



Kindly hosted by the
Representation of the Free State of Bavaria to the EU

Conference of the Sky and Space Intergroup of the European Parliament
“**WHICH FUTURE FOR SPACE RESEARCH IN EUROPE AFTER 2020?**”

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Representation of the free State of Bavaria to the European Union



From left to right: at STEPP project's signing ceremony, MEP Marian-Jean Marinescu, Eurospace President Jean-Loic Galle, European Commissioner Carlos Moedas, European Commissioner Elżbieta Bieńkowska, DG GROW's director Philippe Brunet and MEP Monika Hohlmeier (Chair of the sky & space intergroup).

Signing ceremony of the Pilot Project “Space Technologies for Europe”

Marian-Jean Marinescu, Member of the European Parliament and Vice-chair of the Sky and Space Intergroup, emphasized that Public-Private Partnerships (PPPs) is pivotal to make Europe a stronger space power. Especially the Joint Technology Initiative (JTI) is one of the most valuable tool to provide innovation and in the long run to boost European economy.

Philippe Brunet, Director of “Space policy, Copernicus and Defence” at DG GROW, (European Commission), stressed that the signature of the Pilot Project (PP) is a very important step for the European Commission since some objectives can only be achieved with a strong partnership between industry and the public administration. Mr Brunet also reported that the European Commission expects the Pilot Project (PP) to pave the way for a strong and beneficial JTI in the next Multiannual Financial Framework Programme (MFF).



From Left to right: DG GROW's director Philippe Brunet and Eurospace President Jean-Loic Galle

More information on the Pilot Project is available [here](#).

Key note speeches

Elżbieta Bieńkowska, European Commissioner for Internal Market, Industry, Entrepreneurship and SME

Space research is an established priority of the European Union Research Framework Programme (FP) 2014-2020.

The Space Strategy for Europe reaffirms the importance of space research to maintain a world-class space sector and calls for three strands of action:

- Space research should be integrated in the next Framework Programme and 'well resourced'. Future research activities should also better integrate other policy areas ('horizontal synergies'), such as defence, agriculture or transport.
- Efficiency and coherence:
 - It is important to maximise opportunities and to align European, national and private efforts;
 - Efficiency and coherence include the emergence of a JTI for space research;
 - Welcomes the Pilot Project to mark the beginning of an enhanced partnership with industry on research.

- The Space Strategy finally recognises the need to promote space in education and sciences - links among universities and public authorities should be fostered to tackle new skills requirement as part of the new skills agenda for Europe.

Focus on the European space flagship programmes:

- Galileo is now operational and is becoming a critical asset for European strategic economy – while promoting the market uptake of Galileo, the EU should now start thinking about the second generation of satellites.
- Copernicus is the best programme worldwide to monitor the state of our planet - need to maximise opportunities for the downstream sector to use Copernicus data, to expand and integrate technology developments, and to make it instrumental for assessing climate change.
- European launcher: the EU is committed to support Ariane 6 and has already procured two launches - need to anticipate the next generations of launchers to address worldwide competition.

Carlos Moedas, European Commissioner for Research, Science and Innovation

Mr Moedas identified two major hurdles to go through with regard to research and innovation in the EU:

- Political: loss of the connection between science and people and between politicians and science (too few EU leaders are promoting research worldwide).
 - Need to rebuild that connection in the next FP - “what better than space to get that connection”.
 - Need to get back to missions that connect people and society to science in the next FP – “need ambitions for space” (e.g. the moon mission in the US).
- Technical:
 - While Europe was leading the first wave of the Internet, it lost its leadership as it did not manage to tap into the digital revolution. Today, Arianespace is leading the launch market, but competition is also emerging from new players (e.g. Amazon) who use the digital to get into the physical.
 - The third wave of the Internet will be a game changer for Europe as it will be about sensors, deep science (Artificial intelligence, BlockChain, deep technology), and public-private partnerships.

Jean- Loic Galle, President of Eurospace

Space is undergoing a revolution, mainly connected to digitalisation: new actors (SpaceX, Blue Origin etc.), fast acceleration of innovation cycle and risk taking that lead to a demand shift from flight proven solutions to cutting edge solutions.

In this context, the most pressing need for the European space industry is to adapt as quickly as possible to new challenges through innovation. In this respect, the European space industry needs:

- a reactive and efficient support to R&D to be able to afford cutting edge capabilities, and
- an ambitious institutional demand for improving the level playing field.

The success of New Space is highly dependent on the success of renewed public strategies. This means that the first role of public authorities should be to ensure that space is accessible and safe to operate. Guaranteeing an autonomous access to space implies independent and efficient launch service capacities, as well as access to state of the art technologies and industrial capabilities and support to competitiveness.

To achieve a level playing field, public procurement (ambitious and steady in volume) and support to R&D are needed - need a dedicated FP9 space programmes.

Joint Technology Initiative:

- FP9-space should be announced with an industry driven research agenda for implementation in a JTI focused on technological innovation for a competitive space industry.
- The JTI is proposed and conceived as a complement to existing ESA and national tools.
- The JTI will enable the expression of industry driven priorities with the goal of supporting the development of a more competitive and sustainable industrial chain.
- It will also allow public investment to be better connected to the space market.
- The JTI will provide more flexible and agile environment for space RDT&I.
- It will ensure a product-oriented focus that all developments are brought to the appropriate maturity for integration in products and it will address dependence reduction toward the US.
- An industry-driven JTI will finally provide more focus and more budget for research with a more coordinated approach between industry and public authorities.

In a nutshell: Eurospace released the day before the Sky & Space intergroup its views to support the elaboration of the 9th Framework Programme for research in Europe. This has been a collaborative work of a dedicated Task Force established in March 2017. The position is available as a [complete paper with annexes](#) (including the preliminary scoping of a Joint Technology Initiative in the form of a [Research and Innovation Action Plan - RIAP scoping paper](#)) and as an [executive summary](#).

First Session: The European articulation of technology policies for space

Moderation: Geneviève Fioraso, Former French Minister for Higher Education, Research and Space, and Chairperson - ESPI Advisory Council

According to [Pascale Ehrenfreund](#), Chair of the Executive Board of DLR (German space agency), the main objectives for European space research are to:

- Enable missions;
- Ensure non-dependence;
- Prepare the future with adequate support and by engaging in disruptive scenarios - dynamics and speed in development imply more risk-taking, entrepreneurs and business opportunities.

[Roberto Battiston](#), President of the Italian Space Agency, stressed that space is strategically important for a modern efficient society. It is also a tool for diplomacy that enables Europe to play a role in the world. Mr Battiston emphasised that the role of institutions is to foster a competitive sector. Regarding FP9, he underlined that the EU needs to define new business models using more strategically existing resources.

As stressed by [Jean-Yves Le Gall](#), President of CNES (French Space Agency), RDT efforts will have to support the 4 pillars of the Space strategy for Europe (new applications, competitiveness, strategic autonomy and international presence). Mr Le Gall added that, under FP9, RDT shall be organised with three axes of development:

- applications to reap benefits from space, create disruption in technology and provide In-Orbit Demonstration;
- new PPPs to strengthen competitiveness;
- coordination and harmonisation of RDT actions at ESA, EU and national space agencies level to avoid duplications at all cost.

[Paul Verhoef](#), Director of Navigation at the ESA, pointed out that getting the right mix in support of R&D pivotal. This implies to find a balance between blue sky research on the one hand and research targeted to enable commercial and public missions on the other hand, but also between the upstream

and the downstream sector, and to assess how much support for disruptive innovation is needed. Mr Verhoef also identified challenges to be addressed such as the need to:

- spend public money in an efficient way;
- ensure that budget is sufficient to achieve European ambitions;
- act quickly in a number of areas of research where competition is high;
- have a joint strategy and targets.

Pierre Delsaux, Deputy Director General at DG GROW (European Commission), indicated that EU institutions should be consistent when preparing the EU budget (i.e. the EU budget should not only be supported by the European Parliament, but also by Member States.) The need to reinforce unity of Europe to face worldwide competition was stressed by Mr Delsaux who also pointed out that the JTI is, in this respect, a first important step forward. The EU should also enhance cooperation in research among Member States to be more efficient in spending budget and should be able to attract investment from other sectors of the economy. He finally stressed that the EU should better bring innovation to the market and better exploit benefit of space.

VIP Discussants

Marian Jean Marinescu, warned the audience that discussion on next MFF will be very difficult and recalled the importance to achieve agreement before the European Parliament elections. While the challenge for next MFF will be to identify methods to save money, Mr Marinescu underlined that two solutions exist in this regard:

- As mentioned in the ITRE Committee opinion report on next MFF (MEP Marian-Jean Marinescu is rapporteur) synergies between different EU funds as well as between EU budget and national budgets should be developed and promoted.
- PPPs will also bring EU money, doubled by private money.

As outlined by the Space Strategy for Europe, the competitiveness of the space sector is highly dependent on research. **Massimo Zanonato**, Member of the European Parliament, therefore called to safeguard and expand the FP9-space line.

Andres Jaadla, Rapporteur of the opinion report of the Committee of the Regions on a Space Strategy for Europe, asked how EU can bring opportunities from space close to regional cities and European citizens and recalled the support of the Committee of Regions for an ambitious space research and for smart specialization of the European regions.

Second Session: Towards an EU space technology policy maximizing **Europe's competitiveness in space**

Moderation: **Marc Pircher**, Former Director of CNES' Toulouse Space Center

Alain Charmeau, CEO of ArianeGroup, presented the priorities and needs of the launchers community:

- Autonomous access to space to national and European institutions should be guaranteed for economic and strategic reasons.
- Europe needs to go much faster from the academic research to the introduction of products on the market - a common roadmap between EC and Industry, in the framework of FP9 or the JTI, could help to have competitive products on the market as quickly as possible.

- The need for a level playing field was also raised since, unlike its main competitors, Europe has a small institutional and mainly non-captive market.
- A dedicated budget for R&T within FP9 for space and a JTI to support all industry are needed.
- Significant investment in term of technology is essential, from the private sector but also from national agencies and European institutions.
- Interest in developing common technologies, for e.g. to bring industry 4.0 into space.

Nicolas Chamussy, Exec. Vice-president of Space systems, Airbus Defence & Space, presented the budget envelope targeted by the European space industry for FP9: EUR 2 billion, of which EUR 1,5 billion for space upstream (RDT&I) and EUR 0,5 billion for market development outreach and other actions. Out of the EUR 1.5 billion, EUR 0,5 billion are targeted for the JTI/PPPs. Mr Chamussy also shared the view that Industry need to develop common technologies, and stressed that while industry is not ready to share subsystem definition or equipment definition, it already shares objectives, needs, and, in the future, materials (like addressed in the JTI).

Jean-Loic Galle, CEO of Thales Alenia Space, recalled that European space industry has doubled, sometimes tripled, its effort in R&D in the last years because of the acceleration of the evolution of the technology calls and the increased performance of satellites. He also insisted on the point that public money invested in the past has been worthwhile (e.g.: PPPs with ESA on electric propulsion).

Jeroen Rotteveel, CEO of ISIS and Chair of Space Ned, outlined that the main difference between US and EU with regard to space research is the lack of access to venture capital money in Europe.

VIP Discussants

Franck Proust, Member of the European Parliament and Vice-chair of the Sky and Space Intergroup, reiterated that space is of strategic importance for EU in terms of autonomous access to space and technological independence.

In the context of the preparation of next MFF, Mr Proust indicated that Europe should:

- Reinforce the consistency of its action between Member States, ESA and the European Commission as well as between public and private actors.
- Strengthen space in the civil and in the defense sector.
- Preserve a dedicated space line under FP9.

The need for economic diplomacy in space and a strategy to protect European trade interests was put forward by Mr Proust. As rapporteur of the INTA commission draft report on monitoring foreign investment, Mr Proust stressed that European preference should not be a taboo and that European know-how should be protected. In this respect, he expressed concerns that some Member States are using foreign launchers to launch European satellites.

Integration of SMEs in next FP9-space was pointed out as priority for the EU by Member of the European Parliament Ines Ayala Sender. Ms Ayala Sender also recalled the importance to reinforce synergies between space and other EU policies and highlighted the role of industry in this respect.