



HOW EBL ADOPTION IS TRANSFORMING GLOBAL TRADE

Lessons and Perspectives from China

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01 Executive Summary

This report aims to shed light on China's significant advancements in electronic bills of lading (eBL) to understand broader global implications. The country's above-average eBL adoption rates and innovative applications highlight its leadership in this area. With proactive policies and a significant share in global maritime trade, the country's eBL adoption rates have surpassed 21%, compared to the global average of 5%.

By examining the market's progress, this report explores the full potential of eBL as a "data container" — a concept highlighting the eBL's ability to digitally link processes, documents, and stakeholders related to individual shipments along the supply chain. This enables managed rights control, trusted collaboration across the supply chains and reimagined digital workflows.

Understanding China's eBL journey offers valuable insights into the broader implications and considerations for wider global adoption. The lessons learned from the experiences of leading adopters can guide other regions in overcoming challenges and fully harnessing the eBL's benefits to streamline trade processes, enhance compliance and reinforce resilience. This report is based on insights gathered from an eBL forum in Shanghai, where stakeholders across the ecosystem, from carriers to freight forwarders and customers, shared their experiences and perspectives.

>21%

China's eBL adoption rate compared to the global average of 5%.

02 A Case for Change

History of electronic bill of lading adoption

The growth in electronic bills of lading (eBL) in recent years has been significant, given the slow initial rate of adoption since the first eBL solution provider was established in 1998. By 2022, the adoption rate was only 2.1%¹ according to the International Chamber of Commerce (ICC), but then doubled to 5%² in 2024 according to the latest figures from the Digital Container Shipping Association (DCSA).

With platforms such as WaveBL, IQAX eBL, Wisetech (Bolero) and ICE CargoDocs promoting the technology, shippers are drawn to the eBL's swifter processing, improved tracking, reduced paperwork, tighter security and expanding legal validity. This contrasts with existing paper driven processes, using slow physical couriers, with inherent inefficiencies and fraud vulnerabilities.

Nine ocean carriers to issue 50% of their bills of lading digitally by 2027 and 100% by 2030.³

Global industry initiatives are also promoting use of the eBL. This includes the FIT Alliance (Future of International Trade), formed in 2022 by the ICC, the shipping association Baltic and International Maritime Council (BIMCO), the DCSA and the International Federation of Freight Forwarders Associations (FIATA) and the financial transactions alliance SWIFT. In 2023, the FIT Alliance launched an eBL declaration

which, at time of printing, has over 230 signatories, with a commitment to standardising eBLs and promoting existing eBL systems. Meanwhile, nine ocean carriers in the DCSA have signed a commitment to the industry to issue 50% of their bills of lading digitally by 2027 and 100% by 2030.³

In addition to this declaration, the FIT Alliance has published promising results from their survey on eBLs, which was first launched in 2022. According to their most recent survey, the share of respondents who use eBLs has surged from 33% to 49% since 2022 with a marked increase

in respondents who use eBLs exclusively. Encouragingly, a further 75% of respondents plan to transition to eBLs — up from 58% in 2022. Banks showed more hesitancy, however, with a lower percentage of them indicating that they were pursuing eBL adoption. Survey respondents expressed a near unanimous belief that eBLs would unlock broader digital transformation — highlighting faster processing, improved data accuracy and enhanced security as advantages the technology would bring. Unsurprisingly, survey data indicated that Asia leads in eBL adoption, with 60% of respondents adopting the technology versus 50% in the Middle East and 45% in Europe.⁴

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Having recognised the benefits of the eBL, governments worldwide are also promoting adoption by laying the groundwork for its legal recognition. The Brussels-based Comité Maritime International (CMI) has drafted model regulations.⁵ The UNCITRAL (United Nations Commission on International Trade Law) has established the Model Law on Electronic Transferable Records (MLETR) to help governments across the world adopt electronic trade documents.⁶ Based on this, the United Kingdom introduced the Electronic Trade Documents Act which came into force September 2023, authorising the eBL, while France has also updated its law.⁷

eBL adoption in China

There has been a particular sense of urgency in China to embrace the eBL which is not surprising given its dominance in maritime trade. The country's share of container volumes at the 100 biggest seaports globally rose to 41.3% in 2023, up from 40.2% in 2022 and 36.6% in 2014, according to Lloyd's List data.⁸

Evidence of this urgency can be found in China's policies to drive eBL development and acceptance. In September 2024, China's General Office of the State Council (the country's cabinet) issued a policy document to promote opening up the shipping sector to more high level innovation.⁹ It focuses on promoting the digitalisation of shipping and reinforces its commitment to expanding the application of electronic cargo release and eBLs.

A November 2024 meeting of the National People's Congress Standing Committee also proposed amending China's maritime code to establish full legal status for standardised electronic transport records, on par with paper-based transport documents.¹⁰

This has progressed further with the recent breakthrough of the Shanghai municipality's adoption of the MLETR for trade documents in the Pudong New Area.¹¹ Director of the Lingang Special Area Administration Division of the Yangshan Special Free Trade & Transportation Zone, Eason Lin said, "The latest policy promulgated by the Shanghai municipality for the Lingang Pilot Free Trade Zone on Jan 1st, 2025 to adopt blockchain-enabled electronic documents, aligned with MLETR principles, represents a major milestone for international trade. This move aligns with a broader global trend, following similar legislative changes in France, Singapore, and the UK."

Lin added, "The initiative is set to enable smoother, more efficient trade processes with global partners while fostering innovation, with the eBL at its core in Shanghai. In fact, we have already seen some companies innovate upon the eBL ahead of this policy, thus paving the way for even greater advancements in the future."

Grant Hunter, Chief Digital Officer, at BIMCO, added, "We are aware that the acceptance and use of electronic bills of lading in China is certainly growing — and growing quite fast. COSCO shipping is very proud to make public that they have issued over 350,000 electronic bills of lading in their liner and bulk trades through the IQAX eBL solution."

Given such progress, further transition towards eBLs is inevitable and the potential value is clear. Consultants at McKinsey calculate that 100% adoption by the shipping sector would save US\$6.5 billion in costs and enable US\$40 billion in global trade.¹²

This report examines the current state of eBL adoption and the drivers for broader application, capturing learnings from top global container carriers, freight forwarders, beneficial cargo owners (BCOs) from different verticals operating in the market. This report will specifically highlight novel use cases, including those emerging from early adopters in China.



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— Grant Hunter, Chief Digital Officer, BIMCO



03 Navigating The New Norm

Trade 3.0 and the future of global supply chains

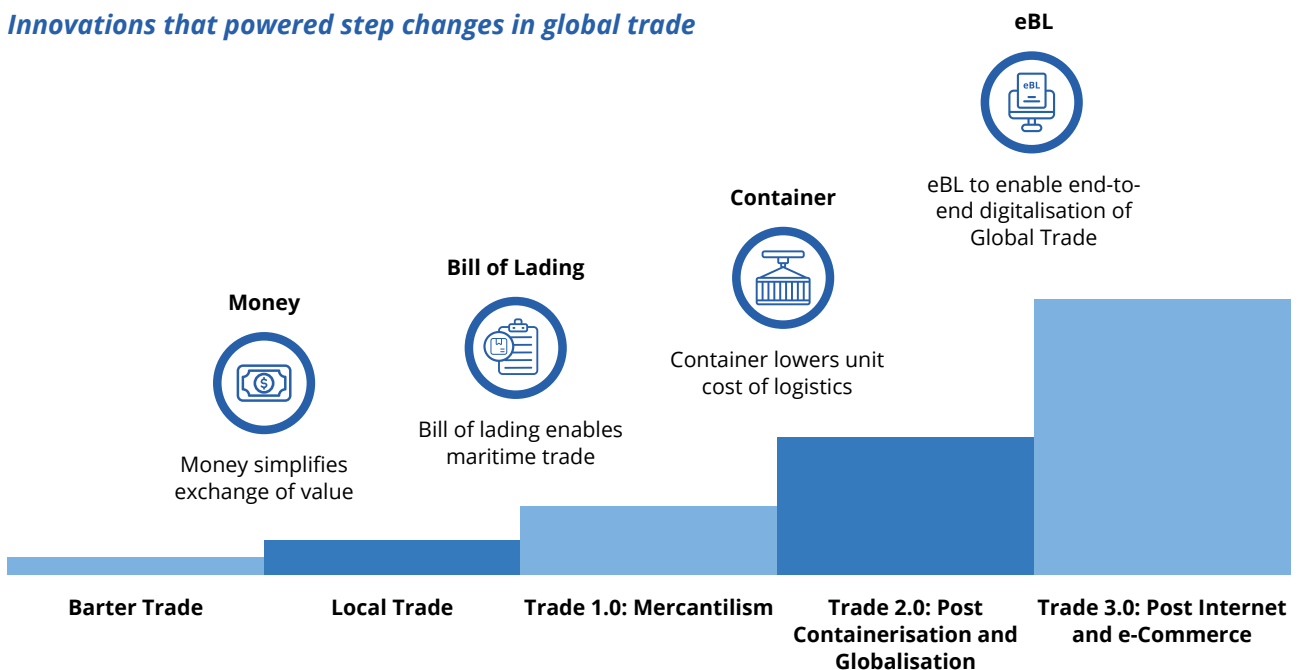
Trade has always been expanded by innovation such as money, letters of credit and bills of lading. From the 19th to the mid-20th century, also known as the era of Trade 1.0, the physical constraint of moving goods piecemeal posed a significant challenge. The advent of containers in the late 1950s marked the birth of Trade 2.0. Goods could now be seamlessly transferred in 40-foot-long metal boxes between ships, trucks and trains. This inter-modal transportation system reduced logistics costs by more than 95%, lowering the barriers to international trade and substantially contributing to global economic growth. This lowering of barriers has helped accelerate the development of many economies and even helped some lift out of poverty. In fact, world trade values have ballooned by almost 370 times from 1950 levels, according to the World Trade Organisation (WTO).¹³

However, over the past five years global trade has entered a new era — Trade 3.0. Supply chain professionals were besieged by a series of crises, from COVID-19 and the Red Sea crisis to longshoremen strikes. Incoming tariffs and other trade barriers catalysed the reshaping of entire supply chains. In response to the unprecedented uncertainty they face, corporations have been compelled to diversify their supplier base. Simultaneously, regulators have ratcheted up the burden on corporations to provide comprehensive audit trails of their supply chains.

This new era demands complex supply chains, fast-paced coordination of market participants across the world, whilst maintaining resilience in the face of disruptions without incurring excessive cost. Traditional optimisation strategies in the physical realm such as using larger ships, automated terminals or network re-designs, are no longer sufficient.

A promising way forward, however, is the digitalisation of the entire trade process itself. Only a fully digital trade process can effectively address the challenges of Trade 3.0. These involve facilitating more efficient coordination and digital data exchange between diverse supply chain participants and, in doing so, allowing greater resilience to be built. To achieve this, a “data container” — a novel concept that will be explored later in this report (in the *eBL as a “Data Container”* section) — is required to facilitate these data hand offs, which is where eBLs come in.

Innovations that powered step changes in global trade



A spotlight on China's rising eBL adoption

eBL-friendly policies in China have spurred key shipping players into action and prompted higher rates of eBL adoption in China compared to the rest of the world. To explore this trend, a gathering of 120 shipping and trade industry leaders, including representatives from the world's leading carriers, was hosted by GSBN in Shanghai during November 2024.

An ecosystem effect in China was identified by participants as a critical element for unlocking new applications and potential from the use of eBLs. This was reflected by the participants, including freight forwarders and businesses from a wide range of sectors (eg consumer electronics, steel, food, pharmaceuticals, etc) that accounted for 40% of the event participants, followed by 25% from banking and insurance, 20% from carriers, 10% technology partners and the final 5% from international standards associations. To facilitate a free and open exchange, discussions took place under the Chatham House Rule with the agreement that key points would be summarised in this paper.

In its most recent estimate, the DCSA places the current global eBL adoption rate at 5%.² However, during the discussions, some carriers revealed that their adoption rates in China were already far higher, at over 21%.

Pamela Mar, the International Chamber of Commerce (ICC) Digital Standards Initiative (DSI) Managing Director, attended the Shanghai meeting. She said, "Although the figure is anecdotal, the discussion showed that the Chinese market was ahead in dealing with eBL integration compared to Western markets. In China, the focus was on the practical details of 'how' to implement it, rather than on 'why' it was needed or how to build a stronger business case."

Given China's promising eBL adoption rate, there is a unique opportunity to examine the dynamics and new applications that are fuelling this growth and understand the implications for global adoption. This is especially important at a time when customers are firmly putting the onus on carriers to drive adoption.

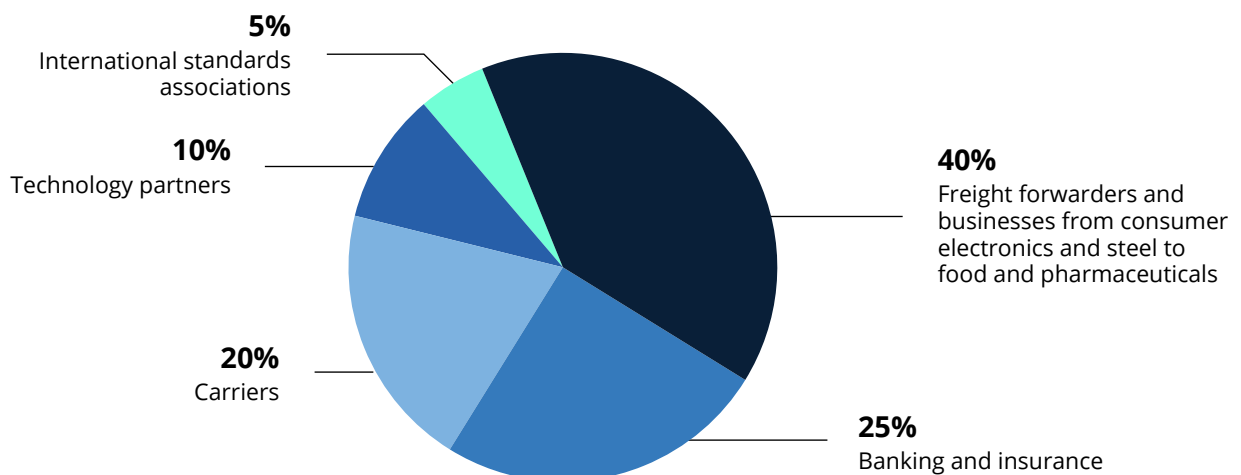


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— Pamela Mar, Managing Director, ICC, Digital Standards Initiative



Attendees at the GSBN eBL Forum Shanghai 2024



Container carriers reveal business drivers for eBL

During the sessions in Shanghai, leading container carriers with a wealth of experience in eBL adoption shared their insights on the drivers and benefits of the technology. The discussion revealed a range of interesting anecdotes:

eBL driven by legal department

Innovation projects are typically spearheaded by technology and commercial departments, but one leading carrier revealed a surprising twist: their eBL initiative was championed by their legal department.

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It was initially driven by the need to manage liabilities, such as avoiding the risk of relying on letters of indemnity, which is a frequent occurrence when using paper-based bills of lading. In the end, the eBL solution not only addressed the concerns of the legal department, but it also saved time and reduced risk for its end customers.

Carriers need to offer multiple options to their customers

Another carrier cited that they offer multiple eBL solutions to their customers to accommodate varying needs in different regions, with each solution capitalising on distinct strengths and focuses. Therefore, their strategy is to offer multiple solutions and allow their customers to choose which best suits their needs.

This creates an issue where a customer may need to operate multiple eBL solutions that are quite different in terms of user interface, rulebook, etc. This is why GSBN has been working with solution providers and software vendors to simplify interactions with eBL via these two processes:

- **In the form of interoperability between ICE CargoDocs and IQAX eBL:** where GSBN allows an eBL to be transferred between the two eBL solution providers without requiring all the parties involved to sign the rulebooks of both solutions. They can remain on the platform of their choosing.
- **In the form of API connectivity between IQAX eBL, WiseTech Global and WallTech:** freight forwarders that are using WiseTech or WallTech can operate IQAX eBL without leaving their familiar environment.

eBL adoption from the customer's perspective

During the discussions, customers and freight forwarders alike shared valuable knowledge, experiences and views on how current solutions can be improved. These can be broadly grouped into several themes.

Workflow integration and efficiency

Customers highlighted the operational benefits of eBLs in streamlining workflows and reducing manual processes. The consensus was that eBLs should be process-driven, not just digital versions of paper documents such as PDFs.

However, there remains clear scope for further improvement. The conventional approach has been to try and replicate the physical bill of lading with a digital token secured on the blockchain. Yet in many organisations, this is not sufficient to address the needs of established internal workflows. For instance, a user in finance may not need the ability to transfer the title of the bill of lading yet does require evidence of its existence for compliance and reconciliation.

This cannot be neatly addressed through a "PDF on the blockchain" approach. A solution that is more role-based or workflow-based might be better positioned in this scenario.

Therefore, for eBL adoption to succeed, solutions must cater to the specific needs and workflow of users across various departments within a company.



Using eBL allows me to streamline my surrender and release process from 4 days to the same day.

— De Well Group

eBL should be process-driven and not PDF on a blockchain. For some customers, their finance teams would want to see the evidence of eBL transfer, but because they are not in the documentation team, they cannot access the eBL solution.

— Leading Carrier



Simplifying document processes

eBLs offer a flexible, yet secure, means to handle different Incoterms scenarios. Traditionally customers have had to make a trade-off based on factors including the relationship with the consignee, port of discharge, the cost of documents and Incoterms scenarios. Customers therefore had to find the right balance between using a seaway bill, telex release and an original paper bill of lading.



Today there are so many different scenarios, each with different Incoterms and documentation which require special care for cargo release. By using eBLs, it is a simpler process to manage the risk. A single product to handle all Incoterms scenarios.

— T.H.I. Logistics



With the eBL, customers enjoy the best of both worlds. They gain the secure control of title ownership provided by an original paper bill of lading or related telex release indicating the paperwork has been surrendered, without the risk of lost documentation intrinsic to handling physical bills. At the same time, they benefit from the digital efficiency and simplicity of using a seaway bill which, while containing detailed instructions, does not designate title. This unifies the overall process making it simple, efficient, secure and less prone to errors.



Seaway bill, telex release and now eBL. There are clear benefits in switching it all to eBL as it is easier for internal processing and communication, and also because it is safer and more reliable, simple to operate, and the flow status of the bill of lading is clear and transparent. At the same time, eBL can cover all the advantages of other documents, providing full control, visibility and speed of processing.

— T.H.I. Logistics



Information control

Global supply chains are inherently complex with many intermediaries involved in a single shipment that do not want all the information to be fully transparent. For certain commodities, the trade-off between transparency and confidentiality poses a challenge — greater visibility can sometimes create conflicts between stakeholders.

In this regard, customers emphasised the need for more granular data control, as the "PDF on blockchain" approach only offers a very crude way of sharing data — all or nothing.



Visibility and confidentiality are a trade-off, in particular for commodities — how can we make sure that, as we transfer the eBL, we don't let everyone see the full supply chain but just the counterparties that they deal with?

— Leading Steel Manufacturer



Security and loss prevention

If a bill of lading is lost, the financial implications can be severe. One customer highlighted that bank guarantees required for the release of cargo in such cases could reach as high as 300% of its value. Additionally, while the issue is being resolved, the consignee may incur significant detention and demurrage fees, compounding the financial strain suffered while posting the original bank guarantee while ownership is established.

These risks are amplified significantly by a common cost-saving practice among freight forwarders in bundling multiple paper bills of lading into a single pouch for couriering across the world. If such a pouch is lost, the consequences are multiplied, affecting multiple shipments simultaneously.

The digital and secure nature of the eBL in this instance eliminates the risk of loss and its associated financial implications.



In cases of lost paper bills of lading, bank guarantees are demanded — up to 300% of cargo value — causing delays and further detention and demurrage fees. It becomes complicated and costly to re-issue all the paper bills, something which wouldn't happen with an eBL.

— T.H.I. Logistics



Challenges to adoption

While freight forwarders are generally willing to embrace eBLs, they often struggle to convince their customers to do the same — this means that carriers are the ones to push for using eBLs. Meanwhile, carriers reported varying experiences with eBL adoption even within the same countries.

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An underlying challenge is the need to create an environment that is conducive to global eBL adoption. Recently many voices in the industry from ICC to other international trade facilitation bodies are calling for governments to actively support eBL adoption and innovation through the following approaches:

- **Enhancing legal certainty:** Accelerating the adoption of international standards, such as the UNCITRAL MLETR Law, can significantly reduce legal risks and foster trust. Broader adoption of these standards increases legal certainty, which in turn encourages business innovators to invest in developing eBL solutions.
- **Creating a conducive environment:** Governments can promote eBL adoption without necessitating substantial financial commitments.

This sentiment was echoed by forum participants who suggested global bodies advocating for trade should evangelise digital trade with governments to create the right conditions for eBL adoption.



As a freight forwarder, I am very willing to use eBLs, but it will be difficult to promote to foreign customers or partners. We recommend that the shipping companies drive promotion and form a unified standard in the industry. Then everyone will follow it, which will be more effective.

— De Well Group



04 eBL as a “Data Container”

The latest eBL adoption trends and challenges expressed by participants in Shanghai are certainly encouraging. The need during this Trade 3.0 era of comprehensive change is to identify new eBL-driven use cases that can help address current challenges such as the need for greater resilience.

If the focus was purely on digitising documents, the entire industry would be missing out on the greatest opportunity from eBL adoption. Since each shipment is uniquely associated with its bill of lading, the eBL could play the role of data container to digitalise the entire trade process.

There are three important properties an eBL needs to possess to become a data container:

- **First, eBL serves as a digital single source of truth for a shipment:** It can be associated with all relevant data and processes throughout the shipment’s international journey, including certificates of origin, packing lists, commercial invoices, insurance certificates and visibility data.
- **Second, eBL as a digital tool to control data access rights of a shipment:** In practice, data should only be written once from the source and shared multiple times. With clear access rights enforced by the eBL, data for a single shipment can be securely shared through a unique data container to all parties involved.
- **Finally, eBL provides an immutable and up-to-date timeline of the lifecycle of a shipment:** It merges the physical supply chain, the financial supply chain and the regulatory supply chain into a single timeline. Payment flows can be directly matched with the transfer of cargo rights, and customs and tax departments can verify the declarant’s role and the veracity of shipment information.

The eBL becomes transformative only when customers and the full ecosystem actively adopts it.

That said, the eBL’s role as a data container holds little value on its own. It becomes transformative only when customers and the full ecosystem actively adopt it, unlocking new use cases. Just as the true potential of physical containers was realised through customer-driven innovation, the same will be true for data containers. This was a key focus for the GSBN-hosted eBL discussions in Shanghai, to thoroughly understand and share the unique use cases that were not possible with paper-based bills of lading.

05 High Potential Use Cases

eBL use case for Multimodal Freight Transport

Multimodal Freight Transport (MFT) has been gaining popularity as countries seek to further increase trade corridors as well as serving as a strategy for freight forwarders to increase the proportion of less carbon intensive transport alternatives compared to road freight.

Significant investments have been made into multimodal freight infrastructure globally, with the size of the market expected to be 40% larger in 2025 compared to 2019 levels. Notably, MFT has become a core part of China's Belt and Road Initiative (BRI). The New International Land-Sea Corridor for instance, is one of many trade corridors under the BRI, which has a reach of over 523 ports across 124 countries and regions via rail, sea and road.¹⁴

Globally, the eBL has huge potential in optimising MFT scenarios, which feature at least two different forms of transport (for example sea and rail). The eBL — as a data container — can support the growth of MFT by linking together the different data, documents and processes involved during each mode of the journey. GSBN aims to complement these investments in the physical MFT infrastructure by enabling the underpinning data infrastructure. Director of Digital Technology, Department of New Land and Sea Corridor Operation Corporation, Mr Fan Hongliang said, "Using the electronic bills of lading and freight forwarding bills of lading to break information barriers and share data with all parties at all stages of multimodal transport system, will further enhance data credibility and meet customer needs in insurance, financing, green and low-carbon, etc. We aim to explore various application scenarios to serve and promote domestic and regional economic development."

eBL in MFT scenarios

Challenges in the current MFT landscape

Fragmented Communications:



The involvement of multiple intermediaries result in highly fragmented communications in MFT scenarios.

Reduced Efficiency and Margins:



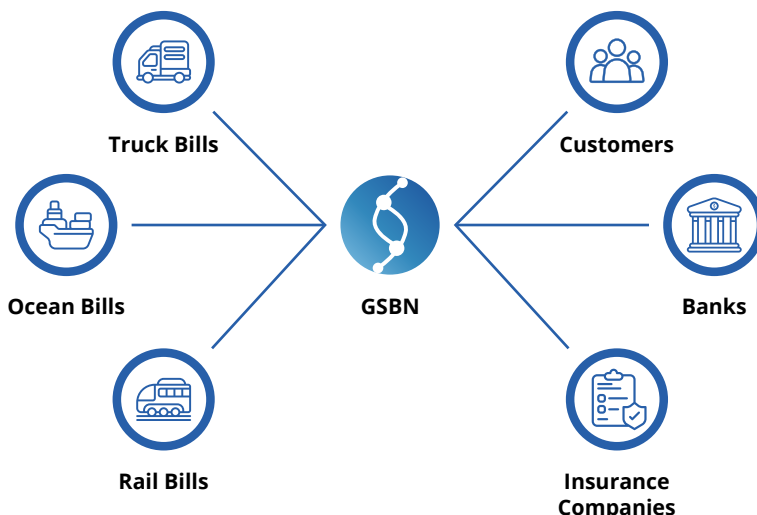
Frictions and disagreements are common, resulting in reduced margins and efficiency.

Lacking Single Source of Truth:



Difficulty in maintaining a holistic view of a complete, verified history of the shipments because of multiple house bills of lading involved.

Linking Master eBL and House eBLs for MFT end to end



eBLs serve as a trusted link between different datasets, unifying the fragmented process and give all parties a single source of truth, for example:

- Offering a holistic view for insurance companies on the E2E journey in claims to understand coverage and liability;
- Real-time data and information permits for an optimised claim process via a single source of truth.

Challenges

Since MFT involves subcontracted carriers working together, communications among various stakeholders can be challenging, especially when using paper-based bills of lading. For example, operators must contact multiple parties to resolve shipment problems. Poor communication and records may damage trust. Resulting friction and disagreements may hinder deliveries, reducing margins and efficiency.

One of the more complex use cases that benefits significantly from the use of eBLs can be found, for example, in insurance. In a typical journey, there are three phases of data sharing that occur:

1. Before a shipment departs from the port of receipt/shipping, the insurance firm requires information about the carrier, vessel voyage and scheduled timeline.
2. In case of any change in the eBL, all revised data must be shared with the insurance company.
3. When a container is en-route, real time logistics data such as load-on-vessel, rail, departure, arrival, laden gate out, etc should all be provided to the insurance company.

Under an MFT scenario, this is replicated across each mode of the journey and often with different insurers involved. One carrier also noted that insurance is often applied segment-by-segment which can be onerous to track, manage and process, leading to potential partial overlaps or insurance duplication.

In the event of a claim, understanding liability and coverage between the modes can become very complicated for the insurance company. Adjusters may also need to align and collaborate with the customer's logistics or operations teams, adding further complication to the process. Grant Hunter, Chief Digital Officer at BIMCO, stressed eBLs have significant advantages over paper bills for the international trade insurance sector, "Unlike in the paper world, there is a complete audit trail — who issued it, whether the cargo has been bought or sold, who has the rights to the document, and if any changes were made. When claims arise, there is all this information, while paper can disappear in the system somewhere." Claim administration is complicated when paper bills of lading are amended — original bills must be cancelled and re-issued, whereas digitally, such changes are easy. Also, e-bills reduce risk of cargo delivery errors as the eBL (and its logistical information) comes with the ship, while paper bills may arrive later, noted Hunter.



Unlike in the paper world, there is a complete audit trail — who issued it, whether the cargo has been bought or sold, who has the rights to the document, and if any changes were made.

— Grant Hunter, Chief Digital Officer, BIMCO



MFT scenarios also often involve the creation of multiple house bills of lading (HBLs), each containing different data sets. For stakeholders such as banks that are providing financing, this fragmented approach makes it difficult to maintain a holistic view of the complete, verified history of the shipment. Traditionally, only the master bill of lading (MBL) is fully trusted, as it serves as the definitive record of the shipment throughout its journey.

Since MFT involves subcontracted carriers working together, communications among various stakeholders can be challenging, especially when using paper-based bills of lading.

Benefits of using eBL

When used properly, MFT lowers shipping costs, boosts trading communications and speeds delivery. With the eBL as the MBL and in its role as a data container, a trusted link between the different datasets generated throughout the journey can be established, including those from HBLs. This not only enhances trust in the shipment records, but also enables seamless data sharing across different modes, ensuring accurate, timely and relevant data to be shared with relevant parties.

For insurance companies, availability of real-time data and relevant information across the different modes can enable them to further optimise the claims process. Meanwhile, for banks understanding who is controlling the cargo, and how, is critical information. The eBL as an MBL serves as a single trusted document that links HBLs and other information, enabling greater process efficiency, visibility and transparency.

What's next

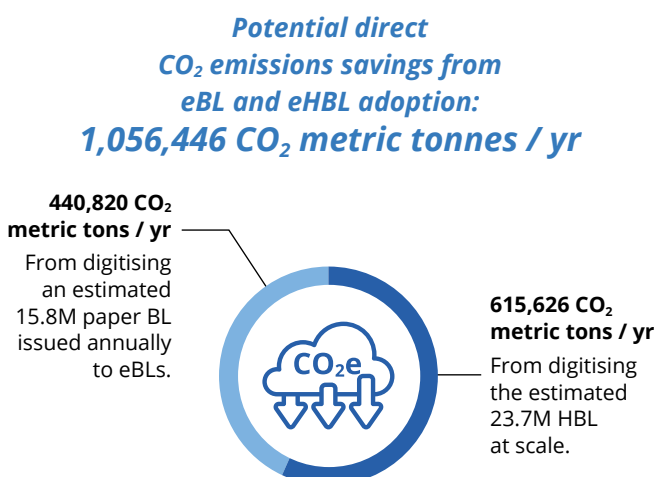
Extending the use of eBLs to cover MFT unlocks clear benefits, but its application should not be confined to improving transparency between HBLs and the MBL. To truly enable seamless, end-to-end visibility and operational efficiency, the scope of eBLs can be further expanded to include truck bills, warehouse bills and other critical documents across the supply chain. As a data container, the eBL has the potential to unify fragmented data, securely linking and organising information from various stages of a shipment's journey. In fact, carriers noted in that in an ideal world, the eBL could be used to connect data related to all the milestones for a given journey, which could number up to 40 or 50.

Visibility across these key shipment points from Actual Time of Departure (ATD) and Actual Time of Arrival (ATA) to when cargo is loaded, offloaded and when it departs the warehouse offers huge transparency and efficiency gains. The ability to plan, react and optimise transport modes in real-time, leads to greater sense of control, assurance, predictability and a better experience.

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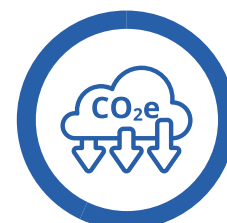
Another important benefit is furthering efforts to reduce carbon. In 2024, GSBN commissioned SIA Partners to conduct a *series of studies* on the potential carbon reductions resulting from eBL adoption. Based on its model, it estimates savings of up to 440,820 metric tonnes of CO₂e per year could be achieved through full eBL adoption.¹⁵ Furthermore, assuming all freight forwarders digitise associated HBLs, an additional 615,626 metric tonnes in CO₂e savings could be achieved annually.¹⁶

This in turn, can promote a shift to greener multimodal transportation. The GSBN-SIA study estimates that indirect emission savings resulting from a modal shift from road to multimodal alternatives can reduce carbon emissions by up to 48.8% in a road-to-rail scenario.



Potential additional indirect CO₂ emissions savings from modal shift to greener multimodal transportation:
889,655 CO₂ metric tonnes/ yr

48.8% ↓
CO₂e from road to rail transportation shift



eBL use case for Banking and Finance

The integration of the three flows — documentation, physical transportation, and payment — can significantly eliminate fragmentation and complexity.

Traditionally, the bill of lading has been associated with letters of credit. Although not every shipment has a letter of credit attached, there is something more fundamental at play — every shipment generally involves some form of payment.

Here, the eBL can serve as a tool to simplify and streamline payment processes between shippers, consignees and their banks. At least one major bank in China has recognised this potential and is set to launch a new product in collaboration

with IQAX eBL and GSBN, leveraging eBLs to unify the customer experience from finance to logistics.

Using the eBL as a data container, we can trigger payment conditioned on shipment milestones and transfer statuses. The integration of the three flows — documentation, physical transportation and payment — can eliminate fragmentation and complexity by ensuring security and verifiability in a single flow.

In the event of a dispute, the immutable nature of eBLs ensures that transaction histories are easily traceable and verifiable, enabling faster and more efficient resolutions. As a result, eBLs not only enhance operational efficiency, but also foster trust and collaboration across the entire supply chain ecosystem.

Challenges

Today, customers often face a complex and fragmented process when engaging with banks and carriers to access and transfer bills of lading. This often involves a mix of online and offline interactions, creating significant reconciliation work and administrative burdens. For example, shippers must navigate challenges such as providing proof of payment according to Incoterms. Such tasks can be difficult when dealing with remittance payments, where proving receipt is not straightforward.

The complexity in risk management affects Small and Medium sized Enterprises disproportionately.

The manual and intricate nature of these processes exacerbates their complexity and increases the risk of errors, as they rely heavily on human intervention. This complexity also raises challenges in risk management which disproportionately affects Small and Medium sized Enterprises (SMEs), that often lack the resources to streamline or automate these workflows.

Although banks offer reconciliation solutions that help process transactions more efficiently and securely, these services are frequently reserved as value-added services exclusively for their largest customers. SMEs are left to manually collate information scattered across various systems, including the document flow, physical transportation and payment cycle.

Benefits of using eBLs

Incorporating the eBL as a data container in this context, can help connect otherwise fragmented supply chain and payment processes together into a streamlined, digitally driven workflow. This provides banks with new opportunities to extend integrated reconciliation solutions to smaller businesses, giving them a fast and reliable way of managing trade and payment.

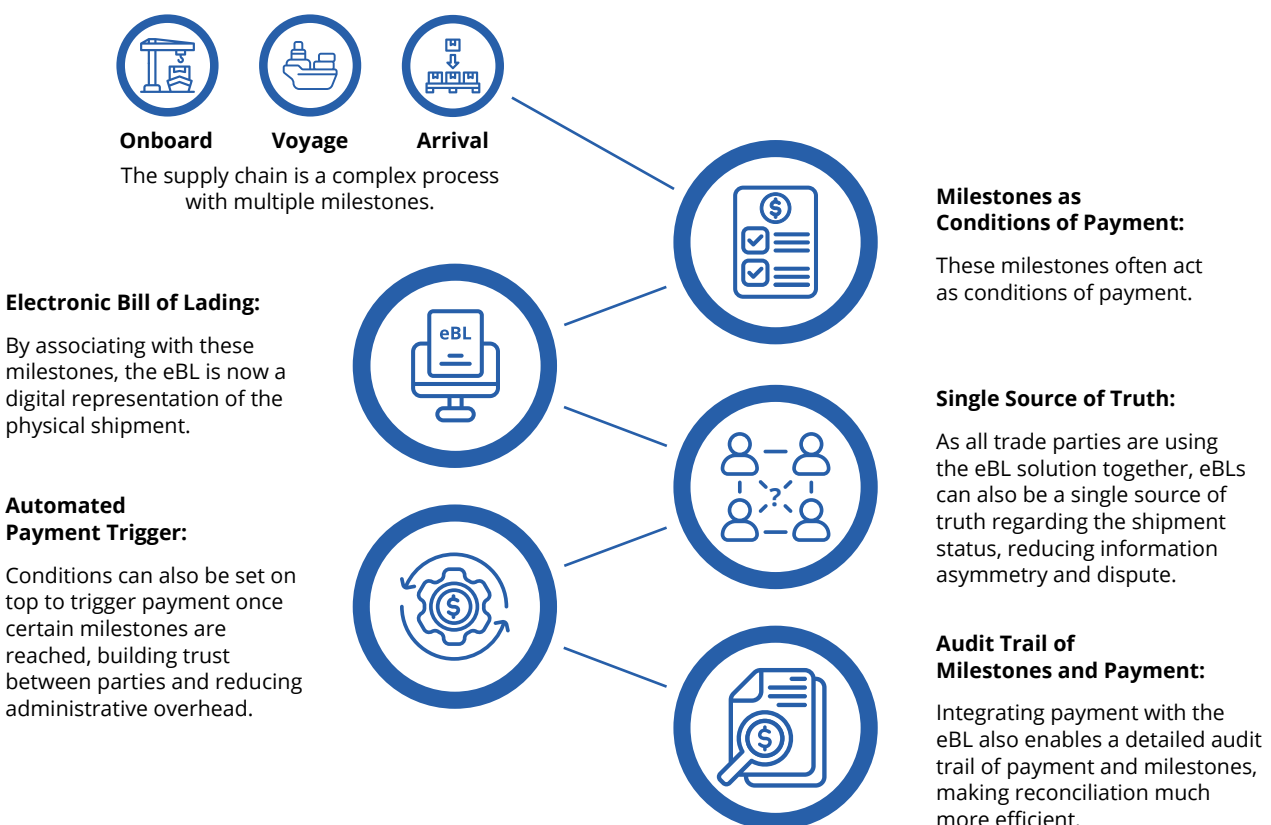
The comprehensive information trail provided by an eBL empowers a shipper's logistics department to actively coordinate with the finance department, enhancing internal communications and oversight. This detailed audit trail is essential in investigations related to payments-in-progress or in-dispute, offering essential data on document flow and relevant timestamps to support these endeavours.

Furthermore, associating payment details with the eBL significantly enhances compliance capabilities, particularly with the rigorous requirements of the State Administration of Foreign Exchange (SAFE) for cross-border payments involving China. The controlled nature of China's Yuan Renminbi (RMB) currency exchange rates necessitates strict adherence to these regulatory frameworks. eBLs provide clear and verifiable proof of transaction milestones and payment details, aligning seamlessly with SAFE's oversight of cross-border financial transactions. This not only facilitates smoother regulatory compliance but also minimises the risk of delays and financial discrepancies in dealings with China-based entities.

What's next

Other than streamlining payment settlement process, integrating eBLs with the payment cycle also unlocks new opportunities to improve access to trade finance. One promising area is warehouse financing, which is particularly relevant for commodity trades where goods are stored in warehouses and often retrieved in portions. Traditionally, banks offer only a limited financing period, even when the goods remain unsold. By leveraging eBLs as data containers, GSBN is exploring ways to extend the financing cycle, offering greater flexibility to customers.

Linking eBL with payment



06 Conclusion

In this era of Trade 3.0 marked by growing complexity and disruption, the challenge lies in enhancing supply chain resilience without significantly adding to costs. This can only be achieved through fast-paced co-ordination and data exchange. This is where a data container can play a key role.

So far, leading carriers have been driving eBL adoption and, in many ways, have harvested the low-hanging fruit of early adopters. The challenge as we look ahead, is to create new value propositions to incentivise customers to adopt eBLs. This is where the role of the eBL as a data container becomes essential, as its full potential can only be realised when the ecosystem embraces this concept to solve problems not possible in the paper-driven world.

We chose to host our session in China as this is where we are witnessing the highest rates of eBL adoption in the world. The immediate value is clear, but we need to move beyond this. Customers are hungry for novel solutions to their real-world challenges. However, the onus should not fall squarely on carriers.

We were encouraged by the many use cases shared in Shanghai. This report spotlights two innovative applications. The first is the eBL's role as a data container to seamlessly link siloed data, documents and processes in Multimodal Freight Transportation (MFT) scenarios. This is helping to accelerate the adoption of modes that have less emissions than road freight. The second use case highlights how the eBL bridges data and processes between logistics and finance, empowering SMEs — an essential backbone of many economies — to operate more efficiently and effectively.

The data container can enable fast-paced coordination and data exchange, enhancing supply chain resilience.

If China can serve as a window to what is possible, a similar transformation needs to happen globally.

If China can serve as a window to what is possible, a similar transformation needs to happen globally. Each country needs to create opportunities for their local ecosystems involved in international trade to collaborate and ultimately adapt the use cases to their unique circumstances. Global industry bodies and governments can work closer together to transpose what is already happening in China. The call for greater collaboration between industry bodies and governments is one already echoed by the United Nations' ESCAP.

Following the positive response we received in Shanghai, we plan to return to the city next year to examine the progress made as well as dive deep into new use cases focused on specific trade segments (eg automotive, petrochemical, etc). Since the event, we have also received promising feedback from our partners calling for similar eBL events to be held in other regions such as Latin America, Europe and the US.

We believe that the journey towards eBL adoption must be a collaborative effort. Much like the concept of a data container, the value cannot be created by GSBN alone. It requires active participation and contribution from the entire ecosystem. Therefore, we invite you to help shape future discussions and drive deeper exploration in this space.

GSBN invites your contribution to help shape future discussions and drive deeper exploration in this space.

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08 About GSBN

Enabling paperless, accessible, and sustainable global trade.

The Global Shipping Business Network (GSBN) is a neutral, not-for-profit consortium whose mission is to enable paperless, accessible and sustainable growth in global trade with its data infrastructure and ecosystem of partners. GSBN facilitates trusted collaboration between participants across the shipping industry to enable greater efficiencies, and paperless trade as well as supporting the shipping industry's decarbonisation transition.

GSBN's ecosystem includes shipping lines, terminals, banks, application developers and other consortia. The entire network accounts for more than half of the containers handled in the world.

Learn more about us www.gsbm.trade.