ETSI
The Standards People

Software & Standards for
Smart Networks & Services
Conference

Conference Opening

Presented by: Dr. Ricard Vilalta (CTTC)

cttc
Centre Tecnològic de
Telecomunicacions de Catalunya

Welcome

- Transitioning from legacy infrastructure to Cloud-Native & Modular systems.
- Bridging the gap between Open Source, research and standardization communities.
- Fostering an ecosystem for 6G and Smart Networks and Services.

- Why are we here?
  - The convergence of research, standards, and open source software

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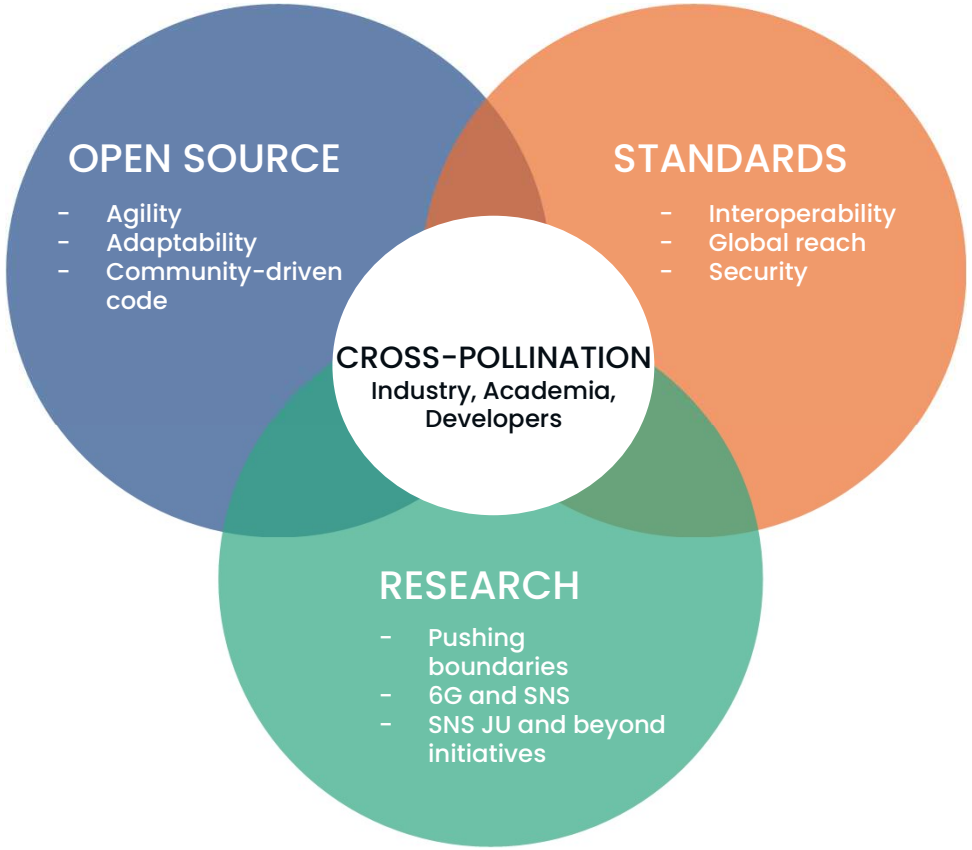
The Three Pillars of SNS4SNS



OpenCAPIF by ETSI OpenOP by ETSI OpenSlice by ETSI Open Source MANO by ETSI TeraFlow SDN by ETSI

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SNS4SNS Conference

- Unique event featuring a 4-day conference, SDG in Action! and Tutorials, and exciting demonstrations/posters with a focus on building resilient and sustainable networks.
- It's the perfect opportunity for decision-makers, technologists, standardizers, developers, and researchers to dive into the convergence of open source software, standardization, and cutting-edge research.
- Discover how these 3 axes can be combined to build sustainable, resilient, and interoperable networks and services.
- **To discuss synergies, best practices, opportunities for collaboration among open source, standardization and research for building future networks sustainably.**

OpenCAPIF by ETSI · OpenOP by ETSI · OpenSlice by ETSI · Open Source MANO by ETSI · TeraFlow SDN by ETSI

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Program Committee

Programme Committee Chair:

Ricard Vilalta, ETSI SDG TFS Chair, CTTC

Programme Committee Members:

Silvia Almagia, SNS Director, ETSI

Amina Boubendir, Head of Research and Standardisation, Airbus

Hakima Chaouchi, Institut Mines Telecom (IMT)

Pavlos Fournogerakis, SNS JU Deputy Head of Programmes

Juan Carlos Garcia, Programme Manager at the Cloud and Software Unit, DG-CNECT

Alexandros Kaloxylos, 6G SNS IA Executive Director

Manel Khelifi, Technical Expert, ETSI

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Ultan Mulligan, CSO, ETSI

Francisco Javier Ramon Salguero, ETSI OSM Chair, Telefonica

Christos Tranoris, ETSI SDG OSL Chair, University of Patras

Vasileios Theodorou, ETSI SDG OOP Chair, Intracom Telecom

Dimitris Tsolkas, ETSI SDG OCF Vice-Chair, Fogus Innovations & Services P.C.

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Agenda

	Monday 02.02	Tuesday 03.02	Wednesday 04.02	Thursday 05.02
Morning	Tutorial OpenOP Tutorial TeraFlowSDN	Tutorial OpenSlice SDGs in Action!	Conference	Conference
Afternoon	Tutorial OpenCAPIF SDGs in Action!	SDGs in Action! Tutorial Open Source MANO Cross-SDGs Lab Demo	Conference	Conference

OpenCAPIF by ETSI · OpenOP by ETSI · OpenSlice by ETSI · Open Source MANO by ETSI · TeraFlow SDN by ETSI

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SDG Tutorials

Monday 9:00-10:30 Tutorial SDG OpenOP
Consuming developer-friendly Network APIs as exposed by the open-source Operator Platform for the Telco Cloud
Instructors: Dimitrios Gogos, Intracom Telecom - Adlen Ksentini, EURECOM, Cesar Cajas Parra, I2CAT

Monday 11:00-12-30 Tutorial SDG TeraFlowSDN
AI-enabled Network Automation in TeraFlowSDN Orchestrated Networks
Instructor: Ricard Vilalta, CTTC

Monday 14:00-15:30 Tutorial SDG OpenCAPIF
Implementing CAPIF-compliant API invokers and providers with the OpenCAPIF SDK and templates
Instructors: Jorge Moratinos, Telefonica - Stavros Charismiadis, Fogus - Pelayo Torres, Telefonica

Tuesday 9:00-10:30 Tutorial SDG OpenSlice

OpenSlice advanced and new features
Instructors: Kostis Trantzas, University of Patras - Rafael Direito, IT Aveiro - George Katsikas, Ubitech

Tuesday 15:00-15:30 Tutorial Open Source MANO
Instructor: Francisco-Javier Ramon, Telefonica

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SDGs in Action! Hackathon Challenge

The challenge

Participants will collaborate in teams throughout the challenge, using their own infrastructures, to design and implement a demo or use case that: Solves a technical problem, or Extends the capabilities of ETSI SDG projects, or Integrates ETSI SDG components into broader ecosystems.

Kick-off was Nov 2025; Monday/Tuesday we saw the results.

Awards Ceremony on Thursday afternoon.

Evaluation criteria

- SDG & API usage
- Contributions to ETSI SDGs (MRs/issues)
- Integration with external infrastructures
- Automation & security features
- Quality of use case & documentation
- Alignment with EU goals (data sovereignty, trustworthy AI, sustainability)
- Bonus points for real deployments and multi-partner collaboration !

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SESSION 1: Building an open software ecosystem for future connectivity and services - Setting the scene

Session Chair: Ricard Vilalta, Programme Committee Chair

9:30-9:50 **EU approach for converging digital communications**
Miguel González-Sancho, EC DG-CNET

9:50-10:10 **From Combinatorial Innovation to Compounding Value. Designing 6G Systems to Capture Growth**
Javier Albares-Bueno, SNS JU

10:10-10:30 **Looking ahead: Is there a role for "open" solutions in R&D?**
Alexandros Kaloxylos, 6G SNS IA

10:30-11:00 **Coffee break & Group Picture in the Winter Garden**

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Session 2: Keynotes

Session Chair: Juan Carlos Garcia, EC DG-CNECT

11:00-11:30 **Open Source talent geography**
Hakima Chaouchi, Institut Mines Telecom (France 6G)

11:30-12:00 **The co-evolution of open source and standards development**
Mirko Boehm, Linux Foundation Europe

12:00-12:30 **Architecting Digital Sovereignty: The Open Internet Stack within European 6G**
Giovanni Rimassa, Martel Innovate

12:30-14:00 **Lunch Break**

14:00-15:00 SESSION DEDICATED TO VISIT OF DAY 1 DEMOS & POSTERS

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Session 3: Network exposure, automation and federation

Session Chair: Christos Tranoris, ETSI SDG OSL Chair, University of Patras

15:00-15:15 **Sovereign Cloud-Edge Continuum Built on Open Source: An introduction to the European IPCEI-CIS and 8ra initiatives and the NeoNephos Foundation**
Florian Mueller, SAP

15:15-15:30 **From network digital twins to network of networks: enabling fully autonomous 6G systems**
Ana Pereira, Ubiwhere

15:30-15:45 **Deploying mobility services using OpenSlice**
Diogo Pereira Gomes, ITAv

15:45-16:00 **Panel discussion**

16:00-16:30 **Coffee break, Demos & Posters visit**

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Session 4: Cloud-native automation and sustainable telco infrastructures

Session Chair: Francisco Javier Ramon Salguero, ETSI OSM Chair, Telefonica

16:30-16:45 **SUSE telco cloud aligned with industry standards**
Timo Jokiaho, SUSE

16:45-17:00 **Network automation for telco edge cloud with TeraFlowSDN**
Håkon Lønsethagen, Telenor

17:00-17:15 **From telco edge cloud to AI factory: powering next-gen smart networks and services with OpenNebula**
Adriana Fernández-Fernández, OpenNebula Systems

17:15-17:30 **ETSI OSM: Cloud-native orchestration in multi-cloud environments**
Francisco Javier Ramon Salguero, Telefonica

17:30-17:45 **Panel Discussion**

17:45-19:00 **Networking Cocktail**

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Wednesday Demos

DEMO 1 - Marcos Altarriba, Quantum Computing Solutions (QCS)

From legacy files to post-quantum protected .qtm in minutes

DEMO 2 - Cesar Cornelio Cajas Parra, i2CAT

Demonstrating inter-platform federation for multi-operator edge application management

DEMO 2bis: Demonstrating Open Operator Platform (Open OP) standardised testbed capability exposure in federated 5G/6G environments

DEMO 3 + POSTER - Claudia Carballo González, i2CAT Foundation

OpenCAPIF SDK in action: From CAMARA API exposure to consumption

DEMO 4 - Rafael Direito, IT- Aveiro

Offering CAMARA APIs as a service

DEMO 5 - Yann Garcia, FSCOM & Mudassar Khan, xFlow Research

Application mobility and data continuity of oneM2M across MEC platforms

DEMO 6 - Lluis Gifre, CTTC

Novel telemetry data collection and closed-loop operations for end-to-end optical access and transport networks with guaranteed-quality connectivity service assurance

DEMO 7 - George Karetsos, University of Thessaly

TruE-MAN: Extending OpenSlice for Trusted Resource Sharing among 5G Operators

DEMO 8 + POSTER - Georgios P. Katsikas, UBITECH Ltd.

Cross-layer automation across multi-site and multi-stakeholder environments

DEMO 9 - Marinela Mertiri, Intracom Telecom

Intelligent Edge Cache Deployment and Migration Across Distributed Infrastructures

DEMO 10 - Navid Nikaein, BubbleRAN

Network Recommendation System with MX-AI

DEMO 11 - Alice Piemonti, Martel Innovate

Predicting the Future: AI-Driven CNF Orchestration for sustainable 6G Networks

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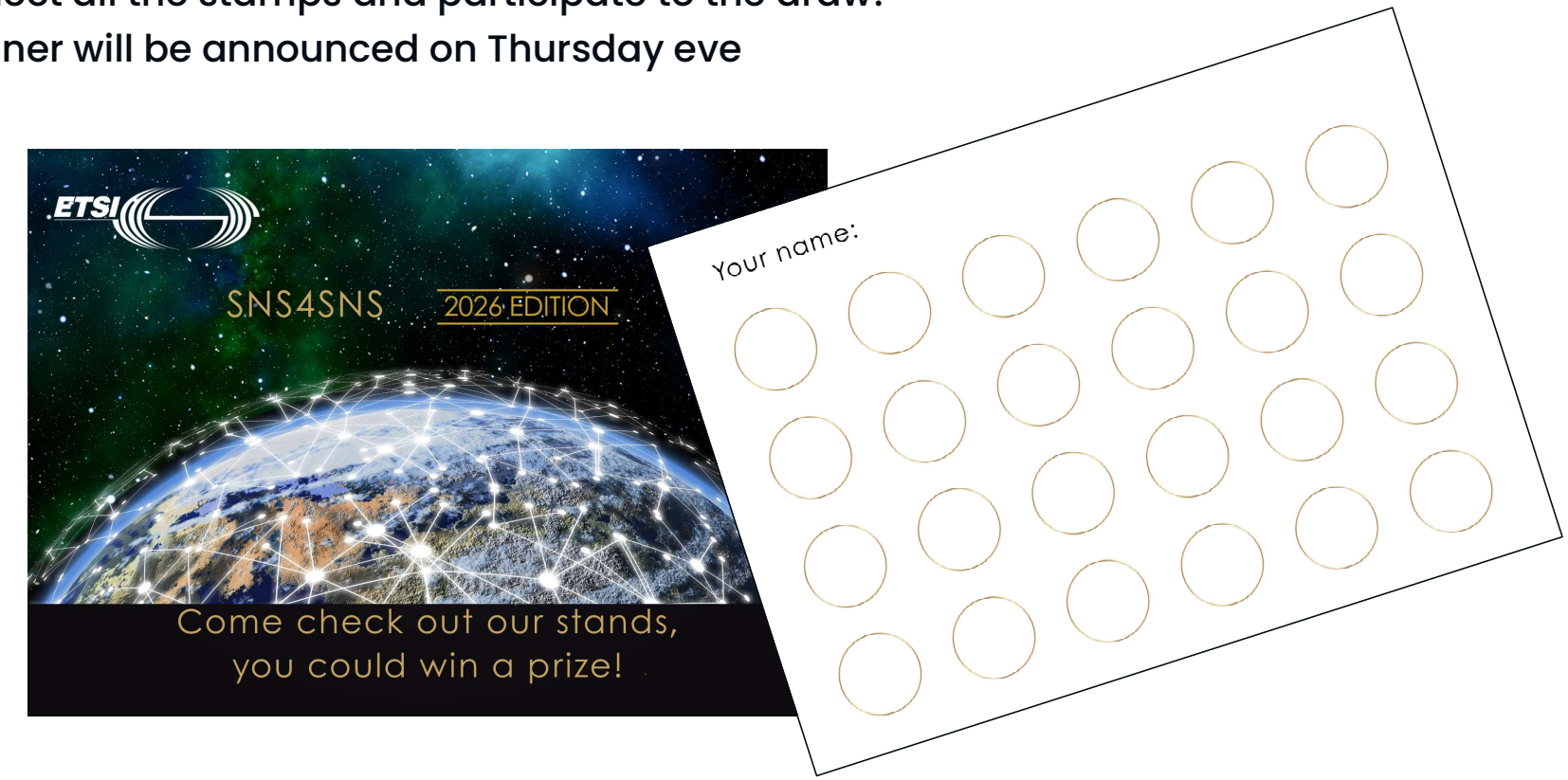
Make sure you visit all 24 demos!!

- 12 on Wednesday + 12 on Thursday
- Collect all the stamps and participate to the draw!
- Winner will be announced on Thursday eve



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Posters

POSTER 1 - At-scale deployment of network digital twin on the cloud for network configuration validation
Allen Abishek, Centre Tecnològic de Telecomunicacions de Catalunya (CTTC)

POSTER 2 - CONNECT testbeds: Benchmarking open experimentation for 6G-XCEL and future connectivity
Hajar Bennouri, CONNECT Centre

POSTER 3 - Federation enablement for multi-operator platforms: orchestrating services with the Open OP
Claudia Carballo González, i2CAT Foundation

POSTER 4 - Service orchestration in 6G telco operator platforms: from closed-loop to agentic AI frameworks
Michail Dalgitsis, Nearby Computing

POSTER 5 – Full closed-loop automation and multi-layer (IP over optical) control in multi-granular optical networks using ETSI TeraFlowSDN
Lluis Gifre, CTTC

POSTER 6 - Unified SDN control of coherent pluggables and lite-coherent optical transceivers using ETSI TeraFlowSDN
Lluis Gifre, CTTC

POSTER 7 - Rethinking NTN architecture: leveraging 6G-RUPA for scalable and energy-efficient LEO networks
Sergio Giménez, i2CAT

POSTER 8 - Trustworthy Federated Learning in O-RAN: Blockchain-based Reputation for Verifiable Participation
Farhana Javed, CTTC

POSTER 9 - TruE-MAN - Trusted and energy efficient support of multimedia application transfers over 5G network slices
George Karetsos, University of Thessaly

POSTER 10 - An Open SDK for standardised testbed capability exposure in federated 5G/6G environments
Mohammadreza Mosahebfard, i2CAT

POSTER 11 - ECO-eNET: Towards efficient and intelligent confluent edge networks for 6G
Carlos Natalino, Chalmers University of Technology

POSTER 12 - Edge microservice deployment and management using SDN-enabled whitebox switches
Mohamad Rahhal, CTTC

POSTER 13 - Data spaces for network digital twins: challenges and opportunities in data exchange and harmonisation
Jean-Sébastien Sottet, Luxembourg Institute of Science and Technology

POSTER 14 - The service mesh model as enabler for network core observability and traffic resilience

Dimitris Tsolkas, Fogus Innovations & Services P.C.

POSTER 15 - NGIS/IDT: Intent-Driven Transport and Predictive Zero-Buffer QoS for AI Workloads

Kamel Sadani, NGISLABS.AI

POSTER 16 - TN-NTN seamless transformation in SATCOM domain: DIFI/eCPRI transition possibilities, challenges and opportunities

Sebastian Ventz, Lasting Software

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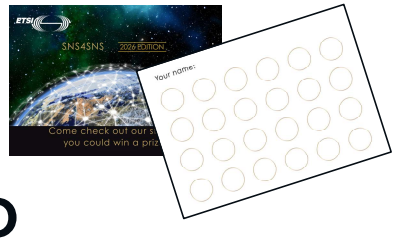
Awards Ceremony on Thursday Evening

- Demo visit draw winner
- Best SNS4SNS 2026 Demo
- SNS4SNS 2026 Hackathon Winner



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Key message

We are bridging the gap between innovation (Research), agility (Open Source), and interoperability (Standards) to build the 6G foundation.

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Join the SNS4SNS Community:
Grab a T-shirt and join the Mailing List!

https://list.etsi.org/scripts/wa.exe?SUBED1=ETSI_SNS4SNS_EVENTS&A=1

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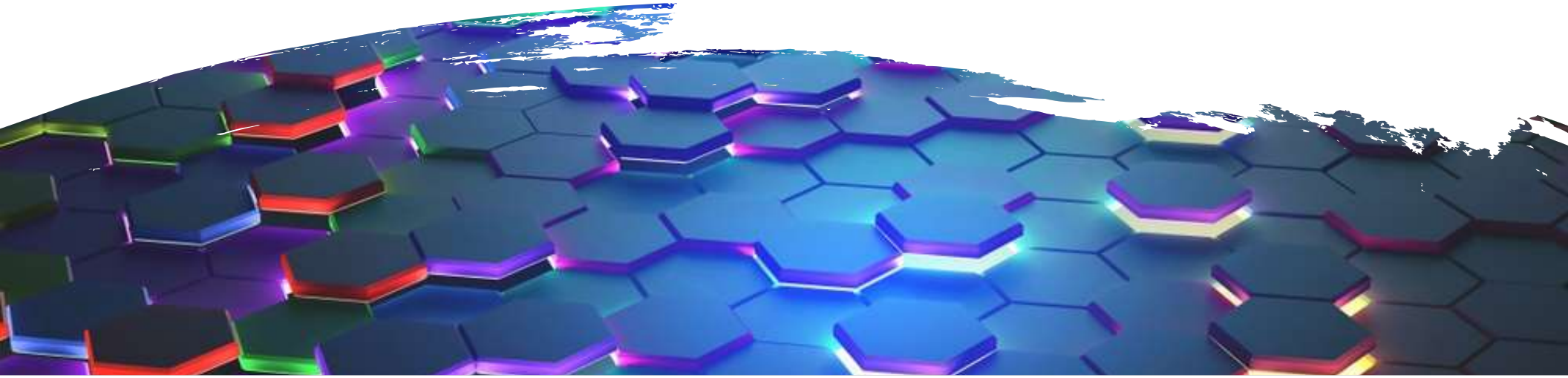
Thank you!

Ricard Vilalta

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