

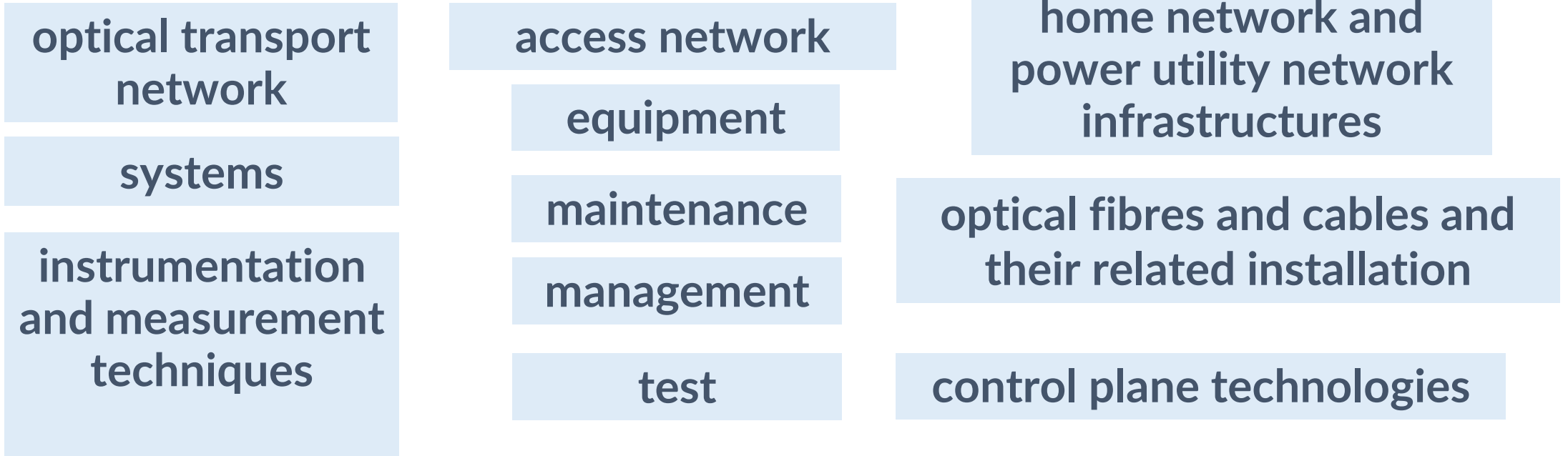
Standardization in ITU-T Study Group 15

Networks, Technologies and Infrastructures for Transport, Access and Home

Hiroshi OTA
ITU

Study Group 15 (SG15) mandate

SG15 is responsible for the development of **standards** on:



to enable the evolution toward intelligent transport networks, including the support of smart-grid applications.

SG15 Working Parties (WPs)

- **WP1/15**: Transport aspects of access, home and smart grid networks
- **WP2/15**: Optical technologies and physical infrastructures
- **WP3/15**: Transport network characteristics

WP1 – Broadband Access

G.FAST

Broadband access
up to 2 Gbps



Higher Speed 50G-PON,
Multi-Wavelength 25G/10G-PON
NG-PON2 (40G), XG(S)-PON (10G)

G.mgfast

Next generation
G.fast targeting 5-10 Gbps



Visible Light Communication
for home networking

DTA

G.fast dynamic time assignment
(DTA) – downstream/upstream
bit-rates responsive to
customer traffic



G.hn (-1 G) and G.hn2 (-10G)
home networking over indoor
phone, power, and coax wires



Continue collaboration with


FTTR

Fibre to the room (FTTR)

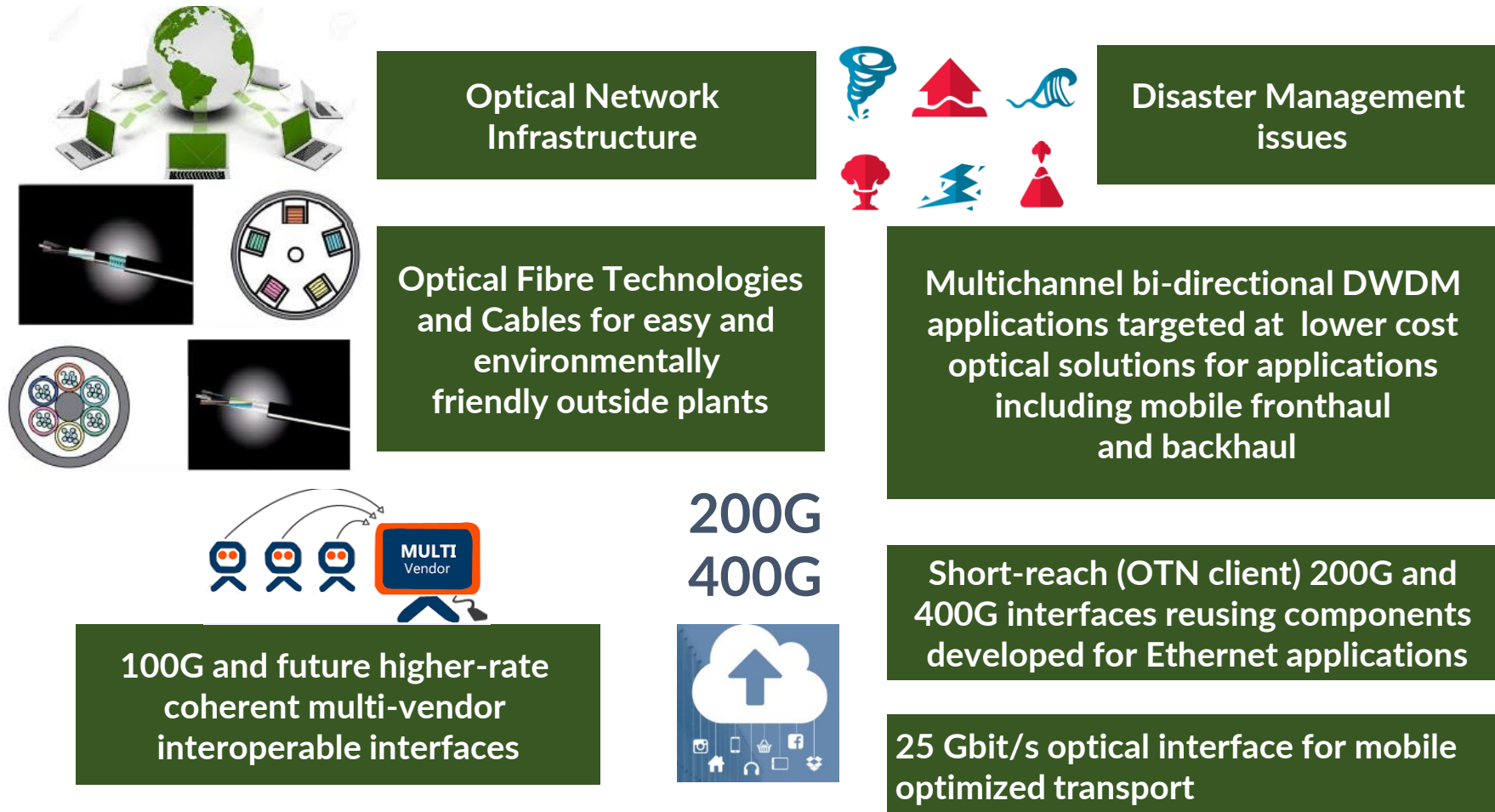
G.RoF

Radio over fiber
for mobile fronthaul



Powerline communication (PLC)

WP2 – Optical Technologies



WP3 – Optical Transport Networks

5G

Transport and synchronization supporting 5G mobile fronthaul and backhaul

MTN

G.mtn (metro transport network) for 5G optimized transport



Architecture and other Transport SDN Aspects

BEYOND
100G

New “B100G” OTN interfaces, including the use of coherent G.698.2 interfaces



Equipment & management specifications for OTN, Ethernet and MPLS-TP

Optical Transport Networks

Synchronization of packet networks and future OTN networks, e.g., beyond 100G



Network survivability (protection and restoration)



Management aspects of control and transport planes



Core Information model enhancement for management of synchronization and optical media

Meetings

- Past meetings since 2017
 - Geneva, 19 – 30 June 2017
 - Geneva, 29 January – 9 February 2018
 - Geneva, 8-19 October 2018
 - Geneva, 1 – 12 July 2019
 - Geneva, 27 January – 7 February 2020
 - E-meeting, 7-18 September 2020
 - E-meeting, 12-23 April 2021
- Future ITU-T SG15 meeting
 - Format TBD, 6-17 December 2021

Presentations

- Q2 Optical Access Networks - Work program review, *Frank Effenberger (Futurewei), Rapporteur, Q2/15*
- Optical Multi-Vendor Interoperable Specifications in ITU-T SG15/Q6, *Fabio Pittalà (Huawei)*
- Recent Topics in Optical Transport Networks, *Tom Huber (Nokia), Associate Rapporteur, Q11/15*

