Digitization allows ports to easily identify, assess and leverage what is available in the port ecosystem through technologies such as dashboards and touchscreens. Cranes, containers, ships and trucks can now also be monitored and moved across ports and beyond from any place on the planet – provided these things are ‘smart’. Further, when data sharing is done at a nascent stage, it allows all parties involved to prepare for the arrival of vehicles and goods, which thereby increases efficiency and avoids disruptions. Perhaps most importantly, this method allows unfavorable events along the supply chain to be anticipated.

At present, most ports seem to prefer the granular optimization of specific activities. This means a limited data exchange as opposed to a holistic digital operation that would render the physical port a digital business within a broader digital economy. Some ports might even consider this optimization a way towards larger digital integration. For example, the Port of Rotterdam has launched PRONTO, an application that shipping companies, terminal operators and other port stakeholders can use to manage their tasks during a port call based on standardized data exchange. PRONTO also links into the Hamburg Vessel Coordination Center (HVCC) to exchange port call information, widening the data streams and creating much more accurate predictive analytics. In turn, Antwerp has invested in NxtPort, a data platform offering a range of port services around container weight data and customs information. So far, only Singapore has, with the launch of Calista, created an open supply chain platform that invites other ports and logistics service providers to join.

WHY DIGITAL PLATFORMS?

When embarking on a journey of digitization, one must ask ‘What is a platform and what are its merits?’ In the past, the answer to this was based around a company’s control over supply that sat at the core of the business model. It was hard, for example, to find quality suppliers in China. Yet, this has changed. The world has become more transparent and, in the platform economy, user control has become the key to success. Why? Because it is the user that attracts suppliers. Therefore, the more users are registered on the platform, the more suppliers wish to join. This is logical, as with the rising number of suppliers, the platforms’ offer and service levels grow.

In essence, what we are seeing is the ride-sharing platform that aggregates the drivers and the vehicles that offer the shortest waiting time. Over time, the leader might take it all, as it’s a self-propelling business model which is driven by clear user benefits. Therefore, it does not come as a surprise that the platform offering businesses have become the champions of the global economy.

PLATFORMS ON THE RISE

Amazon and Alibaba are the icons of this new world. The e-commerce companies control the customer interface and master business generation in the digital age. This is highly attractive for sellers but also for logistics companies. However, it is the e-commerce platforms that set the rules, not the sellers, nor the logistics providers. Mostly, traditional retail loses out (unless they enter the platform arena too, as Best Buy demonstrates). Although largely benefitting at the initial stages, over time, margins for logistics players thinned out. This has led to some anticipating small vendors that use platforms getting their merchandise to the market getting undercut by products offered by the platform providers themselves. This is because platform providers have all the data at hand to develop the respective strategies.
DIGITIZING LOGISTICS
With Uber and Airbnb, new platform players emerged confirming the disruptive and economic potential of the model. This has motivated forwarders and shipping lines to establish platforms as well. Maersk line teamed up with IBM and Microsoft, for example. In 2018, APMT Terminals launched its online platform to offer a range of port services, including the booking of appointments and slots as well as the processing of payments and invoices. This platform has been launched at Khalifa Bin Salman Port (KSPB) in Bahrain. Also, forwarders like Agility have developed their own portals to digitize their businesses. In the meantime, the first logistics unicorn has emerged: Flexport.

EXCHANGE OF DATA DOESN’T SUFFICE
The Port of Rotterdam and the Port of Hamburg have recently entered into a data partnership and both ports have started to share port call data in order to optimize the calls of liners in the North Europe area. Although being competitors, the two ports connected their systems as it proves more beneficial. Maersk Line initiated the project as port data helps the carrier to improve the running of its vessels between the two ports. The Port of Hamburg also shares data with Singapore Port. However, the exchange of data is just the beginning and much more is needed to become a smart port.

CALISTA’S VISION
While most of the ports have started to build platforms to aggregate services offered within their yard, Singapore’s Calista is aimed at moving beyond the gate to cut across the port-related larger supply chain ecosystem – thereby thinking nationally but also internationally. Calista brings together the key physical and non-physical – such as regulatory and financial – activities of logistics on a digital eco-system that serves the community of logistics players and stakeholders.

The developers promise that manufacturers and their logistics service providers can partner port operators to access new port-related asset-based and service-based solutions for greater productivity, and to explore new intermodal transport corridors to achieve shorter transit times, better cost efficiencies and more optimized inventory management. Thanks to the web of connections that such global platform companies can capture, value now flows independent from where they physically operate. An example of this is the online business-to-business platform Zilingo, which connects suppliers in the fashion industry with brands to reduce the cost of production. Services include inventory management, invoicing, logistics and payments. The Singapore-based company takes a cut whenever a deal is brokered, or a sale is made via its platform and, hence, benefits independently from the final routing of the orders and shipments.

GOVERNMENTS
Public private partnerships (PPP) come to fruition with concepts like Jack Ma’s creation of the electronic world trade platform (eWTP). The vision of Alibaba’s founder is to provide SMEs with easy access to the global market by connecting Chinese, Malaysian and European businesses. Similarly, Singapore’s recently launched Networked Trade Platform (NTP) brings together government certification services required for trading in and out of Singapore, as well as value-added services by third-party firms geared towards trade. NTP could soon be linked to the trading systems of China and the Netherlands, for example on trade regulatory processes. Abu Dhabi's financial free zone and Abu Dhabi Commercial Bank (ADCB) wish to bring a platform to the UAE, the 'UAE Trade Receivables Exchange'. Together with M1Exchange, a prototype was built and tested. M1Exchange is a platform promoted by Mynd Solutions that has already been deployed in India for the country’s Trade Receivable e-Discounting System (TReDS). These online marketplaces bring together buyers, suppliers and financiers, allowing small and medium enterprises (SMEs) to post their receivables, buyers to approve invoices, and financiers to bid on them.

DIGITAL STANDARDS
Connectivity and data exchange are much smoother when we have a basis of standards. Hapag-Lloyd, Mediterranean Shipping Co and Ocean Network Express formally launched the Digital Container Shipping Association (DCSA) after it received regulatory approval from the Federal Maritime Commission and the DCSA’s mission is to move container shipping into the digital era by collaborating with multiple stakeholders from the entire value chain, thereby driving standardization and digitalization. DCSA’s priority is to develop common information technology standards in order to increase the industry’s efficiency for both customers and shipping lines. This can be a change in the course of the container shipping industry and the beginning of overarching governance to prepare for the platform era. However, applying a final set of global protocols across the industry, or even the economy, will take time as many different stakeholders have to be convinced and onboard.

PORTS OF THE FUTURE
“Software is eating the world” stated entrepreneur, investor, and software engineer Marc Andreessen. This has become even more valid in the platform era. Platform players think big. What about a Calista for the world of shipping? What about an enabling platform of global trade? Offering shipping status data, shipping tracking data, document processing functionalities, pre-clearance options and so forth? This would mean realizing the next stage of the single window concept; connecting the ports of the world with logistics service providers and manufacturers. This can lift supply chain security to a new level. The global port platform would enable each single port, independent of its size, to punch above its weight. It would optimize capacity and utilization. The global port platform would allow all the ports connected to benefit from every new technology, application and feature launched on it. This platform could be the white labelling of “Uber Ports” in the form of a powerful tool that every participating port or a “global digital port network” can use.

The platform does not include granular optimization of the port processes. However, it unlocks huge possibility and allows us to tap into the enormous potential platform businesses offer. The global port platform would be the digital architecture where data is gathered, aggregated and analyzed. This requires some application to be built onto it. However, they should be open for everyone to add their own tools and applications. That means for shipping lines, beneficial cargo owners, terminals, railways, trucking companies, forwarders, agents, and even truck manufacturers and governments. The ports’ customers are global, so port platforms must be too. Some have heard the call and see the opportunity – surely one of them is Singapore with the development of Calista.

ABOUT THE AUTHOR
Wolfgang Lehmacher is thought leader, advisor and practitioner in supply chain and logistics. During his career, he was Director, Head of Supply Chain and Transport Industries at the World Economic Forum, Partner and Managing Director (China and India) at the global strategy firm CVA, and President and CEO of GeoPost Intercontinental, the global expansion vehicle of French La Poste. He is advising Fortune 50 companies, investors and start-ups. He is member of the IATA Air Cargo Innovation Awards Jury and the Logistikwesen, a think tank under the patronage of the German Federal Ministry BMVI. Wolfgang Lehmacher is FT, Forbes, Fortune, BI contributor and author of numerous books, including The Global Supply Chain.