

Use case business motivation

Dr. Hanne-Stine Hallingby

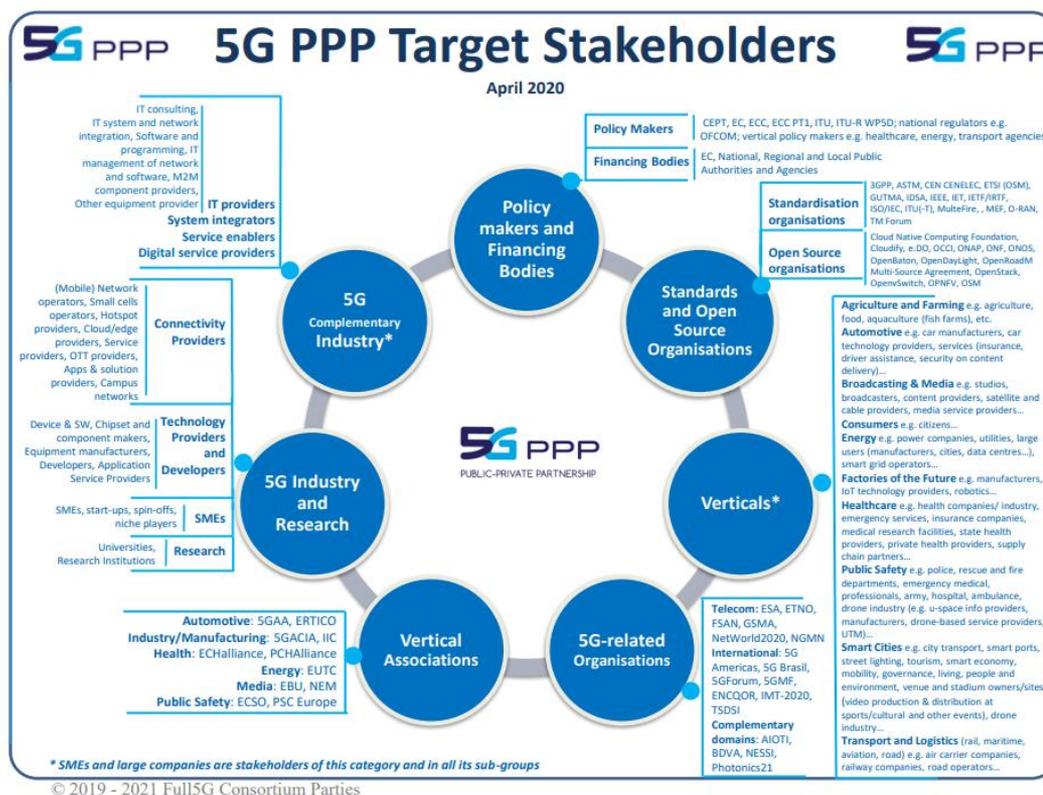
Senior Research Scientist, Telenor Research

Leader: Business Validation, Models and Ecosystems sub-group (5G IA)

Participate in Full5G, 5G-VINNI, 5G-SOLUTIONS, 5G-HEART

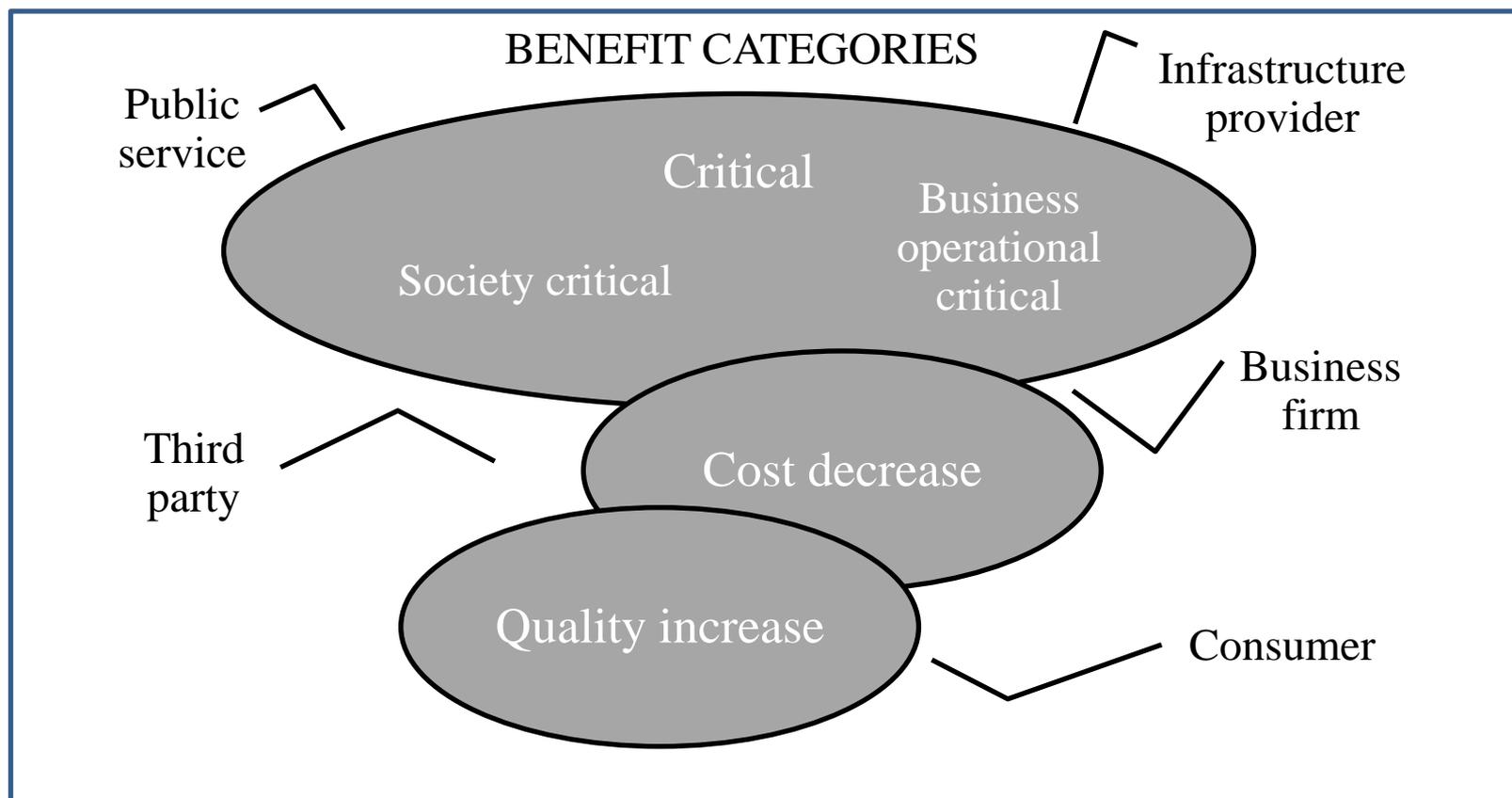
hanne-k.hallingby@telenor.com

Those who hold stakes in 5G are many, with varied motivations and business interests

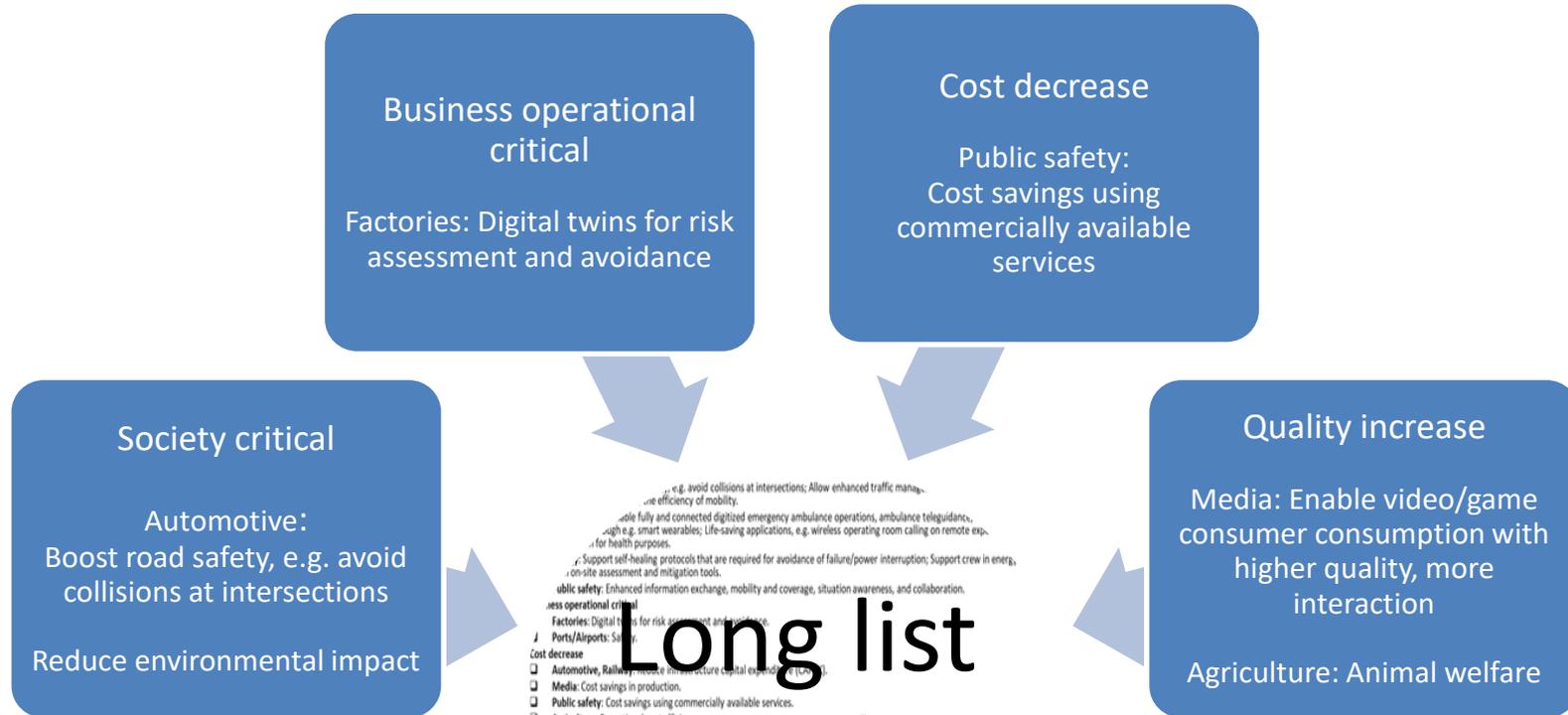


<https://5g-ppp.eu/revised-5g-ppp-stakeholders-picture-and-glossary/>

5G PPP projects suggest types of stakeholders across verticals, users, and providers, and their potential benefits



5G benefits are well founded in solving problems and creating value



Long list benefits

- e.g. avoid collisions at intersections; Allow enhanced traffic management, improve efficiency of mobility.
- Enable fully and connected digitized emergency ambulance operations, ambulance teleguidance, e.g. smart wearables; Life-saving applications, e.g. wireless operating room calling on remote expert for health purposes.
- Support self-healing protocols that are required for avoidance of failure/power interruption; Support crew in emergency on-site assessment and mitigation tools.
- **Public safety:** Enhanced information exchange, mobility and coverage, situation awareness, and collaboration.
- **Business operational critical**
- **Factories:** Digital twins for risk assessment and avoidance.
- **Ports/Airports:** Support self-healing protocols that are required for avoidance of failure/power interruption; Support crew in emergency on-site assessment and mitigation tools.
- **Cost decrease**
- **Automotive, Railway:** Enable infrastructure capital expenditure (CapEx) reduction.
- **Media:** Cost savings in production.
- **Public safety:** Cost savings using commercially available services.
- **Agriculture:** Operational cost efficiency.
- **Ports/Airports:** Operational efficiency and reduced logistic costs, also decrease in collision.
- **Quality increase**
- **Smart cities:** Develop cloud-based services, based on existing private infrastructure, e.g. waste management, traffic lights control, parking detection, emergency monitoring, monitoring persons and infrastructure to citizens, remote care, tele-education services.
- **Automotive:** Increase the efficiency of mobility, improve traffic safety.
- **Automotive, Media:** Enable video/game consumer consumption with higher quality, more interaction; Enable (live) video production with higher quality and speed, distributed production; Improve passenger experience with infotainment services.
- **Smart cities:** Automation and vehicle automation in warehouses, for assembly lines and seaports.
- **Wearables:** Wearables for health monitoring, emergency localization, and secure access to patient records.
- **Smart cities:** Monitor and manage sites in order to optimize production and animal welfare.

Use case business motivation ideas come easily.

**More challenging to confirm value propositions
– which business models and cases build upon.**



Proving the business case is challenging; wise strategies must address complex and competitive 5G market

Projects report quantitative early indications of e.g. capacity and cost improvements with 5G in use cases such as for ports – however:

Suggested strategies:

- To carry costs - partnerships and co-investment often necessary, e.g. Public-Private partnerships
- Must mitigate chicken-and-egg dilemma: avoid that potentially positive business case is not realized because different interdependent stakeholders are uncertain about their role and share, and wait to invest

Needed going forward:

- Enable business model development for all use case stakeholders
- Address 5G market/ecosystem characteristics and challenges

Thank you for your attention

For more information about 5G PPP activities please visit <https://5g-ppp.eu>
The white paper is available at <https://5g-ppp.eu/white-papers/>