



5GPPP & 6G IA

3 major Highlights

(VET, T&Ps Brochures & Trials WG)

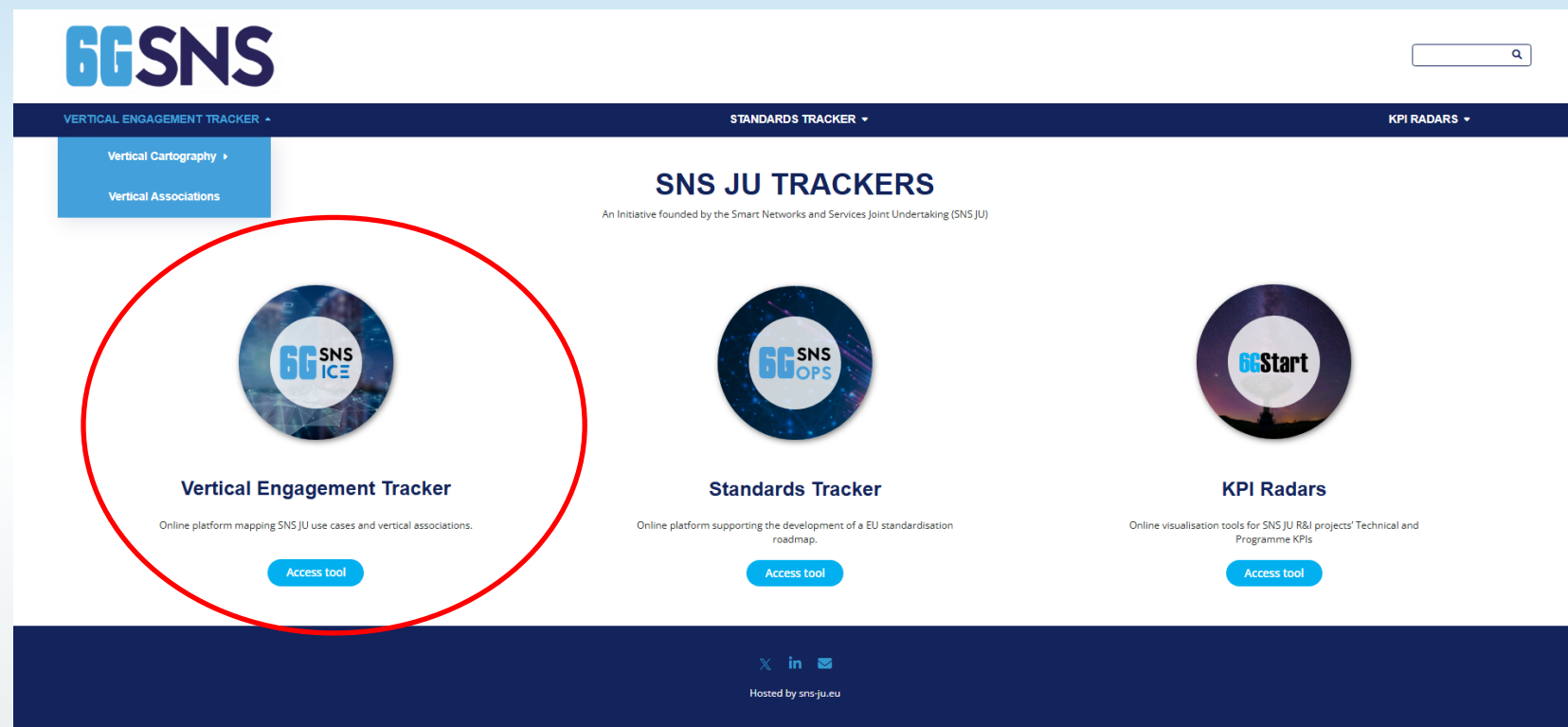
Kostas Trichias (6G-IA), Didier Bourse (Nokia), Carles Anton Haro (CTTC)




Vertical Engagement Tracker (VET)

Online **interactive** platform mapping and monitoring the **use cases** developed by the SNS JU R&D across several **industry domains**.

These are interlinked to **relevant vertical associations**, also mapped in the tool.



 <https://sns-trackers.sns-ju.eu/>



- **283** use cases mapped to date from Call 1 and Call 2 projects (including 3rd party experiments)
 - **237** belonging to 11 key vertical sectors
 - **46** general or in minor verticals
- **59** projects mapped from OC1 and OC2
- **25+** locations (EU Countries)
- **6** experimentation types/methods, from **simulations** to **Trials and Pilots** (TRLs up to 7)
- **82** additional uses cases from **7** projects funded via cascade funding mechanisms (projects' open calls for third-party financial support)
- **11+** mapped functionalities (e.g. eMBB, mMTC, URLLC, MEC...)
- **11** vertical associations mapped for the key vertical sectors

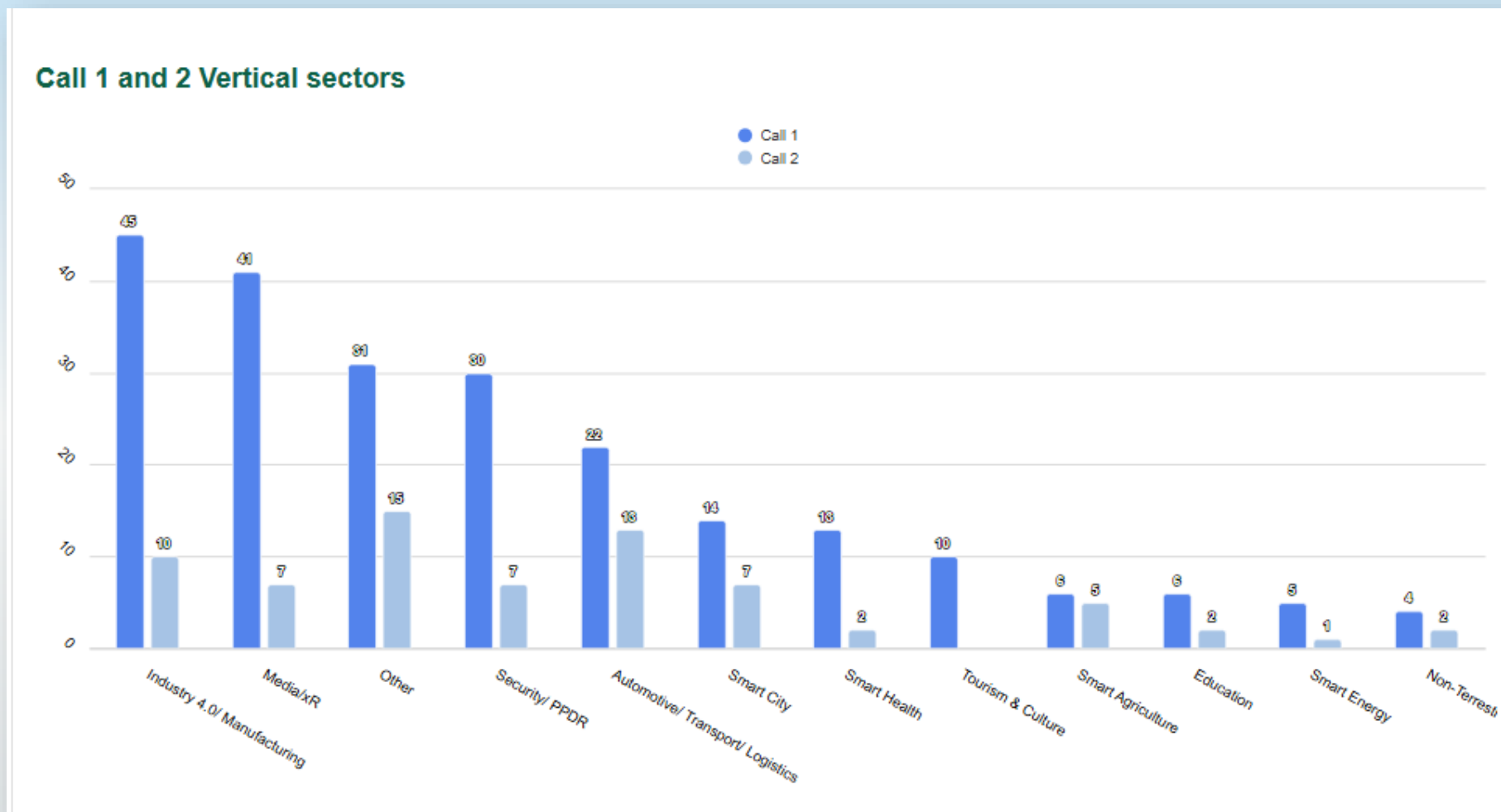
- **Filtering** possibility by call, industry, experiment type, country and functionality
- Embedded automatic **charts, with dynamic filtering options**



- Multiple Filters available
- Search capability
- Categorization per Use Case, per project, per vertical, experimentation type/method, etc.
- Detailed UC description & relevant project and vertical association link
- Interactive Charts Functionality

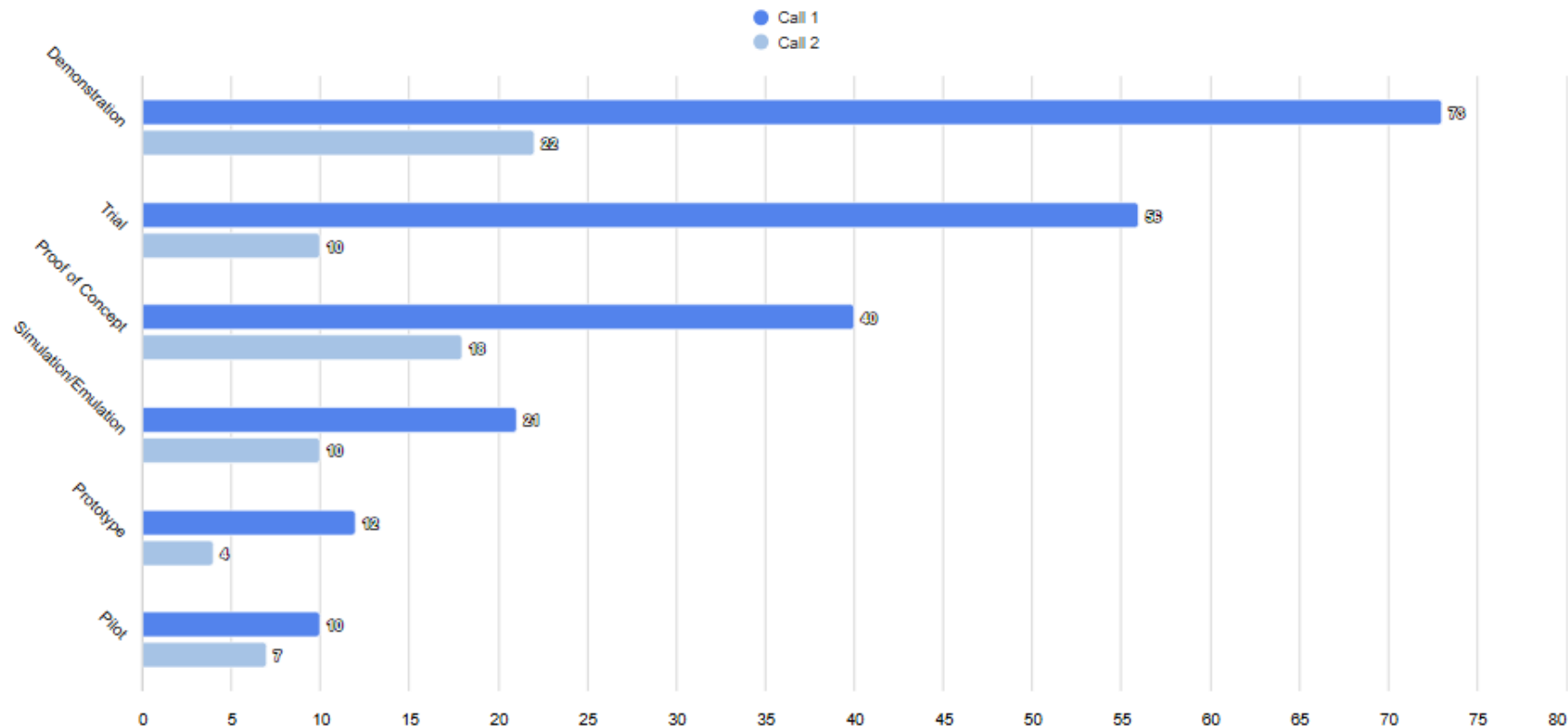
The screenshot displays the VET Layout interface. On the left, a sidebar contains a search bar and several filter categories: Project (with a dropdown arrow), SNS JU Call (with a dropdown arrow), Vertical Sector (with a dropdown arrow), Countries (EU) (with a dropdown arrow), and Type of Experiment (with a dropdown arrow). Below these, there are checkboxes for Simulation/Emulation, Demonstration, Pilot, Proof of Concept, Prototype, and Trial (which is selected). A 'Functionality' dropdown arrow and a 'Reset' button are also present. At the bottom of the sidebar, a red-bordered box highlights a section titled 'Explore also the Vertical cartography interactive charts' with a bar chart icon.

The main area shows a grid of project cards. The top row includes '6G-XR' (Energy Monitoring System for Energy-Efficiency Optimization and Sustainability of Multimedia VNFs, Media/xR), '6G-SANDBOX' (PowerStorm, Smart Energy), and 'TrialsNet' (SkyLink Vision, Security/ PPDR). The bottom row includes 'TrialsNet' (5G-NU-ART, Tourism & Culture), '6G-GOALS' (Collaborative Robots (Cobots), Automotive/ Transport/ Logistics), and '6G-DISAC' (VRU protection at a smart intersection, Smart City).



Industry 4.0 and Media/xR dominate both calls, but there is also a good share of use cases in “other” verticals, including general cross-sectoral ones

Call 1 and 2 use cases type

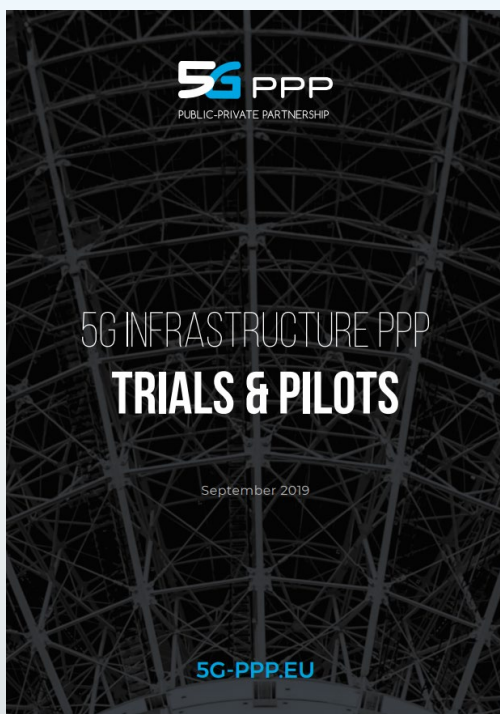


Over one third of the use cases have a good degree of maturity, being in the trial, prototype or pilot stage



Trials & Pilots (T&Ps) Brochure

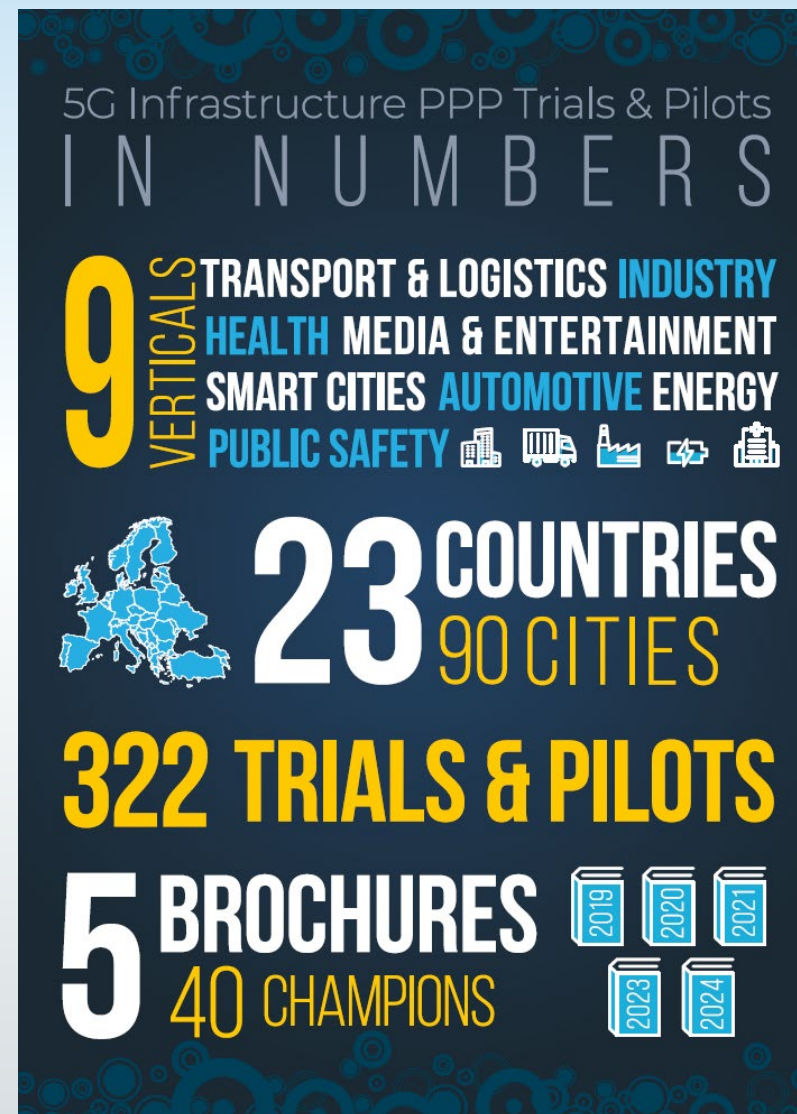
- 5G Infrastructure PPP – 4 consecutive T&Ps Brochures highlighting 10 T&Ps each (released in Sep. 2019 , Dec. 2020 , Aug. 2021 and Nov. 2023)
- Call for inputs with overall detailed process and flyer / criteria forms
- Evaluation/selection Panel including scoring and T&Ps selection

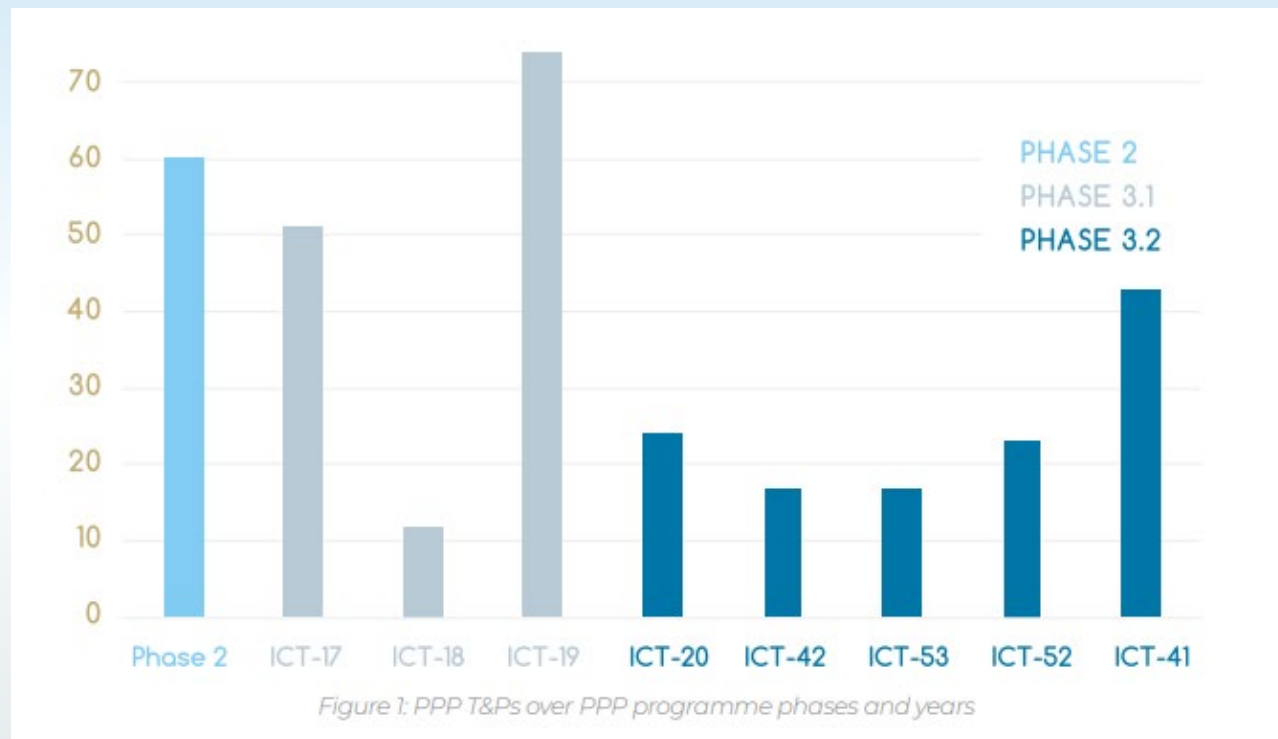


URL Highlight - PPP T&Ps Brochure n°1 (<https://5g-ppp.eu/the-5g-ppp-infrastructure-trials-and-pilots-brochure-is-out/>)



PPP T&Ps Summary Brochure (<https://smart-networks.europa.eu/5g-infrastructure-ppp-trials-and-pilots-summary-brochure-2024/>)





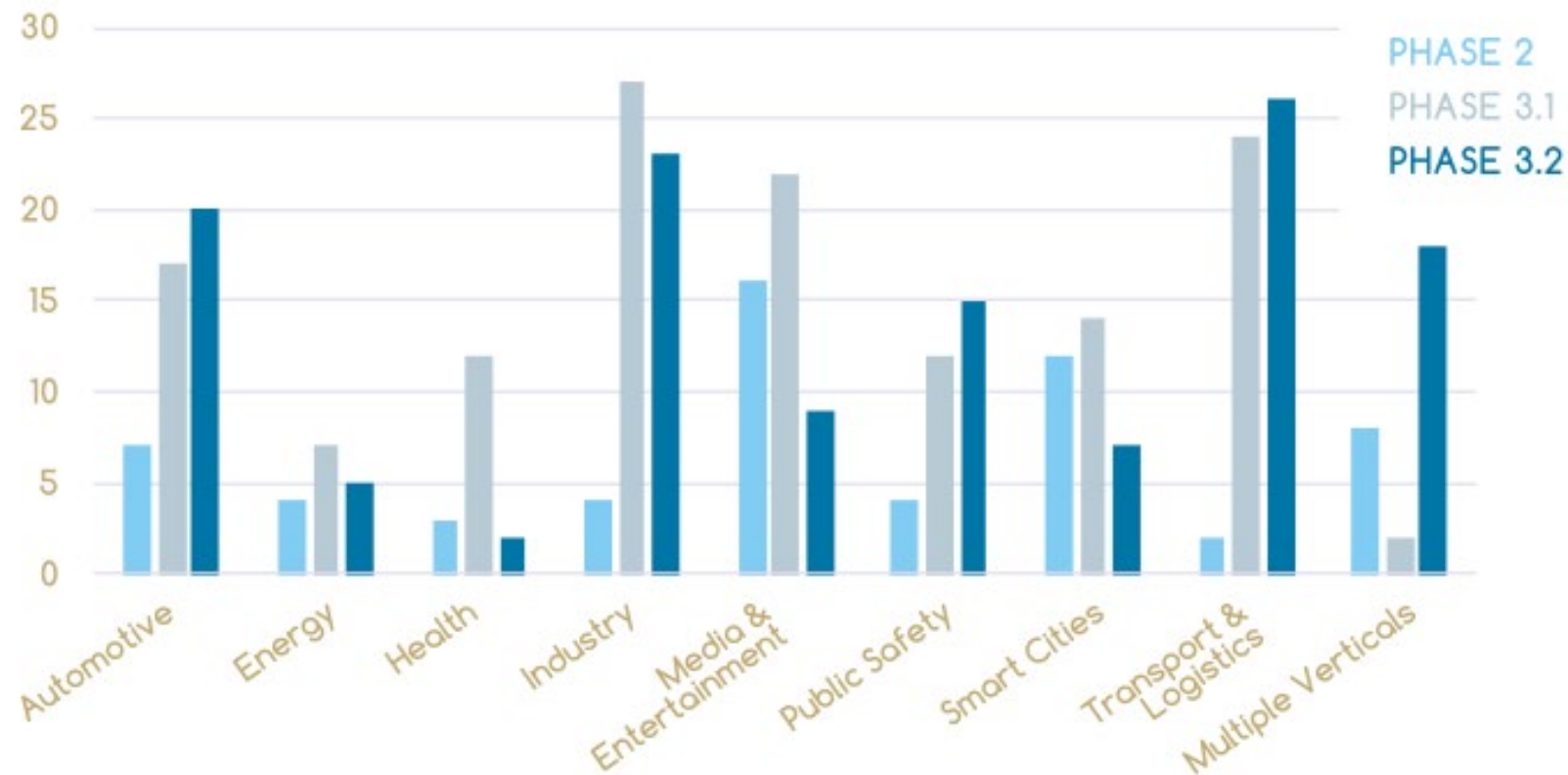


Figure 5: PPP T&Ps over Verticals Sectors

PPP T&Ps Summary Brochure (<https://smart-networks.europa.eu/5g-infrastructure-ppp-trials-and-pilots-summary-brochure-2024/>)

5GROWTH

5G-enabled Growth In Vertical Industries

3 Connected Worker Remote Operation of Quality Equipment

Industry 4.0 Bilbao Q2 2021 - Q4 2021

Connected Worker Augmented Zero Defect Manufacturing (ZDM) Decision Support System (DSS)

Industry 4.0 Bilbao Q2 2021 - Q4 2021

2 Digital Twin Apps

Industry 4.0 Torino Q2 2021 - Q4 2021

2 Telemetry/Monitoring Apps

Industry 4.0 Torino Q2 2021 - Q4 2021

2 3 Digital tutorials and remote support

Industry 4.0 Torino Q2 2021 - Q4 2021

Safety Critical Communications

Transportation Porto de Aveiro Q2 2021 - Q4 2021

5GSMART

5G For Smart Manufacturing

5G-Enhanced Industrial Robots

Industry 4.0 Kista Q4 2021

5G for Enhanced Industrial Manufacturing Processes

Industry 4.0 Aachen Q4 2021

5G in Semiconductor Factory

Industry 4.0 Reutlingen Q4 2021

5G-INDUCE

Open Cooperative 5G Experimentation Platforms For The Industrial Sector NetApps

Autonomous Indoor Fleet Management

Industry 4.0, Indoor logistics - AGV Control Valencia Q4 2023

4 Smart Operation based on Human Gesture Recognition

Industry 4.0, Internal logistics - AGV Control Valencia Q4 2023

- SNS Brochure n°1 to be released as input to EuCNC & 6GS 2025, including 8 T&Ps
 - FIDAL: 5G for PPDR
 - Hexa-X-II: Industrial cobots leveraging beyond communication aspects
 - IMAGINE-B5G: SAFER-FLOW: Situational Awareness Framework Enabling Robust Emergency Response for Urban Flood Warnings ➡ Speaker / Panelist in Sessions 4/5
 - SANDBOX: Validation of FR2 Reconfigurable Intelligence Surfaces (RIS) in Malaga
 - TARGET-X: Robotic deconstruction prototype system ➡ Speaker / Panelist in Sessions 4/5
 - TrialsNet: Smart traffic & crowd management ➡ Panelist in Session 5
 - TrialsNet (Open Call): Next generation gaming and simulation/training platform, for everyone, powered by 5G
 - 6GREEN: Critical infrastructure operation during energy-constraint disaster scenarios



6G SNS
IA

6G Trials Working Group

- To develop a 5G, 5G Advanced and **6G European Trial Roadmap** and leverage on the knowledge gained [...] in the context of Smart Networks and Services (SNS) partnership in Horizon Europe.
- To **facilitate the involvement of verticals** in the Trials and Pilots roadmap.
- To **discuss and define business principles** underpinning the economic viability of trials.
- To consider and **coordinate** the activity on trials and verticals with relevant **initiatives at international level**.
- To keep track and **disseminate** to the broadest possible audience the **work with verticals** done by EU funded projects.
- To **support** the development of European **strategic research and innovation agenda** and liaise **preparation of SNS R&I workprogrammes** in relation to trials and experimentations.
- To facilitate the **transfer** of the developed and experimented **solutions to the market** using the Digital Innovation Hub (Digital Europe Program)

- 5G Private Trials / Observatory, led by Didier Bourse (Nokia) & Carole Manero (iDATE).
- 5G and Towards 6G Verticals, led by Valerio Frasca (Intel).
- 5G Trials Cities, led by Jyrki Huusko (VTT).
- 5G International Cooperation, led by Mir Ghorashi (Gigasys Solutions).
- The Smart Connectivity Digital Innovation Hub Network - SCoDIHNet, led by Pierre-Yves Danet (6G-IA)

WG chair: Carles Antón-Haro (CTTC)

WG vice-chair: Paul Harris (VIAVI Solutions)

Selected Activities of the Trials Working Group

- **Liaison with 5G Observatory:** talks in events, key takeaways.
 - “5G in the Digital Decade - 5th Stakeholder Workshop (Oct’23)
- **Panel discussion @ IEEE WCNC 2024:**
 - Energy Efficiency in Wireless Communications Networks, 5G to 6G Challenges and Opportunities - BeGREEN
- **Edition of 5GPPP Trials & Pilots Brochures 1...4, Summary Brochure, and SNS Trials & Pilots Brochures 1 (in production).**
- **Workshop on lessons learnt in SNS T&P at EUCNC’24 (Antwerp):**
 - “Trials, Pilots and Demos for Selected Verticals: the Experimental Way Forward towards 6G”
 - Projects: 6G-SANDBOX, PREDICT-6G, 6G-XR, FIDAL.
- **Co-creation event at 5G Techritory 2024:**
 - “From 5G to 6G: leveraging key trends and 5G evolution to shape 6G for vertical sectors” – F2F and streaming
- **Podcast recording (Jan’2025. <https://rss.com/podcasts/snsice>):**
 - “Lessons learned hosting vertical experiments from the perspective of 5G/6G experimental facilities”



- Selected place for **networking**: vendors, MNOs, verticals, EC, research, SMEs (+250 members in general email reflector).
- **Dedicated activities** to private trials, cities, verticals, int'l cooperation, DIHs.
- **Open WG: no need to be a 6G-IA member to participate** (voting/observers).
- Increased **dissemination opportunities** for your project: presentations, events, brochures, whitepapers, etc.
- Get **updated information** on
 - Recent **trials** by SNS projects, national programmes, ...
 - Upcoming **calls for proposals** under Horizon Europe (S)
 - Project-related **events**.
 - Elaboration of **SNS Workprogramme**.
 - ..and much more!

Trials	Chair: Carles Antón-Haro (CTTC)	The overall objectives of the Trials WG are as follows: <ul style="list-style-type: none">• To develop a 5G, 5G Advanced and 6G European Trial Roadmap and leverage the knowledge gained for upcoming trial roadmaps beyond 5G/6G systems to be addressed in the context of Smart Networks and Services (SNS) partnership in Horizon Europe.• To facilitate the involvement of verticals in the Trials roadmap.• To discuss and define business principles underpinning the economic viability of trials.• To consider and coordinate the activity on trials and verticals with other relevant initiatives at the international level.• To investigate and propose how to link trials to upcoming calls for project proposals to be addressed in the context of the Horizon Europe (HEU) SNS Partnership.
Apply to join the Trials WG	Vice-Chair: Paul Harris (VIAVI Solutions)	

<https://6g-ia.eu/6g-ia-working-groups/#trials>