



SNS JU and AWP 2027

Presentation to France 6G Ecosystem

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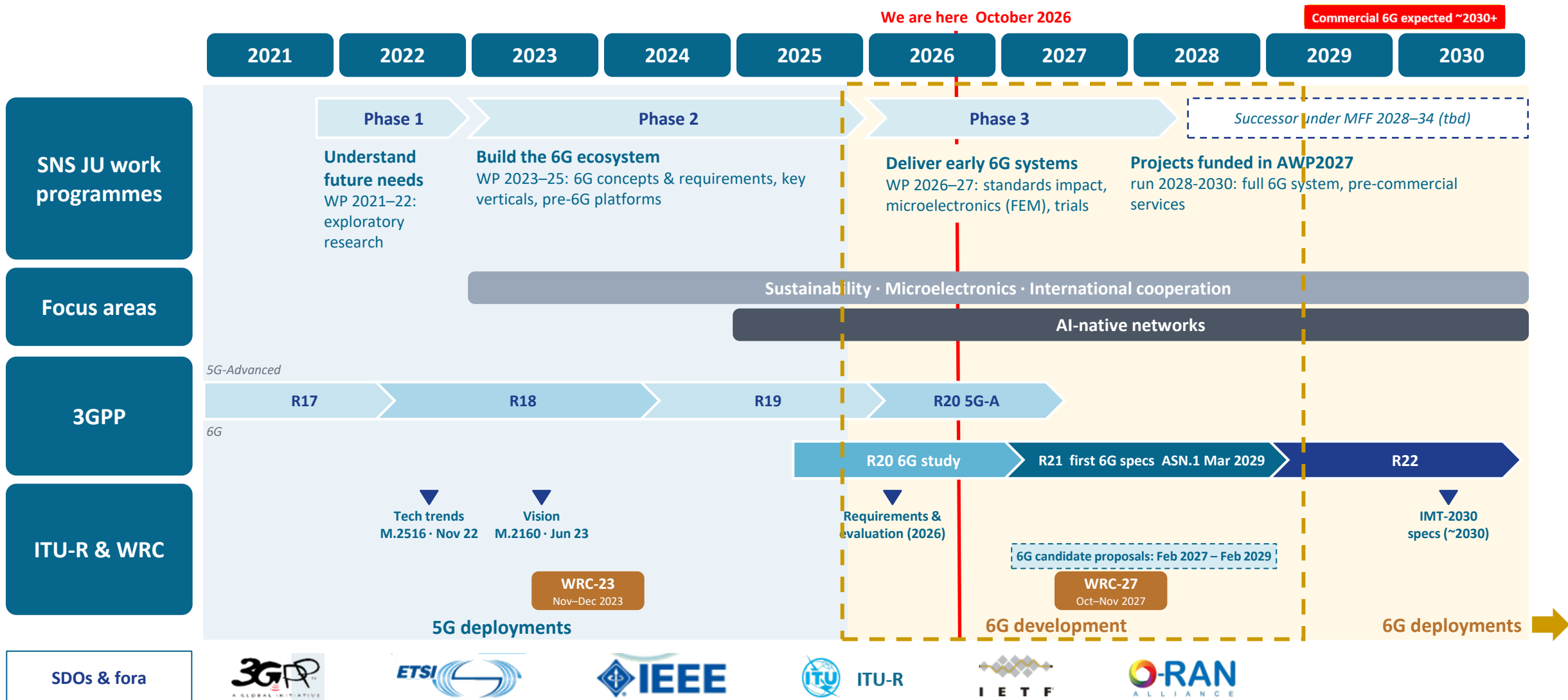
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- Overview of **SNS JU**
 - What our **program portfolio** looks like
 - How **France** is already **participating**
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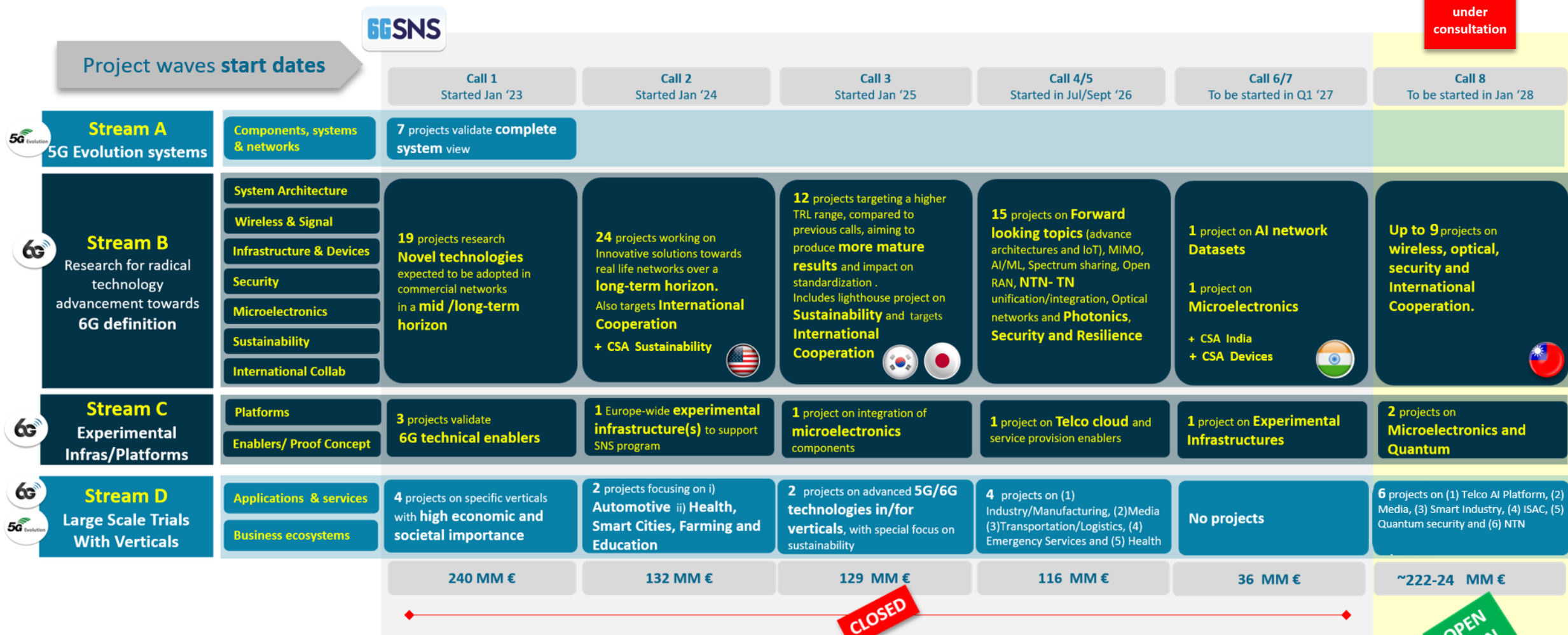
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- Why **6G** matters
- Orientations of our **AWP 2027**
- Q&A





AWP
2027
under
consultation



Top 10 R&I technology domains (Stream A/B €446 M, 70% of funding)

#	Main Technology domain	€M	Share	Proj.	Industry	Most relevant beneficiaries (grant, €M)	Lead countries
1	Architecture, orchestration & compute continuum	105.1	16.5%	15	62%	Ericsson 7.4 / Nokia 4.5 / Telefonica 4.0 / Orange 3.0	ES, DE, EL
2	Security, privacy & trust	77.1	12.1%	14	61%	Telefónica 4.8 / Ericsson 3.2 / Thales 2.8 / CNIT 1.9	ES, EL, IT
3	AI-native networks	50.2	7.9%	12	52%	Nokia 2.1 / ISI-ATHENA 2.1 / EURECOM 2.0 / Ericsson 1.9	IT, FR, DE
4	Sustainability & energy-neutral IoT	49.5	7.8%	9	56%	Ericsson 2.5 / Univ. Oulu 2.2 / KU Leuven 2.0 / Siemens 1.5	DE, FR, ES
5	Wireless, MIMO & Open RAN	35.4	5.6%	6	47%	Ericsson 1.4 / imec 1.4 / Nokia 1.3 / Aalborg Univ. 1.2	DE, SE, EL
6	Optical & x-haul transport	32.2	5.1%	7	55%	CTTC 2.4 / UPC 1.9 / AIT Austria 1.6 / Bifrost Comms 1.4	ES, EL, IT
7	Non-terrestrial & 3D networks	31.5	4.9%	5	63%	DLR 3.2 / Thales 3.2 / CTTC 1.3 / Univ. Luxembourg 1.2	FR, DE, IT
8	THz & reconfigurable surfaces	22.7	3.6%	4	31%	Fraunhofer 2.6 / TU Delft 1.2 / TU Braunschweig 1.2 / Chalmers 1.1	DE, EL, NL
9	Integrated sensing & communication	22.5	3.5%	5	48%	NEC 1.4 / Intel 1.1 / imec 1.1 / Orange 1.0	DE, FR, BE
10	Microelectronics	19.6	3.1%	3	40%	CEA 2.1 / Sivers Wireless 1.2 / Nokia 1.2 / III-V Lab 1.2	FR, DE, SE

■ Hardware domains.

Beyond R&I: validation and support

Stream D

Vertical trials & pilots €128.3M (12 projects)

- CERTH, Instituto de Telecomunicações, ICCS-NTUA, SETU;
- €13.7M through open-calls

Stream C

Experimental infrastructures €46.6M (5 projects)

- Univ. Oulu, ISI/ATHENA, Univ. Málaga, i2CAT

Coordination & support €16M (7 projects)

- Eurescom, Nokia, 6G-IA
- Sustainability, India, 6G Devices

What it means

- Vendors active in system domains: Ericsson and Nokia each rank top-3; Telefónica leads security
- Hardware domains get €65M (10%), led by research bodies (Fraunhofer, CEA, imec)
- Non-EU groups rank high in some domains: NEC leads sensing, Intel 2nd, Interdigital.

France's weight in SNS JU programme

€57.0M

8.9% of €637M awarded

#5

country by grants and by participations (152)

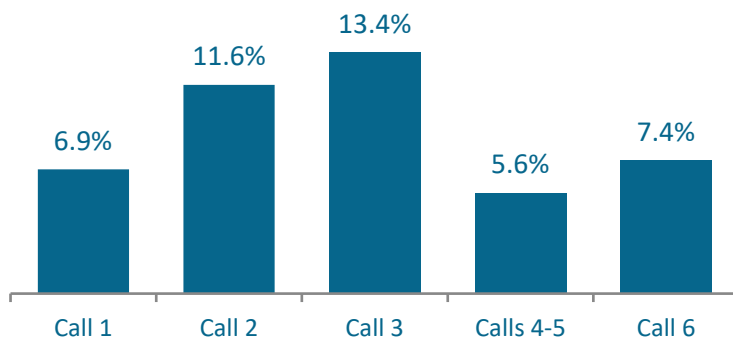
60 / 104

projects with ≥1 French partner

5

SNS JU projects coordinated by French organisations ⁽¹⁾

French share of awarded grant, by call



Top French beneficiaries (group level)

#	Beneficiary	€M	Partic.
1	Thales group	8.4	23
2	CEA	6.7	8
3	EURECOM	6.2	13
4	Orange	4.9	12
5	Nokia Networks France	3.1	11
6	Airbus Defence & Space	3.0	7

French-coordinated projects

Project	Coordinator	Call	Focus
6G-DISAC	CEA	2	Distributed ISAC
6G-GOALS	CEA	2	Semantic comms
6G-ARROW	CEA	3	EU-Korea
6G-MIRAI	Ericsson France	3	EU-Japan
X-TREME 6G	STMicroelectronics	3	Microelectronics Lighthouse
FP2-MORANE 2	UIC Paris	Rail	FRMCS

(1) FP2-MORANE 2 is managed by EU Rail JU in synergy with SNS JU

French-led outcomes (SNS JU Journal 2026)

Sensing & ISAC: 6G-DISAC (CEA-Leti)

53 papers, 34 contributions to 3GPP / ETSI ISAC and 9 patent applications; RIS-assisted smart-parking trial

Sovereign 6G chips: X-TREME 6G (STMicroelectronics)

Microelectronics Lighthouse: pre-industrial SiGe HBT (500 GHz fmax), InP HBT prototypes (600 GHz), 200–300 GHz amplifiers

AI-native RAN in 3GPP : 6G-MIRAI (Ericsson France) and 6GARROW (CEA)

AI-based CSI prediction presented to the 3GPP Rel-20 6G study item; joint EU-Japan and EU-Korea validation

Semantic networking : 6G-GOALS (CEA-Leti)

Semantic O-RAN architecture with a Semantic RIC; logistics field trial with 20 robots at TRL 5

Space-ground integration: 6G-NTN2 Nexus

- TN-NTN proof-of-concept by Thales, Airbus DS, Eutelsat, Orange
- NTN group shaping IMT-2030 satellite standards and IRIS²

Governance footprint

- France currently chairs the SNS JU **States Representatives Group (SRG)**
- 4 of 16 **Stakeholders Group** members (appointed July 2026) are French-based:

Orange

Capgemini

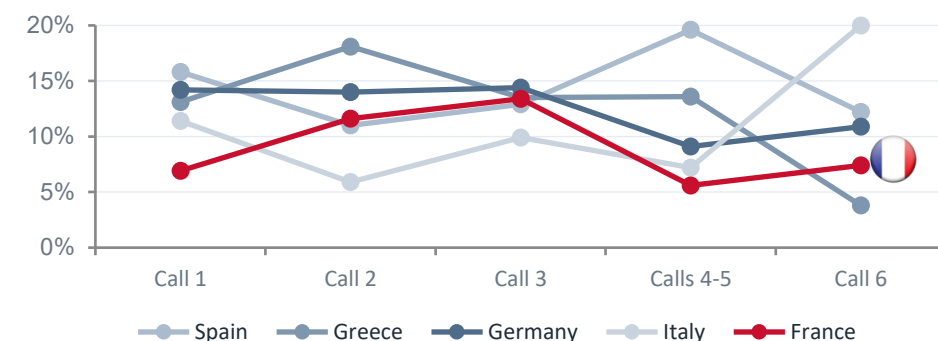
Airbus DS

ETSI

Country ranking by grant awarded (top 10)

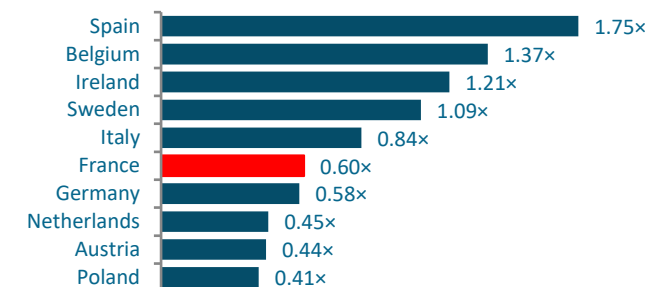
#	Country	€M	Share	Benef.	Unique	Projects (% of 104)	Coord.	SME %
1	Spain	94.3	14.8%	271	71	81 (78%)	15	15%
2	Greece	89.1	14.0%	203	65	74 (71%)	26	33%
3	Germany	83.9	13.2%	175	68	81 (78%)	15	13%
4	Italy	60.6	9.5%	174	59	72 (69%)	9	25%
5	France	57.0	8.9%	152	60	60 (58%)	5	26%
6	Finland	31.2	4.9%	64	12	38 (37%)	5	20%
7	Belgium	27.9	4.4%	59	16	46 (44%)	4	32%
8	Portugal	23.9	3.7%	54	20	29 (28%)	4	30%
9	Ireland	23.2	3.6%	43	17	32 (31%)	5	35%
10	Sweden	20.9	3.3%	42	14	28 (27%)	2	12%

Share of grant by call (Top 5)



Grant share vs GDP share (1.0 = parity)

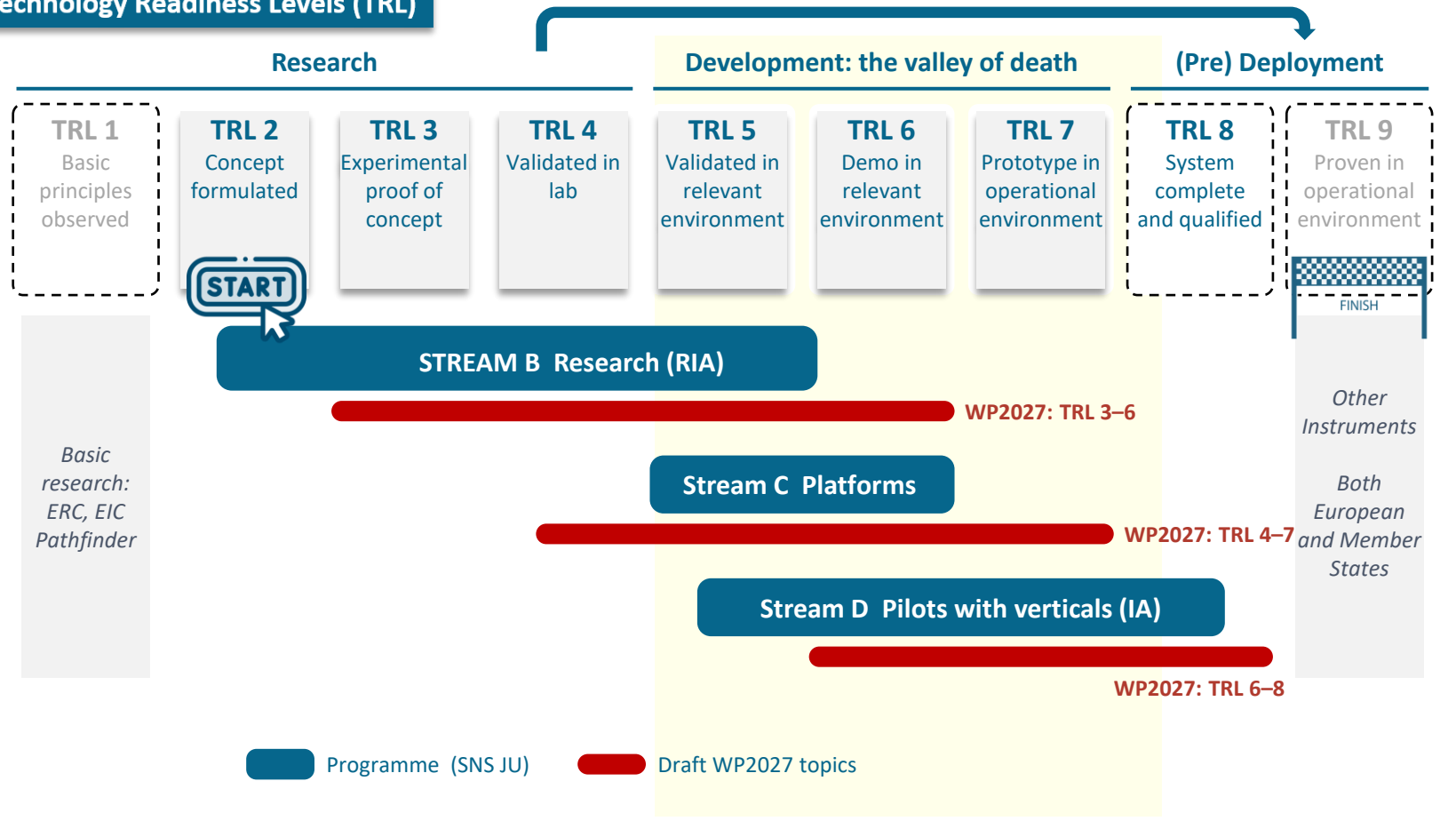
Top 10 EU economies



Over-performers outside top 10

- Cyprus 12.8x
- Greece 11.2x
- Finland 3.5x
- Luxembourg 2.6x
- Portugal 2.4x

Technology Readiness Levels (TRL)



Using TRL as SNS JU's steering variable

Sets the instrument

RIA (100% funding) for Stream B; IA (70% for companies) for C and D, so industry co-invests more as maturity rises

The valley of death

TRL 5–7 is where progress slows down; Stream C platforms and Stream D vertical pilots are designed to carry them across

Stops at TRL 7-8

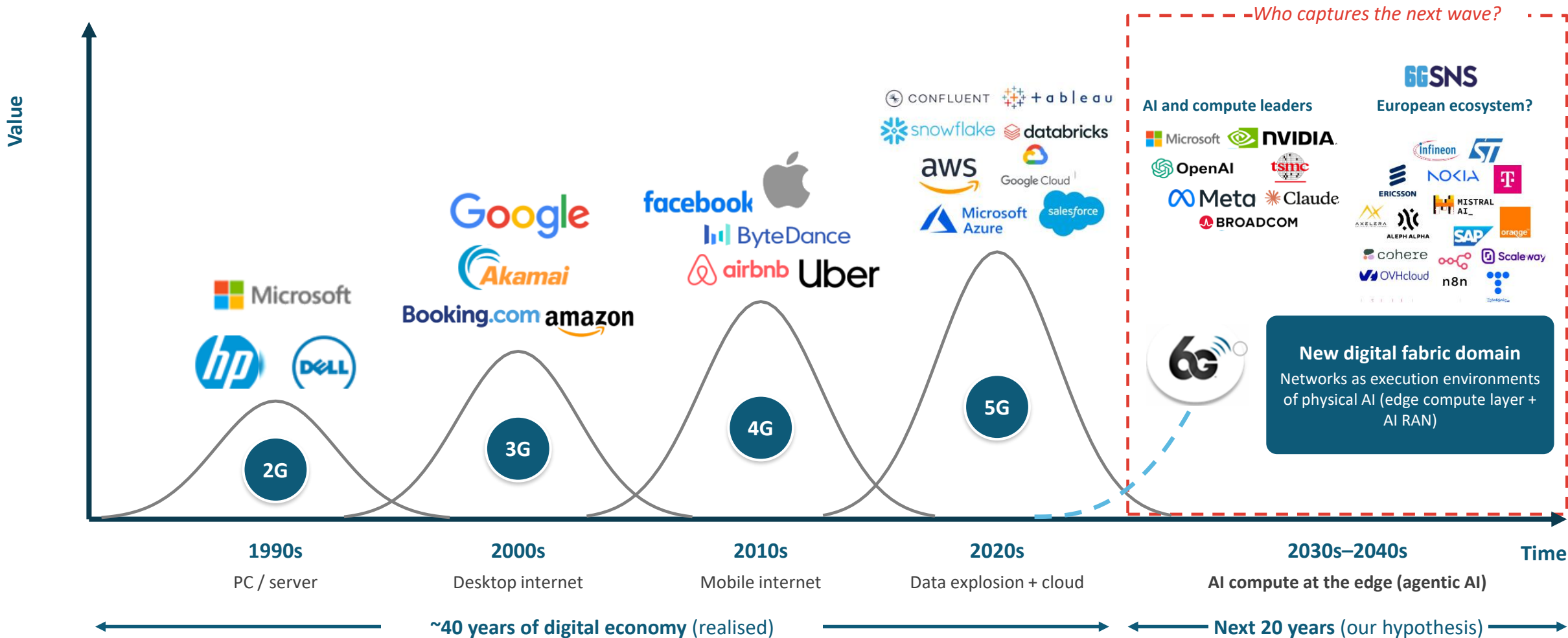
TRL 8–9 needs deployment decisions and money (operators, CEF Digital, InvestEU, IPCEI, national plans); We must plan the complementary impact of other instruments to ensure FP10 impact

WP2027 is moving towards higher TRLs

Stream B topics up to TRL 6, Stream C FEM at TRL 6 - 7, Stream D Quantum-Safe up to TRL 8

TRL is an opportunity to steer, not just to label

Fund valley of death crossing specific activities, and plan for TRL 9 hand-off to other deployment instruments before the SNS JU ends



These capabilities are being architected now, the window to act is only 2-3 years



Ubiquitous connectivity (NTN)

One fabric across **terrestrial, Wi-Fi and satellite**, with performance that vertical applications request through **open APIs**.

MONETISATION

Sell guaranteed performance, not gigabytes: slices and Quality-on-Demand APIs priced by service level.



Network as a sensor (ISAC)

Radio signals detect **motion, position and environment**: the network becomes a real-time spatial sensor, not just a data pipe.

MONETISATION

Sensing-as-a-service: location, presence and safety data for factories, ports and cities.



AI at the network-edge

Inference runs inside the network-edge, close to users due to latency requirements. In SNS trials, edge cut latency 4–5x versus cloud.

MONETISATION

Edge AI with service guarantees: real-time inference and network-native apps sold to verticals with SLAs.



Value goes to whoever orchestrates connectivity, sensing and AI into services that industry verticals buy

What makes it possible

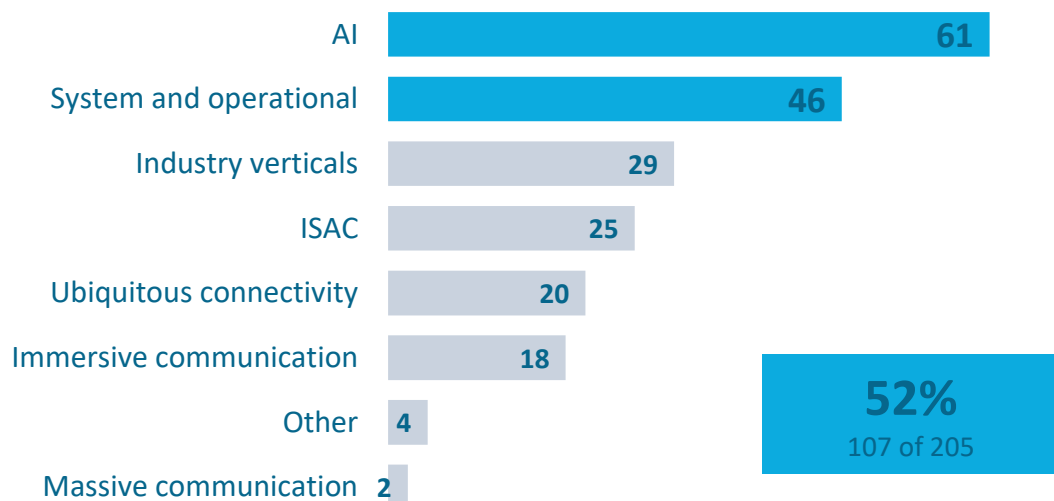
Open, modular architecture: AI-native, API-exposed, Agentic AI

Resilience & trust: security and sovereignty by design

Sustainability: energy efficiency as a design constraint

Use cases by domain (205 in total)

Approved Q1 2026



Use cases will become Rel-21 requirements

agent communication, digital twins, resilience, ISAC, NTN

Anchor for Rel-21 normative work

What the distribution tells us

- AI and system aspects dominate (107 of 205)**
6G is being framed globally as an **AI-native, secure and resilient** system rather than primarily as a faster/feature rich consumer radio
- Sensing and coverage as new 6G features (45)**
ISAC (UAV supervision, PPDR, pedestrian safety) and ubiquitous connectivity (NTN/LEO, precise positioning)
- Massive IoT has faded (2), and verticals are mostly robots and air mobility (29)**
5G and RedCap are seen as sufficient for IoT; attention moves from things to agents and physical AI
- Counts reflect contributor effort, not future market value**
Proposals come from vendors and operators; **demand evidence is still missing.** Use cases feed the Rel-21 Stage-1 requirements (TS 22.270)

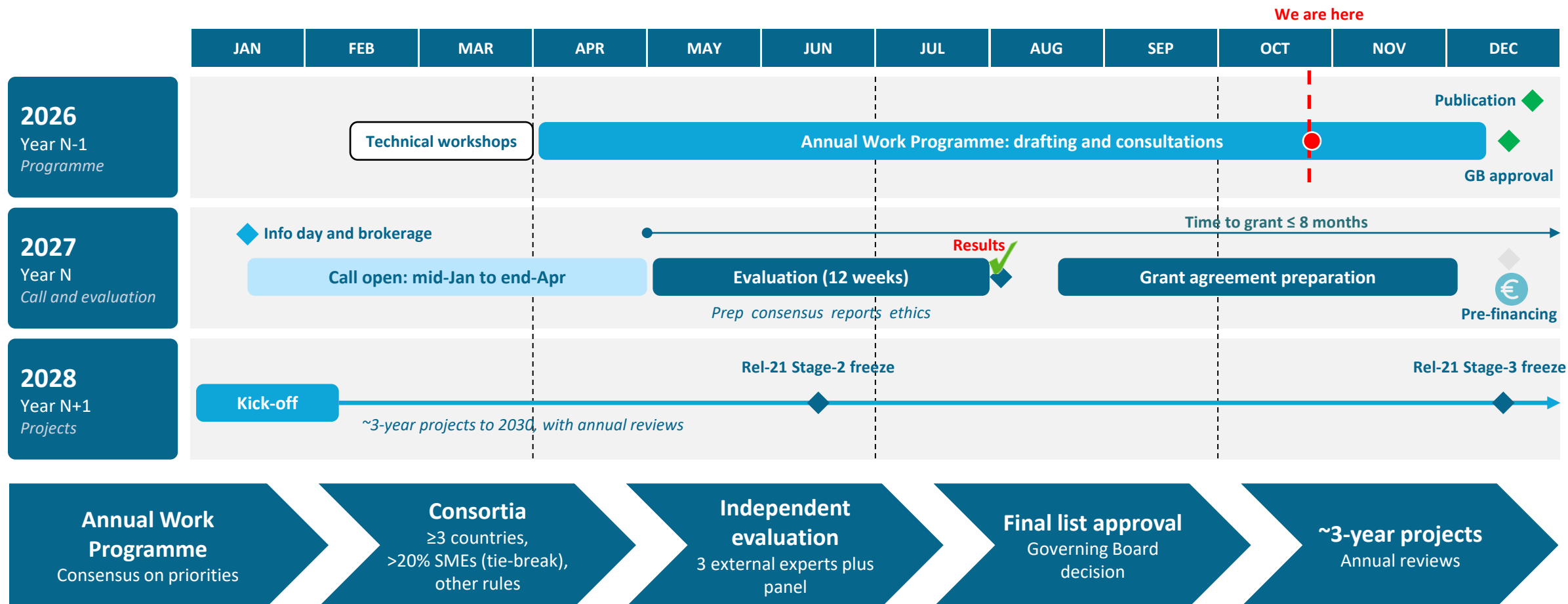
Stream B 9 projects 91 M€	Stream C 2 projects 30 M€	Stream D 6 projects 95 M€	CSAs 2 projects 6 M€
<i>Revolutionary and evolutionary R&I</i>	<i>Strategic capabilities</i>	<i>Large-scale pilots (IAs)</i>	<i>Coordination and support</i>
Flagship: beyond 6G TRL 4–5 RIA bridge to FP10 20	FEM for 6G (phase 3) TRL 6–7 IA synergy Chips JU 15	Telco AI Platform TRL 7 sovereign edge AI 20	Operational CSA Programme support 5
Long-term R&I (3 × 5 M€) TRL 3–4 RIA low-TRL options* 15	Quantum connectivity TRL 4–5 RIA EuroQCI 15	Network-native media TRL 7 immersive services 15	IMT-2030 evaluation ITU-R, via 6G-IA 1
Wireless communications TRL 4–6 RIA 12		Smart Industry TRL 7 Industry 5.0 15	
Optical connectivity for massive AI TRL 6 RIA 12		ISAC for public policies TRL 7 drones, health 15	
Security and resilience by design TRL 6 RIA 12		Quantum-safe security TRL up to 8 PQC and QKD 15	
E2E AI-native networks TRL 6 IA 13		Non-terrestrial networks TRL 6-7 in-orbit & cross-region 15	
EU–Taiwan AI-RAN TRL 6 RIA 7			

Cross-cutting: standardisation and open-source contributions expected for all topics.

Stream D: requires vertical engagement, monetisation evidence, sovereignty (CAMARA APIs), sustainability and resilience KPIs/KVIs

STREAM	TOPIC	M€	WHAT IT FUNDS	STRATEGIC GOAL
Stream B 91 M€	Flagship: beyond 6G TRL 4–5 RIA	20	Blueprint for a converged communication–sensing–computing platform: AI, quantum, chips, NTN	Bridge to FP10 with one European reference architecture for Draghi-report technologies
	Long-term R&I (3 × 5) TRL 3–4 RIA	15	Electromagnetic Continuum innovations. / Neuromorphic Comms. / Quantum Internet	Keep a pipeline of breakthrough options beyond day-1 6G
	Wireless communications TRL 4–6 RIA	12	AI-native PHY/MAC, XL-MIMO, FR3 sharing, uplink capacity, sensing in the RAN	Turn SNS radio results into Rel-21/22 influence and AI-ready uplink
	Optical for massive AI TRL 6 RIA	12	Data-centre interconnect, multi-band and hollow-core fibre, edge transport, fibre sensing	Make European optical networks the backbone of distributed, greener AI
	Security and resilience TRL 6 RIA	12	Survivable architectures, AI-enabled security ops, subsea and optical protection, zero trust	Protect critical connectivity end to end under NIS2, CRA and the 5G Toolbox
	E2E AI-native networks TRL 6 IA ·	13	Agentic network management, verifiable intent, open telecom models, Physical AI	Lead AI-native operations with open European network models
	EU–Taiwan AI-RAN  TRL 6 RIA	7	AI-RAN hardware co-design, device–edge inference, ISAC inference, multi-vendor SMO	Pair EU networks with Taiwan AI hardware in a shared AI-RAN ecosystem
Stream C 30 M€	FEM for 6G, phase 3 TRL 6–7 IA Chips JU synergy	15	Integrated FR3 front-end module, over-the-air tests, SBFD, 10 cm ISAC, pilot lines	Build a European 6G RF supply chain and diversify components
	Quantum connectivity TRL 4–5 RIA	15	Metro-scale QKD, entanglement distribution, key-management integration, satellite links	Turn EuroQCI testbeds into network-integrated quantum security

STREAM	TOPIC	M€	WHAT IT FUNDS	STRATEGIC GOAL
Stream D 95 M€	Telco AI Platform TRL 7 IA	20	Vendor-agnostic edge AI on EURO-3C and Sylva, telemetry data layer, multi-operator pilots	Create a sovereign shared telco AI edge and avoid hyperscaler lock-in
	Network-native media TRL 7 IA	15	Real-time immersive and holographic services, positioning, network exposure APIs	Prove monetisable premium 6G services with European XR players
	Smart Industry TRL 7 IA	15	Deterministic networking, uplink-centric radio, industrial ISAC, AI control loops	Make 6G a deployment-ready, replicable upgrade for Industry 5.0
	ISAC for public policies TRL 7 IA	15	UAV detection and tracking, health monitoring, sensing service framework	Create public-buyer demand for sensing and inform licence rules
	Quantum-safe security TRL up to 8 IA	15	PQC migration, crypto inventory and agility, hybrid PQC–QKD in vertical pilots	Make critical sectors quantum-safe before the threat materialises
	Non-terrestrial networks † TRL 6-7 IA	15	In-orbit end-to-end TN/NTN, direct-to-device and broadband, multi-tenancy, business models	Keep European satcom leadership on 3GPP NTN beyond IRIS ²
CSAs 6 M€	Operational CSA CSA	5	Programme coordination, KPI and KVI database, EuCNC 2029–30, infrastructure roadmap	Secure continuity and measurable impact into FP10
	IMT-2030 evaluation CSA	1	Independent European evaluation of IMT-2030 radio interface proposals at ITU-R	Give Europe a formal voice in global 6G approval



June 2026



October 2026



EU Funding & Tenders Portal

December 2026

