

CELTIC Proposers Day in Leuven on 25.09.26

neXat – Fulvio Sansone, CTO



SUCCESSFUL SME

neXat – Fulvio Sansone, CTO

www.celticnext.eu





We build the software that turns satellite capacity into managed connectivity services.

A Belgian SME, based in Brussels, serving the satellite communication industry world-wide.

Who we are

What we sell	Who buys it	How we deliver
• A fully-featured, satcom-specific OSS/BSS platform • Service delivery: ordering, provisioning, monitoring, billing • Cloud-based or on-premises • Connectivity service for high-value applications	• Satellite operators and teleports • Distributors and virtual network operators • Governmental and institutional users	• Own secured IP network: PoPs in Brussels and Private implementations • Traffic shaping and routing at each PoP • Open APIs for partners and customers

The satellite era is changing

Yesterday: satellite as a pipe

- Fixed VSAT links with a bandwidth attached
- One quality class, provisioned by hand at the hub
- GEO only; each orbit and operator its own silo
- Closed ecosystem, proprietary interfaces



Now: satellite joins the 5G ecosystem

- 5G NTN standardised by 3GPP; satellites become part of the mobile network
- LEO constellations live, GEO and MEO still essential: multi-orbit is the norm
- Direct-to-device, IoT and private 5G over satellite
- Operators expect automation, slicing, open APIs and evidence of what they pay for

1

Capacity is sold as a pipe

2

No 5G compatibility

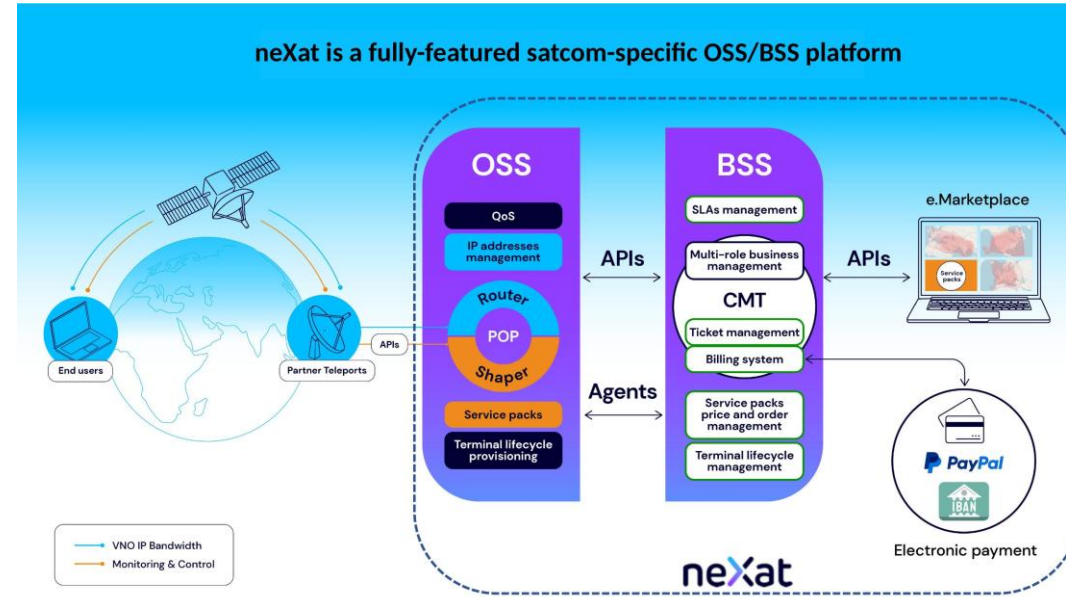
3

No multi-orbit intelligence

4

Limited shared capacity management

The neXat platform today



neXat OSS/BSS platform - service management, provisioning, monitoring, billing and e-marketplace, connected through APIs

One platform, two deployment models

Cloud-based

Operators and distributors connect their teleports and hubs to the neXat PoPs

On-premises

The same software inside a customer's own infrastructure - the model used for institutional and secure deployments.

Fully-featured OSS/BSS

Satcom-specific

Secured IP network

Points-of-Presence - Public and Private

Traffic shaping & routing

At each PoP, with centralised monitoring and control

Standard APIs

Open interfaces for partners, distributors and end customers

Multi-Orbit awareness

Integrated intelligent SD-WAN solution

Track record

Arabsat

- Cloud-based OSS/BSS deployed across Europe and the Middle East
- Connects teleports, hubs, a virtual teleport and distributors
- Centralised IP traffic monitoring and control; new virtual-teleport and role management features

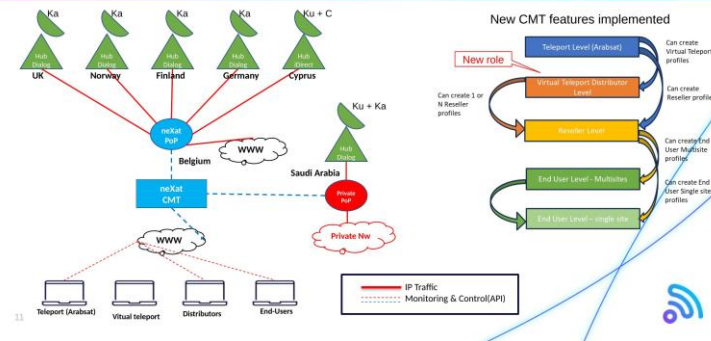
EU GovSatCom - G-Hub

- Contribution GovSatCom G-Hub system architecture
- First software module delivered for the Initial Operational Capability

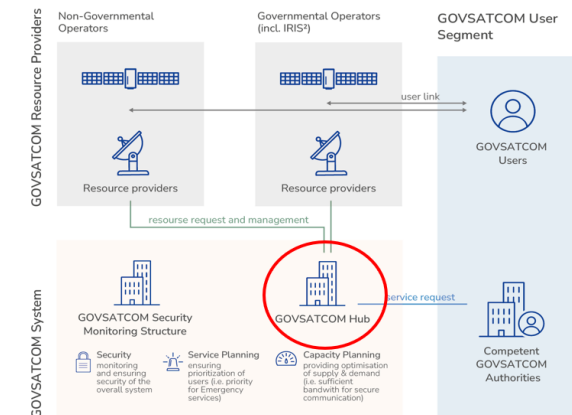
ESA BeSecured

- Pooling and sharing precursor for secure governmental satcom
- Developed with Rhea/Starion and ST Engineering
- Used in 2 different live civilian security projects (**Safeplace** and **Smartconnect**)

Example of neXat cloud-based OSS-BSS for Arabsat



neXat cloud-based OSS/BSS for Arabsat



GovSatCom G-Hub architecture with the neXat contribution

CELTIC-NEXT

Σeureka Cluster

MECON

Multi-access Edge Computing over Non-Terrestrial Networks

A CELTIC-NEXT project (C2022/2-3), 2024 - 2027

neXat – Fulvio Sansone, CTO



www.celticnext.eu



<https://mecon.av.it.pt/>

MECON

MECON at a glance



9

partners

5

countries

BE · IL · PL · PT · UK

36

months

June 2024 - May 2027

7.5 M€

total budget

Goal: bring 5G and satellite together in one network - edge computing over NTN, traffic steering between terrestrial and satellite links, network slicing and end-to-end orchestration - to cut cost while keeping service quality.

UC1 · Post-disaster connectivity

UAV-assisted satellite communication with reconfigurable intelligent surfaces on the drone.

UC2 · Traffic steering & low latency

TN/NTN traffic steering with the edge computing and user plane placed on the satellite MEC payload.

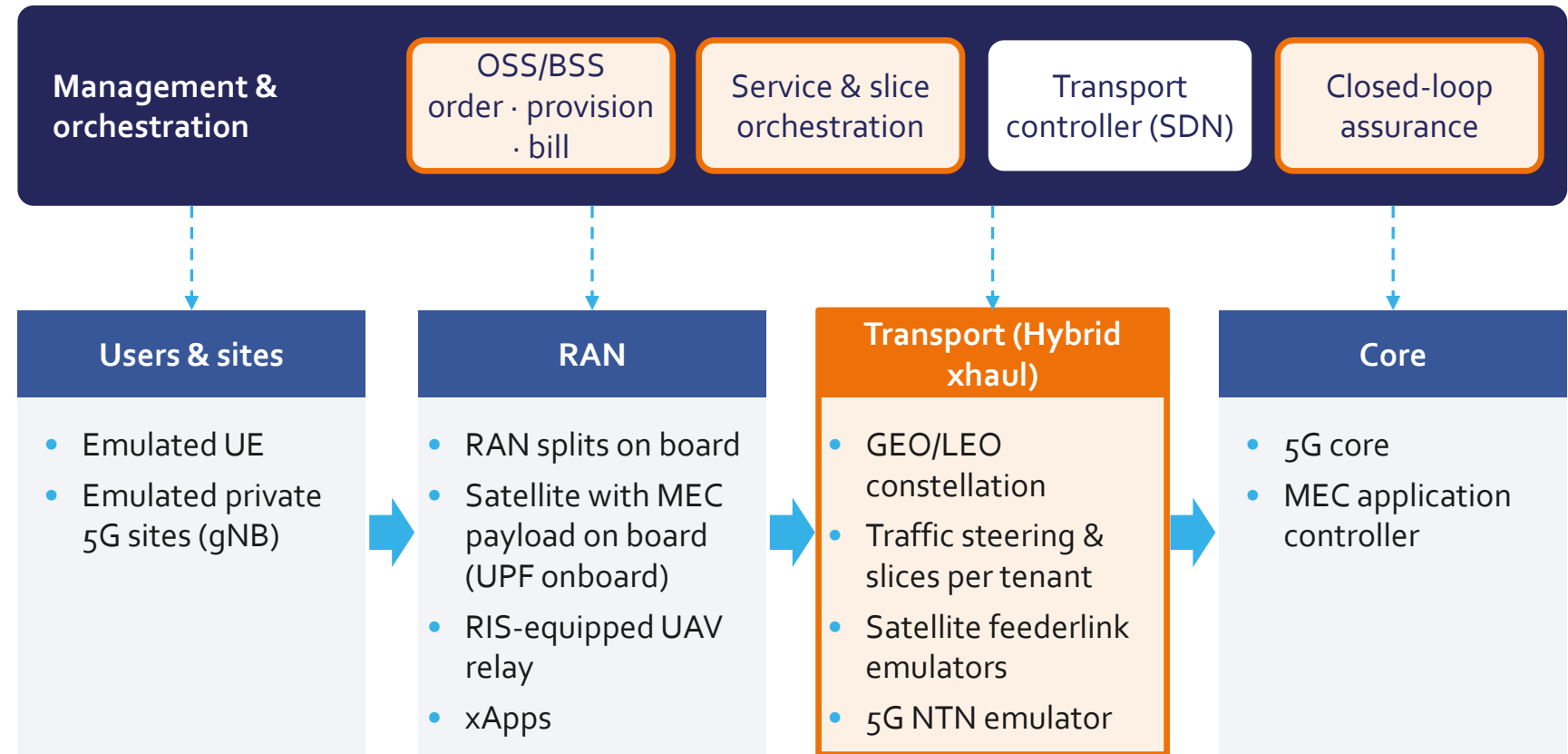
UC3 · TN-NTN service orchestration

Sliced satellite backhaul with an orchestrator across satellite, private 5G and terrestrial operators.

neXat in MECON:

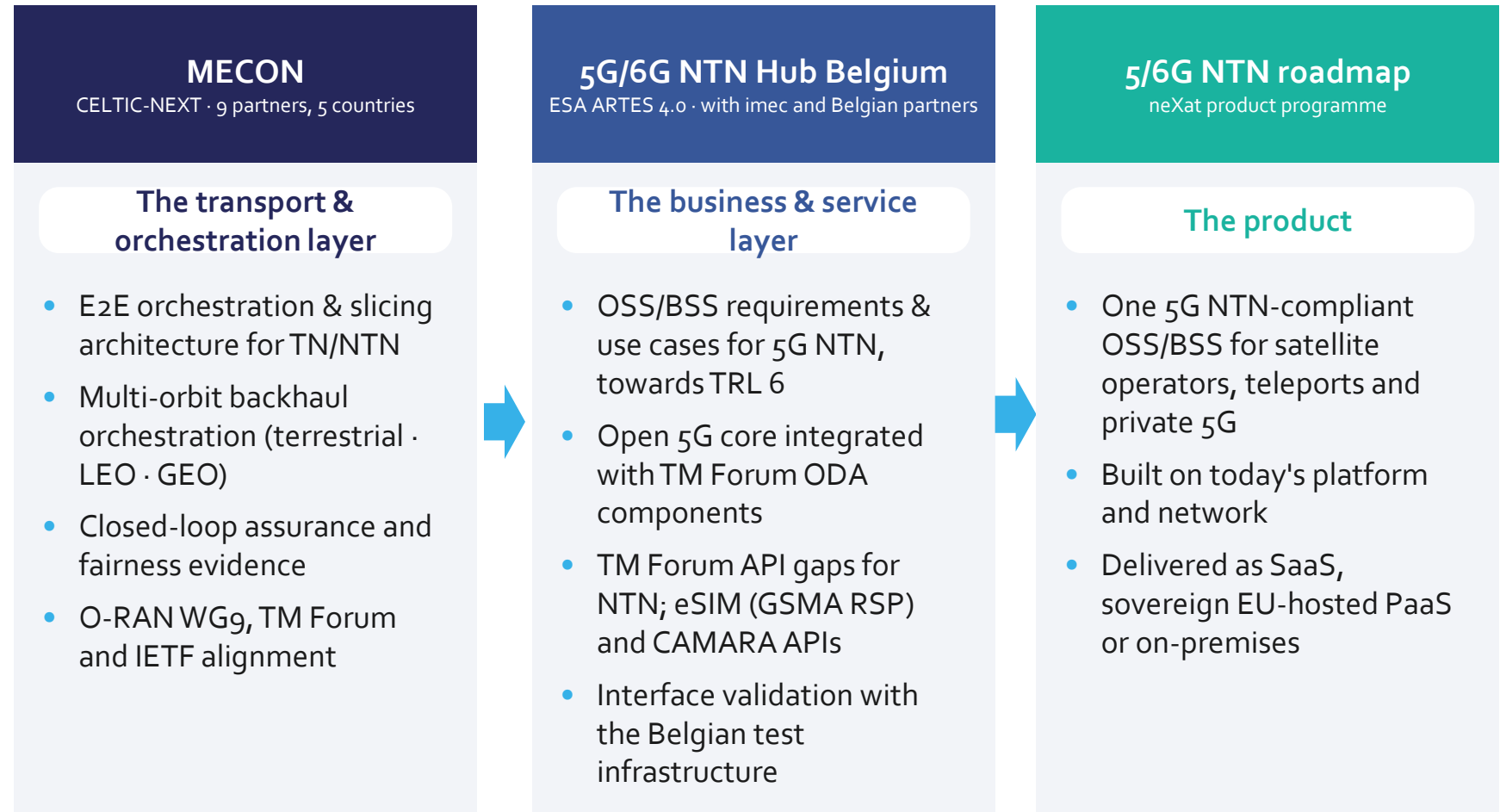
leader of WP5 (integration & testbed) · owner of the cross-operator xhaul orchestration result · Belgian partner funded by Innoviris

MECON architecture - where neXat fits



 **neXat focus in MECON: the X-haul (backhaul), the OSS/BSS and the orchestration and assurance layer**

From research to product



Each project de-risks one layer of the same product - that is what European research programmes do for an SME.

Markets: today and opening up

Today

Satellite operators & teleports

OSS/BSS to sell, provision, monitor and bill satellite services - e.g. Arabsat across Europe and the Middle East

Distributors & VNOs

Multi-level business management, virtual teleports, role management, e-marketplace

Secure governmental satcom

EU GovSatCom G-Hub, ESA BeSecured pooling & sharing - sovereign, on-premises deployments

Opening up with MECON & 5/6G NTN Hub

Private 5G over satellite

Mining, ports, utilities, agriculture, public safety: 5G-aware backhaul with contracts and evidence

MNOs: coverage & neutral host

Slices on shared satellite capacity; direct-to-device and IoT settlement

Multi-orbit capacity brokerage

Pool GEO, MEO and LEO capacity from several operators into one orchestrated service

European secure connectivity

Service layer for sovereign, multi-orbit government connectivity programmes

neXat: the story so far, and why CELTIC matters

neXat

- Belgian SME in Brussels
- Product and service: Satcom-specific OSS/BSS platform
- References: Arabsat, GovSatCom G-Hub, ESA BeSecured
- Civil Security Footprint: SafePlace and SmartConnect
- 5G-NTN projects: MECON, 5/6G NTN Hub Belgium

What CELTIC gives an SME

A European consortium

Operators, integrators, research - we could not assemble alone

Step by step technical and commercial advisory

Observe the process, advise with technical expertise, opportunity to success

A validation path

from architecture to a measured demonstration: TRL 4 to 5 for our orchestrator

A product, not a paper

the technical core of the 5G NTN roadmap and the credibility to address new markets



[CelticNextEurekaCluster](https://www.linkedin.com/company/CelticNextEurekaCluster)



[@CelticNext](https://twitter.com/@CelticNext)



[CELTIC-NEXT Video Channel](https://www.youtube.com/channel/CELTIC-NEXT)

MANY THANKS FOR YOUR ATTENTION.

CELTIC-NEXT



neXat contacts

Fulvio Sansone, CTO

fulvio.sansone@neXat.be

Ali Aghajani, Technical Product Manager

ali.aghajani@neXat.be

www.neXat.be