

# Policy, legal challenges and perspectives on safe and sustainable space activities in Germany

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Dr. Niklas Reinke  
Director DLR Tokyo Office



Knowledge for Tomorrow



# German policy on safe and sustainable space activities

- 2010: The **German Space Strategy** for the first time mentioned the importance of sustainable space for
  - Government
  - Economy
  - Society

Space is seen as **critical infrastructure** that needs special protection through approaches like

- Technical protection i.e. against sun storms
  - Sustainable design of new space missions to protect the orbit and reduce space debris
  - Space Situation Awareness (SSA) activities
  - regulatory frameworks as well as national and international law
- 
- 2022: The coalition contract of the **new German government** mentioned **space** as a **central future technology**
    - a **new space strategy** is being developed with focus on minimization and handling of space debris
    - while the sustainable use of space became one of the main focal points of the German space policy



## German actions on national and international level

- **German Space Situation Awareness Center** in Uedem, jointly run by the German Armed Forces and DLR Space Agency, is operational since 2009. With its new German Experimental Surveillance and Tracking Radar (GESTRA) Germany for the first time is able to independently observe objects also in low orbit. The German SSA Center is internationally well connected, works together with the EU financed EUSST program and offers cooperation with like minded nations.
- **R&D in the fields of SSA, On Orbit Servicing and Space Debris Tracking & Removal** by DLR and Fraunhofer (sensors, robotic, software, etc.)
- **UN COPUOS & UNOOSA:** Germany supports the *Guidelines on the Long-Term Sustainability of Outer Space Activities*, LTS)
- **Inter-Agency Space Debris Coordination Committee (IADC):** Under German chair the IADC Space Debris Mitigation Guidelines had been updated in 2021. The next update with focus on constellations is under way.
- **EU PERASPERA:** European Operations Framework (EOF). Principle Guidelines for On-Orbit Services (Dec. 2022): Modular and maintainable satellites as goal for sustainable use of space. European platform for OOS.
- **G7:** Confirmation to operate space sustainably (2021, 2023) through standards, best practices and guidelines.



# Legal challenges and perspectives

- The **German Space Strategy of 2010** proposed the adoption of a **German space act** to create a comprehensive legal framework for government and private commercial space activities.
- A German Space Act was **drafted approx. 10 years ago but never finalized** and set into force.
- **By 2022 approx. 100 new German space companies**, mainly start-ups, joined the market.
- However, **many issues relevant to space business activities are yet to be regulated**, including issues related to launching activities, insurance and liability. This might hold back commercial German space activities.
- The **new German government** again is **debating** the need of a **German Space Act**.
- In the meantime, **Germany is following national, European and international standards and rules, which are not always clearly clarified**
- A main challenge for European commercial space therefore remains the **divers legal map** (s. final slide).

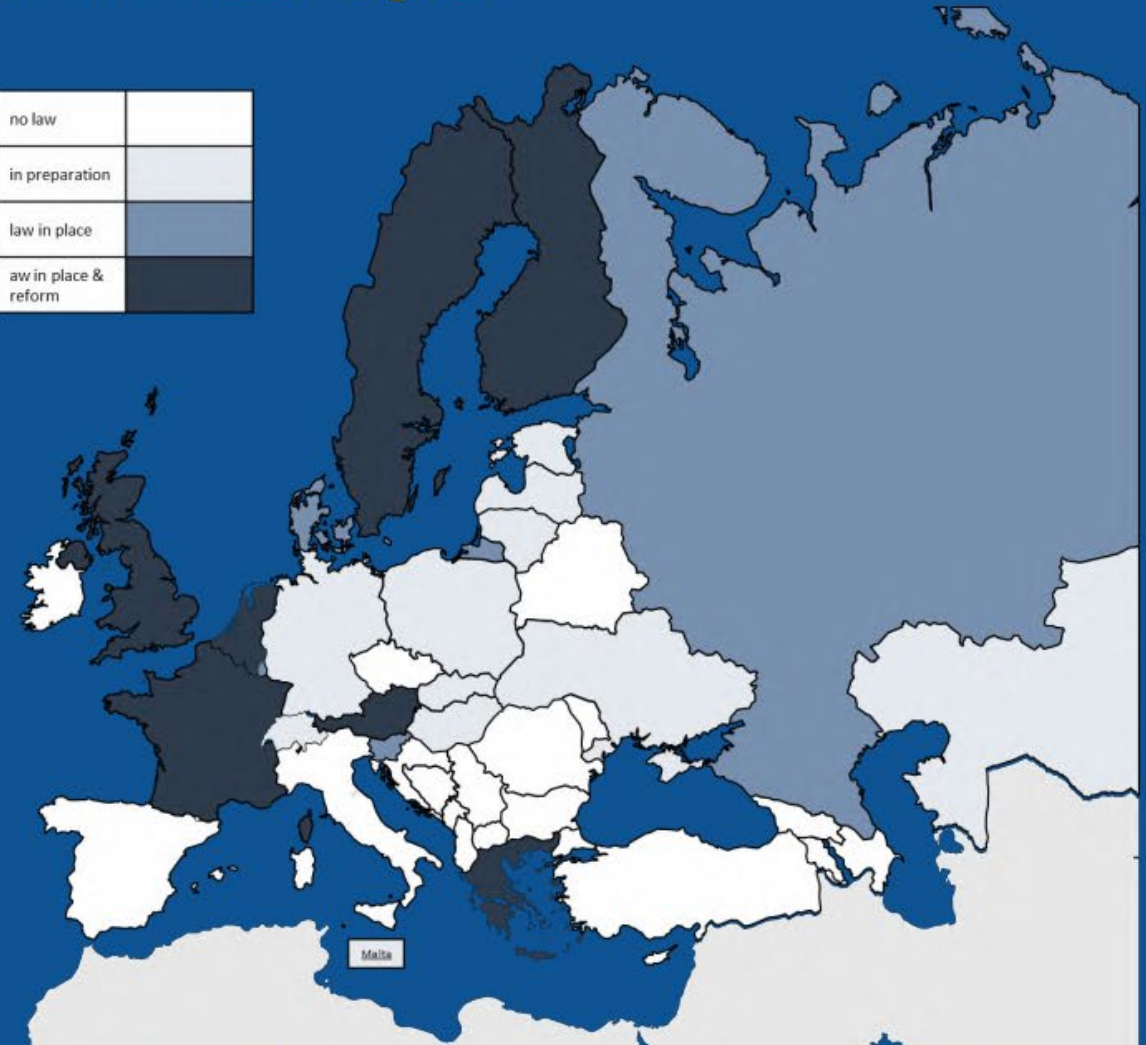




## Regulating OOS in Europe

- The **situation in Europe** is quite dispersed:
  - some European states have **detailed and recently updated national space legislation** and licensing practices in place
  - some other states have an older national space law and are **currently in review and reform processes**
  - another group of states has national space laws, **but rather old ones and/or with limited scope and licensing practices**
  - another group of states includes states, which are **currently working on national space legislation for the first time**
  - finally, a number of states has **no national space legislation and also no ongoing preparatory processes**
  - **Some discussion on a potential EU framework legislation, but highly difficult**

no law	
in preparation	
law in place	
aw in place & reform	





ありがとうございます!  
Thank you!  
Vielen Dank!