SAND5G

Newsletter

Security Assessments for Networks and Services in 5G

October 2026 | Issue # 7



A Message from our team

Welcome to Issue #7 of the SAND5G Newsletter!

Over the past months, the SAND5G consortium has continued its work towards strengthening the security and resilience of next-generation networks, combining technical development with testing and validation, research, and knowledge sharing.

In this issue, we highlight some of the latest activities across the project: the testing and validation capabilities available through p-NET's advanced infrastructure; our recent training webinar examining key developments in the European cybersecurity regulatory landscape; the presentation of SAND5G research at DSD 2026 as well as SAND5G's support of IOSEC 2026 and the technical work undertaken by consortium partners to advance implementation, use-case evaluation and preparations for validation and demonstration.

Together, these activities reflect the different dimensions of SAND5G's work and the continued collaboration of our partners as we progress the project's technical and research objectives.

Thank you for following SAND5G and for being part of our community.

The SAND5G Team



Testing & Validation

Real-world testing environment

Testing and validation are central to SAND5G's approach to developing secure and resilient next-generation networks.

Within the SAND5G project, p-NET's advanced infrastructure is available to support testing and validation activities related to next-generation networks and services.

By offering real-world testing environments and advanced technical capabilities, the infrastructure enables the development, integration and validation of innovative solutions designed for secure and resilient 5G ecosystems.

This capability complements the consortium's ongoing validation activities and supports SAND5G's broader objective of ensuring that project solutions can be assessed in relevant testing environments.







Training and Capacity Building

Cybersecurity through the Lens of EU Policies & Regulations

As Europe's cybersecurity regulatory landscape continues to evolve, understanding how new policies translate into practice is becoming increasingly important for organisations working with digital technologies and next-generation networks.

On 3 June 2026, SAND5G supported a dedicated training webinar bringing together experts in law, policy and cybersecurity to examine some of the key European frameworks shaping the digital ecosystem. The discussion explored the EU Digital Identity Wallet and GDPR, the AI Act, the Cybersecurity Act and Cyber Resilience Act, and the evolution of the EU 5G Security Toolbox, connecting regulatory developments with their practical implications for cybersecurity, digital trust and resilient communications.

Prof. Dr. Eleni Kosta, Prof. Lilian Mitrou, Argyro (Iro) Chatzopoulou and Dr. Athanassios Staveris-Polykalas contributed perspectives spanning law, policy and cybersecurity, connecting the regulatory discussion with the wider challenges of cybersecurity, digital trust and resilient communications.



Prof. Dr. Eleni Kosta

Professor of Technology Law and Human Rights

Tilburg Institute for Law, Technology and Society (TILT, Tilburg University, the Netherlands)



Prof. Lilian Mitrou

Lawyer, Vice President of the National Commission for Bioethics and Technoethics

University of the Aegean



Argyro (Iro) Chatzopoulou

Senior Cybersecurity Advisor, Co-founder

APIROPLUS Services



Dr. Thanasis Staveris-Polykalas

Senior Cybersecurity Specialist

p-NET Emerging Networks & Applications

WATCH NOW

SAND5G at DSD 2026

SAND5G's scientific work was presented at the 29th Euromicro Conference on Digital System Design (DSD 2026), held in Kraków, Poland, from 2–4 September 2026.

Researchers presented the scientific contribution "An Efficient Keccak-based FPGA Architecture for 5G Authentication and Key Agreement Protocol." The work introduces a hardware architecture using the Keccak cryptographic primitive to optimise the performance and efficiency of the 5G Authentication and Key Agreement (AKA) protocol on FPGA devices.

With 5G infrastructure requiring high throughput, ultra-low latency and robust hardware-level trust, the research directly supports SAND5G's objectives of securing critical communication nodes against emerging threats. Its presentation at DSD 2026 also brought SAND5G research to an international community working across digital system design, embedded hardware and cybersecurity.







SAND5G supports IOSEC 2026

SAND5G was among the EU-funded projects supporting the International Workshop on Information & Operational Technology Security (IOSEC 2026), held in Lisbon, Portugal, from 3–5 August 2026, in conjunction with the 6th IEEE International Conference on Cyber Security and Resilience (IEEE CSR 2026).

IOSEC brings together researchers, practitioners and European research initiatives to exchange knowledge and explore emerging challenges and solutions in Information Technology (IT) and Operational Technology (OT) security. The 2026 program addressed topics ranging from security architectures, threat modelling and detection to AI in cybersecurity, vulnerability and risk management, cyber threat intelligence, and secure and resilient software development.

SAND5G supported the workshop alongside a strong network of European research projects - CUSTODES, CONSOLE, 6G-XCEL, CONSENTIS, CYBERSECDOME, CURIUM, NATWORK and INTACT - contributing to knowledge exchange and strengthening collaboration across Europe's cybersecurity research and innovation community.

Through its support of initiatives such as IOSEC, SAND5G continues to promote collaboration and knowledge exchange around the security and resilience of advanced 5G systems and infrastructures.



From development to validation

SAND5G continued to advance its technical work with consortium partners meetings in Athens and Patras to move project developments closer to comprehensive validation and demonstration.

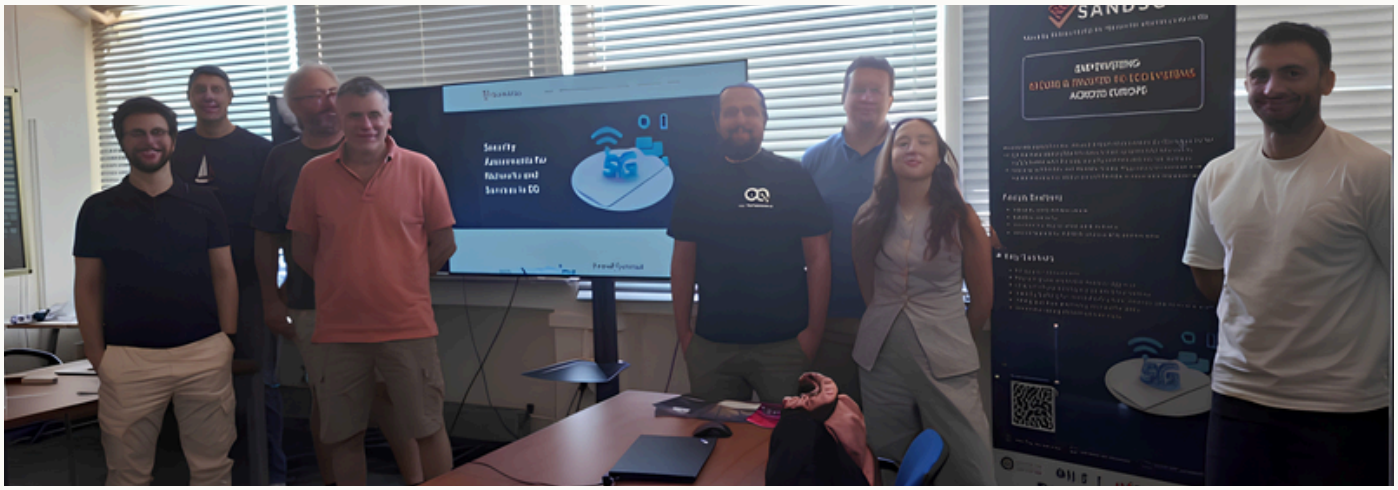
Athens | 4–5 June 2026

Hosted by Sphynx, the first technical meeting focused on project progress, validation requirements and the implementation of SAND5G use cases. Partners reviewed key performance indicators and aligned ongoing technical developments with preparations for deployment in operational environments



Patras | 13–14 July 2026

The work continued at the University of Patras, with a stronger focus on implementation, deployment and use-case evaluation. Partners progressed validation methodologies and requirements, alongside the project's Collective and AI use cases, with updates and demonstrations from the University of Patras, WINGS, OQTECH and NCSA/ADAE.



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