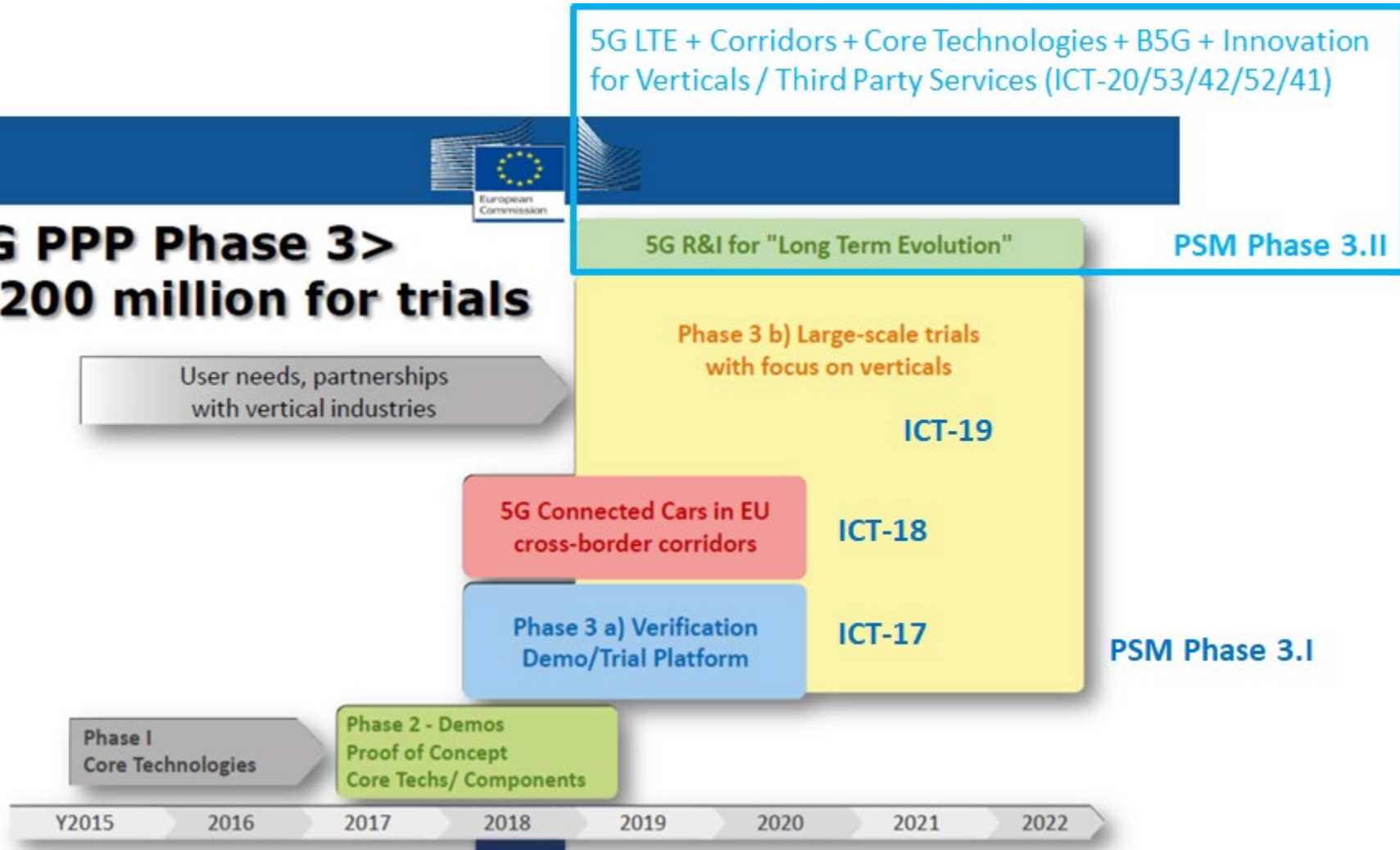


5G Infrastructure PPP Programmatic Perspectives

Dr. Didier Bourse (Full5G)

5G Infrastructure PPP Programme Phases & Projects

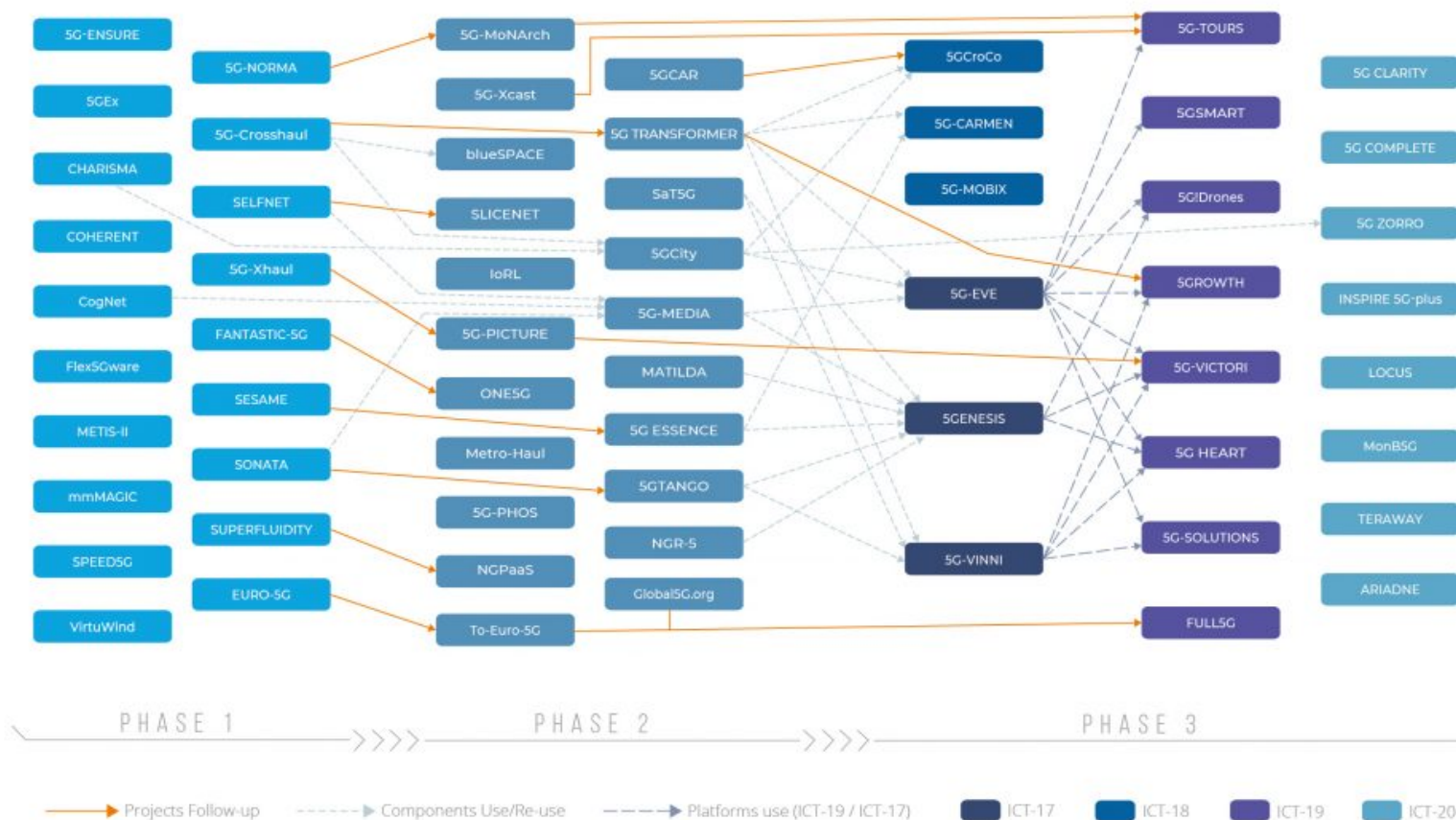
5G PPP Phase 3 > € 200 million for trials



<https://5g-ppp.eu/>

5G Infrastructure PPP Programme Phases & Projects – Heritage (V1.0)

PROJECTS HERITAGE AND CONNECTIONS

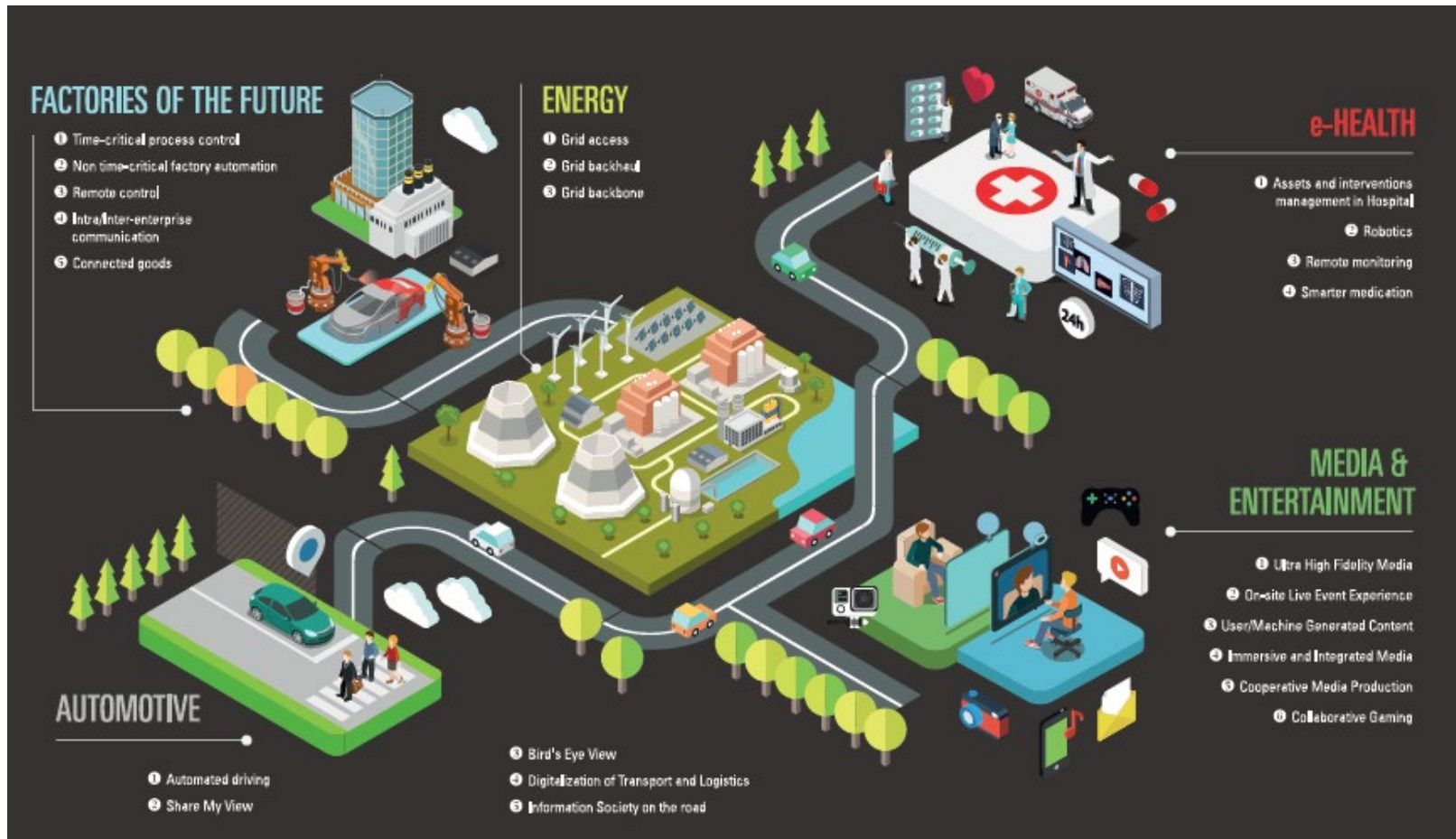


<https://5g-ppp.eu/5g-ppp-heritage/>

PPP Verticals Position Paper

MWC 2016

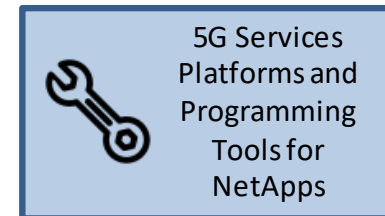
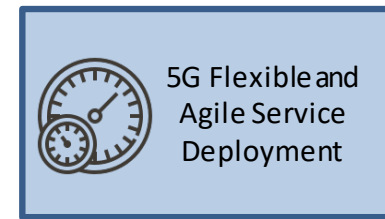
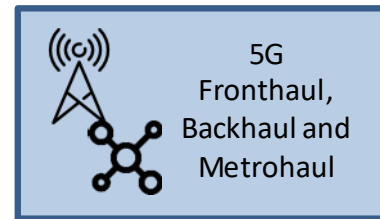
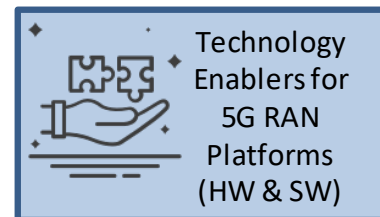
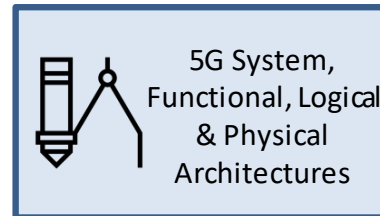
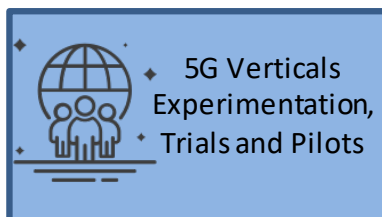
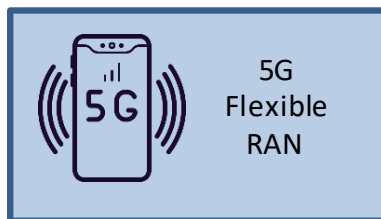
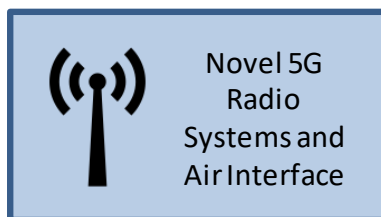
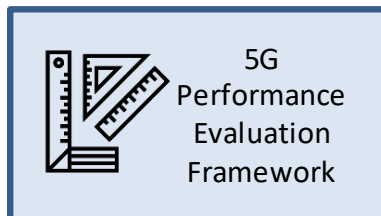
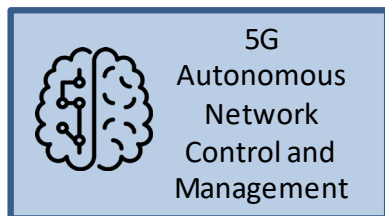
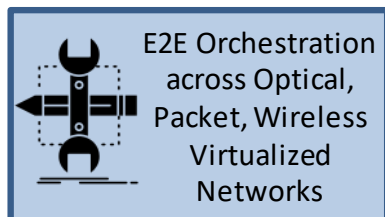
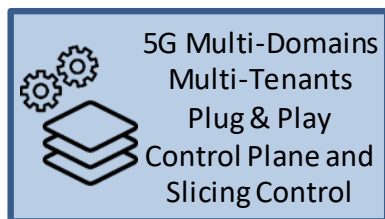
“5G Empowering Vertical Industries”



https://5g-ppp.eu/wp-content/uploads/2016/02/BROCHURE_5PPP_BAT2_PL.pdf

PPP Golden Nuggets

Key Achievements - Version 2.0
































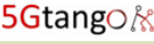








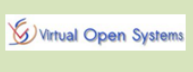



Icons sources: <https://www.iconfinder.com> and <https://www.flaticon.com>

<https://5g-ppp.eu/phase-2-key-achievements/>

PPP Phase 2 Trials & Pilots

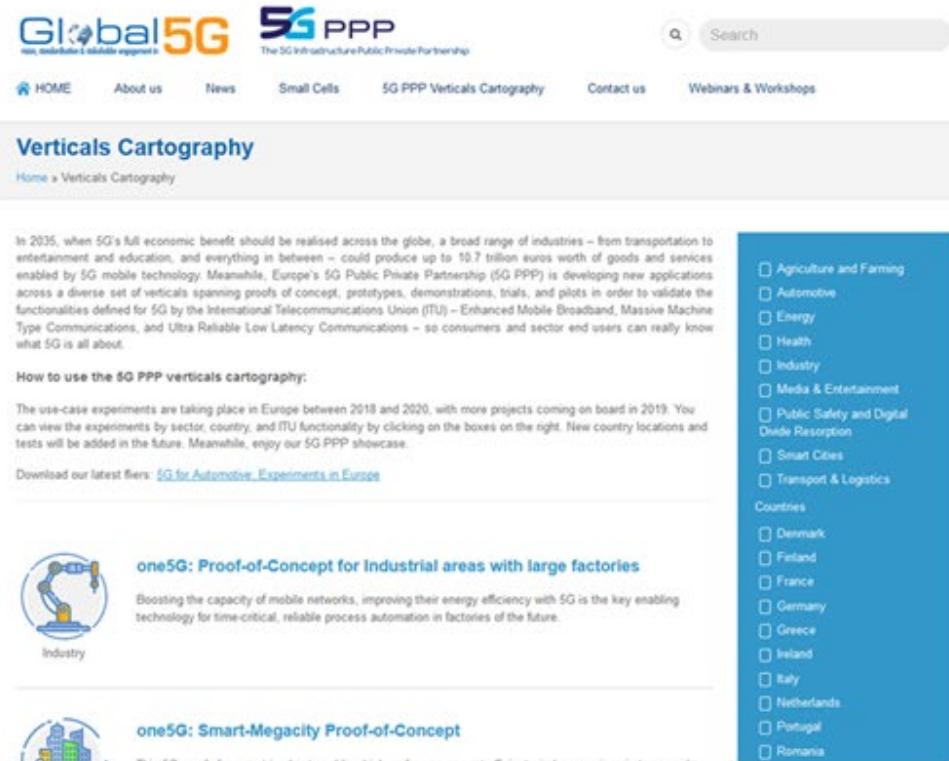
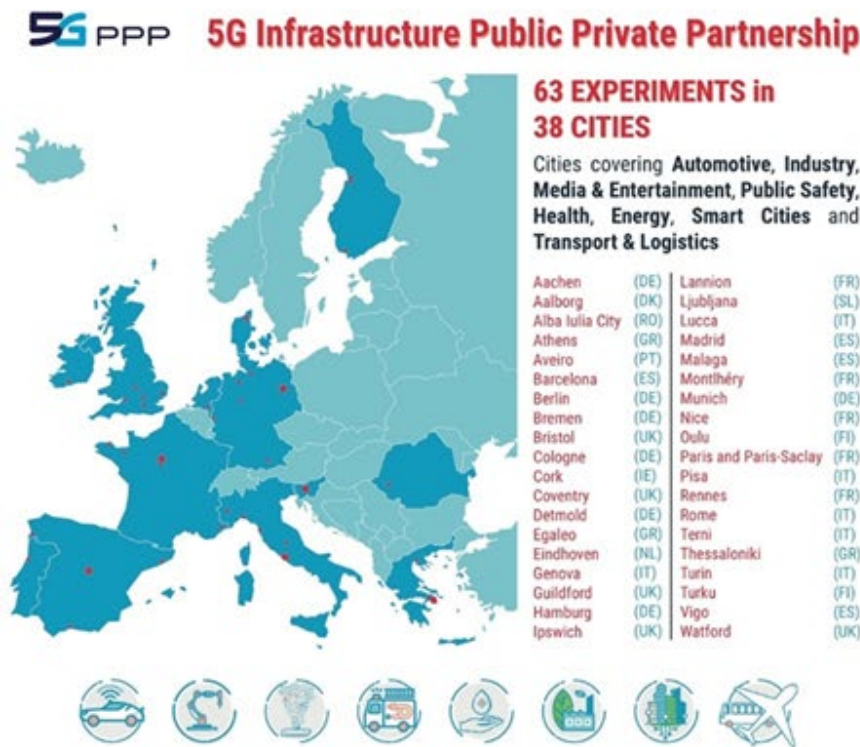
5G Trials Roadmap Version 3.0

Projects	Vertical Stakeholders	ITU Service Types	Locations
	  	eMBB, URLLC	Montlhéry (FR)
	City councils of Barcelona, Bristol and Lucca	eMBB, URLLC (mMTC)	Barcelona (ES) Bristol (UK) Lucca (IT)
	  	eMBB	Watford (UK) Paris (FR) Madrid (ES)
	 	eMBB	Surrey (UK) Munich (DE) Turku (FI)
		eMBB	Egaleo (EL)
	 	eMBB	Athens (EL) Thessaloniki (EL) Madrid (ES) Rome (IT)
		eMBB, URLLC	Aveiro (PT) Athens (EL)
	 	URLLC	Turin (IT), Pisa (IT) Madrid (ES) Nice (FR)

Projects	Vertical Stakeholders	ITU Service Types	Locations
	 	mMTC	Hamburg (DE) Turin (IT)
	   	mMTC, URLLC, (eMBB)	Terni (IT)
		mMTC (URLLC)	Detmold (DE)
(Phase 1) 		URLLC	Brandenburg (DK)
	 	mMTC, URLLC, eMBB	Barcelona (ES) Bristol (UK)
	 	mMTC, URLLC	Paris, Grenoble (FR)
		URLLC, eMBB	Coventry (UK)
		URLLC (eMBB)	Genoa (IT) Ljubljana (SL)

<https://5g-ppp.eu/5g-trials-roadmap/>

PPP Trials Roadmap Version 4.0 & Verticals Cartography



<https://5g-ppp.eu/5g-trials-roadmap/> and <https://www.global5g.org/cartography>

PPP Platforms & Verticals Cartographies (Highlights)

Platforms Capabilities	5G-EVE	5G-VINNI	5GENESIS
Rel15-5G NR in Non Standalone Alone (NSA) mode	Turin, Madrid, Paris, Athens January 2020	Oslo, Martlesham, Patras, Madrid, January 2020	Athens, Berlin, Limassol, Malaga, Surrey January 2020
Rel15-5G NR with Rel15-5G Core in Standalone Alone (SA) mode ⁽⁴⁾	Turin, Madrid, Paris, Athens After January 2020	Oslo, Martlesham, Patras, Madrid, Aveiro. After January 2020	Athens, Berlin, Malaga, Surrey July 2020
Rel16-5G NR and 5G Core (NSA or SA) ⁽⁴⁾	Turin, Madrid, Paris, Athens January 2021	Oslo, Martlesham, Madrid, Patras After January 2020	Athens, Berlin, Malaga, Surrey After January 2021
Network Slicing as a service ⁽³⁾	Turin, Madrid, Paris, Athens January 2020	Oslo, Martlesham, Patras, Madrid, Aveiro January 2020	Athens, Malaga, Surrey January 2020
Customized network slice (e.g. SFC, security, enhanced Cloud access) ⁽³⁾	Turin, Madrid, Paris, Athens After January 2020	Oslo, Martlesham, Patras, Madrid, Aveiro After January 2020	Athens, Berlin, Limassol, Malaga, Surrey After January 2020
Hosting of 3rd party VNFs ⁽³⁾	Turin, Madrid, Paris, Athens. January 2020	Oslo, Martlesham, Patras, Madrid, Aveiro After January 2020	Athens, Berlin, Limassol, Malaga, Surrey January 2020

<https://5g-ppp.eu/5g-ppp-platforms-cartography/>

PPP Trials & Pilots

Summary Table (Highlights)

Phase 3 Projects ICT-17	Trials & Pilots Names /UCs	Trials & Pilots Verticals Sectors	Trials & Pilots Locations	Trials & Pilots Dates ("Official / "Reference")
5G-EVE	Media content in high-speed trains	Transport	Turin	Q1-Q2 2021
	Urban mobility flow management	Smart City Transport	Turin	From Q3 2020 to Q2 2021
	Smart Turin: Safety and environment	Smart City	Turin	Q1-Q2 2021
	Smart tourism: Augmented fair experience	Smart Tourism	Turin	Q1-Q2 2021
	Smart tourism: Augmented fair experience - Immersive events - Virtual tickets	Smart Tourism	Madrid	First pilot UC demonstration at FITUR-2020 (January 2020) 2020-2021
	UHF Media, on-site live event experience and immersive and integrated Media	Media and Entertainment	Madrid	From Q3 2020 to Q2 2021
	Autonomous vehicles in manufacturing environments	Industry 4.0	Madrid	From Q3 2020 to Q2 2021
	High-quality multi-sites gaming experience	Media and Entertainment	Madrid	Q1-Q2 2021
	Video 360° 5G virtual visit	Media and entertainment	France (multi-sites)	Q1-Q2 2021
	Fault management for distributed energy generation in Smart Grids	Smart Energy	Paris	Q1-Q2 2021
	...			

<https://5g-ppp.eu/>

PPP Trials & Pilots (T&Ps) Brochure n°1

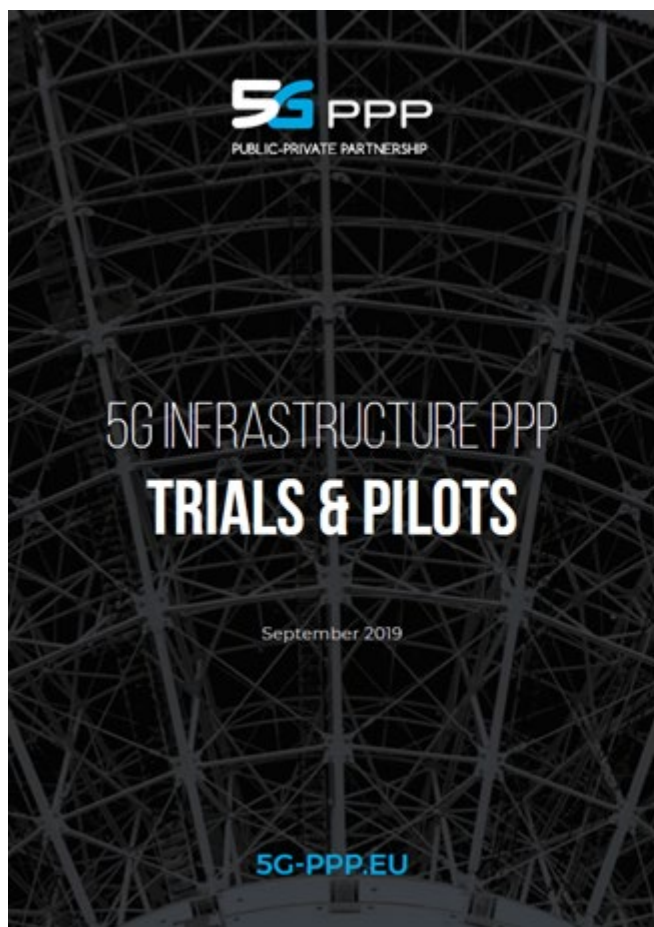


TABLE OF CONTENT

INTRODUCTION	1
SEE-THROUGH 5GCAR	2
VRU PROTECTION 5GCAR	4
REMOTE PRODUCTION 5G-MEDIA	6
SMART SEA PORT TESTBED HAMBURG, GERMANY 5G-MONARCH	8
TOURISTIC CITY TESTBED TURIN, ITALY 5G-MONARCH	10
DISTRIBUTION OF MEDIA CONTENT AT SCALE IN FUTURE 5G NETWORKS 5G-XCAST	12
5G PPDR MATILDA	14
SERVING INDUSTRIAL AREAS THROUGH 5G TECHNOLOGIES ONE5G	16
SERVING MEGACITY AREAS THROUGH 5G TECHNOLOGIES ONE5G	18
EHEALTH SLICENET	20

Connected to
MWC2019
5G Industry
Partnership
Award (10b)

https://5g-ppp.eu/wp-content/uploads/2019/09/5GInfraPPP_10TPs_Brochure_FINAL_low_singlepages.pdf

PPP Trials & Pilots (T&Ps)

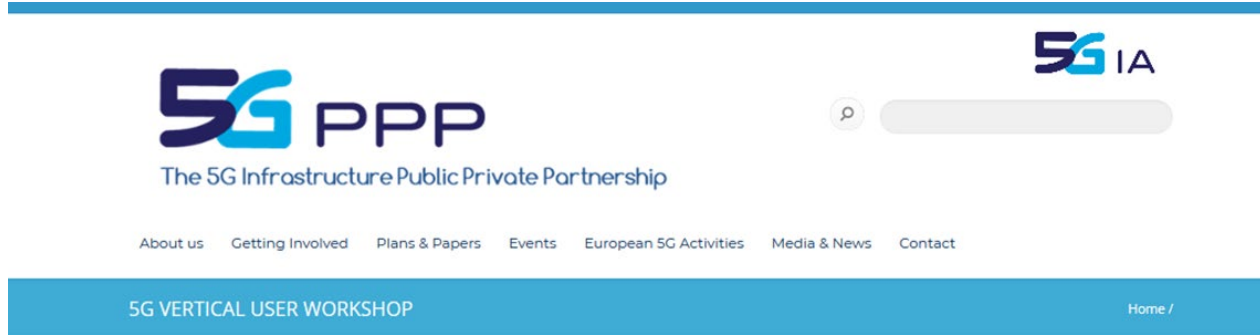
Brochure n°2

PPP T&Ps Brochure n°2 to be released in 4Q20

1. 5G-PICTURE: Railway use-case
2. 5G-PICTURE: Smart City use-case
3. 5G TRANSFORMER: eHealth Heart Attack Emergency
4. MATILDA: Smart City - Intelligent Lighting Pilot
5. MetroHaul: Network Slicing for Improving Public Safety
6. NRG-5: PMaaS / Storengy plantin StublachUK
7. SliceNet: BlueEye Pilot
8. 5G-EVE: Experiential tourism through 360-degree video and VR over 5G
9. 5G-VINNI: Remote Robotic Control with 360° VR-based Telepresence
10. 5GROWTH: Industry 4.0 Low Latency use cases on shared Network

PPP / MRPs

Verticals Workshops & Webinars



5G Vertical User Workshop

Initiative of 3GPP Market Representatives Partners (MRP):



Open to other 5G Verticals

5G networks are intended to bring a new disrupting ecosystem, where actors such as the Vertical industries (automotive, industry 4.0, health, media, security & public safety, energy,...) will be involved alongside the telecom operators, manufacturers, SMEs and Research Institutes.

This 5G Vertical Users Workshop aimed at establishing a collaborative event for strategic dialogue between industries and 3GPP by exchanging on future needs and upcoming standard developments. The workshop as a result, aimed at producing a report shared directly to 3GPP Project Coordination Group (PCG) as a mean to stimulate and facilitate greater involvement of the 5G Vertical Users in the 3GPP process.

The workshop was held in Brussels on 12th and 13th February, 2019. Please see the agenda and the link to the presentations below:

<https://5g-ppp.eu/5g-vertical-user-workshop/>



2 Verticals (F2F) Workshops (February and July 2019)
3 Verticals (online) Webinars (May, June and July 2020)

Thank you for your attention

For more information about 5G PPP activities please visit <https://5g-ppp.eu>

didier_arnaud.bourse@nokia.com