



SNS-OPS 2025 Questionnaire for Call 1 & 2 Projects Review

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6G SNS Projects HIGHLIGHTS



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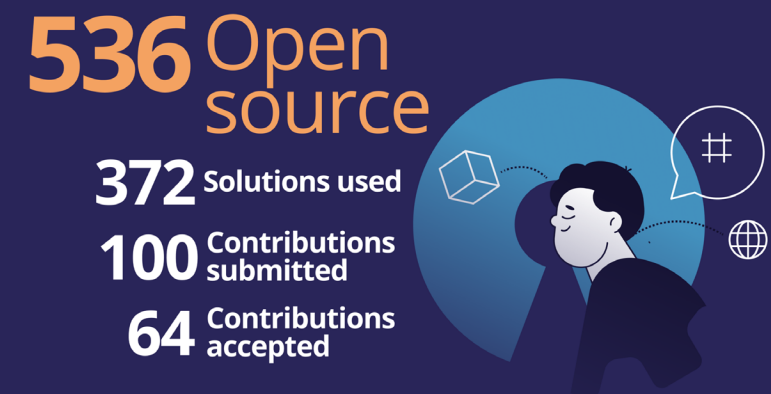
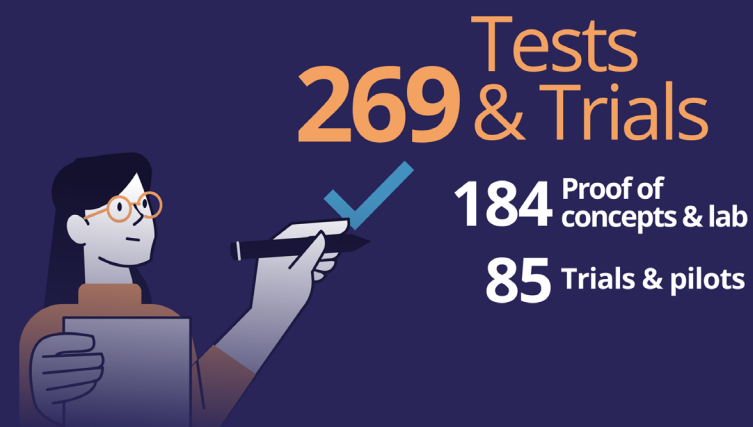


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JAN
2023

63 PROJECTS

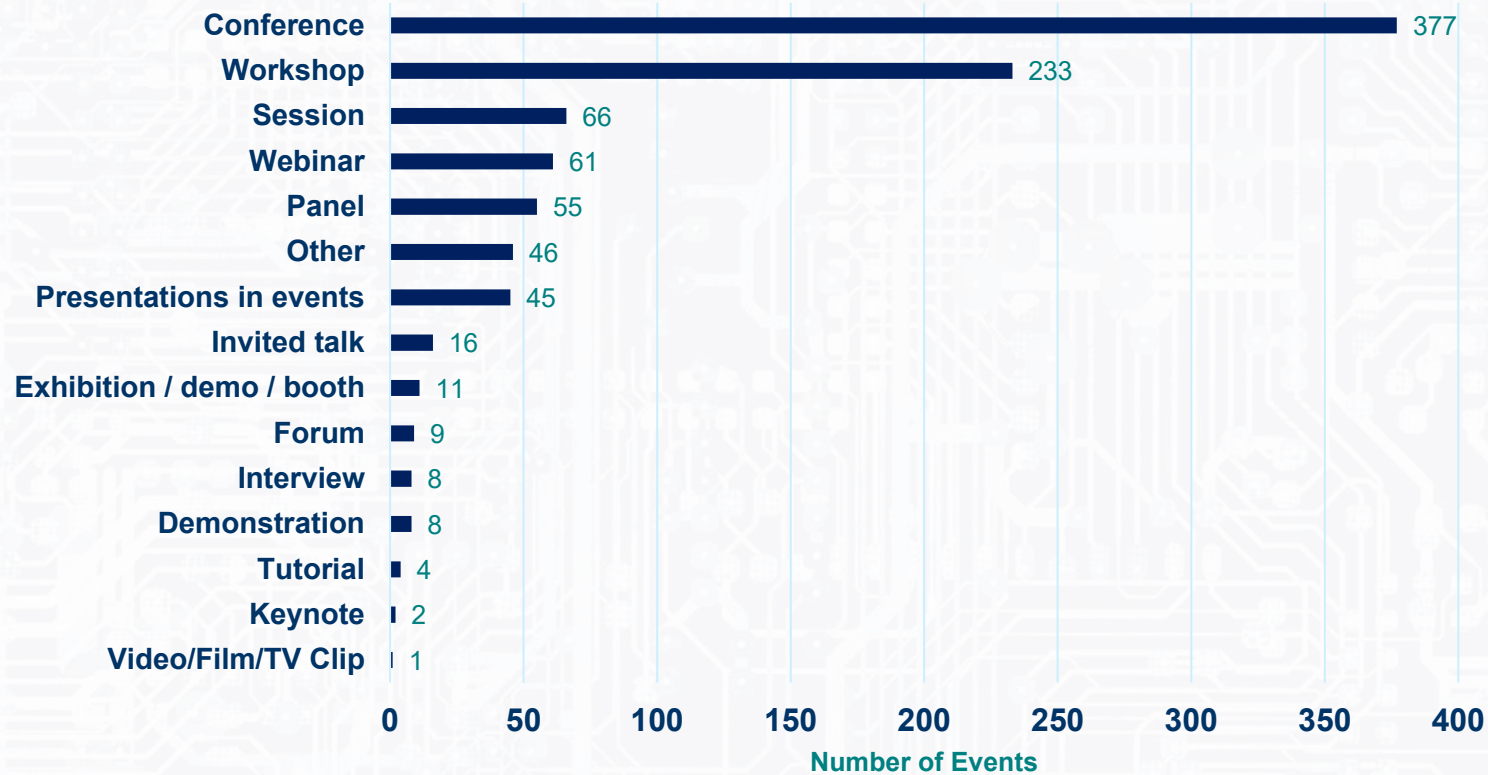
DEC
2024



Q1. How many events (webinars, workshops, sessions, panels, keynotes) has your project organised or contributed to in 2024?

Call 1 & Call 2 Projects (63 Projects)

Events Project Have Organised or Contributed to



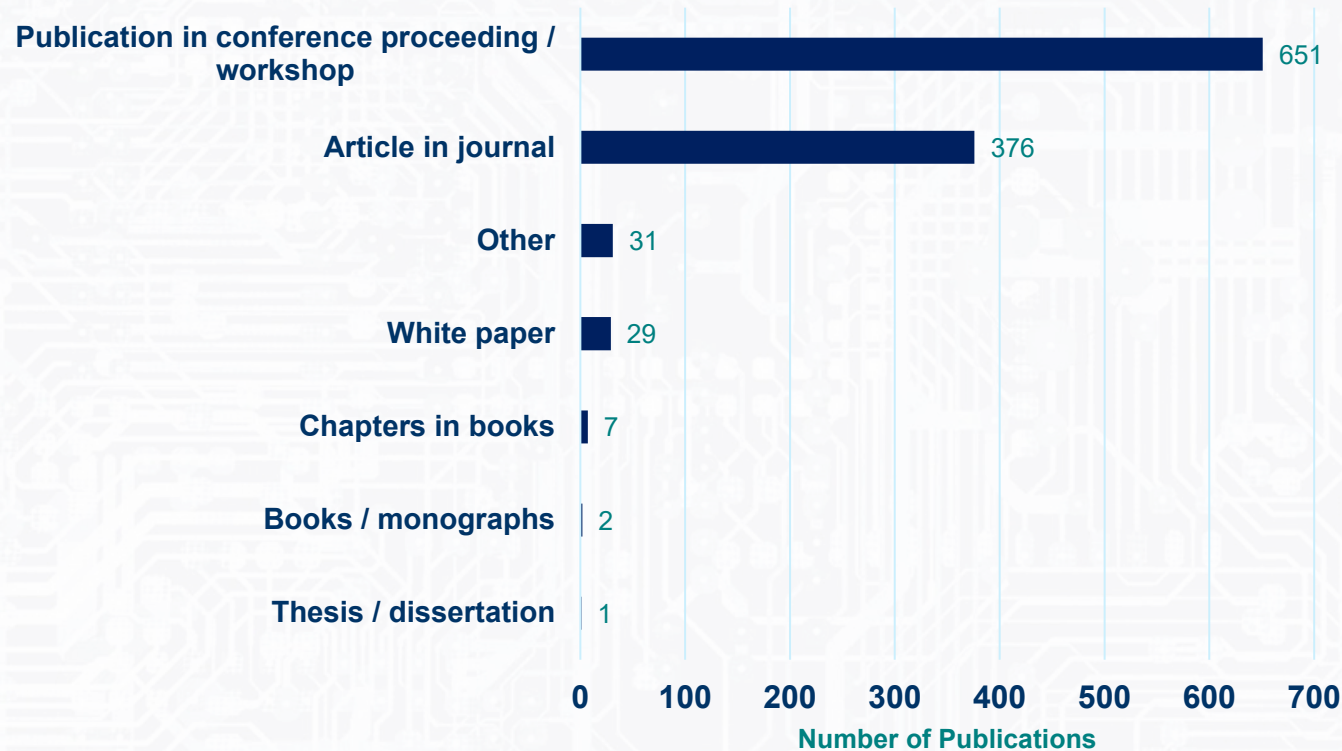
Key Insights

- 944 responses received. Projects;
 - contributed to 733 events (79%)
 - organized 194 events (21%)
- Most preferred events:
 - EuCNC & 6G Summit 2024
 - MWC 2024
 - IEEE Globecom 2024
 - FNWF 2024
 - IEEE CAMAD 2024
 - IEEE PIMRC 2024
- One project's average event interaction is around 15.

Q2. How many publications (Article in journal, Publication in conference proceeding / workshop, Books / monographs, Chapters in books, Thesis / dissertation, White paper, etc) has your project authored in 2024?

Call 1 & Call 2 Projects (63 Projects)

Type of SNS JU Project Publications



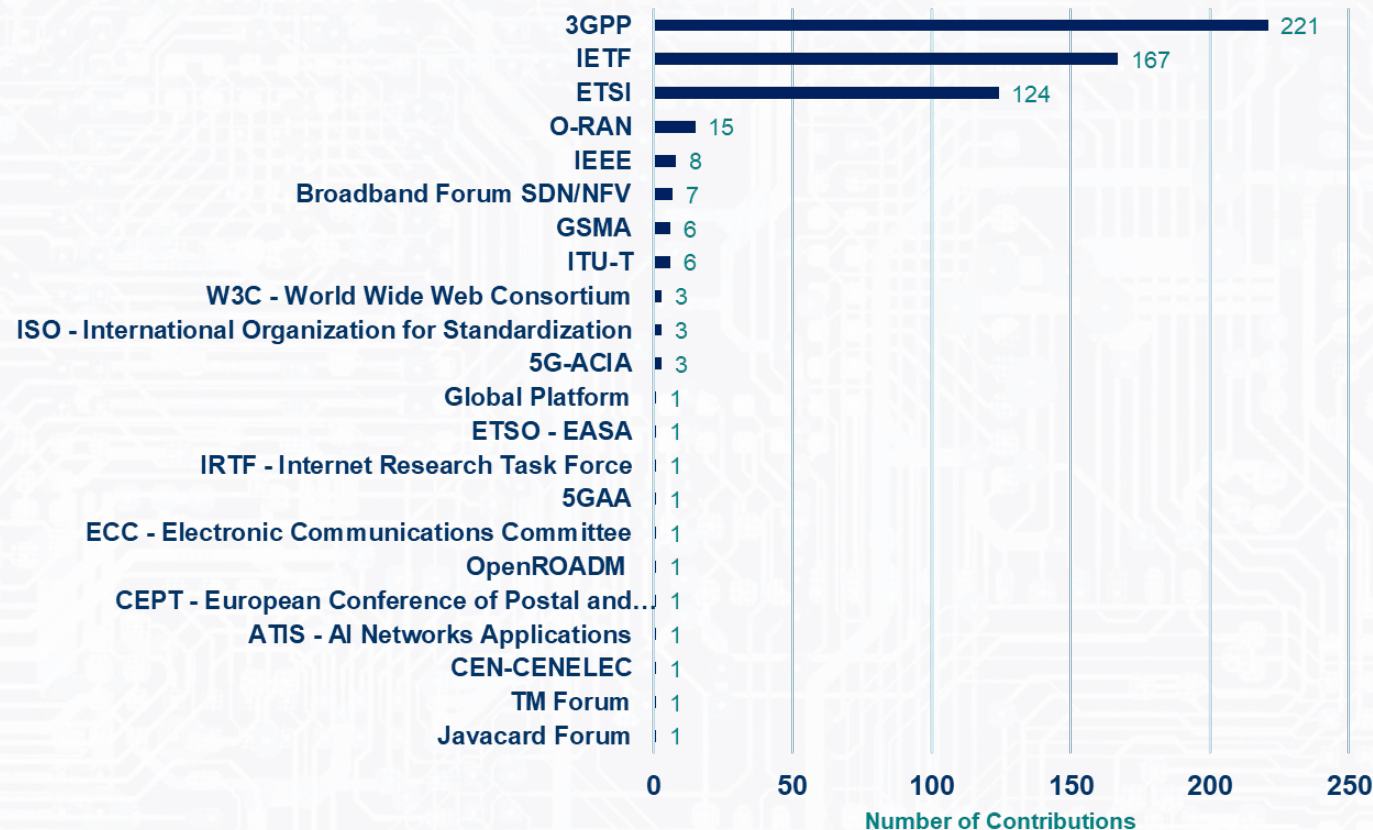
Key Insights

- Projects have contributed in total 1107 publications.
- One project's average publication is around 18.
- Most preferred journal or conferences:
 - IEEE Open Journal of the Communications Society
 - IEEE Wireless Communications and Networking Conference (WCNC)
 - IEEE Global Communications Conference (GLOBECOM)
 - European Conference on Networks and Communications & 6G Summit (EuCNC/6G Summit)
 - IEEE Transactions on Vehicular Technology
- In 110 publications, projects mentioned that they have collaborated with other projects or SNS bodies.

Q3. How many contributions to standards organizations (SDOs) have been submitted by project partners in 2024, stemming directly from project related activities?

Call 1 & Call 2 Projects (63 Projects)

Contributions to Standards Organizations (SDOs) and Other relevant Bodies



Key Insights

- Total contributions to SDO and other bodies are 574.
- One project's average contribution is around 14.

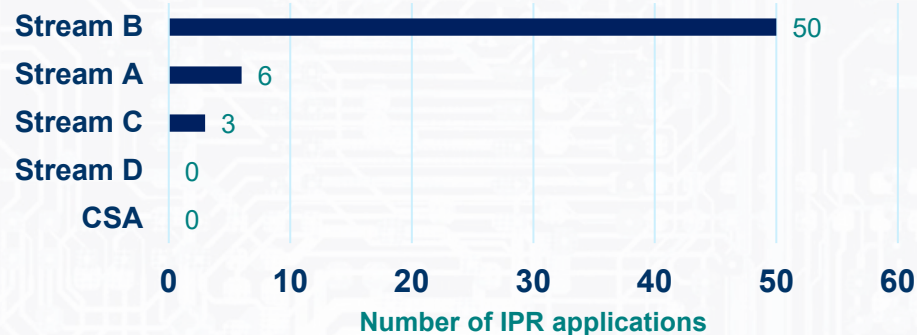
Q4. How many Patent or other IPR (Intellectual Property Rights) protection applications, stemming directly from project related activities, have been submitted by project partners in 2024?

Call 1 & Call 2 Projects (63 Projects)

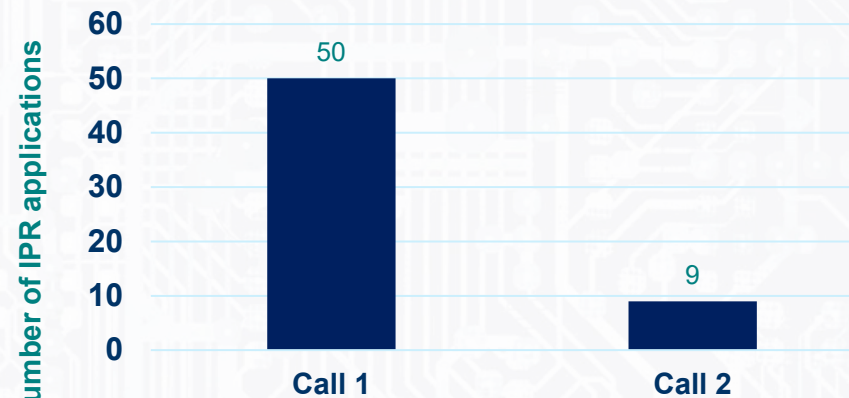
Key Insights

- Total patent / IPR application during 2024: 59
- Most of the applications are still under evaluation, only 8 of them area accepted.
- Patent / IPR applications can at high-level be grouped:
 - Satellite Communications
 - Network Management and Optimization
 - Machine Learning and AI
 - Security and Privacy
 - Radio and Wireless Technologies
 - Internet of Things (IoT)
 - Emerging Network Technologies

Patent / IPR Applications per Stream

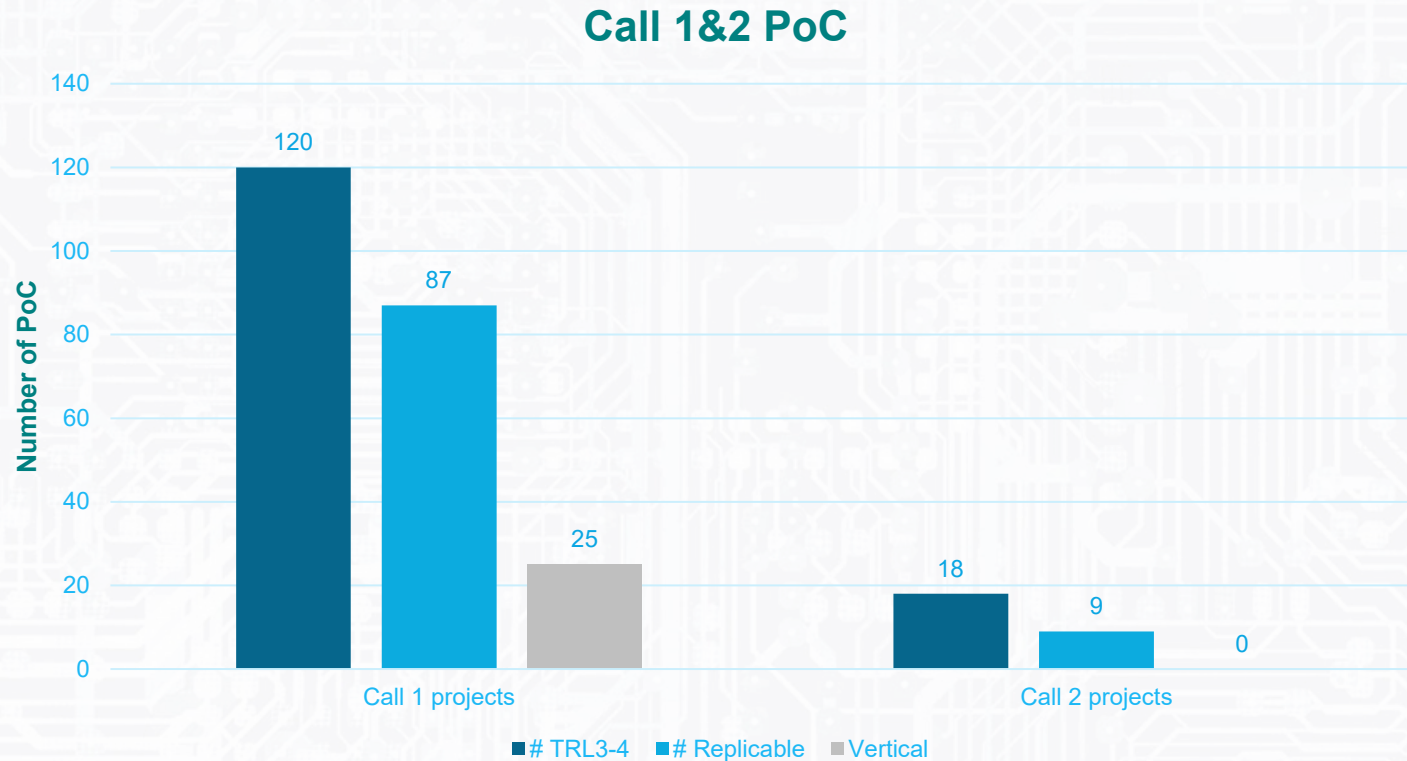


Patent / IPR Applications per Call



Q5. How many Proof of Concepts (PoCs) (i.e. TRL3) and/or Lab Tests (i.e. TRL4) has your project executed in 2024?

Call 1 & Call 2 Projects (63 Projects)



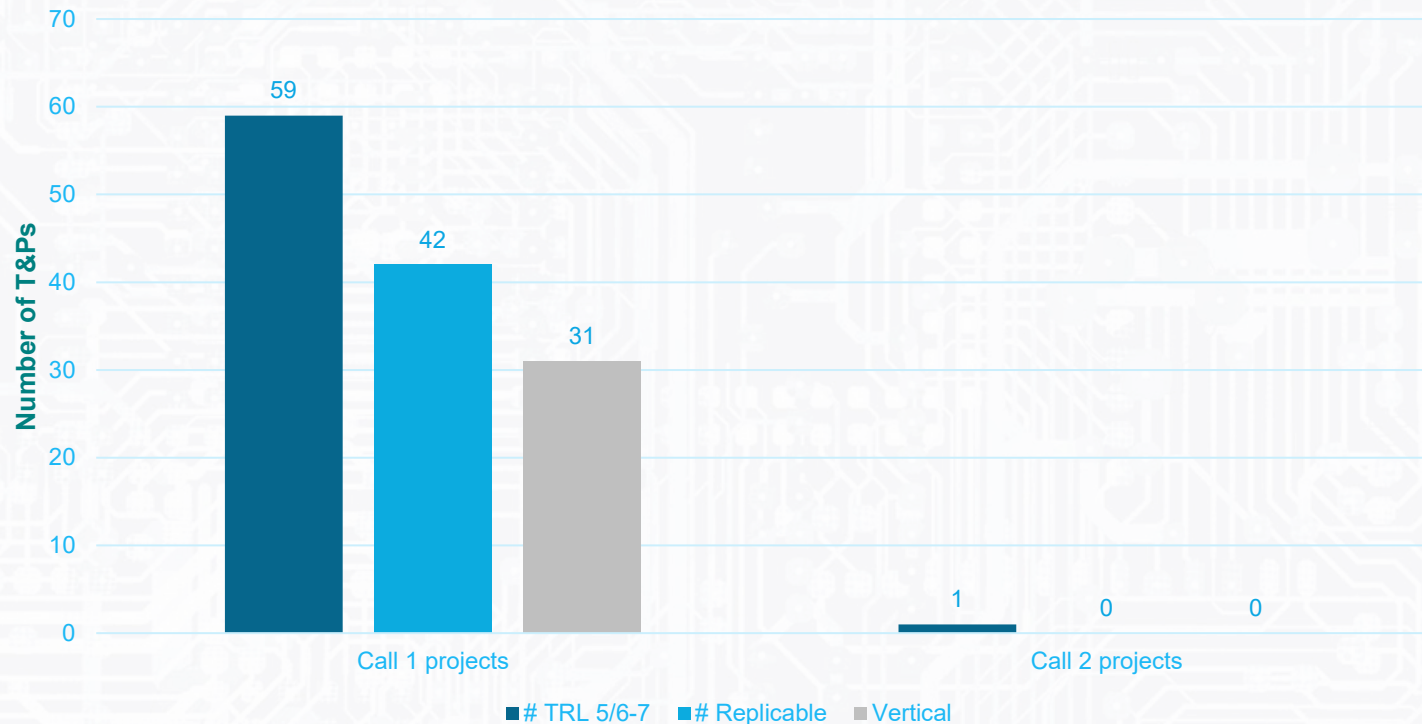
Key Insights

- In total, 138 PoC have been executed, 96 are replicable
- Call 1 projects have executed 120 PoC, Call 2 projects only 18
- 25 PoC are addressing verticals, the others are targeting telecom use cases

Q6. How many Trials (i.e. TRL5/6) or Pilots (i.e. TRL7) has your project executed in 2024?

Call 1 & Call 2 Projects (63 Projects)

Call 1&2 Trials & Pilots



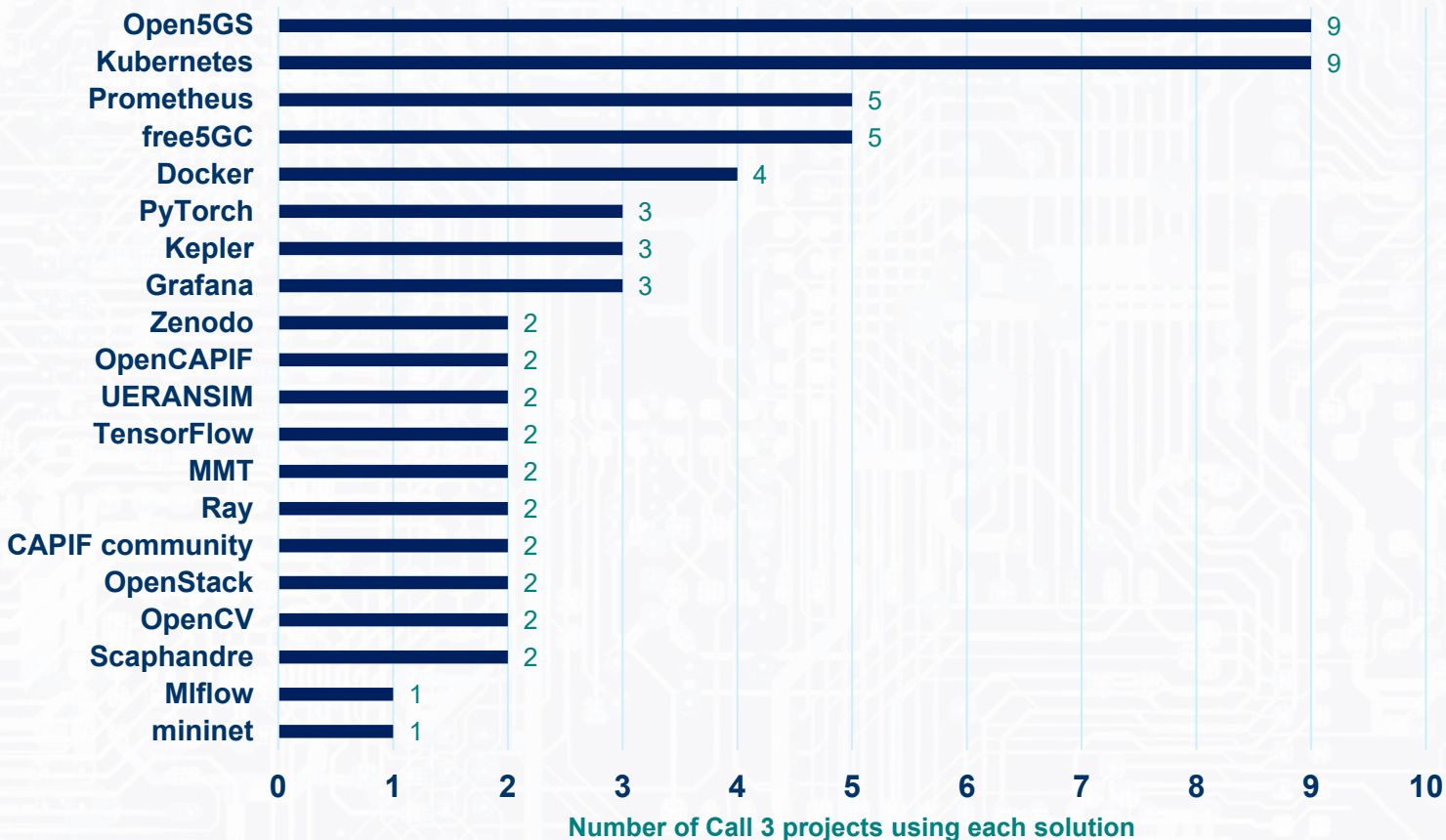
Key Insights

- In total, 60 Trials & Pilots have been executed, 42 are replicable
- Call 1 projects have executed 59 Trials & Pilots, Call 2 projects only 1
- 31 Trials & Pilots are addressing verticals, the other are targeting telecom use cases

Q7. How many open-source solutions has you project made use of in 2024?

Call 1 & Call 2 Projects (63 Projects)

Top 20 Used Open Source Solutions



Key Insights

- In total 240 responses received.

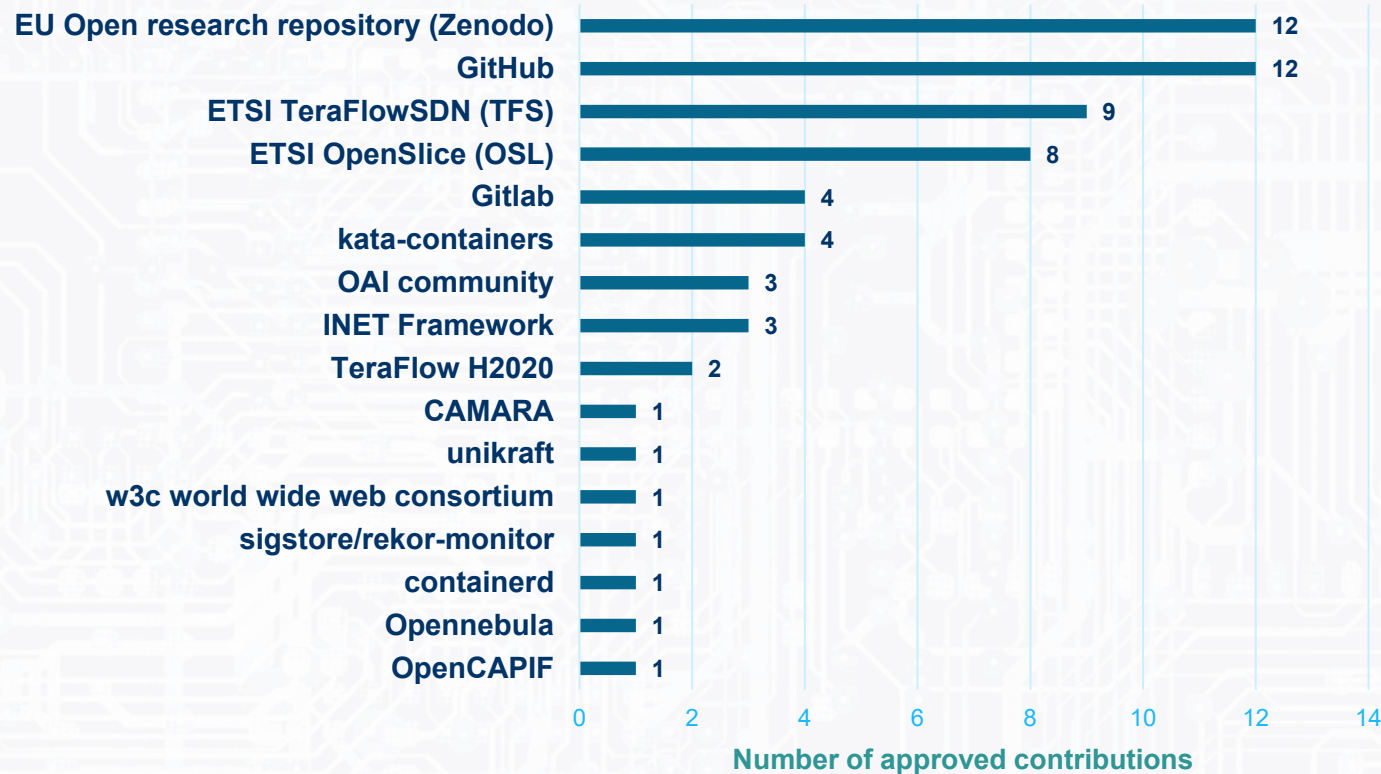
Area of Application / Purpose of Solution

- Data Management & Analytics
- Edge & IoT
- Robotics & Computer Vision
- Energy Efficiency & Green ICT
- 5G & Network Technologies
- AI & Machine Learning
- Blockchain & Security
- Cloud & Virtualization

Q8. How many open-source contributions has your project generated & submitted and how many were accepted in the relevant communities in 2024?

Call 1 & Call 2 Projects (63 Projects)

Approved Contributions to Open-Source Communities



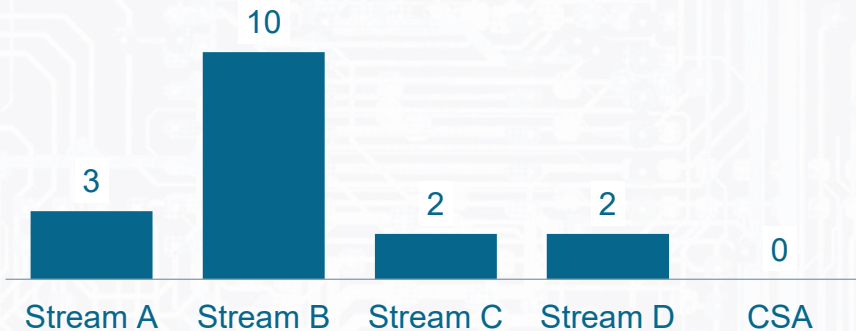
Key Insights

- Out of 100 submitted Open-Source contributions, 64 of those contributions were approved
- Zenodo and Github have no acceptance criteria but are very important for community engagement

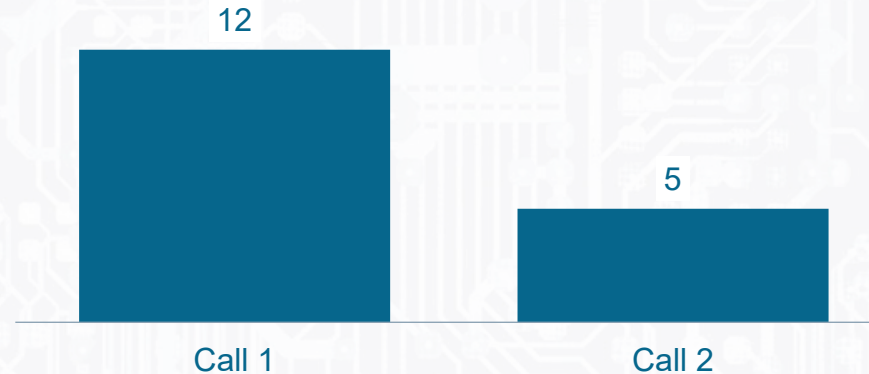
Q9. Has your project experimented with Energy Efficiency (EE) solutions in 2024?

Call 1 & Call 2 Projects (63 Projects)

Projects experimented with Energy Efficiency (EE) solutions



Projects experimented with Energy Efficiency (EE) solutions per Call



Key Insights

- In total 17 projects experimented with Energy Efficiency (EE) solutions).
- EE Solutions were targeting below topics:
 - Energy Efficiency in Open RAN
 - Blockchain & Security-Based Energy Efficiency
 - Hardware and Computing Power Efficiency
 - Wireless Communication and IoT Energy Efficiency
 - Sustainability Metrics and Experimental Validation

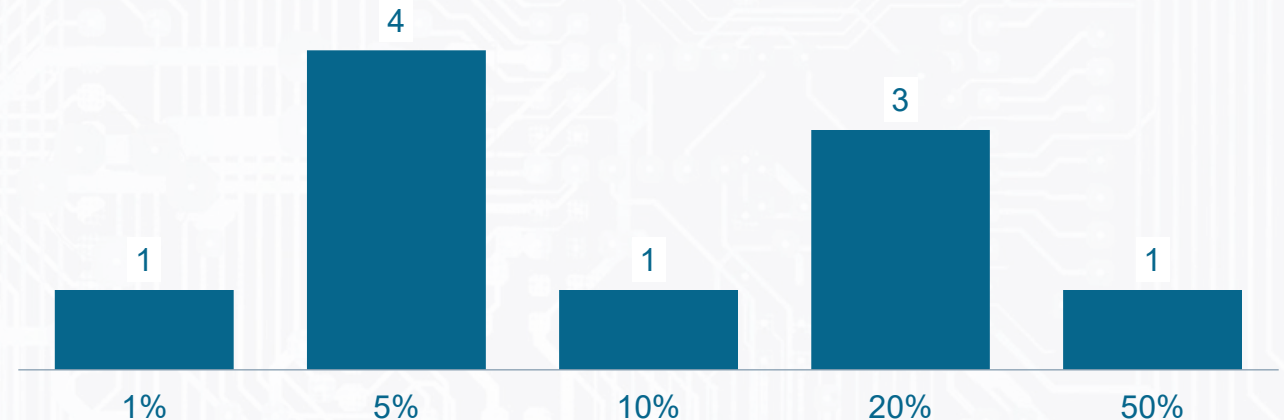
Q10. High-risk research: Please give your best approximation of what percentage, in terms of budget share, of activities in your project are at levels TRL 1 and 2, and therefore correspond to "high-risk" research?

Call 1 & Call 2 Projects (63 Projects)

TRL1 Topics (10 Projects responded)

- Semantics-based Innovation for IoT Devices
- Human-machine intent interface design
- Quantum architecture
- RF wireless power transfer
- Zero-crossing modulation (ZXM)
- Network architecture for integrated ISAC (Integrated Sensing and Communications)
- Highly accurate time/frequency sources
- Physical Layer of THz Communications
- Mesh-based Radio Access Network

Number of projects addressing TRL 1 at different budget shares



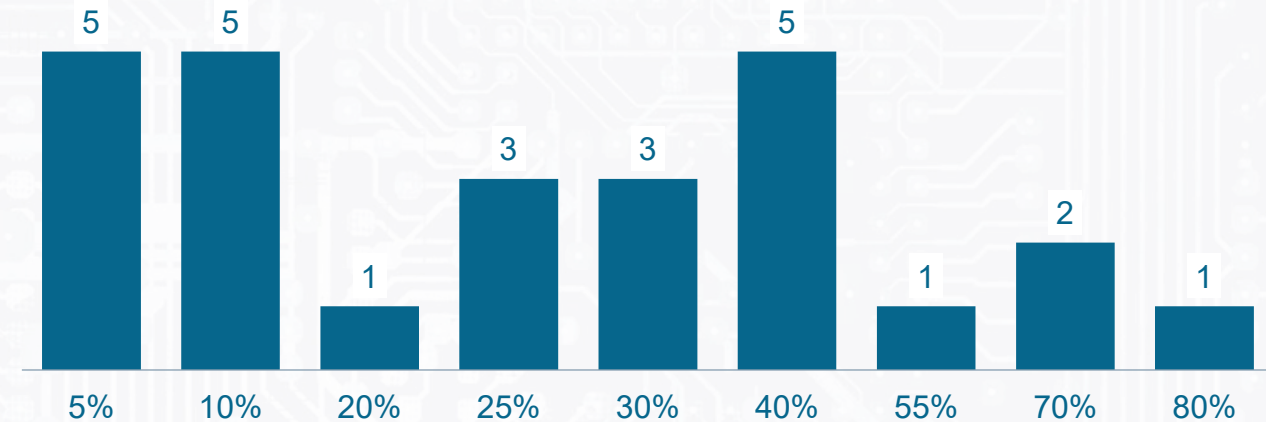
Q10. High-risk research: Please give your best approximation of what percentage, in terms of budget share, of activities in your project are at levels TRL 1 and 2, and therefore correspond to "high-risk" research?

Call 1 & Call 2 Projects (63 Projects)

TRL2 Topics (26 Projects responded)

- AI/ML Solutions for 6G Network Automation
- Steerable Optical Wireless Communications
- Security and Resource Allocation in 6G
- Radio Protocol and Network Enhancements
- Development of Novel Optical Transmitter Architectures
- MAC Protocols and THz RF Front-Ends
- Service Base Architecture and Frameworks
- Physical Layer Security and Trustworthiness in AI/ML
- Materials Development for Reconfigurable Intelligent Surfaces (RIS) Unit Cell Control
- Medium Access Control Solutions and AI-Based Resource Management
- Development of Integrated Dual-Polarized Lens Front-End
- Advanced Communication Schemes for Joint Communication and Sensing Paradigm (JCCSP)

Number of projects addressing TRL 2 at different budget shares





THANK YOU FOR YOUR ATTENTION



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IS PART OF **6G SNS**
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