

Prepared by DigitalTrade4.EU



Strengthening EU Leadership in Green-Digital Trade and Industrial Maritime Strategy

Feedback to the EU Commission

July 2025, v2

About Us

The **DigitalTrade4.EU consortium** envisions a **seamlessly interconnected Europe** and **neighbouring regions** powered by harmonized standards for the digitalisation of trade documents and processes. By fostering the digital transformation of trade, we aim to promote economic integration, enhance cooperation, and ensure long-term trade facilitation across borders.

Our consortium is made up of **experts in their field**, including **108 full partners**—trade associations, logistics providers, shipping lines, banks and insurances, technology innovators, etc.—**from 17 European Union countries** (*France, Belgium, Netherlands, Austria, Estonia, Finland, Italy, Latvia, Spain, Germany, Sweden, Poland, Luxembourg, Lithuania, Slovenia, Denmark, Bulgaria*) and **22 non-EU countries** (*United Kingdom, Switzerland, Montenegro, Japan, Singapore, Hong Kong, Australia, New Zealand, India, Nepal, Canada, United States of America, Cameroon, Morocco, Egypt, Kenya, Pakistan, Nigeria, Brazil, Uzbekistan, Turkey, Ukraine*).

Our consortium is already **aligned with the fundamentals** of the **EU Competitiveness Compass**. Learn more:

- How DigitalTrade4.EU Can Help Achieve the Objectives of the EU Competitiveness Compass (February 2025)

<https://www.digitaltrade4.eu/how-digitaltrade4-eu-can-help-achieve-the-objectives-of-the-eu-competitiveness-compass/>

Web page: www.digitaltrade4.eu

EU Transparency Register: 355266197389-94

Contact person: Riho Vedler

Email: riho.vedler@ramena.ee



Executive Summary

DigitalTrade4.EU welcomes the European Commission's proactive stance in **integrating green and digital agendas within trade policy**, exemplified by the **EU-Singapore Digital Trade Agreement (DTA)**¹ and alignment with **UNECE Recommendation No. 49 ("Transparency at Scale")**² for Digital Product Passports (DPPs). These initiatives enhance **legal certainty** and promote **traceability of sustainability data**. The **European Ocean Pact**³, Denmark's **Global Strategy for Maritime Security**⁴, and IndustriAll Europe's **Position Paper on Shipbuilding**⁵ further underscore the EU's commitment to a holistic, sustainable, and secure maritime future, addressing critical aspects of security, competitiveness, and social dimensions.

To consolidate this leadership, the Commission must **intensify international coordination, deepen digital trade partnerships**, particularly in Asia, and **champion global interoperability of laws and standards** (MLETR, eIDAS 2.0). Key priorities include the widespread adoption of **Electronic Bills of Lading (eBLs)** and the harmonized implementation of **Regulation (EU) 2020/1056 (eFTI)**, integrating principles from **Negotiable Cargo Documents**⁶ for streamlined logistics. The integration of **Regulation (EU) 2024/1183 (eIDAS 2.0)** and **Legal Entity Identifiers (LEI/vLEI)** is crucial for establishing **verifiable digital identities** for vessels, companies, and individuals, ensuring **secure port operations, digital crew certification, and enhanced supply chain traceability**.

¹ European Commission. EU and Singapore sign landmark digital trade agreement (May 2025)
https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1152

² United Nations Economic and Social Council. Recommendation No. 49: Transparency at Scale – Fostering Sustainable Value Chains (March 2025)
<https://unece.org/sites/default/files/2025-05/ECE-TRADE-C-CEFACT-2025-03E.pdf>

³ European Commission. The European Ocean Pact (June 2025)
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM:2025:281:FIN>

⁴ Ministry of Justice (Denmark). Global Strategy for Maritime Security 2025–2028 (January 2025)
<https://www.fmn.dk/globalassets/fmn/dokumenter/2025/-global-strategy-for-maritime-security-1-.pdf>

⁵ IndustriAll. European Maritime Strategy for the Shipbuilding Sector (May 2025)
https://news.industrial-europe.eu/documents/upload/2025/5/638838750289632715_European_Maritime_Strategy_-_iAE_Position_Paper_EN_260525.pdf

⁶ United Nations. Working Group VI: Negotiable Cargo Documents
https://uncitral.un.org/en/working_groups/6/negotiablecargodocuments

Furthermore, the **strategic simplification of maritime arbitration** through expedited procedures and the **responsible integration of AI tools** are vital for efficient dispute resolution. Strategic investments in **dual-use digital infrastructure, SME support** as well as strengthening financing mechanisms for suppliers engaged in strategic industrial sectors, including maritime and defense, particularly SMEs often constrained by limited access to capital due to compliance complexity or sustainability data gaps. The overarching goal is to enhance EU competitiveness and resilience by fostering a **seamless, secure, and sustainable global trade environment**, while simultaneously addressing **challenges of fair competition and ensuring quality jobs** in key industrial sectors like shipbuilding.

Introduction

Global trade is undergoing a profound transformation driven by the **twin green and digital transitions**. The European Union has taken a **leadership role** in this evolution through initiatives like DigitalTrade4.EU, aiming to modernize digital trade infrastructure. The EU's engagement with Asia, particularly highlighted by the **new EU-Singapore DTA**, seeks to establish **new, resilient corridors** for clean energy, infrastructure, and digital services, offering **greater clarity and legal certainty** for online transactions.

EU leaders have emphasized the need for "**trusted, sovereign partnerships**" that combine sustainability with digital innovation. The Singapore DTA, the EU's first bilateral agreement solely focused on digital trade, will **remove unjustified barriers**, facilitate **secure cross-border data flows**, and promote **trustworthy AI**, all while upholding the EU's stringent privacy and cybersecurity standards. This agreement sets a precedent for **exporting the EU's rule-based approach** and advancing the **interoperability of digital norms**. Concurrently, the EU is embedding environmental goals, such as **Digital Product Passports (DPPs)** and **carbon accounting**, directly into its trade policy.

This document further analyses these critical developments, incorporating insights from the **European Ocean Pact** (COM(2025) 281 final), Denmark's **Global Strategy for Maritime Security 2025-2028**, and IndustriAll Europe's **Position Paper 2025/166** on the European Maritime Strategy for the Shipbuilding Sector. It highlights the transformative potential of **Electronic Bills of Lading (eBLs)**, the **eFTI Regulation**, and **Negotiable Cargo Documents** for streamlining logistics, and emphasizes the foundational role of **Regulation (EU) 2024/1183 (eIDAS 2.0)** and **Legal Entity Identifiers (LEI/vLEI)** in establishing verifiable digital identities and trust services. Additionally, it addresses the crucial role of **simplifying maritime arbitration procedures** and the **strategic integration of AI tools** for efficient dispute resolution, alongside the importance of **investing in dual-use digital infrastructure**. This comprehensive approach aims to outline how the EU can further **consolidate its green-digital trade strategy** in concert with international partners, ensuring a secure, efficient, and sustainable future for global trade.

Expectations from the Commission's Side: The Objectives

The European Commission's strategic documents outline clear objectives for enhancing Europe's competitiveness, security, and resilience, with a strong emphasis on the **Single Market**, **maritime strategy**, and **defence readiness**. DigitalTrade4.EU recognizes and aligns with these overarching goals.

1. Strengthening the Single Market and Competitiveness

The *Strategy for making the Single Market simple, seamless and strong (COM(2025) 500 final)*⁷ highlights the **Single Market** as a powerful catalyst for growth, prosperity, and **solidarity**. It emphasizes the need to **remove remaining barriers** and expand the Single Market to enhance market access, particularly for **SMEs and innovative companies**. Key objectives include:

- **Fewer barriers:** Addressing the "Terrible Ten" most harmful Single Market barriers.
- **More effective digitalization:** Ensuring Member States and the EU work in sync to **boost joint administration** and **speed up business processes** through digital tools.
- **More simplification:** Reducing red tape and moving from a **document-based to a data-based Single Market**.
- **More protection:** Shielding EU businesses from **unfair trade practices** and reducing external dependencies.

⁷ European Commission, Internal Market, Industry, Entrepreneurship and SMEs. The Single Market: our European home market in an uncertain world (May 2025)
https://single-market-economy.ec.europa.eu/publications/single-market-our-european-home-market-uncertain-world_en

2. Enhancing Maritime Competitiveness, Sustainability, and Resilience

The "EU Industrial Maritime Strategy" (Ref. Ares (2025)5226239)⁸ aims to enhance the **competitiveness, sustainability, and resilience of Europe's maritime manufacturing sector**. This strategy is a flagship action of the Competitiveness Compass and is strongly reinforced by the **European Ocean Pact** (COM(2025) 281 final). Key objectives include:

- **Strengthening the waterborne industrial and technological base:** Fostering domestic manufacturing capabilities and know-how, crucial for Europe's strategic autonomy, prosperity, and security.
- **Driving green and digital transformation:** Leading in sustainable, innovative, and smart high-tech ships and equipment, including accelerating the decarbonization of the maritime transport sector and scaling up clean blue technologies. The Ocean Pact emphasizes protecting and restoring ocean health, boosting the sustainable blue economy, and advancing ocean research, knowledge, skills, and innovation.
- **Addressing external dependencies and competition:** Mitigating risks from market distortions and supply chain disruptions in a contested strategic domain, strengthening the financial resilience of upstream suppliers—especially smaller actors in the maritime manufacturing value chain—through interoperable ESG-linked trade finance mechanisms can reinforce the EU's autonomy and capacity to respond to crises. IndustriAll Europe's position paper highlights the **decline in European shipbuilding's global market share** due to heavily subsidized Asian industries and calls for a **level playing field** and "Made in Europe" requirements.
- **Securing critical maritime infrastructure:** Protecting submarine cables, pipelines, offshore wind farms, and ports, which are strategic assets for competitiveness and security. The Ocean Pact also underscores the importance of enhancing maritime security and defence as a prerequisite.

⁸ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14745-EU-industrial-maritime-strategy_en

3. Bolstering European Defence Readiness and Security

As highlighted in the **EU White Paper on Defence Readiness (March 2025)**, achieving strategic autonomy requires more than investment in defence capabilities—it also demands financial inclusion and the resilience of Europe's fragmented, SME-dominated supply chains. **ESG-linked supplier finance**, aligned with the **Omnibus Regulation**, **CSRD**, and **CSDDD**, offers innovative ways to boost production capacity, enhance visibility across tier-2 and tier-3 suppliers, and shorten time-to-contract—especially where working capital is limited.

The **Joint White Paper for European Defence Readiness 2030 (JOIN(2025) 120 final)** and the **“Safer Together” report by Sauli Niinistö** emphasize the escalating threats to Europe's security. The shared goal is clear: to re-arm Europe and establish a robust, self-reliant defence posture by 2030. Denmark's **Global Strategy for Maritime Security 2025–2028** further details these risks—ranging from armed conflicts and piracy to smuggling, cyberattacks, and the broader exploitation of systemic vulnerabilities. Key objectives include:

- **Massive increase in European defence spending:** Coordinated and directed effectively among Member States, with IndustriAll Europe emphasizing that this should not come at the expense of social objectives.
- **Stronger and more resilient defence industrial base:** Fostering an ecosystem of technological innovation, including naval branches of the shipbuilding industry.
- **Faster and more efficient procurement:** Addressing fragmentation of the European defence market.
- **Strengthening civilian and military preparedness:** Adopting a robust **all-hazards, whole-of-government, and whole-of-society approach**. Denmark's strategy highlights the need for a broad, coherent range of military and civilian interventions, including maritime initiatives, information sharing partnerships, and capacity building.
- **Enhancing EU-NATO cooperation:** Streamlining information exchange and coordination in grave crisis situations.
- **Harnessing the economics of preparedness:** Investing together upfront to boost competitiveness and resilience.

- **Protecting critical maritime infrastructure:** Denmark's strategy specifically addresses cyber threats targeting ships, ports, and maritime infrastructure, and the risks posed by the "shadow fleet" in the Baltic Sea. The European Ocean Pact also highlights the protection of critical maritime infrastructures and the need for a coordinated, technology-driven response.

4. Overarching Priorities from the Mission Letter

The Mission Letter to the Commissioner-designate for Sustainable Transport and Tourism (Brussels, 17 September 2024) reinforces these priorities, emphasizing:

- **Security in every sense:** In a more dangerous and turbulent world.
- **Green and digital transitions:** Sustaining Europe's unique quality of life.
- **Simpler, more focused, and responsive long-term budget:** Reflecting European strategic priorities.
- **Achieving agreed climate objectives:** Notably 2030 targets and 2050 climate neutrality.
- **Drawing on key reports:** Including those on competitiveness (Draghi), preparedness (Niinistö), and the Single Market (Letta).

DigitalTrade4.EU's approach, as detailed in "Strengthening EU Leadership in Green-Digital Trade" (May 2025)⁹, directly addresses these Commission expectations by advocating for the **digitalization of trade processes, harmonization of standards, and strategic investments** that enhance both economic competitiveness and overall security and resilience, while also acknowledging the **social dimension and fair competition** in the maritime industry.

⁹ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14589-International-Digital-Strategy/F3552794_en

Approach and Recommendations

DigitalTrade4.EU's strategy for strengthening EU leadership in green-digital trade is built upon **key developments and strategic recommendations** that directly support the European Commission's objectives across competitiveness, maritime strategy, and defence readiness. Our approach emphasizes **digital standards, trade finance, sustainability, global governance, EU-Asia partnerships, platform interoperability, global digitalization projects, and fair competition in the maritime industry.**

1. Digital Foundations: Standards, Trust Services, and Electronic Documents

The Commission should **prioritize aligning EU trade policies with global digital standards**, adopting frameworks like **MLETR and eIDAS 2.0**. This will **promote cross-border data flows, e-identification, and cybersecurity** while preserving EU privacy standards. Strengthening digital rule interoperability through trade agreements, such as the **EU-Singapore Digital Trade Agreement**, will further solidify EU influence globally.

- **Enhanced Legal Certainty and Interoperability:** Crucial for fostering a **trusted and secure digital economy**, promoting **cross-border data flows**, and driving **digital innovation**. This includes ensuring **consumer protection and data privacy** while supporting SMEs in adapting to digital trade.
- **Advancing Electronic Trade Documents and Logistics:** The shift to **Electronic Bills of Lading (eBLs)** offers **significant benefits** in cost savings, instant transmission, enhanced security, and environmental advantages. The **UNCITRAL Model Law on Electronic Transferable Records (MLETR)**¹⁰ is key for legal equivalence. **Regulation (EU) 2020/1056 (eFTI)** is pivotal for **digital exchange of freight transport information**, and its future acts should **incorporate principles from Negotiable Cargo Documents** (interoperability, common standards, eFTI Data Sets). UNCITRAL's work on **negotiable**

¹⁰ UNCITRAL. Model Law on Electronic Transferable Records
https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records

cargo documents for all transport modes is essential for modernizing legal frameworks and streamlining international trade finance.

- **Integrating eIDAS 2.0 into the Industrial Maritime Strategy:** Regulation (EU) 2024/1183 (eIDAS 2.0) is a **cornerstone for secure and trusted digital transactions**. Its integration is paramount for:
 - **Digital Identity for Vessels and Companies:** Using **European Digital Identity Wallets (EUDI Wallets)** for vessel registration, authentication, and digital identity verification of all maritime stakeholders, enabling **seamless cross-border recognition**.
 - **Secure Port Operations:** Facilitating **paperless port clearance** and **secure access control** using digital credentials.
 - **Digital Crew Certification:** Issuing and verifying seafarer certifications **digitally using qualified electronic signatures (QES)**.
 - **Electronic Bills of Lading (eBL) and Contracting:** Using **QES and e-seals** for legally binding eBLs and digital signing of contracts.
 - **Maritime Supply Chain Traceability:** Leveraging eIDAS trust services to **secure data exchanges** and authenticate IoT devices.
 - **Customs and Trade Compliance:** Speeding up customs clearance through secure digital document submission and mutual recognition. Successful implementation requires **stakeholder alignment, technical integration, legal readiness, pilot projects, and cross-border interoperability**.
- **Integrating LEI/vLEI into the Maritime Industry:** The **Legal Entity Identifier (LEI)** and **verifiable LEI (vLEI)** provide **globally recognized and trusted digital identities for legal entities**. The vLEI, built on **KERI**, creates an **unforgeable digital credential** that cryptographically binds entities to their digital activities, offering **compromise recovery** and **quantum-secure identity**. Key capabilities include a **global root of trust**, **platform-agnostic operation**, **infinite delegation** of role-based credentials, **cross-border verification**, and **highest possible security**. Applications in maritime include **enhanced supply chain traceability, secure digital contracting, fraud prevention,**

automated compliance, and resilient digital infrastructure. Integrating LEI/vLEI with eIDAS 2.0 will create a **robust, verifiable, and interoperable digital identity layer** for secure and efficient global maritime trade.

- **Interlinking Digital Compliance Portals and Platforms:** To maximize the efficiency and impact of digital trade and regulatory frameworks, the European Commission should prioritize the **seamless interoperability of various digital compliance portals and platforms**, including but not limited to the **Maritime Single Window, eFTI platforms, DPP platforms, and sector-specific portals such as the F-gas Portal**. This interoperability is critical to **avoid data duplication, reduce administrative burdens, and streamline regulatory reporting and enforcement across Member States**. A **harmonized infrastructure shared among Member States** at multiple levels—including platform technology, accreditation procedures, and certification bodies—would substantially simplify the digital ecosystem. By enabling Member States to use the same technical infrastructure and align accreditation and certification processes, the Commission can create a more **efficient, cost-effective, and secure digital environment** for logistics, trade, and compliance management.

Concurrently, the Commission should ensure that **dominant online platforms allow interoperability with third-party applications** to avoid vendor lock-in. Enforcing rulings like the Court of Justice of the European Union's (Case C-233/23) that refusing interoperability can amount to an abuse of dominance will **empower SMEs** and strengthen the **EU's digital sovereignty**, complementing initiatives like eIDAS 2.0 and DEPA that promote open, interoperable digital infrastructures.

2. Trade Finance and ESG

DigitalTrade4.EU emphasizes the **crucial role of trade finance digitalization** in supporting the EU's efforts in ESG, CSRD, and CSDDD. The EU's commitment to **simplifying reporting obligations** under the CSRD will reduce administrative burden, making it easier for companies to **access trade finance and invest in sustainable projects**.

- **Impact on Trade Finance:** Reduced administrative burden will facilitate access to **sustainable finance**.

- **Promotion of Sustainable and Circular Economy:** Trade finance digitalization plays a **key role in achieving the Green Deal's climate-neutrality goal** by facilitating capital flow towards sustainable investments and promoting Digital Product Passports (DPPs). The European Ocean Pact's focus on a regenerative blue economy and unlocking financial support for ocean innovation through InvestEU and BlueInvest aligns with this.
- **Why it matters:** Trade finance digitalization can provide companies boosting their ESG performance with **additional funding at cheaper rates**, increasing profitability and **EU competitiveness and resilience**. This is particularly critical for SMEs embedded in strategic supply chains, such as maritime manufacturing, where ESG-linked financial instruments can serve as both a compliance accelerator and liquidity catalyst. Embedding sustainability-linked financing into onboarding and trade transaction processes can help these firms gain earlier access to capital while reinforcing traceable impact reporting for anchor buyers.
- **Supporting Strategic Suppliers with ESG-Linked Liquidity:** Digital ESG data collection combined with **scoring mechanisms** aligned to **EU taxonomies** enables **risk-sharing models** and **preferential working capital terms** for **suppliers** contributing to **industrial, maritime, and defence autonomy objectives**.

3. Invest in Dual-Use Digital Infrastructure

We recommend allocating a significant portion of the Connecting Europe Facility (CEF) Digital budget to **dual-use digital infrastructure**, such as quantum-secure networks along military mobility corridors. This ensures that the physical and digital infrastructure are co-developed to support secure and rapid military and commercial operations. At the same time, it is essential to develop and maintain robust EU digital infrastructure—including hardware, software, and skills—while ensuring flexibility in technology choices and minimizing implementation burdens for public and private stakeholders. In an era where security and economic resilience are deeply interconnected, ensuring the robustness of our digital infrastructure is no longer a commercial priority alone—it is a strategic imperative for Europe's defence readiness. At the same time, the dual use of technical infrastructure—

serving both commercial and military needs—enables us to strengthen Europe’s operational capacity while generating significant financial efficiencies.

4. Trade Policy for Sustainability

The Commission must **integrate environmental goals into trade agreements** by promoting **digital traceability tools** like Digital Product Passports and carbon-accounting mechanisms. By advancing global protocols, such as UNECE’s “**Transparency at Scale**,” the EU can embed its green standards across supply chains, reinforcing its **Carbon Border Adjustment Mechanism (CBAM)** and circular economy objectives. This aligns with the maritime strategy's focus on decarbonization and digital transformation, and directly supports the European Ocean Pact's principles of a source-to-sea approach to pollution, precautionary principle, science-based approach, and ecosystems-based approach for ocean health.

5. Leadership in Global Governance

The EU should **leverage forums like the G7, G20, and WTO** to shape global digital and green trade standards. Championing e-commerce rules and sustainability targets will ensure EU values on **data protection, AI ethics, and environmental accountability** are upheld in global trade governance. This is vital for asserting EU interests in a world of increasing geopolitical competition.

The European Ocean Pact's emphasis on strengthening EU ocean diplomacy and international rules-based governance, including swift ratification of the BBNJ Agreement and an ambitious Global Plastics Treaty, further supports this. Denmark's strategy also highlights the importance of multilateralism and international collaborations to boost maritime security.

6. Strengthening EU-Asia Partnerships

The Commission should **deepen partnerships in Asia-Pacific** through **Digital Economy Partnership Agreement (DEPA)** and the EU–Singapore DTA. Extending these agreements to other key partners like **Japan, South Korea, and Vietnam** will enhance digital and green trade corridors, ensuring EU standards on data, AI, and sustainability are integrated into regional markets. This directly supports the mission letter's call to work with partners and better assert EU interests. Denmark's participation in ReCAAP (Regional Cooperation Agreement on

Combating Piracy and Armed Robbery against Ships in Asia) underscores the importance of maritime security in the Indo-Pacific region for European interests.

7. Global Digitalization Projects and Funding

The EU should co-fund **digitalization projects** in **non-European countries**, leveraging **EU standards** and **technical frameworks** such as **eIDAS 2.0**, **MLETR**, and **LEI/vLEI**. These projects must be financed through dedicated instruments like the **Connecting Europe Facility (CEF)**, **Digital Europe Programme**, and **NDICI-Global Europe**, with a focus on **interoperability** and **compliance with EU sustainability criteria** (e.g., **CSRD reporting**).

These initiatives aim to **extend EU digital infrastructure** and promote interoperability across borders, ensuring that digital transformation in global markets aligns with EU regulatory and sustainability goals. This aligns with the Ocean Pact's call to unlock financial support for blue economy innovation and the broader goal of enhancing EU competitiveness and resilience.

8. Simplifying Maritime Arbitration and AI Tools

The efficiency and predictability of dispute resolution mechanisms are crucial for fostering a stable and attractive environment for international trade, particularly in the maritime sector. DigitalTrade4.EU emphasizes the need to **simplify maritime arbitration procedures** and strategically **integrate Artificial Intelligence (AI) tools** to enhance effectiveness and reduce costs.

- **Challenges in Maritime Arbitration:** While the **New York Convention of 1958** has significantly enhanced the **recognition and enforcement of foreign arbitral awards** globally, it still faces challenges. These include **conflicts between national laws and Convention norms**, difficulties in **enforcing awards in certain jurisdictions**, and a **limited availability of specialized arbitral institutions and expertise** in some regions. Adversarial approaches by counsel, lack of proactive case management by arbitrators, and "over-lawyering" are also identified as factors negatively impacting efficiency.
- **Expedited Arbitration Procedures:** To address these inefficiencies, **expedited arbitration procedures** are highly effective, especially for less complex cases or

disputes of lower value. These procedures, such as those outlined by the **Society of Maritime Arbitrators, Inc. (SMA) Shortened Arbitration Procedure**, emphasize:

- **Sole Arbitrator:** Streamlining the appointment process.
- **Documents Alone:** Proceeding primarily on written submissions to reduce time and cost.
- **Limited Discovery:** Minimizing extensive information exchange.
- **Strict Timelines:** Ensuring awards are issued promptly (e.g., within 30 days of final replies).
- **Cost Caps:** Setting limits on arbitrator fees and legal expenses to control costs.

These procedures are particularly well-suited for the maritime sector, where many arbitrations are already conducted without oral hearings due to specialized and experienced maritime arbitrators.

- **Integration of AI Tools in Arbitration:** The **2025 International Arbitration Survey** reveals a significant and growing interest in the use of AI, with a clear expectation for its usage to "boom" in the next five years. AI's potential to enhance efficiency, reduce costs, and minimize human error is widely acknowledged.
 - **Current and Expected Uses of AI:** AI is primarily used for **factual and legal research, data analytics, and document review** (e.g., summarizing depositions, generating chronologies). Its use in **drafting correspondence and submissions** is also expected to increase.
 - **Benefits of AI:** Key drivers for AI adoption include **saving time for parties and counsel** (54%), **cost reduction** (44%), and **reduction of human error** (39%). AI can significantly speed up labor-intensive tasks and help equalize resources for participants with unequal access.
 - **Obstacles and Concerns:** Significant obstacles include **concerns about undetected AI errors and bias** (51%), **confidentiality risks** (47%), **lack of knowledge or experience** (44%), and **regulatory gaps** (38%). There is strong

resistance to AI making discretionary judgments or drafting legal reasoning, emphasizing that human judgment remains fundamental.

- **Principles for AI Integration:** The integration of AI should be guided by principles of **transparency, clear guidelines, and adequate training**. Arbitrators are expected to increasingly rely on AI for administrative and procedural tasks, but human oversight and critical evaluation of AI outputs are paramount to mitigate risks like "automation bias" and "memory blindness."
- **Recommendations for the Commission:**
 - **Promote Expedited Procedures:** Encourage the wider adoption of expedited maritime arbitration procedures through awareness campaigns and by supporting institutions that offer such services.
 - **Develop AI Guidelines:** Work with legal and maritime arbitration communities to develop clear **ethical guidelines and regulatory frameworks for AI use in dispute resolution**, addressing concerns around data privacy, accuracy, and accountability.
 - **Invest in AI Training:** Support training programs for legal professionals, arbitrators, and maritime industry stakeholders on the **responsible and effective use of AI tools** in arbitration.
 - **Foster Digital Platforms:** Encourage the development of secure, interoperable digital platforms for maritime arbitration that can seamlessly integrate AI tools while ensuring **confidentiality and data integrity**.

By embracing these advancements in arbitration procedures and strategically integrating AI, the EU can significantly enhance the efficiency, predictability, and cost-effectiveness of dispute resolution in the maritime sector, thereby contributing to a more attractive and resilient environment for international trade.

To ensure alignment with the **roadmap's Activity 9 (Global Digitalisation Projects)**, the **Commission** should prioritize funding **AI-driven arbitration platforms** under the **Digital Europe Programme**. These platforms must adhere to **EU cybersecurity standards** (e.g., **NIS2 Directive**) and support **cross-border interoperability** through **eIDAS 2.0**. This will reduce

reliance on **third-party jurisdictions** and enhance trust in **EU-led dispute resolution mechanisms**.

9. Addressing Fair Competition and Social Dimensions in the Maritime Industry

DigitalTrade4.EU strongly supports IndustriAll Europe's call for a **robust and forward-looking EU Maritime Strategy** that addresses the challenges of **unfair competition from Asia** and ensures the **creation of quality jobs** within the shipbuilding sector.

- **Fair Global Level Playing Field:** The Commission must address the competitive disadvantage faced by European shipbuilders due to **massive state subsidies and protectionist practices in Asia**.
- **"Made in Europe" Requirements:** Introduce conditionalities in EU financial instruments to ensure that **taxpayers' money supports investments within Europe**, preventing funds from being used for vessel construction or retrofitting in Asian shipyards. Financial incentives should encourage vessel construction and retrofitting in Europe, potentially through tax benefits under a harmonized European framework.
- **Social Conditionalities and Quality Jobs:** The EU Maritime Strategy and the new Sustainable Transport Investment Plan must include **mandatory social conditionalities**. This means promoting **collective bargaining, fair wages, work security, social protection, training, good working conditions, health and safety, and gender equality**. This is crucial for a Just Transition and to make the sector attractive, addressing **labour shortages and an aging workforce**.
- **Addressing Posted Workers:** The strategy must tackle issues related to posted workers, ensuring **proper enforcement of the Posting of Workers Directive** to prevent wage undercutting, regime shopping, and exploitation, thereby **preserving the integrity of the EU's Internal Market**.
- **Upskilling and Reskilling:** Prioritize EU-wide programs and dedicated funding for **lifelong learning and skills development** in emerging maritime technologies and green practices, recognizing the unprecedented scale of the training challenge due to twin transformations.

10. Financing the Defence Industrial Ecosystem through Digital ESG-Linked Supply Chains

The **2030 EU Defence Readiness White Paper** identifies the need for **speed, scale, and sustainability** in boosting **European defence industrial capacity**. A significant portion of **defence production** is sourced from **SMEs** with **limited balance sheet strength** and **constrained financing**.

To ensure **rapid ramp-up** in times of **geopolitical tension**, the Commission should explore **ESG-integrated supply chain finance frameworks** that:

1. Use **digital platforms** to assess supplier **ESG performance** and **compliance**;
2. Offer **conditional working capital support** linked to **sustainability** and **traceability goals**;
3. Provide **visibility** into **defence-relevant supply chains** to reduce **procurement friction**.

Embedding such **digital, sustainability-linked trade finance** in the **defence ecosystem** enhances Europe's **industrial sovereignty**, improves **supply chain resilience**, and aligns with the Commission's commitment to both the **green transition** and **strategic autonomy**.

Funding the Future: Strategic Investments

To operationalize the EU's green-digital trade strategy and support the broader competitiveness and security objectives, the **2026-2034 Multiannual Financial Framework (MFF)** should prioritize investments in three key areas, reinforced by the insights from the European Ocean Pact and IndustriAll Europe:

1. Digital Infrastructure in Asia:

- Allocate **€2 billion under NDICI-Global Europe** to fund secure digital corridors and interoperable DPP platforms with Asian partners (e.g., Singapore, Japan, South Korea, Australia, New Zealand).
- Co-finance ASEAN-wide digital customs systems and blockchain-based traceability tools.
- Support initiatives for **enhanced maritime domain awareness** and secure information sharing, drawing from Denmark's strategy.

2. SME Support and Capacity Building:

- Dedicate **~€800 million** to upskilling Asian and EU SMEs on DPP compliance, ESG performance mapping, sustainability-linked onboarding, carbon accounting, and e-signature adoption, enabling better access to digital trade finance solutions tailored for SMEs via the COSME programme.
- Launch a **Green-Digital Trade Academy** under Erasmus+ to train officials and businesses on emerging standards, and to address the **skills gaps and attract new talent** in the shipbuilding and maritime sectors, as highlighted by IndustriAll Europe.
- Additionally, the **Commission** must allocate **~€1.2 billion** under the **InvestEU Programme** to scale up **pilot projects for alternative fuels in maritime transport** (e.g., **hydrogen, ammonia-powered vessels**). This aligns with **Activity 11** of the **roadmap (Pilot CBAM-DPP Corridors)** and **IndustriAll**

Europe's call for research into **net-zero vessel technologies**. Funding should prioritize **SME participation** to avoid **monopolization** by **large shipbuilders**.

3. Interoperability and Standards Harmonization:

- Fund pilot projects (~**€500 million**) to align Asian digital trade rules with MLETR and eIDAS 2.0, focusing on mutual recognition of e-documents.
- Establish an **EU-Asia Digital Standards Taskforce** to streamline certification processes for sustainability data.
- Invest in **research and development programmes specific to the shipbuilding sector** at European and national levels, as advocated by IndustriAll Europe, including for alternative fuels and net-zero vessels.

These investments will not only facilitate smoother digital trade but also contribute to the **resilience of critical supply chains**, a key element of the EU's overall preparedness and economic security as highlighted in the "Security" and "White Paper" documents, and will ensure a **fair and sustainable transition** for the European maritime industry.

Furthermore, the Commission should explore standardised frameworks that link **sustainability data validation** with **trade finance access**—particularly for **upstream suppliers** participating in **Europe's green and defence industrial transitions**—to operationalise **environmental and resilience goals simultaneously**.

Conclusion and Next Steps

DigitalTrade4.EU reiterates the **critical importance of the EU's leadership** in linking trade with green and digital agendas. The **EU-Singapore Digital Trade Agreement (DTA)** and the role of **Digital Product Passports (DPPs)** in promoting sustainable trade are exemplary achievements, further complemented by the comprehensive vision of the **European Ocean Pact** and the practical security measures outlined in Denmark's strategy. The advancements in **electronic trade documents (eBLs, eFTI, Negotiable Cargo Documents)**, the integration of **eIDAS 2.0** for verifiable digital identities and secure operations, and the foundational role of **LEI/vLEI** in establishing trusted legal entity identities are all crucial for a seamless and secure digital trade environment.

Furthermore, the strategic focus on **simplifying maritime arbitration** through expedited procedures and the **responsible adoption of AI tools** will enhance dispute resolution efficiency and predictability. Finally, the emphasis on **investing in dual-use digital infrastructure** underscores the interconnectedness of economic competitiveness and strategic defence readiness.

The European Commission must now translate these strategic insights into **concrete, coordinated action**. This involves:

- **Intensifying international coordination** and **deepening digital trade partnerships**, especially in Asia through DEPA.
- **Championing global interoperability of laws and standards** (MLETR, eIDAS 2.0, LEI/vLEI, etc.) in the coming MFF period, ensuring their coherent application across electronic trade documents and digital identity frameworks.
- **Integrating environmental goals** into trade agreements through digital traceability tools, aligning with the Ocean Pact's objectives.
- **Leveraging global governance forums** to shape digital and green trade standards.

- **Strengthening EU-Asia partnerships** to enhance digital and green trade corridors, while also addressing **maritime security threats** through enhanced domain awareness and international cooperation.
- Ensuring **platform interoperability** to empower SMEs and reinforce digital sovereignty.
- Continuing to **co-fund global digitalization projects** that align with EU standards.
- Implementing policies that ensure **fair competition and quality jobs** in the European maritime industry, addressing concerns raised by IndustriAll Europe regarding subsidies, "Made in Europe" requirements, social conditionalities, and worker protection.
- Promoting the **simplification of maritime arbitration procedures** and fostering the **responsible development and integration of AI tools** in dispute resolution, supported by clear guidelines and training.
- Prioritizing **investments in dual-use digital infrastructure**, particularly quantum-secure networks along military mobility corridors, to bolster both commercial and defence capabilities.
- Furthermore, the **Commission** must establish a **Maritime Cybersecurity Taskforce** by **2026** to address **vulnerabilities** in **digital port operations** and **vessel systems**. This taskforce, aligned with **Denmark's Global Strategy for Maritime Security**, will coordinate **threat intelligence sharing** and enforce **minimum cybersecurity standards** for **IoT devices** used in **maritime logistics**.

By proactively pursuing these recommendations, the EU can **solidify its position as a global leader** in green-digital trade, enhance its **economic competitiveness**, and strengthen its **overall security and resilience** in an increasingly complex world. DigitalTrade4.EU stands ready to support the Commission in these vital endeavours.

In conclusion, **DigitalTrade4.EU's recommendations** provide a **comprehensive blueprint** for transforming **Europe's trade and defence ecosystems** through **digital innovation**. By adopting **MLETR, decentralised architectures, and dual-use DPPs**, and by aligning **eFTI with eIDAS 2.0**, the **EU** can secure its position as a **global leader in green-digital trade**. These steps will not only **simplify regulatory compliance** and **reduce costs** but also **fortify Europe's strategic autonomy** in an era of **geopolitical uncertainty**. We urge the **Commission** to **act swiftly** to implement these changes and collaborate with **industry stakeholders** to ensure a **seamless transition**.

The integration of **vLEI**, underpinned by **KERI's advanced cryptographic features**, signifies a **fundamental paradigm shift** in **digital trade**, elevating **security, trustworthiness, and compliance** to **unprecedented levels**.

Appendix 1. EU Green-Digital Trade Leadership Roadmap (DigitalTrade4.EU, 2025)

activity	objective	indicative metrics	tools/enablers
1. EU-Singapore DTA & Expand DEPA Partnerships	Strengthen digital trade diplomacy in Asia through high-standard agreements.	- 5+ new digital trade agreements with key Asian partners (e.g., Japan, India, ASEAN) by 2030 - 15% increase in EU-Asia digital services trade by 2028	DEPA framework, EU-Singapore DTA, Global Gateway Initiative, eIDAS 2.0
2. Implement Digital Product Passports (DPPs)	Ensure traceable, sustainable supply chains aligned with EU Green Deal.	- 50% adoption of DPPs by 2030 - 20% reduction in supply-chain carbon intensity by 2030	EU Sustainable Products Initiative, CBAM incentives, UNECE Recommendation 49
3. Fund Secure Digital Corridors in Asia	Build interoperable digital infrastructure for EU-Asia trade.	- ~€2B allocated via NDICI-Global Europe - 10+ blockchain-based traceability pilots by 2027	NDICI-Global Europe, ASEAN digital customs systems, EU Customs Data Hub
4. Harmonize Digital Standards (MLETR/eIDAS 2.0)	Enable cross-border recognition of e-documents and digital identities.	- 90% mutual recognition of e-signatures by 2028 - 70% SME adoption of eIDAS wallets	MLETR framework, eIDAS 2.0, EU Transport Law updates, UN/UNECE protocols
5. Implement LEI and vLEI for Supply Chain Trust	Harmonise and simplify legal entity identification across borders	- 90% entity coverage with LEI by 2030; 50% vLEI use in customs and eFTI transactions	ISO 17442, vLEI, eIDAS 2.0, UNECE UID
6. Launch Green-Digital Trade Academy	Upskill SMEs and officials on DPPs and carbon accounting.	- 40% increase in SME participation by 2027 - 60% cost savings for SMEs	Erasmus+ grants, COSME programme, tiered compliance thresholds
7. Integrate ESG into Trade Finance	Link trade finance to sustainability metrics for cheaper capital access.	- €10B/year unlocked for green trade finance - 30% lower Scope 3 emissions by 2030	InvestEU guarantees, CSRD-aligned reporting, FinTech platforms
8. Enforce Platform Interoperability	Prevent vendor lock-in and empower SMEs.	- 100% compliance with CJEU rulings by 2026 - 50% reduction in platform dominance	Court of Justice of the European Union (CJEU) Case C-233/23, DEPA, eIDAS 2.0, Digital Markets Act (DMA)
9. Global Digitalisation Projects with EU Standards	Extend EU digital infrastructure and norms globally.	- 20+ co-funded projects by 2030 - 80% interoperability with EU systems	Digital Europe Programme, CEF funding, EU-Asia Digital Standards Taskforce
10. Advance UNECE Transparency Protocols	Globalize EU sustainability standards for supply chains.	- 100% alignment with UNECE Rec. 49 by 2028 - 30% reduction in greenwashing claims	UNECE CEFAC, W3C Verifiable Credentials, EU CBAM registry
11. Pilot CBAM-DPP Corridors	Link trade finance to verifiable ESG metrics for tariff incentives.	- 20% CBAM compliance cost reduction - 50% DPP adoption by 2030	IoT carbon trackers, CBAM rebate schemes, EU Customs Single Window

Table 1. The roadmap above, DigitalTrade4.EU’s input to the European Commission’s “International Digital Strategy” operationalises the recommendations outlined in this document. For instance, Activity 1 (EU-Singapore DTA & Expand DEPA Partnerships) directly supports the harmonisation of international digital standards, while Activity 8 (Global Digitalisation Projects with EU Standards) aligns with efforts to promote dual-use infrastructure globally. These activities collectively reinforce the EU’s ability to leverage digital trade diplomacy as a tool for both economic growth and strategic security.