

Tomorrow's Logistics

# 5 Trends Shaping the Future





## The Paradox of Today's World

The world is in constant flux and within all industries we feel the effects of relentless change. Little over a year ago no-one could have predicted a global pandemic would bring the entire world to an abrupt halt. And yet, companies have to make increasingly large bets in increasingly uncertain times.

However, in the face of this uncertainty, we must make decisions. When thinking about the future it is important to distinguish between two types of phenomena – the less predictable **“dice rolls”** and the more **predictable tendencies** characterizing the market.

Dice rolls include the price of energy in 2021 and the impact of Covid-19 going forward. More predictable phenomena are the rise of the “silver market”, urbanisation and the consistent focus on environmental and sustainability issues. By tracking and understanding persistent global megatrends, we can understand developments that will define the competitive landscape. And importantly, we can prepare for them and take action.



Photo by Riho Kroll & Jan Nyson on Unsplash





## Top Trends Making an Impact

Through in-depth strategic work, DFDS has defined five umbrella trends that are vital to tomorrow's logistics.

- 01 Business Model Shifts
- 02 Transportation Shifts
- 03 Technology Shifts
- 04 Demand for Efficiency
- 05 Demand for Pain Point Solutions

### Futureproof your business

These trends are relevant to not only the logistics industry but all the industries we serve. This white paper highlights each trend and gives you an insight into how they could affect the future of your business.



## 01 Business Model Shifts

### The blurring of industries

What companies can offer is constantly changing. More and more there is overlap between industries. This has given rise to **“Customers Becoming Competitors”** and involves companies moving upstream and downstream in their value propositions. For example, successful online retailers are now able to branch out into the transport and aeronautical industries and compete with Logistics companies. But while customers are becoming competitors, **they are also becoming partners.** The notion of autonomously driven trucks could signal competition for DFDS, but we see this as a business opportunity – a collaboration that diversifies and enriches our offering.

### The changing identity of companies

DFDS has been on a digital journey for the last five years. 85% of our business is now done online through digital portals involving API and EDI integration. We could easily be defined an IT company as much as a Logistics company. A significant part of our work is now helping manufacturers refocus their vision and taking on a consulting role to redefine what their business model should be in the future. To be an effective sparring partner we stay informed about the trends and current thinking in a range of industries.



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### Key takeaways

- Customers becoming competitors and partners.
- Companies defining themselves in new ways.
- Seek out opportunities, collaboration and partnerships.





## 02 Transportation Shifts

### The future of fuel

As we face the climate crisis, there is no doubt that the long-term plan in Logistics should be to become carbon neutral. DFDS is facing pressure from both regulatory bodies to reduce fuel emissions and from consumers who are setting emission requirements on services. When it comes to alternative, green fuel types, at present there is no clear winner. **Biofuel, Wind & Solar, Hydrogen, Ammonia and Methanol** are all under consideration, meaning new builds must be flexible enough to allow for low-cost fuel-type replacement.

### How do we implement green fuel in logistics?

Our zero-carbon future is complex, and many questions remain unanswered. How do we ensure future fuel availability? What of the debate between fuel cells vs normal engines? What about the high cost of onboard electricity storage? How will we develop operational excellence of vessels with new fuel types? DFDS has identified 3 long-term focus areas for future fuels in new builds:

#### Partnerships

- to close knowledge gaps, get funding and ensure green fuel availability

#### Monitor new fuel types

- to find out best options, develop proof of concept

#### New Logistics Equipment

- with new build designs that accommodate green fuel

### Key takeaways

- The Logistics industry journey towards becoming carbon neutral is complex.
- The future of fuel must be constantly monitored.
- Partnerships are essential to ensure green fuel is available and practical.





## Transportation Shifts Continued

### Electrification of heavy transport

Reducing our carbon footprint relies on electrification of heavy transport states DFDS' EVP & Head of Logistics Division, Niklas Andersson. The conversion of heavy truck traffic to electric operation may be challenging but is possible if the will is there within industry and government.

Furthermore, vehicle battery capacity must be improved and infrastructure for electrical vehicles enhanced to ensure the progress of electric motors over the internal combustion engine.

#### Key takeaways

- Electrification demands buy in from industry and government.
- CO2 emissions from heavy transport are increasing not decreasing.
- Advances in vehicle battery capacity and infrastructure are needed.

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*An electrification commission to electrify heavy vehicle transport is needed. Development is simply too slow... Emissions of carbon dioxide from heavy transport on our roads is increasing instead of decreasing. If the trend is not broken, we can not directly claim that we are operating in a future industry.*



**Niklas Andersson**  
EVP & Head of Logistics Division, DFDS





## Transportation Shifts Continued

### Autonomous trucks are a reality

Volvo Autonomous Solutions' electric, connected and autonomous vehicle will form part of an integrated solution to transport goods from a logistics centre to a port terminal in Gothenburg, Sweden. The assignment is a result of a collaboration between Volvo Autonomous Solutions and DFDS.

The purpose of the collaboration is to implement an autonomous truck in a real application, enabling a connected system for a continuous flow of goods, from a DFDS' logistics centre to an APM Terminals port facility in Gothenburg, for distribution across the world.



### Key takeaways

- Finding the right application for autonomous trucks is key.
- Can be used in restricted areas for repetitive tasks e.g., logistics centres and ports.
- Suited for short distances, transporting large volumes of goods with high precision.



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## 03 Technology Shifts

### Art of the possible

Technology continues to develop and evolve exponentially – from API (Application Programming Interface) to Ubiquitous Connectivity, Cloud Computing and IoT Edge Devices along with Big Data Analytics. These are all technologies used by DFDS to help enable our customers and their goals. Looking ahead there are many technological developments in the pipeline, which **must be considered by companies to stay relevant and competitive.** Here's how some of these technologies are currently playing, or are forecasted to play a role in Logistics.

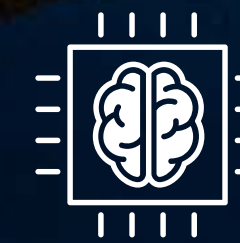
### Key takeaways

- The technology is there – how can you best use it in your organization?
- How do we collaborate with other sectors to get the most from technologies?
- The potential of technology is vast – start small and evolve.



#### Big Data & Analytics

- Develop deep insights into supply chains and better forecast, e.g. demand and capacity.



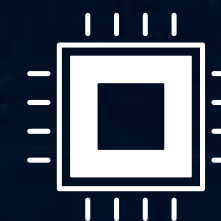
#### AI Machine Learning

- Engine for continuous improvements as quantities of data increases, automate /assist decision making.



#### Internet of Things / Smart Sensors

- Foundation for cross-supply chain visibility.
- Real-time telematics give feedback to improve driver behaviour.



#### Augmented Reality

- Overlay contextually relevant information in real-time on physical objects or on displays.
- Allow operators to visualize e.g. position / path of container.



#### Autonomous Transportation

- Intelligent autonomous systems, e.g. self-driving vehicles/trucks, unmanned areal vehicles (UAVs)
- New last-mile delivery model.



#### Robotics

- Forklifts move freight in warehouse, DC, cross dock.
- Robots load/unload tractors.
- “Co bots” enhance performance of humans.



#### Ubiquitous Technology

- Have uninterrupted connectivity with all pieces of supply chain and transported goods.



#### Blockchain

- Centralized database which multiple parties trust.
- Smooth transactional friction in logistics.
- Reduce time, cost, risk.



#### eMarketplaces

- Connect shippers with smaller/unknown carriers
- Creates a digital platforms for contracting documents
- Buyer and seller transparency



## 04 Demand for Efficiency

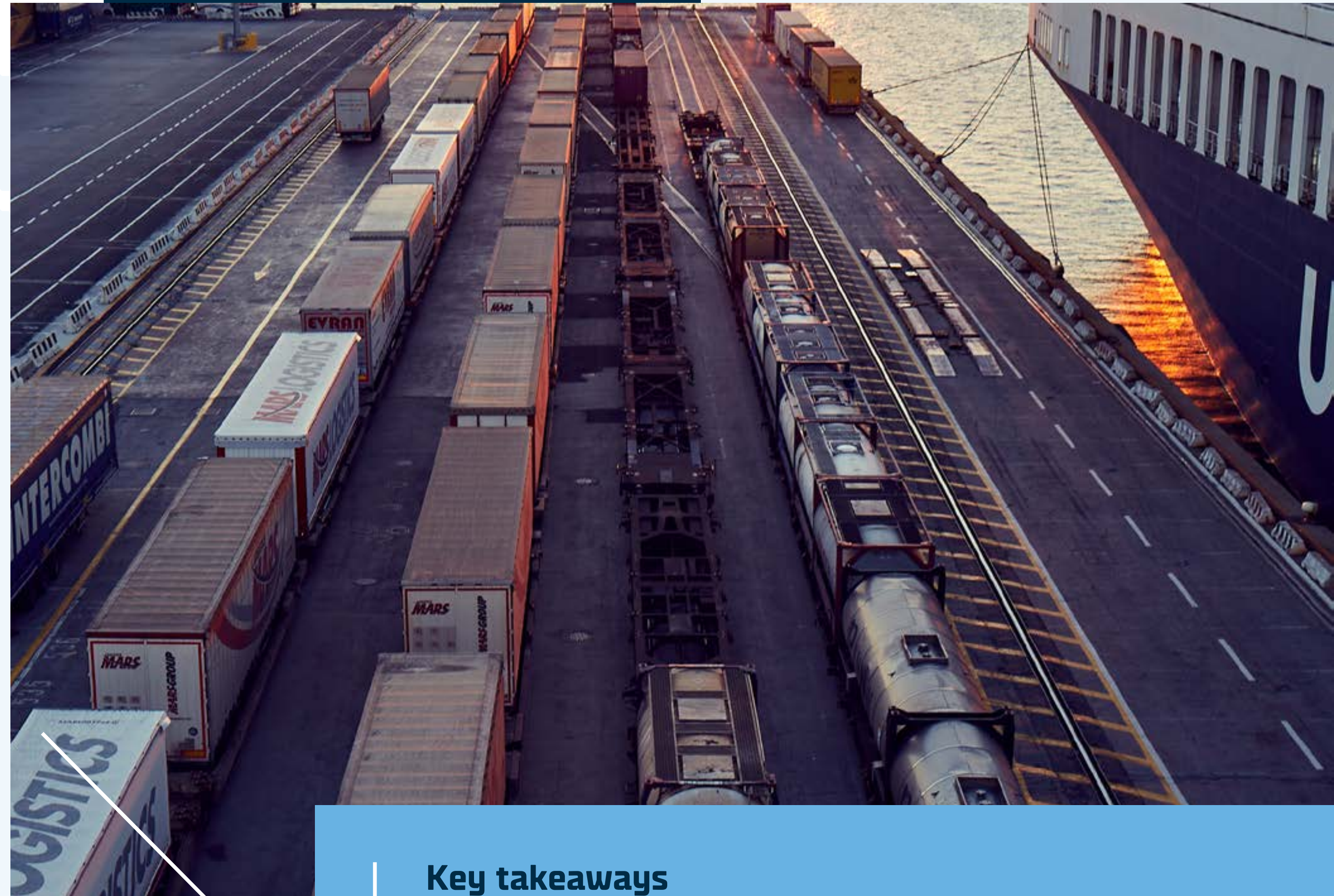
### Optimizing supply chains

There is an increasing demand from customers for greater efficiency in logistics and supply chain. The efficiency of the supply chain must be able to live up to the needs of the customer. How we address these needs is vital. Here, digitalization will be the largest differentiator for logistical business opportunities going forward. Through digitalization we will see more efficiency as we learn how to collaborate across industries when it comes to sharing data and developing mutually beneficial digital activities. .

### Anticipatory supply chains

The next level for customers shipping goods will be to estimate capacity utilization based on big data from various sources. This could be internal historic data from a company, external events or holidays.

**Wherever there is a data source there is potential for it to be used to achieve greater efficiency.** For example, customer behaviour can be estimated based on product searches and shopping histories and the final destination of a package already in transit specified when the customer makes an actual purchase. Predicative supply chain risk management can also be used to evaluate different supply chain scenarios based on big data analysis to select scenarios that minimize disruptions in delivery or manufacturing processes.



### Key takeaways

- Increasing demand for efficiency of logistics and supply chain.
- Digitalization is the key differentiator for boosting efficiency.
- Anticipatory supply chains can predict demand, enable circular transportation of goods and limit risk through activating data.





# DIGITAL SOLUTIONS

## Key takeaways

- Complex forwarding chain results in a great many customer pains.
- Digitalization offers faster, more transparent, smoother logistics.
- Increased digital focus will enable even more pain point solutions.

## 05 Demand for Pain Point Solutions

### Partnership approach

As we have discussed the remit of Logistics companies is broadening from simply providing transportation of goods to consulting on the vision and direction of future business. This partnership approach also extends to understanding and relieving the pain-points of those working on the ground within Logistics. Often, a complex forwarding chain spread among many parties results in a number of pains for freight forwarders including complex quotation processes, lack of shipment transparency, analogue and disjointed documentation management, inconsistent and reactive exception handling and error prone and lengthy payment cycles.

### Digital solutions

Through digitalization we can offer specific pain point solutions. It is critical that we enable forwarders by supporting efficient, **online and automated solutions** throughout the entire value chain of the forwarding process. The more we work with digitalization, the more we can deliver on the pains of our customers and improve the efficiency of their business.





# Prepare your Logistics

Get in touch to find out how DFDS can help you plan for the future.

[Click here to get in touch](#)

