



The Standards People

ETSI Research Conference 2023

Maximizing the Impact of European 6G
Research through Standardization

SEASON Project

Filippo Cugini (CNIT, PM),
Ramon Casellas (CTTC, TM)

6G SNS



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1. Project Overview

- **Project Name:** SELF-MANAGED SUSTAINABLE HIGH-CAPACITY OPTICAL NETWORKS (SEASON)
 - **Project website:** www.season-project.eu

- **Stream:** A

- **Members:** 13



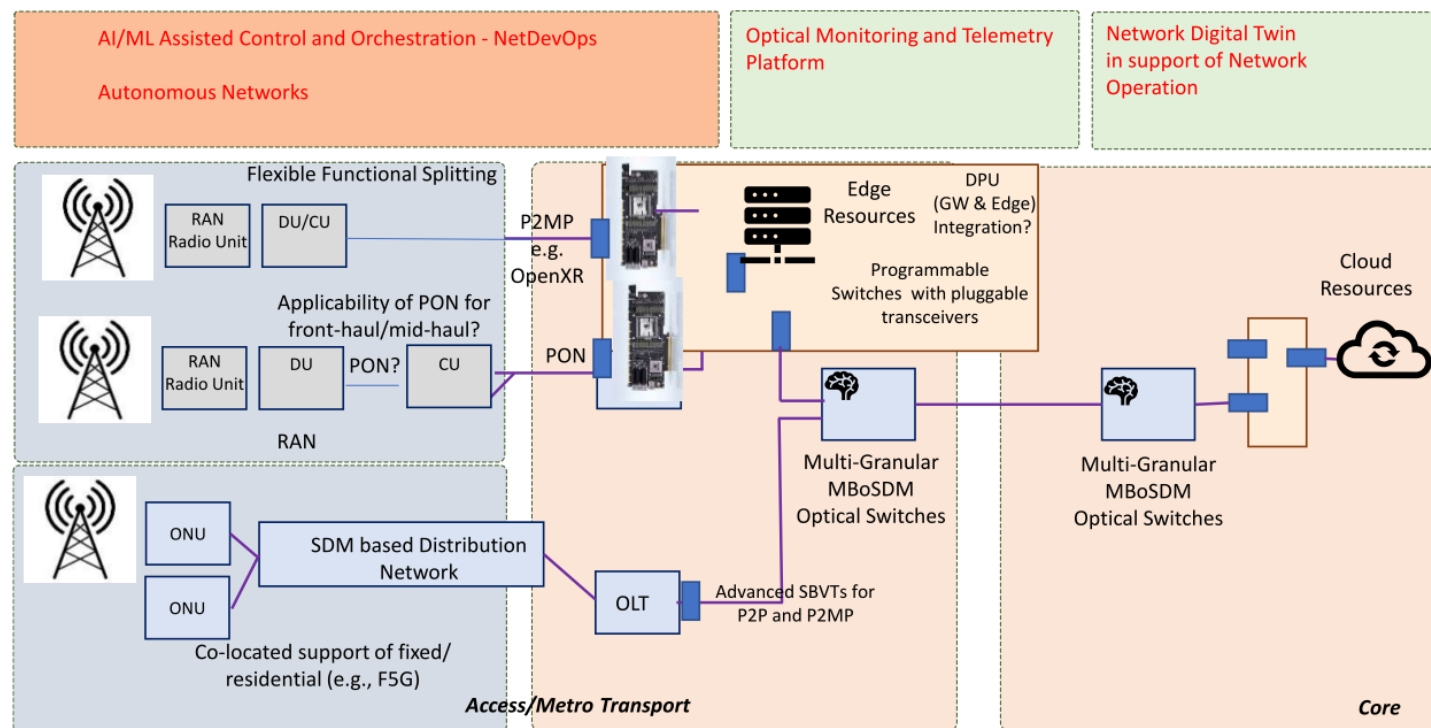
2. Technical Information

- **Project Key Objectives:** design and validate a B5G optical transport network infrastructure from access to metro/long-haul

- **Key technologies**

used/investigated:

- Multi-Band over Space Division Multiplexing (SDM)
- Integration of optical networks with the packet and computing layers
- AI-driven self-managed control & orchestration
- Energy-efficient high-capacity solutions



3. Planned Standardization Activities (1/3)



- **Standardization plans / objectives:**
 - Data modes/Manifest files in support of Optical Transport devices (e.g., transponders, pluggables)
- **Project activities / technologies that may lead to standardization:**
 - YANG data models for NETCONF/RESTCONF and gRPC/gNMI as control and telemetry transport protocols
 - ONOS SDN Controller, ETSI TFS SDN Controller (orchestration), TAPI North Bound Interface
 - Point to multi-point transceiver control
- **Potential targeted standardization bodies / groups:**
 - OpenConfig, OpenROADM, ONF (ODTN/ONOS/OTCC), OpenXR forum
- **Standardization planning and estimated time plan:**
 - TIM, Telefonica, CTTC, ADVA, CNIT, Infinera
 - Regular contributions are expected during the project execution

3. Planned Standardization Activities (2/3)



- **Standardization plans / objectives:**
 - Requirements and architectures for open, disaggregated, multi-vendor optical networks
- **Project activities / technologies that may lead to standardization:**
 - Unified SDN control and management of the disaggregated, multi-vendor components within an open optical network. Open Optical Line System (OLS), Open Terminals and Optical Planning tools
- **Potential targeted standardization bodies / groups:**
 - **Telecom Infra Project (TIP)**
 - Mandatory Use Case Requirements for SDN for Transport (MUST) subgroup
 - Metaverse ready Architectures for Open Transport (MANTRA) subgroup (former CANDI)
- **Standardization planning and estimated time plan:**
 - Telefonica, TIM, CTTC
 - regular contributions are expected during the project execution

3. Planned Standardization Activities (3/3)



- **Standardization plans / objectives:**

- Gap analysis of ETSI OSM integration with Transport SDN and OSM plugins to interwork with the TAPI NBI of Optical Transport SDN controllers, to dynamically provision end to end connectivity services.
- ETSI Industry Specification Group on 5th generation fixed network, to support three main features: full-fibre connection (FFC), enhanced fixed broadband (eFBB) and guaranteed reliable experience (GRE).

- **Potential targeted standardization bodies / groups:**

- ETSI (OSM, TFS, F5G, ZSM/ENI)

- **Standardization planning and estimated time plan:**

- Telefonica, CTTC, HHI, WINGS
- Regular contributions are expected during the project execution