

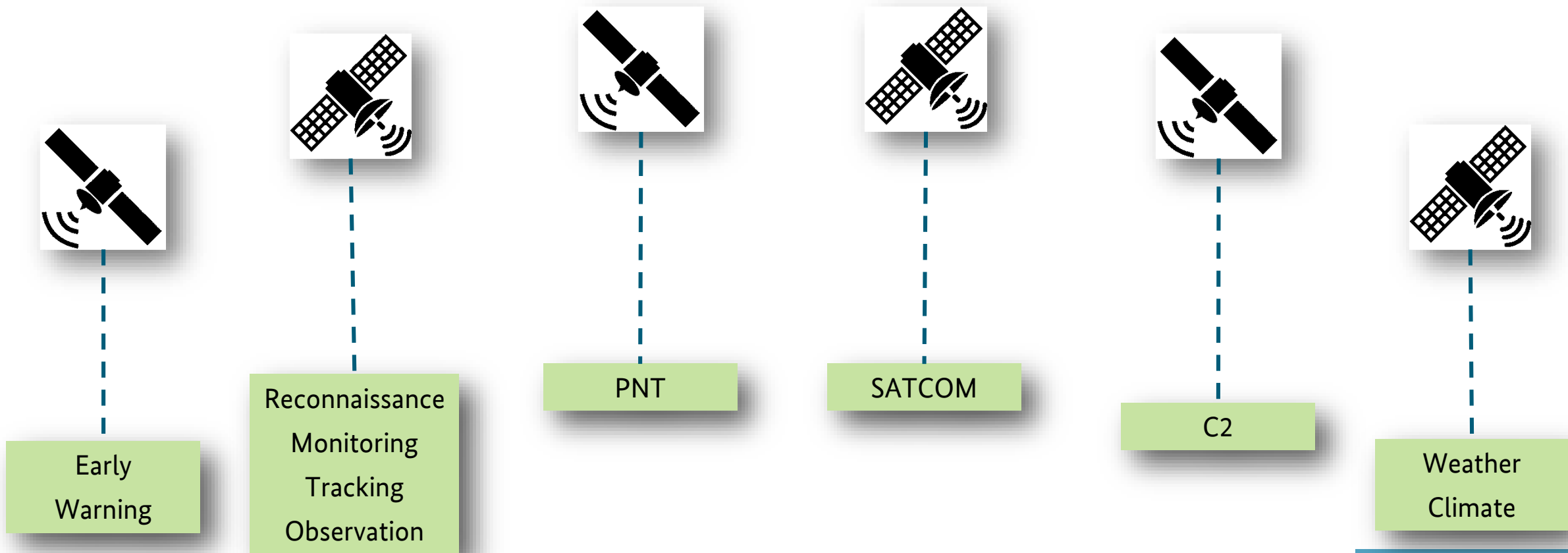
Development of Satellite Security – Overview

IT- and Cyber Security

Christophori, OMNISECURE 2022, Berlin, 21 June 2022

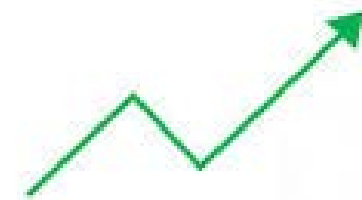
Threat Landsscape - Recap

Development and Services



Situation Cyber Security in Space

- „**Boom in Outer Space**“
 - Increasing Number of Stakeholder
 - Increasing Number of Objects in Space
 - Increasing Relevance and Dependence on Space
-
- **High Attraction for Cyber Attacks**
 - Easy to start
 - Manageable Effort → Serious Damage
 - Missing standardized minimum (Cyber) Security Requirements



Threats on Satellites



Our Motivation



Shaping Cyber Security of Space Infrastructures, relevant for Government, Business and Society, to ensure *Availability of Services* through *authentic* and *secure Communication*

Countering Threats

Activities

- **2022:** Release of **Minimum Security Standards** for Satellites and Infrastructures
 ↳ IT-Grundschutz-Profil
- **2023:** Release of **Technical Guideline** (Technischen Richtlinie – TR) for Satellites requiring Protection Level HIGH
- **As of 2023:** Development of further **Technical Guidelines**, e.g. for Communication Satellites / Mega Constellations



Activities

- Guideline for all Stakeholders designing and operating Satellites
- Recommendation to Decision Makers
- focusses on Satellites
- addresses all Phase of a Satellite's Life Cycle
- Compatibility to ISO 27001



Way ahead

Common Security Requirements based on national und international Standards and Guidelines, especially in „New Space - Domain“.

- nationally consolidated Requirements



- Cooperation with Partner Nations
- Communication with international Communities / Organisations

Way ahead

National Communities / Organisations

International Communities / Organisations

System Availability Needs

Access Control Needs

Service Protection Needs

Comms Protection Needs

C2 Protection Needs

EU GNSS GALILEO

System Availability Needs

Access Control Needs

Service Protection Needs

Comms Protection Needs

C2 Protection Needs

Contribution to System and User Segment Security
Design since 2002

Cooperation with Member States and ESA / COM

“Fit-for-Future” → GALILEO Next Generation

Thank you for your Attention!

Contact

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