NETSIA Broadband Suite

Community Update on Current Status
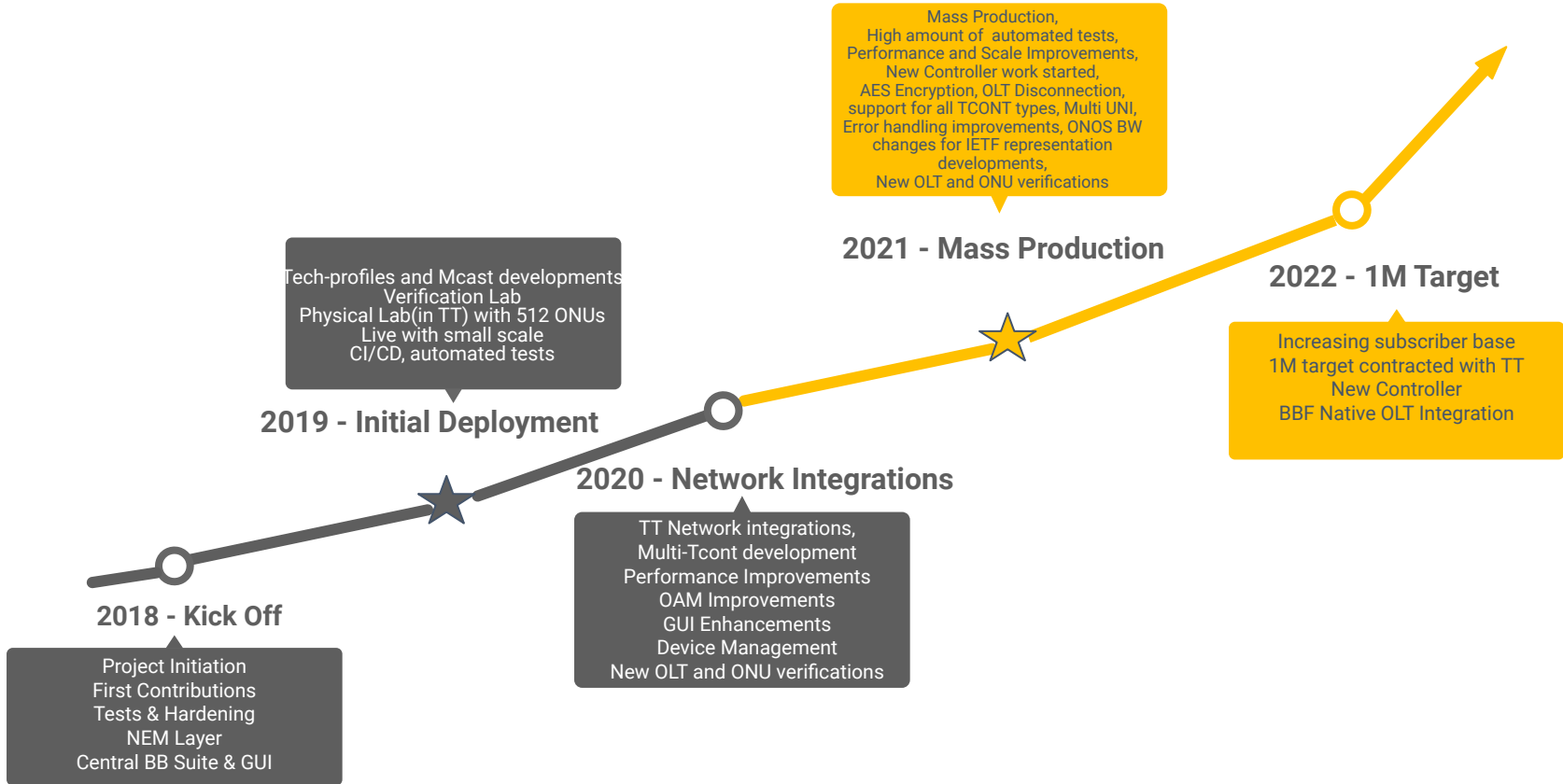May 20
Mahir Gunyel, NETS

Agenda

→ Our BB Suite[1] Journey

→ Ecosystem Expansions

→ Achievements

→ Tests Towards the Production

→ Current Architecture at a Glance

→ Target Architecture

[1] Formerly known as Netsia SEBA+

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Our Journey

Mass Production,
High amount of automated tests,
Performance and Scale Improvements,
New Controller work started,
AES Encryption, OLT Disconnection,
support for all TCONT types, Multi UNI,
Error handling improvements, ONOS BW
changes for IETF representation
developments,
New OLT and ONU verifications

2021 - Mass Production

2022 - 1M Target

Increasing subscriber base
1M target contracted with TT
New Controller
BBF Native OLT Integration

Tech-profiles and Mcast developments
Verification Lab
Physical Lab(in TT) with 512 ONUs
Live with small scale
CI/CD, automated tests

2019 - Initial Deployment

2020 - Network Integrations

TT Network integrations,
Multi-Tcont development
Performance Improvements
OAM Improvements
GUI Enhancements
Device Management
New OLT and ONU verifications

2018 - Kick Off

Project Initiation
First Contributions
Tests & Hardening
NEM Layer
Central BB Suite & GUI

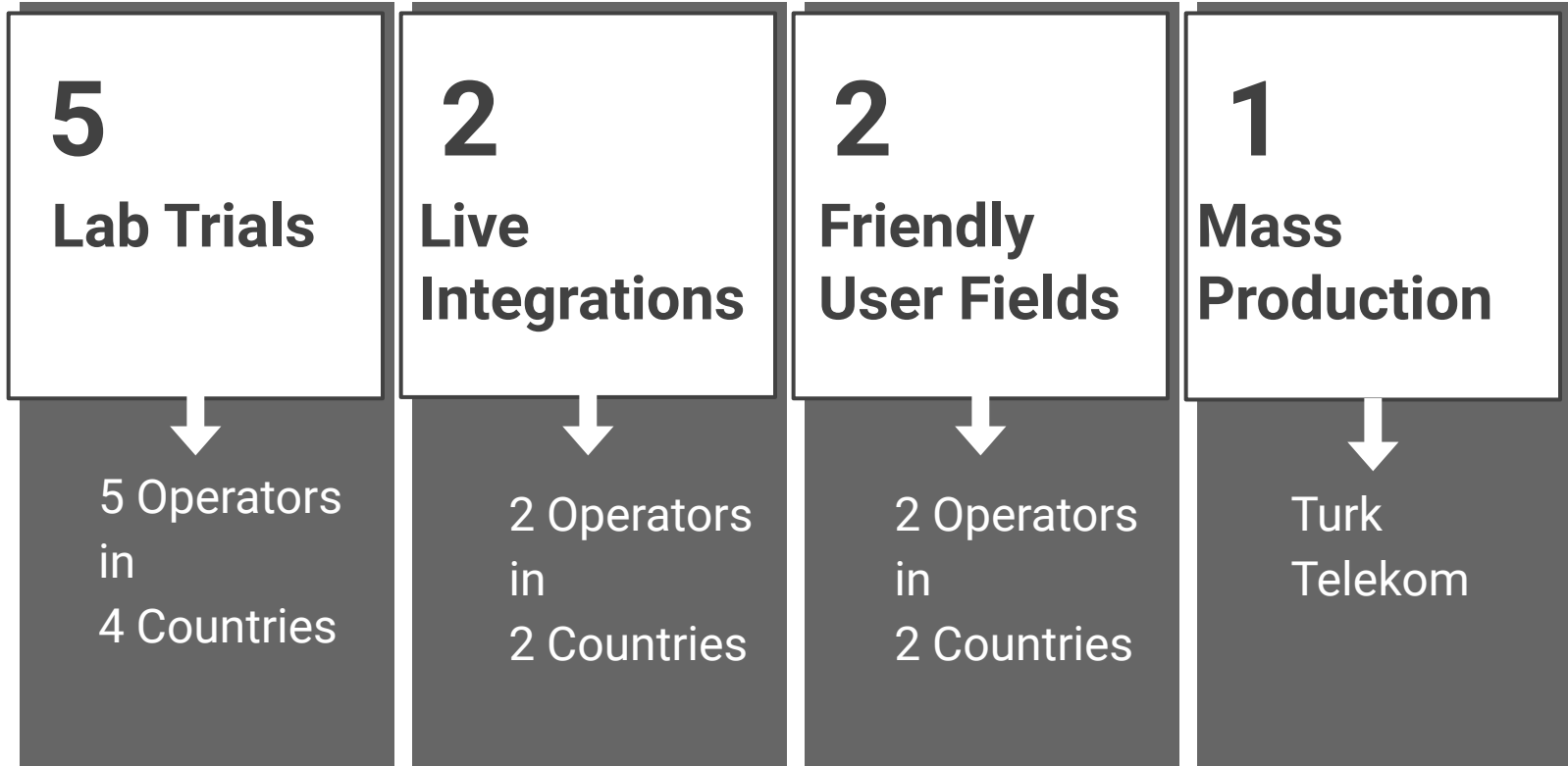- Strictly Confidential -

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Ecosystem Expansions
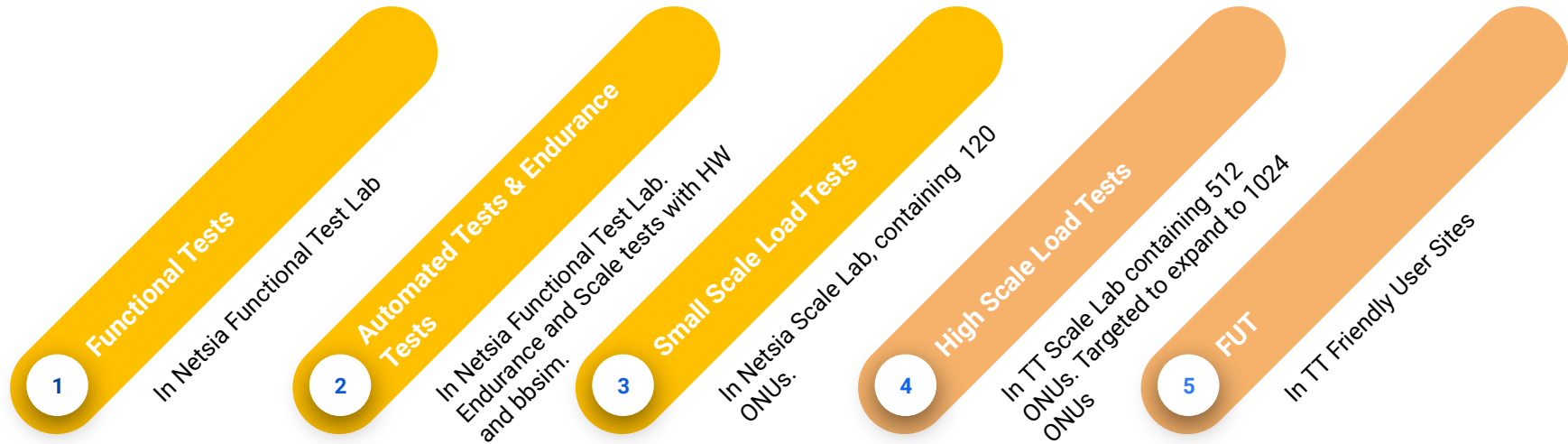
We are working hard to expand the ecosystem

- ○ OLT Verification/Certification Tests
- ○ ONU Verification/Certification Tests
- ○ Different vendor/different technology/ different type devices
  - ■ Micro Plug OLTs
  - ■ GPON, XGS-PON, Combo OLTs
  - ■ SFP ONUs
  - ■ Layer 3 ONUs

OLT		ONU	
certified to go to live	under the test	certified to go to live	under the test
3 OLTs/2 Vendors (GPON,XGS,Combo)	4 Vendors	6 Vendors	4 Vendors

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Achievements

5	2	2	1
Lab Trials	**Live Integrations**	**Friendly User Fields**	**Mass Production**
5 Operators in 4 Countries	2 Operators in 2 Countries	2 Operators in 2 Countries	Turk Telekom

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Tests Towards the Production

1 — **Functional Tests**
In Netsia Functional Test Lab

2 — **Automated Tests & Endurance Tests**
In Netsia Functional Test Lab. Endurance and Scale tests with HW and bbsim.

3 — **Small Scale Load Tests**
In Netsia Scale Lab, containing 120 ONUs.

4 — **High Scale Load Tests**
In TT Scale Lab containing 512 ONUs. Targeted to expand to 1024 ONUs

5 — **FUT**
In TT Friendly User Sites

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NETSIA BB Suite Architecture

OSS/BSS Layer

BB Control Center

[1] Defined by ONF SEBA
[2] Defined by BBF

BB Suite

BB Access Controller

Edge Controller

VOLTHA

BB Edge

BB Edges

ONU*

ONU*

ONU*

* ONUs/OLTs from different vendors

gRPC[1]

vendor

WB OLT

GB OLT

M_{inf}^2, M_{fc}^2

BBF Native OLT †

† support under development

Leaf Switch

BNG

CORE Network

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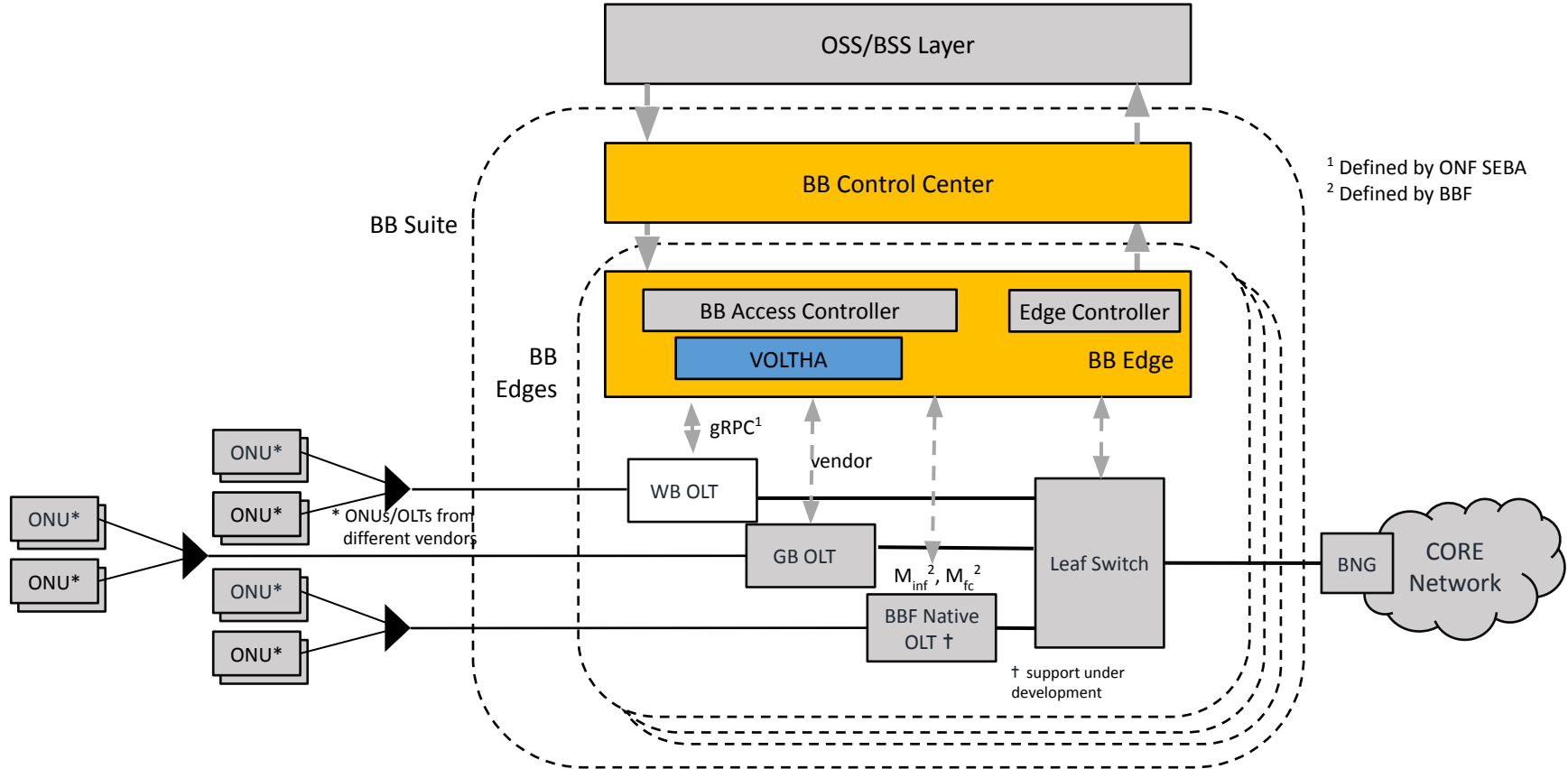
Target: Multi-Access, Multi Tenant Telco Edge

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Thanks

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