.cz)
- Education: [halousek@czechspace.cz](mailto:halousek@czechspace.cz)
- Human SF + Launchers: [vaclavik@czechspace.cz](mailto:vaclavik@czechspace.cz)
- Science: [farnik@czechspace.cz](mailto:farnik@czechspace.cz)
- Telecom + Navigation: [sunkevic@czechspace.cz](mailto:sunkevic@czechspace.cz)
- Technology: [fuchs@czechspace.cz](mailto:fuchs@czechspace.cz)

Thank you for your  
attention

[www.czechspace.cz](http://www.czechspace.cz)

The logo for Space Industry Day CZ features a blue square with rounded corners on the left side, set against an orange background. Inside the blue square, the text "Space Industry Day CZ" is written in white, with three small white stars above the word "Space".

Space  
Industry  
Day CZ

The logo for the Czech Space Office (CSO) consists of a stylized red satellite orbit or antenna structure to the left of the letters "CSO" in a bold, black, sans-serif font. Below "CSO", the words "CZECH SPACE OFFICE" are written in a smaller, black, sans-serif font.

**CSO**  
CZECH SPACE OFFICE