

BDLI/GERMAN INDUSTRY'S POSITION PAPER ON EUROPE'S FUTURE COURSE IN SPACE

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Recommendations for concerted action



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BDLI/GERMAN INDUSTRY'S POSITION PAPER ON EUROPE'S FUTURE COURSE IN SPACE – RECOMMENDATIONS FOR CONCERTED ACTION

The initiative “Establishing key principles for the global space economy” has set the course for the future of European space within the framework of the German EU Presidency. It is now time to make the right decisions for the successful future of space policy in an increasingly competitive global environment and to make Europe's space sector future-proof, particularly in order to ensure Europe's strategic independence. From the German space industry's point of view, the following aspects have to be taken into account.

1. SPACE BUDGET IN THE EU MULTIANNUAL FINANCIAL FRAMEWORK (MFF)

The European Union has become an important global player in space in recent years. With the Copernicus and Galileo programs, Europe does not only demonstrates its own technological capabilities, but also provides its people with key space applications in everyday life and in the economy. Each euro invested in space generates a fourfold direct and nine-fold indirect value-added lever. At the 2019 Ministerial Council, ESA member states also recognized the importance of European space and provided a higher budget than ever before for European space. However, Europe must ask itself whether the resources available for space actually meet Europe's own requirements (“Level of Ambition”) and whether the space budgets are indeed sufficient in the short to medium term to meet the enormous global challenges and to withstand increasing competitive pressure. Regarding future fields of action, it is particularly essential to attractively design the cluster areas of the Horizon Europe program important for space and to provide adequate funding. It is undisputed that investments in space are spent well and pay off multiple times – because space is more than ever the key to solve urgent global challenges such as security, climate protection, mobility and communication.

RECOMMENDATIONS FOR ACTION

Investments in European space increase the resilience of Europe's society and economy through the multiple benefits of space and significantly contribute to Europe's economic success. In addition, space provides an objective basis for important policy decisions, e. g. climate protection.

The space budget for the flagship-programs in the MFF 2021-2027

- strengthens the competitiveness of the European space industry,
- increases the capacity for cooperation in the bilateral and international context, and
- enables ESA to carry out its extensive tasks in preparing and implementing the European space programs.

A new European flagship program, such as an initiative for secure broadband connectivity, would send another strong signal of European independence and at the same time international cooperation, thereby strengthening the European economy.

2. COOPERATION BETWEEN THE EU AND ESA

The European Union EU and the European Space Agency ESA complement each other on a wide range of space topics. The EU's industrial policy primarily focuses on meeting European needs and, within this framework, on competitiveness and avoiding distortion of competition. As a space agency, ESA's main focus is on development work as well as on expanding and securing European industrial capabilities.

RECOMMENDATIONS FOR ACTION

The successful and coordinated interaction of all players in European space – EU, ESA and Member States – must be positioned in a future-oriented manner. This implies

- a clear orientation towards the political concerns of the Member States.
- a clear distribution of competencies between the EU and ESA which should be oriented at the role allocation up to now, provided that it continues to be sustainable for future programs and that it is supported by the member states. Until now, the EU stands for the operation, service and maintenance of EU space programs, while ESA stands for procurement and sovereignty as contracting authority. drawing on ESA's experience in managing complex and technologically demanding space programs for decades and in its structures and mechanisms , wherever still effective.
- a Profit Policy that can be measured against internationally applied standards and that improves the profitability of companies.

Cooperation between the EU, ESA and the European space industry must also ensure that the Intellectual Property Rights (IPR) created under the space programs remain with the space industry, in order not to disadvantage industry in global competition.

3. KEY PRINCIPLES OF EUROPEAN SPACE FOR STRENGTHENING AND OPENING UP NEW MARKETS

A powerful, globally competitive space industry and excellent science are the prerequisites for promoting European interests in international cooperation, but also regarding increased global competition. This requires a level-playing field and equal standards for entering new markets.

RECOMMENDATIONS FOR ACTION

- European access to space is central to maintaining Europe's strategic independence in the globalized world. Similar to Germany, Europe should also agree on a European preference for the transport of governmental, especially security-critical, payloads into Earth orbit. This is strategically important and counteracts market distortion by other countries.
- With the "Space Policy Directives 1-4", the US has created national regulations on space activities, which may also have an impact on other states. This could lead to US standards becoming global standards at the same time. In this respect, Europe should strengthen its voice in the regulatory organizations (particularly UN COPUOS, ITU and ISO) and address the relevant aspects in order to create a level-playing field in global space.
- Easier access to space, increasing space debris and the growing global relevance of space for military operations call for a stronger protection of space assets at European level. Space must become one of the main pillars of the European defence and security strategy.
- Due to the territorial and quantitative increase in commercial space, New Space developments require uniform European standards for space projects. This includes the same rules for investment and financing of space projects, ESA-EC rules for co-financed programs and a European set of rules for initiatives/funds to support PPP projects. Consideration should be given to a European space law as a basis for international regulation.
- Key technologies are expected to be strengthened, particularly to secure sovereign capabilities in the security and defence industry, including secure communication, artificial intelligence, positioning for security forces, propulsion technologies, sensors and further technologies (in line with the German Federal Government's strategy to strengthen the security and defence industry of February 2020).

4. SPACE TRAFFIC MANAGEMENT

The growth of space activities of states and space companies results in an increasing intensity of the use of space. New space markets offer multiple opportunities, but require the establishment of international standards at the same time.

It is vital to agree on international regulatory framework conditions for space activities to safeguard space safety and security, to reduce the probability of collisions in space, and thus to ensure that Europe's citizens, politicians and industries will reliably benefit from important and indispensable space applications in future too.

RECOMMENDATIONS FOR ACTION

- Basing on the recommendations drawn up under German Presidency, cornerstones for a European Position on Space Traffic Management (STM) Regulations are supposed to be developed.
- A major precondition for regulations is Space Situational Awareness (SSA), which stands for detecting orbiting objects in Space.
- A Space Traffic Management System must be generally binding worldwide in order to prevent imbalances and distortions of competition. International implementation is the prerequisite for a successful STM to protect our infrastructures in space.
- A (global) Space Traffic Management system is expected to define conditions for satellite launches, to develop an early collision warning system, to regulate the allocation of orbital slots for satellites, including minimum distances to other satellites, and to stipulate terms and conditions for satellite MRO and for the removal of space debris.
- Due to the impact on the industry, the space industry should be involved in the development process of regulation at an early stage, which will also ensure feasibility.

5. CONCLUSION

European space activities make a significant contribution to Europe's economy and provide an objective basis for vital political decisions. On the basis of the recommendations drawn up under the German Presidency of the Council of the EU, the European Union now has the opportunity to set the right course in the dynamically developing space sector in order to position Europe successfully for future global developments and challenges. In the view of the German space industry, the recommendations outlined here make a decisive contribution to this. The German space industry would appreciate to have the opportunity to support the European Union, ESA and the German government with its expertise.



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