

# **Support and funding opportunities to develop and use satellite based services**

**J. NIJSKENS**

**Director**

**Belspo – Space department**

**EISC Big data– 16 October 2018**

# BELSPO and Space

BELSPO = BELgian federal Science Policy Office

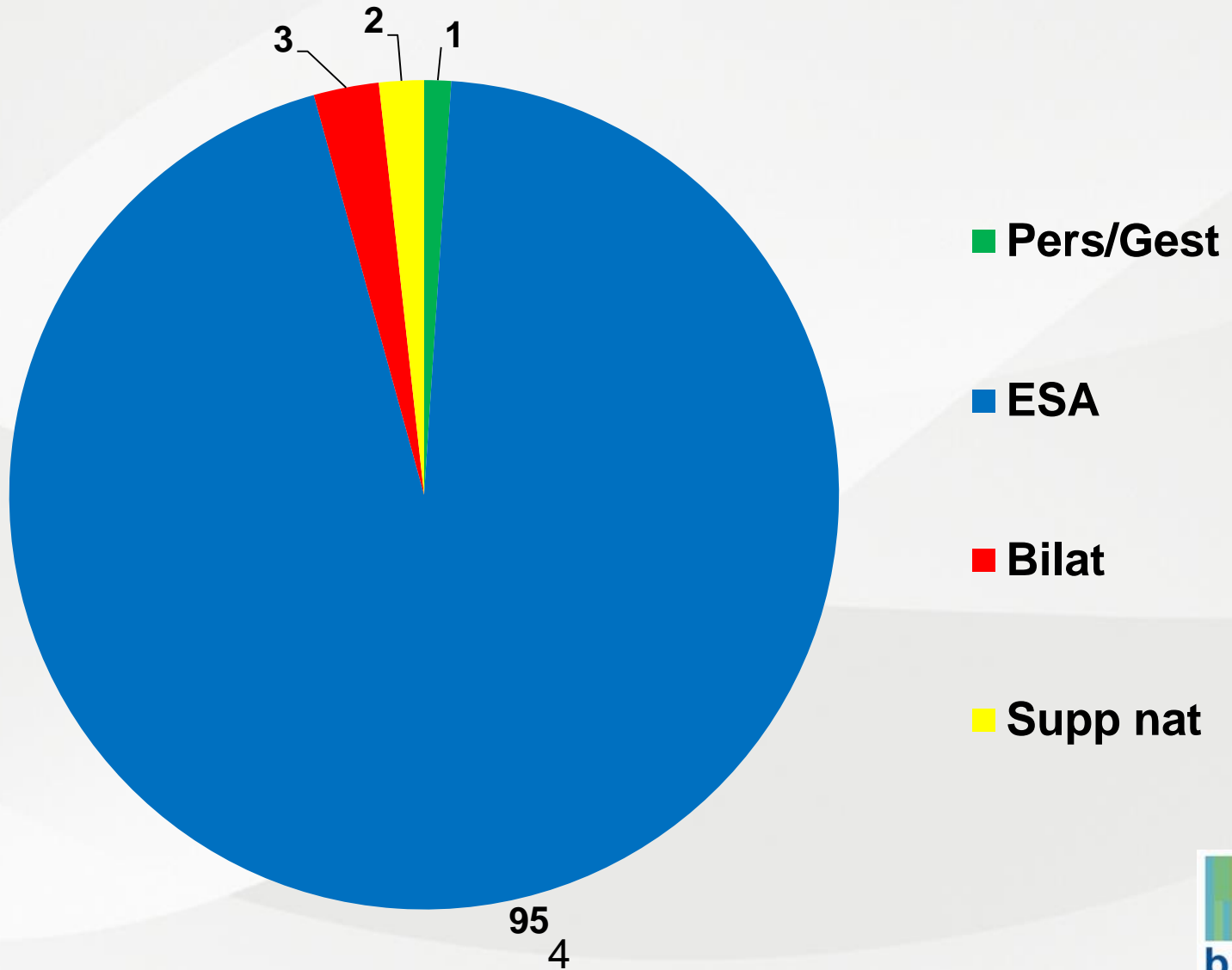
- In charge of BE activities in space
  - ESA, EC, EUMETSAT
  - Bilateral agreements: France, Argentina, China...
  - National programme in EO: STEREO
- Space department (23 persons)
  - Belgian delegation
  - Management of the programmes

# Belgian space strategy

- Create and/or reinforce scientific expertise (more PI's)
- Create and/or reinforce the technological expertise in industry in space growing fields (more responsibilities)
- Support industry to be able to tackle new markets (positive impact on economy)
- Give to the public authority the space means necessary to define, implement and supervise national policies

# BE space budget = ~205 M€ / Y

## Repartition (%)



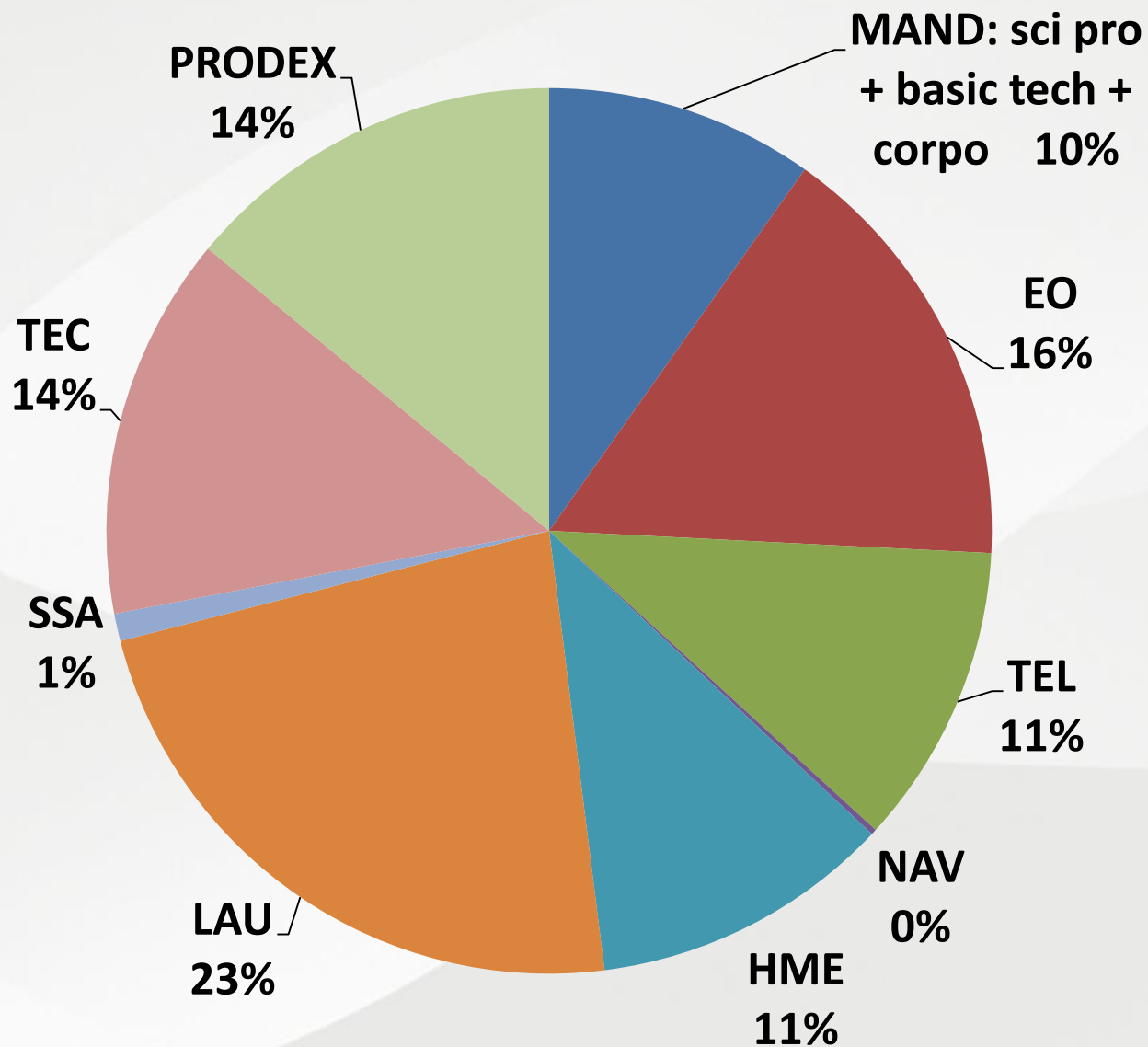
# ESA - European Space Agency



22 Member States  
+  
2 associated States  
(Canada and  
Slovenia)

BE = 5<sup>th</sup> after DE,  
FR, IT and UK

# BE participation by domain 2017-2019



# Bilateral programmes

- **With France** in Earth observation
  - Spot, Pléiades, Myriade,
  - **Vegetation instrument and Processing centre (CTIV) at VITO in Mol**
  - Musis: CSO military optical satellites
- **With Argentina** in Earth observation
  - SAOCOM (radar satellite)
- **MoU Russia, China, ...**

# National programmes

- **Research and applications in EO - STEREO 3**
  - Basic research (review panel)
  - Products and services
    - R&D and public users (mixed projects)
    - R&D and industry (mixed projects)
- **Support for processing VEGETATION and EO data**
  - Processing centre (CVB), Terrascope COPERNICUS CGS
- **EO-DESK**
  - Access to images - Support for the users
  - Education



# **Belgian space actors**

**~70 research teams**

**>50 industries**

**Turn over: 330 M€**

**Employment: 3150 FTE**

# Space infrastructure

- **ESEC** - ESA Space Security and Education Centre in Redu
  - Telecom, techno, education, security, SWE data centre
- **CTIV/CVB and Terrascope at VITO (Mol)**
  - processing of Vegetation data and EO data
  - Collaborative ground segment for Copernicus
- **Test facilities** at CSL (Liège)
- **SWE services** coordination centre and expert centres (Space pole - Uccle)
- **Radiation test facility** at UCL (LLN)
- **ESA BIC's** in Redu and in Leuven

# To support industry to be able to tackle new markets

- **Objective:** industry is able to tackle institutional and commercial markets
- **Implementation:**
  - ESA Programmes: Galileo, Copernicus, Meteo, Launchers
  - Co-funding dev., PPP in GSTP, ARTES, Navisp, **BAP, Stereo, Space solutions BE**
- **Challenges:**
  - **Dev. applications and services: to transform Terabytes in Tera € (ex: Copernicus)**
  - New space (launchers, telecom...)

# Support for services

## Programs

- Stereo (Nat) : Mixed projects (open call)
- BAP (ESA): development of applications and services (open call and thematic calls)

## Support

- BAP Ambassador (ESA-Nat) (N. Helssen)
- Space solutions BE (ESA-Nat) (Verhaert)
- Terrascope (Copernicus coll G/S ) (VITO)

# → ESA SPACE SOLUTIONS BELGIUM



space solutions

Belgium

## **ESA Business Applications**

Funding for commercial applications leveraging space-derived data

**business.esa.int**

**nicolas.helssen@belspo.be**

## **ESA Business Incubation Centres**

Inspire entrepreneurs to turn space-connected business ideas into commercial companies

**spacesolutions.esa.int**

**sam.waes@verhaert.com**

## **Technology Transfer Programme**

Take advantage of Space Technology & Knowhow to benefit your business

**spacesolutions.esa.int**

**sam.waes@verhaert.com**



# Challenges

- Recurrent infrastructure in place : >>Very large set of data to the disposal with guarantee of continuity.
- To transform Tera Bytes in Tera €
- Stimulation of the entrepreneurship
  - Research application oriented
  - Spin offs
- ESA: to present application programmes
- ESA/EU: to have a good coordination
- EU : to proceed with the support of the downstream services

**THANK YOU**

contact: [nijs@belspo.be](mailto:nijs@belspo.be)