EURO-5G
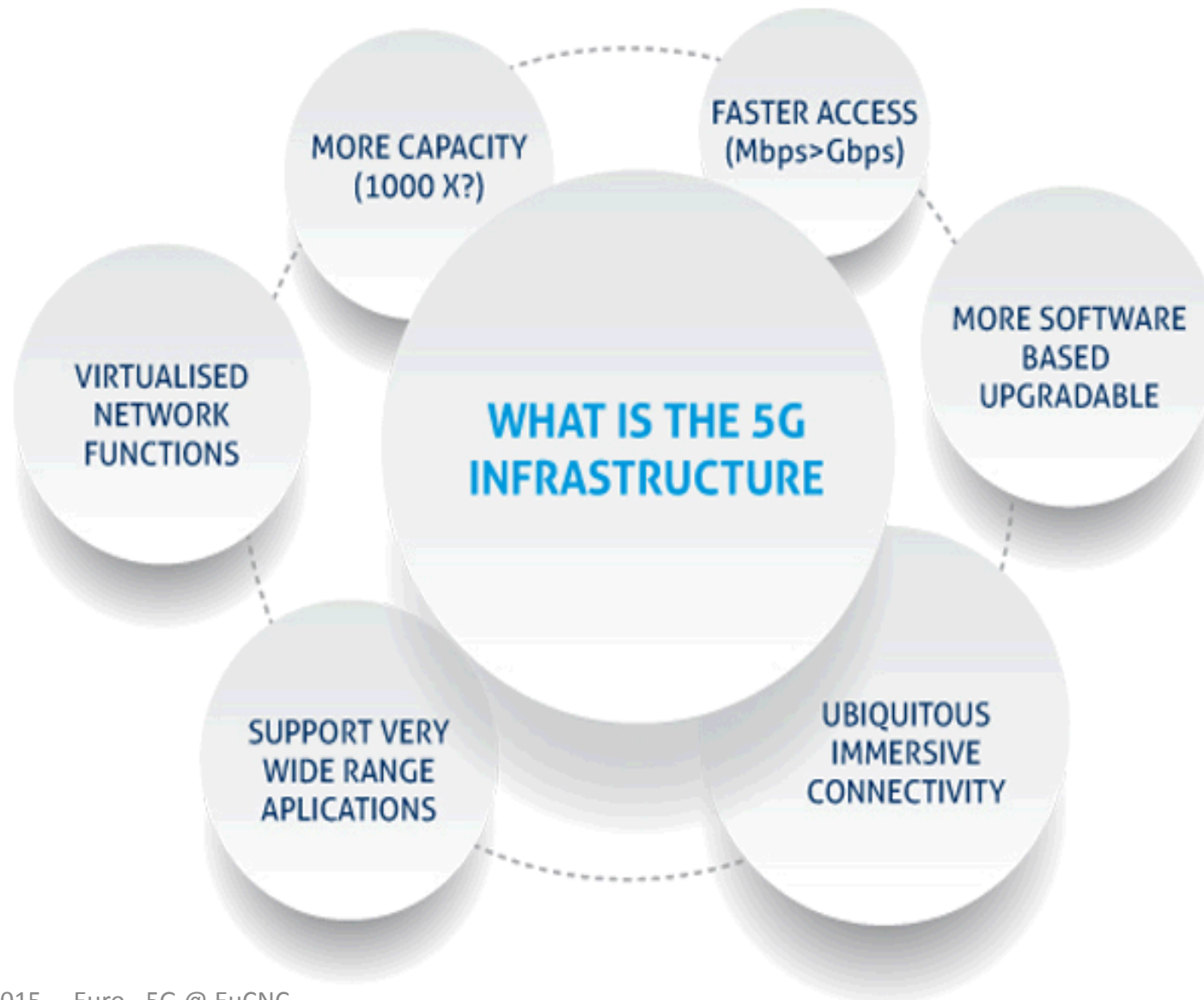
The 5G-Infrastructure-Public-Private-Partnership support action project

Key challenges

MORE CAPACITY (1000 X?)

FASTER ACCESS (Mbps>Gbps)

VIRTUALISED NETWORK FUNCTIONS

WHAT IS THE 5G INFRASTRUCTURE

MORE SOFTWARE BASED UPGRADABLE

SUPPORT VERY WIDE RANGE APLICATIONS

UBIQUITOUS IMMERSIVE CONNECTIVITY

European 5G-PPP in context
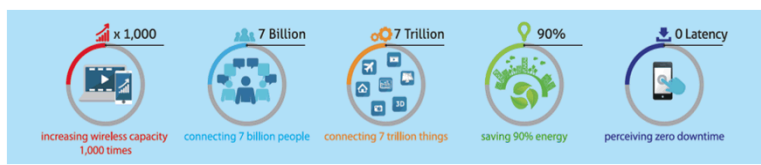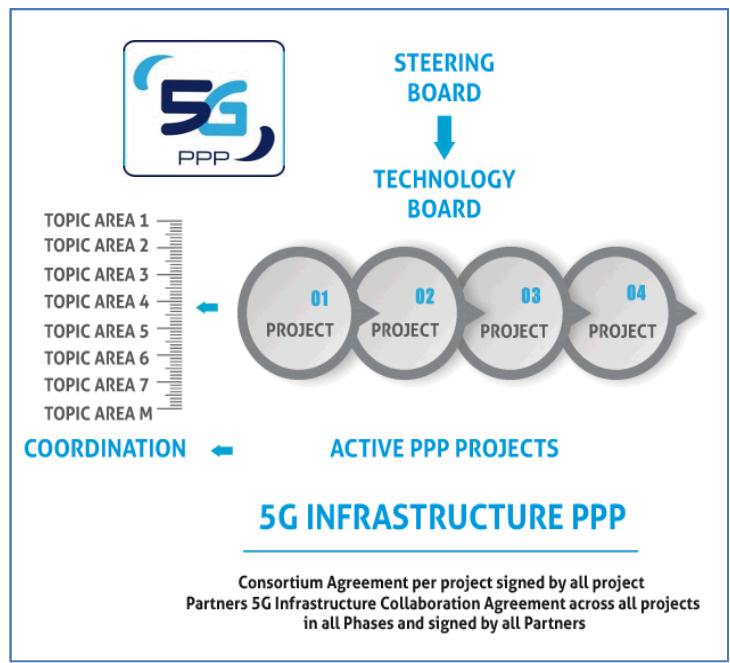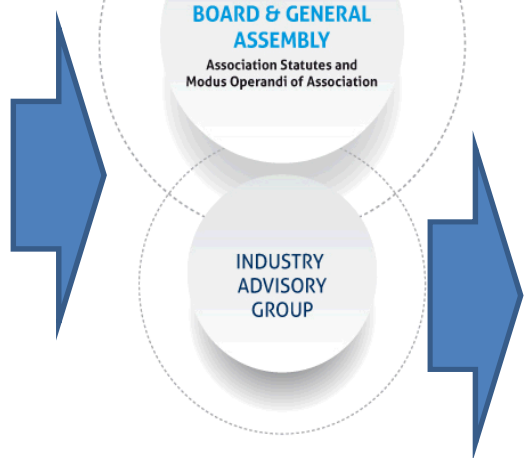
5G-PPP   Phase 1 Projects

CSA	EURO 5G
R&I	5G-NORMA
R&I	5G-Xhaul
R&I	5G-ENSURE
R&I	CHARISMA
R&I	COGNET
R&I	COHERENT
R&I	FANTASTIC 5G
R&I	Flex5Gware
R&I	METIS II
R&I	mmMAGIC
R&I	SELFNET
R&I	SESAME
R&I	SPEED-5G
R&I	SUPERFLUIDITY
R&I	XHAUL
I	5GEx
I	SONATA
I	VirtuWind

- 19 Projects Selected

- Addressing:
  - Innovative Wireless solutions
  - New management Concepts
  - Convergence
  - SDN & NFV
  - …and now with
    added Security !!

H2020 5G PPP Call 1 objectives

- *Radio network architecture and technologies*

- Convergence beyond last mile

Strand 1

Strand 2

Strand 4

Strand 3

- *Network Virtualisation and Software Networks*

- Network Management

H2020 5G PPP Call 1 Outcome

- Radio network architecture and technologies

Strand 1

- Convergence beyond last mile

Strand 2

Strand 4
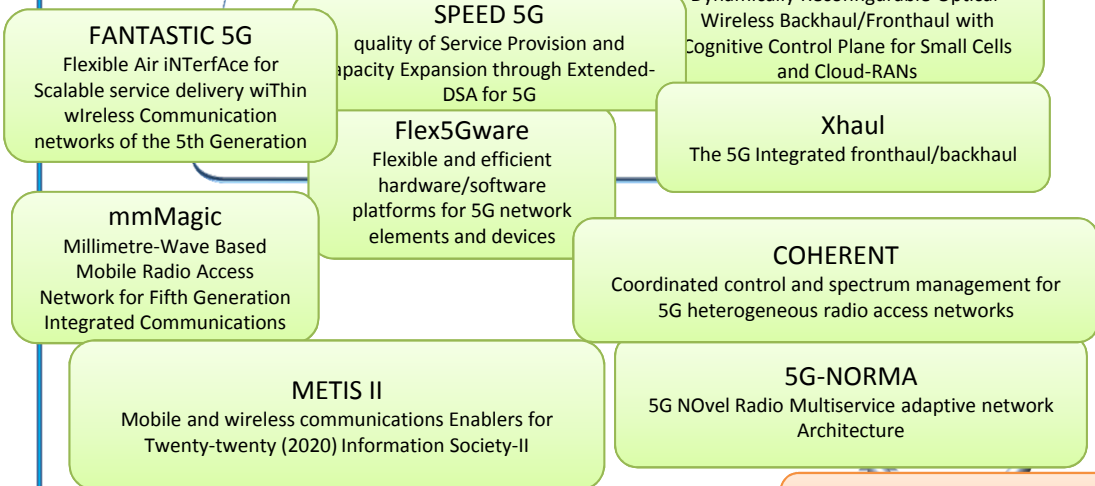
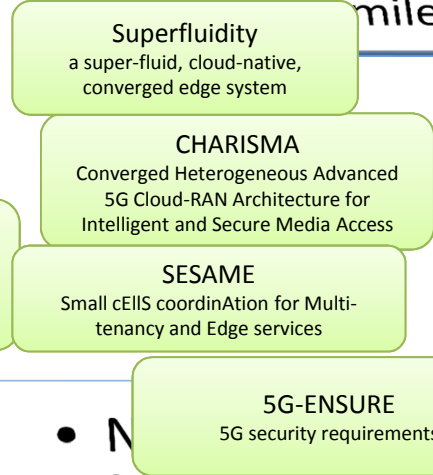- Network Virtualisation and Software Networks

Strand 3

- Network Management

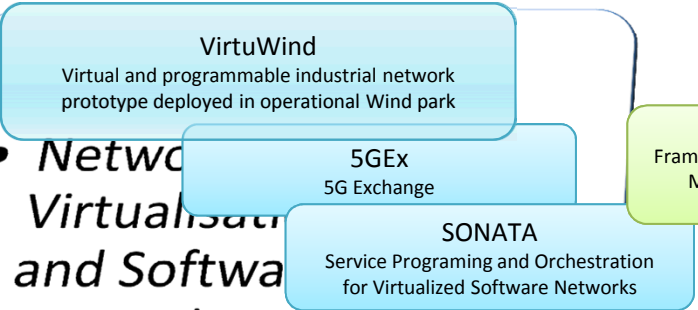# H2020 5G PPP Call 1 Outcome

- Radio network architecture

FANTASTIC 5G
Flexible Air iNTerfAce for Scalable service delivery wiThin wIreless Communication networks of the 5th Generation

SPEED 5G
quality of Service Provision and apacity Expansion through Extended-DSA for 5G

5G-Xhaul
Dynamically Reconfigurable Optical-Wireless Backhaul/Fronthaul with Cognitive Control Plane for Small Cells and Cloud-RANs

Xhaul
The 5G Integrated fronthaul/backhaul

Flex5Gware
Flexible and efficient hardware/software platforms for 5G network elements and devices

mmMagic
Millimetre-Wave Based Mobile Radio Access Network for Fifth Generation Integrated Communications

COHERENT
Coordinated control and spectrum management for 5G heterogeneous radio access networks

METIS II
Mobile and wireless communications Enablers for Twenty-twenty (2020) Information Society-II

5G-NORMA
5G NOvel Radio Multiservice adaptive network Architecture

- Convergence beyond last mile

Superfluidity
a super-fluid, cloud-native, converged edge system

Euro-5G
5G PPP Coordination and Support Action

CHARISMA
Converged Heterogeneous Advanced 5G Cloud-RAN Architecture for Intelligent and Secure Media Access

VirtuWind
Virtual and programmable industrial network prototype deployed in operational Wind park

CogNET
Building an Intelligent System of Insights and Action for 5G Network Management

SESAME
Small cEllS coordinAtion for Multi-tenancy and Edge services

- Network Virtualisation and Software Networks

5GEx
5G Exchange

SONATA
Service Programing and Orchestration for Virtualized Software Networks

SELFNET
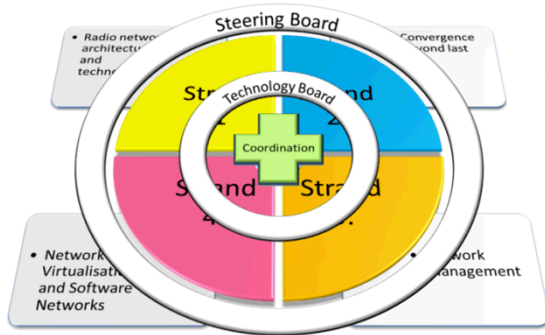Framework for Self-Organised Network Management in virtualised and software defined networks

5G-ENSURE
5G security requirements

- Network Management

: Working Structure

WP4: Liaison: National, International and peer Initiatives

WP2: 5G PPP Programme Governance and Operation

WP3: Communication and Public Relations
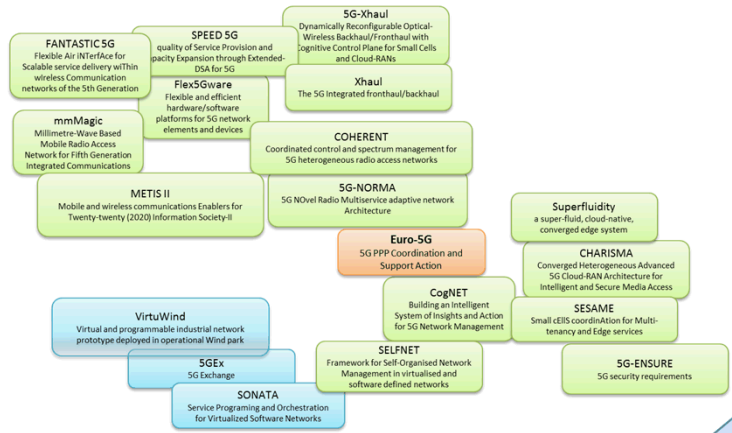
WP1: European 5G community

WP6: Project Management

WP5: Support for 5G Working Groups

WG 1

WG 2

WG 3

WG 4

WG N

Many Customers

FANTASTIC 5G
Flexible Air INTerfAce for Scalable service delivery wiThin wireless Communication networks of the 5th Generation

SPEED 5G
quality of Service Provision and capacity Expansion through Extended-DSA for 5G

5G-Xhaul
Dynamically Reconfigurable Optical-Wireless Backhaul/Fronthaul with Cognitive Control Plane for Small Cells and Cloud-RANs

Flex5Gware
Flexible and efficient hardware/software platforms for 5G network elements and devices

Xhaul
The 5G Integrated fronthaul/backhaul

mmMagic
Millimetre-Wave Based Mobile Radio Access Network for Fifth Generation Integrated Communications

COHERENT
Coordinated control and spectrum management for 5G heterogeneous radio access networks

METIS II
Mobile and wireless communications Enablers for Twenty-twenty (2020) Information Society-II

5G-NORMA
5G NOvel Radio Multiservice adaptive network Architecture

Superfluidity
a super-fluid, cloud-native, converged edge system

Euro-5G
5G PPP Coordination and Support Action

CHARISMA
Converged Heterogeneous Advanced 5G Cloud-RAN Architecture for Intelligent and Secure Media Access

CogNET
Building an Intelligent System of Insights and Action for 5G Network Management

SESAME
Small cEllS coordinAtion for Multi-tenancy and Edge services

VirtuWind
Virtual and programmable industrial network prototype deployed in operational Wind park

SELFNET
Framework for Self-Organised Network Management in virtualised and software defined networks

5G-ENSURE
5G security requirements

5GEx
5G Exchange

SONATA
Service Programing and Orchestration for Virtualized Software Networks

Collaboration Agreement

Grant Agreement

European Commission

PPP Contract

5G-PPP-Partnership Board

5G-Infrastructure-Association

EURO 5G : **Communications**

- Dissemination and awareness creation activities, including provision of the 5G PPP website,

- Preparation of high quality dissemination and training material,

- Participation at large events under the 5G-PPP umbrella,

- Contributions to international collaboration activities.

- To produce two or three versions of the:

  European 5G Annual
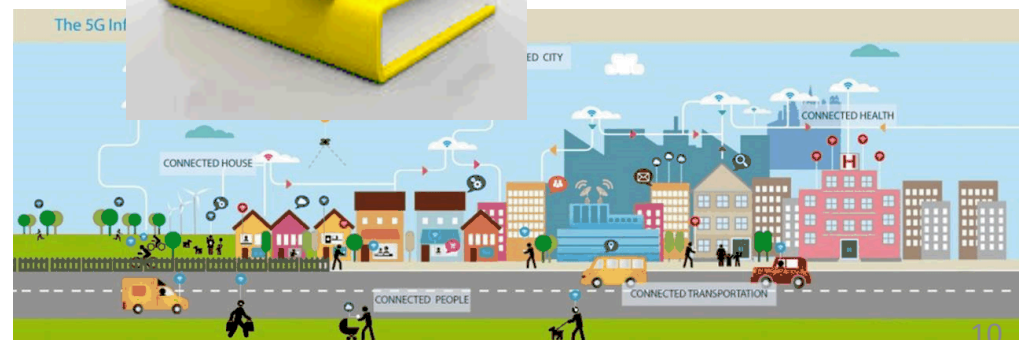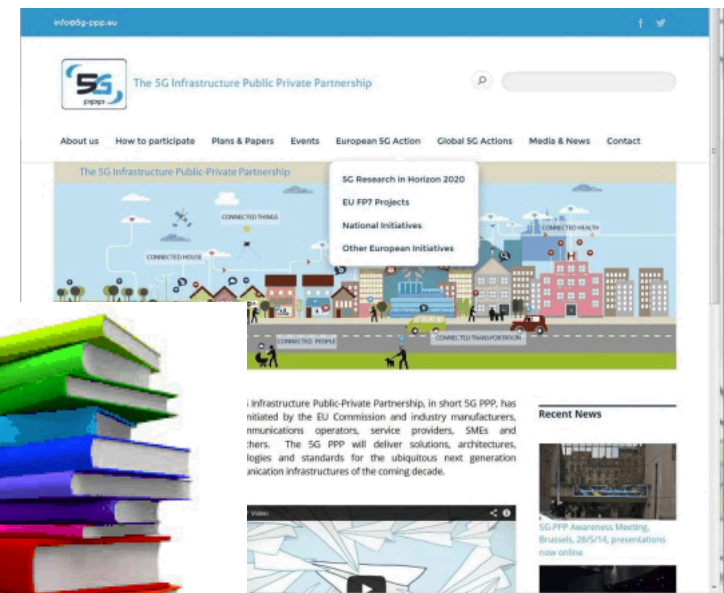
: Impact(s) from Project

- An efficient and effective 5G-PPP program including inter-project cooperation
- Optimum positioning and profile of the strategic European program and liaison with other European 5G activities – we want global recognition !!
- Launch of appropriate groups with the standards institutions to generate the necessary 5G standards
- Annual reviews of progress and recommendations to improve the impact of the work in progress
- Continuous assessment of the scope of the program work and the identification of gaps in the system development
- Renewal of 5G roadmaps
- Growth of the 5G constituency – particularly the wider user communities – in the vertical sectors
- Early exploitation of results,
- Widespread dissemination of European achievements

Photo from: solarsystem.nasa.gov

The 5G Infrastructure
Public-Private Partnership

info@5g-ppp.eu

Objectives

In collaboration with the **5G-Infrastructure Association**, the **NetWorld2020 European Technology Platform** and relevant vertical sectors, represented by other ETPs, other PPPs and associations:

- The **Euro-5g** project will drive the 5G-PPP goal to maintain and enhance the competitiveness of the European ICT industry, seeking European leadership in the 5g domain.

- The **Euro-5g** project will ensure that European society can enjoy the economic and societal benefits these future networks through promotion of uptake and simulating adoption and use.

- The **Euro-5g** project will ensure effective and efficient co-operation and integration between all projects of the 5G-PPP,

- The **Euro-5g** project will extend the project and programme level collaboration to other European Commission projects in H2020, the CELTIC Plus Eureka cluster, and related national initiatives to maximize the European momentum towards, and benefits from, the future 5G integrated, ubiquitous and ultra-high capacity networks.

- The **Euro-5g** project will monitor and analyse international 5G activities and will facilitate respective activities (e.g. meetings, workshops etc.) and work together with the 5G-Infrastructure Association and the European Commission to create good international relations with these global initiatives, ensure recognition of the European developments and promote global interoperability of 5G solutions.

- The **Euro-5g** project will, as a core activity, launch and maintain a comprehensive communications and dissemination program emanating from a lively and continuously updated 5G-PPP.eu website and including various social media tools as appropriate. This program level communications plan will be shared with all the 5G-PPP projects and will include annual reports on the program performance.

- The **Euro-5g** project will also stimulate and involve a highly qualified group of experts for SRIA and WG participation via the NetWorld2020 European Technology Platform.

Consortium Roles

No.	Participant organisation name	Role
1	Eurescom	**Project co-ordinator (WP6),** support of WP2 leadership and provider of the infrastructure and support for the governance and the program in general. Will also support the communications strategy.
2	5G Infrastructure Association	Will provide the fixed reference point for program level agreements and will administer all programme level contracts.

Will provide the Program Spokesperson in partnership with the project and will take an active **leadership role in WP2**. The Association staff will be active in all WPs and will particularly lead the portfolio analysis. |
3	Idate	**Will lead WP3** and implement the innovative communications strategy of the project. They will also assist in the events orchestration.
4	InterInnov	**Will lead WP1** on community building, support the SME work group in WP5 and strongly participate in the dissemination activities
5	Nokia Net	**Will lead WP4** on International liaison and contribute to program governance.
6	University of Surrey	**Will lead WP5** and the research agenda task
7	UNIBO	Will lead a task on international cooperation and contribute to the vision and the roadmaps
8	Orange	Will lead the progress and KPI evaluation work and will lead on the vision and societal perspective
9	Martel	Will lead on the event logistics, liaison and provide key support in many other activities
10	Telenor	Will lead the spectrum work group and contribute to progress evaluation.