



European 5G Observatory

Frédéric PUJOL  
+33 (0)4 67 14 44 50  
[f.pujol@idate.org](mailto:f.pujol@idate.org)

# Overview of the latest 5G Observatory findings

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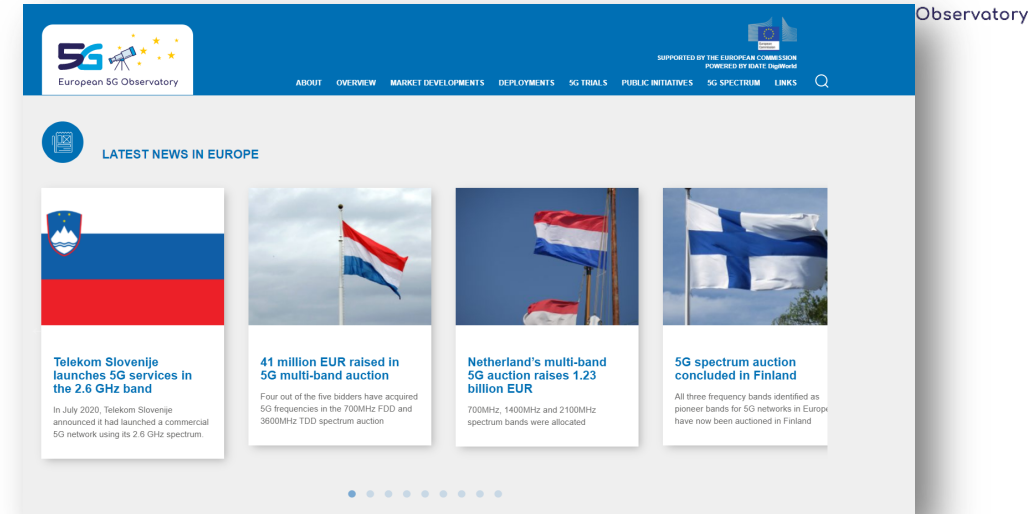
ITU Regional Forum for Europe on 5G - Session 2, 22 October 2020

# 5G Observatory



- In order to monitor the 5G deployment progress and other relevant developments in light of the goals of the 5G Action Plan,
- the European Commission decided to establish the European 5G Observatory
- which was announced by Commissioner Gabriel at the Mobile World Congress 2018

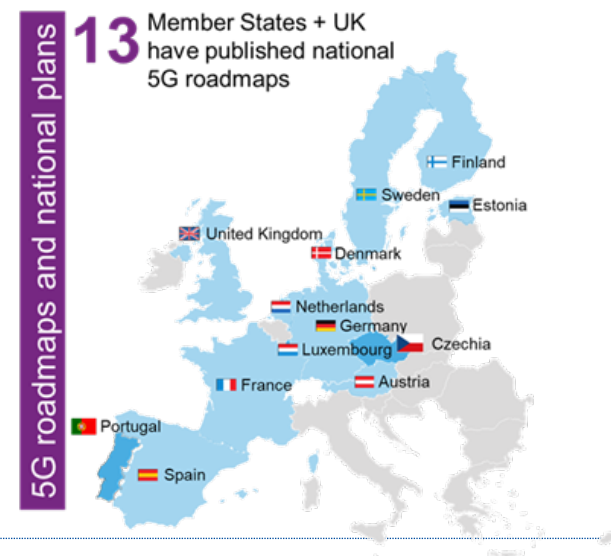
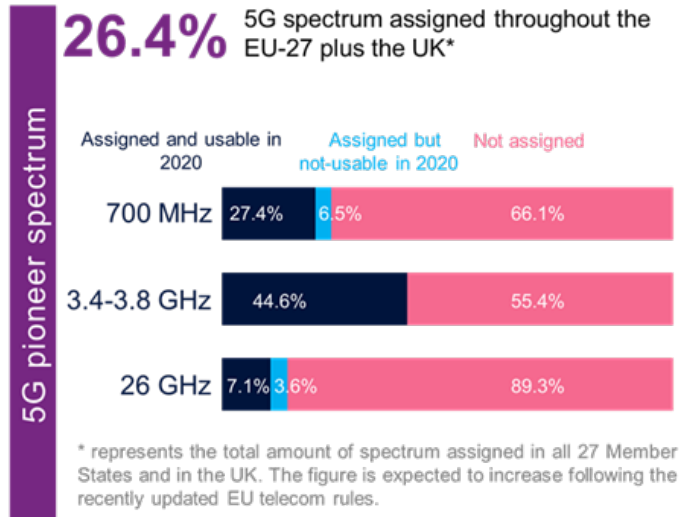
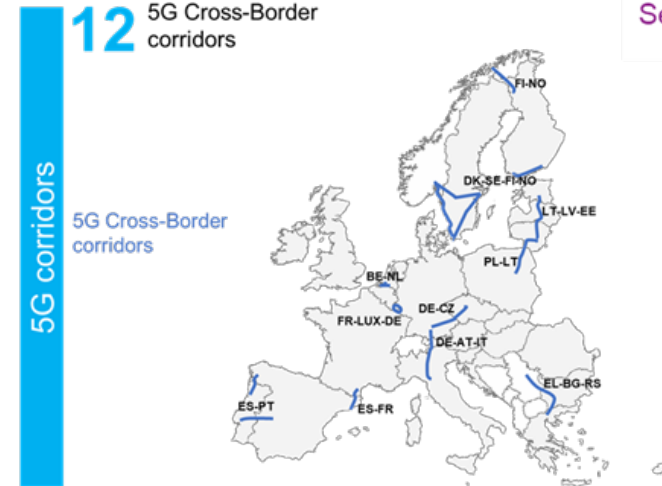
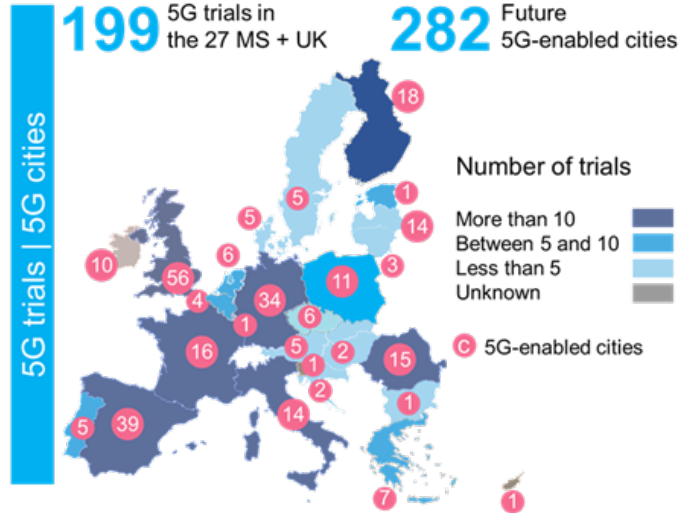
Home page (<http://5gobservatory.eu/>)



# Scoreboard EU 27+UK: significant progress made since June 2019

## 5G scoreboard – EU-27+UK (September 2020)

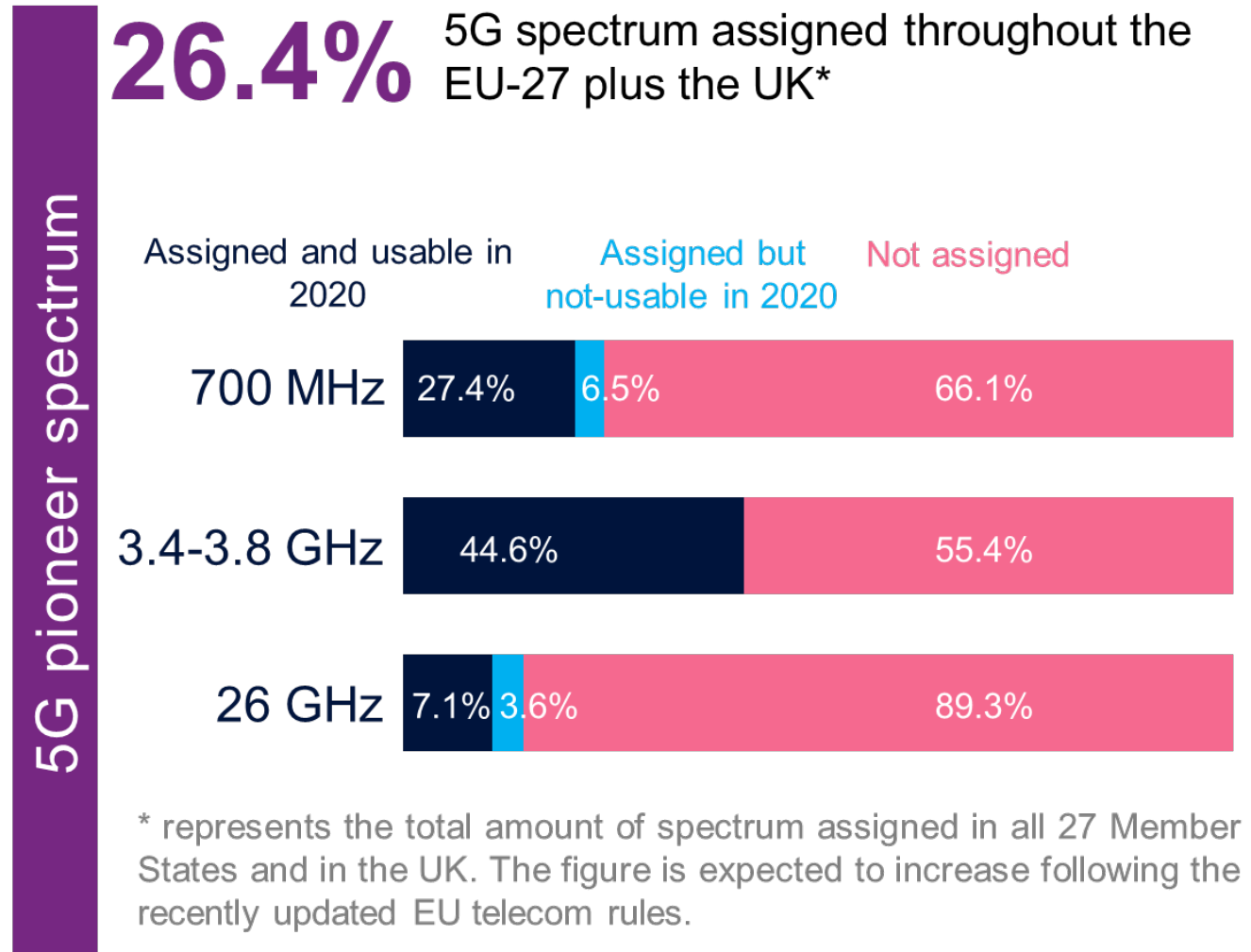
September 2020



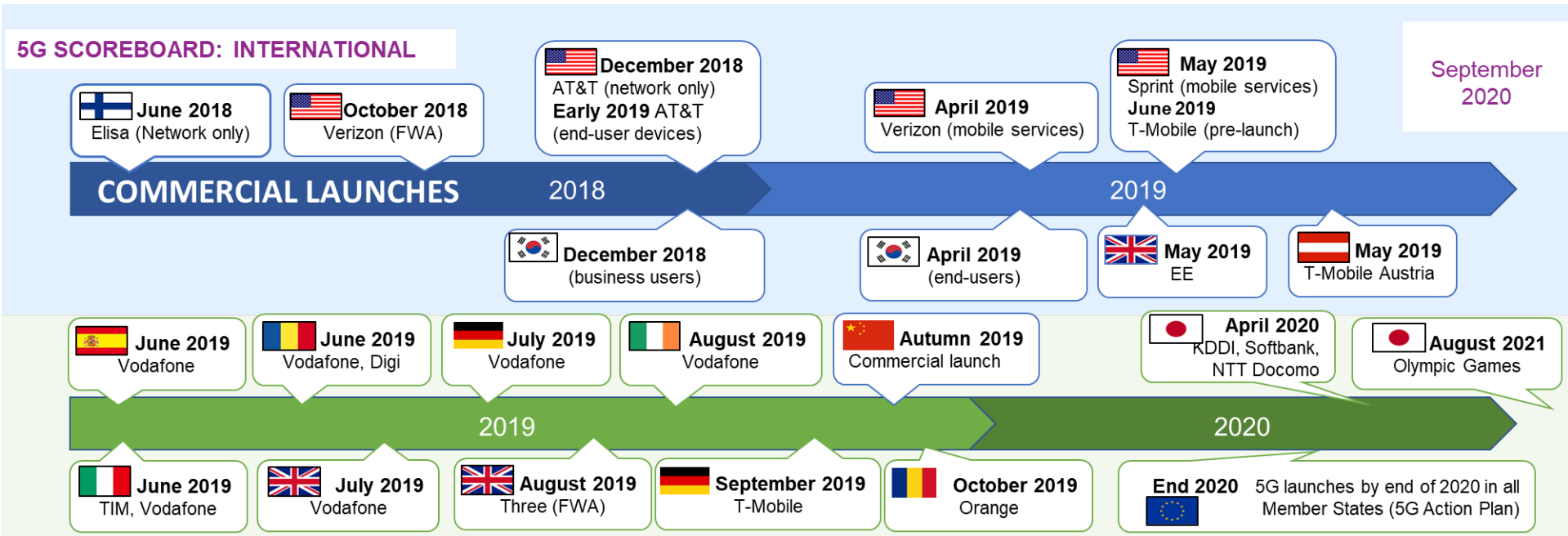
# Scoreboard EU 27+UK: September 2020 spectrum figures

5G spectrum – EU-27+UK (22 September 2020)

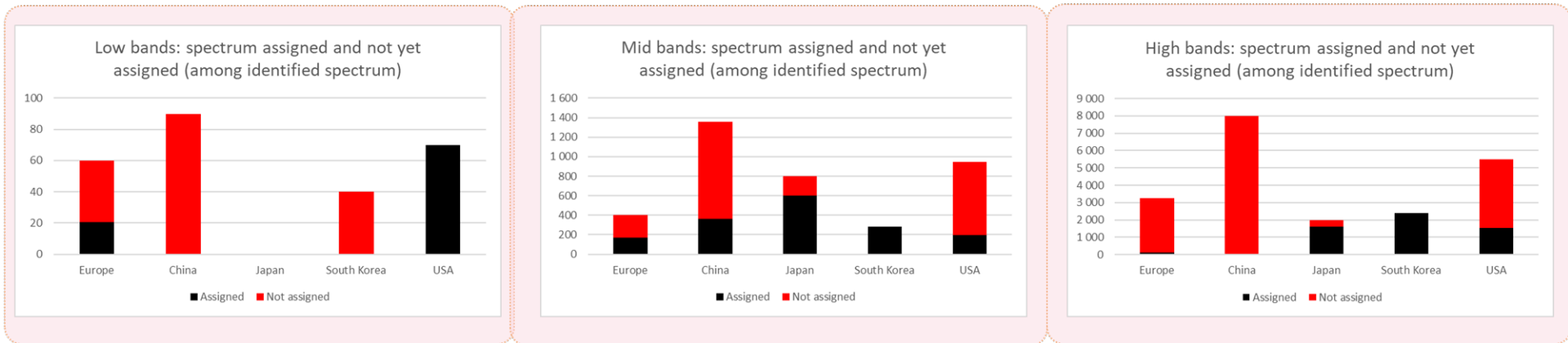
- **26.4% of spectrum assigned compared to 14.2% in June 2019**
- **The 3.6 GHz band assignment is progressing with more auctions in 2020**
- **In specific cases, spectrum has been assigned but cannot be used in 2020**



# Scoreboard – International scoreboard (September 2020)

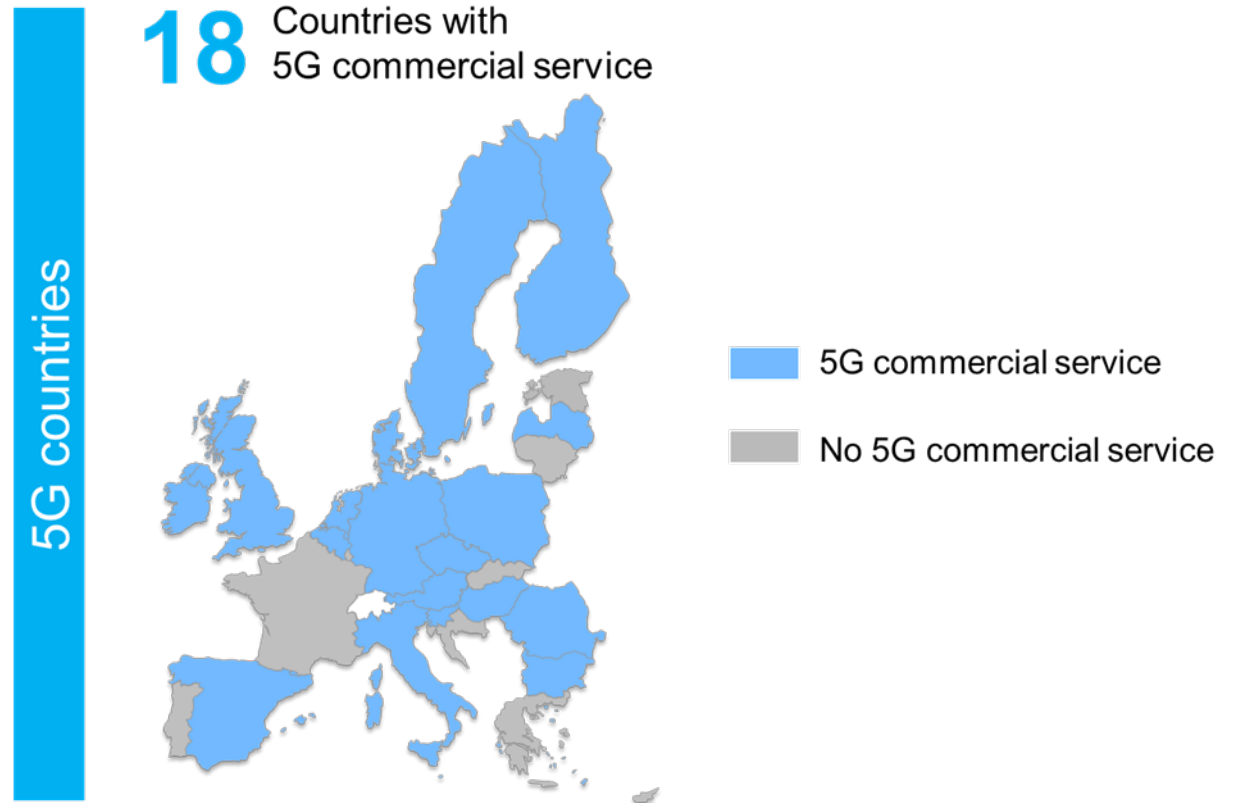


## 5G SPECTRUM



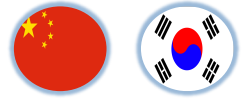


# Major commercial launches in Europe: 5G live in 18 markets

- 18 EU 27 countries + UK
- 30+ players
- Almost all 5G networks use the 3.6 GHz band
- The 2.1 GHz also used



# Presence of 5G in a market does not mean universal coverage

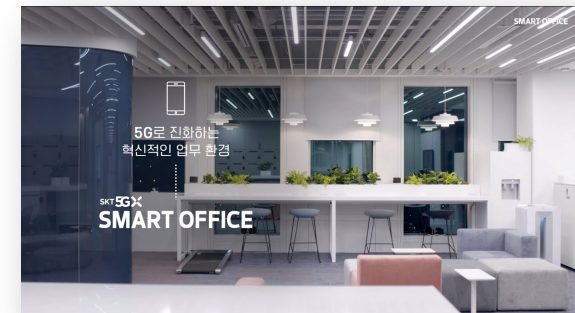
<b>100s+ cell sites</b>	<b>Small scale deployments</b> 
<b>10,000+ cell sites</b>	<b>Medium scale deployments</b> 
<b>100,000+ cell sites</b>	<b>Large scale deployments</b> 

Source: 5G Observatory and IDATE DigiWorld, Sept. 2020

# No global 5G killer app...too early to define and will be country-specific

- Often higher speeds and data throughputs
- 5G FWA / 5G mobile services
- Mostly B2C/eMBB services: UHD video, AR/VR, gaming/entertainment, education, virtual communications
- 5G services pushed by the Covid-19 pandemic
  - Virtual office / virtual education with holograms/AR/VR
  - eHealth services
    - Aided diagnosis
    - Robotics treatment/remote care/medical IoT
    - Security
    - AR/VR aided surgery
    - Collecting patient data

**SK Telecom 5G Smart Office  
with 5G walk-through system**





- **5G deployments are under way in the EU: 16 countries with 5G commercial services**
- **Spectrum assignments: 25.5% of spectrum assigned in the three pioneer bands compared to 14.2% in June 2019**
- **The Covid-19 pandemic delayed 5G by a few months in some countries:**
  - Cellular networks have successfully coped with increased traffic requirements
  - The Covid-19 increased awareness of the need of digital solutions, incl. Telehealth, teleworking

## But

- Spectrum auctions in a number of countries were delayed by a few months....
- Delayed auctions are now completed or imminent
- Freeze of Release 16 was postponed to June 2020 and Release 17 likely to be postponed as well
- Some deployments or investments were delayed