6G Smart Networks and Services Industry Association (6G-IA)
www.6g-ia.eu | office@6g-ia.eu | Boulevard Saint-Michel 47, 1040 Brussels

POSITION PAPER For the Next Multiannual Financial Framework (2028–2034)

Connected Digital Fabric: Europe's Connectivity Backbone Integrating Cloud, AI, Software and Services, Microelectronics, Photonics, Devices, and Quantum.

The current document proposes a **new Joint Undertaking under the next Framework Programme (FP10),** drawing on both FP10 and the European Competitiveness Fund (ECF), to act as the **system integrator for Europe's digital future.** This is not a simple continuation of the SNS JU. It is a structurally broader instrument anchored on the **Connected Digital Fabric**, the evolution of connectivity into one integrated continuum of compute, intelligence and trustworthiness, with three layers covering the **full journey from research to pre-deployment**, a mandate extending across the **entire connectivity value chain** [1], [2], **knowledge valorisation** [3], and **binding industrial co-investment schemes** codified in a new Partnership between the Union and the 6G-IA.

1. THE CHALLENGE: EUROPE PRODUCES RESEARCH, BUT IT DOES NOT CAPTURE THE DIGITAL VALUE SUFFICIENTLY

According to [4], Europe holds approximately 23 % of declared 5G standard-essential patents, with Ericsson and Nokia among the top five global contributors to 3GPP standards. European operators are active globally in launching 5G Standalone services, with 79 operators across 32 countries investing in the technology [5]. However, actual deployment depth and performance still trail leading markets in America, Asia and the Gulf countries. Europe captures only a small, single-digit share of global digital platform and AI service revenue: only four of the world's top 50 tech firms are European, and European cloud providers hold roughly 15% of the European cloud market itself [6].

Europe’s value-capture gap in AI and platform services has multiple, mutually reinforcing causes:

- regulatory and legislative friction that delays scale (notably interactions between the AI Act, the Digital Markets Act, GDPR, and Member State implementation choices),
- capital-market fragmentation that limits the size of European venture and growth funding rounds,
- a single market that remains incomplete for digital services, and
- the absence of the foundational digital infrastructure on which sovereign European AI and platform services can credibly run.

Digital infrastructure capability has emerged in the United States primarily through private investment, with public action largely confined to establishing a permissive regulatory environment and anchoring strategic computing through defence procurement and initiatives such as the CHIPS Act. The European structural context is, however, categorically different in three dimensions that cannot easily be changed in all Member States by regulation alone.

First, European venture and growth capital depth is approximately one-tenth of the US level, and European public markets do not absorb infrastructure-scale rounds at comparable volumes, a gap quantified extensively in the Draghi report [1], and persistent even under optimistic scenarios for capital-markets union. Second, the European digital market remains fragmented across 27 regulatory regimes and 24 languages, so the unit economics of infrastructure-scale investment in Europe differ structurally from those in the United States. The same investment generates less addressable revenue and requires longer payback horizons, both of which

constrain what private capital alone can finance. Third, European enterprises' and public-sector demands for digital IT infrastructure have historically been satisfied by non-European providers, weakening the domestic demand-pull flywheel that funds US infrastructure. On the other hand, US enterprise cloud spending funds US hyperscalers, which in turn fund the next infrastructure cycle. In Europe, that flywheel runs the other way, exporting value rather than recycling it. These three structural conditions are not cyclical and cannot be overcome by regulatory action alone, however favourable.

Europe therefore needs to engineer what the United States allow to emerge: a) pooled European public investment at sufficient scale to substitute partially for the private-capital gap and stimulate private investments, b) cross-border coordination that compensates for market fragmentation by aggregating investment and demand, c) industrial policy with realistic conditionalities that retain European value capture, d) a bridge from research to deployment that stimulates private demand pull, and e) a governance structure capable of long-horizon investment that markets cannot finance.

Beyond the US example, it is worth noting that all nations and regions competing with Europe in connectivity technologies have launched ambitious plans to support them through public policies, including significant financial support. This is notably the case of China, India, Japan, Korea, Australia, and the United Arab Emirates. The main underlying reason is that connectivity is seen as a critical technology whose dominance cannot be left to foreign influence.

The proposed instrument hence addresses the research-to-pre-deployment dimension of this broader response. Without a funded, governed mechanism to derisk the development of new technologies, integrate them at the system level in the precompetitive domain, validate them in real operational environments, and bridge the distance to deployment, European AI and platform services have no sovereign foundation to scale on, regardless of how favourable regulation, capital markets, or single-market conditions become. **The infrastructure dimension is therefore necessary though not sufficient**: closing the value-capture gap also requires complementary progress on the legislative, financial, and single-market fronts, which are the responsibility of other EU instruments and Member States action. The role of this proposed instrument is to ensure that, on the day those other conditions improve, the European Connected Digital Fabric is ready to carry the services that European industry can then build on it.

Connectivity is not one technology domain among several. In its evolved form, the **Connected Digital Fabric**, integrating connectivity with compute, intelligence and trustworthiness, is **the foundational layer of the entire European digital stack.** The EuroStack vision [6] describes a European common digital stack encompassing AI, cloud computing, services, devices, and sovereign digital identity.

Today, 80% of Europe's digital IT infrastructure is imported [6]. None of the stack layers AI inference, cloud services, applications, or trusted devices can be truly European with respect to sovereignty if the Connected Digital Fabric underneath them is not. **The Connected Digital Fabric is the delivery infrastructure on which all other digital capabilities depend. It determines who controls data flows, latency, security, and the terms of access to every service above it. The initiative is notably targeting to address the 5 key digital domains outlined in the Draghi report** (networks, AI, microelectronics, cloud computing, quantum) by bringing them together under an enhanced connectivity and service platform that underpins the European Digital Fabric.

Eight major EU instruments currently address (or are planned to address) parts of this challenge in isolation: the SNS JU (connectivity research), the Microelectronics and communication technologies Important Project of Common European Interest (IPCEI ME/CT), the Cloud Infrastructure and Services Important Project of Common European Interest (IPCEI-CIS), IPCEI-AI (industrial AI models), the Chips Joint Undertaking (semiconductors), EuroHPC including its AI Factories and AI Gigafactories layers (compute infrastructure), the Connecting Europe Facility Digital (deployment), and the Digital Europe Programme. **None has a mandate to integrate across the connectivity and related services value chain,** and **none treats connectivity as the integrating infrastructure for all the others**. This is a significant gap that the Connected Digital Fabric aims to cover. This pattern is reinforced by the Commission's European Technological Sovereignty Package of June 3rd 2026, which advances the semiconductor base (Chips Act 2.0), cloud and AI capacity (Cloud and AI

Development Act, CADA), open digital ecosystems (EU Open Source Strategy), and energy-system digitalisation (Strategic Roadmap for Digitalisation and AI in Energy) [8]. It confirms both the diagnosis of structural dependency and the gap this proposal addresses: it strengthens the compute, cloud-AI, microelectronics and software layers, but none of these instruments treats connectivity as the integrating backbone on which those layers depend.

The recently launched EURO-3C project, a €75 million Horizon Europe consortium of 70+ entities including Telefónica (project lead), Deutsche Telekom, Ericsson, NOKIA, Orange, TIM, and Vodafone, and key research organisations, is currently underway and aims to demonstrate federated Telco-Edge-Cloud-AI integration [9]. While its technical work is about to start and results will need time to come, its mobilisation already demonstrates strong industrial support for this direction. It also demonstrates the structural limit: a time-limited project, however well supported, is not a permanent European capability.

It is also important to note that **the first generation of national 6G programmes is concluding**: Finland's 6G Flagship and 6G Bridge (€430M combined) both end in 2026. The Netherlands' FNS Phase 1 (€61M of a committed €203M) closes in June 2026, with Phase 2 still pending formal approval. Germany is actively transitioning as the original 6G Platform projects are completing, and Open6GHub+ was launched in January 2026, but continuity depends on sustained public commitment. France's PEPR 6G (part of €735M) and Italy's RESTART (€118M) run through 2026–2027. Spain's UNICO I+D 6G programme has invested over €200M across three calls (2021–2023), funding 203 research-infrastructure, equipment, and industrial R&D projects. It was financed entirely through NextGeneration EU under the Recovery Plan and must conclude in 2026, with no national successor yet in place. This wave of programme completions coincides precisely with the critical phase of 6G standardisation: 3GPP's Release 21 design work runs from mid-2025 through 2028, and first commercial deployments are expected around 2030. Without a European instrument to succeed and connect these national efforts, the ecosystems, testbed infrastructures, and human capital built over four to eight years risk dispersing at exactly the moment they are needed most. **The next MFF is the only instrument that can provide continuity at European scale and bridge this gap**.

Finally, underpinning all of these is a human-capital gap. Europe trains world-class researchers and engineers but struggles to retain them and to convert research talent into industrial capability at scale. The EU's own Digital Decade Policy Programme targets 20 million employed ICT specialists by 2030, yet only around 10 million were employed in 2024. Based on current trends, the EU is projected to reach only about 12 million by 2030. This is short of the target, even as talent continues to leave for non-European employers [7]. The deep systems skills that 6G and integrated digital infrastructure demand are among the scarcest. Aligned with the skills commitments set out in Member States' national Digital Decade roadmaps, it is therefore important to capture value from the infrastructure Europe builds. The proposed program has specific proposals and commitments to address this gap.

Beyond the operational case set out above, **the proposal also answers a set of high-level EU policy objectives**. It is designed to support:

- strengthening European technological sovereignty by building additional capabilities across the connectivity and services value chain;
- consolidating Europe's leadership in connectivity technology and standards;
- advancing the strategic technologies prioritised in the Draghi report [1];
- building a credible European route to capturing and monetising digital value within Europe; and
- responding to societal concerns associated with connected services, including trust, security, privacy and inclusion.

2. SCOPE OF THE CONNECTED DIGITAL FABRIC JU

Telecom networks are uniquely positioned to act as the European sovereign service integration layer: they combine real-time distributed infrastructure, control over data flows, and proximity to end users and industrial systems. No other European actor operates at this systemic level.

The instrument's primary domain is the **Connected Digital Fabric**, *an evolved view of connectivity that integrates radio systems, optical networks, satellite and non-terrestrial networks (NTN), and network cloud together with enablers from six critical areas: AI & Data, Compute, Microelectronics & Photonics, Trustworthiness, Devices & IoT, and Software and Services* (Figure 1), to support Europe's critical sectors.

Connectivity today cannot be addressed in isolation. The value of a network is determined by what it carries, processes, and enables. The instrument therefore covers, **as a converged whole**, six interdependent technology domains that together constitute the European digital stack. Figure 1 illustrates that **the intersection of connectivity with the following six areas defines the scope of the JU**. Building, circulating and retaining the specialist workforce across all six domains is treated as a cross-cutting dimension of the JU's scope.

- **AI & Data:** AI for network performance optimisation, management and operations (the primary case, requiring telecom-specific training data that only operators hold), and layered AI inference delivered over the network (e.g., edge AI inference for latency-sensitive and data-sovereign applications where centralised cloud AI is not suitable) also provide a winning case for the European Industry. Those are at the heart of the development of a "local" service industry with strong potential for implementation in Europe, not in the US.
- **Compute:** European sovereign network cloud and federated edge-cloud infrastructure is the network-aware compute layer that no hyperscaler is incentivised to build on European terms. This supplies the network-aware layer beneath data-centre capacity and complements the cloud-and-AI capacity objectives of the Cloud and AI Development Act (CADA), whose sovereignty safeguards must be implemented to reflect genuine ownership, control, and jurisdictional independence rather than assurance labelling alone [8].
- **Microelectronics & Photonics:** Connectivity-specific chipsets, baseband system-on-chips with integrated AI accelerators for real-time edge inference, and RISC-V-based open supply chains for network hardware, evolved photonics components for connectivity are areas where Europe has both industrial capability and strategic necessity, and that may also benefit from massive public investments such as the Pilot Lines.
- **Trustworthiness:** Zero-trust solutions, quantum-safe networks including PQC-based authentication, key exchange, and data protection are relevant for critical communications and resilience and a key priority for Europe.
- **Devices & IoT:** End devices for mission-critical, industrial, media and entertainment, public-safety, transport and mobility, etc., are use cases where European supply is both a sovereignty requirement and a realistic market entry point.
- **Software & Services:** The European software stack for the Connected Digital Fabric is the layer in which most of the value of the network is created and captured, yet Europe currently cedes almost entirely to non-European solutions. It spans cloud-native network software and open-source network operating systems, AI/ML and orchestration and intent-based automation, and network-exposed APIs (e.g., CAMARA). This is where European software champions, SMEs and start-ups can scale on the Fabric's strengths in connectivity, compute and AI.

Note that **quantum networking** is part of the **Connectivity** activities together with the *evolved radio*, *optical communications*, *NTN* and *network cloud enablers*. The disruptive enabling technologies above are addressed

as a converged scope, not as generic technology programmes, because this is what the European digital stack requires and what no other instrument provides.

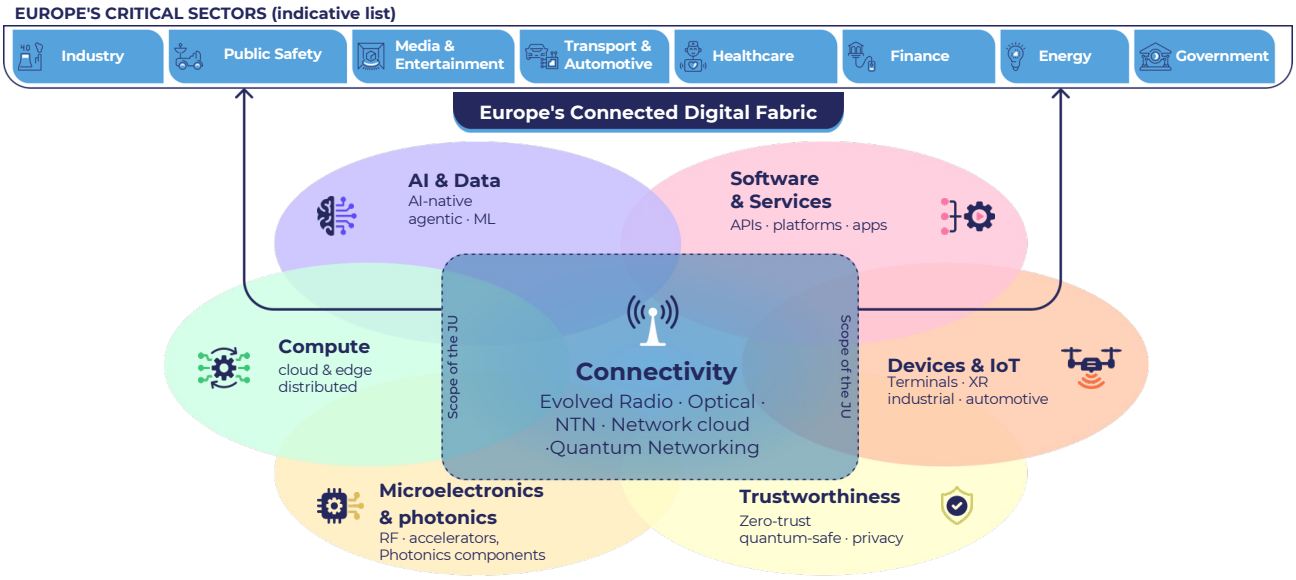

Figure 1: Connected Digital Fabric: The high-level view of scope

AI without sovereign connectivity remains dependent on non-European infrastructure. The convergence is also already visible in network traffic itself: AI-driven services are causing a fundamental shift in traffic patterns, with uplink ratios rising from a traditional ~10% baseline towards 25%+ as generative AI and agentic workloads invert the historic asymmetry, and a growing share of backbone capacity investment is now driven by cloud and data-centre interconnection rather than traditional end-user services [11]. Telco AI cloud without network-aware architecture cannot deliver a) on network KPIs (e.g., edge AI inference for latency-sensitive services) and b) data-governance guarantees that European regulation demands for European sovereign applications.

Microelectronics for connectivity with challenging technical requirements serve a different market and require different design constraints than automotive or industrial chips. The Connected Digital Fabric is the integration layer that binds all other stack components into a coherent, sovereign European capability.

Many of the capabilities developed under the instrument, such as resilient mission-critical communications, secure terrestrial and non-terrestrial networking, quantum-secured links, and edge-AI for real-time situational awareness, are inherently **dual-use**, with direct relevance to both civil and security applications. The instrument's scope is civilian R&I, but the technology base it produces is a foundational asset for the Union's wider strategic autonomy and resilience agenda and is designed to interface coherently with defence-relevant programmes where appropriate.

3. WHY A DEDICATED JU ON CONNECTED DIGITAL FABRIC IS NEEDED (VS OTHER SCHEMES)

As the next MFF is "under construction", several ideas are being discussed and evaluated. The need for a dedicated JU is considered key by the stakeholders for the following reasons:

- **Different innovation cycles require different mechanisms, not one monolithic structure**. Connectivity, AI, microelectronics, cloud and edge, software and services, and IoT and devices share substantial technical and industrial synergies, and the proposed instrument is designed to realise them within a single operational framework. At the same time, the microelectronics industry operates on 7–10-year fabrication investment cycles, cloud software on weeks, connectivity on 3GPP release cycles of 18–24 months, and foundation-model AI on its own training and release rhythm. A single governing board

encompassing all of these cannot credibly set a technical strategy across them simultaneously. The right architecture is therefore a JU built around top-down convergence of connectivity with AI, microelectronics, cloud and edge, software and services, IoT and devices, with structured ad-hoc peer cooperation with adjacent JUs like the Chips JU, EuroHPC, and future AI-dedicated instrument, rather than a single "Digital JU" that flattens these distinct innovation cycles.

- **Convergence is best served by an instrument built for convergence.** The proposed JU integrates connectivity with the network-related AI, microelectronics, cloud and edge, software and services, and IoT and devices domains as a converged whole, because that is how the Connected Digital Fabric behaves. AI workloads are already reshaping network traffic patterns, cloud and network functions are increasingly co-designed, and end devices, services, and infrastructure are being orchestrated together. Absorbing connectivity activities into another JU (e.g., the Chips JU, EuroHPC, AI) to support the topics of the Connected Digital Fabric carries risks. This would subordinate the system-integration and standardisation agenda of the Digital Connected Fabric to microelectronics manufacturing and supply-chain priorities (or similar areas in the other JUs), which operate on a fundamentally different industrial rhythm. Europe's industrial strengths and gaps align in the Connected Digital Fabric. Networks and services are one of the few digital fields where European industry remains a global leader, and the Continuum is the layer where European cloud, edge, software and device players can scale around that strength. A coherent instrument further stimulates the sector where Europe leads while building the converged stack on which European AI and platform services can run.
- **The coordination argument runs in the opposite direction.** The proposed instrument already includes structured cooperation with EuroHPC, including its AI Factories and AI Gigafactories for compute access, with Chips JU for connectivity chipsets, and with IPCEI instruments for deployment. These interfaces work better between peer instruments with clear top-down mandates than within a single governance body where every domain competes for its agenda. The Commission's own European Technological Sovereignty Package (June 2026) follows this logic, advancing semiconductors, cloud, AI and open source through distinct instruments (i.e., the Chips Act 2.0, CADA, and the EU Open Source Strategy), rather than a single consolidated act [7]. The Connected Digital Fabric JU operating in structured cooperation with those instruments is the consistent counterpart for the integrating layer that they do not themselves cover.
- **Standardisation requires dedicated focus.** European influence in SDOs (e.g., 3GPP, ETSI, ITU, etc) is built through sustained, coordinated pre-standardisation work. Combining connectivity research with many other IT topics in a generic Digital JU would dilute topic focus and may fragment Europe's consensus building on basic concepts of future systems considered in standardisation activities.

4. THE INSTRUMENT: CONNECTED DIGITAL FABRIC - THREE LAYERS

The instrument will operate across **three mutually reinforcing layers**, designed to run in parallel to match the continuous software-driven innovation cycles that European industry now requires. Connectivity is the focal pillar of the instrument, now evolved into a Connected Digital Fabric that integrates multiple technologies (e.g., compute, intelligence, trustworthiness, etc.). This approach directly responds to the findings of the Draghi report [1], which highlights that Europe must move from infrastructure investment towards the development of scalable digital services and integrated systems. Together, these layers integrate, within a single instrument, **long-term research (Layer I)**, the supply side through **Industrial Innovation Facilities** for technology development and integration **(Layer II)**, and the **demand side**, early-adopter **pre-deployment pilots in real operational environments**, with operators, vertical industries, and public administrations as adopting actors **(Layer III)**. Layer II is suggested to operate in two modes: II-A (research-led) and II-B (industry-led). The modes will share the same facilities and governance but differ in mandate, TRL and funding source. Capabilities mature in II-A and graduate to II-B in place. Bridging supply and demand within one governance structure is what turns research excellence into deployed European capability and is closing the gap that no current EU instrument addresses.

Table 1: The three layers of the Connected Digital Fabric

Layer	What it does	Funding source / TRL
I Long-Term Research	System-level, cross-disciplinary research on core connectivity (wireless, optical, NTN, security, services, softwarisation and virtualization, sustainability) and the six digital stack domains above, all **scoped to the Connected Digital Fabric**. Operates in complementarity with FP10 Pillar II open calls (which remain the natural home for lower TRL research topics work). Open competitive calls, SME and academic tracks.	Framework Programme 10 Up to TRL 5
II-A Industrial Innovation Facilities (research-led)	Higher-TRL technology demonstration of Layer I results, including results and testbeds contributed by national initiatives, software evolution of the network, and full value-chain pilots including end-devices. Structured cooperation with EURO-3C continuation, EuroHPC AI Factories and AI Gigafactories, and the Chips JU pilot lines. Open to application and service developers building over the network. Open access (minimum 30% reserved for SMEs, start-ups, and research organisations).	Framework Programme 10 + private co-investment Up to TRL 6
II-B Industrial Innovation Facilities (industry-led)	Takes capabilities validated in II-A toward pre-deployment readiness: scaling the integration and test environments to near-operational conditions, building system maturity, supply-chain resilience and operational robustness. Connected with national 6G programmes to reach scale. SME, start-up and RTO participation continues through dedicated co-development tracks and technology-transfer agreements with capability originators with a minimum participation target of 30%. Outputs graduate through a TRL gate into Layer III pilots.	European Competitiveness Fund (ECF) + private co-investment + national programmes Up to TRL 7
III Pre-deployment	First-of-a-kind pilots in real operational environments: sovereign AI-over-connectivity platforms, cloud-network platforms, cross-border critical communications systems, industrial automation, where market incentives alone are insufficient but strategic value is high. Governed by a TRL graduation gate from Layer II-B.	ECF primary; Connecting Europe Facility Digital / InvestEU as fallback Up to TRL 8

The list below presents in more detail the key features of each layer:

- **Layer I, Long-Term Research.** It includes core **multi-disciplinary research** on the Connected Digital Fabric. As shown in Figure 2, the research areas are organised in the following three groups:
    - **Physical & Hardware foundation:** Includes topics related to microelectronics and photonics as well as devices and terminals
    - **Network & Service layer:** covering core connectivity topics like radio, optical and NTN communications, as well as network cloud, security & trust and services, applications and data spaces
    - **Compute & Intelligence Layer:** focusing on cloud-edge compute, AI-native solutions and quantum-safe communications

  The JU's Layer I focus is on **system-level, cross-disciplinary research** that requires the integration of multiple technology domains and sustained multi-year programmes that open calls cannot support, the work that is too large for a single consortium and too coordinated for an open call. Layer I covers TRL up to TRL 5, with explicit interfaces to other complementary Pillar II calls to absorb breakthrough results from open-call research into system-level integration.

Open competitive calls within Layer I support SMEs, start-ups, and academic actors, with dedicated tracks and minimum percentage participation as an evaluation criterion. Layer I activities are funded by the FP10.

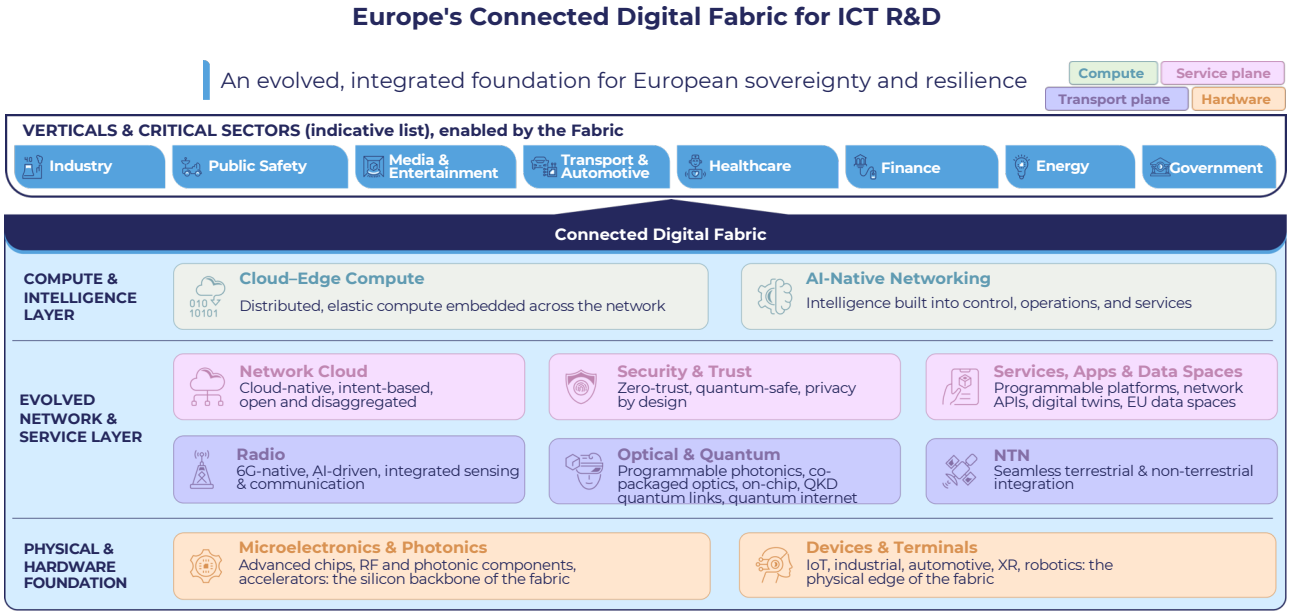

Figure 2: Key topics of the Connected Digital Fabric

- **Layer II, Industrial Innovation Facilities.** It is a single JU governance and open-access framework over a network of long-lived Industrial Innovation Facilities that *turn research outputs from Layer I and solutions from national initiatives into industrial capabilities*. The same Industrial Innovation Facilities operate in **two complementary modes**, namely **II-A and II-B**, sharing the same facilities, equipment and governance framework but differing in mandate, TRL range, and funding source. Layer II-A focuses on research-led activities, while Layer II-B hosts industry-led activities. Capabilities matured in II-A graduate to II-B in place, without being moved or rebuilt. Both modes offer open access (**at least 30% reserved for SMEs, start-ups, and research organisations**) and serve as a continuous engine for European experts with hands-on experience in cutting-edge technology. In practice, the **majority of what the Industrial Innovation Facilities produce is software**: cloud-native network functions, open-source platforms and network operating systems, AI/ML and orchestration and intent-based automation, network-exposed APIs, and sovereign platform services for verticals. The physical infrastructure of the Facilities exists to integrate, validate, and de-risk this software at the system level and under operationally realistic conditions; the deliverables that flow out of Layer II into Layer III, and from there into European deployments, are overwhelmingly software-defined capabilities running on European-controlled infrastructure. More specifically:
    - **Layer II-A, research-led (based on FP10 budget in Connected Digital Fabric instrument).** In this mode of operation, Layer I research outputs are integrated and demonstrated at a higher TRL in relevant environments. In this mode, it will also be possible to integrate solutions and testbeds developed within national initiatives. The Facilities provide the environment for the software evolution of the network and connect with adjacent European capabilities such as the EURO-3C continuation, EuroHPC AI Factories and AI Gigafactories, and the Chips JU pilot lines to enable system-level integration that no individual project can deliver. Application and service developers, including SMEs and start-ups, are given a full value chain environment, including end devices, in which to develop new services on top of the network and conduct larger pilots. Projects in this layer are funded with FP10 budget with private co-investment, and the expected TRL is up to 6.

- **Layer II-B, industry-led (ECF budget).** In this mode of operation, the same Facilities are used by industry to develop capabilities, demonstrated in Layer II-A, further toward deployment readiness, building system maturity, supply-chain resilience, and operational scale. Operations under this mode are co-funded by the European Competitiveness Fund and private investment, and in cooperation with national programmes, it is also possible to reach the desired scale. This way, capabilities and ecosystems built at Member State level are amplified rather than duplicated, ensuring that no European region is left dependent on capability built elsewhere. **SMEs, start-ups and RTOs participation continues into Layer II-B** through dedicated co-development tracks, technology-transfer agreements with capability originators, and minimum participation thresholds in industrial consortia. The expected TRL in this layer is up to 7.

- **Layer III, Pre-deployment**. This layer will produce first-of-a-kind pilots in real operational environments, sovereign AI-over-connectivity and cloud-network platforms, cross-border critical communications systems, and industrial automation, where market incentives alone are insufficient but strategic value is high. Pilots will be physically hosted in Member States, with operators, vertical industries, and public administrations as early adopters. A TRL graduation gate from Layer II-B governs entry. Funded primarily by the ECF budget, with the Connecting Europe Facility Digital and InvestEU as fallback. The expected TRL of this layer is up to 8. Pre-deployment activity is structured around two complementary categories.

  - **Category A**, high-TRL de-risking with replicability: technically mature solutions deployed in a first operational environment to de-risk subsequent adoption and produce a replication-ready package (technical, regulatory, commercial) for re-use across comparable sites. A 6G/private-network/edge-compute integrated solution, e.g., at one European port, generates a blueprint that other ports can adopt with reduced risk. The same logic applies to manufacturing, hospitals, smart grids, and agriculture. Without this Category, proven examples will emerge outside Europe and Europe will have to import foreign solutions later.

  - **Category B**, strategic-value pilots where market incentives alone are insufficient: use cases with high public or strategic value but commercial returns too thin to attract pure market investment. Such areas include indicatively Public Protection and Disaster Relief (PPDR) and mission-critical communications, cross-border critical-communications systems, sovereign cloud-edge for sensitive public-sector workloads, and critical-infrastructure cybersecurity.

  The two Categories use different success metrics (adoption and replication for A, the existence of sovereign European capability for B) and share the same TRL graduation gate from Layer II-B and the same JU governance. The JU's pre-deployment role is bounded. It funds the first-of-its-kind operational pilot that generates replicable or sovereign capabilities, after which the Connecting Europe Facility Digital and Member-State instruments take over the broader rollout, ensuring complementarity rather than overlap.

Figure 3 illustrates the cooperation of the three layers**.** Beyond technical deliverables, the instrument will generate four classes of outputs that flow continuously across all layers and constitute the strategic value of the instrument. First, a sustained pool of European experts with hands-on experience on cutting-edge technologies, retained in European organisations and circulated between research, industry, and pre-deployment environments. Second, pre-standardisation results that prepare European positions in 3GPP, ETSI, and the ITU, building on the SNS JU's established standardisation track record. Third, structured access for SMEs, start-ups, and research organisations to capacities that would otherwise be out of their reach (with the open-access threshold described in Section 7). Fourth, cooperation with national programmes, ensuring that capabilities and ecosystems built at Member State level are amplified rather than duplicated.

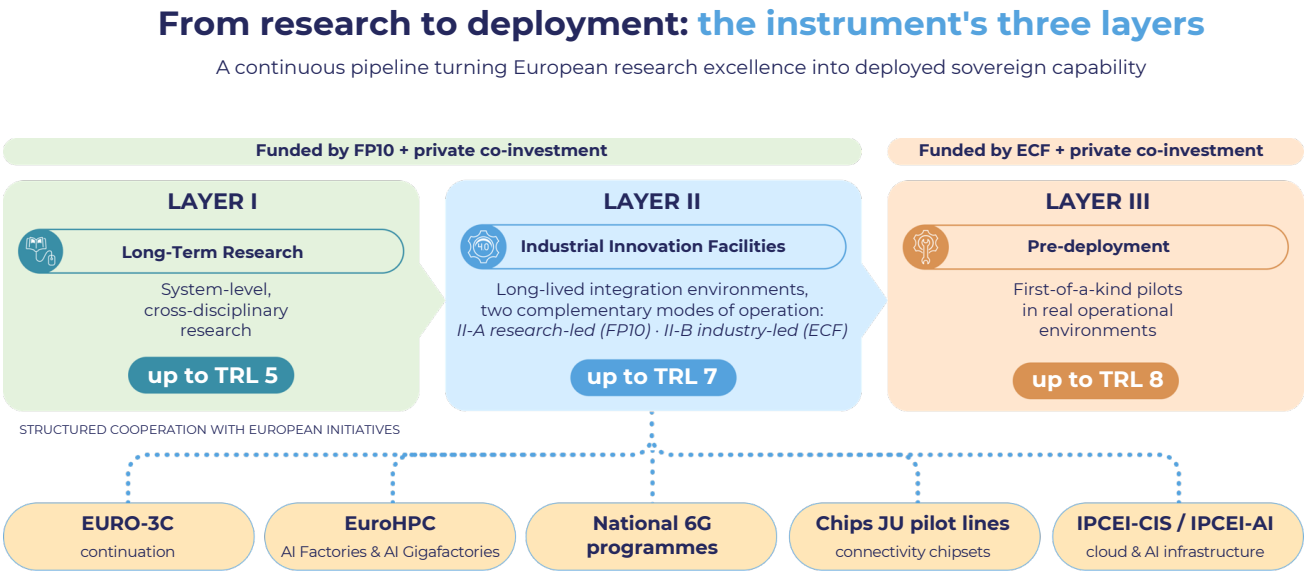

Figure 3: The three layers of the instrument with links to adjacent European programmes[1]

For start-ups and SMEs, the instrument offers more than access. The Industrial Innovation Facilities give them compute, testbeds and a full value-chain environment, including end-devices and connection to EuroHPC AI capacity, that they could not otherwise afford, lowering the capital barrier to building network-software, AI-for-network and platform products. Capabilities they develop in Layer II can graduate into Layer III reference deployments that de-risk their investment for the first commercial customer, while technology-transfer agreements with capability originators, structured links to national incubators and accelerators, and dedicated scale-up tracks turn participation into companies that reach the revenue and valuation thresholds set out in the KPIs (Section 7).

On scale and budget, the instrument's three-layer architecture, the structured cooperation interfaces, and the binding co-investment obligations together imply a public-funding envelope **at least three to four times the budget of the current instrument for connectivity alone – i.e., SNS JU's €900M EU contribution working on R&D.** This is needed to deliver the deployment-readiness mandate that SNS JU was not designed for. Comparable industrial-scale instruments provide the order of magnitude on the same basis: the EU financial contribution is up to €4.175bn for the Chips JU (semiconductors) and up to €4.12bn for EuroHPC (compute infrastructure), each at least matched by participating states, which brings their total public envelopes materially higher. Final figures are a matter for the MFF negotiation; however, the budget allocation for this instrument should be commensurate with the strategic role it is proposed to play.

This role is to **secure the foundational layer of the European digital stack**. Under-resourcing the instrument should not be considered as saving resources. Such a decision will risk leaving the foundational layer of European digital sovereignty in non-European hands. On co-financing, the precise rates are a matter for the establishing act; one potential approach would be to consider broadly HEU Framework Programme rates for Layer I research (ensuring that SMEs and RTOs will keep high funding rates), a higher private share for the Layer II Industrial Innovation Facilities, and Layer III pre-deployment broadly following the co-financing logic of existing deployment instruments such as the Connecting Europe Facility.

1 *Layer II is shown as a single integration environment that operates in two complementary modes (II-A research-led, II-B industry-led).*

5. THE ROLE OF MEMBER STATES

In the proposed **bipartite JU,** close cooperation with Member States is desired. Means of cooperation should be discussed at the different levels of the JU. Their engagement will be essential and should take distinct forms.

- **Connected Digital Fabric JU as a digital amplifier of national initiatives.** Member States are already investing substantially in connectivity research, and 6G: Germany, Finland, France, the Netherlands, Italy, Spain and others have committed hundreds of millions at the national level. The instrument is designed as an EU-level amplifier of these investments, not a replacement for them. Well-designed communication links between the JU and the Member States will be established from the start to maximise complementarity and avoid duplication of efforts. Results from the national initiatives will always be eligible for participation in Layer I and Layer II activities for further evolution and potentially to Layer III, if chosen as the best competitive solutions for Europe. A similar approach has been followed in the SNS JU, where proponents in all calls are encouraged to consider the outcome of national initiatives for future calls.
- **Empowered Member State participation within a bipartite Joint Undertaking.** Member States participate in JU governance through a **States Representatives Group (SRG)**, the dedicated body that channels national input to the Governing Board. Building on the SNS JU model, this preserves fast, bilateral Commission-industry decision-making at the board level by considering Member States' interests. The choice of a bipartite architecture is deliberate and reflects the specific nature of communication systems and networks as a sector. Network technologies operate within a globally set standards cadence (e.g., 3GPP, ETSI, ITU-R) that demands fast, decisive technical strategy at board level. A tripartite governance structure would slow these decisions at precisely the moment when European industry needs them to be sharp. Cross-JU experience also indicates that tripartite governance, while appropriate for capability-building partnerships closer to pilot lines and infrastructure (such as Chips JU or EuroHPC), introduces coordination overhead and additional veto points in sectors where global standardisation cycles dictate the pace of innovation. Two practical considerations reinforce this choice. First, on efficiency: a tripartite structure with mandatory national co-funding would multiply administrative complexity, potentially engaging up to 27 national funding bodies, and often more, since several Member States route industrial and non-industrial beneficiaries through different agencies or ministries, while obliging applicants to comply with parallel JU and national funding streams that are rarely aligned in timing or requirements, adding burden and introducing delays and friction within consortia. Second, on predictability: JU budgets are pre-committed across the multiannual framework with annual programming, whereas national co-funding is typically decided on a yearly basis and may vary in availability or continuity. The resulting possibility that selected partners do not secure national co-funding introduces execution risk, weakens consortium stability, and can disadvantage participants from Member States with less predictable co-funding mechanisms.

  For this JU, Member State influence is therefore not channelled through structural co-decision at board level, but through the following concrete mechanisms within the bipartite architecture.

  i. **Dedicated consultation on the dossiers that Member States care about most.** The technical roadmap remains with the Governing Board to preserve agility. However, **call topic prioritisation**, **multi-annual budget allocation across the three layers**, and **Layer III pre-deployment pilot site selection** are subject to **dedicated consultation with the SRG**, with a clearly defined mediation procedure where disagreement persists.

  ii. **Strategic Infrastructure & Coordination Board**. A standing Board, convened with the States Representatives Group, will lead long-term strategic planning and priority-setting for the Industrial Innovation Facilities and pre-deployment infrastructure (e.g., what infrastructure Europe needs and where, the requirements it must meet, and its shared usability across Member States), ensuring national investments are connected and amplified rather than duplicated, and that no region is left dependent on capabilities built elsewhere. The Governing Board takes the Board's infrastructure roadmap as the basis for its decisions on Layer II infrastructure and Layer

III pilot siting, departing from it only with stated reasons. The Board also coordinates the research agenda (Layer I) between the JU and national initiatives, aligning priorities and avoiding duplication, but here, unlike for Layer II and III, its conclusions are non-binding, serving to raise the collective success of national initiatives and the JU rather than to direct it. As a first task, at programme start the Board will run a structured dialogue with Member States to agree which national facilities can support the programme and under what conditions. This would be a deliberate step beyond the SNS JU model.

iii. **Decision-making process.** The decision-making process in cases where Member States earmark national funding as complementary funding to specific Industrial Innovation Facility activities, Layer II calls, or Layer III pilots needs to be discussed either in the preparation of the successor text of the SBA or in the JU internal working procedures of the Governing Board and States Representatives Group.

iv. **SRG review and evaluation role.** Once a year, the SRG will review the activities and evaluate the performance of the JU.

Together, these four mechanisms will keep the flexibility in planning and decision-making and will also provide Member States influence on topics that matter most. They preserve the bilateral architecture and its decision-making agility of a bipartite JU, while ensuring that Member States will have governance influence.

- **Pre-deployment hosting.** Layer III pre-deployment pilots will be physically located in Member States, with national operators, vertical industries, and public administrations as early adopters and hosts. In cooperation with Member States, also relevant State-aid instruments, including Important Projects of Common European Interest, can be used as complementary instruments for first industrial deployment of capabilities validated through this instrument, extending the programme's reach beyond what EU-level funding alone can achieve.

  i. SME, start-up, and research-organisation access to the Industrial Innovation Facilities (Layer II) is geographically monitored, with annual reporting and an explicit target of **at least one third of access from cohesion-policy Member States** by mid-programme

  ii. At least one Layer III pre-deployment pilot out of the minimum ten committed in the Key Performance Indicators **shall be hosted in a cohesion-policy Member State**, with priority given to use cases that respond to local needs: emergency services connectivity, rural and island coverage, public-administration digitalisation, cross-border critical communications.

  iii. Twinning arrangements between Industrial Innovation Facilities and research organisations from underrepresented Member States are funded as part of Layer II-A's open-access budget, building durable capability in cohesion regions rather than treating them as one-off participants.

In summary, the proposed JU is bipartite by design. The bipartite partnership architecture between the Union and the private side is the right governance model for a sector defined by globally set standards, timelines, and fast technical decision cycles. Member State influence is delivered through the concrete operational mechanisms above and not through a tripartite governance structure that would dilute the bilateral decision-making at board level. European industry needs to keep pace with global developments in 6G architecture and standardisation. The bipartite architecture is therefore the preferred solution. It is chosen because it matches the operational tempo of the sector while ensuring that Member States with substantial national exposure have governance influence commensurate with their financial commitment.

6. PRIVATE SIDE COMMITMENT

6G-IA and its 430+ members are willing to work together with the Commission in the next MFF and commit to:

- **Co-investment:** minimum matching of public funding through financial and in-kind contributions, verified annually against key performance indicators.
- **Facility governance:** long-term participation in and co-governance of the Industrial Innovation Facilities (Layer II), meaning that, alongside the JU, the private side sits at the Strategic Infrastructure & Coordination Board and shares decision-making on the technical roadmap, capital investment prioritisation, and access conditions for SMEs and third parties, including capital expenditure contributions and roadmap execution.
- **Open access:** minimum 30% of Industrial Innovation Facility capacity and research call budgets reserved for SMEs, start-ups, new entrants, and research organisations, **applied separately to Layer II-A and Layer II-B**, with annual delivery reporting and corrective action triggers if quarterly delivery falls below 25% for two consecutive quarters. These will be **enforceable obligations for the JU**, monitored by the JU Governing Board and reported annually to the European Parliament.
- **Standardisation:** sustained pre-standardisation R&I generating technical results, white papers, reference architectures, and validated proof points of value to companies' own contributions to 3GPP, ETSI, and the ITU. The instrument will not direct or commit individual company positions in standardisation bodies; these remain driven by company IPR portfolios and global market strategies, but it will provide a structured European research base from which European industrial actors can draw, building on the track record of the SNS JU and its projects.
- **Resilience and supply chain:** commitments to operational resilience of European networks (continuity of service, recovery from large-scale incidents, cyber-resilience by design), to diversification of the underlying supply chain for critical connectivity components, and to the social cohesion dimension of digital infrastructure, ensuring that capabilities developed under the instrument reach all Member States and regions, not only the most advanced ecosystems.
- **Coherence with the civil EU cybersecurity framework, with a dual-use research model:** Given the current geopolitical context, **dual-use R&D is within the scope of the instrument**, with the civil/dual use separation applied at industrialisation in line with existing European practice.
- **On the exploitation of funded research outputs.** A recurrent concern in EU R&I policy is that publicly funded research has sometimes produced excellent results that were subsequently exploited outside Europe, or that beneficiaries have been acquired by non-EU buyers in ways that did not maximise the European return on public investment. This is a legitimate policy question for the co-legislators, the Commission as funding authority, and Member States as taxpayers and shareholders. 6G-IA notes the question and is open to dialogue with the public side on how the EU's interests in exploitation, deployment, and strategic-autonomy outcomes should be reflected in the funding rules that will govern the new instrument, drawing on existing precedents from the European Defence Fund, IPCEI agreements, and the Horizon Europe Regulation 22.5 successor framework. Three observations from the private side are offered to inform that dialogue.

    - **Industrial R&D is globally distributed.** Major European-headquartered industrial actors operate R&D organisations across multiple regions, and attributing specific outputs to specific funding sources is operationally complex. Any exploitation rules must be designed with technical feasibility in mind, or they will not be binding in practice.
    - **Exploitation timing follows market readiness.** European industry has often been disadvantaged commercially by being expected to deploy first in Europe, when Europe is itself a late deployer of frontier technology. Exploitation rules must not place European-headquartered companies at a competitive disadvantage relative to non-EU competitors facing no equivalent restriction.

- **Conditionalities work when they reflect commercial reality.** Industry participation in funded programmes is driven by alignment with commercial strategy. Conditionalities that are calibrated through dialogue with industry, applied proportionately to the sovereignty-criticality of the activity, and enforced through transparent procedures, can support strategic-autonomy goals without discouraging the participation on which the programme depends. Conditionalities that are imposed without this dialogue tend either to drive participation away or to produce evasion rather than compliance.

- **Sustainability and energy efficiency:** binding commitments to **measurable energy efficiency improvements** in technologies developed under the instrument with a target trajectory aligned with the EU Energy Efficiency Directive and the European Green Deal, and with the Commission's Strategic Roadmap for Digitalisation and AI in Energy [7]. The Industrial Innovation Facilities will be certified to recognised environmental management standards. Lifecycle emissions of network equipment developed under the instrument (manufacturing, deployment, operation, end-of-life) will be tracked and reported periodically. Materials circularity and e-waste management will be investigated as part of design specifications and will not be retrofitted at the end-of-life of the instrument. The instrument's contribution to the green-digital twin transition will be reported periodically to the European Parliament alongside its technical and economic indicators.
- **Skills, workforce, and inclusion:** The JU will have binding commitments to **build and retain European technical talent** for the Connected Digital Fabric. Specific obligations include a minimum **5% of programme budget allocated to skills development** across the lifetime of the instrument; funded **industrial doctorates** with mandatory European mobility components; **engineer mobility programmes** between Industrial Innovation Facilities, RTOs, and Member State institutions; **apprenticeship and vocational tracks** for non-doctoral technical roles, ensuring the instrument develops capability across the full skill spectrum, not only at the doctoral level; **gender-balance targets** in technical participation, with quarterly reporting and corrective action triggers; and **annual reporting** to the European Parliament on European experts retained in European organisations versus those leaving for non-European employers, with explicit retention strategies where leakage exceeds defined thresholds.

7. KEY PERFORMANCE INDICATORS

Indicator	Target (2032/2035)	Baseline
SME, RTOs and new entrant access to Industrial Innovation Facilities (Layer II)	≥ 30% of capacity reserved	0% structured today
SME participation in Layer I R&D activities	≥ 30%	≥ 25% today
Private co-investment leverage	≥ 1:1 match of public funding	Matching in SNS JU
Pre-deployment pilots in real-operational environments	≥ 10 pilots across ≥ 5 Member States by 2032	0 systematic instrument today
European digital service revenue enabled	Provide the environment for Commercial performance of Layer II and Layer III beneficiaries. ≥ €5B cumulative revenue from Layer II/III beneficiaries attributable to capabilities developed under the instrument, measured 3–5 years post-funding (Target 2032 -2035) ≥ 50 SME and start-up beneficiaries achieving ≥ €10M annual revenue by 2035 ≥3 unicorn-trajectory companies (>€1B valuation) by 2035	Not systematically tracked today

European industrial adoption of Layer II/III outputs	≥ 20 pre-commercial deployments by European operators or industrial customers of technologies validated through Layer II Facilities or Layer III pilots by 2035	Not systematically tracked today
Energy efficiency demonstrated in Layer II Industrial Innovation Facilities and Layer III pre-deployment pilots.	Layer II Facility deployments and Layer III pre-deployment pilots demonstrate at least a 50% improvement in energy efficiency (energy per workload, with workload defined per pilot context) versus their immediate-predecessor baseline technologies.	Not systematically measured under SNS JU
Skills programme delivery	≥ 5% of programme budget; ≥ 40% gender balance in funded technical roles by 2032	No structured commitment
European cloud & edge supply (Layer II & III)	European cloud and edge supply for Layer II Facilities and Layer III pilots. *Target (2032/2035):* ≥ 70% of cloud and edge infrastructure operating Layer II Industrial Innovation Facilities and Layer III pre-deployment pilots supplied by European providers, defined as undertakings headquartered and incorporated in the EU/EEA, under effective European ownership and control, and not subject to extra-EU jurisdiction capable of compelling access to data or overriding EU law. Conformity with a recognised security certification scheme (e.g. EUCS) is necessary but not sufficient to satisfy this definition: certification level does not substitute for ownership, control and jurisdictional immunity.	~15% European cloud market share today
AI workloads served over the European Connected Digital Fabric (aligned with CADA scope: trustworthy AI for network operations, edge AI inference, federated training over sovereign infrastructure)	≥ 10 production AI services with documented EU-sovereign data and compute paths by 2032	No systematic instrument today
Replication multiplier for Layer III Category A pilots	Each Category A pilot triggers ≥ 3 commercial replications within Europe by 2035	Not currently tracked
European software platforms and open-source projects for the Continuum (network OS, orchestration, AI-for-network, network APIs, data spaces)	≥ 8 European-led sovereign software platforms in production use by European operators or verticals by 2032; ≥ 50% of Layer II deliverables released as open source under European-governed projects, advancing the EU Open Source Strategy [7]	Fragmented, no systematic European-controlled software baseline

8. WHO WE ARE AND WHAT WE ARE PROPOSING

6G-IA (the 6G Smart Networks and Services Industry Association) [12] is the private-sector counterpart to the European Commission in the Smart Networks and Services Joint Undertaking (SNS JU), Europe's public-private partnership for connectivity and services research. With 430+ members representing approximately €420 billion in revenues, including all major European network operators, technology vendors, research organisations, academia, and key vertical industries, 6G-IA speaks for the full enlarged European connectivity ecosystem. 6G-IA is working closely with all main European and International Associations through dedicated MoUs. Notably, 6G-IA has a very close collaboration with the NetworldEurope ETP, since the days of the 5G PPP, using the NetworldEurope SRIA as the basis of the SNS JU SRIA. Through all these collaborations, 6G-IA has successfully engaged the European ecosystem in EU-funded R&D activities.

Beyond its own membership, 6G-IA represents and works alongside a wider European community. The importance of securing Europe’s connectivity backbone and the broader Connected Digital Fabric is shared

across the adjacent technology and vertical domains, and is recognised as a priority by a broad set of European associations and technology platforms with which 6G-IA cooperates, including **AIOTI, CISPE.cloud, ECSO, ERTICO, ETSI, NEM, NetworldEurope, NESSI, Photonics21, and PSCE**. Together, these organisations span the Internet of Things, software and services, cloud infrastructure, media, photonics, cybersecurity, public-safety communications, intelligent transport, and standardisation, i.e., the full breadth of the ecosystem that the proposed instrument is designed to serve. Their shared recognition of this priority is reflected in the endorsement set out at the close of this paper.

The latest Partnership is the **Smart Networks and Services Joint Undertaking (SNS JU)** for connectivity and service research under Horizon Europe (2021–2027), established and governed under Council Regulation (EU) 2021/2085 (Single Basic Act between the Union, represented by the European Commission and 6G-IA). With a total budget of at least €1.8 billion, €900 million from the EU matched by at least €900 million from the private sector, it has built a documented track record across six dimensions.

1. **Scale and portfolio**: until 2025, 80 projects funded across four calls to date, committing over €500 million in EU funding, with over 500 unique beneficiaries, with 20 additional open calls generating more than 180 trials and pilots involving over 280 third-party participants, and SME participation at a level of circa 25% (for participation and funding) [13].

2. **Vertical reach**: large-scale trials and pilots span manufacturing, healthcare, transport and logistics, media, and emergency and safety services, validating 6G technologies in real-world industrial and societal contexts [13].

3. **Standardisation**: more than 2,000 contributions to international standardisation bodies between 2023 and 2025, providing material input to 3GPP and to the ITU-R IMT-2030 framework for 6G [13].

4. **International collaboration**: the SNS JU is the globally recognised European framework for 6G developments and underpins EU 6G international cooperation. It led the EU-US Trade and Technology Council (TTC) work, culminating in the publication of the joint EU-US Beyond 5G/6G Roadmap (May 2023) and the adoption of a common 6G vision at the 6th TTC Ministerial meeting (April 2024), accompanied by a formal Administrative Arrangement between the US National Science Foundation and DG Connect for joint 6G research collaboration [14]. 6G-IA has further signed 28 Memoranda of Understanding with international, peer-association, and vertical-industry partners in support of global standardisation

5. **Openness and ecosystem building**: 42% of participants in the SNS JU Call 3 were newcomers to the programme, demonstrating the SNS JU's capacity to continuously broaden the European 6G ecosystem beyond established actors [13]. The means for supporting this active and collaborative ecosystem through the SNS JU, however, expire at the end of Horizon Europe.

6. Research excellence: SNS attracts all key R&I actors of the 6G European ecosystem and has led through its first phase of operations to about 100 patents and to 188 key technological achievements in the domain.

9. CONCLUSION: ONE INSTRUMENT, ONE MOMENT

The European digital stack, the vision of a sovereign, interoperable, European-made digital infrastructure spanning AI, cloud, services, and devices, depends on one foundational layer being secured first: the **Connected Digital Fabric.** Without a sovereign, integrated, continuously innovating instrument, no other part of the stack can be genuinely European.

For example, European cloud services running over infrastructure built on non-European network technology **are not sovereign,** nor are European AI services delivered over networks whose architecture is defined elsewhere **independently**. The Connected Digital Fabric is not one piece of the digital puzzle. It is the layer on which all other pieces fall into place.

Europe has the research excellence, the industrial capability, and the standardisation track record. What it has lacked is a single, adequately governed and funded instrument to translate that excellence into a competitive, sovereign, deployed European digital infrastructure. The proposed European Connected Digital Fabric Instrument is that instrument.

The next Multiannual Financial Framework (2028–2034) is the best opportunity in this period to establish Europe's emerging 6G architectures and to anchor them in a coherent European capability. The first generation of national 6G programmes is concluding. Global competitors are integrating at scale. The window to capture the knowledge, ecosystems, and infrastructures built by those national programmes, and to establish a coherent European capability before they disperse, is open now. 6G-IA proposes a **bipartite Union and Private Side Joint Undertaking**, with empowered Member State engagement through the strengthened States Representatives Group mechanisms set out above, as the governance architecture commensurate with the speed of the sector and the scale of the strategic ambition. **We ask the European Parliament and the Commission to act on it.**

REFERENCES

[1] EU Commission: The future of European competitiveness. Part A and Part B. September 2024, https://commission.europa.eu/document/download/97e481fd-2dc3-412d-be4c-f152a8232961_en and https://commission.europa.eu/document/download/ec1409c1-d4b4-4882-8bdd-3519f86bbb92_en?filename=The%20future%20of%20European%20competitiveness_%20In-depth%20analysis%20and%20recommendations_0.pdf.

[2] EU Commission: Align, Act, Accelerate – Research, Technology and Innovation to boost European competitiveness (Heitor Report). September 2024, https://op.europa.eu/en/publication-detail/-/publication/2f9fc221-86bb-11ef-a67d-01aa75ed71a1/language-en.

[3] EU Commission: Opinion of the Partnership Knowledge Hub on European Partnerships under the future EU Framework Programme ('FP10'). September 2024, https://op.europa.eu/en/publication-detail/-/publication/01739064-cf0d-11ef-be2a-01aa75ed71a1/language-en.

[4] Grey B, Who owns core 5G Patents? Essentiality check on 5G declared patents, available at https://greyb.com/blog/5g-patents/.

[5] GSA (Global Mobile Suppliers Association), *Region Spotlight: Europe* (December 2025), gsacom.com/paper/regional-update-europe-december-2025/.

[6] Eurostack report – Eurostack – A European Alternative for Digital Sovereignty, available at https://www.euro-stack.info/#report.

[7] European Commission, Digital Decade Policy Programme 2030 (Decision (EU) 2022/2481) and the State of the Digital Decade reports, setting the target of 20 million employed ICT specialists by 2030 and providing for Member State national Digital Decade roadmaps, available at https://digital-strategy.ec.europa.eu/en/policies/europes-digital-decade.

[8] European Commission, European Technological Sovereignty Package, 3 June 2026, comprising the Communication on European Technological Sovereignty, the Chips Act 2.0, the Cloud and AI Development Act (CADA), the EU Open Source Strategy, and the Strategic Roadmap for Digitalisation and AI in Energy, available at https://digital-strategy.ec.europa.eu/en/policies/eu-tech-sovereignty.

[9] EURO-3C – Commission announces €75 million EURO-3C project to build a federated Telco-Edge-Cloud infrastructure for digital sovereignty, available at https://digital-strategy.ec.europa.eu/en/news/commission-announces-eu75-million-euro-3c-project-build-federated-telco-edge-cloud-infrastructure.

[10] National 6G programme funding and status. Germany: BMFTR, 6G Research Roadmap (end-2025); Open6GHub+ national transfer hub launched January 2026 (6g-germany.com). Finland: 6G Flagship (University of Oulu / Research Council of Finland, 2018–2026, €300M), 6gflagship.com; 6G Bridge (Business Finland, 2023–2026, €130M), businessfinland.fi: both programmes end 2026. France: PEPR 6G, France 2030, part of €735M national allocation. Netherlands: Future Network Services (FNS), National Growth Fund, Phase 1 €61M of committed €203M, January 2024 – June 2026; Phase 2 (€142M reserve) pending formal approval (futurenetworkservices.nl). Italy: RESTART programme, €118M EU-funded NRRP initiative, restartprogramma.it.

[11] Ericsson, Mobility Report, November 2025 edition, available at https://www.ericsson.com/4aca6f/assets/local/reports-papers/mobility-report/documents/2025/ericsson-mobility-report-november-2025.pdf.

[12] 6G Smart Networks and Services Industry Association, www.6g-ia.eu

[13] SNS JU project portfolio, track record, and programme statistics. SNS JU, *SNS Journal 2025* (smart-networks.europa.eu/sns-journal-2025/)

[14] News Article, The European Union and the United States strengthen their cooperation in the area of Future Network Systems, 16.04.24, available at: https://digital-strategy.ec.europa.eu/en/news/european-union-and-united-states-strengthen-their-cooperation-area-future-network-systems?utm_source=chatgpt.com;

Endorsement by 6G-IA and the Wider European Community

This position paper is issued by the 6G Smart Networks and Services Industry Association (6G-IA) on behalf of its members and the wider European connectivity and digital community. The priority it sets out, i.e., securing Europe's connectivity backbone and the Connected Digital Fabric that integrates cloud, AI, software and services, microelectronics, photonics, devices, and quantum, is shared by the European associations and technology platforms shown below.

On behalf of the 6G-IA and the supporting associations listed below:

Dr. Colin Willcock
Chair, 6G-IA Board

SUPPORTED BY

6G Smart Networks and Services Industry Association (6G-IA)

Alliance for Internet of Things Innovation

Cloud Infrastructure Services Providers in Europe

European Cyber Security Organisation

ERTICO – ITS Europe

European Telecommunications Standards Institute

New European Media

European Technology Platform

Networked European Software and Services Initiative

European Technology Platform Photonics21

Public Safety Communication Europe