

WHITE PAPER 1

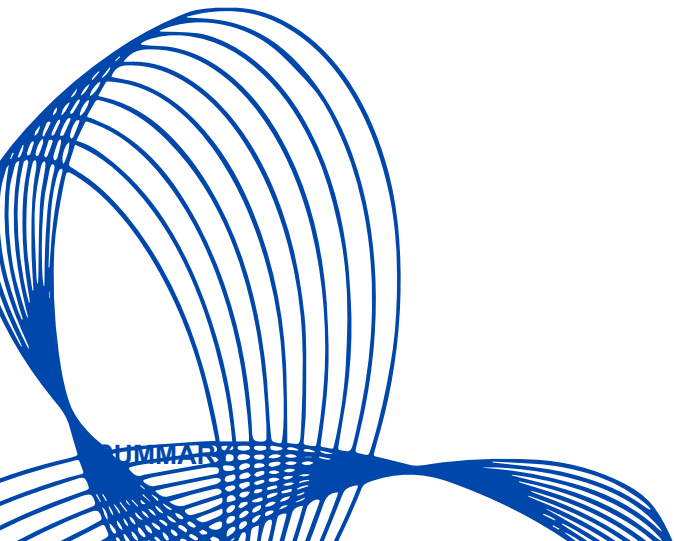
VAMOS AUTONOMOUS
MOBILITY IN
SMART SPACES

Key Forces Redefining Tomorrow's Logistics Landscape

Petteri Kolinen
Leading Consultant, Strategic Design
LINK Design

INTRODUCTION

Megatrends and key driving forces are changing the world, people's behavior, habits, and desires. As also highlighted in the *Economist Automotive report 2024*, the shift toward electric vehicles (EVs) is a key trend reshaping industries globally, with policymakers and automakers working to address consumer concerns such as range anxiety and enhance EV performance. This trend is influencing not just automotive industries but also broader logistics and supply chain operations globally.





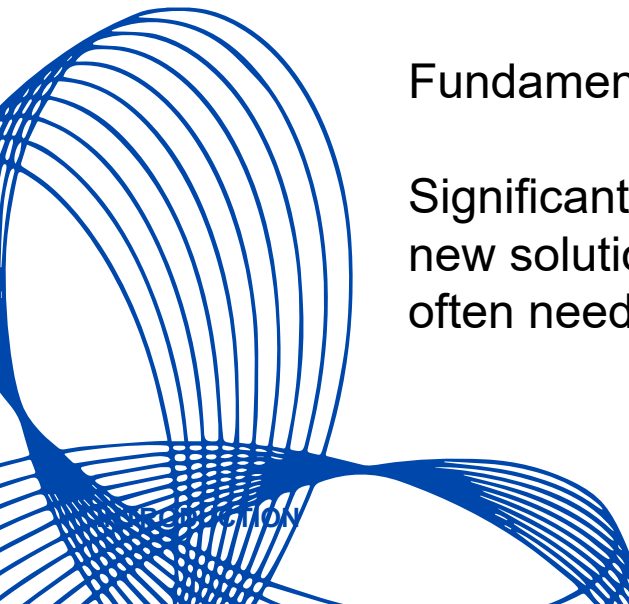
GREEN TRANSITION

Europe's target is to be carbon neutral by 2050. The details of the plan are described in the "The Green Deal," launched in 2019.

"Today, transport emissions represent around 25% of the EU's total greenhouse gas emissions, and these emissions have increased over recent years. Our goal of being the first climate-neutral continent by 2050 requires ambitious changes in transport. A clear path is needed to achieve a 90% reduction in transport-related greenhouse gas emissions by 2050."

Fundamental transition in logistics is necessary due to the green transition.

Significant business opportunities will emerge for companies that can deliver new solutions for future logistics. Co-operation between multiple companies is often needed to create customer-driven, holistic solutions.



BACKGROUND

Emerging technologies enable the development of new services, products, and solutions, especially in rail-based transportation. However, the entire logistics process must be rethought, including other operators whose roles and operational methods will change.

”The Commission is today proposing measures to make freight transport more efficient and more sustainable by improving rail infrastructure management, offering stronger incentives for low-emission lorries, and providing better information on freight transport greenhouse gas emissions. The aim is to increase efficiency within the sector, contributing to the goal of cutting transport emissions by 90% by 2050 while allowing the EU single market to continue growing.”





SOLUTION

Aging and Digitalisation 2.0

Automation and robotics offer innovative solutions, especially in countries with declining working-age populations.

The next wave of digitalization will be more customer- and people-driven, shifting focus from cost-cutting and process efficiency (which often led to poor customer experience) to enhancing value creation in logistics. AI plays a crucial role in this shift.



SOLUTION

NATO logistics

Russia's attack on Ukraine has accelerated the world's division into two camps. A solid and reliable logistics model is crucial at NATO's eastern border.

Finland has unique business opportunities in NATO-driven logistics, particularly as a specialist in Arctic conditions.

The logistics required will range from heavy vehicle/machinery transportation to strategic movements of NATO troops, as well as high-level service logistics for daily supplies like food.



SOLUTION

Circular Economics

Future logistics will increasingly involve transporting waste, recycled materials, and products needing updates or repairs.

The steel industry is becoming greener by using fewer virgin raw materials and more recycled metals.

Modern power stations, which sometimes run on waste, will require vast amounts of fuel. This shift will have a fundamental impact on logistics.

CONCLUSIONS

Megatrends and Competitiveness in Logistics and Business

The megatrends and driving forces will fundamentally influence the transition of nearly all businesses, consumer behavior, and logistics. The rise of electric vehicles (EVs) and sustainability practices are reshaping industries globally. This shift is altering trade, technology investments, and supply chain dynamics.

To navigate these changes, it is crucial for businesses to focus on future needs and the big picture, enabling them to make informed decisions regarding concepts, products, and services. The *Automotive Outlook 2024* emphasizes the importance of innovations like automation and advanced battery technologies to address these shifts, ensuring long-term success.

Finnish companies, in particular, can enhance their competitiveness by anticipating and catering to future customer needs. By aligning with global megatrends, such as the expansion of EVs and the push for sustainability, businesses can develop competitive and desirable solutions that meet evolving market demands.

LINKS

<https://digirata.fi/rautatiet-yhdistavat-eurooppaa-eun-rautateiden-teemavuosi-kirittaa-siirtymaa-raiteille/>

<https://www.consilium.europa.eu/fi/policies/clean-and-sustainable-mobility/>

<https://www.consilium.europa.eu/fi/policies/rail-transport-policy/>

https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/transport-and-green-deal_en

https://ec.europa.eu/commission/presscorner/detail/en/IP_23_3767

<https://www.vttresearch.com/fi/uutiset-ja-tarinat/kiertotalouden-logistiikka-haaste-mutta-selatettavissa>

<https://www.vrtransport.fi/fi/vr-transport/linked/artikkeli/kiertotalous-toimii-jos-logistiikka-uudistuu-290920151245/>

<https://www.dhl.com/global-en/delivered/sustainability/circular-logistics-explained.html>

https://www.ey.com/en_us/insights/consulting/circular-economy-viable-opportunities-for-logistics

<https://www.reuters.com/world/nato-urges-members-get-their-logistics-homework-done-2023-11-23/>

https://www.nato.int/cps/en/natohq/news_225580.htm?selectedLocale=en

<https://puolustusvoimat.fi/web/fincent/-/kansainvalisen-logistiikan-osaajaksi-jo-maisterivaiheessa-nato-logistics-introductory-course-osana-sotatieteiden-maisterien-logistiikan-opintosuunnan-opintoja>

Automotive outlook 2024 - Economist Intelligence Unit (eiu.com)