The background of the slide is a light blue illustration of a city and its various sectors. It includes icons for a satellite, wind turbines, houses, people, cars, and a hospital. Labels like 'CONNECTED CITY', 'CONNECTED HOUSE', 'CONNECTED PEOPLE', 'CONNECTED TRANSPORTATION', and 'CONNECTED HEALTH' are scattered throughout the scene, connected by white lines representing data flow. The main title 'The 5G Infrastructure Association' and subtitle '5G Pan-European Trials Roadmap' are centered over this illustration.

The 5G Infrastructure Association

5G Pan-European Trials Roadmap

Dr. Didier Bourse

Global 5G Event (G5GE) – 28-30.11.18 – Rio

5G Pan-EU Trials Roadmap Version 4.0

EU Trials & Pilots (Highlights)

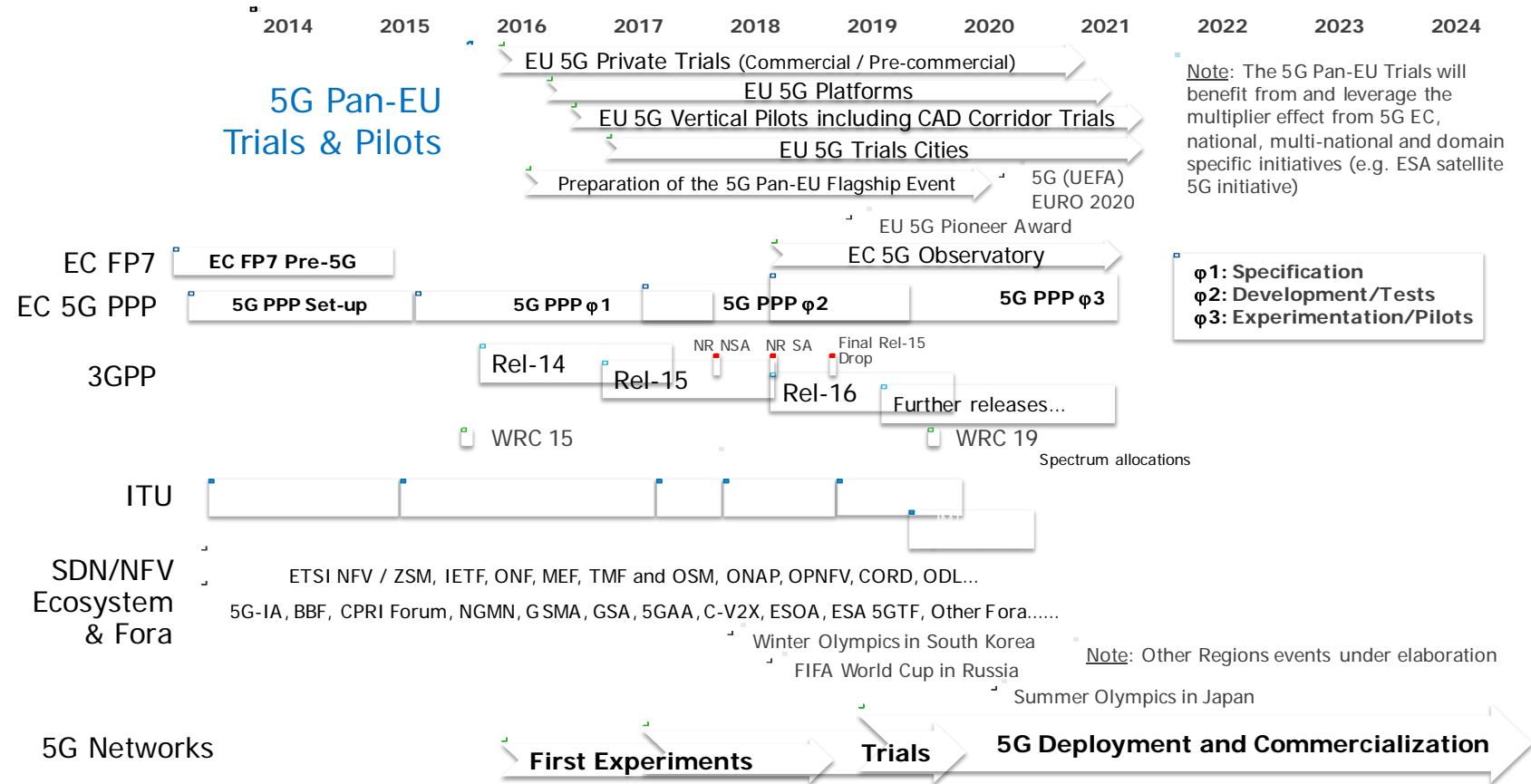
- 5G strongly boosted in EU in 2018 (pre-commercial, commercial, trials & pilots, R&I, spectrum...)
- EU 5GAP initial targets in 2016 to have (1) the early 5G launch in selected areas in 2018, (2) the commercial launch of 5G services in at least one major city in all MSs in 2020 and (3) the uninterrupted coverage in all urban areas and along main transport paths in 2025 clearly on the right tracks
- Many EU cities already strongly engaged in 5G development, trials and pilots. First commercial deployment to already start in specific EU cities in 2019
- Roadmap Version 4.0 highlighting the key EU cities targeted for 5G early deployments, already engaged in 5G pre-commercial/commercial trials and pilots, engaged in 5G R&I trials and pilots and also making available 5G R&I platforms. Description of the major EU cities engaged in the 5G UEFA EURO 2020 Flagship event also included
- European 5G strategy further targeting large scale adoption of 5G by vertical sectors
- EU actions boosted with the EC EU 5G Observatory (E5GO) and EC-GSMA 5G Pioneer Award
- EU 5G trials and pilots supported (R&I) by 5G Infrastructure PPP incl. running Phase 2 and Phase 3 Platforms and Corridors projects and starting soon Phase 3 Vertical Pilots projects
- 5G-IA forefront at EU level, incl. on 5G Infrastructure PPP / projects, Trials WG, Verticals Task Force...

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

5G Pan-EU Trials Roadmap Version 4.0

Roadmap Time Plan

■ Pan-European Trials Roadmap – Roadmap Time Plan



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

5G PPP
The European path towards global next generation communication network

5G PPP

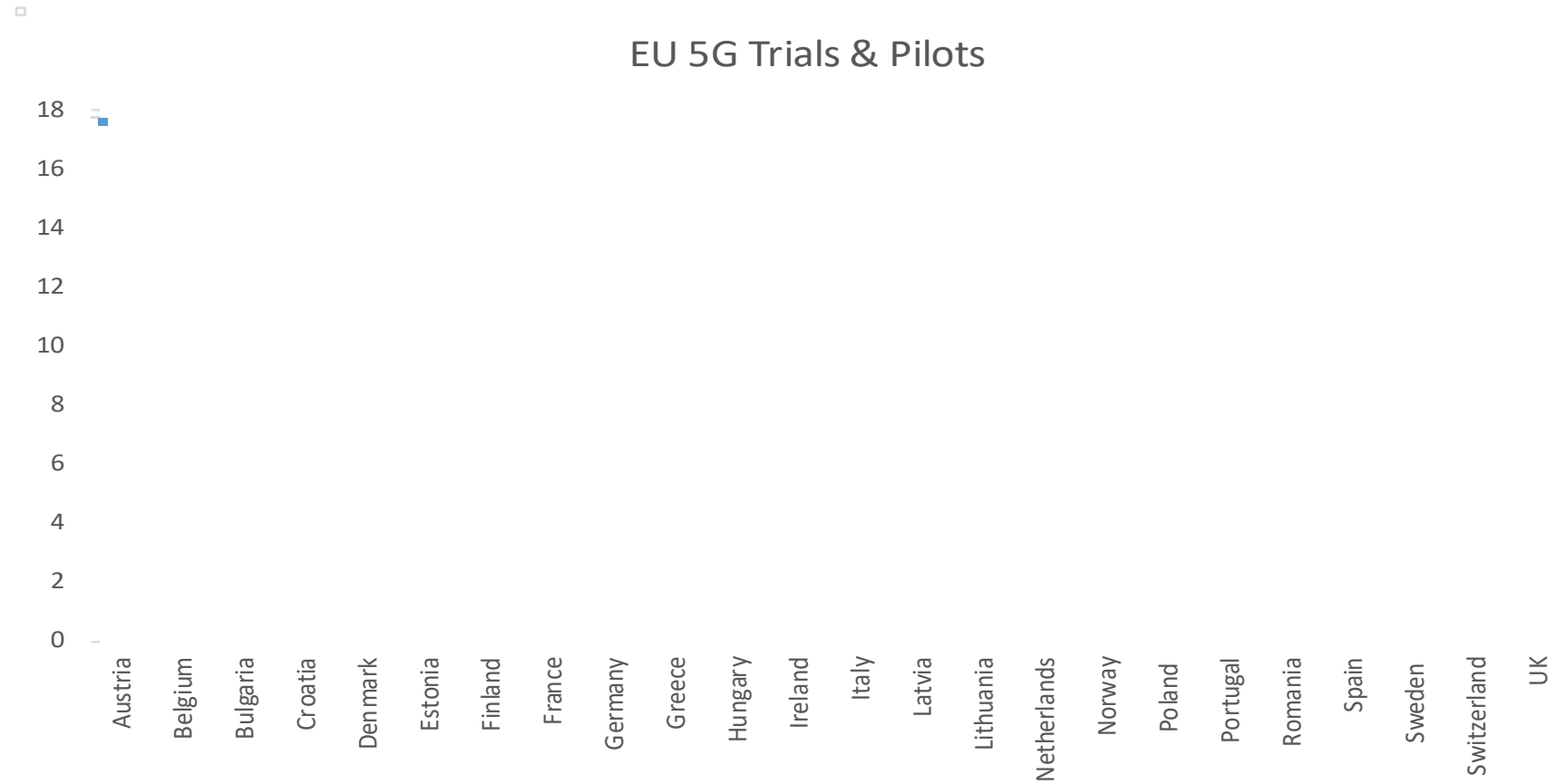
The European path towards global next generation communication network



5G Pan-EU Trials Roadmap Version 4.0 5G Private Trials (Highlights) (1/2)



- 5G Private Trials in EU MSs / Countries



<https://5g-ppp.eu/5g-trials-roadmap/> and <http://5gobservatory.eu/5g-trial/major-european-5g-trials-and-pilots/>

5G Pan-EU Trials Roadmap Version 4.0

5G Private Trials (Highlights) (2/2)

- European 5G Observatory
 - Study started in June 2018 (<https://ec.europa.eu/digital-single-market/en/european-5g-observatory>)
 - E5GO website/online platform officially launched on 27.09.18 (<http://5gobservatory.eu/>) in the context of the 5G Techritory event organized on 27-28.09.18 in Riga (<https://www.5gtechritory.com/>)
 - First E5GO quarterly report available (http://5gobservatory.eu/PDF/80082-5G-Observatory-Quarterly-report_1.pdf). 2nd quarterly report to be published beg. of January 2019

European 5G Observatory

ABOUT OVERVIEW MARKET DEVELOPMENTS DEPLOYMENTS 5G TRIALS PUBLIC INITIATIVES 5G SPECTRUM LINKS

As 5G is gearing up for market deployment, the European 5G Observatory provides updates on all of the latest market developments, including actions being undertaken by the private and public sectors, in the field of 5G. The 5G observatory also delivers an analysis of the strategic implications of the 5G Action Plan and other public policy objectives.

The Observatory focuses on 5G developments in Europe, along with major international developments (USA, Japan, China, South Korea) that could impact the European market.

LATEST NEWS IN EUROPE

ESA actions in the 5G field
How to get ESA funding for trials combining 5G with space applications in the context of 5Groningen?

Deutsche Telekom has taken another step towards commercial 5G launch
Deutsche Telekom announced a network partnership with Telefonica in October 2018 and an eight-point plan on 5G for Germany.

Italian 5G spectrum auction
The auction on 21 September raised 4.42 billion EUR, of which 2.2 billion EUR for mid-range frequencies

3.4-3.8 GHz auctions in Finland
The 130 MHz licences were awarded to the three different players

<http://5gobservatory.eu/>

5G Pan-EU Trials Roadmap Version 4.0

PPP Phase 2 Projects - Verticals Pilots & Trials (Highlights)

- PPP Phase 2 Projects Verticals Pilots & Trials – 38 Cities (Highlights)

5G PPP 5G Infrastructure Public Private Partnership



63 EXPERIMENTS in 38 CITIES

Cities covering **Automotive, Industry, Media & Entertainment, Public Safety, Health, Energy, Smart Cities and Transport & Logistics**

Aachen	(DE)	Lannion	(FR)
Aalborg	(DK)	Ljubljana	(SL)
Alba Iulia City	(RO)	Lucca	(IT)
Athens	(GR)	Madrid	(ES)
Aveiro	(PT)	Malaga	(ES)
Barcelona	(ES)	Monthéry	(FR)
Berlin	(DE)	Munich	(DE)
Bremen	(DE)	Nice	(FR)
Bristol	(UK)	Oulu	(FI)
Cologne	(DE)	Paris and Paris-Saclay	(FR)
Cork	(IE)	Pisa	(IT)
Coventry	(UK)	Rennes	(FR)
Detmold	(DE)	Rome	(IT)
Egaleo	(GR)	Terni	(IT)
Eindhoven	(NL)	Thessaloniki	(GR)
Genova	(IT)	Turin	(IT)
Guildford	(UK)	Turku	(FI)
Hamburg	(DE)	Vigo	(ES)
Ipswich	(UK)	Watford	(UK)

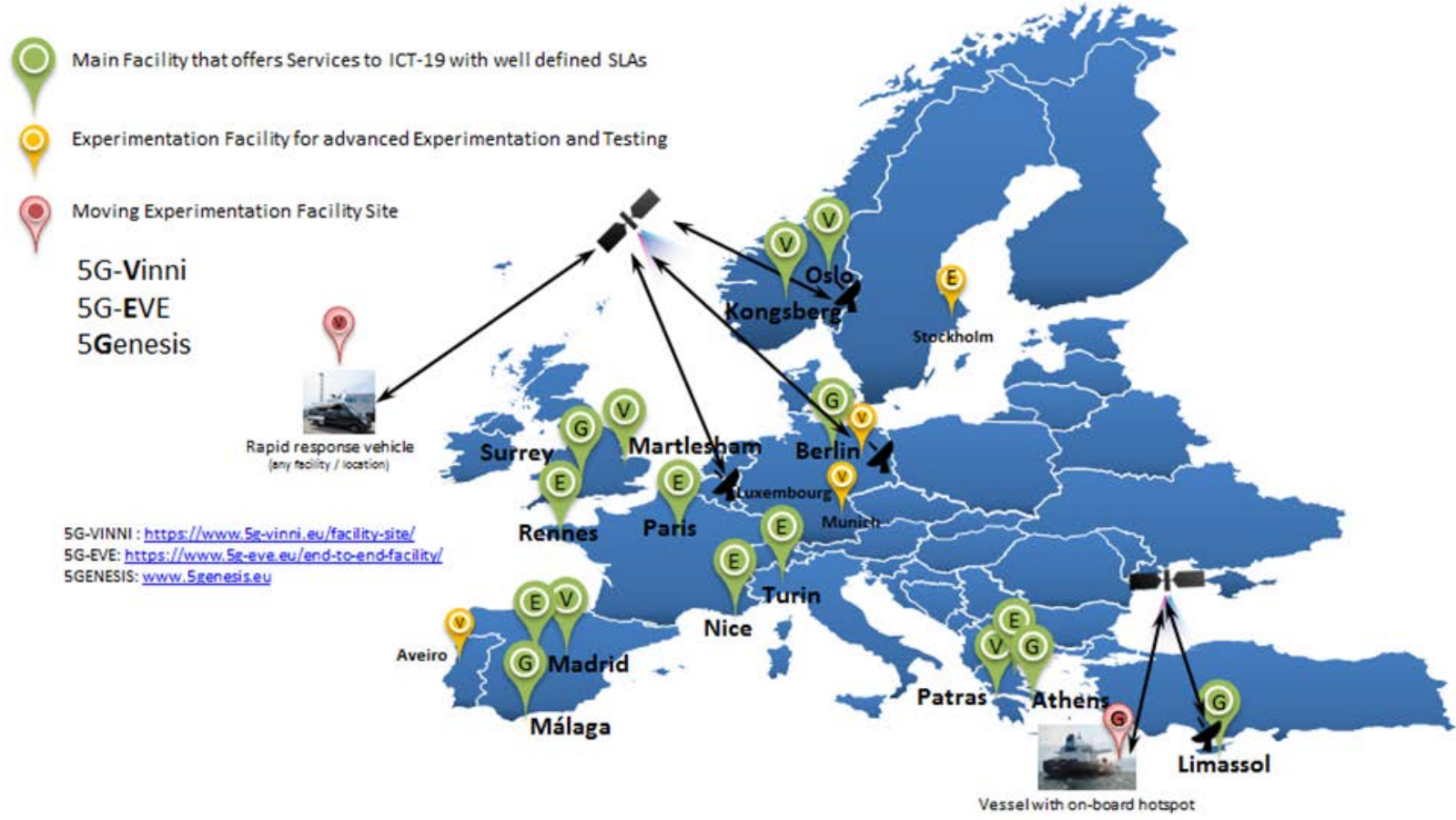


<https://5g-ppp.eu/5g-trials-roadmap/>

5G Pan-EU Trials Roadmap Version 4.0

PPP Phase 3 Projects - 5G Platforms (Highlights)

- PPP Phase 3 Projects 5G Platforms (Highlights)



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

5G PPP

The European path towards global next generation communication network

5G Pan-EU Trials Roadmap Version 4.0

5G EU Countries / MSs Activities (Highlights)

- 5G EU Countries / MSs Activities (Highlights)

EU Countries / MSs	5G Activities <small>(5G Private Trials and Pilots, 5G National Programmes (incl. Platforms), 5G test Corridors, 5G Infrastructure PPP (Vertical Trials and Pilots and Platforms) and 5G Pan-EU Flagship event UEFA EURO 2020.</small>	Key Cities
Austria	5G Private Trials & Pilots, 5G test Corridors	Innsbruck
Belgium	5G Private Trials & Pilots, 5G test Corridors	Antwerpen, Leuven
Bulgaria	5G Private Trials & Pilots, 5G test Corridors	Sofia
Croatia	5G Private Trials & Pilots	Jastrebarsko
Cyprus	5G Infrastructure PPP	Limassol
Denmark	5G Private Trials & Pilots, 5G test Corridors, 5G Infrastructure PPP	Aalborg
Estonia	5G Private Trials & Pilots, 5G test Corridors,	Tallinn
Finland	5G Private Trials & Pilots, 5GTNF, 5G Finland, 5G test Corridors, 5G Infrastructure PPP	Espoo, Helsinki, Muonio, Oulu, Sodankylä, Tampere, Turku, Ylivieska
France	5G Private Trials & Pilots, 5G test Corridors, 5G Infrastructure PPP	Bordeaux, Chatillon, Douai, Lannion, Lille, Lyon, Marseille, Metz, Monthery, Nantes, Paris, Paris-Saclay, Nice, Rennes, Toulouse
Germany	5G Private Trials & Pilots, 5GBerlin, 5G test Corridors, 5G Infrastructure PPP	Aachen, Berlin, Bremen, Cologne, Detmold, Hamburg, Merzig, Munich
Greece	5G Private Trials & Pilots, Athens5Glink, 5G test Corridors, 5G Infrastructure PPP	Athens, Egaleo, Patras, Thessaloniki, Trikala
Hungary	5G Private Trials & Pilots	Zalaegerszeg
Ireland	5G Private Trials & Pilots, 5G Infrastructure PPP	Cork, Dublin
Italy	5G Private Trials & Pilots, 5G MiSE, ROMA5G, 5G test Corridors, 5G Infrastructure PPP	Bari, Bologna, Genova, L'Aquila, Lucca, Matera, Milan, Pisa, Prato, Rome, Terni, Turin

EU Countries / MSs	5G Activities <small>(5G Private Trials and Pilots, 5G National Programmes (incl. Platforms), 5G test Corridors, 5G Infrastructure PPP (Vertical Trials and Pilots and Platforms) and 5G Pan-EU Flagship event UEFA EURO 2020.</small>	Key Cities
Latvia	5G Private Trials & Pilots	Riga, Talsi
Lithuania	5G Private Trials & Pilots, 5G test Corridors,	Kaunas, Riga, Vilnius
Luxembourg	National Program (1Q19), 5G test Corridors	Luxembourg-City
Netherlands	5G Private Trials & Pilots, 5G Amsterdam, 5Groningen, 5G test Corridors, 5G Infrastructure PPP	Amsterdam, Eindhoven, Groningen, Rotterdam
Norway	5G Private Trials & Pilots, 5G test Corridors, 5G Infrastructure PPP	Kongsberg, Oslo, Tromso
Poland	5G Private Trials & Pilots, 5G test Corridors,	Gliwice, Warsaw
Portugal	5G Private Trials & Pilots, Aveiro5GCity, 5G test Corridors, 5G Infrastructure PPP	Aveiro, Evora, Porto
Romania	5G Private Trials & Pilots, 5G Infrastructure PPP	Alba Iulia City, Cluj-Napoca, Bucharest
Serbia	5G test Corridors,	Belgrade
Slovenia	5G Infrastructure PPP	Ljubljana
Spain	5G Private Trials & Pilots, 5GBarcelona, 5GTonic, 5G test Corridors, 5G Infrastructure PPP	Barcelona, Bilbao, Castelldefels, Madrid, Málaga, Merida, Talavera de la Reina, Segovia, Valencia, Vigo
Sweden	5G Private Trials & Pilots, 5G test Corridors, 5G Infrastructure PPP	Gothenburg, Stockholm
Switzerland	5G Private Trials & Pilots	Burgdorf, Renens, Zurich
United Kingdom	5G Private Trials & Pilots, UK5G, 5G Infrastructure PPP	Bristol, Coventry, Ipswich, Guildford/Surrey, Martlesham, Watford

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

