



*Satellite and Terrestrial Access for Distributed, Ubiquitous
and Smart Telecommunications*



Project Overview



Full name: *Satellite and Terrestrial Access for Distributed, Ubiquitous and Smart Telecommunications*

Stream: *A-01-02 Ubiquitous Radio Access*

Project Coordinator: *Tomaso De Cola, DLR*

Technical Manager: *Mathieu Arnaud, Thales Alenia Space (F)*

 **11**
partners

7
countries 

36
 months

The Consortium



PROJECT AMBITION



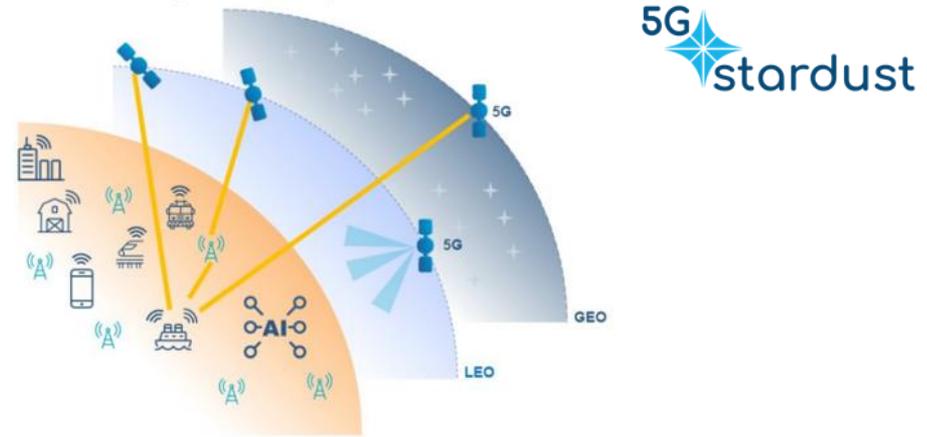
Design, develop and demonstrate a deeper integration of TN and NTN:
Deliver a fully integrated 5G-NTN autonomous system with novel self-adapting end-to-end connectivity models for enabling ubiquitous radio access.

Project Objectives



- Study, design, a **5G-based satellite network**, implementing onboard processing and storage capabilities towards effective networking and mobile computing in the sky.
- Define, design **data-driven management system components**, building on AI/ML based solutions for resource allocation and service provision in highly dynamic integrated hybrid networks.
- Design, implement, and demonstrate **E2E services over a fully integrated TN-NTN** advanced network architecture with regenerative space nodes.
- Contribute to the development of a **European Research and Technology roadmap** to ensure strategic positioning and global competitiveness of Europe in integrated TN-NTN communications.

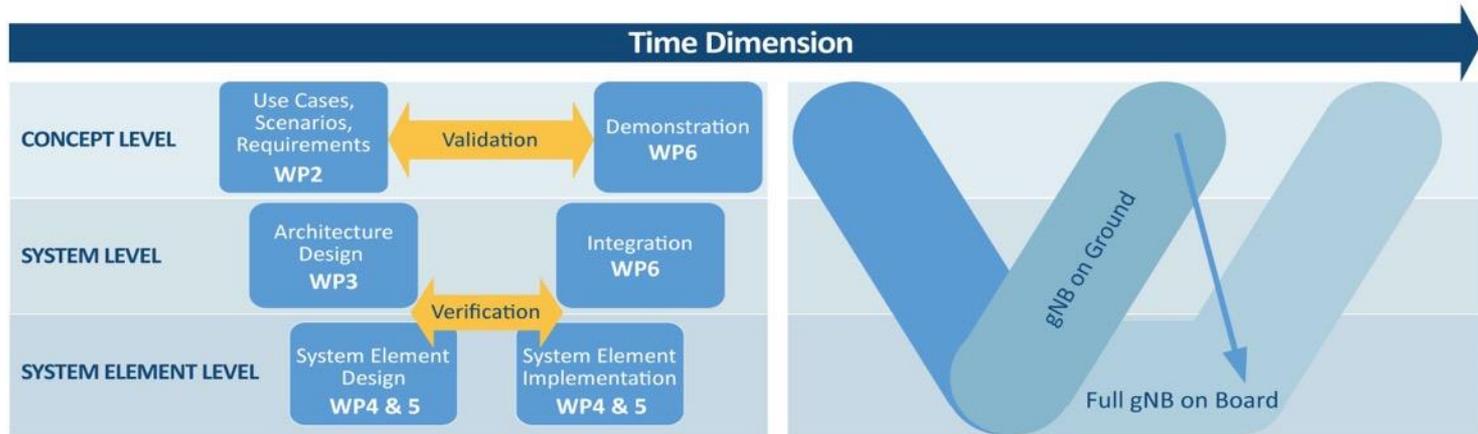
KEY TECHNOLOGIES



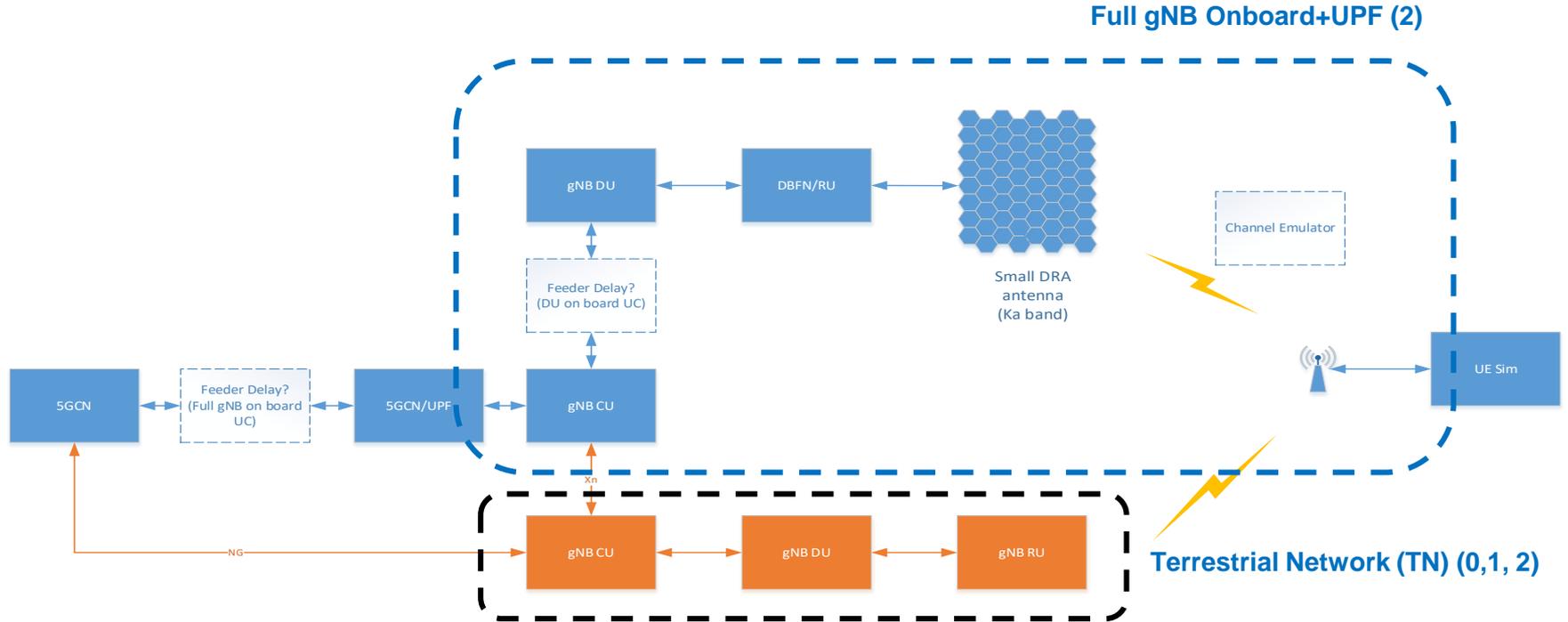
- *Regenerative payloads for GEO and NGSO systems*
- *Unified radio interface for cost-effective converged TN/NTN multi-tenant networks*
- *Softwarised self-organised network architecture*
- *E2E AI-Driven Network Design*

Project Methodology

- System engineering approach based on the Vee-model with multiple increments:
 - From gNB on ground towards full gNB onboard NTN nodes
 - Concept, System, and System Element Level



TRL 5 Planned Demonstration



Interaction with other SNS projects

6G SNS



...& more!





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FOR YOUR
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Email
info@5g-stardust.eu



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6G SNS

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