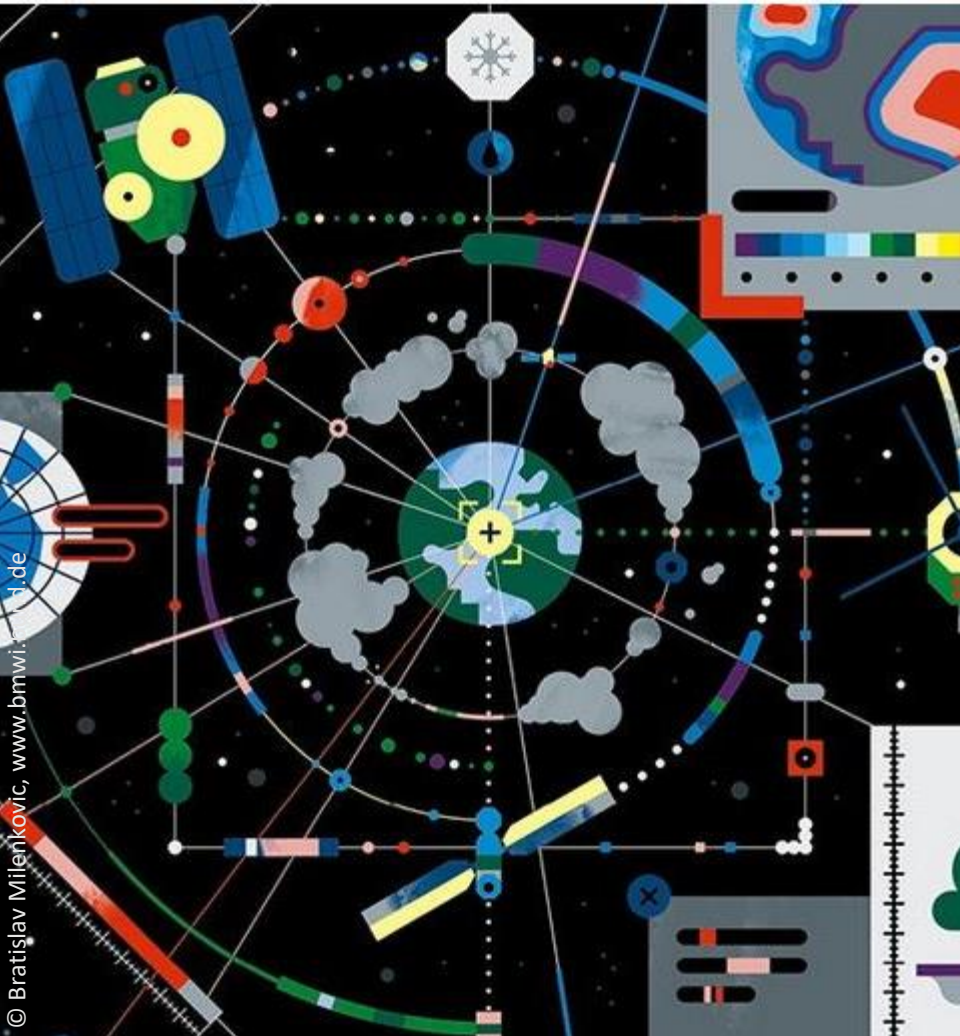

DARING MORE PROGRESS

THE PROSPECTS FOR THE SPACE INDUSTRY WITH THE NEW GERMAN FEDERAL GOVERNMENT

SABINE VON DER RECKE, 18.01.2022

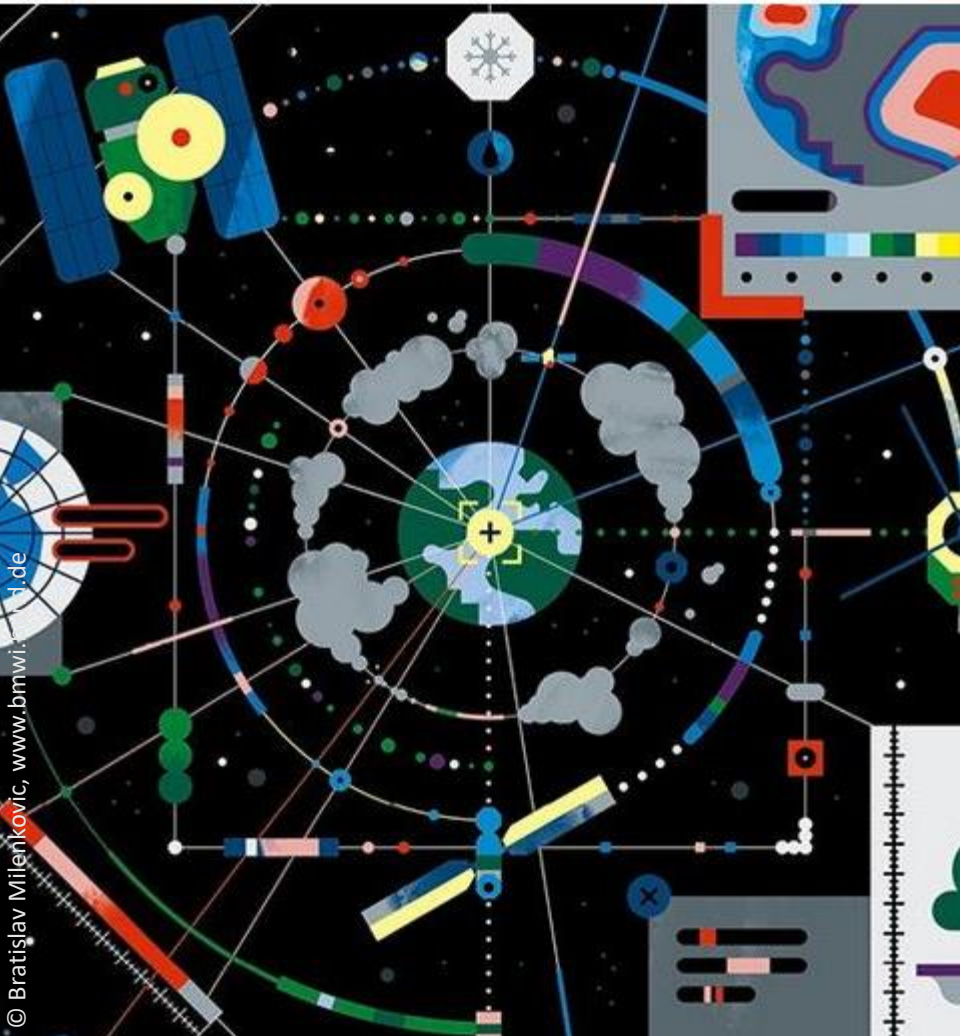


AGENDA



- 01** The New German Government
- 02** Climate Change and Sustainability
- 03** Safety and Security
- 04** European Sovereignty
- 05** Conclusions

AGENDA



- 01** The New German Government
- 02** Climate Change and Sustainability
- 03** Safety and Security
- 04** European Sovereignty
- 05** Conclusions

THE NEW GERMAN GOVERNMENT

A PROMISE OF OPTIMISM AND PROGRESS



We have an appetite for new things and will promote technological, digital, social and sustainable innovation ⁽¹⁵⁷⁾.

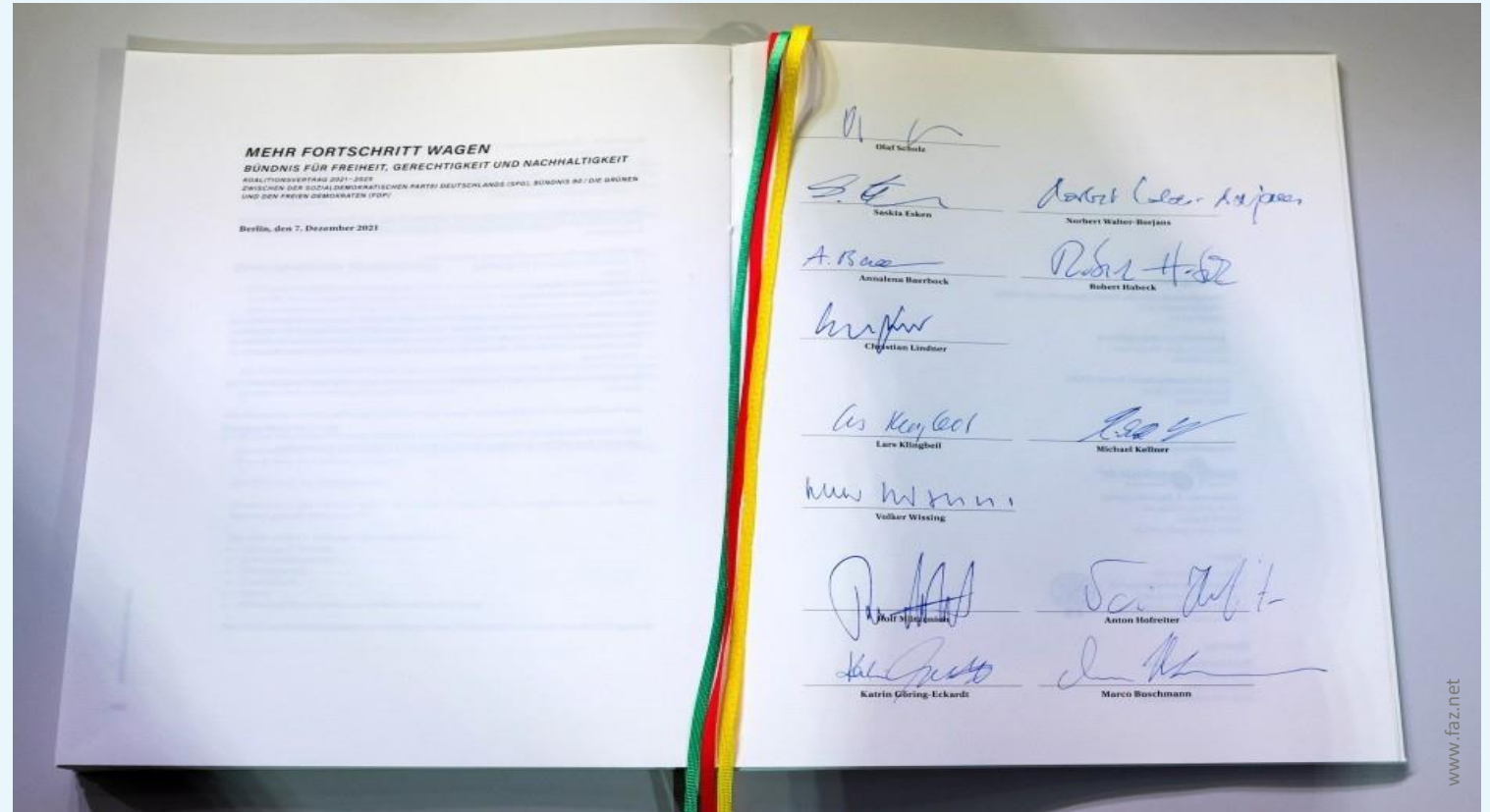
- After 16 years of the leadership of the Conservative party with Chancellor Merkel, the Social democrats, Greens and Liberals achieved a majority in the federal elections in September 2021 and have formed the first traffic light government at federal level in Germany since December 8, 2021.
- For the space industry, the coalition agreement holds ambitious opportunities and many starting points for making space-based technologies available as the right instruments for solving global political and social problems.

DARING MORE PROGRESS

MEHR FORTSCHRITT WAGEN



Space and the New Space sector are key technologies of the future. We are strengthening the national space program and the European Space Agency (ESA) and preserving their autonomy. We are developing a new space strategy taking into account the avoidance and recovery of space debris (811).



DARING MORE PROGRESS

KEY PLAYER IN THE GERMAN SPACE POLICY



- Our innovation location has also been on my mind for the last four years in the Bundestag, and a strong positioning in aerospace in Europe is central to this. **I will be working with great enthusiasm to provide the best conditions for the bright minds who are working on climate-neutral aviation and who are increasing knowledge about our Earth in space.** This will be exciting and I am very much looking forward to working with my new colleagues at the BMWK and in the aviation and space scene.

(www.annachristmann.de 07.01.2022, 09:20 Uhr)



© Bündnis 90/Die Grünen im Bundestag, Stefan Kaminski

Dr. Anna Christmann, Federal Government Coordinator of German Aerospace Policy

- “Today, spaceflight is making history,” said Robert Habeck, Germany's Minister for Economic Affairs and Climate Protection. “James Webb will look far back into the time history of our universe and help us understand how it came to be. The telescope also shows us what we humans are capable of when great goals meet engineering and international cooperation. **We need this spirit and this innovative power to tackle the big tasks.**”

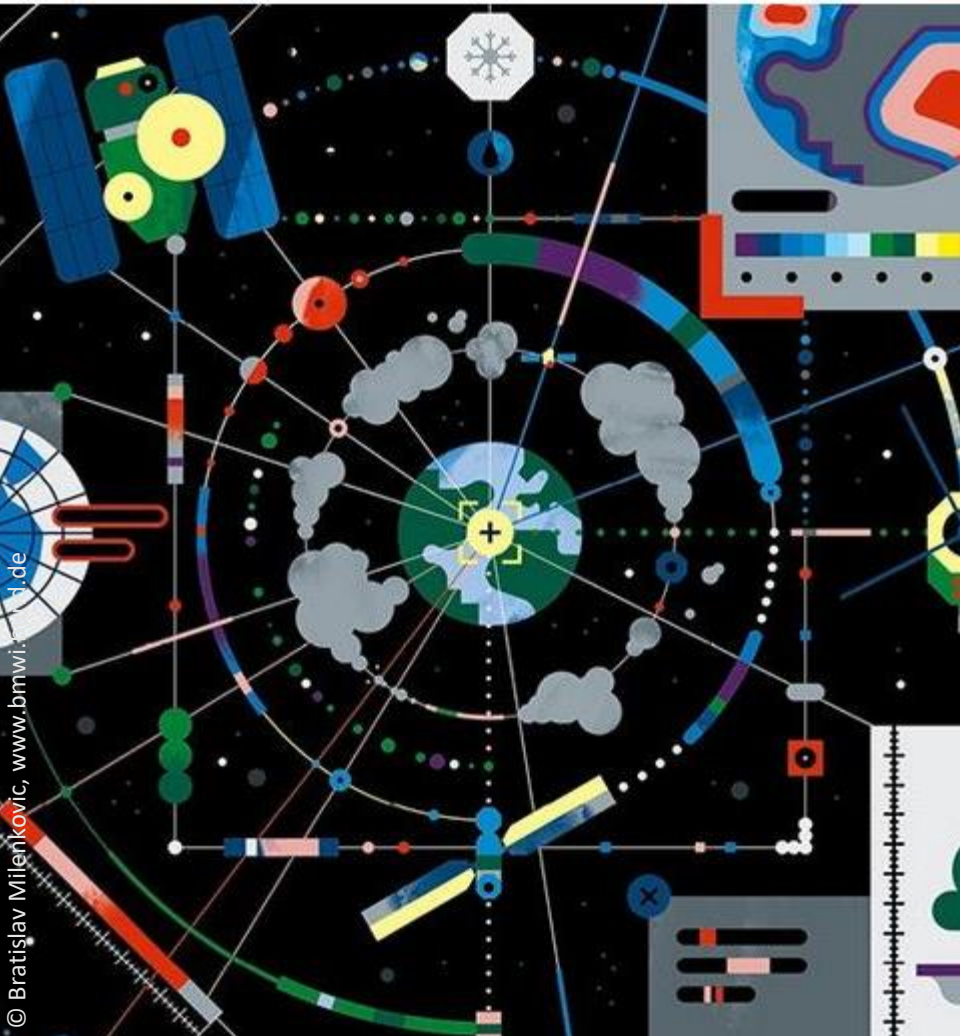
(25.12.2021 – press release BMWi James Webb launch)



© Bündnis 90/Die Grünen im Bundestag, Stefan Kaminski

Dr. Robert Habeck, Federal Minister for Economic Affairs and Climate Action

AGENDA



- 01** The New German Government
- 02** Climate Change and Sustainability
- 03** Safety and Security
- 04** European Sovereignty
- 05** Conclusions

CHALLENGE: CLIMATE CHANGE AND SUSTAINABILITY

CLIMATE CHANGE IS DEFINED AS THE KEY CHALLENGE FOR THE GERMAN GOVERNMENT

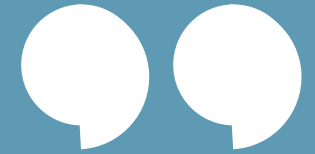
- The new German Government mentions “Klima” 196 times in the Coalition agreement.
- The very ambitious goal to achieve climate neutrality in Germany in the year 2045 demands to triple the reduction of CO₂-emissions in a very short time. Decarbonization is the central policy objective of Robert Habeck.
- The 17 United Nations Global Sustainable Development Goals (SDGs) are defined as a guidance for the coalitions policies.



© Umweltbundesamt



CLIMATE CHANGE & SUSTAINABILITY



Achieving the Paris climate protection targets is our top priority. Climate protection secures freedom, justice and sustainable prosperity. The social market economy must be re-established as a social-ecological market economy ⁽⁵²⁾

CLIMATE CHANGE: KEY INSTRUMENTS

CAN SPACE PROGRAMS HELP TO SOLVE THE MISSION TO SAVE OUR PLANET?

- To solve the major challenges facing society, the need for a strong science and research policy is common sense in the Government.
- Space is one of the key future technologies, the exploration of space is defined as one of the essential future fields of research.
- Satellites enable comprehensive global observations of the climate system and are therefore an essential part of the path to climate neutrality.
- The carbon footprint of space programs and the necessary access to space will have to be considered on the way to a fully sustainable and climate-neutral spaceflight.

CLIMATE CHANGE & SUSTAINABILITY



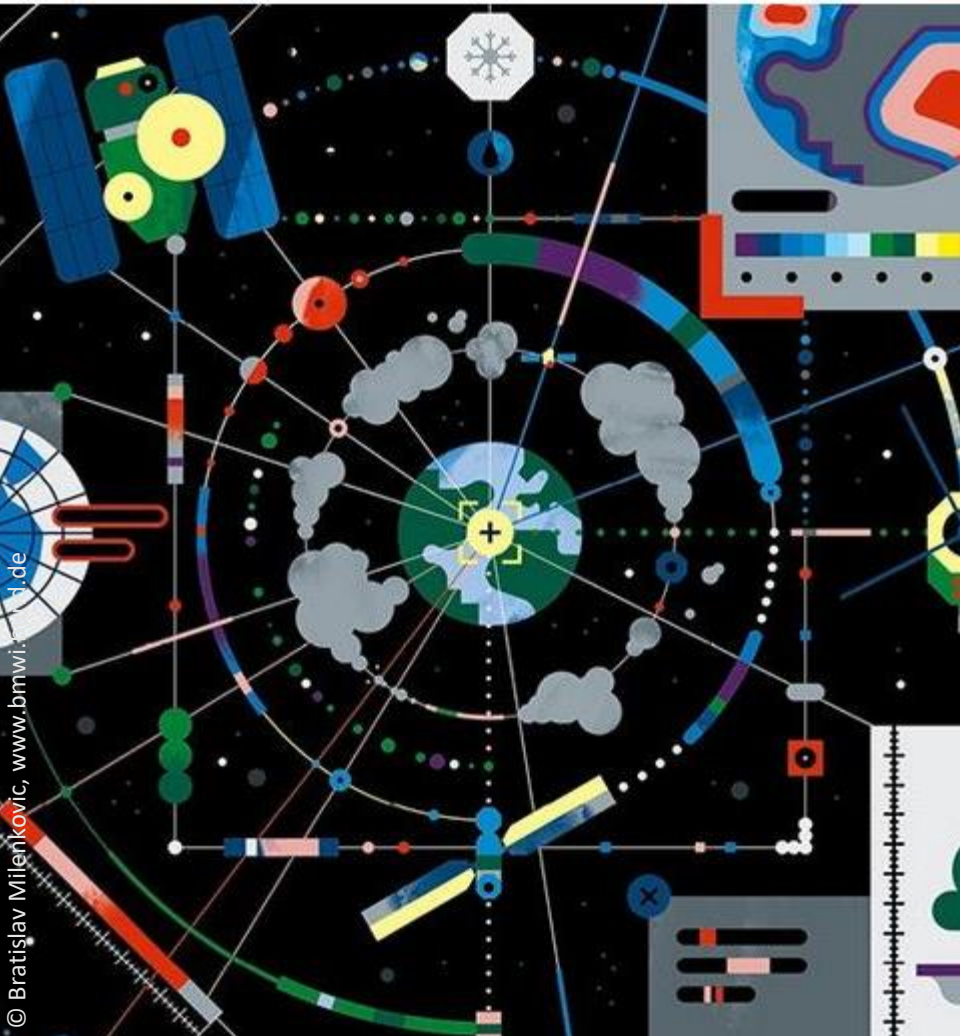
SUSTAINABLE SPACE

SPACE DEBRIS

- A solution to the space debris problem is imperative if we are to continue to use space effectively in the long term.
- Problem areas:
 - Internationally applicable and mandatory rules and information flow;
 - Traffic rules for orbit;
 - Active space debris removal;
 - More accurate and comprehensive observation and cataloging of space debris;
 - Improved burnability of satellites;
 - Recycling in orbit - reusable rocket stages and satellite platforms.
- For the Space branch, the path into sustainable growth is unthinkable without fast and effective solutions for Space Debris avoidance and removal.



AGENDA

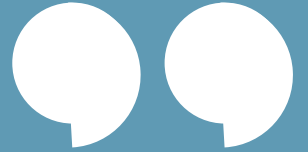


- 01** The New German Government
- 02** Climate Change and Sustainability
- 03** Safety and Security
- 04** European Sovereignty
- 05** Conclusions

CHALLENGE: SAFETY AND SECURITY

HOW CAN WE LIVE SAFELY IN AN UNSECURE WORLD?

- The new German Government is seeking a new approach of alignment in the fields of international engagement for safety and security: Germany should invest three percent of its gross domestic product in international action in the long term in the spirit of a networked and inclusive approach, thus strengthening its diplomacy and development policy and fulfilling the commitments it made in NATO.
- To achieve this, defense technology cooperation in Europe, in particular with high-quality cooperation projects, taking into account key national technologies and enabling small and medium-sized enterprises to also participate in competition, should be strengthened.
- The political approaches to security from a broader and inclusive perspective - feminist foreign policy, sustainable development policy, defense technology cooperation in Europe - expand the spectrum of classic arms policy to include other fields in which space can play a key role.



Life in freedom needs security. Our responsibility is the security of our citizens (3433)

We want the peaceful use of space and cyberspace (4917)

SAFETY & SECURITY



SAFETY AND SECURITY: HOW TO SECURE OUR DAILY LIFE



SPACE BASED APPLICATIONS ARE ESSENTIAL TO PROVIDE INSTRUMENTS FOR SAFETY & SECURITY

- In addition to classical military application programs, efforts to meet the growing demand for Responsive Space measures will have to increase in both the national and the European context.
- Asteroid defense missions and near-Earth-objects tracking can be taken up under an inclusive notion of security (Planetary defense).
- Within the framework of economic cooperation and development aid, space can be used as a technological development potential and applied in the context of educational and university cooperation within the framework of the 3% goal.
- In this context, access to space is also becoming an essential security factor for military and civil security-related missions, for both large and small launch systems, from various launch sites in the European Union.



SAFETY & SECURITY



THE STRATEGIC COMPASS OF THE EUROPEAN UNION

THE PROOF OF THE WILLINGNESS TO ACT?

- With the Strategic Compass, Member States of the European Union will set out a common strategic vision for EU security and defence for the next 5-10 years. Building on a common assessment of the threats and challenges we face, the Compass will provide operational guidelines to enable the EU to become a stronger security provider and a more responsible and reliable partner.

Questions and answers: a background for the Strategic Compass

Brussels, 15/11/2021 - 12:47, UNIQUE ID: 210506_6

FAQs

15/11/2021 - The European Union and its Member States face multiple threats and challenges that are rapidly evolving and increasing in magnitude and complexity. To tackle them, the EU has strengthened its work in the field of security and defence with a comprehensive set of defence initiatives implemented since 2017. As the global security environment deteriorates and new threats emerge, the EU now needs to **step up its capacity and willingness to act**.

With the Strategic Compass, Member States will set out a **common strategic vision for EU security and defence for the next 5-10 years**. Building on a common assessment of the threats and challenges we face, the Compass will provide operational guidelines to enable the EU to become **a stronger security provider and a more responsible and reliable partner**, namely when it comes to responding to external crises, building the capacity of partners and protecting the Union and its citizens.[1]

As proposed to Member States, the Strategic Compass will set policy orientations, specific goals and objectives in four work strands:

- **Act:** we need an EU able to act rapidly and robustly whenever a crisis erupts, with partners if possible and alone when necessary;
- **Secure:** we need to enhance our ability to anticipate threats, generate secure options to strategic domains and protect our citizens;
- **Invest:** we need to invest more and better in capabilities and innovative technologies, fill strategic gaps and reduce technological and industrial dependencies;
- **Partner:** we need to strengthen our cooperation with partners to address common threats and challenges.

These four strands are interconnected. The Strategic Compass is **a guide for action**. It puts forward concrete actions with timelines to measure our progress in the implementation.

- (...)
- Invest:** we need to invest more and better in capabilities and innovative technologies, fill strategic gaps and reduce technological and industrial dependencies;
- (...)

Der strategische Kompass der EU



- Gemeinsame Bedrohungen erkennen und gewichten
- Gemeinsame Fähigkeiten verbessern
- Gemeinsame Antworten finden

Das Ziel: Die Sicherheit der Menschen in der EU gewährleisten.

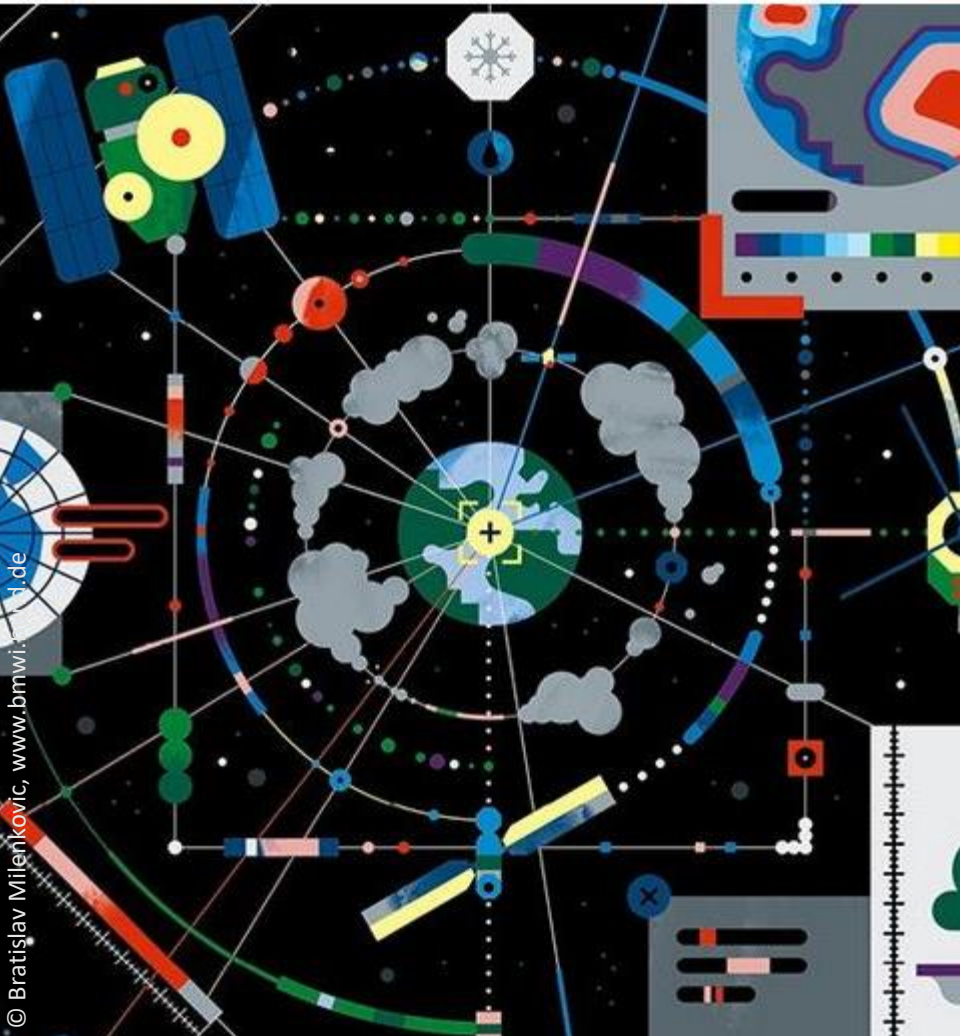
© www.bundesregierung.de

- The Compass addresses the need for the EU to be more ambitious and coordinated in maintaining its competitive edge and promoting technological sovereignty, especially in the area of autonomous systems and digital technologies.

SAFETY & SECURITY



AGENDA

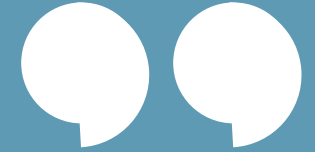


- 01** The New German Government
- 02** Climate Change and Sustainability
- 03** Safety and Security
- 04** European Sovereignty
- 05** Conclusions

CHALLENGE: EUROPEAN SOVEREIGNTY

EUROPE IS THE BASIS OF PEACE, PROSPERITY AND FREEDOM

- The increase of Europe's strategic sovereignty is one of the major guidelines in the Coalition agreement. This means first and foremost to establish Europe's own ability to act in the global context and being less dependent and vulnerable in important strategic areas, such as energy supply, health, raw material imports and digital technology, without sealing Europe off.
- This includes a constructive role for Germany in shaping the work on the "Strategic Compass" so that the EU's goals and resources in the area of security and defense can be ambitiously shaped as part of the Integrated Approach.



We want to increase the strategic sovereignty of the European Union by making our foreign, security, development and trade policies value-based and based on common European interests ⁽¹¹⁷⁾



ACCESS ALL AREAS

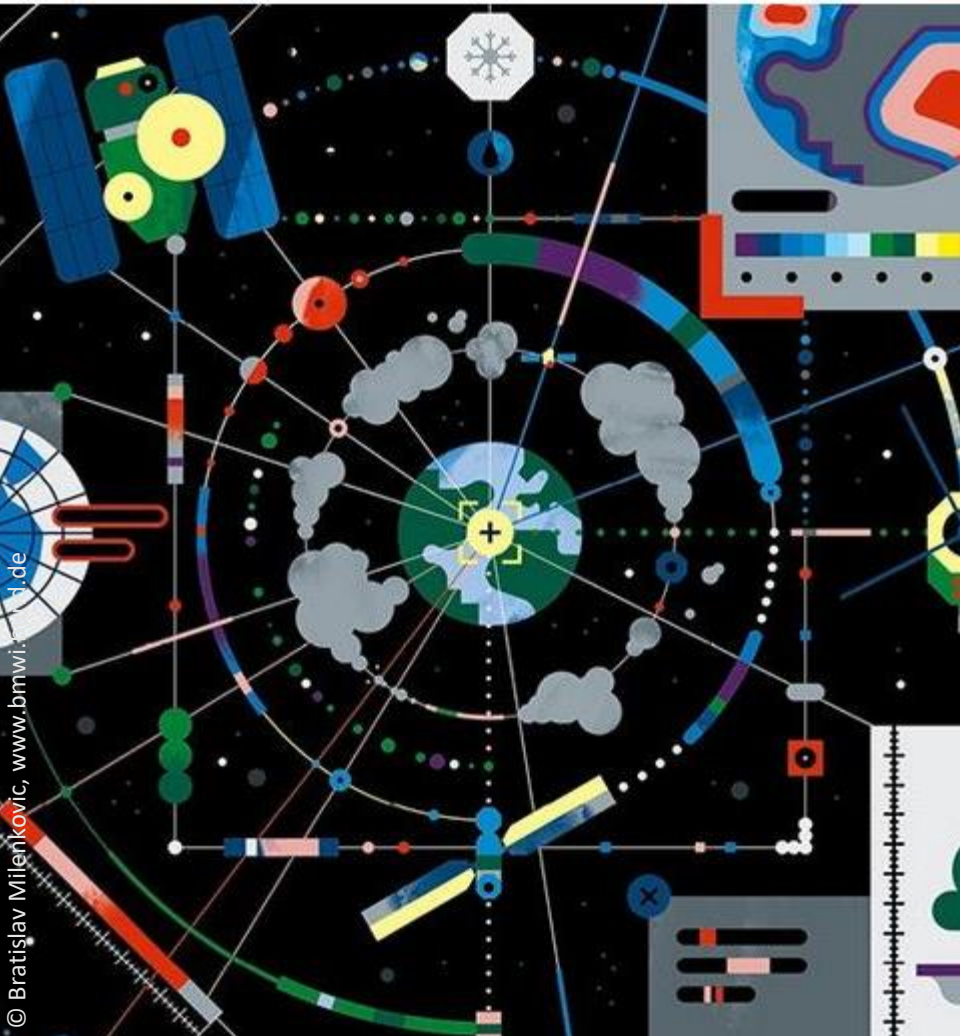
HOW TO ENSURE EUROPE'S INDEPENDENT ACCESS TO SPACE

- European Space-Sovereignty relies both on its independency in Space programs but also on access to Space.
- To ensure not only the independent, but also quick, climate-conscious and secure access to space, the need for not only available launchers, but also for Spaceports increases due to the growing needs for Space solutions.
- The question of European human-rated rockets reflects this, as does the current question on the return to the Moon treaty and the future of European exploration.

EUROPEAN SOUVERGNITY



AGENDA



- 01** The New German Government
- 02** Climate Change and Sustainability
- 03** Safety and Security
- 04** European Sovereignty
- 05** Conclusions

CLOSING REMARKS

ON THE PATH TO A GREEN, SUSTAINABLE, SECURE AND INDEPENDENT SPACE POLICY?

- The German Government has defined very ambitious goals to dare more progress in several important fields like the transformation of industry, digitalisation, focus on high-tech-research, conversion of the energy supply to renewable energies, becoming the lead market for hydrogen technologies by 2030, decarbonisation of mobility, climate-neutral air traffic etc.
- For the Space industry, the Coalition agreement opens up many opportunities to offer good and sustainable solutions to the issues and problems it raises.
- The new space strategy announced in the coalition agreement will give a further boost to the space industry as a whole and will define the cornerstones of the focus of German space policy.
- The focus of avoidance and recovery of Space debris already provides initial indications that the strategy's objectives will be based on sustainability and technologies to secure Planet Earth.
- To not only be part, but be a player in the development of a New Space Market in Germany and Europe, the space industry must transform into a green, sustainable, connected, digitalized and secure industry.

