



# European Space Sciences Committee

**3 October 2019  
Brussels**

**European Space Research Establishments (ESRE)  
Update**

*Nicolas PETER – Head of DLR International Relations and Chair  
of the ESRE Strategic Executive Committee*

# ESRE – Association of European Space Research Establishments



# ESRE Facts and Figures



**We are over 14000 people, 8000 researchers and 3200 dedicated to space**

**We train 1400 Phd per year and 235 in the space sector**

**We collaborate with more than 600 international partner organizations worldwide and 200 in the space sector**

**We manage a total of 62 sites with 441 research infrastructures and 21 sites with 82 research infrastructures in the space sector**

**We have 4586 patents and 1745 in the space sector**

**We have 1800 peer-review publications per year and 600 in the space sector**

**We have an annual space research budget of 0.5 billion Euro (total:1.5 billion Euro)**



## What We Do

**ESRE is a non-profit association aiming to enhance European cooperation in space research while creating added value to the international space sector**



## ESRE - Our Goals

Positioning ESRE and its REs as one voice offering harmonized views to European industry, governments and institutions in the field of space and innovative research

Contributing to the global competitiveness of the European space sector

Improving and intensifying the cooperation of the Association and its Members with third parties in the space domain; in particular in Europe and with European industry

Intensifying the cooperation between its Members, aimed at further coordination and integration of their space related research activities

## ESRE Research Areas

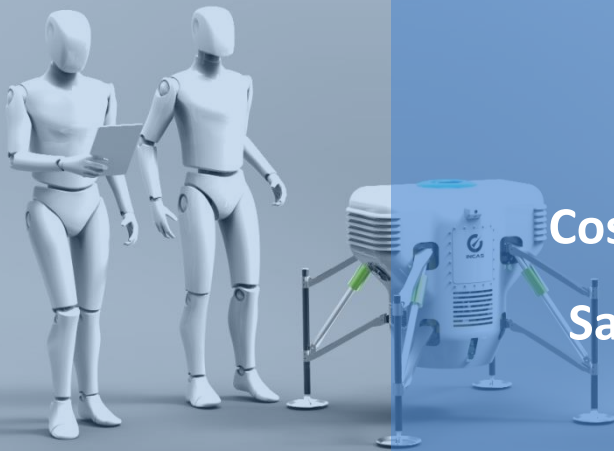
Collaborative Small Satellite Constellations

Future Launching Systems

Cost-efficient Satellite Subsystem Technologies

Satellite-based Greenhouse Gases Monitoring

Environment Monitoring at Local Scale



# Milestones



**2017: ESRE publishes FP9 recommendations, First Whitepaper**

**2016: ESRE was founded by CIRA, DLR, INTA, NLR & ONERA**

**2018: Joint Statement with Eurospace**

**2018: New ESRE member CBK**

**2019: New ESRE members INCAS & VZLU, Update of Whitepaper, Joint Statement EARTO**

# Structure

Current Chair: **Pascale Ehrenfreund**, Chair of the Executive Board of the German Aerospace Center (DLR)

Vice Chair: **Bruno Sainjon**, Chairman of the Board of Administrators of ONERA

ESRE has two Steering Committees, the Strategic Executive Committee (SEC) lead by **Nicolas Peter** (DLR) and the Technical Advisory Body (TAB) lead by **Ángel Salamanca** (INTA)



**Pascale Ehrenfreund**  
ESRE Chair  
DLR



**Bruno Sainjon**  
ESRE Vice Chair  
ONERA



**Nicolas Peter**  
Strategic Executive  
Committee  
DLR



**Ángel Salamanca**  
Technical Advisory Body  
INTA



## ESRE FP9 recommendations | 2017

In order to close the innovation gap in the EU the following recommendations were given:

FP9 should retain the Horizon 2020 concept of “enabling technologies” and Space should remain an “enabling technology” under pillar II.

EC Directorates should coordinate the overall work programmes of the different pillars & ensure cross monitoring of ERC, EIC, and mission activities with regard to the funding of key technologies.

All specific innovation instruments should be placed under the responsibility and coordination of the European Innovation Council.



ASSOCIATION OF EUROPEAN  
SPACE RESEARCH ESTABLISHMENTS

ESRE Whitepaper

Selected  
Trends and Space Technologies  
Expected to Shape  
the Next Decade

Provided by ESRE

The Association of European Space Research Establishments, November 2017



ASSOCIATION OF EUROPEAN  
SPACE RESEARCH ESTABLISHMENTS

## ESRE Whitepaper | 2017

Focuses on the „research and technology development policy“ and „global challenges“ dimensions of the Space Strategy for Europe.

Introduces technology roadmaps aiming to allow Europe to remain at the leading edge of space technology.

Suggests key technologies and goals in research areas, such as Technologies for Autonomous and Cooperative Swarm Exploration, Manufacturing for space applications etc.

Joint Statement of Eurospace – ESRE

regarding Space Research, Space Technology Development (Space RTD) and a space-related Joint Technology Initiative (JTI) in Framework Programme 9.

*EUROSPACE and ESRE represent the interests of key players in space RTD, respectively from the private and the public sector. They bring together a workforce of 45000 in Europe, and manage space research, development and technology activities worth 900 Million € a year.*

*Both associations have recently published their views to support future developments of Space research in the next Framework Programme<sup>2</sup>.*

*EUROSPACE and ESRE share a common vision for Space Research and Space Technology Development in the next Framework programme. These common views are summarised below.*

<sup>2</sup> <http://www.eurospace.org/coalition-papers.aspx>  
<http://www.esre.org/>

## Joint statement ESRE | Eurospace 2018

EUROSPACE & ESRE represent the interests of key players in space RTD, respectively from the private and the public sector. They bring together a workforce of 45,000 in Europe, and manage space research, development and technology activities worth 900 Million € a year.

EUROSPACE & ESRE agree on the need to further strengthen the competitiveness of the European space sector, in particular by enhancing measures in support of innovation.

Both organisations fully support the idea of the EP to establish in FP9 a Joint Technology Initiative related to “Space” and declare their principal interest in joining such a PPP scheme.





# Joint Statement for an Ambitious Horizon Europe Programme | EARTO 2019

We, 93 European research & innovation associations, encourage Member States to support a budget of at least €120 billion (in 2018 prices). This would ensure that Horizon Europe delivers on its promises to:

Boost Europe's future growth, employment and competitiveness.

Secure Europe's seat amongst the frontrunners of the technological revolution.

Develop and scale up the technologies that will power our continent in the 21<sup>st</sup> century.

EU Members States should allocate a budget share of at least 60% of Horizon Europe's total budget to its pillar II-Global Challenges and European Industrial Competitiveness.

# Upcoming updated ESRE Whitepaper | 2019

## Main overall institutional recommendations:

Increase the funding for medium/long-term oriented R&TD;  
increase total funding for space.

Foster earlier cooperation between European Research  
Organisations and industry, via commonly agreed Technology  
Roadmaps.

Explore & exploit R&TD synergies with regard to the Defence  
Fund, AI, Factories of the Future, Photonics and Quantum  
Technologies.

Implement policies that encourage in particular entrepreneurial  
activity promoted by start-ups engaging in New Space.





## Events & Outreach

ILA Berlin 24.- 27.04.2018

Space Policy Conference 22.- 23.01.2019

Le Bourget Paris Airshow 2019 17.- 21.06.2019



## ESRE Outlook

Strengthen our role as European voice for research organisations in space research

Attendance of conference with various stakeholders from politics & sciences

Further collaborate between ESRE members in Horizon calls

Participate in the Stakeholder Consultation Plattform (SRIA)



