

Networld 2020 /5G-IA

Rui Luis Aguiar

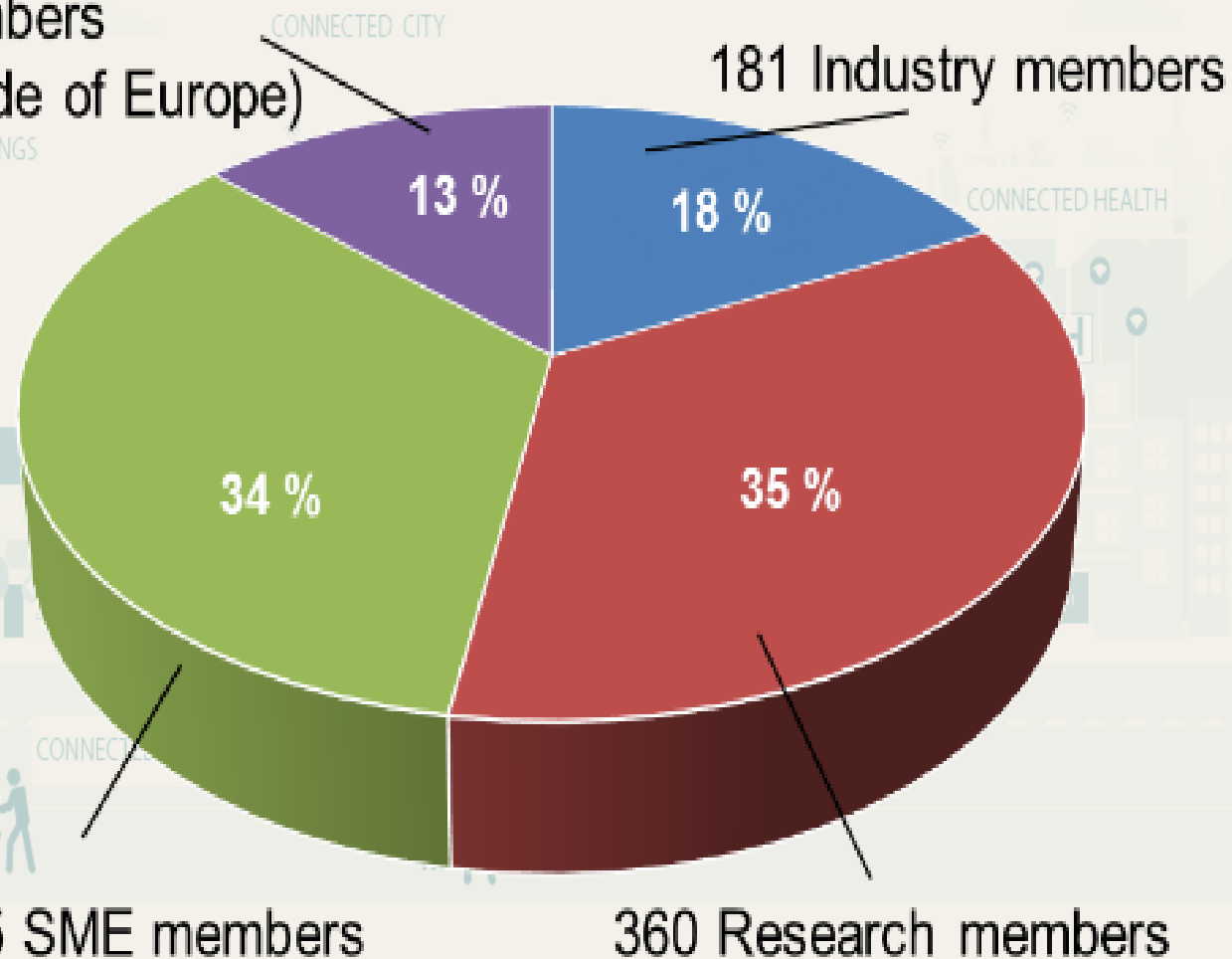
Networld 2020 Steering Board Chair

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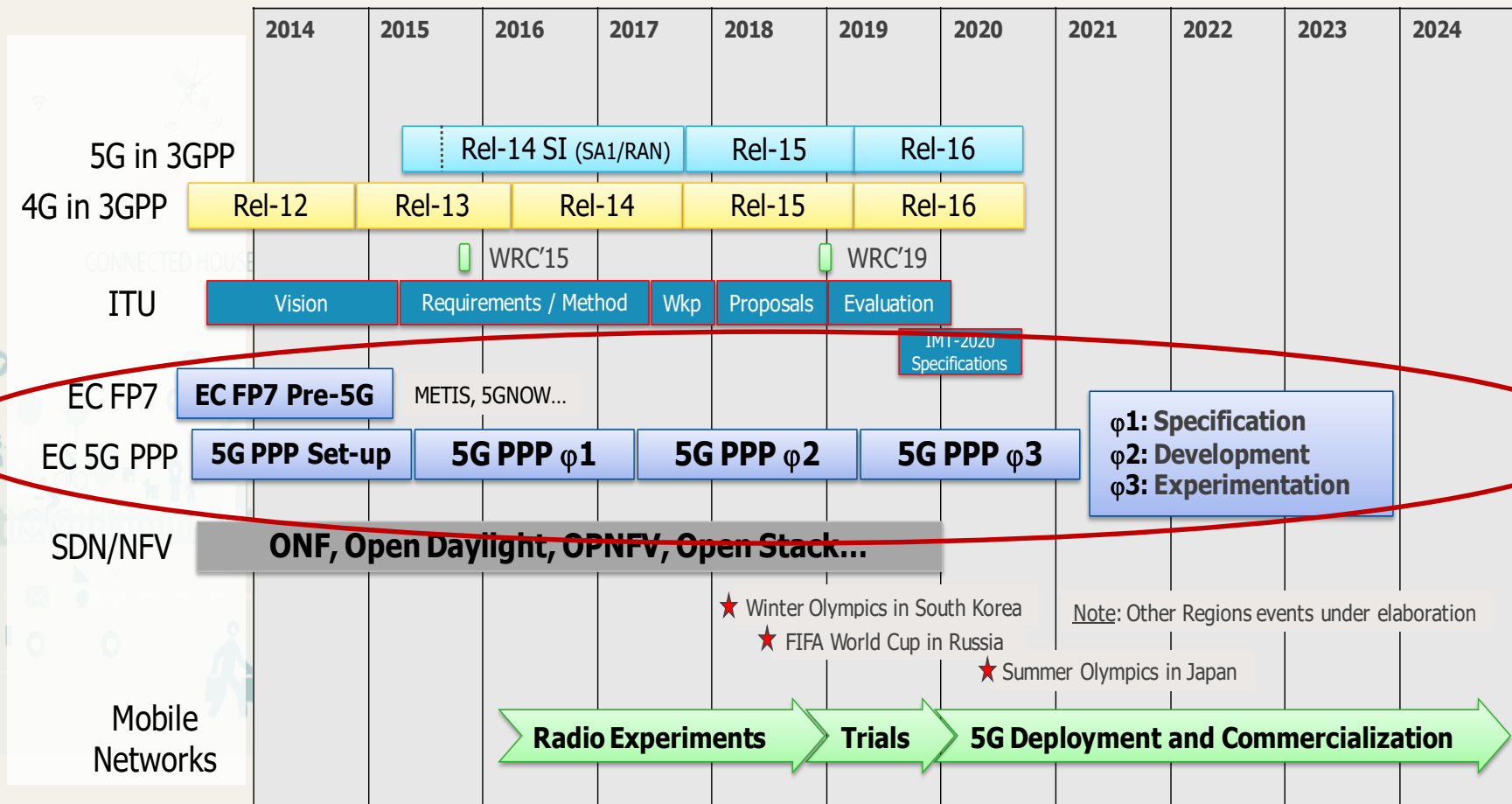
Membership

133 Cooperation members
(liaison partners outside of Europe)

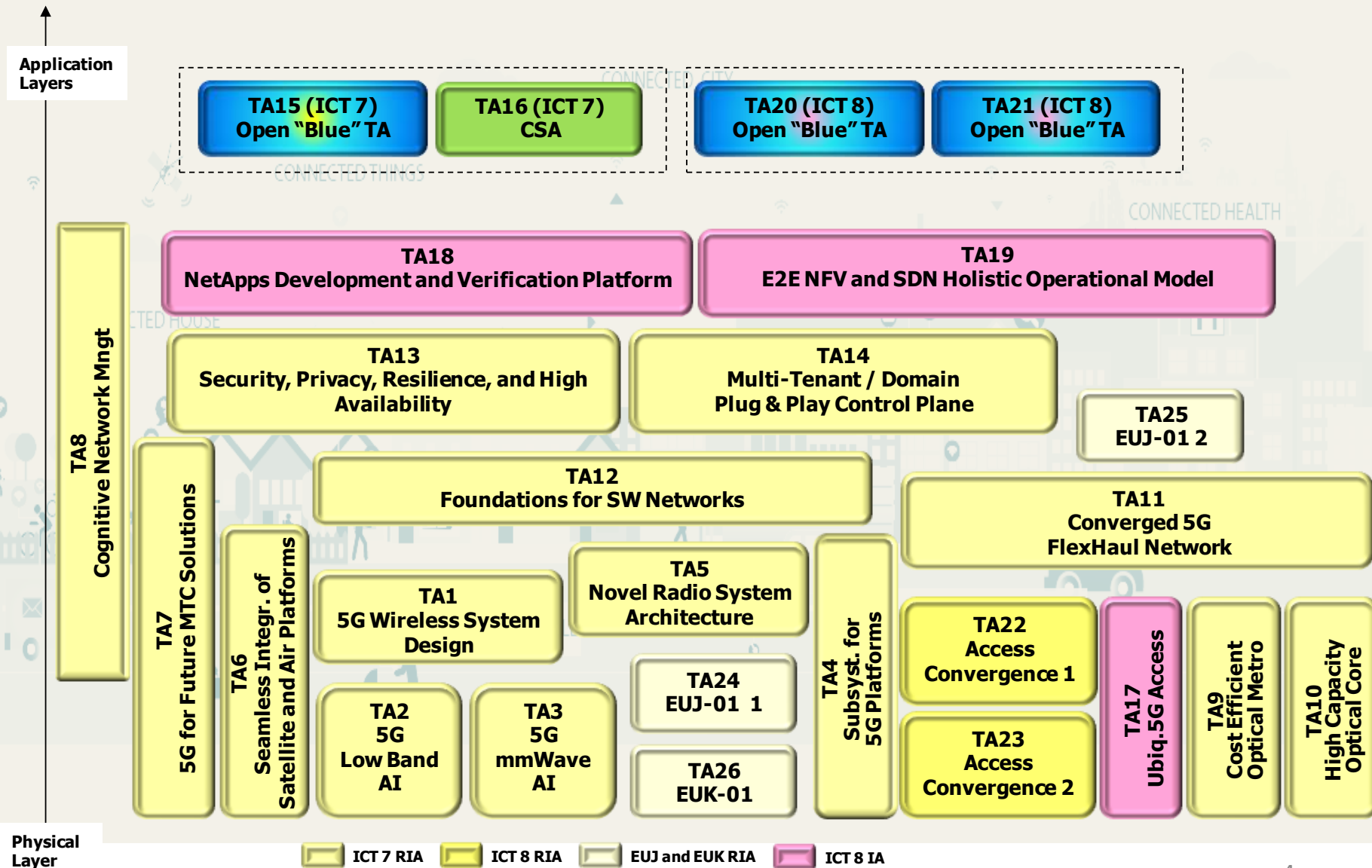


We work with a clear timing plan!

CONNECTED CITY

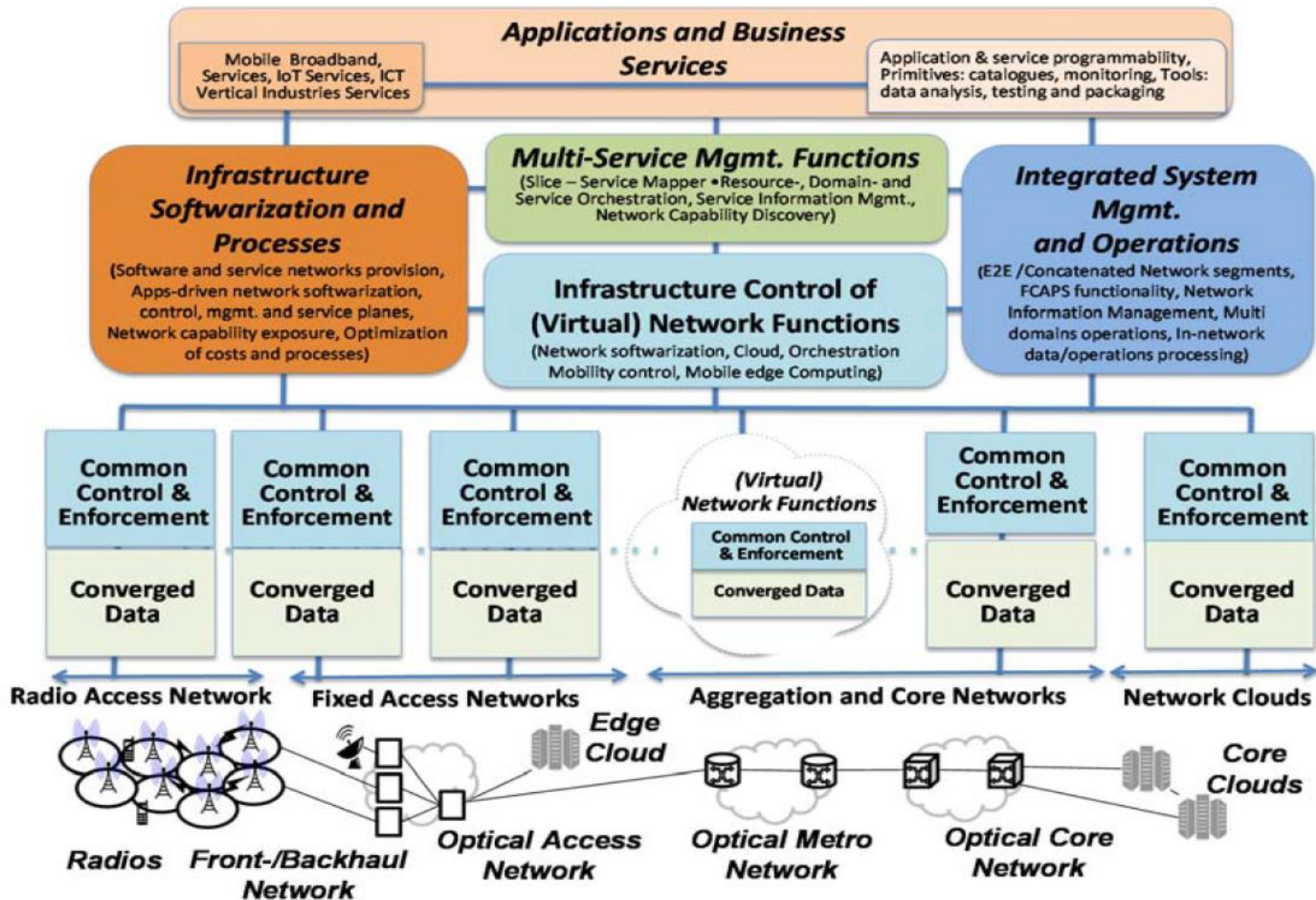


and (pre)structure our projects



Note: The size and the orientation of the TAs boxes do not indicate the potential size or manpower of future Projects

EU 5G R&D outcomes



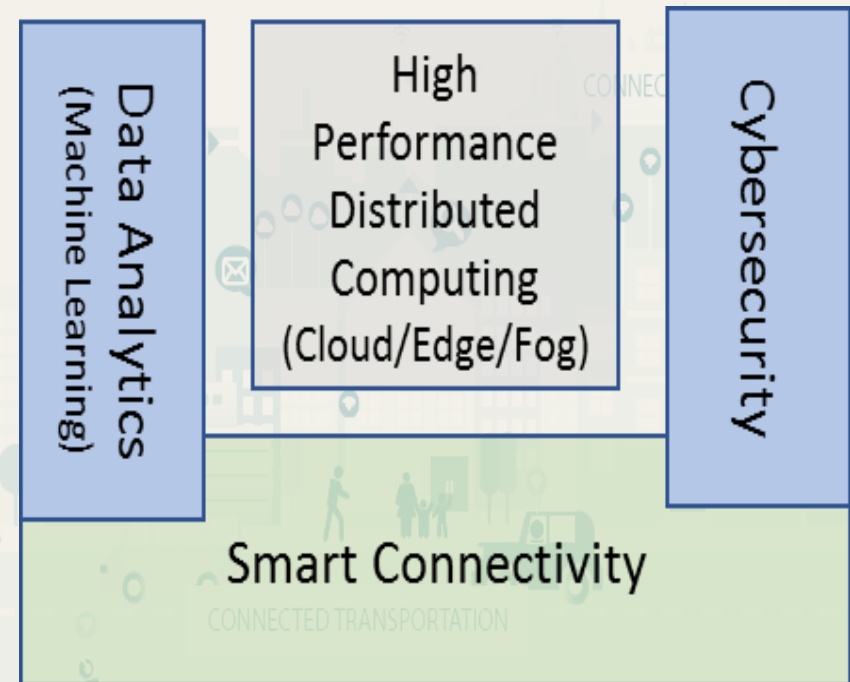
The background is a light beige color with a faint, stylized illustration of a smart city. It includes various icons and labels: "CONNECTED CITY" at the top center, "CONNECTED THINGS" on the left, "CONNECTED HEALTH" on the right, and "CONNECTED HOUSE" on the far left. The illustration depicts a cityscape with buildings, houses, a hospital (marked with an 'H'), a car, a person with a shopping bag, a person with a stroller, and a person walking a dog. There are also various network-related icons like Wi-Fi symbols, a satellite, and a smartphone.

**Smart Networks: it is not about
end-to-end transport any more**

**Smart Networks: a distributed, virtual,
tailored ICT services factory**

Network Architecture and Control

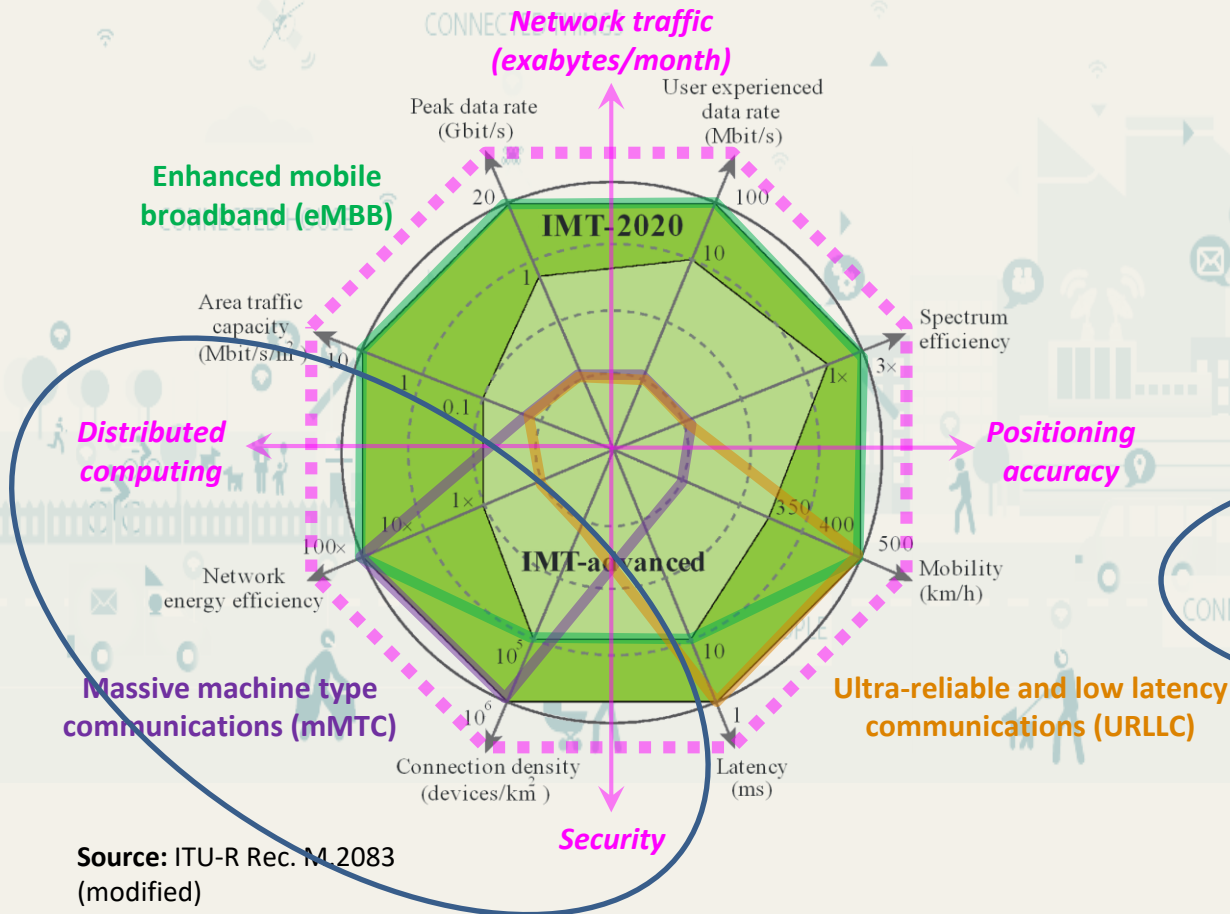
- **Smart Networks:**
- Integrated C3: Computing, Communication and Control
- Single, unifying, control framework
- Instantiation and execution of any control architecture(s)
- Isolated control and data domains for each tenant
- Multitenancy and federation of resources and slices
- Low delay, low energy highly efficient radios



Smart Networks: fundamental cornerstone for the production of all services

Smart Networks: Vision and Use Cases

Smart Networks



Target use cases

- Tbps throughput
- sub-ms latency
- Gbps availability
- Very high mobility
- Extreme reliability
- mMTC everywhere
- Extreme energy efficiency
- Very high security
- cm-level localization
- ...

Smart Networks in the context of NGI

Networld 2020 SRIA has identified 8 strategic research lines:

1. Network Architecture and Control
2. Radio Technology and Signal Processing
3. Optical Networks
4. Edge Computing and Meta-data
5. Network and Service Security
6. Satellite Technologies
7. Human Centric and Vertical Services
8. Future and Emerging Network Technologies

POTENTIAL APPROACH FOR SMART NETWORKS CO-PROGRAMMED EUROPEAN PARTNERSHIP – VALUE CHAIN OF PROGRAMS



Smart Networks Co-programmed European Partnership
Industry association responsible for coordination
of different activities

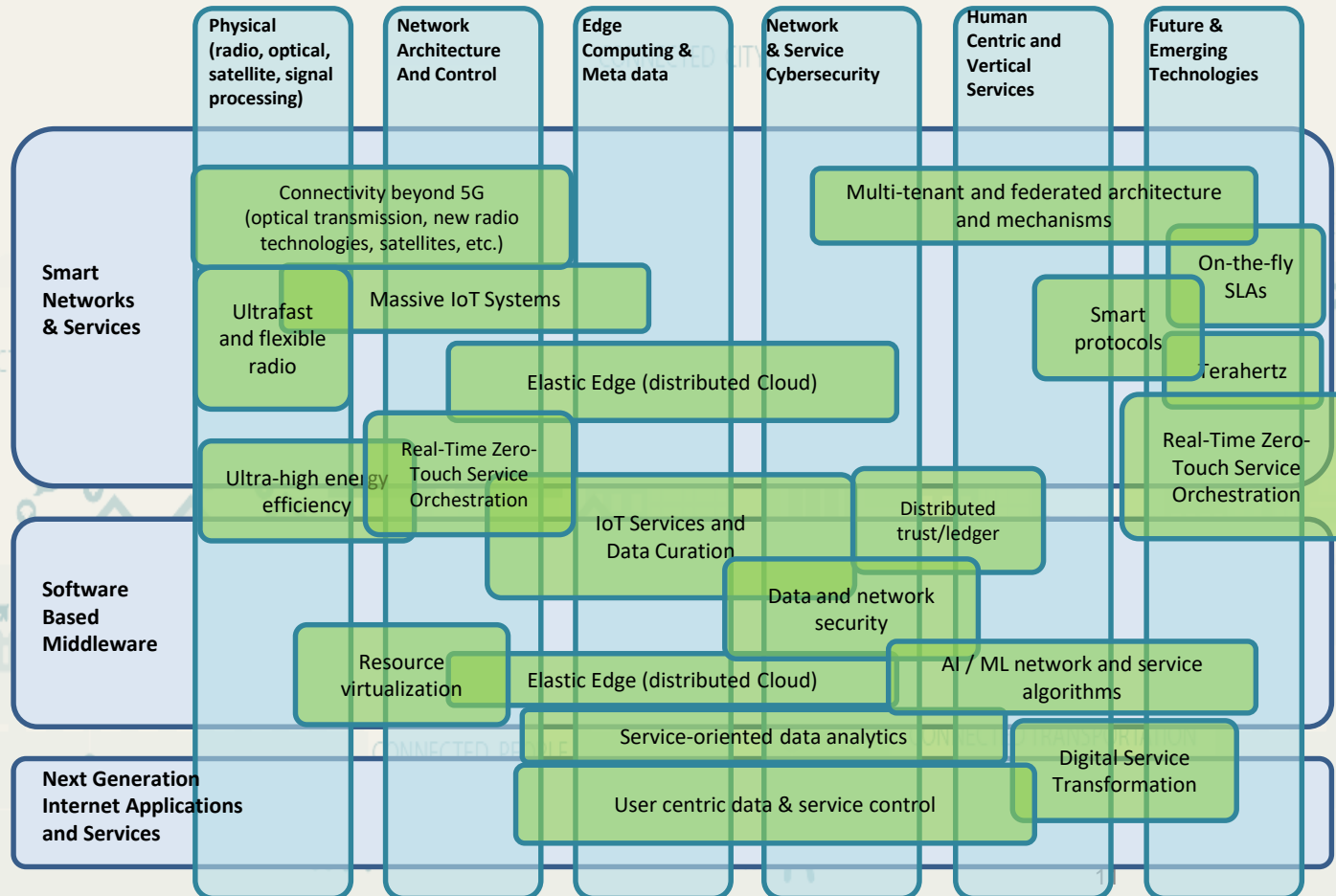
Exploitation of
Smart Networks
Co-programmed European
Partnership results

SRIA – Strategic Research and Innovation
Agenda
SDA – Strategic Deployment Agenda

- Value chain Horizon Europe a Connecting Europe Facility (a Digital Europe) could be the basis for Smart Networks Co-programmed European Partnership
- Further technology developments are performed in Horizon Europe under NGI, SRIA needed
- (Trial) and mainly deployment activities closer to the market are handled under CEF, SDA needed
- Partnership could be responsible for the coordination of these activities with different financing instruments from the different programs
- Member States will be involved especially in CEF for deployments, e.g. in corridors
- This approach would increase the overall addressable budget with contributions from Horizon Europe and Connecting Europe Facility
- Strategic vision from industry needed on research, innovation and deployment

Strategic Research and Innovation Agenda (Networld2020 ETP and 5G-IA)

Specific Program: NGI Section 3.2.5





Thank you for your attention!

**(and we welcome visiting or permanent researchers.
Just contact ruilaa@ua.pt)**

www.networld2020.eu