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Public export finance for digital transformation

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This paper examines how selected European Export Credit Agencies (ECAs) finance digital infrastructure, technologies and services exports. It explores how they balance competitiveness, internationalisation and development effectiveness, referred to as the 'strategic triangle'. The analysis considers digital technology exports across four segments: connectivity, data infrastructure, digital public infrastructure (DPI) and digital services.

Findings reveal a sector in transition, but not yet transformed. The majority of activity focuses on connectivity and backbone as traditional buyer credits fit this sub-sector best and there is tangible collateral. Support for data infrastructure and DPI is less systematic, with the latter falling between ECA and Development Finance Institution (DFI) mandates. Meanwhile, digital services are not covered well by ECAs due to intangibility and disputed-claim dynamics.

- Recommendations focus on systemic reforms. Policymakers should:
- Strengthen coordination across national agencies (National Development Banks, DFIs, ECAs).
- Establish EU-level risk-sharing capacity, including local currency coverage.
- Create a distinct DPI pathway through blended structures combining EU grants, ECA buyer credits, and DFI sovereign loans.
- Clarify the roles of the European Competitiveness Fund (ECF) and the Global Europe instrument.

These reforms aim to shift ECA positioning from reactive insurers of connectivity infrastructure toward system-level enablers of partner-country digital transformation.

Table of contents

List of boxes

List of figures

List of tables

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Acronyms

5G	5th generation global wireless standard
ADSB	Atradius Dutch State Business
AI	Artificial Intelligence
CAPEX	Capital expenditure
CESCE	Compañía Española de Seguros de Crédito a la Exportación
CTEP	China and Transformational Exports Program
D4D	Digital for Development
DFI	Development Finance Institution
DPI	Digital public infrastructure
ECA	Export Credit Agency
ECF	European Competitiveness Fund
EH	Euler Hermes
EIB	European Investment Bank
eIDAS	electronic Identification, Authentication and Trust Services
EIFO	Export and Investment Fund of Denmark
EIS	Estonian Business and Innovation Agency
EKN	Exportkreditnämnden
EMDE	Emerging markets and developing economies
EU	European Union
GCC	Gulf Cooperation Council
GDPR	General Data Protection Regulation
GG	Global Gateway
LCY	Local currency
MENA	Middle East and North Africa
MPR	Minimum premium rates
MS	Member States
NDB	National development bank
OECD	Organisation for Economic Co-operation and Development
OEM	Original equipment manufacturers
PRC	People's Republic of China
R&D	Research and development
SEK	Svensk Exportkredit
SME	Small- and medium-sized enterprise
SOE	State-owned enterprise
SSA	Sub-Saharan Africa
US	United States

Executive summary

This paper examines how selected European Export Credit Agencies (ECAs) are engaging with digital infrastructure, technologies and services exports in times of multipolarisation. It applies a 'Strategic Triangle' balancing three government policy objectives: competitiveness (supporting domestic firms' capacity to win international contracts), internationalisation (expanding firms' global reach), and development effectiveness (contributing to sustainable outcomes in partner countries). This is operationalised through government design choices for ECAs on mandates, eligibility criteria, products, risk approaches, and collaboration. The paper disaggregates 'digital' into four buckets with distinct risk and financing characteristics: connectivity and backbone, data infrastructure, digital public infrastructure (DPI), and digital services and applications. It establishes expectations for the 'trusted vendor' concept rooted in the cybersecurity toolbox of the European Union (EU) for connectivity infrastructure, while noting the concept's limited geographic reach and uneven reception across partner countries, and situating this within the EU's broader approach, combining regulatory standards, open architectures, and institutional capacity support.

The findings reveal a sector in transition but not transformed. Activity clusters in connectivity, where traditional buyer credit structures fit tangible collateral and clear payment triggers; data infrastructure is emerging but constrained by the EU's narrow value-chain position; DPI support is sporadic and falls between ECA and Development Finance Institution (DFI) mandates; and digital services remain largely uncovered due to intangibility, continuous delivery, and disputed-claim dynamics. Digital export finance currently benefits a relatively small number of firms, limiting the broader EU Member State (MS) engagement needed to mobilise EU-level institutional innovation. Against expectations, adaptations remain at pilot stage and coordination is often relationship-dependent rather than institutionalised, with integrated 'whole-of-government' models outperforming fragmented structures.

Recommendations focus on strengthening coordination across the innovation-to-export continuum between government ministries, innovation agencies, national development banks (NDBs), DFIs, and ECAs ; establishing EU-level risk-sharing capacity including local currency (LCY) coverage to address the growing challenge of exchange rate volatility in emerging markets and developing economies (EMDEs); creating a DPI pathway distinct from standard Global Gateway (GG) development instruments through blended structures combining EU grant elements with ECA buyer credits and DFI sovereign loans for government digital systems; and clarifying the complementary but different roles of the European Competitiveness Fund (for domestic industrial scaling) and the

Global Europe instrument (for partner-country development delivery). Pipeline development is treated as a cross-cutting enabler integrated within the GG investment hub rather than a separate institutional recommendation. These reforms could shift ECA positioning from reactive, narrowly-scoped insurers of original equipment manufacturers-led (OEM) connectivity toward system-level coordinators and enablers of partner-country digital transformation , operating in complementarity with DFIs and commercial banks.

1. Introduction

Governments supporting digital transformation abroad must navigate a Strategic Triangle, balancing three distinct yet interconnected objectives: competitiveness, internationalisation, and development effectiveness. In the European context, competitiveness is the anchor of this triangle. It is not merely about pricing, but about resilience and sustainability – ensuring EU industry can withstand cheaper imports and develop independent digital ecosystems despite the dominance of global technology platforms. While this domestic strength is a necessary precondition for internationalisation, the two objectives are not identical and often require trade-offs. Maximising competitiveness through strict national content requirements may protect the domestic industrial base, but it can constrain partner countries from selecting optimal solutions, thereby undermining development effectiveness. Conversely, prioritising development through untied support and open procurement strengthens partner-country ownership, yet it risks weakening the internationalisation rationale that justifies public expenditure to domestic taxpayers. Finally, the drive for internationalisation can ironically harm long-term competitiveness. Focusing state support on 'national champions' to capture strategic markets may crowd out the innovative small- and medium-sized enterprises (SMEs) that drive broad-based resilience, concentrating benefits among firms least in need of support. These tensions are operationalised through ECA design: how governments configure their mandates and risk appetites reveals their strategic positioning within the triangle (Table 1).

Table 1: Competitiveness-Internationalisation-Development Triangle

Objective	Policy Goal	ECA Manifestation	Tension with Other Objectives
Competitiveness	Ensure domestic industry resilience, independent digital ecosystems, and capacity to compete in global markets	Content requirements; tied financing; strategic sector prioritisation	Tied support tends to reduce development effectiveness; backing incumbents may limit broad-based internationalisation
Internationalisation	Support firms' expansion beyond domestic markets	Risk appetite for new markets; eligibility scope; SME access, ticket-size flexibility	Untied or flexible instruments weaken national content logic; rapid expansion may prioritise speed over development quality
Development	Contribute to sustainable growth in partner countries	Risk tolerance for developing and emerging markets; untied procurement	Partner-country optimisation may require untied procurement, reducing exporter benefits; capacity-building timelines exceed commercial horizons

Notes: Structural tendencies, not deterministic outcomes; individual transactions can partially reconcile tensions. Untied procurement here refers to partner-country preferences for open competitive bidding, which creates tension with ECA-tied structures, not to ECA instruments themselves being untied.

Source: Authors.

These trade-offs have always existed, but geopolitical multipolarisation has made them more constraining. As digital technology becomes a domain of systemic competition, governments face pressure to advance these three objectives in parallel, while operating under tightening constraints in three key areas: exposure limits with scarce public financial resources and risk capacity, strategic urgency with speed of deployment, and heightened risk perceptions with technology, data, and security externalities. From a partner-country perspective, these pressures are mirrored: developing and emerging markets seek digital infrastructure that serves national development priorities while retaining the policy space to select among competing providers and technology standards. GG and its emerging tech business offer, the US-Japan-Korea Digital Infrastructure Initiative, and the People's Republic of China's (PRC) Digital Silk Road each position financing the digital transformation as strategic statecraft (Carrozza, 2025; Klasen et al., 2024; Hillman 2021; Millán-Mejía et al., 2024). The question for policymakers is therefore not whether governments should support digital exports, but how to balance competing objectives when trade-offs are unavoidable, and how those trade-offs are navigated.

The stakes are substantial. The investment required to achieve global broadband connectivity exceeds $400 bn, with three billion people remaining unconnected, concentrated in Asia and Sub-Saharan Africa (SSA) where connectivity is foundational for economic participation. Data centre demand is driven by Artificial Intelligence (AI) and cloud computing, creating both opportunity and sustainability concerns (Oughton et al., 2023; UNCTAD, 2024, Hruby 2021). Competition for DPI is equally consequential: public digital systems – identity platforms, payment rails, data exchanges and registries – shape the institutional architecture of partner-country economies for decades. The standards and governance models embedded in these systems often reflect the values and market interests of their providers. Digital services and applications, including fintech, e-government, and AI-enabled platforms, represent the fastest-growing segment of cross-border digital trade and the layer with the greatest long-term value-creation potential (UNCTAD, 2024). The question of which providers, from which jurisdictions, anchor these systems carries implications that extend well beyond individual transactions.

The EU approach to this Strategic Triangle is distinctive, at least in aspiration. The EU approach is frequently characterised in policy discourse by a discourse highlighting digital sovereignty, characterised by federated architectures, open standards, and human-centric regulation. The EU emphasises support to partner-country digital systems that remain under sovereign national control while staying interoperable in global markets – that is, avoiding both proprietary lock-in and undue foreign dependency (Poullet, 2021). This is a multi-layered approach, in line with the 360 degree approach of the Global Gateway. It encompasses a growing focus on digital diplomacy, including formal 'digital dialogues' with selected countries; supporting technology exports from EU firms; loans to partner countries and their private sector operators to invest in infrastructure and services; grants to support skills development, cybersecurity and other complementary measures; technical assistance and institutional capacity-building, drawing on the EU's own experiences rolling out regulatory frameworks such as General Data Protection Regulation (GDPR) and the AI Act . The EU's International Digital Strategy highlights the complementary nature of diplomacy and what is termed the 'tech business offer,' highlighting the EU's growing focus on supporting internationalisation (EC 2025).

These dimensions are complementary rather than alternative: EU export finance supports the technology and financing dimension of this broader approach , while regulatory and institutional dimensions are advanced through separate but reinforcing EU external policy instruments. Importantly, creating a competitive EU offer therefore extends well beyond what ECAs alone can provide, and this paper's focus on export finance instruments should not be read as a comprehensive

assessment of the EU's full digital offer (See ECDPM's other work on this topic, including Muscat et al., 2026; Teevan et al. 2026). For this paper, the analytical focus narrows to one testable dimension of this approach : whether ECA configurations are adapted to support EU digital exporters in delivering on it.

The 'trusted vendor' concept, now referenced in both the EU's 5G cybersecurity toolbox and more recently extended to subsea cables, creates a potential competitive advantage for EU providers in markets that have adopted security-based vendor assessments.[1] If MSs seek to leverage this positioning, ECAs would be expected to demonstrate greater instrument flexibility for hybrid goods-and-services delivery, stronger support for DPI and regulatory-linked implementation risk, and more frequent co-financing/blended structures where partner fiscal space is constrained (Bilal et al., 2024).

However, the concept's reach should not be overstated: only a limited number of markets outside the Organisation for Economic Co-operation and Development (OECD) have adopted explicit vendor preference frameworks, and important developing-country partners – particularly in Latin America and parts of Southeast Asia – have shown reluctance to engage with 'trusted connectivity' framing, seeing it as a geopolitical positioning exercise rather than a service to their own sovereignty interests.

In EU policy discourse, contrasts are frequently drawn with competing models : US-based hyperscalers are characterised as centralising data within platforms subject to extraterritorial jurisdiction ; PRC financing packages face questions about transparency, terms , and the bundling of equipment that enables data extraction. This paper treats these as contextual perceptions that shape partner-country decisions and ECA transaction structuring, rather than as settled analytical conclusions. Their relevance for this paper is not to adjudicate between models but to understand how such perceptions shape the competitive environment in which EU exporters and ECAs operate. Whether the EU's distinctive approach – combining regulatory standards, open architectures, and security-conscious vendor assessment – translates into concrete commercial advantages depends on whether complementary financing can convert policy positioning into bankable transactions at competitive terms. The question this paper examines is whether ECA configurations, and broader EU coordination architecture, are adapted to support this conversion.

[1] The 'trusted vendor' concept refers to the designation of telecommunications equipment suppliers that meet security and reliability standards set by importing countries, typically in response to concerns about data security and potential surveillance risks. Several countries have restricted certain foreign firms from participating in critical network infrastructure, particularly 5G deployments, creating market opportunities for suppliers from jurisdictions deemed lower-risk. For MS ECAs, the trusted vendor status of their exporters can serve as a competitive differentiator when supporting digital infrastructure exports.

The digital sector is broad and rarely well-defined in export finance discussions. This paper therefore adopts a four-bucket taxonomy to structure the analysis, recognising that these buckets differ in risk profiles, financing requirements, and degrees of tangibility (Table 2).[2] Traditional ECA instruments assume physical assets as collateral and discrete deliveries that trigger payment obligations. Many digital projects instead rely on ongoing performance (service continuity, cybersecurity posture), contractual enforceability (termination, step-in rights), and cashflow-linked repayment (subscription, usage fees, managed service). Connectivity fits traditional ECA frameworks; digital services represent the furthest departure.

Table 2: The Four Digital Buckets

Bucket	Definition	Examples
Connectivity and backbone	Physical infrastructure enabling data transmission	5G/4G networks, submarine cables, terrestrial fibre, satellite systems, telecom towers
Data infrastructure	Facilities for data storage, processing, and compute	Data centres, cloud infrastructure, edge computing
DPI	Government and public sector digital systems	Digital identity, land registries, e-government platforms, smart city systems
Digital services and applications	Software, platforms, and digitally-delivered services	'Software-as-a-Service' (SaaS) platforms, fintech, e-commerce, AI applications

Note: Bucket boundaries are analytical and not mutually exclusive; classification follows dominant revenue and risk drivers. Semiconductors and chips constitute a cross-cutting enabler underpinning multiple buckets but are not treated as a separate category, as ECA engagement in chip exports would follow distinct industrial policy dynamics (notably the EU Chips Act) with limited overlap in the transaction structures examined here.

Source: Authors

This paper examines how selected MS ECAs are responding to digital transformation as an export category, guided by three research questions:

1. **Instrument adaptation**: To what extent have ECAs adjusted products, risk frameworks, and eligibility to reflect digital-specific characteristics including hybrid goods-and-services delivery and performance-linked repayment?

2. **Collaboration architectures**: How are ECAs coordinating with innovation funds, NDBs, and DFIs to address financing gaps that exceed individual balance-sheet capacity and risk appetite?

[2] The paper uses 'digital exports' to cover export-linked deliveries of goods, services, and hybrid solutions (including buyer credit, supplier credit/insurance, and project-linked structures), but it does not treat purely domestic digital capacity programmes without an export nexus as part of the core sample.

3. **Strategic Triangle navigation**: How do ECA configurations balance competitiveness, internationalisation, and development objectives, and what trade-offs do these configurations imply for digital transformation support in practice?

The analysis draws on semi-structured interviews with ten European ECAs and export finance institutions.[3] Informal interviews with other stakeholders were also conducted, supplemented by secondary data analysis covering policy documents, annual reports, publicly reported transactions, deal lists where available, and academic research output. Interview evidence was analysed through structured thematic coding aligned to the three research questions and triangulated against documentary and transaction-level sources to reduce single-source bias.

[3] Finnvera (Finland), Bpifrance (France), Euler Hermes (EH; Germany), SACE (Italy), Exportkreditnämnden (EKN; Sweden), the Export and Investment Fund of Denmark (EIFO), the export credit insurance arm of the Estonian Business and Innovation Agency (EIS), Atradius Dutch State Business (ADSB; Netherlands), Compañía Española de Seguros de Crédito a la Exportación (CESCE; Spain), and Svensk Exportkredit (SEK; Sweden). See also Annex .

2. Background

Having established an analytical framework for digital export support centred on a Strategic Triangle and operationalised through ECA design choices, and structured by four digital buckets, this section sets out the contextual conditions that shape these choices: EU policy objectives and constraints, 'whole-of-government' coordination architectures, OECD rules that condition feasible instruments, and partner-country market structures that determine where financing is decisive.

2.1 EU Policy Context

EU policy frameworks relevant to digital exports have undergone significant recalibration in response to geopolitical fragmentation. For the purposes of this paper, three policy frames are most relevant because they map directly onto the Strategic Triangle established above: GG as a development and connectivity strategy, the emerging foreign economic policy and economic statecraft agenda, and the competitiveness imperative articulated in the Draghi Report (European Commission, 2024). The economic statecraft agenda involves the deployment of trade, investment, and financing instruments to advance strategic objectives beyond commercial returns – including supply chain security, standards diffusion, and geopolitical positioning – reflecting a broader shift in which ECAs are increasingly expected to serve foreign policy as well as commercial mandates. The Draghi competitiveness agenda extends beyond financing to encompass regulatory simplification, completion of the Digital Single Market, and Capital Markets Union. These dimensions shape the broader environment in which ECAs operate but fall outside the scope of this paper's focus on export finance instruments.

GG reached its €300 bn mobilisation target ahead of schedule (European Commission, 2026). Digital connectivity features prominently, targeting submarine cables, 5G networks, and data infrastructure (Heldt, 2023). The involvement of the European private sector is seen as a key objective, as demonstrated by recent discussions around European preference 'buy European', strategic public procurement, the GG investment hub, and the work on ECA-DFI enhanced coordination. However, implementation remains constrained by an instrument-mix gap on both sides: GG has relied primarily on development and innovation finance mechanisms, with more limited systematic integration of export finance instruments ; and on the ECA side, mandates and instruments have not been systematically aligned with GG's development objectives. This dual gap matters because it shifts the Strategic Triangle balance: development ambition may rise on paper while competitiveness and internationalisation outcomes remain constrained by ECA mandates designed for commercial

transactions rather than development-oriented delivery. Where financing is decisive – for instance, in markets where a European firm's offer is competitive on technology but cannot match a competitor's financing terms – the absence of complementary export finance can cause GG-aligned transactions to be lost not for lack of development instrument support, but for lack of transaction-level financing that converts policy preference into a bankable deal. Competitor models integrate their toolkits differently (Bilal and Klasen, 2025; Klasen and Schedler, 2024).[4] Table 3 summarises contrasting approaches.

Table 3: Models for Supporting Digital Transformation Exports (Examples)

Country	Key Institutions	Mechanism	Digital Focus
PRC	China EXIM, CDB, Sinosure, MOF	Integrated state direction; policy banks aligned	Huawei/ZTE ecosystem; bundled packages
Japan	JBIC, NEXI, JICA, JETRO	Whole-of-government; coordination mandate	'Quality infrastructure'; trusted vendor
Korea	KEXIM, K-Sure, EDCF, KOICA	Coordinated; blending ODA and export finance	Samsung/LG ecosystem; DiGi Framework
US	US EXIM, DFC, USTDA, SBA	CTEP mandate (EXIM); strategic competition tools	Supply chain security; 'Blue Dot' standards
EU/MS	EIB, innovation agencies, NDBs, ECAs, DFIs	Fragmented across mandates; coordination improving but uneven	Sovereignty-by-design; open standards; human-centric regulation

Source: Authors, based on interviews and annual reports.

2.2 ECAs in a 'Whole-of-government' Landscape

ECAs and export-import banks are governmental or quasi-governmental organisations. They grant, guarantee, or insure export credits for foreign trade promotion (Gianturco, 2001; Turguttopbas, 2023). For decades, ECAs were countercyclical public finance instruments and lenders or insurers of last resort, stepping in when commercial banks or insurers did not offer sufficient capacity or risk appetite. Today, the traditional 'market failure' justification no longer captures the strategic importance of ECAs. Instead, they have become active instruments of economic statecraft, shaping trade outcomes and enabling strategic sectors (Klasen and Meyer, 2025). ECAs provide a range of financing products, including direct loans, lines of credit, and buyer financing. Export credit insurance protects exporters against the risk of non-payment by foreign buyers, helping firms manage receivables risk and strengthen bid competitiveness. Guarantees can take a variety of forms, including bid bonds, capital expenditure (CAPEX)

[4] These contrasting models represent different Strategic Triangle resolutions. PRC prioritises competitiveness through integrated state direction, accepting development trade-offs that EU frameworks would not permit. Japan and Korea blend competitiveness with development effectiveness through structured ODA-export finance coordination, linking commercial and concessional instruments. The EU's fragmented architecture reflects unresolved trade-offs: ECAs operate largely independently of development and innovation mechanisms, with coordination emerging but not yet institutionalised.

guarantees, or cover for working capital (Franzetti, 2021; Klasen and Schedler, 2024).[5] However, supporting exports for the digital transformation involves multiple public institutions beyond ECAs, particularly where projects span innovation, domestic scale-up, and cross-border delivery. Table 4 summarises the main public finance institutions in the financing ecosystem and highlights why each matters for digital exports.

Table 4: Public Finance Institutions Supporting Digital Transformation Exports

Type	Primary Function	Digital Relevance	Examples
Innovation Fund/Agency	R&D support, venture capital, commercialisation	Early-stage digital firms; technology de-risking	Almi, Invest NL
NDB	Long-term financing for strategic sectors	Pre-export innovation, domestic CAPEX, equity for scale-ups	Bpifrance, CDP, KfW
ECA	Risk mitigation and financing for cross-border transactions	Supplier credit insurance, buyer credits, project finance	ADSB, Bpifrance, EIFO, EH, Finnvera, SACE
DFI	Investment in developing country private sector	Local digital infrastructure; blended finance	CDP, DEG, Finnfund, FMO, Proparco

Source: Authors.

A 'whole-of-government' or 'Team National' approach integrates these actors within coordinated strategies: the extent of integration varies substantially across MS. Some countries have merged institutions or established structured coordination, reducing handovers and improving support continuity across the project lifecycle.[6] Other MS maintain fragmented structures, making it harder to provide seamless support across the innovation-to-export continuum that digital transformation often requires (Table 5).

[5] ECAs typically operate through two main channels. In supplier credit insurance, the ECA insures the exporter directly against the risk of non-payment by a foreign buyer, allowing the exporter to offer deferred payment terms. In buyer credit arrangements, a commercial bank lends directly to the foreign buyer (or the buyer's bank), with the ECA providing a guarantee to the lending bank; this is often how larger transactions are structured, as it shifts the financing obligation from the exporter to a bank. The distinction matters for digital exports because buyer credits assume discrete deliveries triggering disbursement milestones — an assumption that fits physical equipment but is harder to apply to services delivered continuously.

[6] For example, 'Team Finland' coordinates ministries, Finnvera, Business Finland, and other key institutions within unified support structures. Denmark's EIFO merged the ECA (EKF), the country's SME fund (Vækstfonden), and the green investment fund into a single entity creating a 'one-stop-shop' spanning export finance, innovation capital, and sustainability investment. Bpifrance integrates export insurance, innovation financing, and equity investment under one roof, coordinating with AFD for development-oriented transactions.

Table 5: Whole-of-Government Integration in MS (Examples)

MS	NDB/Innovation	ECA	DFI	Integration Model
Denmark	EIFO	EIFO	IFU	ECA in merged 'one-stop-shop'
Estonia	EIS	EIS	ESTDEV	ECA in merged 'one-stop-shop'
Finland	Business Finland	Finnvera	Finnfund	Team Finland
France	Bpifrance	Bpifrance	Proparco; AFD	ECA in merged 'one-stop-shop'
Germany	KfW	EH	DEG	Team Deutschland launched
Italy	CDP	SACE	CDP/SIMEST	Coordination; improving
Netherlands	Invest NL	ADSB	FMO, Invest Int	Team NL; Invest INT/NL merger
Sweden	Vinnova, Almi	EKN (+SEK)	Swedfund	Team Sweden

Source: Authors.

Integration reduces transaction friction and handover risk in practice, and expands feasible instrument combinations by enabling institutions to contribute across the project lifecycle rather than at discrete points. This sequencing is particularly important for service-heavy digital exports where bankability depends on performance risk allocation rather than collateral alone. An effective digital export strategy cannot exist in isolation; it requires a domestic industrial strategy that fosters scale. National players in the EU often need to develop 'exportable scale' at home – meaning sufficient domestic revenue, reference implementations, and operational track record to satisfy ECA underwriting criteria for cross-border transactions – before export finance instruments become accessible. Integration matters because digital projects, unlike traditional capital goods, require support from multiple institutions across the commercialisation timeline: upstream innovation support (research and development (R&D) grants, venture capital) typically provided by innovation agencies and NDBs, domestic capacity building (working capital, CAPEX) often supported by NDBs and commercial banks, and downstream export facilitation (buyer credits, political risk cover) delivered by ECAs, frequently in partnership with commercial banks that structure and distribute the financing. Currently, a disconnect exists: ECAs require exporters to have proven track records and revenue stability to underwrite risk, yet many digital service firms – unlike established hardware OEMs – lack the domestic volume in cross-border service delivery that ECA underwriting requires.

This disconnect is compounded by the three constraints identified above. Fiscal limits prevent governments from absorbing risk on unproven business models without demonstrated repayment capacity. Strategic urgency means digital markets evolve faster than traditional ECA pipeline development cycles, creating

timing mismatches between commercial opportunity and financing availability. Heightened risk perceptions around technology obsolescence, data governance, and cybersecurity create additional underwriting challenges for service-heavy digital exports that lack the tangible collateral traditional risk models assume.[7]

2.3 OECD Arrangement and Regulatory Framework

The Arrangement on Officially Supported Export Credits establishes the rules under which participating countries may provide export credit support. Designed to prevent export subsidy competition, the OECD Arrangement sets down payment and local cost thresholds, maximum repayment terms, repayment structures, and minimum premium rates (MPR). The Arrangement creates a level playing field among participants (Jennekens and Klasen, 2022; Kim, 2020; Klasen and Vassard, 2023). PRC, the largest provider of official export finance globally, operates outside the Arrangement. This asymmetry is significant: PRC policy banks can offer terms that OECD-compliant ECAs cannot match without breaching the Arrangement's disciplines, including extended loan durations (tenors), flexible repayment structures, and below-market pricing.

The Arrangement's constraints have direct Strategic Triangle implications. By limiting the competitiveness tools available to participating ECAs, the rules create tension when competitors operate outside them. In practice, this means that when a European ECA and a PRC policy bank compete on the same transaction, the European offer may be constrained on repayment duration, pricing flexibility, and local content thresholds, while the PRC offer faces no equivalent disciplines. Governments face pressure to maximise flexibility within Arrangement parameters while maintaining the cooperative framework that prevents intra-OECD subsidy races. The ongoing erosion of the rules-based international order threatens to amplify this competitive asymmetry further.[8]

For digital exports, the Arrangement's underlying assumptions create additional friction. Premium calculations, repayment structures, and content definitions were designed for physical goods with discrete deliveries and tangible collateral; these characteristics can significantly diverge from digital project realities. Service-heavy and hybrid transactions sit uneasily with rules designed

[7] Public procurement is also a critical yet underutilised lever for building exportable scale. By systematically directing public sector demand toward EU digital solutions in e-governance, smart city systems, and data management, MS provide more than revenue; they provide the 'reference projects' essential for international credibility. Public procurement acts as the first rung on the export ladder. When a MS serves as the reference client for a digital identity platform or a cloud service, it effectively validates the technology for foreign buyers and de-risks the credit profile for ECAs.

[8] The question of whether the OECD is the optimal forum for addressing these challenges is itself contested: interests among participating countries diverge, and a coalition of like-minded countries with aligned digital sector priorities may prove more effective in shaping enabling frameworks than consensus-based negotiation among parties with widely different competitive positions.

around tangible assets and conventional repayment profiles, increasing the burden on ECAs to adapt eligibility, risk assessment, and structuring within OECD-compliant parameters. The Arrangement does not prohibit digital coverage but provides no enabling framework.

2.4 Digital Markets in Partner Countries

The background sections above established the policy context, institutional landscape, and regulatory framework shaping ECA activity. This section turns to partner-country markets, examining where financing is decisive for EU exporters and how market structures vary across regions (Table 6).

Table 6: Digital Infrastructure Gaps by Region

Region	Market Characteristics	Dominant Competitors	EU Position	Financing Dynamics
MENA	GCC self-financing; North Africa fiscally constrained	GCC diversified; North Africa price-sensitive	Active in GCC premium segments	Sovereign wealth reduces ECA relevance in GCC
SSA	Basic connectivity gaps; emerging data centre demand	PRC firms with substantial shares in telecom equipment and network rollouts	Niche 'trusted vendor'; Nokia/Ericsson in security-conscious segments	PRC policy banks dominant; ECAs differentiate on transparency
South/ Southeast Asia	Massive scale; variable maturity	Intense PRC/KR/JP/EU competition	Scale-dependent; financing often decisive	DFI-ECA blending opportunities
Latin America	5G transition; DPI investment	Mixed; stronger US/European legacy	Competitive; regulatory frameworks favour diversification	Commercial offer available; ECA for tenor extension

Source: Authors based on interviews, annual reports and publicly available data.

Global demand for digital infrastructure and services spans all four digital buckets, but financing constraints differ systematically. Connectivity and backbone projects remain closest to traditional ECA models , with tangible equipment and discrete delivery milestones. Data infrastructure often requires longer loan durations and complex project-risk allocation. DPI is characterised by sovereign procurement , governance sensitivity, standards adoption, and capacity requirements that extend beyond the financing transaction itself: the choice of DPI system shapes the institutional architecture of the partner-country state for years and carries regulatory, data governance, and interoperability implications that pure financing analysis does not capture. Digital services hinge on performance, contractual enforceability, and cashflow-linked repayment, and

are the segment most affected by the intangibility and disputed-claims challenges that constrain ECA engagement. These differences explain why uniform export support performs poorly and why collaboration architectures and instrument adaptation become decisive. The question is whether MS institutions, individually or in coordination, can structure offers that address partner country needs while navigating the Strategic Triangle constraints outlined in Chapter 1. Three structural factors shape challenges and opportunities for European providers:

- **PRC competition is asymmetric**. PRC providers can bundle equipment, financing, and construction within coordinated packages across Sinosure, China EXIM, and commercial banks – and importantly, they increasingly bundle the software, applications, and digital services layer as well. This full-stack bundling, covering connectivity infrastructure, operating systems, and management software, means that the initial infrastructure contract can create long-term dependencies across the digital services and data layers, raising concerns about data governance and supplier lock-in that go beyond traditional trade finance analysis. Interviewees consistently reported that EU exporters face fragmented processes: equipment bids develop separately from financing, and ECA engagement often comes late in the process – though this is one structural factor among several, and the primary competitive challenge is the asymmetric integration of state direction, financing, and technology within PRC packages rather than timing alone. Competition also comes from US hyperscalers in data infrastructure and digital services, Indian technology firms in software and DPI, and other state-backed competitors in various markets. Together these dynamics weaken bid competitiveness where financing is decisive.

- **A 'missing middle' constrains deal flow**. Very large projects (>€500 m) attract multilateral attention; very small projects (<€10 m) can fall below transaction cost thresholds. Mid-sized digital projects typically in the €10–500 m range, such as national backbone extensions, regional data centres, and initial digital identity deployments, can lack clear financing pathways because they fall between multilateral thresholds and individual ECA mandates, and between ECA and DFI eligibility criteria (IMF et al., 2023).

- **DPI can fall between institutional mandates**. Government digital platforms, identity systems, and e-governance solutions represent growing demand but fit neither traditional ECA models (which assume commercial buyers with revenue-generating capacity) nor standard DFI approaches : while DFIs do provide sovereign loans, their private sector windows and equity instruments – which represent the primary modality for digital

investments – are less well-suited to government procurement of digital platforms as reported by interviewees. EU expertise in these systems exists; financing pathways remain underdeveloped.

These structural factors map directly onto the Strategic Triangle. Asymmetric competition directly pressures competitiveness: European providers lose transactions not because their technology is inferior, but because their financing is slower, more fragmented, and more constrained. The missing middle reflects collaboration architecture gaps: the fragmentation across innovation funds, NDBs, ECAs, and DFIs often reporting to different ministries (finance, foreign affairs, trade) with limited cross-institutional coordination leaves mid-sized digital projects without clear institutional homes. On DPI specifically, the EU already fields a substantial offer beyond export finance: the eIDAS regulation provides a framework for digital identity interoperability; GDPR establishes data governance standards that partner countries can adopt; the European Interoperability Framework provides open standards for government digital systems. These instruments mean the EU is not starting from zero on DPI. The gap this paper identifies is narrower: between the EU's strong policy and regulatory offer for government digital systems, and the availability of transaction-level export finance instruments to support EU firms delivering those systems in partner countries. ECAs and DFIs – the European financing institutions relevant to cross-border delivery – do not yet have systematic pathways for this type of transaction: ECAs because revenue-stream triggers fit uneasily with sovereign DPI procurement , DFIs because their instruments are typically better calibrated to private sector investment than government digital platform procurement. Some European public development banks have begun to engage in this area, but are still scaling their approach. If EU policy discourse positions European providers as enablers of partner-country digital sovereignty, then the absence of systematic export finance pathways for government digital systems represents a gap between a strong policy offer and its operational delivery on the ground.

3. Analysis

3.1 Activity Mapping

MS ECA engagement with digital transformation exports is demand-driven rather than strategically directed. Among interviewed agencies, activity is concentrated with those serving major telecommunications Original Equipment Manufacturers (OEMs), and largely absent in digital services. Interviews reveal a consistent pattern: telecommunications equipment dominates digital portfolios, data infrastructure is emerging but nascent, DPI remains occasional, and digital services face structural barriers that current instruments struggle to address. None of the interviewed ECAs reported a dedicated digital strategy or focused sectoral allocation targets. Activity occurs within general export promotion mandates, shaped primarily by the presence or absence of relevant firms with exportable digital offerings.

Activity by Digital Bucket

Connectivity and backbone constitutes the majority of ECA-supported digital activity among interviewed agencies. For MS with major telecommunications OEMs such as Finland and Sweden, connectivity represents the core of digital engagement (Figure 1). This extends beyond mobile networks: Nokia, for instance, is active across 5G radio access, terrestrial fibre, and submarine cable systems, meaning Finnvera's connectivity exposure spans multiple infrastructure segments. This is primarily financing 5G network rollouts and backbone deployments through buyer credits to telecommunications operators. The product is mature and well-suited to traditional ECA frameworks: equipment is tangible, delivery milestones are verifiable, and private operators present accessible credit profiles. Submarine cable connectivity is also supported: one ECA reported providing a financial guarantee for the construction of submarine fibre optic infrastructure.

The activity mapping from interviews necessarily reflects the sample of ECAs interviewed. It does not capture the full European industrial base in connectivity. France and Italy hold significant positions in submarine cable manufacturing that merit acknowledgment. France's Alcatel Submarine Networks is the current global market leader in subsea cable installation, while Italy's Prysmian and Elletra are strong mid-tier players in cable production and installation (Besch et al., 2025). Satellite connectivity, provided by EU operators including Eutelsat (France), Hispasat (Spain), and SES (Luxembourg), represents a further dimension of the connectivity bucket that did not emerge prominently in interviews but is relevant

to the GG agenda, particularly for remote and underserved regions where terrestrial infrastructure is economically unviable (Abels, 2026).

Box 1: Project Example 1: Finnvera's $1.5bn Nokia-India Guarantee

In 2024, Finnvera issued a $1.5 bn buyer credit guarantee supporting Nokia's 5G equipment deliveries to Reliance Jio Infocomm, India's largest telecommunications operator with approximately 400 m customers. The transaction illustrates connectivity's dominance in ECA digital portfolios: a single deal of this scale represents a significant share of Finnvera's total export credit exposure. The deal also demonstrates that European ECAs can operate in development geographies when anchored by major OEM relationships. India's 5G rollout represents a strategic market where EU equipment competes directly with PRC alternatives. The buyer credit structure, i.e. equipment deliveries to a private operator with verifiable milestones, exemplifies why connectivity fits traditional ECA frameworks well.

Source: TXF Data; Finnvera.

Box 2: Project Example 2: EKN's Danish Telecom Deal

In 2025, the Swedish ECA EKN backed a €125 m financing for Danish digital infrastructure provider TDC NET to acquire 5G equipment from Ericsson. The deal marked the first time an experienced market leading company in Denmark went for an ECA-financed product. The structure was notable for its complexity: TDC NET created a secured infrastructure financing platform based on whole-business securitisation, a model more common in regulated utilities than telecommunications. This adaptation illustrates how connectivity financing can evolve beyond standard buyer credits when buyers seek funding diversification. The deal also demonstrates EU dynamics in practice with the Swedish ECA supporting an OEM's sale to a neighbouring MS, reinforcing EU supply chains.

Source: TXF Data; EKN.

Data infrastructure represents an emerging but marginal category in reported portfolios. Several ECAs mentioned increased inquiries regarding data centre financing, yet actual transaction volumes remain limited for two reasons. First, hyperscaler-anchored data centres often do not require ECA support because long-term offtake contracts provide sufficient credit enhancement for commercial lenders. Large investments, however, can require support. Second, the EU value chain position is narrow. MS firms are concentrated in facility equipment such as cooling, power distribution, and building management

systems, where European vendors hold significant global market shares. The same applies for engineering and EPCM services, rather than in data centre ownership or operation. This structural position means EU value-add in data centre projects is real but dispersed across supply-chain roles that individually represent too small a share of project costs to anchor ECA-scale financing (Hatakka et al., 2026 forthcoming). A recent study reinforces this diagnosis, noting that European engagement in data centre markets is mostly indirect (Muscat et al., 2026 forthcoming). One of the few data centre guarantees reported illustrates that ECA involvement is possible where European firms hold a larger share of the project scope, but such cases remain exceptions rather than an established pattern. The replicability of this model in partner-country markets would depend on whether European firms can anchor a sufficient share of project value.

Box 3: Project Example 3: US EXIM in Côte d'Ivoire

While several MS ECAs report limited data centre activity due to narrow value chain positions, competitors are moving aggressively. In 2025, US EXIM approved a $66 m guarantee to finance construction of a national data centre in Côte d'Ivoire, with US-based Cybastion Institute of Technology supplying equipment. The transaction forms part of EXIM's China and Transformational Exports Program (CTEP), explicitly designed to counter PRC presence in strategic digital infrastructure. The project aims to strengthen government data security while expanding storage and processing capacity for Côte d'Ivoire's digital economy. The World Bank estimates the country's digital economy could generate over $20 bn by 2050 with adequate infrastructure investment. US EXIM paired this facility with a separate $47 m package to digitalise the Ministry of Trade and Industry, bundling data infrastructure with DPI support.

Source: TXF Data; US EXIM.

DPI appears sporadically rather than systematically across interviewed ECAs. Interviewees cited some transactions involving cadastral systems, property registries, and e-government platforms, typically structured as buyer credits to sovereign entities. However, supporting DPI adoption abroad presents a more complex financing picture than this suggests. ECA buyer credits are most effective where discrete delivery milestones trigger disbursement and where the buyer generates revenue to service debt – conditions that sovereign DPI procurement often does not satisfy. A national digital identity system or e-government portal does not generate commercial revenue; its value is social and institutional. This means the standard buyer credit logic struggles to apply, even when the sovereign counterpart is creditworthy. Sovereign loans by financial institutions for development, by contrast, can in principle address government

digital systems – and do in some cases – but concessional windows are often prioritised for sectors with clearer development indicators, and DPI requires a combination of financing and regulatory/technical capacity-building that neither ECAs nor DFIs currently deliver systematically. The result is a practical mandate gap that is not absolute but is real: ECA instruments fit awkwardly, DFI instruments are deployed sporadically, and grant-blended approaches that would bridge the two are not yet institutionalised. This gap is beginning to attract attention from development finance actors: EIB Global and France's AFD supported Nigeria's e-identity rollout, and France's AFD is exploring further engagement given French firms' strength in digital identity solutions. These moves by development actors signal growing recognition of the gap – and indicate the space where ECA buyer credit capacity, blended with concessional or grant elements, could add distinctive value. Systematic financing pathways for government digital systems remain to be established.

Digital services and applications present the most significant gap between market reality and ECA capability. Multiple interviewees acknowledged growing demand for support from software providers, SaaS platforms, and digitally-delivered services. For clarity: this fourth bucket – digital services and applications – refers to commercially delivered software, SaaS, and platform services, and should be distinguished from the third bucket (DPI), which covers government procurement of digital systems serving public functions such as identity, registries, and e-government. The distinction lies primarily in buyer type and procurement logic: private commercial buyers versus sovereign procurement. These sectors constitute increasing shares of MS export profiles. The new innovation cover provided by Atradius in the Netherlands targets scale-ups in key technology sectors including digital services and applications. Estonia is actively exploring how to extend medium-term cover to licensing arrangements. However, actual transaction volumes remain minimal across all interviewed ECAs.

Figure 1: ECA Digital Activity by Bucket

MS ECA	Connectivity & Backbone	Data Infrastructure	Digital Public Infrastructure	Services & Applications
Sweden	High	Emerging	Minimal	Minimal
Finland	High	Emerging	Minimal	Minimal
Germany	Medium	Minimal	Minimal	Minimal
Italy	Medium	Emerging	Medium	Minimal
Netherlands	Medium	Emerging	Minimal	Emerging
Spain	Low	Low	Low	Minimal
Estonia	Low	Minimal	Minimal	Emerging

Source: *Authors based on interviews and annual reports.*

This distribution of activity across buckets has direct Strategic Triangle implications. Concentration in connectivity serves competitiveness for OEM-holding MS, but this concentration also has consequences for broader European engagement: if digital export finance primarily benefits Finnish and Swedish firms, other MS may see limited rationale for investing political capital in expanding digital-specific ECA instruments or coordination mechanisms. Limited engagement with DPI and digital services constrains development reach and excludes SMEs from internationalisation benefits. The pattern reflects where ECA design levers align with bucket economics, i.e., tangible collateral, clear payment triggers, and bankable ticket sizes.

Transaction Characteristics and Geography

Transaction characteristics vary by bucket and correlate with geographic reach. Telecommunications buyer credits ranging from €20 m to over €1 bn serve predominantly private operators; Finnvera's 2024 guarantee for Nokia's India deliveries illustrates the scale of large transactions in this segment. Smaller digital service transactions, typically below €10 m, often fall beneath thresholds that arranging banks require to justify origination costs. Unlike traditional infrastructure sectors where sovereign buyers or state-owned enterprises (SOEs) often dominate, digital connectivity concentrates exposure in commercial books, with pricing competing against operators' capital market alternatives (Table 7). Geographic distribution among interviewed ECAs reveals pronounced OECD concentration and shrinking emerging market presence. Multiple ECAs attributed this shift to PRC competition offering financing terms that OECD-compliant agencies cannot match.

The 'trusted vendor' concept offers a countervailing dynamic in selected markets; where security concerns that exclude Huawei and ZTE from certain 5G deployments create openings for EU firms. However, the number of markets with explicit vendor preference frameworks remains limited, concentrated among OECD members plus a small number of countries including India and Vietnam, and in neither case are exclusions absolute. Translating these preferences into contracts still requires financing that narrows the cost gap, a Strategic Triangle consideration examined in Section 3.4.

The political economy of digital export finance reinforces instrument concentration: a connectivity agenda supported primarily by Finland and Sweden will struggle to mobilise the political capital needed at EU level for new instruments, risk-sharing facilities, or OECD advocacy. This creates a circular dynamic that the recommendations in Chapter 4 are designed to break: without broader engagement across MS and digital buckets, there is insufficient demand for institutional innovation; without institutional innovation, broader engagement remains difficult. Understanding this dynamic matters for sequencing: recommendations that expand the pipeline to a wider range of MS and digital buckets are prerequisites for, not consequences of, institutional reform.

Table 7: Typical Transaction Characteristics by Digital Bucket

Characteristic	Connectivity	Data Centres	Digital Public Infra	Digital Services
Typical size	€50m–€500m+	€100m+	€10m–€100m	<€10m
Main instrument	Buyer credit	Project finance	Buyer credit	Supplier credit
Typical tenor	5–10 years	7–15 years	5–10 years	Varies
Buyer type	Private operators	Hyperscalers	Sovereign / SOE	Mixed
Collateral basis	Equipment	Real estate/contracts	Sovereign guarantee	Intangible
Instrument fit	High	Medium	Medium	Low

Source: Authors based on interviews and transaction data.

Deal Flow Dynamics

Two public-private dynamics constrain pipeline development beyond instrument design. First, OEM concentration means ECA digital activity in the connectivity bucket tracks the commercial fortunes of one or two national telecommunications equipment champions . ECAs without major OEMs in connectivity report limited activity in that bucket regardless of policy ambition ; however, this dynamic does not fully determine activity in other buckets, where a wider range of EU systems integrators, DPI firms, and software providers are active but face different structural barriers. Second, bank intermediation creates a structural filter specific to the ECA model: because ECAs typically do not lend

directly but guarantee commercial banks that on-lend, the banks' own minimum transaction sizes for originating structured trade finance – typically €5–10 m at minimum to cover due diligence, legal, and structuring costs – effectively become ECA floors as well. This is qualitatively different from standard commercial lending minimums because ECA-guaranteed structures require additional legal documentation, OECD compliance review, and bilateral treaty verification, raising fixed transaction costs above commercial lending equivalents. For digital transactions, particularly smaller-ticket digital services and DPI deals, this creates a pipeline constraint that is not primarily about ECA product design or risk appetite, but about the economics of bank intermediation in ECA-structured deals.

3.2 Instruments Adaptation

ECA instruments assume tangible exports, discrete deliveries, and verifiable completion - assumptions that digital transformation challenges. Figure 2 illustrates how standard products align well with connectivity, where buyer credits fit discrete delivery, tangible collateral, and clear payment triggers, but fit degrades across the digital taxonomy. Project finance structures suit data centres in principle, but MS ECAs struggle to participate given narrow value chain positions. Working capital and CAPEX guarantees can support domestic scaling, yet strict export nexus requirements limit applicability for firms whose revenues derive from services rather than goods shipments.

Figure 2: Product-Bucket Fit Assessment[9]

Instrument	Connectivity & Backbone	Data Infrastructure	Digital Public Infrastructure	Services & Applications
Buyer credit	Strong	Moderate	Moderate	Poor
Supplier credit	Moderate	Limited	Limited	Moderate
Project finance	Moderate	Strong	Moderate	Poor
CAPEX / WC	Moderate	Moderate	Moderate	Moderate
Innovation cover	Limited	Moderate	Limited	Moderate

Source: Authors based on interviews and annual reports.

[9] Note: Assessment reflects instrument-bucket compatibility based on structural characteristics. 'Strong' indicates no significant adaptation required. 'Poor' indicates fundamental incompatibility with current instrument architecture.

Digital services present the most challenging compatibility with traditional export credit architecture, not merely elevated risk but structural mismatch. Table 8 summarises four dimensions of incompatibility identified in interviews. The claims problem is particularly acute according to interviewees. Unlike equipment delivery where physical inspection establishes completion, service delivery disputes are inherently subjective; ECA guarantees cannot improve on the underlying right to payment. Moreover, service providers facing non-payment can terminate access, limiting exposure to foregone revenue rather than unrecovered principal. This natural remedy reduces one dimension of credit risk that ECAs traditionally address. However, significant residual risk channels remain that complicate financing even where termination is possible: upfront implementation costs that cannot be recovered, multi-year contracts with accumulated arrears before termination, disputes over deliverables and acceptance criteria, and local regulatory requirements such as data localisation and licensing that may constrain termination options. Banks often require receivables certainty for financing, precisely what 'disputed claims' undermine. The mismatch is therefore not simply about risk level but about risk type and verifiability.

Table 8: Traditional Instruments and Digital Services

ECA Assumption	Services Reality	Consequence
Discrete delivery event	Continuous provision (SaaS, subscriptions)	No clear payment trigger
Verifiable completion	Subjective performance assessment	Disputed claims, not liquidated debts
Tangible collateral	Intangible assets (software, IP, data)	Limited security for recovery
Default = non-payment	Default = service termination	Provider remedy obviates insurance

Source: Authors.

Several ECAs are experimenting with adaptations, though none among interviewed agencies has achieved services coverage at scale (Table 9). These initiatives fall into three categories: eligibility expansion (broadening what qualifies for cover), domestic scaling support (pre-export capacity building), and cross-border structuring pilots (new approaches to service delivery risk). New solutions are emerging: the Netherlands' innovation cover, linked to its national key technology strategy, targets digital scale-ups and coordinates with Invest NL for earlier-stage support. Estonia is exploring licensing cover for software exports. Germany has identified SaaS models as a priority but acknowledges conceptual work remains. Finland has adapted eligibility criteria rather than products, integrating climate requirements for digital-adjacent sectors. These initiatives share a common feature: they primarily address pre-export scaling and eligibility expansion rather than cross-border service delivery itself.

Table 9: Emerging Adaptation Initiatives

ECA MS	Initiative	Mechanism	Status
Estonia	Licensing exploration	MLT cover for license exports	Exploratory
Finland	Climate criteria	ESG eligibility for digital-adjacent sectors	Operational
Germany	SaaS	Subscription/usage model financing concepts	Exploratory
Italy	Archimede framework	Domestic investment in digital/technology sectors	Operational
Netherlands	Innovation cover	Higher risk tolerance; scale-up focus; Invest NL link	Operational
Spain	Strategic investment	Domestic CAPEX guarantee with export linkage	Operational

Note: France's Bpifrance operates an integrated model where innovation, domestic, and export finance are combined; digital-specific adaptation initiatives were not separately identified in interviews.

Source: Authors.

Other structural constraints limit further adaptation: risk appetite, the OECD Arrangement, and the content and export nexus. Risk appetite is set by governments and calibrated to traditional sectors. Shifting risk tolerance for digital technologies requires political decisions beyond ECA management discretion. The OECD Arrangement assumes goods exports with tangible deliveries. MPR calculations, repayment structures, and content definitions were not designed for digital transactions, whether involving physical equipment, services, or — as is increasingly common — hybrid bundles combining both. The Arrangement does not prohibit coverage of the digital sector, but provides no enabling framework while remaining non-binding on Europe's principal competitor according to interviewees.

Content and export nexus requirements mainly reflect national policy choices. Digital industry value chains are globally distributed. Strict content requirements may exclude transactions where domestic value-add is genuine but dispersed across software development, systems integration, and service delivery. Some ECAs interpret content flexibly under a 'national interest' approach; others lack this flexibility due to statutory constraints or policy choices.

3.3 Collaboration Architecture

Having established that the degree of institutional integration across the innovation-to-export continuum varies substantially across MSs, this section examines how these differences affect digital export support in practice.

Domestic Integration Models

Merged models offer the clearest pathway for digital support. France's consolidated public innovation, SME, and export finance structure enables comprehensive support through a single institutional relationship. Finland's 'Team Finland' achieves coordination through co-location, shared client systems, and structured protocols while maintaining separate entities for innovation (Business Finland), SME support, and export credit (Finnvera). Germany just started to work on the coordination challenge with Team Deutschland: innovation promotion, domestic financing, and export credit operated through distinct institutions with separate mandates in the past. Interviewees acknowledged innovation linkage is appearing on policy agendas but noted uncertainty about institutional positioning.

ECA-DFI Complementarity for Digital

ECAs and DFIs serve distinct but complementary functions for digital exports. ECAs provide risk mitigation for cross-border transactions with national content; DFIs' primary mandate is private sector investment in developing countries to contribute to sustainable development objectives, though they also operate through sovereign lending windows where relevant. This suggests a predominant division of labour rather than competition, though interviewees indicated that on certain transactions – particularly larger connectivity deals in strategically important markets – some degree of competitive tension between European financing institutions can arise. Several ECAs reported structured coordination with national DFIs. Finland's agencies maintain regular dialogue between their respective telecom and digital teams, sharing market intelligence, pipelines, and identifying potential complementarities. In practice, this coordination typically works through periodic meetings between sector specialists at the respective institutions, where teams share deal intelligence and identify transactions where each institution can contribute its distinctive capability, for example, the ECA providing buyer credit cover while the DFI provides local-cost financing or technical assistance. Coordination works best when institutions contribute distinctive capabilities according to interviewees.

Table 10: ECA-DFI Complementarity for Digital

Financing Gap	ECA Contribution	DFI Contribution	Blending
Connectivity rollout	Buyer credit (core strength)	Local cost financing	Limited
Data centre investment	Limited (value chain gap)	Equity, project finance	High
DPI	Buyer credit to sovereign	Sovereign loans, blended finance, technical assistance	High
High-risk market entry	Risk appetite constrained	Higher risk tolerance	High

Source: Authors.

European-Level Coordination

Three European-level mechanisms emerged as significant for digital export support. First, scaling from 'Team National' to 'Team Europe' on digital would involve extending the structured coordination models that work domestically (such as Finland's inter-agency dialogue and France's integrated approach) to cross-border cooperation among MS ECAs, DFIs, and innovation agencies. Several ECAs already engage with counterparts from other MS through coordinated platforms; the emerging GG investment hub could provide an institutional anchor for such coordination, particularly for project origination and pipeline sharing. Extending coordination across MS could strengthen collective positioning against competitor packages, particularly where multiple European OEMs operate in the same markets.

Second, interviewees identified EU-level risk-sharing capacity as potentially the most impactful intervention. This could take several forms: reinsurance of political and commercial risk that national ECAs originate, portfolio guarantees that absorb tail risk across multiple transactions, or counter-guarantees that enable national ECAs to extend coverage they would not offer on their own balance sheets. These mechanisms could also encompass local currency (LCY) financing or currency risk hedging, which interviewees identified as a growing concern in developing and emerging markets where exchange rate volatility can undermine project economics and borrower repayment capacity. The common thread is that national governments may not absorb certain risks individually, but pooled capacity could enable transactions that advance collective objectives.

Third, in the connectivity sector specifically, operationalising the 'trusted vendor' concept at EU level could convert security-driven preferences into market share. The concept, rooted in the EU's 5G cybersecurity toolbox and the more recent subsea cable toolbox, provides a regulatory basis for vendor assessment in network infrastructure procurement. However, translating regulatory frameworks

into bankable transactions requires financing that narrows cost differentials. As noted in Chapter 1, the concept's geographic applicability is limited to markets that have adopted explicit vendor preference frameworks, and its extension to digital buckets beyond connectivity remains at an early stage.

Each of these three mechanisms has distinct Strategic Triangle implications. EU risk-sharing capacity primarily addresses competitiveness by enabling risk-taking that individual MS cannot absorb. 'Team Europe' coordination strengthens internationalisation by presenting unified European offers in priority markets. The 'trusted vendor' mechanism, where applicable, potentially advances competitiveness through differentiated positioning and internationalisation through market access. Its contribution to the development vertex through sovereignty-supporting solutions is plausible in principle but requires empirical validation: whether partner countries perceive European vendor assessments as genuinely serving their sovereignty interests, or as a European commercial strategy repackaged in development language, remains an open question. In all cases, this only holds true if complementary financing converts policy preferences into bankable transactions.

Coordination Gaps

Several gaps constrain effective collaboration. Pipeline development and sharing remain limited: ECAs typically engage only when transactions are structured, missing opportunities to shape deals earlier. In practice, however, interviewees noted that ECA-DFI coordination most often occurs not because institutions proactively share pipelines, but because the private sector needs both institutions engaged in the same transaction and pulls them together. This suggests that pipeline sharing mechanisms alone may be insufficient without demand-side incentives that bring financing actors to the table earlier in deal formation. Compliance burden creates friction: banks withdraw from certain markets due to compliance costs, and no EU mechanism exists to share compliance infrastructure or reduce duplicative due diligence across institutions. This constraint particularly affects smaller transactions where compliance costs represent a higher proportion of deal economics. Content requirements create tension with DFI preferences for untied procurement, limiting blending opportunities. These gaps require deliberate institutional design, connecting coordination to Strategic Triangle trade-offs.

3.4 Triangle Navigation and Opportunities

Current Positioning

In line with their core mandates, MS ECAs prioritise competitiveness and internationalisation over development (Table 11). Activity concentrates with agencies serving major telecommunications OEMs, follows those OEMs to OECD markets with commercial financing alternatives, and serves private operators rather than development-oriented sovereigns. Risk appetite calibrated to traditional sectors excludes higher-risk markets where connectivity gaps are greatest. This positioning reflects ECA design: agencies exist to support national exporters, and development outcomes are typically secondary to export and competitiveness mandates rather than a primary design objective.

Table 11: Strategic Triangle Positioning in Current ECA Practices

Indicator	Observed Pattern	Strategic Triangle Implication
OEM concentration	~90% digital exposure via 1-2 national champions	Competitiveness prioritised; limited SME benefit
Geographic distribution	OECD concentration; shrinking emerging market share	Internationalisation to commercial markets, not developing and emerging markets
Buyer profile	Private operators (commercial book)	Limited sovereign/development-oriented transactions
Risk appetite	Traditional sector calibration	Excludes markets where development need is greatest
Content approach	National interest requirements	Tension with untied development preferences

Source: Authors based on interviews.

Expectations Assessment

Chapter 1 established three expectations for 'trusted vendor' positioning: first, that ECAs would demonstrate greater instrument flexibility for hybrid delivery combining physical equipment and services; second, that ECAs would provide stronger support for DPI and regulatory-linked implementation risk; and third, that co-financing and blended structures would become more frequent where partner fiscal space is constrained. Against these expectations, the evidence suggests limited delivery to date. On instrument flexibility for hybrid delivery (i), adaptations remain at pilot or conceptual stage, with no interviewed ECA achieving services coverage at scale. On DPI support (ii), activity is sporadic rather than systematic, with mandate gaps leaving government digital systems underfinanced relative to stated policy ambitions. On co-financing/blended structures (iii), ECA-DFI coordination is improving but remains relationship-dependent rather than

institutionalised. These gaps indicate that while the 'trusted vendor' framing shapes policy discourse, ECA configurations have not yet systematically adapted to operationalise it.

Trade-offs and Alignment Opportunities

Strategic Triangle tensions vary by digital bucket. Connectivity offers strong competitiveness-internationalisation alignment but limited development reach given risk constraints and OECD concentration. Data centres offer development potential as anchor infrastructure, but EU value chain gaps limit competitiveness benefits. Digital services could theoretically serve all three objectives, but instrument barriers prevent engagement. DPI presents strong alignment across all three vertices – building partner country institutional capacity (development), creating markets for EU systems integrators and DPI firms (competitiveness), and expanding EU presence in emerging markets (internationalisation) – but it fits traditional ECA instruments least well in practice. The core challenge is structural: ECA buyer credits assume a borrower who either generates revenue to service debt or has a sovereign balance sheet willing to pledge that capacity against a commercial product. DPI procurement is typically sovereign, but the value delivered is public-good in nature, making cost-benefit assessments for debt service difficult. There is no equivalent of the telecommunications operator with billing revenues, or the data centre developer with offtake contracts. Existing blended grant-loan structures under Global Europe or EFSD+ can in principle address this – the grant element covers the affordability gap, the loan covers sustainability – but these mechanisms are not yet routinely combined with ECA buyer credit capacity in a single transaction. The EU's competitiveness interest in DPI is not bucket-specific but reflects the holistic value of its standards offer: a country that adopts EU-aligned DPI also implicitly adopts regulatory frameworks, data governance principles, and interoperability standards that benefit EU firms across the digital economy. This systemic dimension means Figure 3 should be read with caution: competitiveness benefits from DPI are real but diffuse, accruing across sectors and over time rather than in discrete transactions. This alignment mapping has direct implications for how EU-level instruments are deployed .

Figure 3: Strategic Triangle Alignment Potential by Digital Bucket[10]

Digital bucket	Connectivity & Backbone	Data Infrastructure	Digital Public Infrastructure	Services & Applications
Competitiveness	High	Low	Medium	Medium
Internationalisation	Medium	Medium	Medium	High
Development	Low	Medium	High	Medium

Source: Authors based on interviews and annual reports.

The 'trusted vendor' concept represents the most prominent attempt to align Strategic Triangle objectives, at least within the connectivity bucket. It positions EU equipment as enabling partner country digital sovereignty rather than substituting one dependency for another. But regulatory status alone does not close cost differentials. Without complementary financing narrowing the price gap, security preferences remain talking points rather than bankable transaction drivers.

Box 4: Project Example 4: Korea's Strategic Bet on AI Infrastructure

In January 2026, the Export-Import Bank of Korea unveiled a KRW22 tn ($15 bn) AI financing initiative over five years. The 'AI Transformation Programme' covers the entire value chain: semiconductors, data centres, large language models, robotics, and smart factories. KRW20 tn is allocated to loans and guarantees; KRW2 tn to startup investment. The programme explicitly addresses SME inclusion, offering interest rate discounts of up to 1.4 percentage points for smaller firms, with additional benefits for non-metropolitan regions and companies expanding overseas alongside larger corporates. The contrast with European practice is stark. Where MS ECAs report 'no specific focus on digital' and 'follow our exporters' reactively, Korea has pre-positioned financing capacity ahead of demand. This demonstrates that demand-driven default is a policy choice, not an operational necessity.

Source: TXF; KEXIM.

[10] Note: Alignment potential reflects structural characteristics of each digital bucket relative to Strategic Triangle objectives , based on ECA-specific transaction dynamics. 'High' indicates strong potential for the bucket to serve the objective; 'Low' indicates structural or practical constraints limiting alignment. Readers should note that competitiveness benefits from EU digital engagement are partly holistic rather than bucket-specific: the adoption of EU regulatory standards (GDPR, eIDAS) and interoperability frameworks in partner-country systems generates diffuse competitiveness benefits across all sectors that discrete transaction-level analysis does not fully capture. DPI competitiveness is assessed as 'Medium' at the transaction level; at the systemic level, the EU's interest in DPI is as strong as in connectivity.

4. Recommendations

This chapter translates these findings into recommendations for MS, ECAs, and EU institutions. Building on the gaps identified in Chapter 3 – limited instrument adaptation, fragmented coordination, and incomplete delivery on the EU's approach to international digital investments – the recommendations target three levels. Within each level, recommendations are sequenced from the most strategically significant to the more operational, reflecting the view that governance and mandate choices create the conditions within which instrument and coordination improvements operate. They also draw, where relevant, on experience from non-EU ECAs including the US, Japan, and Korea, whose institutional configurations can offer comparative lessons for digital export support.

4.1 For MS and their ECAs

Strengthen domestic integration. Fragmented structures impede support across the innovation-to-export continuum. MS should establish structured coordination protocols between government ministries (trade, foreign affairs, and digital), innovation agencies, NDBs, DFIs, and ECAs, including shared pipeline visibility and designated digital export focal points. Government agencies responsible for development cooperation and digital policy are integral to the Team National architecture: they hold the partner-country relationships, the regulatory expertise, and in some cases the grant instruments that make ECA financing bankable. Concrete mechanisms could include a single shared digital pipeline register, deal coordination councils, and a named 'deal captain' for each transaction requiring multi-institutional support. The Finnish model demonstrates that integration improves support for digital firms requiring sequenced financing across commercialisation stages. Korea's coordinated model linking KEXIM, K-Sure, EDCF, and KOICA through a structured 'DiGi Framework' illustrates how non-EU countries have formalised digital-specific coordination across export finance and development agencies.

Expand instrument experimentation. Current ECA adaptations address pre-export scaling rather than cross-border service delivery – but this paper has not fully mapped the pre-export toolkit that MS deploy on the internal side. EU and MS internal financial instruments for private sector resilience – including R&D grants, venture capital programmes, domestic CAPEX guarantees, and national procurement that generates reference projects – shape the pipeline that ECAs then draw on. These instruments need to be coordinated with export tools: a firm that receives R&D support from an innovation agency but finds no ECA pathway when it seeks to export has experienced a system failure, not a financing gap. On the export instrument side, ECAs could pilot enhanced licensing and

subscription-based cover, developing underwriting frameworks that move beyond the 'disputed claims' barrier. Pilots could insure non-payment only where performance is objectively measurable and disputes are ring-fenced through contractual mechanisms. Domestic strategic investment instruments could bridge to export activity by building the track record ECAs require for cross-border underwriting. Non-EU ECAs offer instructive precedents: US EXIM's CTEP provides a mandate-level template for embedding strategic competition objectives in ECA operations, while KEXIM has developed specific digital infrastructure financing lines that could inform European experimentation.

Initiate risk appetite dialogue. Conservative risk calibration can exclude developing and emerging markets across all four digital buckets, not only connectivity . ECAs should engage their responsible ministries – typically finance ministries acting as guardians of public balance sheet exposure – on differentiated risk windows for strategic digital transactions, supported by an annual 'risk capacity gap' note documenting opportunity costs such as deals lost, markets ceded, and competitor activity. Building internal digital underwriting expertise is a precondition for these proposals: credible risk appetite expansion requires that ECAs can articulate and model digital-specific risk profiles, rather than defaulting to traditional sector frameworks. This expertise should span all four digital buckets, including the intangible-heavy risk profiles of digital services and the governance-sensitive structures of DPI.

Review content definitions. 'National content' requirements can exclude transactions where value-add is genuine but globally distributed across software development, systems integration, and service delivery. MS should consider enhanced strategic interest tests that capture digital value-add beyond physical content – including intellectual property contribution, standards adoption, and the promotion of EU regulatory frameworks such as GDPR and eIDAS in partner-country systems. This reframing connects content policy to the EU's broader interest in promoting human-centric digitalisation principles globally: a transaction that embeds EU data governance standards in a partner-country DPI system may serve the EU's strategic interests even if the physical content share is modest. MS should coordinate these approaches to avoid intra-European arbitrage and divergence that could fragment the single market for export finance.

Engage commercial banks on smaller-ticket digital transactions. MS ECAs mostly operate through bank intermediaries that require minimum transaction sizes to justify origination costs. For digital transactions, particularly in the €10–50 m range that constitutes significant connectivity and DPI deal flow, this intermediation threshold can be as constraining as ECA product design. MS

should consider complementary support for commercial banks active in digital trade finance, including simplified guarantee procedures for repeat transactions, portfolio-level cover that reduces per-deal origination burden, and shared compliance infrastructure that lowers the fixed costs of engaging in developing and emerging markets. Commercial banks may be more responsive to smaller tickets and faster-moving digital opportunities than ECAs whose pipeline development cycles are calibrated to larger infrastructure transactions.

4.2 For the European Union

Establish EU risk-sharing capacity. Interviewees identified EU-level risk-sharing as the most impactful potential intervention – and one that is structurally distinct from what individual MS can do. MS-level de-risking instruments (Section 4.1) help individual ECAs expand within their national mandates; an EU-level facility addresses a different problem: absorbing tail risk that no single MS can accept on its national balance sheet, enabling transactions in higher-risk markets where collective development and strategic interests align but individual risk capacity does not. Such a facility, currently under development as part of GG enhanced DFI-ECA coordination, could operate through reinsurance, portfolio guarantees, or counter-guarantees, and would be particularly important for MS without large standalone ECAs. This capacity should encompass not only political and commercial risk but also LCY financing and currency risk hedging, identified by interviewees as a growing barrier in developing and emerging markets where exchange rate volatility can undermine project economics and borrower repayment capacity. It would also benefit firms across all four digital buckets, not only connectivity.

Operationalise the 'trusted vendor' concept within its current scope. Security-driven vendor assessment preferences create market openings in connectivity infrastructure, grounded in the EU's 5G cybersecurity toolbox and the more recent subsea cable toolbox. However, regulatory frameworks alone do not close cost differentials with competitor packages. The EU should further develop coordinated financing packages accompanying 'trusted vendor' positioning, integrating with GG digital implementation. This requires combining cybersecurity assessment with financing terms that narrow the price gap, potentially through EU risk-sharing capacity, preferential European Investment Bank (EIB) co-financing, or grant elements for affordability in constrained markets. Two qualifications are essential: first, the concept's geographic reach is limited – only a small number of markets outside the OECD have adopted explicit vendor preferences, and important partners have been reluctant to engage with 'trusted connectivity' framing ; second, extending equivalent positioning to other digital buckets, particularly DPI, would require financing mechanisms that do not yet exist at

scale. However, this does not mean the EU should wait to begin that policy architecture work: competitors are already active across all four digital buckets, and the political and regulatory groundwork for a DPI financing pathway – equivalent to what the cybersecurity toolbox has done for connectivity – needs to begin in parallel with consolidating the connectivity offer. The two tracks are mutually reinforcing: EU messaging on data sovereignty and human-centric digitalisation in DPI strengthens the credibility of trusted vendor positioning in connectivity, and vice versa.

Create a DPI pathway. This bucket presents the strongest development alignment within the Strategic Triangle. A dedicated blending facility could address sovereign digital platforms, identity systems, and e-government by combining grant elements for affordability (sourced through Global Europe or EU external action instruments rather than DFI grant windows) with ECA buyer credits and DFI sovereign loans for the financing component. The technical assistance and regulatory capacity-building dimension of DPI deployment – the part that complements financing with institutional support – is best provided by EU public sector actors, EU delegations, and EU-funded technical cooperation programmes rather than DFIs alone. Existing instruments such as EFSD+ guarantee windows or a dedicated 'Team Europe' Initiative could serve as vehicles for combining these elements. The financing gap this pathway addresses is specifically the transaction-level instrument gap for sovereign DPI procurement: the absence of a well-tested, routinely available blended structure combining EU grant elements with ECA buyer credits and DFI loans for government digital systems – a gap that the DFI examples referenced in Section 3.1 illustrate is beginning to be filled, but only sporadically.

Formalise 'Team Europe' Digital through structured coordination, not a new institution. Scaling 'Team National' to EU level on digital would strengthen collective positioning in priority markets: shared intelligence on pipeline and competitor activity, coordinated engagement with partner country ministries, and joint financing approaches where multiple European firms operate in the same markets. The GG investment hub could serve as an institutional anchor for this coordination within its existing mandate, particularly for digital project origination and pipeline sharing , without requiring a new institution. The D4D Hub's experience offers relevant lessons: any coordination mechanism should prioritise lean governance, demand-driven engagement by financing actors themselves, and clear outcome metrics over process-heavy institutional design – and should build on rather than duplicate existing platforms. 'Team Europe' Digital coordination is relevant across all four digital buckets and against all competitor models – not only the connectivity segment and PRC competition that has received the most policy attention, but also data infrastructure (US hyperscaler

competition), DPI (diverse vendor competition), and digital services (where market fragmentation makes EU coordination particularly valuable).

Clarify ECF and Global Europe instrument complementarity for digital. The Strategic Triangle alignment mapping has direct implications for how EU-level instruments are programmed , but instrument objectives must be correctly understood. The ECF is designed to strengthen European industrial and technological competitiveness , including through domestic R&D support, industrial partnerships, and deep-tech investment. It is not an export finance or development instrument; its relevance for digital exports is upstream: by strengthening EU firms' domestic capabilities and scaling, it helps build the 'exportable scale' that export finance instruments then support in international markets. This upstream function is relevant across all four digital buckets, not only connectivity – including DPI-focused SMEs in digital identity, e-government, and land registry systems – where domestic scaling support builds the reference projects needed for international credibility. Global Europe , by contrast, is an external instrument supporting development in partner countries; its blending windows, including EFSD+, can combine grant and loan elements for development-oriented transactions where commercial financing cannot be mobilised alone. DPI, where the development alignment is strongest and commercial self-financing least viable, is the bucket where Global Europe blending logic most naturally applies. Making the distinction between these two instruments explicit in programming would improve complementarity and reduce the risk that both concentrate on commercially attractive segments – connectivity, data infrastructure – while the DPI and digital services gaps where development need is strongest remain underfinanced. The critical coordination point is that domestic scaling through ECF and export-ready pipeline development through ECA instruments should be deliberately sequenced, so that firms strengthened through internal instruments are positioned to benefit from the external instruments when they expand to partner-country markets.

4.3 Cross-cutting Enablers

Advocate OECD Arrangement digital sector elements, building coalitions where consensus proves difficult. The Arrangement permits digital coverage but provides no enabling framework. This is distinct from the instrument-level experimentation recommended in Section 4.1 for individual ECAs: OECD advocacy operates at the level of the multilateral rules that condition what all ECAs can do, rather than what individual agencies choose to do within those rules. The EU should coordinate advocacy for clarification of applicability and permissible structuring for hybrid and service-heavy exports, specifically regarding repayment profiles for subscription/usage models and premium treatment for

intangible-heavy transactions. Given the diversity of interests among OECD participants, a coalition of like-minded countries with aligned digital sector priorities may prove more effective in developing enabling frameworks than seeking full consensus. France's G7 presidency offers an opportunity to place digital export finance on the multilateral agenda and build momentum for reform. This is more achievable than seeking comprehensive new rules and addresses the immediate structuring uncertainty ECAs face.

Improve pipeline development and sharing. ECAs engage late in deal formation, missing opportunities to shape transactions toward financeable structures. Better integration requires a formal coordination loop among EU delegations, national trade commissioners, and ECA account managers, with systematic early-warning mechanisms for digital tenders in priority markets. However, pipeline sharing mechanisms alone may be insufficient: in practice, ECA-DFI coordination most often occurs when the private sector needs both institutions engaged in the same transaction and pulls them together. This suggests that pipeline development initiatives should focus not only on information-sharing but on creating deal-structuring forums where financing actors engage with project sponsors at an early stage, before transaction parameters are fixed. The GG investment hub, if designed with this function in mind, could provide a platform for such early-stage engagement, particularly if it includes a digital-specific origination track that connects EU delegation intelligence with ECA and DFI deal teams. This enables proactive engagement rather than reactive response to already-structured deals.

Strengthen an EU 'Funding and Service Navigator'. A key barrier for digital exporters – particularly SMEs and scale-ups – is navigating the institutional landscape of NDBs, ECAs, innovation funds, and DFIs, each with distinct mandates, eligibility criteria, and application processes. A 'Funding and Service Navigator' would be a practical, publicly accessible diagnostic tool – either digital or supported by a dedicated advisory function – that allows exporters to describe their project and receive a structured routing to the most relevant institutions and instruments. Concretely, this could take the form of an enhanced version of the GG investment hub's exporter-facing interface , integrating ECA, NDB, DFI, and innovation agency eligibility logic into a single entry point. The logic is 'no wrong door' : a firm that approaches the wrong institution receives active routing rather than rejection. This is particularly important for mid-sized digital projects that fall between thresholds and for firms in MS without integrated one-stop-shop models. The enhanced coordination architecture emerging at EU level could be mirrored by additional MS one-stop-shops, ensuring consistent routing logic between national and EU-level entry points.

4.4 Strategic Triangle Implications

Table 12 maps all recommendations to the specific constraints and triangle vertices they address. Rather than restating individual recommendation rationales, this section focuses on the cross-cutting trade-offs that require explicit management across the package as a whole. The recommendations are mutually reinforcing but involve tensions that implementation design must resolve:

- **EU risk-sharing capacity** expands development reach and strengthens competitiveness, but requires guardrails against moral hazard (ECAs offloading risk without additionality) and subsidy competition (race to the bottom). Eligibility criteria and pricing floors can address these risks.

- **The DPI pathway** strongly advances development but may face competitiveness tension if procurement transparency requirements reduce EU firm win rates against less constrained competitors. The trade-off is explicit: development quality over short-term market share.

- **Content definition flexibility** supports internationalisation for digitally-native firms but may face domestic political resistance if perceived as weakening national benefit requirements. Coordinated MS approaches reduce arbitrage risk.

- **The 'trusted vendor' concept**, where effectively operationalised, primarily serves competitiveness and internationalisation in the connectivity sector. Its contribution to the development vertex remains conditional on whether partner countries perceive European vendor assessment as genuinely serving their sovereignty interests. The EU should monitor this perception gap and adapt messaging to different regional contexts rather than assuming a uniform value proposition.

- **ECF and Global Europe instrument complementarity** requires deliberate programming to avoid duplication. Without explicit coordination, both instruments risk concentrating on the same commercially attractive segments (connectivity, data infrastructure) while underserving DPI and digital services where the development case is strongest but commercial returns are less certain.

Table 12 summarises the priority recommendations for stakeholders addressing key challenges and covering Strategic Triangle elements. The recommendations prioritise expanding development reach while maintaining competitiveness and strengthening internationalisation.

Table 12: Priority Recommendations by Stakeholder

Stake-holder	Recommendations	Addresses	Triangle Vertex
MS/ECA	Strengthen domestic integration	Coordination gaps	C, I, D
	Expand instrument experimentation	Services barriers	C, I
		Development reach	D
	Initiate risk appetite dialogue	Eligibility constraints	C, I
	Review content definitions	Intermediation threshold	I, D
	Engage commercial banks on small tickets		
EU	Establish risk-sharing capacity incl. LCY	Risk appetite constraint	C, D
		Cost gap	C, I, D
	Operationalise 'trusted vendor' in connectivity	Instrument fit	D
		Collective positioning	C, I
	Create DPI pathway	Instrument programming	C, D
	Formalise 'Team Europe' Digital ECF/Global Europe complementarity		
Cross-cutting	OECD Arrangement advocacy/coalitions	Regulatory framework	C
		Late engagement	C, I, D
	Pipeline development and risk sharing	Mandate fragmentation	I
	Funding and Service Navigator		

Note: C = Competitiveness; I = Internationalisation; D = Development.

Source: Authors based on interviews.

5. Conclusions

This paper examined how MS ECAs are responding to digital transformation as an export category; guided by three questions on instrument adaptation, collaboration architectures, and Strategic Triangle navigation. The findings reveal a sector in transition but not transformed. Opportunities can be realised and challenges can be met by employing a more strategic view.

ECA-supported digital activity clusters in connectivity, the strongest instrument fit. Data infrastructure is emerging, DPI remains sporadic, and digital services face structural barriers. Adaptation efforts are real but uneven: most initiatives focus on pre-export scaling and eligibility expansion, while financing for intangible services – particularly subscription-based and SaaS delivery models – remains largely unmet. The industrial base supporting digital exports is broader than the interview sample captures as French and Italian firms hold significant positions in submarine cables and cable systems, while European satellite operators provide connectivity solutions for underserved regions. However, ECA engagement with these segments varies and warrants further examination.

Collaboration architectures vary substantially. Integrated models outperform fragmented structures, and EU-level coordination has clear potential but lacks institutional form. In Strategic Triangle terms, current practice primarily serves competitiveness for large OEMs, while higher-need developing and emerging markets and the DPI and digital services buckets remain structurally underfinanced. If digital export finance remains concentrated with Finnish and Swedish firms supporting Nokia and Ericsson, the agenda will lack the political breadth needed at EU level to mobilise new instruments and risk-sharing capacity.

The EU's distinctive approach offers genuine differentiation in partner-country digital markets; combining federated architectures, open standards, human-centric regulation, and security-conscious vendor positioning. But this differentiation must be communicated with diplomatic sensitivity: European framing around 'trusted connectivity' and 'sovereign solutions' does not land uniformly across partner countries, and the EU will need to adapt its messaging to different regional contexts. Operational delivery requires instrument and coordination reforms that do not yet exist at scale. The recommendations, particularly EU risk-sharing capacity with LCY coverage, the DPI pathway, ECF/Global Europe instrument complementarity, and formalised Team Europe Digital, would shift this positioning by expanding development reach while preserving competitiveness. Whether MS and EU institutions act will determine whether ECAs become system-level coordinators and enablers of

partner-country digital transformation – operating in complementarity with DFIs and commercial banks – or remain narrowly-scoped insurers of OEM-led connectivity exports.

Annex

List of EU ECAs Reviewed

Table 13: ECAs Reviewed

MS	ECA	Product Offering Model
Denmark	EIFO	Funded and unfunded
Estonia	EIS	Unfunded
Finland	Finnvera	Funded and unfunded
France	Bpifrance	Funded and unfunded
Germany	EH	Unfunded
Italy	SACE	Unfunded
Netherlands	ADSB	Unfunded
Spain	CESCE	Unfunded
Sweden	EKN	Unfunded

Note: Although not an ECA, SEK was also reviewed due to its important role in the Swedish export financing system.

Source: Authors.

Interview list (anonymised)

Table 14: Interview List

	Institution	Format	Medium	Duration (min)	Interview Date
1	**EIFO**	Group discussion	Teams	35	January 2026
2	**EIS**	Semi-structured interview	Teams	15	January 2026
3	**Finnvera**	Semi-structured interview	Teams	29	January 2026
4	**Bpifrance**	Group discussion	Teams	12	January 2026
5	**EH**	Group discussion	Physical	38	January 2026
6	**SACE**	Written feedback	Email	n/a	January 2026
7	**ADSB**	Group discussion	Teams	32	January 2026
8	**CESCE**	Group discussion	Teams	14	January 2026
9	**EKN**	Group discussion	Teams	32	January 2026
10	**SEK**	Semi-structured interview	Teams	27	January 2026

Source: Authors.

In addition, there were 11 informal interviews and discussions with other stakeholders such as MS, EU institutions, exporters, non-European ECAs and MDBs, and commercial banks.

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Note: Annual reports from ECAs, EXIMs, DFIs, MDBs, innovation funds and NDBs are not explicitly mentioned in the list of references.

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