



Digitalization in Freight Forwarding –
Beyond the Platform Hype

Abstract	04
The platform hype in freight forwarding	06
The platform prohibitors in freight forwarding	10
The platform derivatives in freight forwarding	13

Abstract

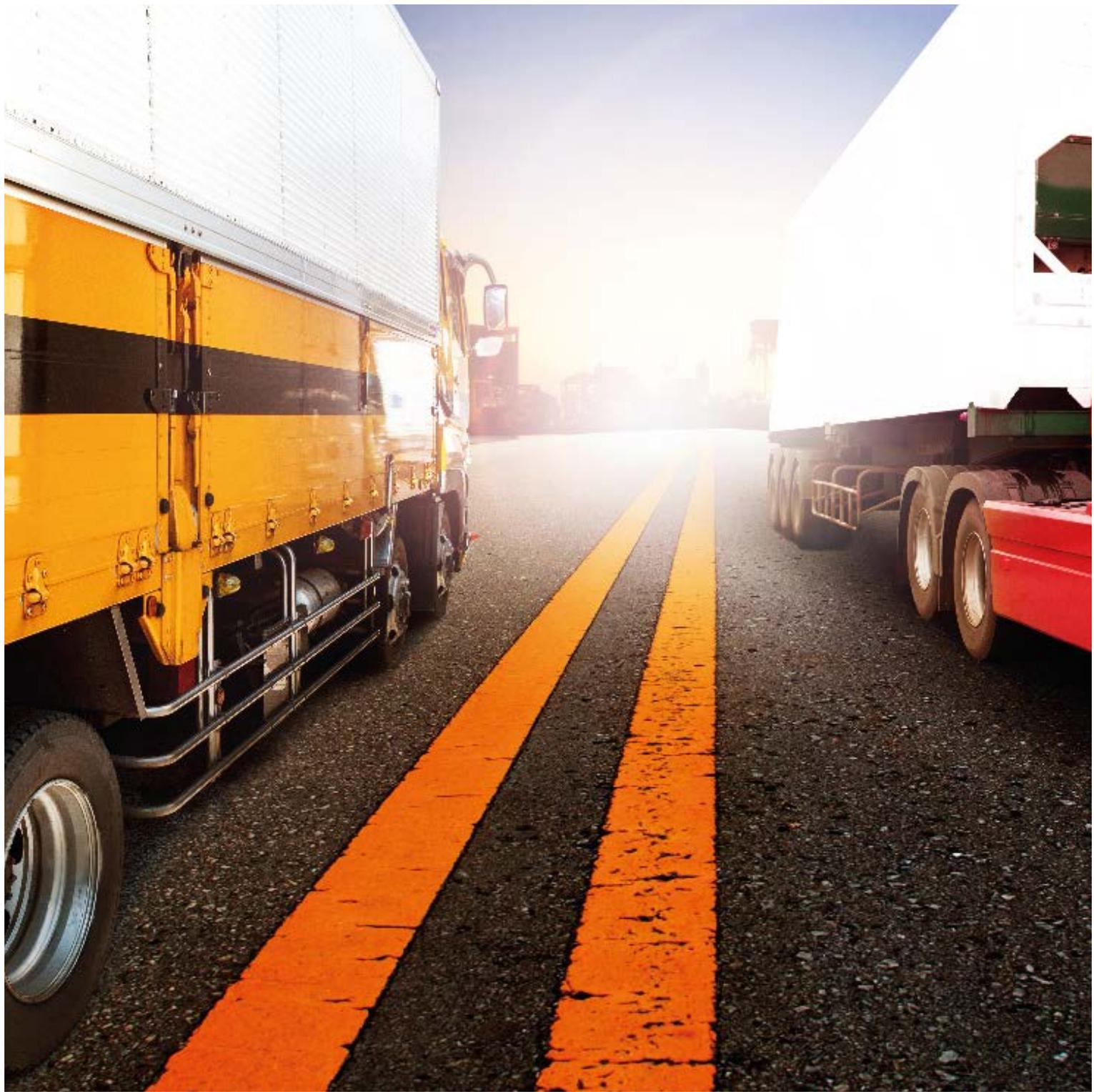
Digital transformation showed platform-operated companies such as UBER, Airbnb or Facebook to be digital disruptors. In many industries, we state that, in the blink of an eye, digital platforms dis-intermediate entire industries. We can see the same platform hype at our clients from the transportation industry, where many players aspire to disrupt a market of a multi-billion industry worldwide. Forwarders as intermediaries were expected to become redundant and a bare platform model was expected to allow for direct interaction between carriers and shippers. Yet, despite numerous efforts, all platform wannabes have failed to generate game-changing effects and the market is as hyperfragmented as ever.

This discrepancy calls for a qualitative study to better understand the reasons for platform failure in relation to freight forwarding. This is why we have conducted guided deep dive interviews with practitioners at incumbents, startups, carriers, and shippers to find out why platform wannabes possibly fail and to develop potential business models based on our findings.

Our survey reveals industry-specific prohibitors that run counter to a bare platform model:

- 1) shipper's need for customization, guaranteed prices & loading capacity, and consolidated invoicing;
- 2) robust and rigid re-liability requirements between different parties involved in transportation;
- 3) need for involvement of many different types of parties in shipments;
- 4) traditionally analog mindset and a short-term investment culture at incumbents; and
- 5) scarcity of ambidextrous capabilities and digital forwarder talents.

Given these industry-specific prohibitors, our analysis suggests that three platform derivatives will evolve as future business models in transportation: niche platforms, regional ecosystems, and digital forwarders. Keeping these insights in mind, our Point of View helps Deloitte's clients to navigate through an increasingly competitive universe by providing useful insights to the leaders as they seek to address digital threats and opportunities.



The platform hype in freight forwarding

The freight forwarding industry is said to be a business model prone to dis-intermediation, with many players aspiring to realize its platformization potential in recent years.

Much has been said and written about the digital era we live in. It is a global phenomenon that affects every aspect of both our private and our professional lives. However, the most intriguing and challenging aspect of this era is not digitization, which transforms existing analog processes into digital ones (Schallmo & Williams, 2018), but digitalization, which rather constitutes a restructuring of an entire status quo (Brennen & Kreiss, 2016). The most prominent examples of such a restructuring of entire industries are the well-known platform companies UBER, Tencent, Apple, Airbnb, and Facebook. Their platform business models allow each type of participant to be a customer of the platform in some relevant way as the platform enables direct interaction between two or more sides (Hagiu & Wright, 2015). This is the true power of the digital era – in the blink of an eye, platform companies can re-structure entire industries, leaving longstanding and well-deserved players lagging behind.

Freight forwarding is said to be a business model prone to precisely this kind of dis-

ruption. In contrast to the digital disruptors mentioned above, the incumbents of the freight forwarding industry come from analog times. Since medieval times, freight forwarders have organized transportation on behalf of a) shippers, by air, ocean or land, and b) carriers, to get physical goods from A to B. They have contracts with carriers to move goods and guarantee loading capacity at stable prices. They allow for consolidated invoicing because shippers do not need to interact with all the carriers, ground handling agents, customs agents, etc. involved, but only with a single counterparty. In the process, freight forwarders have become supply chain, warehousing, packaging, and documentation experts, too. This does not necessarily require assets in terms of ships, trucks or planes¹. As such, the traditional freight forwarder is part of the wider transportation market and serves as a manual platform between shippers and carriers, optimizing time, costs, and representing reliability.

Indeed, recent studies confirm a huge platform interest (with)in the industry (DSL, 2019). Half of the respondents of the “Transport Intelligence” survey (2017) have tested industry platforms. Of these, 64 percent have gone on to use such a system as a permanent solution within

their company – with good reason. Looking at the underlying business model of freight forwarders, a certain “platformization” potential is evident:

Their fundamental intermediary function between carriers and shippers was the main reason freight forwarders were forecast to become extinct as a self-contained business in the future (McKinsey, 2017). Digital connectors may have the potential to reduce the need for freight forwarders to organize shipments for multiple parties manually. Direct interaction between shippers and carriers is technologically feasible with digital connectors (Deloitte, 2017) and makes economic sense if a certain platform is able to bring together a critical mass of players in its realm. As a consequence, the intermediary function of freight forwarders is threatened by dis-intermediation and suggests that they are the predecessor of a multi-sided (industry) platform without transport liability. Figure 1 compares this new platform to the traditional model.

On top of this, a polypoly market structure defines freight forwarding and exacerbates the platform potential of the underlying business model. Global market leaders such as DHL, Kuehne + Nagel, and DB Schenker have a market share of about

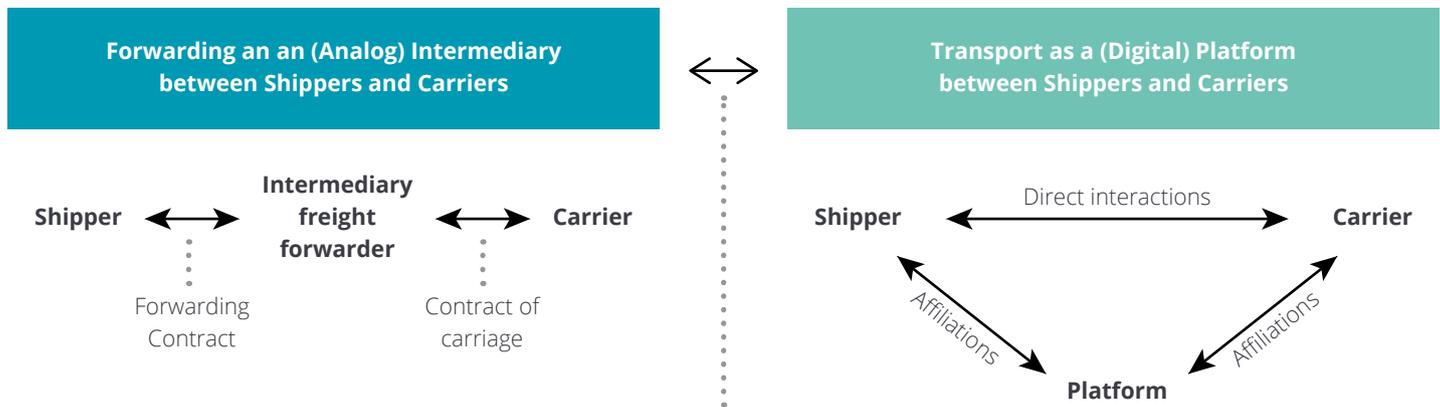
one-digit percent each². Obviously, there have been thousands of players in freight forwarding around the globe for decades with very similar value propositions. There are no signs of any of them gaining any significant market share, with only singular consolidation phenomena such as the merger of two industry incumbents – Panalpina and DSV (Aircargonews, 2019). With the apparent absence of a unique selling proposition, the market seems to be calling for consolidation by means of a central, unified platform. As such, the services

of freight forwarders become more and more commoditized, which fuels rivalry and price wars (Hofman & Osterwalder, 2017).

Given this fundamental dis-intermediation potential in freight forwarding, the stakes are high for the industry. The transportation market is a backbone to a globalized world economy but with margins often highly volatile and under pressure. When it comes to the sub-segment of freight forwarding, a market growth of 8 percent can be observed (MarketWatch, 2018). There is

continuous demand for low-cost shipping (given alone the rise of e-commerce across the globe), still high demand for integrated services, and an increasing trend of inter-modal freight transportation (Allied Market Research, 2019). The economic potential that could be tapped with the use of a platform would thus be significant, and the player to implement THE central industry platform would impact the global transportation business extensively and profoundly.

Fig. 1 – Paradigmatic comparison of today's analog intermediary function of forwarding vs. potential platform model, allowing for direct interaction between carrier and shipper [Own illustration based on Hagi & Wright (2015), Schramm (2012)]



² Market sizing figures vary depending on the source used because there are only estimates to what extent their turnover originates from freight forwarding (Ojala & Jämsä, 2006). In addition, the terminology is not coherently used in practice. The statistics differ depending on what it is subsumed under/understood by terms such as “logistics”, “supply chain management”, “third-party logistics”, “freight forwarding” or similar. This article is based on the definition of section 93 of the German Commercial Code (“Handelsgesetzbuch”) for forwarding.

Within the freight forwarding ecosystem, players from all market categories have already exploited the industry's digital potential. Of these, the digital leaders among the shippers (or customers of freight forwarders) are keenly aware of the digitalization potential and have already started to integrate backwards. Prominent examples are Alibaba or Amazon, the latter acquiring an ocean-forwarding license, and Google, which has held a patent for electronic shipping notifications for years. Both Amazon and Google are very well aware of their data trove, hold patents in the field of forwarding, and constantly promote new services.

Equally, we observe that the freight forwarders' suppliers, the carriers, have understood the digital game and actively integrate forward. Freight forwarders are an intermediary that impedes direct access to the customer. Nowadays, these interfaces are getting easier and easier to create, which may increase margins for carriers. One of the biggest carriers in ocean freight, Maersk, partners with Alibaba's One Touch platform to allow shippers to directly book vessel capacity online and heavily invests in TWILL and DAMCO. Such approaches probably have the most potential with respect to full truck load shipping.

Thousands of new market entrants to the industry are fueling this competitive situation, with an estimate of possibly hundreds of startups offering digital platforms to initiate interaction directly between carriers and

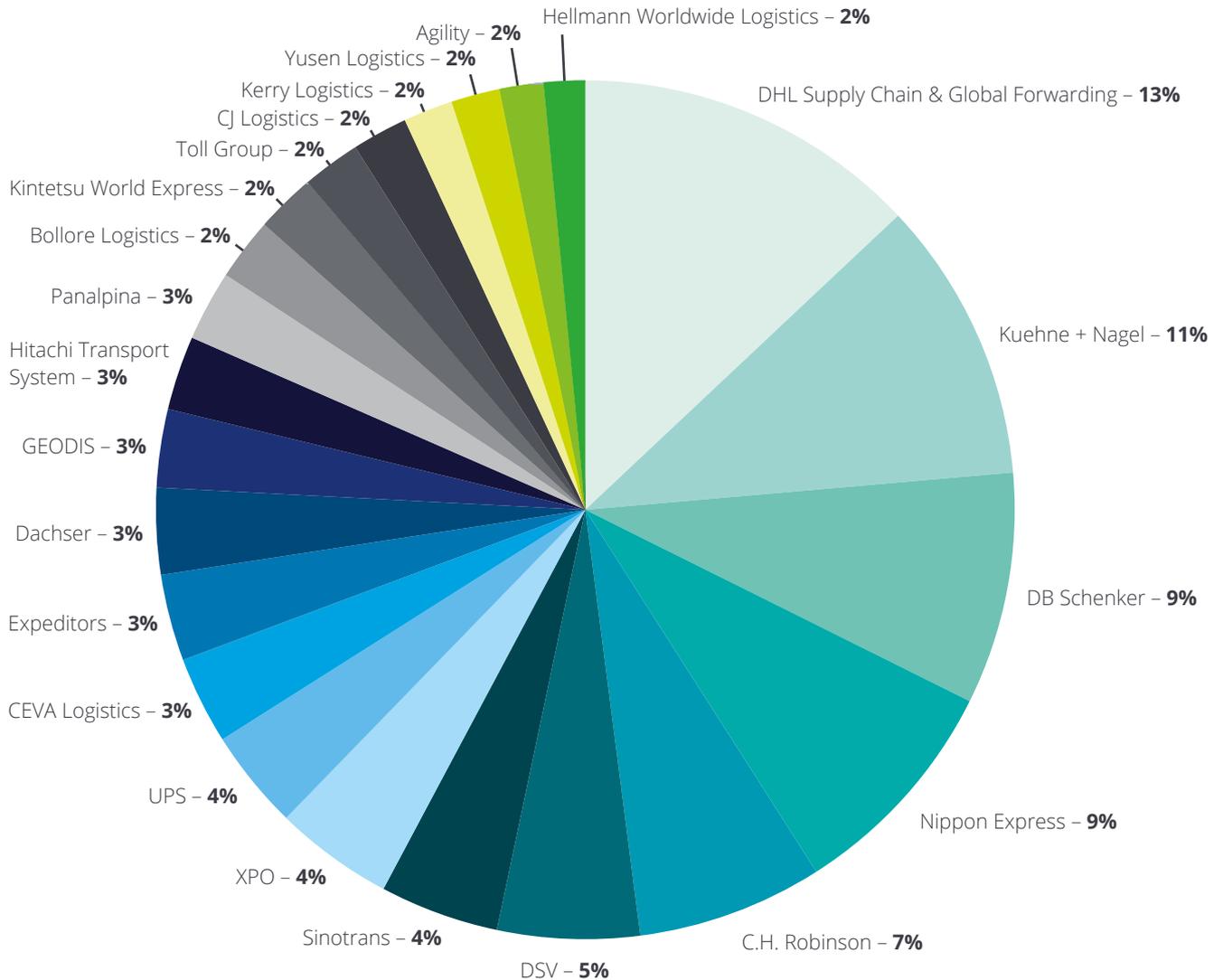
shippers. They are matchmakers and derive their profit from transactions for platform usage while not having any transport liability, for instance Freightos, uShip or Uber Freight. Other startups leverage their digital capabilities in related fields such as virtual supply chain management, real-time pricing or volume forecasting. Overall, startups predominantly target the asset-light components of the forwarding chain. They have received much attention from investors over recent years, with well over \$11 billion in funding since 2007 and record sums especially in North America and Asia (Oliver Wyman, 2016).

Faced with this situation, most incumbents digit(al)ize to the best of their ability: DHL's saloodo platform connects shippers with FTL/LTL carriers in Europe and elsewhere. K+N's Freight-Net platform provides binding carrier quotations, direct booking, and online tracking. With Connect4land, DB Schenker's European division for land transportation aspires to offer a state-of-the-art online service for domestic and international network freight. Furthermore, it offers immediate e-pricing, scheduling details, and tracking information. With this, incumbents aim to make the shopping experience for which the B2C sector is already known available to the field of professional B2B freight forwarding. Some of them have established separate entities for this, such as DHL with saloodo, hiring digital natives. Others prefer cooperating with startups such as DB Schenker and uShip, hoping to

integrate these companies' capabilities into their digital unit and, in the longer term, in their core business. Even if these endeavors might not (yet?) fully constitute a true platform business model, it could be the next logical step for incumbents to prepare for the freight marketplace cannibalizing their own historically grown business model.

These examples clearly demonstrate the race among forwarding incumbents, startups, carriers & shippers to become THE freight forwarding platform. There is only one problem: Not a single platform wannabe has so far won a landslide victory. Notwithstanding the platformization efforts seen in recent years, none of the players has made traditional forwarding redundant as yet. Big players such as Kuehne + Nagel, DHL, and Panalpina still make billions with their traditional business model born in medieval times. So despite the numerous attempts of many players across the globe, digitalization has failed to exert its disrupting potential and there is still no Airbnb of freight forwarding in sight. Figure 2 shows that transportation including the forwarding market remains a highly fragmented business with hundreds of thousands of companies operating in this market. Even market leaders have low market shares, low bargaining power, and are far from generating skyrocketing margins. If platformization is to take place anywhere, it must be under the radar without a breakthrough being discernible to the general public.

Fig. 2 – Fragmented structure of the freight forwarding industry with selection of major players [own illustration based on ARMSTRONG & ASSOCIATES (2018a, b), BIFA (2018), BCG (2018), own sources]



The platform prohibitors in freight forwarding

Industry-specific prohibitors in freight forwarding run counter to the landslide victory of a bare platform business model.

This empirical evidence suggests the existence of industry-specific prohibitors to platform models which prevent forwarding from being disrupted. These prohibitors explain why none of the platform endeavors has yet won a landslide victory and are detailed in the following:

About the research

This Point of View is part of Deloitte's broader transportation practice Germany. It draws on in-depth interviews with designated experts in the field of digitalization in freight forwarding. The interviewees come from all five forces of the market comprising:

- a) incumbents/traditional competitors;
- b) startups/new entrants;
- c) shippers/customers;
- d) carriers/suppliers and asset owners;
- e) representatives from potential substitute products such as 3D printing.

The interviews were conducted between April and June 2019 either online or face-to-face following a dedicated guide. This guide checks the interviewees' opinion as to whether platform basics are fulfilled by the current platform wannabes or not. If interviewees argued that these key factors did not apply, the objective was to understand the prohibitors they see in this respect (see next pages).

1. Shipper's interest in customization, consolidated invoicing, and guaranteed prices & loading capacity

Most multisided platforms have to offer their services for free or at subsidized prices to at least one side of the platform and derive their profits from the other side (Hagi & Wright, 2015). The interviews show that this is an aspect many platform wannabes neglect and or even disavow. The most sophisticated strategy interviewees mentioned was to redirect inquiries from traditional systems to the new ones in order to generate traffic and attenuate the chicken-egg challenge. However, this seems far from being a sophisticated incentive for shippers looking mainly for “guaranteed loading capacity, customized processes, consolidated invoicing and stable prices – a service portfolio no bare platform can offer,” as one industry expert states. Without guaranteed loading capacity and stable prices, there are very few incentives to join a platform. Moreover, time and again customer-specific solutions call for meticulous optimization of complex processes, deep customer knowledge, and tailor-made, consolidated services that run counter to a one-size-fits-all platform.

2. Need for robust and rigid re-liability requirements in transportation

Many successful platforms often excel in quantity aspects compared to traditional competitors. Yet, the interviews reveal that in freight forwarding “an attractive platform needs to offer both quality and quantity” from the very beginning: “Quantity is key for uncritical hinterland shipments, while quality entry gates are required for time-critical shipments of precious goods.” This quotation shows that quantity is a necessary hygiene factor in forwarding, while quality is the decisive differentiator. Freight forwarding is an industry in which players in the supply chain control only a very limited part of the entire process. This means that a platform needs MANY carriers to be attractive for shippers. The same holds true for the attractiveness of a platform for carriers: the higher the number of shippers participating in the platform, the more attractive it is for carriers. Quality is important because of the high level of fragility of supply chains that shippers do want “re-liable” (sic!) freight forwarders taking care of. In contrast to B2C, in a B2B environment shippers trust freight forwarders with their precious goods precisely because humans – rather than just an algorithm – take care of them. Quality also ensures a sufficient return on investment for those who are licensed in highly competitive markets, such as trucking (for instance Connect4land by DB Schenker). This fine-tuned balance of liabilities, the industry's trust, and (re-)liability requirements prevent a pure platform business model from developing attractive governance.

3. Need for involvement of many different types of parties per shipment

Further platform wannabes need to know how many and which sides to bring on board. However, our interviews show that in many cases there appears to be an insufficient number of (different types of) parties on the platform. This requirement is crucial in the “very complex and frictional [freight forwarding] industry [that] can easily comprise up to 16 different parties involved in an international shipment” such as trucking companies, ocean carriers, air carriers, custom agents for various countries, warehouse operators, drivers, assurance companies, ground handling agents, data providers, etc. This underpins the huge challenge of platform wannabes. Particularly in the European transportation sector, platform providers do not offer significant added value to many dispatchers because a single phone call or email is still enough to touch a huge network, whereas platforms rather imply typing in the same information multiple times and therefore do not deliver an efficiency gain (at most a saving in transport costs). This leads to an uncritical mass of participants on the platform, which again has a negative impact on convenience compared to incumbents.

4. Traditionally analog mindset with a short-term investment culture at incumbents

From a technology perspective, the right architecture and interfaces are key to building successful digital platforms. Yet, interviewees confirm that “there is no culture of embracing technology in the industry.” Incumbents rarely think long term when it comes to investing in technology. On the contrary: Either the customer pays for it directly or there is a clear business case justifying the investment. Furthermore, incumbents struggle with the optimal approach for absorbing cutting-edge technologies, miss intellectual property regimes, and prefer to focus on the support of external experts such as research institutes. Such cooperation increases transaction costs and slows down innovation processes; so the successful street scooter example of DHL in this context is the exception rather than the rule. Moreover, given the many frictions within the industry, incumbents already seriously struggle with their complex IT legacy. It takes a lot of time to digitize it and to align with the respective counterparts to finally understand to what degree the platform interfaces should be open to outside complementors. Looking at tech trends such as blockchain and autonomous driving as a complementary source of innovation for freight forwarding, not a single platform systematically incentivizes this technology deployment. Lastly, by definition freight forwarders are far from being digital: In the end, it comes down to shipping physical goods from A to B. Hence, digital technologies can only ever have a limited impact.

5. Scarcity of ambidextrous capabilities and digital forwarder talents

A successful platform requires a cutting-edge user experience. However, the interviewees often mentioned convenience deficiencies in using forwarding platforms. B2B freight forwarder platforms do their best to imitate the B2C shopping experience and have improved their frontends in recent years, but our interviewees from shippers still expressed their “perseverative desire” for a smart platform and that current platform wannabes “do not differ significantly in their user experience.” Our interviewees put this weakness down to a scarcity of “digital forwarder talents” who are competent in both digital technologies as well as the forwarding business. This becomes apparent when looking at the process of data exchange in ocean freight at many forwarders as it stands today: There are easily four to five players and an equal number of middleware providers involved. To clean up such IT legacy with a simple API is not enough; this requires both forwarding expertise as well as digital excellence for knowing which functionality or features to include in the platform.

Summing up, our study revealed the industry-specific prohibitors to a complete and disrupting platformization of the industry. We might assume that the scarcity of digital forwarder talents, the missing ambidextrous capabilities, and the missing R&D long-term investment culture will probably be overcome simply in time; people can be trained and corporate culture can be changed even if it requires a lot of will, focus and energy. However, the successful realization of the business factors touches the very fragile foundations of the industry because these are at the very core of the forwarders' selling proposition: Incentives to substitute for guaranteed loading capacity and prices will remain limited as they run counter to the basic idea of a platform. The same holds true for the rigid reliability requirements prevailing in the industry and a regulatory environment prohibiting the integration of a critical mass of qualified partners on a platform. These factors will prevent one single platform from dominating the entire market in the upcoming years and winning over the industry in a simple landslide victory. Our survey suggests that derivatives of a pure platform model are more likely to thrive.

The platform derivatives in freight forwarding

Beyond the platform hype, three derivatives are on the horizon: niche platforms, regional ecosystems, and digital forwarders.

Given the industry-specific prohibitors to a bare platform approach, the interviews lead us to believe that there will be a variety or co-existence of three platform derivatives in forwarding. It is likely that these will not constitute either the traditional analog intermediary model in forwarding or the new digital platform model. Rather, the three trends combine aspects of both poles by having the same purpose of offering a kind of platform to connect shippers and carriers in one way or another. In total, three distinguishable derivatives became apparent:

- **Niche platforms** follow a bare platform model with no transport liability. As matchmakers they derive profit from transaction fees for the platform usage. This business model will only work in closed systems, which means the number of parties involved will remain limited.
- **Regional ecosystems** will enrich their existing platform business model by adding freight forwarding services, building huge competitive gravitation in suitable economic environments.
- **Digital forwarders** persist as an intermediary platform between shipper and carrier with their unique selling proposition of liability, guaranteed capacity, price stability, and invoice consolidation.

Anonymized case Study:

Incumbent/Startup cooperation to build the platform

The freight forwarder incumbent signed an exclusive agreement with a startup to pair shippers with truckers in order to initiate platform activities. To deepen the ties, the incumbent took a stake in the online freight booking platform startup. A separate project was set up to combine the incumbent's industry expertise with the startup's digital excellence. The incumbent's digital unit was expected to absorb the startup's capabilities in a manner that would allow for new services. Yet, after several years of headaches and massive investment, a leading industry platform had not evolved; instead, the two will split again, struggling once more on their own. The reasons for the failure are complex – not least the cultural differences. Plus, the fact that contracts were set up on the hoof, not describing sufficiently the actual value to be delivered, exacerbated the missing absorptive capacity at the incumbent. Lastly, change management failed to involve the incumbent's departments working in the traditional lines. They felt threatened by the progressive endeavor, which led to permanent resistance.

Niche Platforms

In the digital age, the attacker's advantage of new entrants will allow laptop and coding capabilities to remain virtually the only entry barrier to this market. This will essentially hold true for land transportation (without autonomous fleets in the short-term future). As the typical customer persona is millennials (Barclays, 2013), specialized platforms will perfect the means of interaction with their users (KPMG, 2016). These platforms are characterized by providing the digital platform to initiate and operate an interaction directly between carrier and shipper. As matchmakers their profit comes from transaction fees for platform usage without any transport liability. However, drawing parallels with the dot-com bubble, the experts surveyed assume that most of these platforms will fail to thrive due to their inability to offer sufficient incentives to join the platform in the first place. They rather expect "niche platforms" to survive by focusing on specific client needs and carrier competencies. The interviewees assume that niche platforms will be capable of luring away customers of "spot market business and specific types of smaller customers with recurrent transport needs" from the traditionally large freight forwarders because they are characterized by the following traits:

1. In such a closed setup, "competition inter pares" among the carriers will be possible by incentivizing both carriers and shippers to participate in the platform. Yet, given the closed setup, they will struggle to incentivize many others, e.g. warehousing platforms, to complement their offer to a very high degree.
2. The advantage of the closed setup will be trust to evolve among its participants. The limited number of parties with dedicated needs and services allows for sufficient confidence in the platform.
3. Niche platforms intrinsically favor quality over quantity with their specific yet limited number of players.
4. Furthermore, given the inherently limited scope, niche platforms will have trouble funding the overheads required to build first-rate intellectual property.
5. By growing their own digital forwarder talents within their niche area, they will improve their platform's user experience.

In addition to such platforms allowing for direct interaction between shippers and carriers to align on a shipment, the experts also expect visibility platforms to evolve. Such platforms allow for collaboration and the fusion of financial and physical supply chain processes across trade communities by offering different software modules. They will generate profit from subscriptions and transaction fees. While such niche platforms do not directly target the core of traditional forwarders, they might offer a service that adds more value than that of the incumbents. In the long run, they may use their data power to grow their business into core transportation services, too.

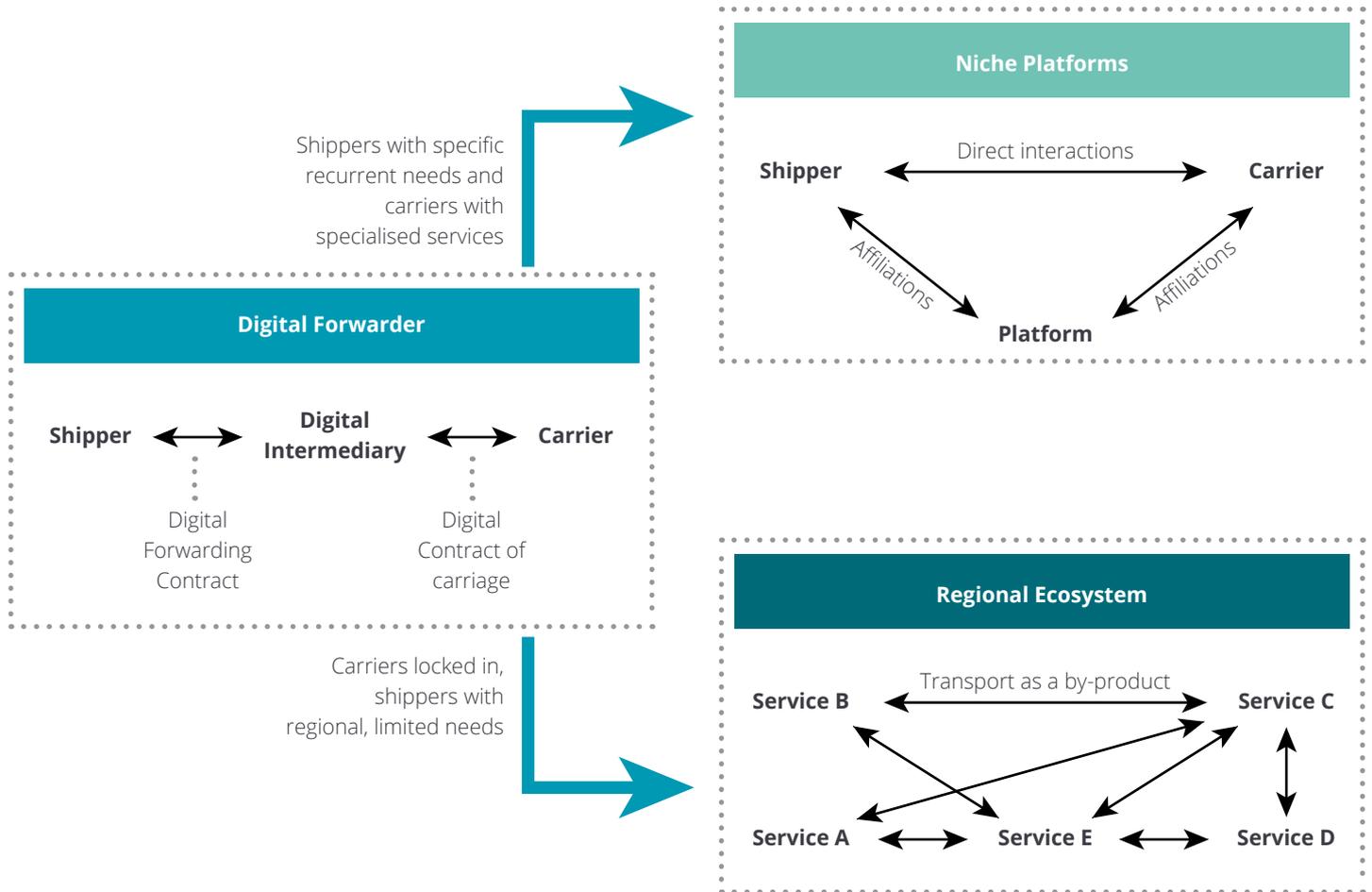
Regional Ecosystems

By contrast, the experts interviewed expect the leading global digital players to grow their dominant regional ecosystems and, based on necessity and opportunity, enrich their existing business with the required forwarding platform capabilities. Such a platform will bundle digital solutions from transportation & logistics, for instance different apps from multiple players, and connect supply chain players with a uniform information and application system. They may even use existing businesses such as banking or assurance to complement their cross-industry platform offering, as custom authorities' interests as well as legal and tax aspects will be taken care of.

1. With such a huge service portfolio and parties already part of the original ecosystem, incentives to join the regional ecosystem for transportation services are expected to be rather high. A user's switching costs will increase as soon as a small number of regional platform providers dominate and leverage network effects. Carriers will find themselves in devastating price wars.
2. As many participants will have long-standing relationships with the regional ecosystem for other purposes, trust and reliability will be sufficiently high.
3. The regional dominator platform will have more than two sides integrated. Given its reliable revenue streams from other activities, it will be able to afford to subsidize any player wishing to join the platform.
4. Enriched by technological excellence and a profound awareness of intellectual property, these players will lead by having their own fleet of autonomous trucks, extending control in the supply chains, and building critical mass.
5. Even if not forwarding-specific, the digital talents of the platform will allow shippers to benefit from the seamless end-to-end user experience.

McKinsey (2019) has already elaborated in detail on the impact of such cross-cutting ecosystems without borders. For forwarding this means that, with such service offerings, regional platforms will be capable of luring shippers away from traditional freight forwarders. In such a universe, one interviewee even considers that "offering transport services for free can become true and would be a game changer for all", ranging from carriers to forwarders to shippers. Speaking of such a winner-takes-all logic, this trend will dominate Asian and, to a lesser extent, North-American markets. This is emphasized by the fact that China is the most active country in terms of transport deals worldwide (Oliver Wyman, 2019; PwC, 2018). The European market, with a different freight forwarding structure, a well-established service culture, as well as an understanding of competition (EU Commission, 2018) will be less prone to such a regional dominator platform in freight forwarding. Overall, this industry trend is expected to realize most of the platform potential as depicted in Figure 3.

Fig. 3 – Competition between the platform derivatives in forwarding (simplified)



Digital Forwarders

In parallel to the continuing deployment of the industry's platform potential, it is anticipated that freight forwarding will persist because an intermediary function is expected. Incumbents who succeed in digitalizing their business will become digital forwarders.

1. Digital forwarders incentivize shippers to entrust them with their goods by presenting a selling proposition of liability, guaranteed capacity, price stability, and invoice consolidation. They can offer customized solutions to large clients and complex traffic flows with key activities managed by humans, while activities such as capacity brokerage, routing, and pricing will become digitalized. This will allow small clients with sporadic, simple shipments and without complex customs management to be serviced easily.
2. These digital forwarders will be partners of choice. The ability to combine both poles of governance in their intermediary platform is a unique asset of digital freight forwarders: On the one hand, they offer quality – liability and trust, while on the other they also offer quantity – proprietary hubs, domestic shipments, and a network of tens of thousands of carriers in multiple countries for executing international shipments
3. As such, the digital freight forwarders will be able to coordinate even better the different parties they already synchronize manually: customs, shippers, carriers, drivers, ground-handling agents, assurance, etc.
4. Traditional freight forwarders have already started to “grow” their own digital talents and apparently continue to do so with their dedicated digital units, intensified R&D cooperation, and new hiring profiles.
5. This will increase their technological maturity with their own intellectual property in route optimization or tracking devices, ultimately allowing for a smooth information service to the customer. Yet, their technological maturity will drag behind the maturity of regional dominator ecosystems as their play money required for significant investment is probably significantly lower. They will struggle to develop unique, compelling features that are hard to imitate (see intellectual property) and absorb technology features from an adjacent market such as the automotive industry.

These findings show – and all experts interviewed agree – that the market is about to interpret the general digitalization and platformization potential for the industry. The three up-and-coming forwarding platform derivatives will intensify competition: “New types of players will evolve, luring away customers even from digital forwarders.” Figure 3 shows that customers with recurring, specific needs might be tempted to use niche platforms to increase profit margins. Shippers with an already thriving business might build critical mass to lock in carriers, which enables highly competitive and even “aggressive” prices to be offered to shippers. Hence, the overall pressure on profit margins will increase further.

Traditional freight forwarders need a smart strategy to counter this increased competitive pressure. In such an environment, the sustainability of their competitive advantages remains at maximum medium term for them. This is why the leaders of the incumbents should consider the following two main aspects.

First, digitize: Increase process efficiency with the help of digital technologies such as RPA. This aspect might pertain to cross-cutting functions such as controlling or procurement to core functions such as state-of-the-art transport management systems. The major challenge related here is about overcoming organizational resistance. Dedicated change agents and / or unbiased

support from digital coaches who master both digital change and technology can be a good way to start.

Second, traditional freight forwarders should make use of their valuable resources in a smart manner. They can build difficult to imitate resources and leverage them into attractive new products and markets, for instance matching algorithms or fleets of autonomous trucks. They might need to ensure their advantage with unfamiliar means such through property rights; but path dependence and time is on their side (given the effort needed to develop the same resources). Plus, for certain strategically important resources, it might even make sense for incumbents to coevolve them with the industry, which might partially go hand-in-hand with further consolidation of the industry.

Will all of this be done tomorrow? Probably not. But we expect the forwarding universe to further evolve and hope that this report provides useful insights to the leaders of incumbents as they seek to address digital threats and opportunities. To flourish, freight forwarders should trust in one of their oldest skills: seeing the way ahead.



Endnotes

Aircargonews (2019): Breaking news: Panalpina and DSV set to merge in \$4.6bn deal, <https://www.aircargonews.net/freight-forwarder/breaking-news-panalpina-and-dsv-set-to-merge/>, 3.6.2019.

BCG (2018): The Digital Imperative in Freight Forwarding, <https://www.bcg.com/publications/2018/digital-imperative-freight-forwarding.aspx>, 5.8.2019.

BIFA (2018): Global freight forwarding growth only half as strong as last year, <https://www.bifa.org/news/articles/2018/nov/global-freight-forwarding-growth-only-half-as-strong-as-last-year>, 5.8.2019.

Armstrong & Associates (2018a): A&A's Top 25 Global Freight Forwarders List, Ranked by 2017 Logistics Gross Revenue/Turnover and Freight Forwarding Volumes, <https://www.3plogistics.com/3pl-market-info-resources/3pl-market-information/aas-top-25-global-freight-forwarders-list/>, 26.4.2019.

Armstrong & Associates (2018b): Global 3PL Market Size Estimates, <https://www.3plogistics.com/3pl-market-info-resources/3pl-market-information/global-3pl-market-size-estimates/>, 22.7.2019.

Barclays (2013): A summary of talking about my generation: exploring the benefits of engagement culture, <http://www.mas.org.uk/uploads/artlib/talking-about-my-generation-exploring-the-benefits-engagement-challenge.pdf>, 28.4.2019.

Bingham, Christopher, Eisenhardt, Kathleen, Furr, Nathan (2011): Which strategy when. MIT Sloan Management Review 53.1: 71–77.

Brennen, Scott & Kreiss, Daniela (2016): Digitalization. The International Encyclopedia of Communication Theory and Philosophy.

Deloitte, 2017: The Future of Freight, <https://www2.deloitte.com/insights/us/en/focus/future-of-mobility/future-of-freight-simplifying-last-mile-logistics.html>, 21.6.2019.

DSLV Bundesverband Spedition und Logistik (2019): Innovationsradar. Digitalisierung der Logistik.

EU Commission (2018): online platforms: Commission sets new standards on transparency and fairness, https://ec.europa.eu/growth/content/online-platforms-commission-sets-new-standards-transparency-and-fairness_en, 28.4.2019.

Focused Cargo Network (2016): Global Freight Forwarding. Overview of the global forwarding sector and its impact on globalization. <http://focusedcargonetwerk.com/download/Focused-Whitepaper-Global-Freight-Forwarding.pdf>, 28.4.2019.

Gassmann, Oliver & Sutter, Philipp (2016): Digitale Transformation im Unternehmen gestalten. Carl Hanser Verlag, Munich.

Gawer, Annabelle & Cusumano, Michael (2007). A strategy toolkit for platform leader wannabes. At DRUID summer conference (pp. 1–33).

Gawer, Annabelle & Cusumano, Michael (2014): Industry platforms and ecosystem innovation, *Journal of Product Innovation Management*, 31(3), pp. 417–433.

Hagiu, Andrei, & Wright, Julian (2015): Multi-sided platforms. *International Journal of Industrial Organization*, 43, p. 162–174.

Hofmann, Erik & Osterwalder, Florin (2017): Third-Party Logistics Providers in the Digital Age: Towards a New Competitive Arena? *Logistics*, 1(2), pp. 1–28.

Kelder, Märt (2017): End of road for trucking startup Palleter, <https://medium.com/@MartKelder/end-of-road-for-trucking-startup-palleter-523a4a906fe9>, 28.4.2019.

KPMG (2016): KPMG Transport Tracker, <https://home.kpmg/xx/en/home/insights/2018/06/kpmg-transport-tracker.html>, 28.4.2019.

Market Watch (2018): Global Freight Forwarding Market Report 2018: Analysis & Forecast through 2017-2022, <https://www.marketwatch.com/press-release/global-freight-forwarding-market-report-2018-analysis-forecast-through-2017-2022-2018-07-31>, 3.6.2019.

McKinsey (2017): Container Shipping. The next 50 years, https://www.safety4sea.com/wp-content/uploads/2017/10/McKinsey-Container-shipping-The-next-50-years-2017_10.pdf, 28.4.2019.

McKinsey (2019): The ecosystem playbook: Winning in a world of ecosystems, <https://www.mckinsey.com/~media/mckinsey/industries/financial%20services/our%20insights/winning%20in%20a%20world%20of%20ecosystems/winning-in-a-world-of-ecosystems-vf.ashx>, 18.6.2019.

Ojala, Lauri & Jämsä, Pia (2006): Third Party Logistics – Finish and Swedish Experiences. Turku School of Economics. <http://focusedcargonetw.com/download/Focused-Whitepaper-Global-Freight-Forwarding.pdf>, 28.4.2019.

Oliver Wyman (2016): How startups digitalize logistics, <https://www.oliverwyman.de/our-expertise/insights/2017/sep/oliver-wyman-transport-and-logistics-2017/innovations/how-startups-digitalize-logistics.html>, 28.4.2019.

Oliver Wyman (2019): Asiens Großangriff auf Europas Logistiker, <https://www.oliverwyman.de/media-center/2019/feb/logistik-start-ups-analyse.html>, 25.7.2019.

PwC (2018): M&A in the Transport & Logistics Industry, <https://www.pwc.de/de/transport-und-logistik/pwc-m-and-a-report-logistics-2018.pdf>, 4.6.2019.

Schallmo, Daniel & Williams, Christopher (2018): Digital Transformation Now! Guiding the Successful Digitalization of Your Business Model, Springer.

Schramm, Hans-Joachim (2012): Freight Forwarder's Intermediary Role in Multimodal Transport Chains: A Social Network Approach, Springer.

Statista (2016): Global Industry Forecasts, https://cdn.statcdn.com/static/promo/Statista_Global_Industry_Forecast_Summary_2016.pdf.

Transport Intelligence (2017): The Global Freight Forwarding Survey 2017, https://www.ti-insight.com/wp-content/uploads/2017/11/The-Global-Freight-Forwarding-Survey-2017.pdf?utm_medium=email&utm_campaign=GSCi%20update%2010&utm_content=GSCi%20update%2010+CID_a9cc4858d25876feb4ab24f19ceb869&utm_source=Campaign%20Monitor&utm_term=Read%20Now&utm_medium=email&utm_campaign=GSCi%20update%2013&utm_content=GSCi%20update%2013+CID_f8a2ee07a3aa636c0ed43e4ba1675e3c&utm_source=Campaign%20Monitor&utm_term=The%20global%20freight%20forwarding%20survey%202017, 3.6.2019.

Weill, Peter & Woerner, Stephanie (2013): Optimizing your digital business model. MIT Sloan Management Review, 54(3).

Authors

Tillman Hentschel

Deloitte Consulting Germany
Transportation, Hospitality and Services
thentschel@deloitte.de

Kai Krotki

Deloitte Consulting Germany
Transportation, Hospitality and Services
kkrotki@deloitte.de

Dorothea Haas

Deloitte Consulting Germany
Transportation, Hospitality and Services
dhaas@deloitte.de

Nargiza Umetova

Deloitte Consulting Germany
Transportation, Hospitality and Services
numetova@deloitte.de

Marton Farkas

Deloitte Consulting Germany
Transportation, Hospitality and Services
mfarkas@deloitte.de

Christoph Semmelmann

Deloitte Consulting Germany
Transportation, Hospitality and Services
csemmelmann@deloitte.de

The German transportation team consists of more than 20 dedicated industry experts with focus clients in the fields of Postal, Aviation, Railway and Logistic Providers.

Our deep industry experience and digital excellence enable us to create tailor-made customer solutions for key industry trends and topics such as robotics process automation, transport management system support and digital procurement solutions.

Through our close collaboration within and beyond service lines we act as door-openers and ensure the highest degree of quality for our clients.

We are therefore able to consult our clients along the whole value chain – from the concept creation to the hands-on implementation.



Deloitte.

This communication contains general information only not suitable for addressing the particular circumstances of any individual case and is not intended to be used as a basis for commercial decisions or decisions of any other kind. None of Deloitte GmbH Wirtschaftsprüfungsgesellschaft or Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the "Deloitte network") is, by means of this communication, rendering professional advice or services. No entity in the Deloitte network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. Please see www.deloitte.com/de/UeberUns for a more detailed description of DTTL and its member firms.

Deloitte provides audit, risk advisory, tax, financial advisory and consulting services to public and private clients spanning multiple industries; legal advisory services in Germany are provided by Deloitte Legal. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte's approximately 286,000 professionals are committed to making an impact that matters.