TIP Update
ONF Open Broadband Meetup
Berlin, May 2022

Andy Furnell

Connectivity Ecosystems Manager – Meta

Technical Lead - TIP Fixed Broadband PG

Recap: what is TIP?

Together We Build, Test & Deploy

WHAT IS TIP?

The Telecom Infra Project (TIP) is a global community of companies and organizations working together to accelerate the development and deployment of open, disaggregated, and standards-based technology solutions that deliver the high quality connectivity that the world needs – now and in the decades to come.

Together We Build, Test & Deploy.

Why does TIP exist?

CHALLENGES: Lack of Flexibility & Innovation; Vendor "Lock-in"

FROM
Single-vendor, fully integrated networks

SW
HW

SW
HW

Proprietary Interfaces

SW
HW

Proprietary Equipment
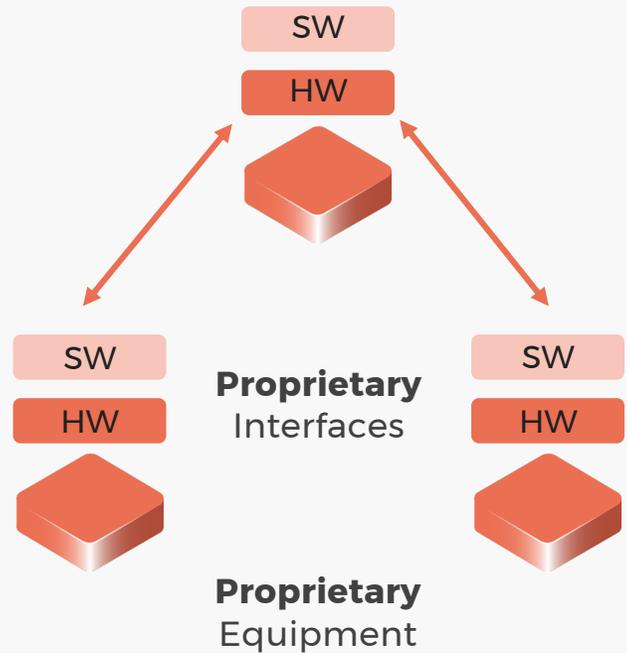
SOLUTION: Open, Disaggregated Networks

TO
Multi-vendor, open, disaggregated networks

SW
HW
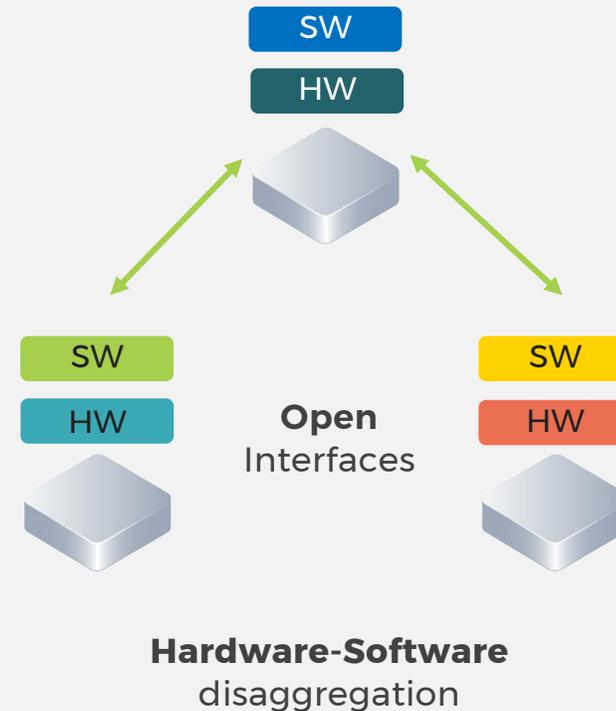
New supplier business models

Accelerate innovation in connectivity

SW
HW

Open Interfaces

SW
HW

Improve network economics

Hardware-Software disaggregation
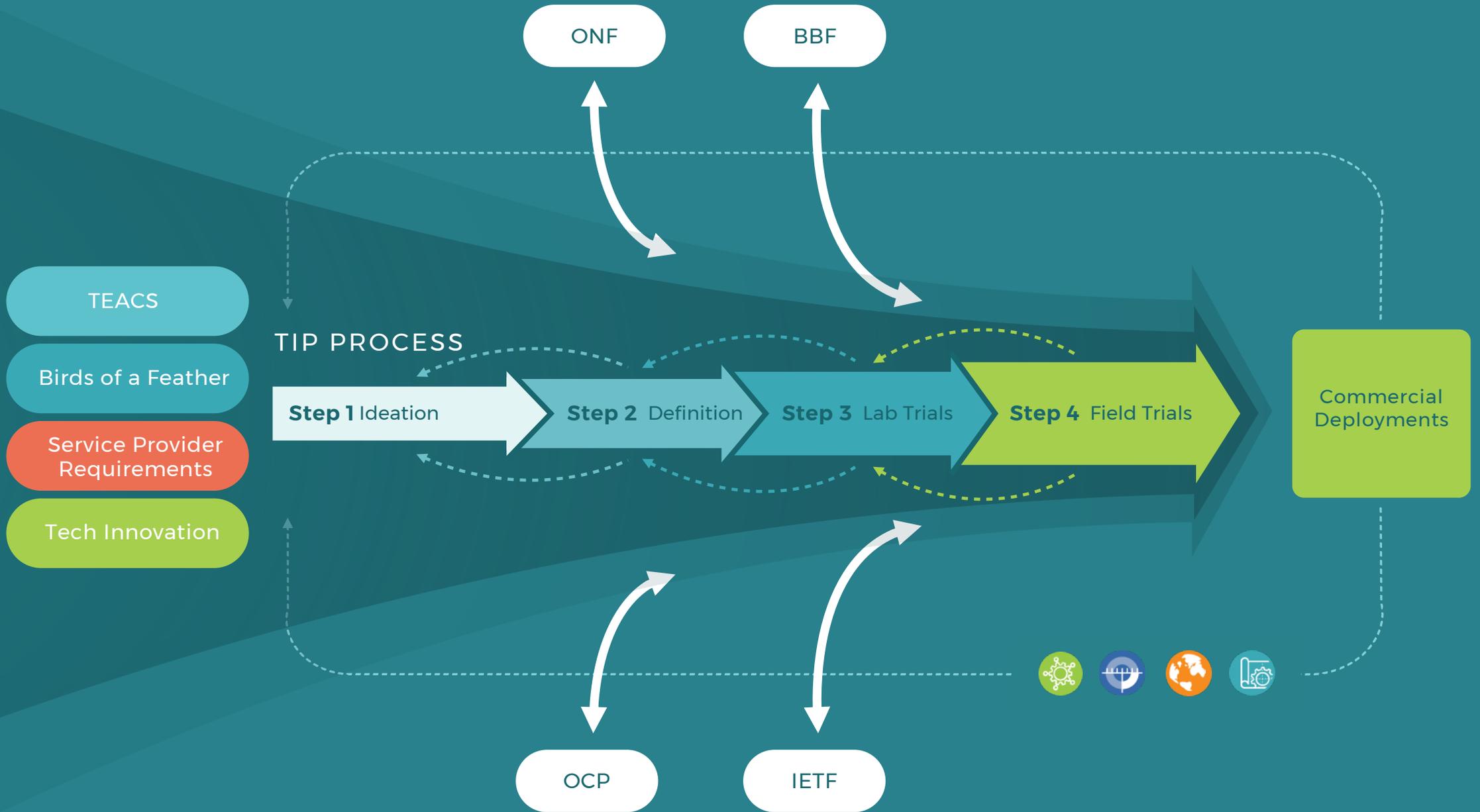
1. Doubling down on test and validation
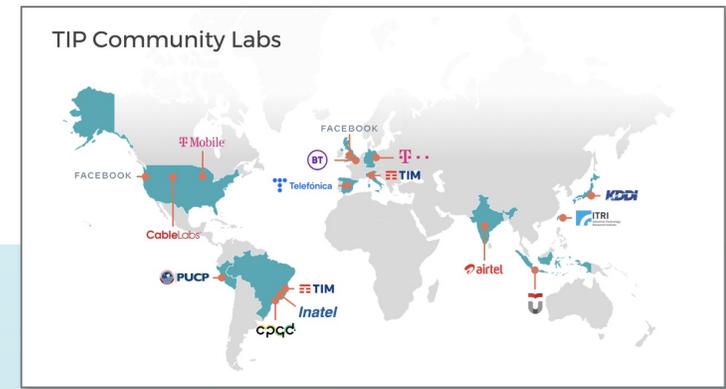
Connect.
Build.

TIP Exchange brings together the ecosystem to drive new connectivity solutions to market.

| 0. TIP members collaborate to develop technical requirements | 1. Suppliers submit their response to the technical requirements | Compliant products are eligible to be listed on TIP exchange website | 2. TIP members develop test plans that validate products and solutions against the technical requirements | Collaborative testing in controlled lab environments and TIP badge awards |

2. TIP members have been working systematically to disaggregate their entire networks, but until now one piece has been missing…

OPENRAN

Small cells

Macro network

MOBILE BACKHAUL

Cell site Routers

DCSG

Wireless backhaul

CORE NETWORK

Mobile Core (MME, HSS, SGW, PGW, …)

WI-FI

Access point

FIXED BROADBAND

OLT

Access network

OpenBNG

Broadband Gateway

OPTICAL & PACKET TRANSPORT

Optical network

Core routers

Internet
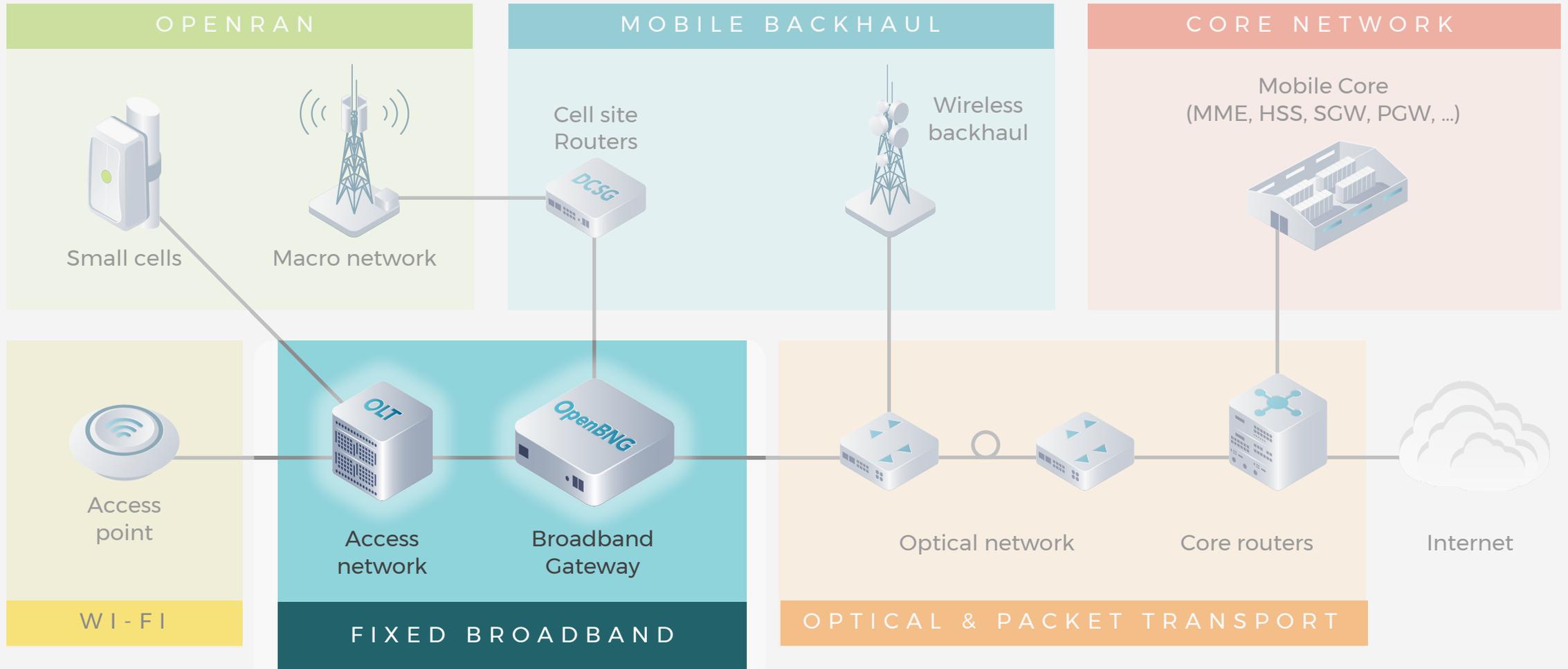
Introducing OpenBNG...

Open and disaggregated HW and SW

- Build BNG products based on merchant silicon hardware

- Disaggregate HW from SW and align both behind a common set of requirements

A modular and flexible approach

- Enable a wide range of different use cases that address real world scenarios

Service-only BNG   Full-functionality BNG   Virtual BNG

CUPS SW Package
BNG SW Package
PE SW Package
Routing SW Package

- Align with open standards that promote interoperability between different network layers

Create a healthy supplier ecosystem that enables multi-vendor networks

Enable multiple deployment scenarios and accelerate innovation

Introducing Open Fixed Access Networks...

Open and disaggregated HW and SW

- Build fixed access products based on mature, open and interoperable standards
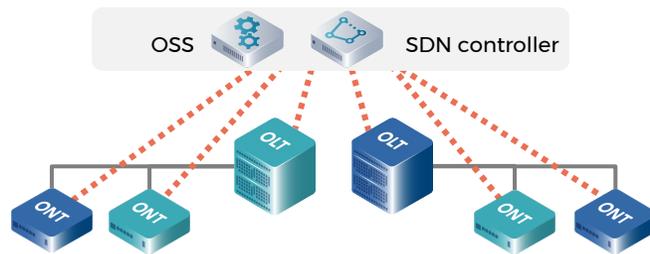
- Enable operators to build diverse, heterogeneous networks

Accelerate innovation

- Accelerate the adoption of modern technologies that will ease transition towards >10G PON and cloud-native architectures

GPON ❯ XGS-PON

Distributed ❯ Cloud-native

Improve vendor choice and supply chain diversity across all network elements
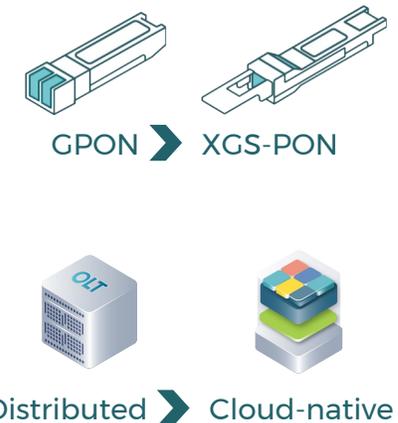
Develop relevant, 'right size' solutions that make operations more efficient

Where are we now?

Open BNG

Oct 2020
White paper
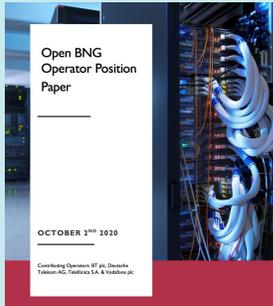
Jun 2021
High-level TRD

Dec 2021
OpenBNG RFI

Eight vendors make TIP group's OpenBNG RFI shortlist

By Ray Le Maistre
Dec 6, 2021

THE OPENBNG RFI
Our OpenBNG RFI shortlist
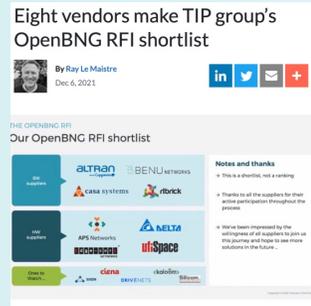
Apr 2022

OpenBNG detailed technical requirements published

Now

- Working towards collaborative evaluation of suppliers shortlisted during RFI
- Focus will be on demonstrating capability and architectures, and assessing technical compliance

IDEATE | DEFINE and BUILD | TEST and DEPLOY

Fixed access

FiBr

Open Fixed Access Networks
Use Case Document

May 2022
Use cases defined

Now

- Producing technical requirements for whitebox OLT and associated NOS/SW components

- Supplier engagements and more to follow through 2022

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1mo

AMAX EMEA recently designed and deployed another disaggregated rack for a telecom customer involved in the Telecom Infrastructure Project Open BNG activity. Thank you to our technology partners **UfiSpace Edgecore Networks Corporation** , Delta Technology , and **MiTAC Inc.** for providing the required products for this project in record time. AMAX can assist in the design of your rack solutions and network topology to ensure optimal architectural setup and application performance, as well as provide onsite deployment and a full menu of professional services.
Learn More: **sales@amax.ie**

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How can I find out more?

Andy Furnell

Technical Lead – FiBr

andyfurnell@fb.com

Mario Kind

Subgroup Lead – OpenBNG

mario.kind@telekom.de

Bruno Cornaglia

Co-chair – FiBr

bruno.cornaglia@vodafone.com

Rafael Cantó Palancar

Co-chair –FiBr

rafael.cantopalancar@telefonica.com

https://telecominfraproject.com/fixed-broadband