



Converged wireless access for reliable 5G MTC for factories of the future

Overview and expected technical results

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5G PPP Phase 2 kick-off and Collaboration meeting

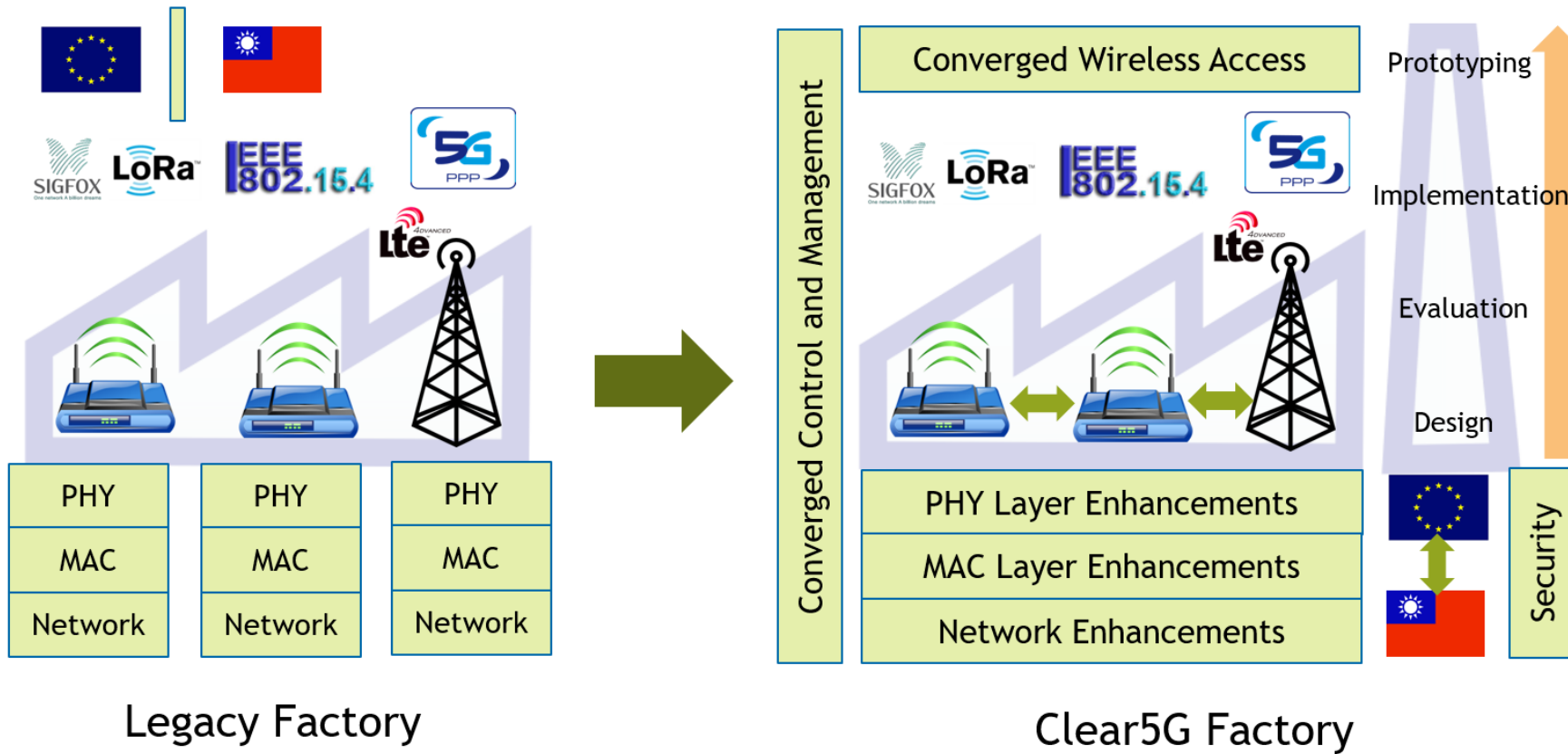
Brussels, 1 June 2017

Aim



- *To design, develop, validate, and demonstrate an integrated convergent wireless network for Machine Type and Mission Critical Communication (MTC/MCC) services for Factories of the Future (FoF)*
- FoF environments:
 - time-critical processes
 - dependence on timely delivered data from massive numbers of sensors
 - decisions having to be made and executed in less than milliseconds
- Indicative Applications
 - Remote maintenance of sensors monitoring machines' status, machine reconfiguration for product customization, goods inventory, and zero defect assembly line with continuous check quality during production
 - Closed loop control systems
 - Large factory plants covered by cellular systems

The Clear5G Concept



Tangible Results



KPI	Targeted value	Means to evaluate
Latency	Down to 1 ms	System level simulations, field trials
Reliability	Up to 99.999%	System level simulations, field trials
Connection density	Up to 100 nodes per 1 m ³	System level simulations
Security	PHY framework	PoC validation
Heterogeneity (convergent air interfaces)	Coexistence of various radio interfaces, and various FoF use cases	PoC validation
Energy efficiency (Device battery life)	>15 year battery life	System level simulations, field trials
Spectrum efficiency	Reflected in Connection density	System level simulations

Relevant Work Groups



- Pre-Standardization WG
- Spectrum WG
- 5G Architecture WG
- SDN / NDF WG
- SME WG
- Trials WG

The Clear5G Consortium



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