

# NGMN Alliance Update

**NGMN Alliance  
11<sup>th</sup> July 2017  
ITU-T Workshop  
Geneva, Switzerland**

# Overview



- Update on NGMN Partnership and Co-operations
- NGMN Work Programme
- Latest Deliverables
- Industry Conference

# The Global Partnership of the NGMN Alliance



## Members: NGMN Operators with over 200 networks serving more than 60 % of all global customers,...



## Contributors: NGMN telco vendors, software companies and many other leading industry players contributing and driving the advancement of future mobile network technologies, ...



## Advisors: NGMN research institutes contributing substantially to mid- to long-term innovation,....



# Close Cooperation with Key Industry Organisations



2008



2009



2010



2012



2014



2015



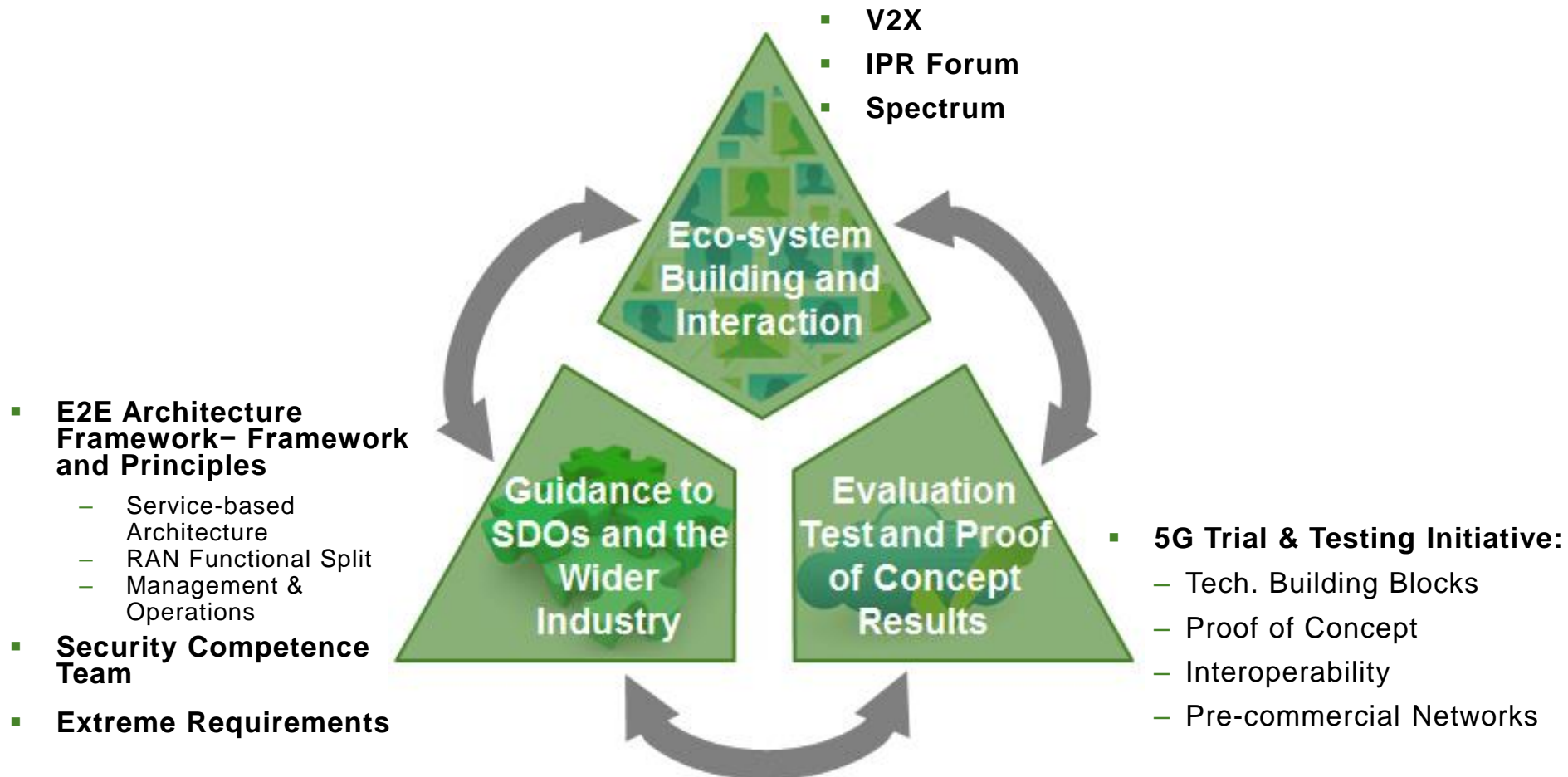
2016



2017



# NGMN 5G Work-Programme



# Current 5G Work-Programme Scope (1/2)



## Guidance to SDOs and the Wider Industry

### Security

- Security related to V2X
- Security of network capability exposure in 5G

### End-to-End Architecture FW

- Definition of requirements in terms of entities and functions that characterize the capabilities of an e2e framework.

### Extreme 5G Requirements

- Assessment of “extreme” 5G requirements for certain use-cases and the impact on the architecture

## Eco-System Building and Interaction

### IPR Forum

- Compilation of legal and regulatory requirements for patent pools

### Spectrum

- Spectrum licensing and other regulatory issues for 5G
- Additional spectrum bands for 5G and the WRC-19

### V2X

- Drive adoption and success of V2X and promote LTE-V2X for V2V and V2I communication

# Current 5G Work-Programme Scope (2/2)



## Evaluation Test and Proof of Concept Results

### Trial and Testing Initiative

#### Technology Building Blocks

- Collection of 5G Building Blocks and corresponding test cases and test results

#### Proof of Concept

- Definition of a PoC approach by reviewing scenarios, system dependencies and testing strategies

#### Interoperability

- Testing of key interfaces for ensuring that there are no different interpretations of the standard between solutions of 2 to 3 different providers

#### Pre-commercial Networks

- Development of a testing framework for 5G NR (3GPP) allowing the harmonization of the testing methodologies between the different parties conducting trials

other work items:

#### BASTA

- Active Antennas
- Review and Update of White Paper published in Q1/2017

#### TF 4.3-10 Connector

- 4.3-10 RF Connector Migration Strategies

# 5G Work-Programme Deliverables and Activities since October 2016



## End-to-end Architecture

### Security

- 5G Security - Mobile Edge Computing / Low Latency / Consistent User Experience

### End-to-End Architecture FW

- Architecture Principles agreed by NGMN P1-End-to-End Architecture Framework project
- Preliminary white paper version
- Contributions to 3GPP on Service Based Architecture

### Network Management & Orchestration

- 5G Network and Service Management including Orchestration

### IPR Forum

- NGMN IPR Forum Recommendations to Improve SEP Declarations

### Spectrum

- NGMN 5G Spectrum White Paper

### BASTA

- Recommendation on Base Station Antenna Standards (V10.0)

### TF 4.3-10 Connector

- 4.3-10 RF Connector Migration Strategies



**Guidance Given to International SDOs and other Organisations via Liaisons, White Papers etc.**



# New Work-Items in the Areas of Security, End-to-end Architecture, and Spectrum



Besides the on-going NGMN work, the NGMN Board decided to launch the following key activities:

- Establishment of a **Security** Competence Team – addressing 5G security issues related to areas like network capability exposure or to the most relevant 5G e2e use-cases
- Significant enhancements to the NGMN **End-to-end Architecture** project through activities on 5G Service-based Architecture (SBA), Multi-Domain Operation, and on RAN Functional Split and x-Haul
- Extended scope of the **Spectrum** group – addressing issues around licensing (e.g. national vs regional, potential coordination with other services), required contiguous bandwidths and spectrum bands to optimally deliver certain use cases, WRC-19 candidate bands

# NGMN Industry Conference



- **NGMN Industry Conference & Exhibition**  
**planned for October 2018 in Vancouver, Canada**  
kindly hosted by Telus

