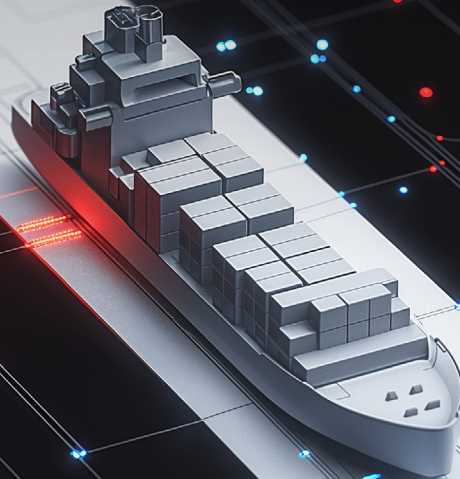In collaboration with the Ministry of Economy of the United Arab Emirates and Abu Dhabi Department of Economic Development

WORLD ECONOMIC FORUM

Artificial Intelligence for Efficiency, Sustainability and Inclusivity in TradeTech

INSIGHT REPORT

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Foreword

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Artificial intelligence (AI) is not just transforming global trade; it is revolutionizing it at an astonishing pace. AI is the driving force behind unprecedented levels of efficiency, sustainability and inclusivity, setting a new benchmark for global trade. Building on the foundation laid by last year's comprehensive TradeTech report, which offered a broad look at technology's role in transforming global commerce, this edition delves deeper into the profound impact of AI across supply chains, trade finance, logistics, customs and compliance. AI has transitioned from a concept to a tangible reality poised to revolutionize trade by streamlining processes, reducing costs and facilitating a more accessible and resilient global commerce ecosystem.

This report underscores that realizing AI's full potential demands overcoming challenges that transcend borders and institutions. Establishing interoperable systems, ensuring verifiable processes,

and aligning global regulations and incentives require collaborative, innovative solutions. Unlocking these opportunities will depend on forging partnerships and setting shared standards to ensure the benefits of AI-driven trade extend equitably across the globe.

The United Arab Emirates and the World Economic Forum are pleased to partner on the TradeTech Global Initiative, aiming to revolutionize global trade. The United Arab Emirates is rapidly emerging as a global powerhouse and a central hub for innovation in trade. Together, we are committed to empowering businesses and communities worldwide, ensuring no one is left behind in this era of transformation.

Let us unite in shaping the future of trade, where AI catalyses seamless cross-border commerce, shared prosperity and inclusive opportunities for all. We call upon all stakeholders to join us in propelling this bold vision forward.

Executive summary

AI is transforming global trade in ways that reshape both who participates and how business is done.

From enabling small firms to compete globally to making supply chains more sustainable, artificial intelligence's (AI) impact extends far beyond efficiency gains. This report examines both how AI is currently being used in trade and the choices that will define its future effects.

Concrete examples of AI use in supply chains, logistics, trade finance, and customs and compliance are presented throughout the report, demonstrating the range of benefits AI can unlock in terms of efficiency, sustainability and inclusivity. These include:

– Opening new markets, particularly for small- and medium-sized enterprises (SMEs)

– Enabling efficient automation

– Enhancing supply-chain visibility

– Promoting sustainability by supporting circular economy models and targeting carbon emissions for reduction

– Strengthening the resilience and security of global trade

However, these benefits may not extend throughout the entire trade ecosystem, depending on the extent to which AI is implemented.

The successful implementation of AI across global trade, or "AI convergence", can significantly increase real trade growth while enabling efficiency, sustainability and inclusivity gains across the trade ecosystem.

The fragmented implementation of AI across global trade, or "AI divergence", can increase real trade growth but concentrate the benefits of AI into "trade islands" – AI-powered hubs that offer superior efficiency but with limited participation. This could exacerbate global inequality in the short term, much as containerization initially benefited North-North trade more than other flows.

Despite the incentives to use AI in trade processes, the difficulty of implementation threatens ecosystem-wide adoption. This report offers an actionable matrix, indicating the specific areas where AI adoption is more likely given its potential impact relative to its ease of implementation, highlighting areas where stakeholder incentives are aligned and areas where more extensive collaboration is required.

Four factors can increase the ease of AI implementation in trade:

1. Ensuring system interoperability

2. Building trust

3. Facilitating public-private partnerships (PPPs) to align incentives

4. Investing in workforce development and digital infrastructure to strengthen human-AI collaboration

Achieving both rapid innovation and inclusive participation requires extensive collaboration and coordination across all parties in the trade ecosystem. Thankfully, AI can facilitate just that.

Introduction:
AI's potential as
a trade technology

AI is expected to add $19.9 trillion to the global economy by 2030, inevitably impacting global trade.
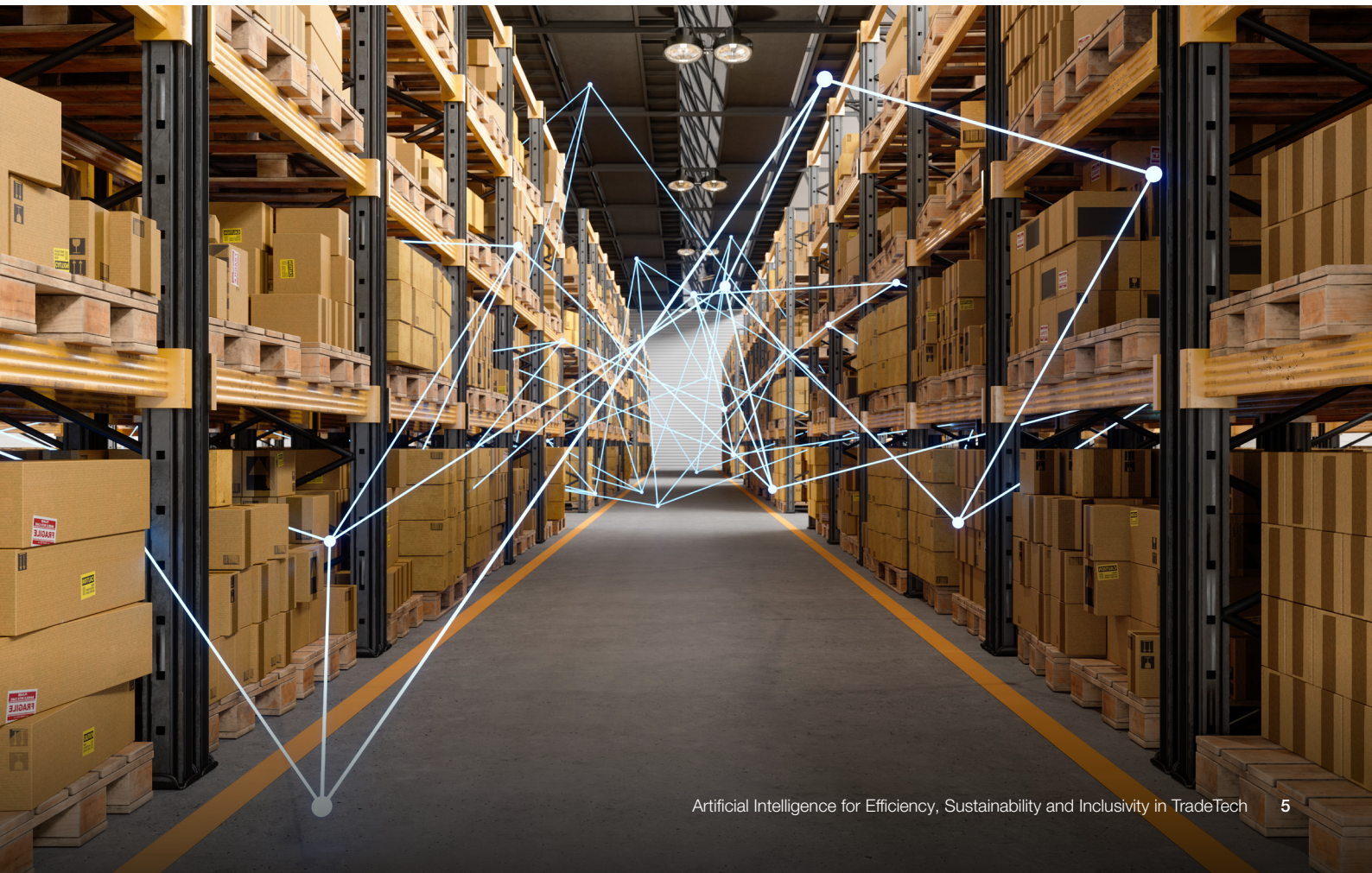
13.6
percentage points

Cumulative real trade growth in goods and services under the successful implementation of AI in trade

Artificial intelligence (AI) could contribute $19.9 trillion to the global economy by 2030, with the potential to reshape international trade dynamics.[1] This report, *Artificial Intelligence for Efficiency, Sustainability and Inclusivity in TradeTech*, maps the most dynamic areas of AI-driven change in trade. By examining concrete examples across supply chains, logistics, trade finance and customs, it evaluates how AI adoption can create a more efficient, sustainable and inclusive trading system.

AI technology offers extraordinary possibilities. It enables trade participants to coordinate at unprecedented scales and opens new ways for businesses, regulators and entrepreneurs to solve complex challenges together. Some experts believe that once organizations fully embrace AI's potential

to transform work practices, including through reskilling their labour, there could be a significant boost in global productivity.[2]

Fully embracing the potential of AI across the trade ecosystem can result in AI convergence, under which cumulative real trade growth in goods and services would increase by 13.6 percentage points, with uniform benefit across economies. AI divergence, or a fragmented implementation of AI, would only increase cumulative real trade growth by 9.3 percentage points and would concentrate gains, exacerbating inequality.[3] AI divergence could lead to the creation of "trade islands" – AI-driven centres where trade flows become concentrated due to the enhanced efficiency and cost savings enabled by AI.
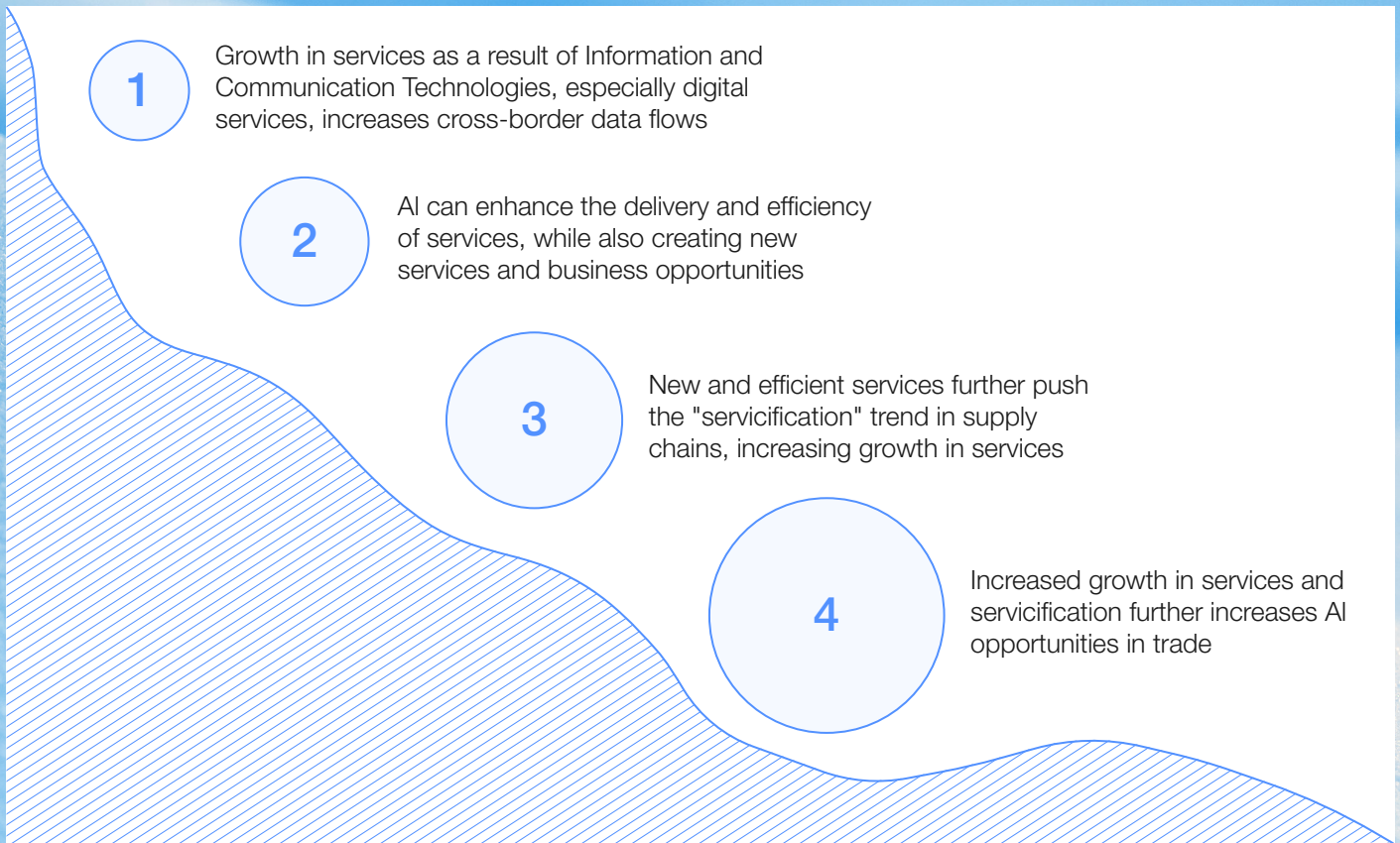
AI adoption

AI adoption builds on trends that are already under way: businesses are increasingly treating data as a product, improving quality and usability, and shifting from proprietary technology towards open, flexible solutions. These changes create a positive feedback loop, encouraging wider adoption of collaborative systems.

The complexity of coordinating today's supply chains and the blended sales of services and goods create a market ripe for AI. Already, services account for between a third and a half of the value added in manufacturing exports, including, for example, research, product development and after-sales support.[4] The increasing relevance of services in global trade amplifies the potential value of AI in the creation and delivery of these embedded services.

AI innovations are thriving in highly tradeable sectors, and those sectors are in turn investing heavily in AI. More than 90% of AI-related patents are concentrated in five sectors: computer and electronics, machinery, IT services, transport equipment and electrical equipment.[5] These factors combine to create a snowball effect, with AI's role in global trade set to expand dramatically.

FIGURE 1 | **The AI avalanche in trade**

1. Growth in services as a result of Information and Communication Technologies, especially digital services, increases cross-border data flows

2. AI can enhance the delivery and efficiency of services, while also creating new services and business opportunities

3. New and efficient services further push the "servicification" trend in supply chains, increasing growth in services

4. Increased growth in services and servicification further increases AI opportunities in trade

An important consideration in the adoption of technology is the difficulty of introducing it. In the World Customs Organization's (WCO) Smart Customs Survey, customs officials rated the incorporation of technologies such as virtual reality and blockchain as difficult, whereas introducing AI was rated as relatively easier (see Figure 2). Moreover, the potential impacts of AI adoption were seen as considerably higher than other technologies, such as 3D printing. Given limited resources for frontier technologies, a technology that is relatively easy to implement, with high expected impact, is set for high growth.
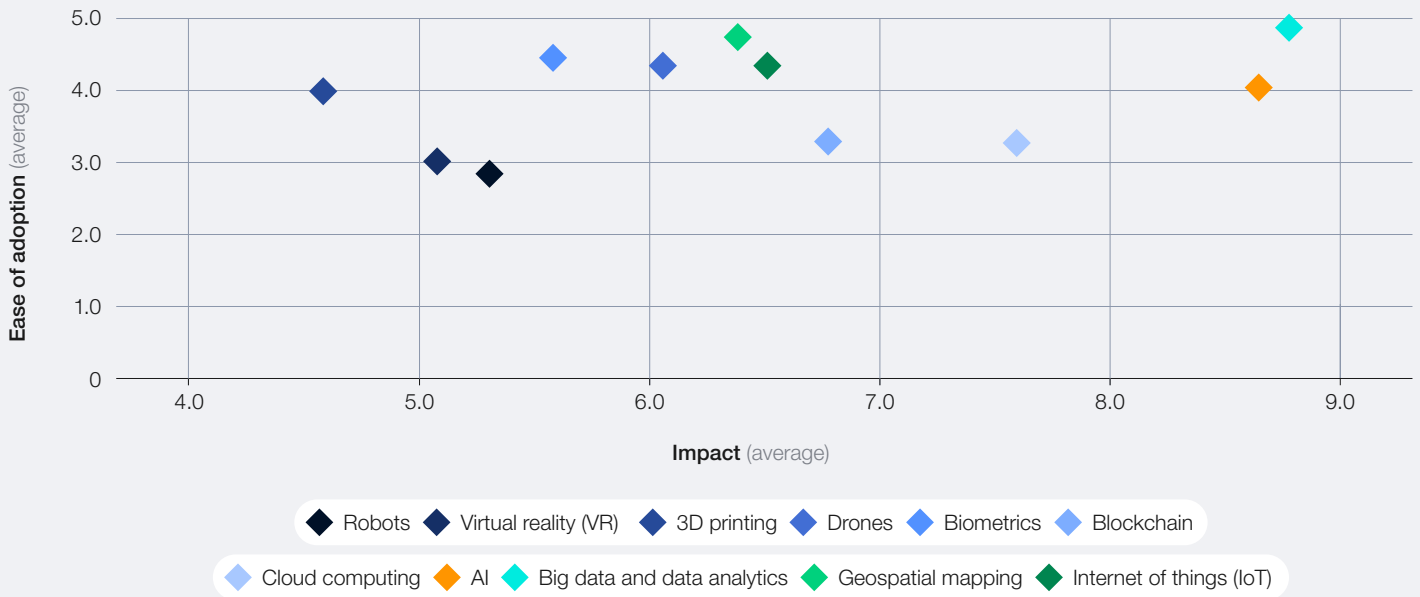
Source: Based on World Customs Organization (WCO). (2024). *Smart Customs Project: Results of the WCO Smart Customs Survey*.

AI goals in trade

As AI adoption in trade increases, the technology is showing early gains in three goals: efficiency, sustainability and inclusivity.

Efficiency

AI is adept at synthesizing statistical information to enable optimization and error reduction. Deploying AI effectively can free up human labour traditionally required to perform routine or dangerous tasks and allow workers to focus on higher-value, more complex activities. By automating and broadly optimizing trade processes, AI can support greater efficiency throughout the entire supply chain.

BOX 1 | **Maqta Technologies Group's AI-powered Trade Single Window innovation**

Developed and operated by AD Ports Group's Maqta Technologies Group under the supervision of the Abu Dhabi Department of Economic Development (ADDED), the AI-optimized Trade Single Window (TSW) system uses a multimodal approach to create a trade ecosystem that integrates air, land and sea operations.

TSWs traditionally allow traders to submit all necessary documents required for trading into a single platform. The AI-powered Advanced Trade and Logistics Platform (ATLP) goes beyond that to facilitate inspection, customs clearance and connections to economic zones. ATLP integrates numerous data sources to enable real-time tracking of goods, predictive analytics for supply chain optimization and streamlined trade processes.

The project creates a paperless channel that fuses information sources covering 176 million digital transactions. ATLP's data repository draws on over 20 maritime, aviation, rail, regulatory, financial and economic zone sources. Further, Maqta Technologies Group provides robust cybersecurity governance and ISO-certified protocols to ensure reliability. These security provisions create a foundation for testing and refining regulatory approaches and supporting the development of new technologies for global deployment.

Since its implementation, ATLP has reduced documentation requirements for traders by 90% and cut the burden on workers' time by 50-90%.

Source: Maqta Technologies Group

Sustainability

Identifying and quantifying environmental impact represents one of the most effective environmental levers. AI can provide new insights to address Scope 3 emissions, which refer to all the emissions produced across an organization's value chain and can account for 70% to 95% of an organization's environmental footprint.[6] Individually assembling data on facilities is a complex task given that such properties operate independently from the reporting company, but AI tools are able to generate accurate estimates of emissions at each stage of the production process. This AI-driven approach can produce Scope 3 emissions estimates at scale with previously unattainable detail.

AI's ability to improve supply chain visibility makes it invaluable for assessing environmental footprints, as required by the EU's Carbon Border Adjustment Mechanism, for example.

BOX 2 | **Scope 3 emission measurement**

Reducing Scope 3 emissions requires firms to have visibility, tracking and measurement for each input along complex product supply chains. Measuring Scope 3 emissions for an automobile, for example, requires tracking the steel and aluminium production involved in its components.

AI and a range of new technologies can support efforts to reduce Scope 3 emissions by:

– Improving specificity of emissions information inputs

– Gathering facility-level data to improve accuracy

– Reducing labour and costs involved in Scope 3 measurements

– Improving collaboration with regulators and partner companies to accurately measure emissions and work to minimize them

– Protecting data privacy and sovereignty by using federated learning models

Such tools can improve Scope 3 emission reductions to create better environmental outcomes, sanctions enforcement, compliance with trade regulations and overall efficiency.

Source: AltanaAI

Inclusivity

AI can support small and medium-sized enterprises (SMEs), which often lack the resources to navigate the regulatory complexity of global trade. Beyond the language barrier, challenges include finalizing contracts, obtaining finance and insurance, securing raw materials, and handling payments at each step of the process. Complex regulatory environments exacerbate the risks of non-compliance and create barriers to cross-border trade.

Automation and support through AI can alleviate the burdens on SMEs and create a more level playing field by:

– Breaking down language barriers to grant access to global markets

– Helping businesses better comply with regulations

– Anticipating shipping bottlenecks and supply chain backlogs

– Predicting and suggesting responses to shocks

BOX 3 | **DHL MyGTS**

DHL offers a self-serve platform, MyGTS, that enables shippers to compare and analyse trade regulations and requirements between the exporting and importing country, highlighting different regulations and requirements for goods to travel from export location to final customer. The tool helps companies plan their expansion into new markets and develop strategies to maximize their competitive advantages.

MyGTS uses AI to distil trade agreements and estimated duties and taxes for sending various goods across different trade routes. The tools – which include estimates for shipping fees, insurance, customs duties and cross-border taxes – improve businesses' ability to estimate the total cost of transporting products to their final destinations.

Source: DHL

1 AI: A composite technology for trade

AI tools integrate long-standing statistical and computer science methodologies into digital technology, drawing on decades of technological developments.

Predictive AI relies on statistical analysis and machine learning (ML) to find patterns in data, making it particularly suitable for trend analysis and forecasting. Generative AI (genAI) draws on complex neural networks such as large language models (LLMs) and is especially powerful for activities such as generating and translating text, processing images and planning tasks.[7] Many of today's most powerful AI applications in trade draw on a combination of these models to produce decision support and automated insights for harmonizing data, predicting trends and more.

BOX 4 | **Typologies of AI and their applications in trade**

Predictive AI builds on probabilistic models (including Bayesian statistics) and ML to, for example:

– Fill information gaps in trade statistics and documents based on historical data

– Optimize warehouse inventory

– Assess risk and develop risk profiles for traders

– Authenticate information and detect counterfeits and fraud

– Forecast economic trajectories with increasing accuracy

GenAI draws on complex neural networks like LLMs or generative adversarial networks (GANs) and ML to, for example:

– Generate and translate text

– Simulate complex scenarios to develop contingency plans

– Respond to queries from clients and traders

– Summarize information from trade documents

– Generate trade documents, such as customs declarations

Most TradeTech tools are compound AI systems, which combine AI types together and can be paired with other innovations, such as breakthroughs in big data and robotics (see Figure 3). For instance, genAI tools can help create an invoice or bill of lading, but to do this accurately often relies on data harmonized and processed through other AI techniques, which constitute the most important applications of AI in trade. The term "AI" in this report encompasses all instances of AI usage, including compound AI systems and their pairings with other technologies.
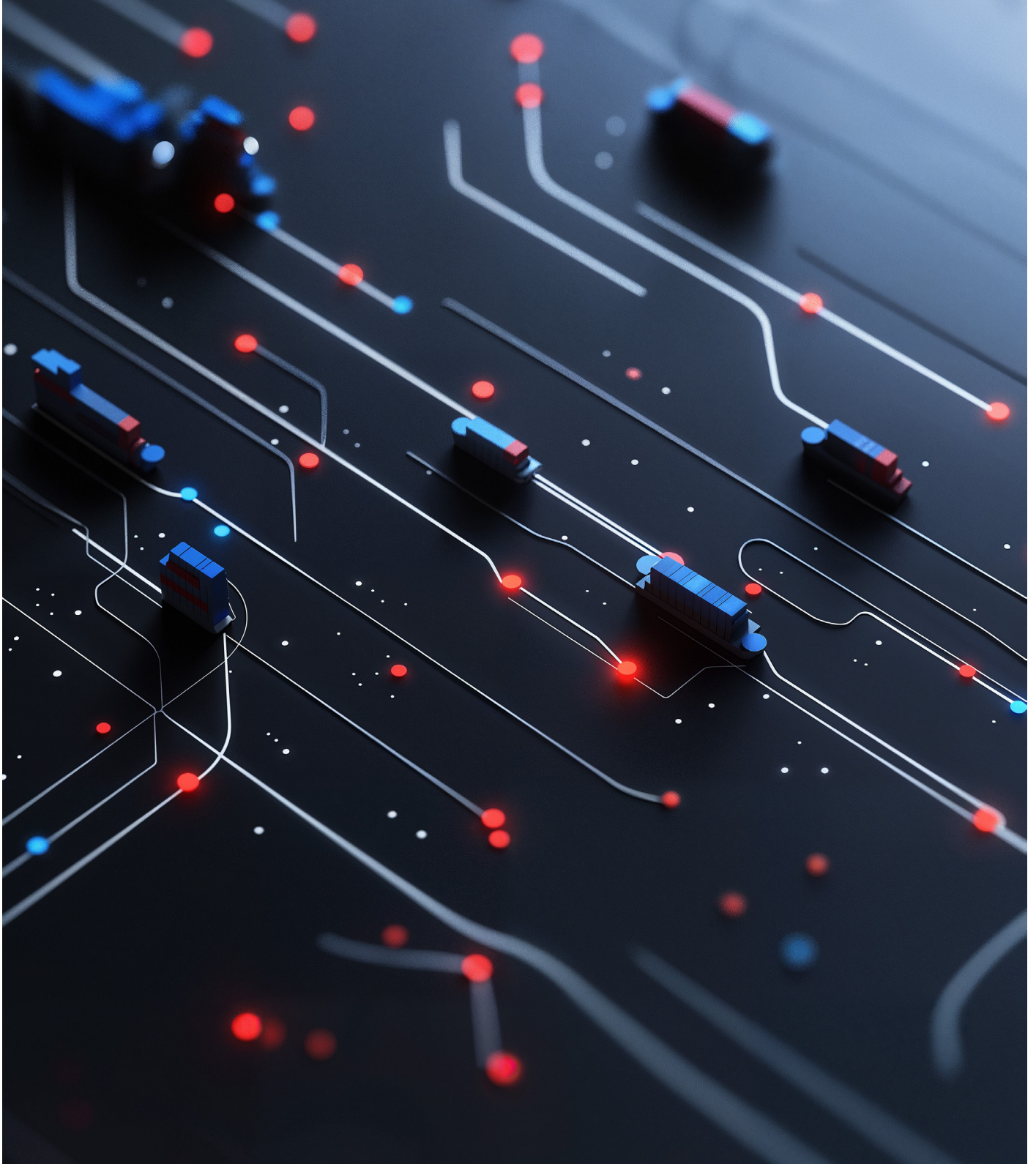
FIGURE 3 | **Intersection of AI and advanced technologies**
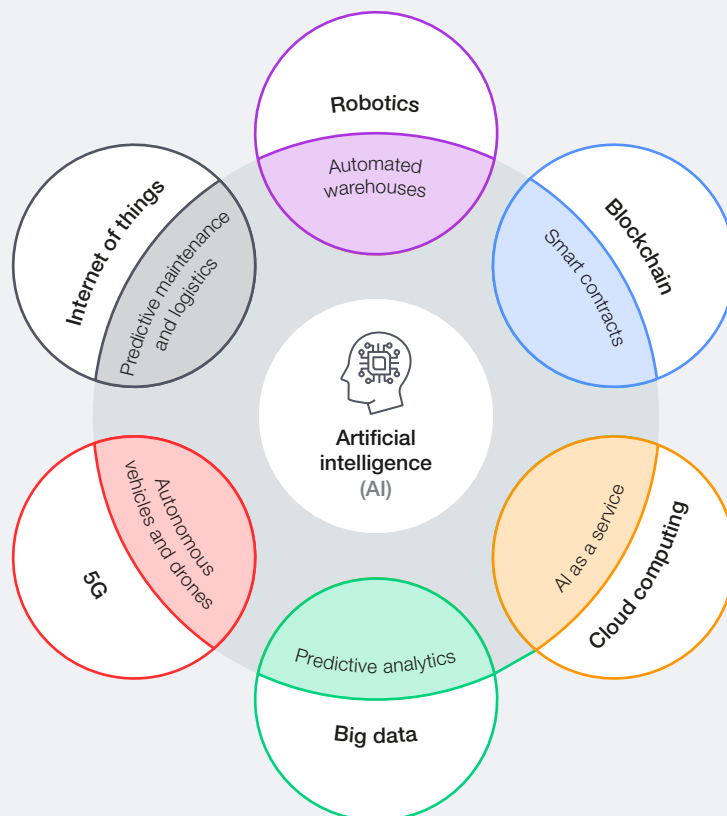
2 Use of AI across the supply chain

Today's supply chains enable a staggering degree of complexity, which AI can simplify.

65%

increase in service levels as a result of the use of AI in supply-chain optimization.

The mineral inputs for batteries of electric vehicles (EVs) travel roughly twice the circumference of the earth from their origin to production, on average.[8] AI has the potential to upend these complex global supply chains, transforming nearly every component of modern supply chains and changing how the system's parts interrelate.

Thus far, its impact has primarily been a story of the private sector's use of reliability- and efficiency-orientated tools, as well as its use of AI to reduce risk and support sustainability efforts. The use of AI in supply-chain optimization has raised service levels by 65% and reduced logistics costs by 15%, according to one recent study.[9]
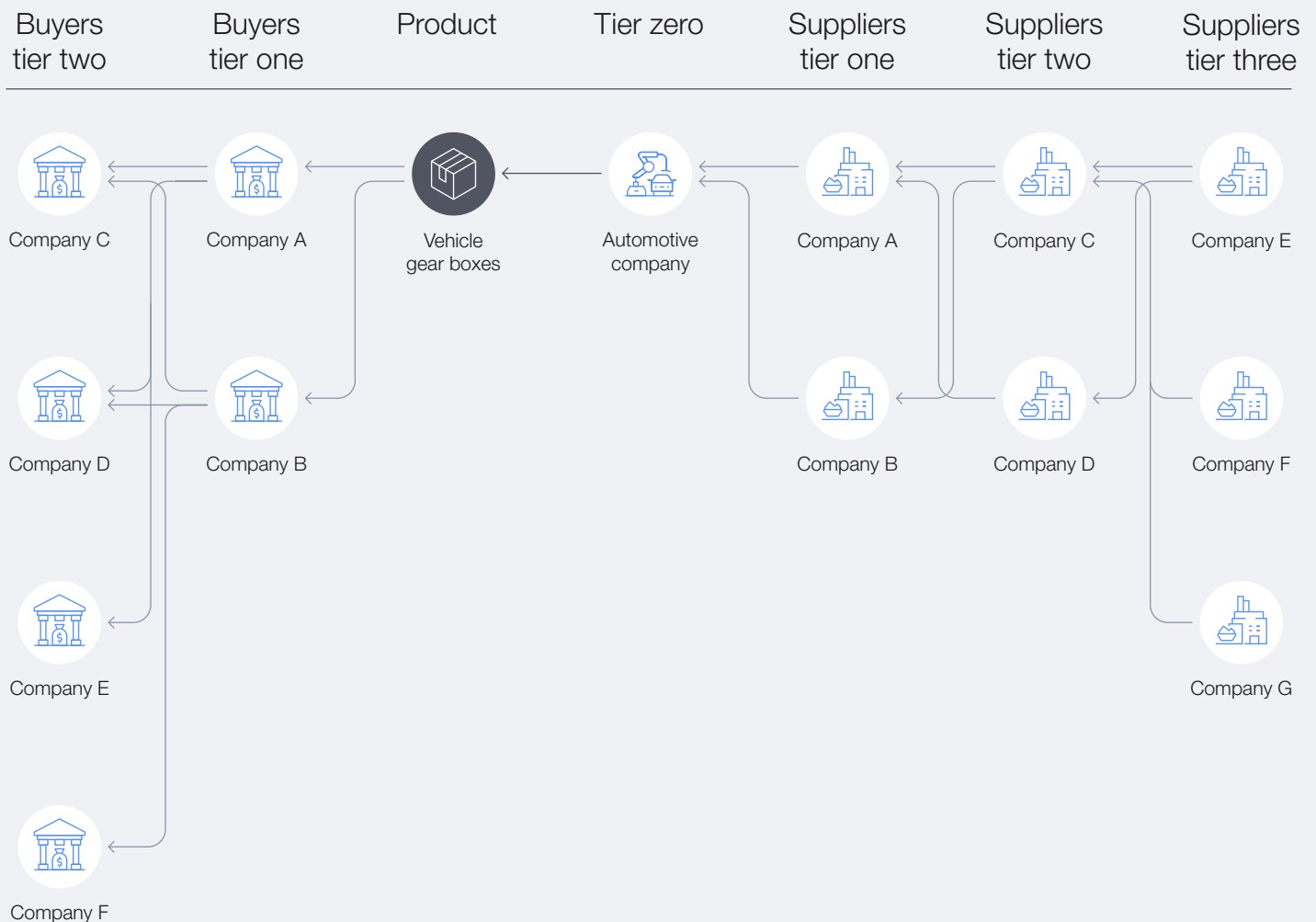
At the ecosystem level, AI can also improve decision-making in both the public and private sectors by presenting more sophisticated tools to visualize and analyse the current state of supply chains. Historically, information challenges, from tracing the provenance of goods to modelling weather disruptions, have limited companies' ability to reliably manage supply chains. By improving visibility and data coordination, AI can provide a clearer picture of today's complex and interconnected supply chains.

Information verification

Today's supply chains require companies to manage compliance, procurement, resiliency, economic security, environmental harm mitigation and efficiency across long distances – and to do so at scale. Historically, supply chain and life cycle information has been fragmented and opaque. AI helps streamline and integrate real-time data on supply chains into overall decision-making, which helps institutions anticipate rapid change.

AI can fuse contextual information found in corporate registries, transport documents, purchase orders and related records with language processing across all major languages to create new insights about modern supply chains. Fusing data sources enables the production of continuously updated maps, which provide new levels of visibility about complex, multi-tiered supply chains. Even relatively simple supply chains like the one in Figure 4 can involve various companies across multiple tiers and jurisdictions.

FIGURE 4 | **Charting supply chains**

Buyers tier two · Buyers tier one · Product · Tier zero · Suppliers tier one · Suppliers tier two · Suppliers tier three

Company C · Company A · Vehicle gear boxes · Automotive company · Company A · Company C · Company E

Company D · Company B · Company B · Company D · Company F

Company E · Company G

Company F

Source: Altana AI

> **Better visualization and mapping of supply chains can improve the way organizations optimize their production inputs.**

AI-powered mapping provides an information baseline that supports a broad range of other tasks, such as:

– **Compliance**: Verifying inputs improves companies' ability to ensure compliance across multiple regulatory environments.

– **Resilience**: Improved supply chain mapping allows businesses to anticipate and improve responses to potential disruptions or bottlenecks (see Box 6).

– **Insurance**: Better data mapping and analysis improves participants' understanding of their concentration risks and ability to develop contingency plans for business interruptions.

– **Optimization of supply chains**: Better visualization and mapping of supply chains can improve the way organizations optimize their production inputs, through reducing transport inefficiencies and streamlining supplier relationships, among other improvements.

Another approach to verification involves using AI-enabled track-and-trace systems that monitor goods from production to sale. The layering of ML and AI-powered maps can analyse patterns to improve tracking and identify risks of illicit trade.

BOX 5 | Digital ID can help to build data reliability for AI-based decision-making

Digital ID facilitates deeper implementation of AI throughout supply chains and is especially important to enable autonomous trade, under which AI agents automatically execute transactions based on predetermined criteria.

Immutable IDs that parties can trust can be built using technologies such as the blockchain or cryptographic signatures, which AI can use to inform its decisions. Given the complexity of global supply chains, verifying the authenticity of legal entities, inputs, products and documentation has become increasingly difficult. AI can offset these challenges by automatically authenticating all parties in a supply chain using a single, global "root of trust" for identities, which offers a neutral source of truth that attests to the authority of counterparties.

Source: Key State Capital

BOX 6 | Supply chains for humanitarian needs

Humanitarian supply chains are vital for delivering life-saving goods to vulnerable communities, particularly in crises. Emerging technologies, including AI, have the potential to strengthen these supply chains.[10] Tools under development, such as the Global Supply Chain Dashboard (GSSD), aim to provide real-time visibility into potential disruptions – like security incidents, port congestion and natural disasters. This enhanced visibility could help humanitarian relief organizations navigate logistical challenges and ensure the delivery of critical resources, such as therapeutic food for malnourished children. By using anonymized data from public and private sources, AI-driven predictive analytics can anticipate risks, suggest alternative routes and prioritize resources. Improved data sharing and visibility promise greater resilience, enabling more coordinated and timely responses when supply chain shocks occur, ultimately saving lives.

Fraud detection

The growth of electronic commerce (e-commerce) has introduced vast new opportunities for fraud, such as fake reviews, counterfeit products and scams. Estimates suggest that counterfeit and pirated products constitute 2.5% of world trade, or $464 billion in value.[11] AI's data analysis capabilities can flag suspicious transactions. Amazon stopped over 700,000 new accounts from bad actors and identified over 7 million counterfeit products around the world in 2023.[12] Similarly, Alibaba identified $159 million worth of counterfeit products between

July 2022 and June 2023 and supported law enforcement operations that resulted in 619 arrests and 257 facility closures.[13]

Fraud detection services also present business opportunities for emerging companies such as Sift, Entrupy and Signifyd, which have also capitalized on technological innovation. While studies suggest an increase in counterfeit products' infiltration of supply chains, AI can support the detection of sophisticated fakes.[14]

AI for a circular economy

AI is accelerating the transition from linear to **circular economy** models, which prioritize resource conservation, reuse and waste minimization. Improving supply chain analysis represents one strategy for companies to improve their circularity and strengthen sustainability efforts. AI and blockchain enable this transition by providing the in-depth analytics and visualization required to track product life cycles and identify opportunities for reuse and recycling, promoting transparency, traceability and data-driven decision-making.

Concrete applications of AI for circularity include:

– **Product life cycle extension**: AI-powered predictive maintenance and data analytics

can extend the lifespan of various goods, ranging from manufacturing equipment to consumer electronics, that can reduce waste (see Box 7).

– **Waste management**: AI and robotics are automating and improving e-waste recycling, especially for minerals in electric batteries, by increasing efficiency and reducing harm to humans (see Box 8).

– **Emissions tracking**: Monitoring Scope 3 emissions allows the environmental impact of a good to be quantified, allowing for more informed decision-making (see Box 2).

BOX 7 | **Predicting tomorrow's repairs, today**

Time series data from sensors are used to help predict when equipment will fail and when maintenance is necessary. GenAI uses new technology to analyse textual information and overcome gaps in data to better understand machine conditions and failure modes. The tools provide more accurate maintenance schedules that integrate into existing business systems.

Data analysis systems can create a repository of knowledge based on past cases to ensure the preservation of institutional knowledge, regardless of the experience level of individual technicians. These models can incorporate data in multiple languages, which enhances businesses' ability to develop wide repositories of knowledge about their equipment and reduce product downtime and failures.

BOX 8 | **Transforming waste into worth**

AI and robotics can change recycling for EV car batteries. SK Ecoplant aims to use AI tools to determine the location of the battery and bolts, the protocols for extracting the unit and the condition of the parts, including information about broken or missing pieces, enabling the automation of battery pack removal. This information improves the operation of robotics, which are used to unscrew bolts and remove the covers of battery packs.

The combination of AI and robotics can increase safety and decrease the processing time for dismantling battery modules by 32%. The company also expects to implement AI and automation to extract battery module cells by 2026, with the goal of improving overall efficiency of recycling operations by 30%.

Source: NUS Business School

> **The assets of AI can augment human intelligence and create a smarter, better-informed workforce with greater visibility over global markets.**

Smart sourcing

AI's ability to analyse complex, multidimensional data in real time can revolutionize the sourcing and movement of critical raw materials. In the past 20 years, trade in energy-related minerals has risen from $53 billion to $378 billion – a compound annual growth rate of 10%, which is likely to increase as the world's reliance on advanced technologies grows.[15] But the historic volatility of metal prices poses challenges for consumers who need stable prices and reliable supply chains. AI can help offset the volatility of these markets through:
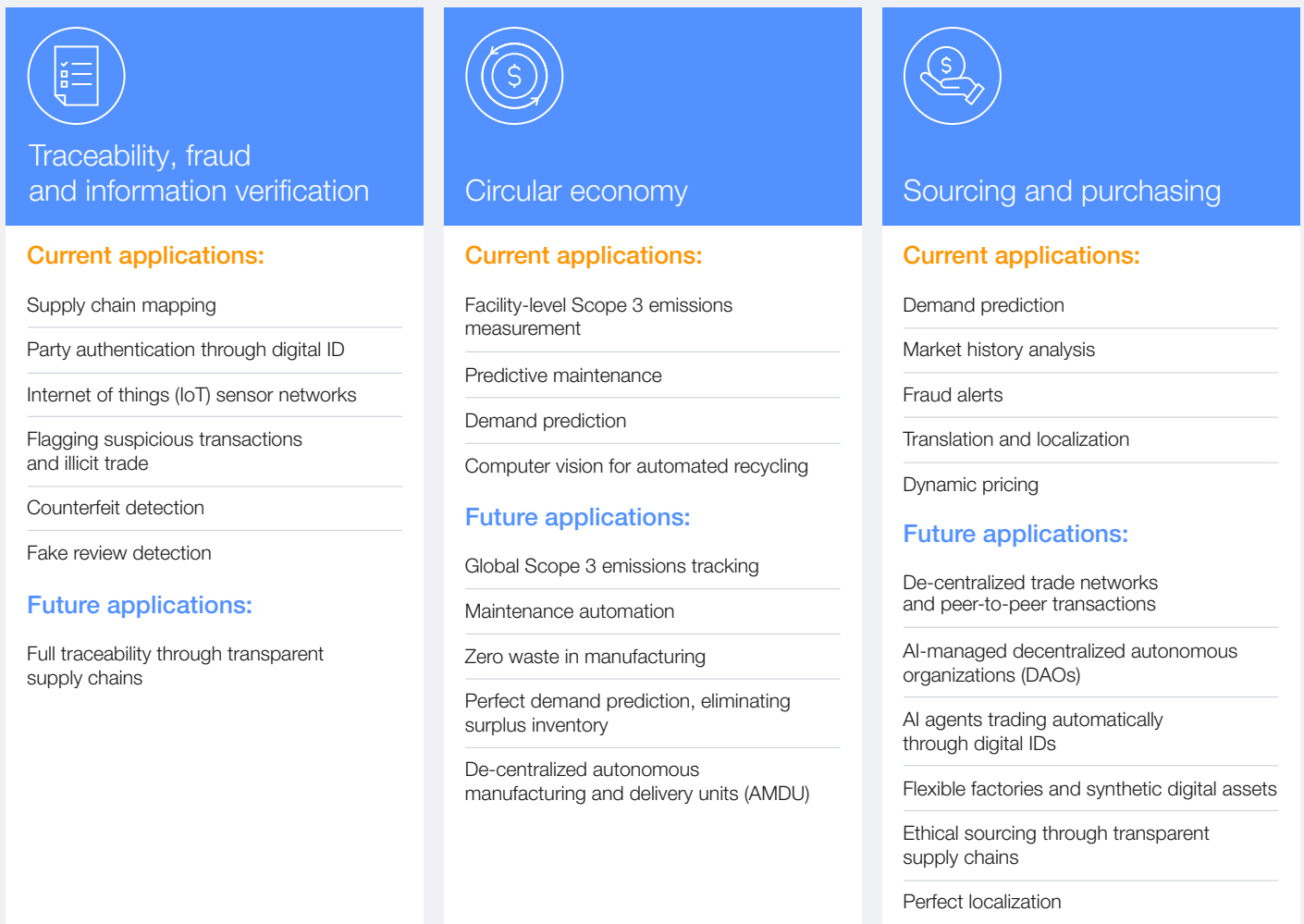
- **Rapid and incisive analysis**: Price data, global economic statistics and market sentiment are all factors that affect supply chains. AI and especially ML tools can identify patterns that enable leaders to make more accurate predictions about future pricing.

- **Real-time insights**: AI tools can continuously monitor news and social media to assess how various events may impact metal prices. This provides real-time insights that enable faster decision-making.

- **Enhanced risk management**: AI can easily identify unusual trading patterns or price movements, allowing for quicker detection of market inefficiencies and new trading opportunities. Pattern recognition can flag errors and reduce risks by identifying trades that do not fit expected behaviour.

- **Faster trade execution**: AI-driven systems can automate the process of capturing and entering trades into trading platforms, reducing manual input errors.

The assets of AI can augment human intelligence and create a smarter, better-informed workforce with greater visibility over global markets. By reducing risk and costs, such tools allow access to a greater supply of critical raw materials at better prices for end consumers.

FIGURE 5 | **Current and future applications of AI across supply chains**

Traceability, fraud and information verification

Current applications:

Supply chain mapping

Party authentication through digital ID

Internet of things (IoT) sensor networks

Flagging suspicious transactions and illicit trade

Counterfeit detection

Fake review detection

Future applications:

Full traceability through transparent supply chains

Circular economy

Current applications:

Facility-level Scope 3 emissions measurement

Predictive maintenance

Demand prediction

Computer vision for automated recycling

Future applications:

Global Scope 3 emissions tracking

Maintenance automation

Zero waste in manufacturing

Perfect demand prediction, eliminating surplus inventory

De-centralized autonomous manufacturing and delivery units (AMDU)

Sourcing and purchasing

Current applications:

Demand prediction

Market history analysis

Fraud alerts

Translation and localization

Dynamic pricing

Future applications:

De-centralized trade networks and peer-to-peer transactions

AI-managed decentralized autonomous organizations (DAOs)

AI agents trading automatically through digital IDs

Flexible factories and synthetic digital assets

Ethical sourcing through transparent supply chains

Perfect localization

3 Use of AI in logistics

AI is transforming logistics,
facilitating the delivery of new services.

Predictive analytics: AI excels in using voluminous data to predict outcomes of logistics operations. Such predictions can help firms anticipate cascading effects, such as the ripple effects of flooding in a rural province or a strike at a single port. AI can integrate vast amounts of both real-time and historical data, such as:

– Trade trends

– Weather conditions

– Port traffic

– Geopolitical events

– Economic indicators

– Social media trends

AI can also generate new insights on interrelations, thereby helping logistics providers plan routes and forecast demand. Such predictive analytics improve businesses' ability to optimize inventory and reduce waste. Moreover, pairing AI with other technologies like internet of things (IoT) improves firms' ability to plan maintenance schedules and anticipate equipment failure (see Box 7). By organizing timely repairs, firms can reduce unexpected downtime and extend assets' lifespans. These analyses become more accurate over time as AI continuously learns from and adapts to past predictions and new data.

Digital twins and simulation: Modelling and simulations have long been a tool for logistics providers, and AI enhances these traditional tools by feeding real-time data into evolving simulations. The technique of creating "digital twins" allows logistics operators to replicate supply chain networks in digital models to represent ports, warehouses, distribution centres and other transit nodes. By incorporating sensors, IoT and other data sources, digital twins allow logistics operators to manage potential disruptions proactively. Designing and simulating supply chains – rather than just accepting inheriting real supply chains – gives users more flexibility to craft intelligent responses.

BOX 9 | **Digital twins by Maersk**

Maersk has adopted AI in pricing, route optimization and forecasting models. Its digital twin modelling allows port operators to assess responses if storage facilities approach capacity, strikes loom or weather changes. Digital twins, powered by data from sensors, can optimize how the operator should plan the loading and unloading of containers under such conditions.

AI-powered simulations enable the analysis of historical and current data to maximize efficiency. Moreover, such tools increase overall safety by improving training. Port workers and vessel crews can use digital twins to simulate high-risk scenarios, thereby reducing accidents and improving resilience.
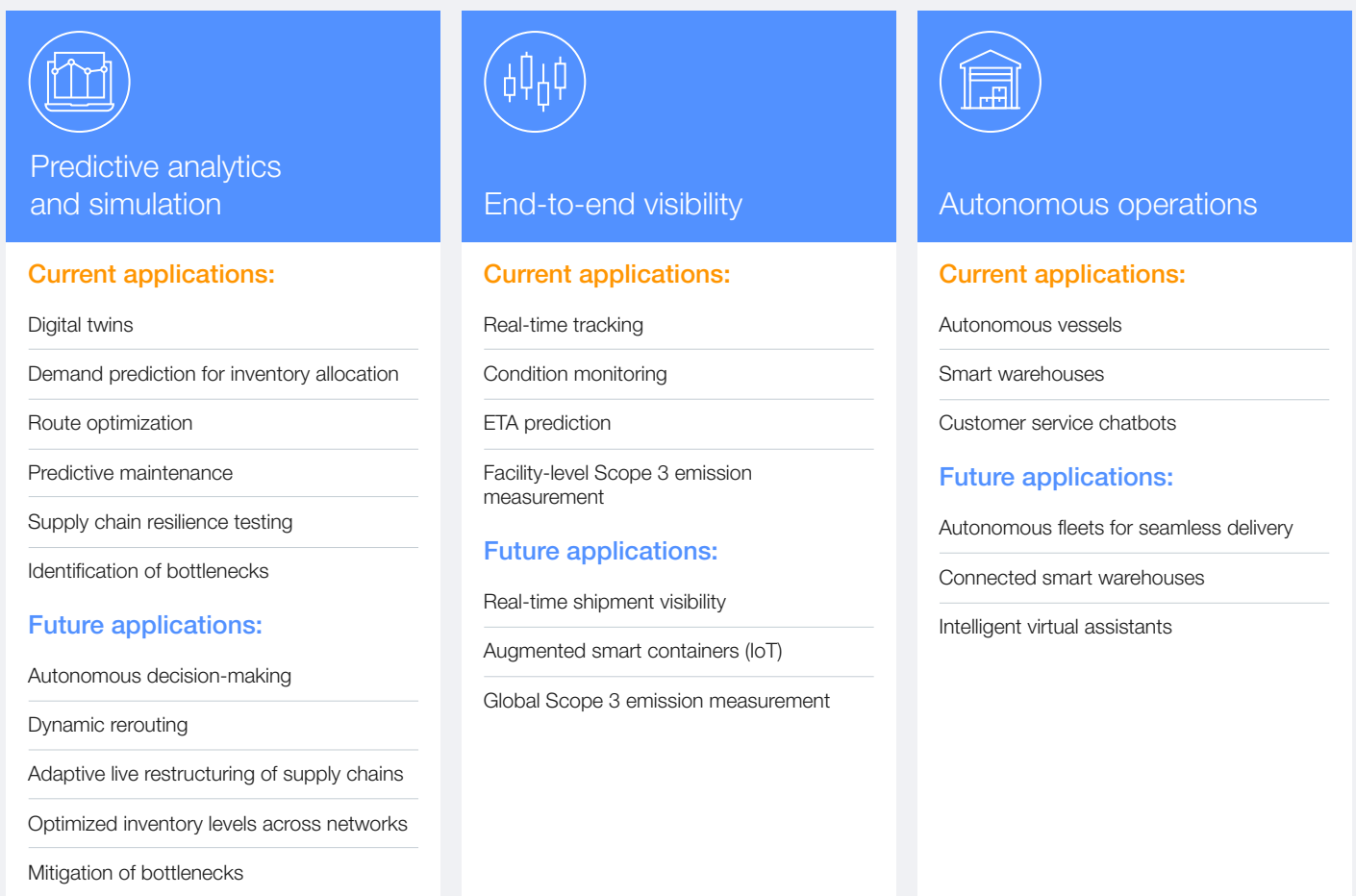
Source: Maersk
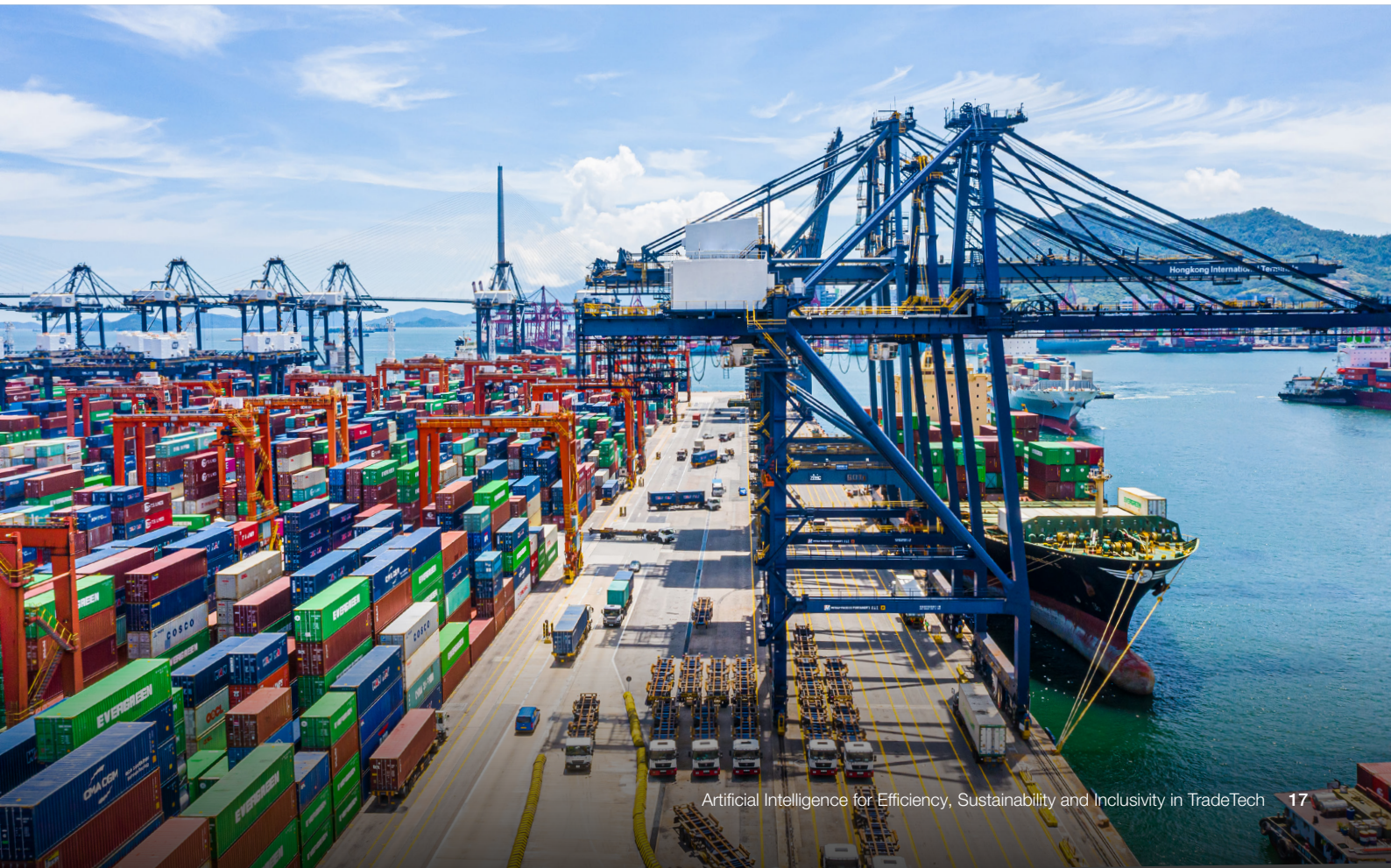
End-to-end visibility: AI is enhancing supply chain transparency through real-time tracking and monitoring of shipments. By integrating AI with GPS and IoT sensors, logistics providers can determine the exact locations and conditions of goods, reducing transit losses. Improved end-to-end visibility can also pave the way for new services, ranging from trade compliance to supply chain resilience testing.

Automation and autonomous operations: AI can streamline routine tasks, from document automation to autonomous vessel navigation. Adopting automation in targeted sectors can reduce human error and free up human resources for more strategic activities. Picking, packing and inventory management represent tasks that AI-powered robots have mastered to produce overall gains in efficiency and accuracy. An emerging frontier involves the use of AI to power chatbots and virtual assistants for routine inquiries and shipment updates. Additionally, AI is enabling the development of self-navigating vessels that use a combination of sensors, GPS and ML algorithms to plot optimal routes, avoid collisions and adapt to changing weather conditions.

Overall, the successful integration of AI in logistics will require a collaborative effort among all stakeholders in the supply chain, including shipping companies, technology providers, regulators and standard-setting bodies.

FIGURE 6 | **Current and future applications of AI in logistics**

Predictive analytics and simulation

Current applications:

Digital twins

Demand prediction for inventory allocation

Route optimization

Predictive maintenance

Supply chain resilience testing

Identification of bottlenecks

Future applications:

Autonomous decision-making

Dynamic rerouting

Adaptive live restructuring of supply chains

Optimized inventory levels across networks

Mitigation of bottlenecks

End-to-end visibility

Current applications:

Real-time tracking

Condition monitoring

ETA prediction

Facility-level Scope 3 emission measurement

Future applications:

Real-time shipment visibility

Augmented smart containers (IoT)

Global Scope 3 emission measurement

Autonomous operations

Current applications:

Autonomous vessels

Smart warehouses

Customer service chatbots

Future applications:

Autonomous fleets for seamless delivery

Connected smart warehouses

Intelligent virtual assistants

4 Use of AI in trade finance

AI is revolutionizing trade finance, reducing credit decisioning times from weeks to minutes.

A total of 80% of trade involves some form of financing, and trade finance tools range from credit lines to payment guarantees to specialized insurance.[16] Access to credit is especially critical for SMEs, which might otherwise struggle to front the costs of cross-border trade.

AI can work alongside other technologies to reduce the gap between the demand for and availability of trade finance – a funding shortfall of $2.5 trillion in 2022.[17] AI is offering improvements in the following domains:

– **Reducing inefficiency**: Reliance on paper-based documentation greatly increases processing delays.

– **Lowering barriers to entry**: Onboarding costs, transaction fees and other information gaps can make lenders cautious about relatively unknown SMEs.

– **Decreasing fraud risk**: Paper-based documentation, which is central to trade finance, makes the field vulnerable to fraud.

– **Increasing transparency**: Trade finance involves a complex array of intermediaries and processing steps, which impede transparency.

One of the most socially significant contributions of AI in trade finance involves greater inclusivity, as lack of credit disproportionately hurts SMEs. Challenges faced by SMEs include a lack of collateral and long-term relationships with bankers, insufficient credit or transaction history, and unfavourable market conditions, resulting in 45% of trade finance rejections being attributed to SMEs.[18] AI can help level the playing field by providing new tools for lenders and connectivity with borrowers.

BOX 10 | **Breaking trade finance barriers in Africa**

Jetstream's AI-enabled tools are facilitating access to trade finance for SMEs in West Africa, resulting in more than $8 million in loans and financial guarantees to hundreds of businesses in Nigeria and Ghana. This achieves a loss rate that is less than half the regional industry average.

At the start, the JetAssist application used AI to pull status updates from templated emails sent by global shipping lines and push them to a dedicated Slack channel to efficiently parse and relay critical shipping information, improving visibility and communication. Building on this using optical character recognition (OCR), data is now extracted from financial and logistics documents issued by third parties. It is then uploaded to a structured database to be fed into algorithms which help to cut down credit decisioning time from the industry-standard of around one month to less than one minute.
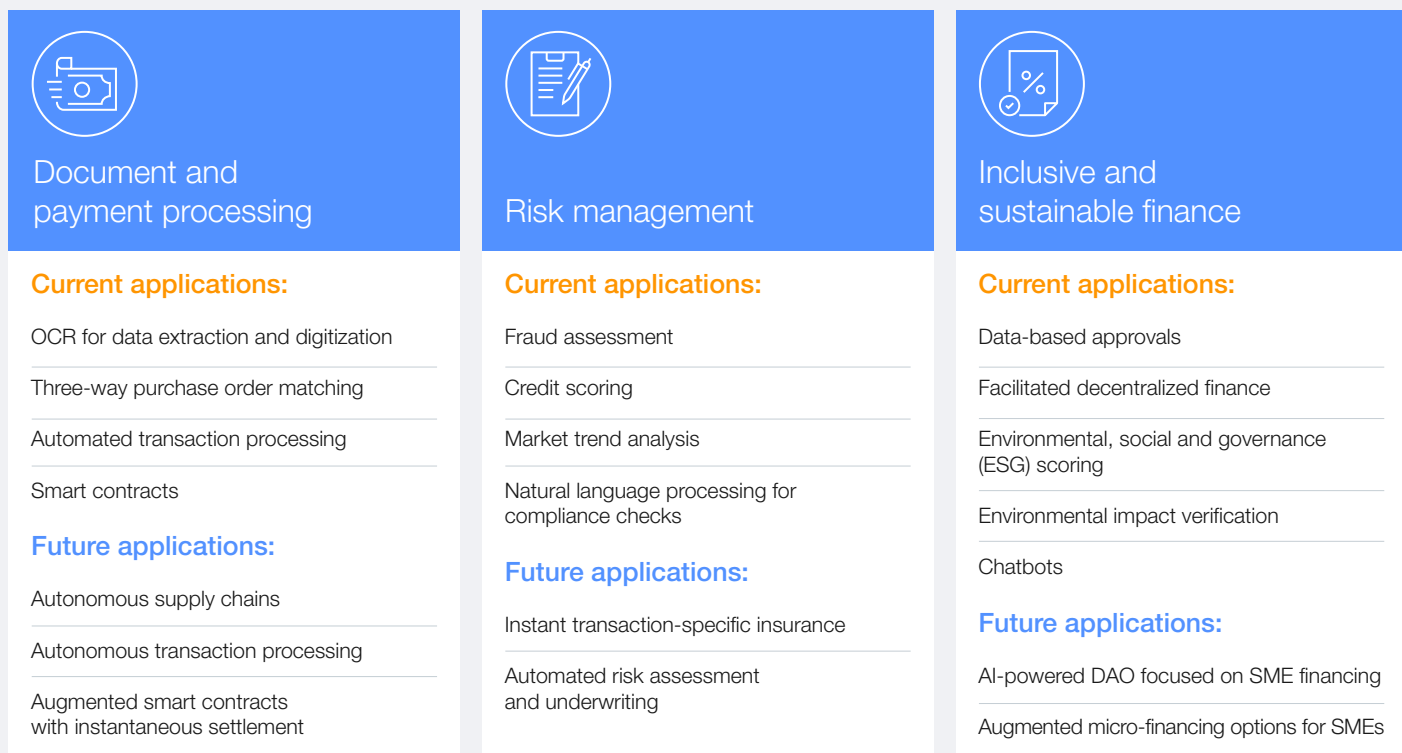
Source: Jetstream Africa

Supply chain finance depends on in-depth understanding of the risk profile of a transaction, including the actors involved and their track records. AI helps assess the relevant factors to reach a financing decision. Further, the combination of AI and optical character recognition helps digitize the underlying invoices, shipping documents, customs filings and other documents exchanged between buyers and sellers. Digitalizing such data improves efficiency, reduces errors and accelerates exchanges. For example, Twinco Capital uses AI to extract information from unstructured shipment paperwork, reducing processing time by 80% and increasing accuracy.
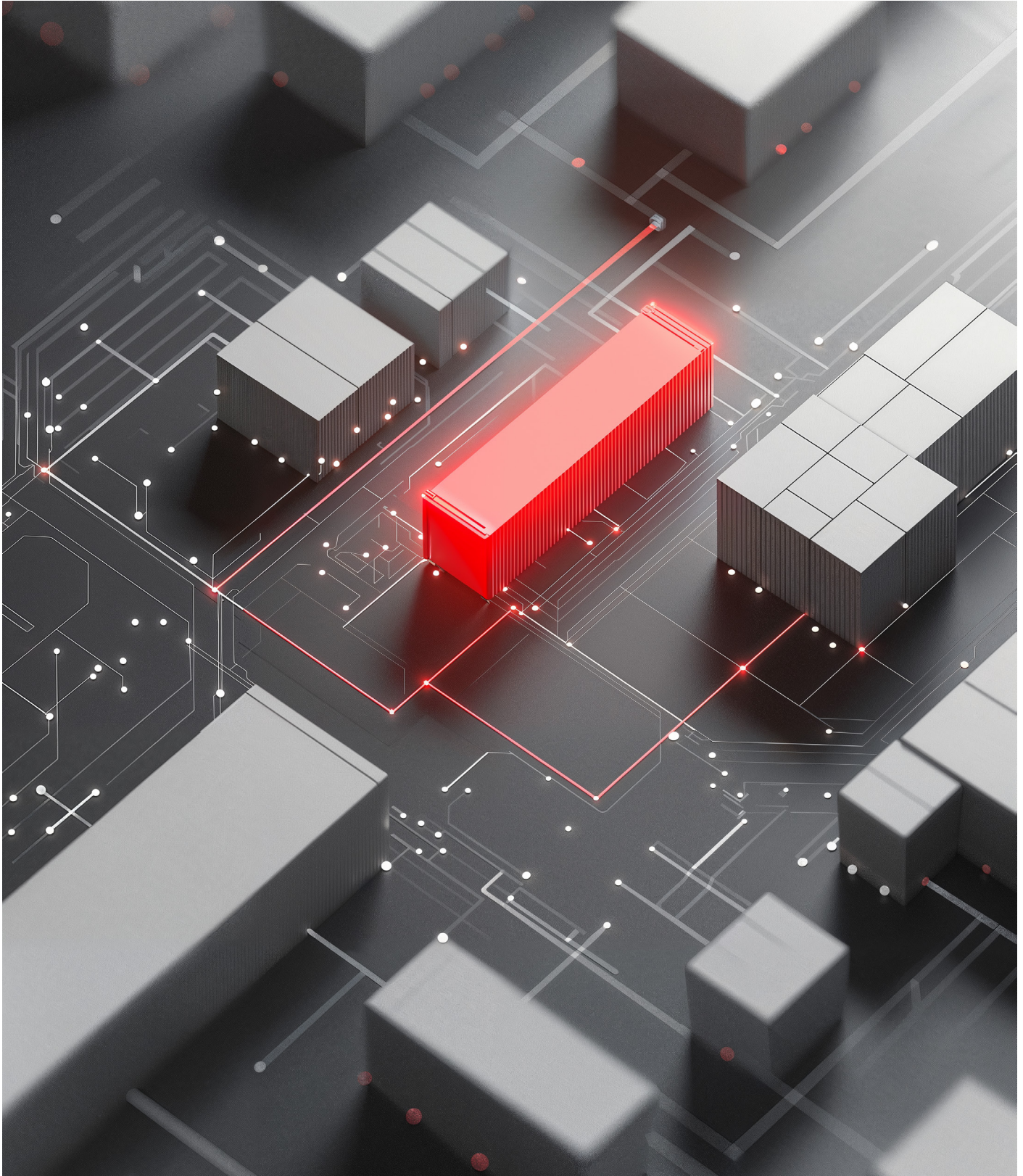
FIGURE 7 | **Current and future applications of AI in trade finance**

Document and payment processing

Current applications:

OCR for data extraction and digitization

Three-way purchase order matching

Automated transaction processing

Smart contracts

Future applications:

Autonomous supply chains

Autonomous transaction processing

Augmented smart contracts with instantaneous settlement

Risk management

Current applications:

Fraud assessment

Credit scoring

Market trend analysis

Natural language processing for compliance checks

Future applications:

Instant transaction-specific insurance

Automated risk assessment and underwriting

Inclusive and sustainable finance

Current applications:

Data-based approvals

Facilitated decentralized finance

Environmental, social and governance (ESG) scoring

Environmental impact verification

Chatbots

Future applications:

AI-powered DAO focused on SME financing

Augmented micro-financing options for SMEs

5 | Use of AI in customs and trade compliance

AI is streamlining customs processes and facilitating increasingly difficult trade compliance.

Automating document processing represents a robust area of AI incorporation. Traditional customs procedures require clerks to process large volumes of paperwork manually, which can lead to human errors and delays. For example, the global logistics provider DSV employs more than 2,500 clerks who handle over half a million declarations each month.

AI transforms processing practices. AI tools can extract information about each shipment from unstructured documentation about goods to ensure that customs forms are accurate. This automation not only accelerates the clearance process but

also enhances accuracy by minimizing manual errors, which can result in fees, incorrect taxation information and delays.

Another area where AI has shown success is **improved cargo scanning**. As the volume and complexity of global trade continue to increase, customs authorities face mounting challenges in detecting and intercepting contraband and counterfeit goods. AI can support new forms of data analysis, pattern recognition and predictive modelling that improve detection of high-risk shipments and make more informed decisions in real time.

BOX 11

Tracking tigers, combatting contraband

Project SEEKER represents an AI tool specifically designed to improve customs operations. The technology can detect illegally trafficked wildlife concealed within luggage and cargo by alerting enforcement agencies when an illegal wildlife item (such as tiger bones or elephant ivory) is detected. Project SEEKER was trained on X-ray images from baggage scanners in Heathrow Airport, which can scan up to 250,000 bags in a day. It has an over 70% successful detection rate for certain high-value items and complements existing

digital security operations without requiring overhaul or modifications. Using cloud technology, Project SEEKER can go beyond single-airport scanning cargo by connecting data patterns to build a comprehensive map of illegal wildlife tracking around the world. Such insights can help regulators identify smuggling routes and improve efforts to combat illegal trafficking.

Source: Microsoft

BOX 12

DP World – CARGOES Customs

DP World's CARGOES Customs uses AI-based tools to improve customs operations and streamline digitalization. The technology uses AI for:

– **Valuation**: Cognitive document processing extracts information from supporting trade documents to analyse data mismatches compared to data available in the customs declaration, reducing the manual verification of data.

– **Classification**: Natural language processing helps traders and customs brokers identify

Harmonized System (HS) classification based on descriptions of the product.

– **Risk assessment**: Predictive models analyse patterns in historical data to help customs authorities resolve misclassification and undervaluation issues.

– **Virtual assistants**: Chatbots provide declaration and payment statuses, inspection booking information and HS classification services for traders and customs brokers alike.

Source: DP World

AI can also help traders and officials navigate new regulatory requirements to combat forced labour. For instance, US regulators designed the Uyghur Forced Labor Prevention Act[19] to bar products from the Xinjiang Uyghur Autonomous Region in China due to forced labour concerns. US Customs and Border Protection use AI-powered solutions to enforce the ban accordingly.[20] AI tools can enable officers and analysts to gain insight into obfuscation techniques – such as shifting corporate networks – that companies use to conceal forced labour within their value chains.

BOX 13 | **HS complex codes**

Today's traders must navigate over 10,000 trade restrictions and tariff provisions introduced in the last decade. The complexity of these regulations creates pressure on logistics providers and customs brokers to operate in an increasingly volatile, high-stakes regulatory landscape.

AI offers some good news for traders who need to comply with these regulations and ensure shipments conform to standardized trading codes known as HS codes. Such codes are the backbone for coordinating shipping in many contexts; however, they can also add complexity. AI can facilitate traders' compliance with various requirements by supporting language processing and documentation requirements. For example, the technology provider AltanaAI can:

– Automate more than 80% of classifications

– Improve the accuracy of automated HS classification from below 50% to 80% or more

– Audit existing classifications to ensure compliance

– Provide up-to-date tariff data

Source: AltanaAI

More than just incremental improvements, these customs changes have the potential to **transform practices**. Traditionally, customs operations have operated on a transaction basis, wherein authorities selectively inspected products at the border. AI and new technology enable the shift to a systems-based approach, wherein businesses can integrate their shipping and information-management systems with customs and tax platforms, with risk-based inspections at any point.[21] So far, the gains from such technology have largely been concentrated in regions where information infrastructures are already well developed. International coordination is needed to ensure a broader range of jurisdictions and entities can benefit from the potential gains of AI-linked improvements.

FIGURE 8 | **Current and future applications of AI in customs and compliance**

Document processing

Current applications:

OCR for data extraction and digitization

Digital form creation

AI-powered TSWs for automated filing

Future applications:

Comprehensive business-to-government (B2G) and government-to-government (G2G) TSW system connection

Risk management

Current applications:

Cargo scanning for contraband detection

Risk prediction targeting high-risk shipments

Future applications:

Augmented cargo scanning for automated clearance and compliance

Risk profiles and tiered system for automated clearance of low-risk shipments

Compliance

Current applications:

HS code and tariff classification

Repository of compliance measures

Automated assistants

Future applications:

End-to-end traceability for compliance and preferential access (rules of origin)

Augmented and adaptive automated assistants

Perfect HS code and tariff classification

6 Cost, complexities and payoffs of AI adoption

While the benefits of AI are clear, its adoption in trade processes is more complex.

The adoption of any new technology creates costs and complexities: staff must be trained, new hardware or software must be acquired, and institutions must adapt to new practices. Despite the upfront challenges, the prospect of AI innovation offers numerous advantages, and today's businesses risk being left behind if they neglect the prospects of AI adoption.

How should traders navigate AI opportunities? Where can AI implementation yield the greatest gains?

An expert survey, mirroring the considerations of customs officials in the WCO Smart Customs Survey (see Figure 2), sheds light on the rate at which AI adoption is likely to proceed for various uses, considering the incentive for change and the ease of implementation. For example, businesses have strong incentives to adopt AI when the efficiency gains are obvious. However, if the technology is challenging to implement – for example, requiring intensive worker reskilling and expensive new hardware – then the advantages would be less obvious. Likewise, if regulatory barriers complicate technological change, the likelihood of adoption plummets.

Multiple factors affect both the incentive for and the ease of implementation of AI tools, including the scale of adoption. In general, small-scale adoption tends to be easier to achieve, but gains may be more limited. For example, company-specific solutions, such as dynamic pricing, are generally easier to implement than solutions that require supply chain alignment, such as risk-management techniques. Harder still are the changes that require ecosystem collaboration, such as comprehensive primary data sharing.

In the short term, the AI solutions likely to receive the greatest traction are those that offer company-level impacts and defined payoffs. Staged or incremental adoption can support the uptake of AI in more complex fields.

However, relying only on local optimization could result in uneven uptake and missed opportunities to support better societal outcomes. Coordination between regulators, industry consortia and neutral platforms could better support AI adoption for greater societal gains by aligning incentives. Several priorities emerge as topics that benefit from coordinated AI approaches.

TABLE 1 | Ease of implementation and level of incentive of AI use in trade

Ease of implementation		
Low	**Medium**	**High**
		Intelligence and negotiations: AI can facilitate both data analysis and more informed negotiation practices. Examples of uses include using AI to process and analyse import and export records, as well as modelling outcomes in multi-party negotiations.
Contracting and payments: AI can analyse transaction data, contract terms, regulations and thresholds for triggering approvals and payments of smart contracts, greatly reducing the time needed for trade finance to be released.	**Risk management and resilience**: New technologies can improve traders' mapping of supply chains, analyses of risk horizons and the development of contingency plans. Monitoring severe weather patterns and port congestion, for example, and combining these inputs with fleet-based data can improve traders' understanding of risks throughout the supply chain.	
Trade optimization: AI can support traders through work streams such as calibrating inventory to better align with demand predictions and monitoring inventories and shipments in real time. Moreover, AI planning to enhance maintenance timing can reduce downtimes, while simulations help prepare contingency plans. **Market facilitation**: AI's linguistic capacity and knowledge gathering abilities can support businesses operating in a wide range of contexts by translating communications, adapting advertising and connecting with diverse customers.	**Ethics and ESG reporting**: AI tools can monitor supply chains to track materials and products and assess suppliers to avoid unethical labour, illegal activities and environmental damage to more accurately score risk and comply with ESG requirements. **Border clearance**: AI tools can help with a range of challenges related to complying with customs and border-crossing protocols, such as managing documentation requirements and scanning X-ray images of cargo for fraud and smuggling detection.	

(Row labels on left axis: **Level of incentive** — Low, Medium, High)

Interoperability

Many institutions still rely on legacy systems that struggle to interface with modern business operations. Lack of resources, antiquated infrastructure and outdated regulatory frameworks can also slow the adoption of promising technologies.

Interoperability helps ensure that actors from different jurisdictions and regions can benefit from the shared gains of trade. Even if different platforms emerge, aligning protocols can help ensure that legacy systems remain interoperable. Such measures support the inclusion of numerous traders, even when institutions move at varying speeds in incorporating new technologies.

Developing common standards can also safeguard interoperability and facilitate the adoption of AI technologies in trade. Areas that benefit from common standards include:

– **Communication and data protocols**, which ensure high-quality data inputs, facilitate data sharing and enable integration with other technologies like IoT, help AI generate accurate and reliable insights, particularly in complex environments like global supply chains.

– **Cybersecurity benchmarks**, which mitigate the risks associated with increased digitalization and AI deployment, ensure transparency and trust in AI systems.

– **Standard definitions**, such as what qualifies as a legally negotiable contract or definitions for "waste materials", can streamline collaboration.

The coordination of standards:

– Allows for more consistent adoption of AI through supply chains

– Facilitates operations across jurisdictions for logistics providers

– Streamlines customs processes

– Accelerates trade finance

At the same time, AI can be part of the solution by breaking down language barriers to enable communication across diverse cultures and markets, enabling the development of consistent standards, regardless of the language of origin.

Trust

Verifiability is a cornerstone of both trust and compliance in international trade. Given the complexity of supply chains and the number of inputs involved, parties need assurances that the information they receive (such as documents and identifiers) is correct. Digital ID enables these assurances for humans and AI alike.

Verifiability represents a foundational challenge for AI systems, given that the quality of the underlying data is decisive in determining the quality of analysis that AI generates. The concept of "garbage in, garbage out" holds true for AI systems. For AI tools to deliver on efficiency, sustainability and inclusivity, they must be trained on accurate and relevant data. As such, digital ID can help ensure the accuracy of data, improving the ability to generate high-quality datasets for AI training.

However, while AI can assist in processing and tracking information at unprecedented scales, traders must coordinate ways to ensure verifiability without compromising sensitive information. Technologies capable of graduated disclosure, such as zero-knowledge proofs (ZKP) and authentic chained data containers (ACDC), are emerging as potential solutions.

| **Assurance and accountability through digital ID**

The Global Legal Entity Identifier Foundation (GLEIF), a non-profit organization established by the Financial Stability Board, created a global digital ID system known as the verifiable Legal Entity Identifier (vLEI). The system creates unique identifiers or cryptographic signatures for every transaction, supplier and purchaser. These identifiers cannot be altered by downstream participants in the supply chain and can, therefore, help reduce counterparty risk. vLEIs can be used to cryptographically sign records at every point in trade transactions, thus they enable verifiable

ways to establish reputations and help reduce the scope for fraud and data processing errors.

While the vLEI system does not completely eliminate all risks for fraud, it nonetheless offers a mechanism for establishing accountability previously impossible in digital systems. Such a foundation can facilitate real-time adaptation and defensibility of supply chains.

Source: Key State Capital

| **Innovation frontier: zero-knowledge proofs (ZKP)**

ZKP represent a breakthrough in cryptographic technology that could transform how trade information is verified and secured. This emerging technology allows parties to verify trade transactions and compliance without exposing sensitive underlying data. When combined with blockchain and AI applications, ZKP offer two key advantages:

– **Enhanced privacy**: Enables verification of trade compliance while keeping transaction details confidential

– **Reduced concentration risk**: Increases system resilience through decentralization

For example, customs agencies could verify regulatory compliance without accessing complete transaction details, effectively balancing transparency requirements with data privacy needs.

Despite its transformative potential, ZKP technology remains in its infancy. One challenge involves the need to develop governance frameworks for ZKP implementation. Regulatory sandboxes offer a promising approach to accelerating responsible adoption while developing appropriate governance structures.

Source: Key State Capital

Public-private partnerships

Implementing AI across global trade demands coordinated action, not isolated initiatives. This challenge is complex: supply chains span hundreds of entities with competing interests, varying resources and different capabilities to adopt new technology. While effective AI systems require comprehensive data sharing, current structures struggle to balance collaboration with competitive interests.

Public-private partnerships (PPPs) offer the most viable framework for driving ecosystem-wide AI adoption. By combining private innovation with public-sector support, PPPs can ensure AI implementation is technically sound, sustainable and inclusive. These partnerships can operate at multiple scales, from modernizing individual ports to developing cross-border frameworks that help businesses adapt to technological change.

FIGURE 9 | Distribution of duties to maximize PPPs

Governments

Ensure transparency

Incentivize participation

Enable digital infrastructure and innovation with the right building blocks

Develop workforce skills and plan for innovation on a national scale

Provide funding and resources

Align national strategies and priorities

Ensure ethical and responsible use of AI

Facilitate cross-border collaboration on AI projects

Businesses

Provide technological expertise and innovation

Invest in research and development

Provide feedback on current bottlenecks and roadblocks

Test and implement AI solutions in practical business contexts

Offer operational efficiency and management expertise

Academia

Conduct theoretical and applied research

Reskill the current generation and prepare future generations

Contribute to ethical frameworks for AI development

Civil society

Represent public interests by monitoring and raising awareness about societal impacts

Facilitate public dialogue and engagement

International organizations

Coordinate global development and implementation efforts

Develop international standards and guidelines

Provide platforms for multistakeholder dialogue

Accelerate capacity building in developing countries

Note: No one party can generate this broad range of contributions and insights; therefore, collaboration is the only way to maximize the benefits of AI adoption in global trade.

BOX 16 | **TradeTech Regulatory Sandbox**

The TradeTech Regulatory Sandbox aims to bridge the gap between cutting-edge technological solutions and existing local regulatory frameworks by creating a controlled environment in which start-ups, financial institutions and regulators can test new technologies in real-world conditions. Structured as a collaborative initiative, the sandbox requires active engagement from both public and private sectors; government agencies, including the Central Bank of the United Arab Emirates, Abu Dhabi Global Markets (ADGM), Dubai Financial Services Authority (DFSA) and RegLab, provide regulatory oversight, while private sector participants bring technical expertise and innovation. The sandbox currently focuses on trade finance, emphasizing AI and blockchain to make trade finance processes more efficient, sustainable and equitable. Although the initial focus is sector-specific, the sandbox model is adaptable and could expand to other areas in the future.

While this cohort is headquartered in the United Arab Emirates and managed by the World Economic Forum, the TradeTech Regulatory Sandbox has a global reach, drawing businesses from around the world. The insights and outcomes are not confined to United Arab Emirates markets but aim to inform international regulatory best practices, positioning the sandbox as a pioneering initiative with the potential for broad cross-border impact.

> ❝ The TradeTech Global Initiative can accelerate the adoption of effective AI solutions and provide a blueprint for new models of public-private collaboration that transform trade.

The **Trade Worldwide Information Network (TWIN)** exemplifies a targeted cross-border approach; it focuses specifically on the secure storing and sharing of trade-related information through distributed ledger technology. This can be augmented by AI's ability to digitize documentation, further facilitating information sharing. By bringing together governments, businesses, and non-governmental organizations (NGOs), the project demonstrates how focused collaboration can dramatically reduce transaction costs and processing times, particularly benefiting SMEs.

The complexity of global trade demands comprehensive approaches that span both jurisdictions and issues. The **TradeTech Global Initiative**, a partnership between the World Economic Forum and the United Arab Emirates, represents this new generation of holistic PPPs. The initiative operates on several levels and scales. It facilitates local projects, such as the regulatory sandboxes within the UAE, that can be scaled to support other jurisdictions. The project also maintains a global perspective through regular convenings with international leaders and experts.

By combining local implementation with global knowledge sharing, the TradeTech Global Initiative creates a powerful mechanism to harness successful AI solutions to benefit the whole trade ecosystem. The project creates a forum to test innovations in specific contexts while maintaining a platform for global dissemination. As such, it can accelerate the adoption of effective AI solutions and provide a blueprint for new models of public-private collaboration that transform trade.

The future of trade: collaboration for convergence

The implementation of AI across global trade at every scale is inevitable, given the gains the technology offers businesses and governments.

> **Collaboration among humans, through international regulatory coordination and PPPs, is essential to reaching AI convergence.**

The **successful** implementation of AI stands at a critical juncture, with two paths ahead: AI convergence and AI divergence. Convergence could boost real growth in global goods and services trade by 13.6 percentage points through 2040, while divergence could yield a more modest increase of 9.3 percentage points – a difference of approximately 38%.[22]

AI divergence – trade islands

AI divergence, resulting from an asymmetric and fragmented implementation of the technology, could lead to "trade islands", wherein trade flows are concentrated through countries that quickly and fully adopt AI as a result of the increased efficiency, transparency and traceability possible through this technology. History offers a telling parallel in containerization, which increased North-North trade by approximately 700% over two decades, while North-South and South-South trade saw substantially lower gains.[23] This concentration need not be permanent: containerization eventually became the global standard, and late adopters benefitted from the lessons learned and innovations developed by early adopters. Trade islands, should they occur, would not be a permanent divide but rather a transitional phase towards a more integrated and dynamic global trade landscape enabled by AI.

Nevertheless, the transition period could be shortened or avoided altogether through coordinated action focused on enabling human-AI collaboration and facilitating human-human collaboration to reach AI convergence.

Human-AI collaboration

Successful AI integration into global trade involves collaboration with (rather than the replacement of) human expertise.

AI brings unprecedented capabilities in data analysis, pattern recognition and predictive modelling, while human judgement remains essential for innovation, contextual understanding, ethical oversight and strategic decision-making.

Combining these skill sets is vastly more powerful than either entity operating in isolation. When implemented effectively, AI handles intensive data processing, freeing humans to focus on higher-order challenges that require both quantitative insight and qualitative understanding – from strategic planning to ethical oversight of complex systems. AI convergence therefore depends on thoughtful workforce development by businesses and governments to train the current workforce while preparing future generations for an AI-enhanced landscape.

Robust digital infrastructure and innovation incentives are key to human-AI collaboration, enabling humans to continuously improve the technology's capabilities. By investing in computational resources, data systems and innovation frameworks, environments where technology and human creativity can work together effectively can flourish. Strategic incentives, such as research funding, collaborative platforms and training programmes, encourage diverse talents to engage with AI, ensuring that its development is representative and remains responsive to human needs. This can transform AI from a standalone technology into a powerful collaborative tool that enhances human problem-solving and potential.

Human-human collaboration

Collaboration among humans, through international regulatory coordination and PPPs, is essential to reaching AI convergence.

Regulatory coordination can establish common standards and frameworks to ensure interoperability between systems and establish trust in the technology. International bodies like the World Trade Organization (WTO) have a role to play in minimizing regulatory fragmentation and ultimately preventing AI divergence. Regulatory frameworks must be comprehensive, focusing on interoperability, security and transparency to mitigate fragmentation while remaining flexible enough to accommodate AI innovation – a difficult balancing act, given the speed of innovation.

Ensuring a comprehensive yet flexible regulatory framework requires an understanding of the various competitive incentives from all stakeholders in global trade, as well as an understanding of the technology itself. PPPs emerge as essential connective infrastructure to address unaligned incentives and a lack of information, bridging governmental oversight, private sector innovation, academic expertise and civil society concerns. PPPs like the TradeTech Global Initiative can facilitate AI convergence by:

– Connecting diverse stakeholders to align incentives

– Informing the development of frameworks through regulatory sandboxes

– Raising awareness on key issues through thought leadership material

– Shedding light on cutting-edge developments through start-up accelerators

– Sharing best practices from experts and regulators around the world

– Pushing for collaborative approaches to AI implementation

While preventing fragmentation in the face of ongoing global challenges is difficult, collaboration has never been easier, thanks to AI. AI empowers humans in previously unthinkable ways, enabling the synthesis of vast quantities of information in real time and facilitating communication in any language on the planet. As these tools develop, they will inevitably continue to revolutionize trade. However, in navigating the complexities of AI implementation in global trade, success will be measured not by technological advances but by the ability to use AI to create a more inclusive, sustainable and efficient interconnected global trade network.

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