

Laura Eiro  
Program Director, ITS Finland  
29 Jan 2019

# National Growth Programme for the Transport Sector



# Connected Autonomous Shared Electric

**„Connected, Autonomous, Shared, Electric: Each of these has the power to turn our entire industry upside down. But the true revolution is in combining them in a comprehensive, seamless package.“**

***Dr. Dieter Zetsche***  
**Chairman of the Board of  
Management of Daimler AG**

# Disruption and growing markets

**Electric car market:**  
**USD 129.3 billion** (2016)  
**USD 393.4 billion** (2022)  
 Annual growth: **20%** (2016-2022)

Production of combustion engine cars will start declining in the early 2020s.

Number of electric cars in the world  
 2016: **about 2 million**  
 2020: **9-20 million**  
 2025: **40-70 million**

Sales of electric and fuel cell cars will total **150 million** in 2050, which means a market of about **USD 4,700 billion**.

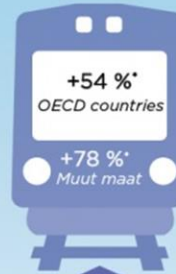
Market for electric car charging systems:  
**USD 726 million** (2022)  
 Annual growth: **4.9%** (2017-2022)

Car software:  
**USD 11.5 billion** (2021)  
 Annual growth: **11%** (2017-2022)



\*Growth in car mileage in large urban areas 2015-2050

Global market for train and bus travel:  
**USD 48.3 billion** (2017)  
**USD 71.6 billion** (2022)  
 Annual growth: **8.2%** (2017-2022)



\*Growth in train passenger kilometres in large urban areas 2015-2050

Global market for ridesharing services:  
**USD 44.4 billion** (2017)  
**USD 106.4 billion** (2022)  
 Annual growth: **19.1%** (2017-2022)

Market for air travel:  
**USD 330 billion** (2017)  
**USD 499 billion** (2022)  
 Annual growth: **8.7%** (2017-2022)



Mobility-as-a-Service (MaaS), ridesharing and carsharing

Market for carsharing:  
**USD 1.2 billion** (2015)  
**USD 16.5 billion** (2024)  
 Annual growth: **34.8%** (2016-2024)

Annual MaaS market of over USD 1,000 billion in 2030

\*Growth in kilometres travelled by bus in large urban areas 2015-2050

About 80% of wor transported by sea



\*Global growth in maritime freight (in ton-miles)



\*Global growth in road transport (in tonne-kilometres)

Market for autonomous vessels:  
**USD 56.8 billion** (2016)  
**USD 155.1 billion** (2025)  
 Annual growth: **12.8%** (2017-2025)

Market for transport management systems:  
**USD 78.2 billion** (2017)  
**USD 202.1 billion** (2022)  
 Annual growth: **20.9%** (2017-2022)

Market for autonomous vehicles:  
**USD 126.8 billion** (2027)  
**USD 3,600 billion** (2050)  
 Annual growth: **39.6%** (2017-2027)  
 Annual growth in autonomous driving software: **>76%** (2017-2021)


Market for electric buses:  
**USD 85 billion** (2021)  
**>USD 165 billion** (2027)  
**USD 500 billion** (2038)  
 Annual growth: **33.5%** (2017-2025)

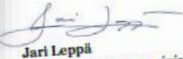



# National Transport Sector Growth Programme 2018 - 2022

## National Transport Sector Growth Programme 2018-2022

  
Ministry of Economic Affairs  
and Employment of Finland


  
Mika Lintilä  
Elinkeinministeri  
Työ- ja elinkeinoministeriö


  
Jari Leppä  
Maa- ja metsätalousministeri  
Maa- ja metsätalousministeriö

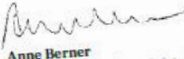
  
Jukka Mäkelä  
Kaupunginjohtaja  
Espoon kaupunki

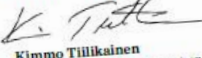
  
Lauri Lylly  
Pormestari  
Tampereen kaupunki

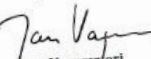
  
Pekka Soini  
Pääjohtaja  
Tekes / Business Finland

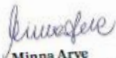
  
Anna-Mari Ahonen  
Maakuntajohtaja  
Hämeen liitto


  
Antti Vasara  
Toimitusjohtaja  
Teknologian tutkimuskeskus  
VTT Oy

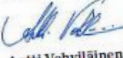
  
Anne Berner  
Liikenne- ja viestintäministeri  
Liikenne- ja viestintäministeriö

  
Kimmo Tiilikainen  
Asunto-, energia- ja ympäristöministeri  
Ympäristöministeriö


  
Jan Vapaavuori  
Pormestari  
Helsingin kaupunki

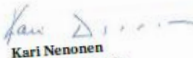
  
Minna Arve  
Kaupunginjohtaja  
Turun kaupunki


  
Mikko Kosonen  
Yhtäisiamies  
Suomen itsenäisyyden juhlarahasto  
Sitra


  
Antti Vehviläinen  
Pääjohtaja  
Liikennevirasto

  
Karri Salminen  
Hallituksen puheenjohtaja  
ITS Finland ry

  
Päivi Laajala  
Kaupunginjohtaja  
Oulun kaupunki

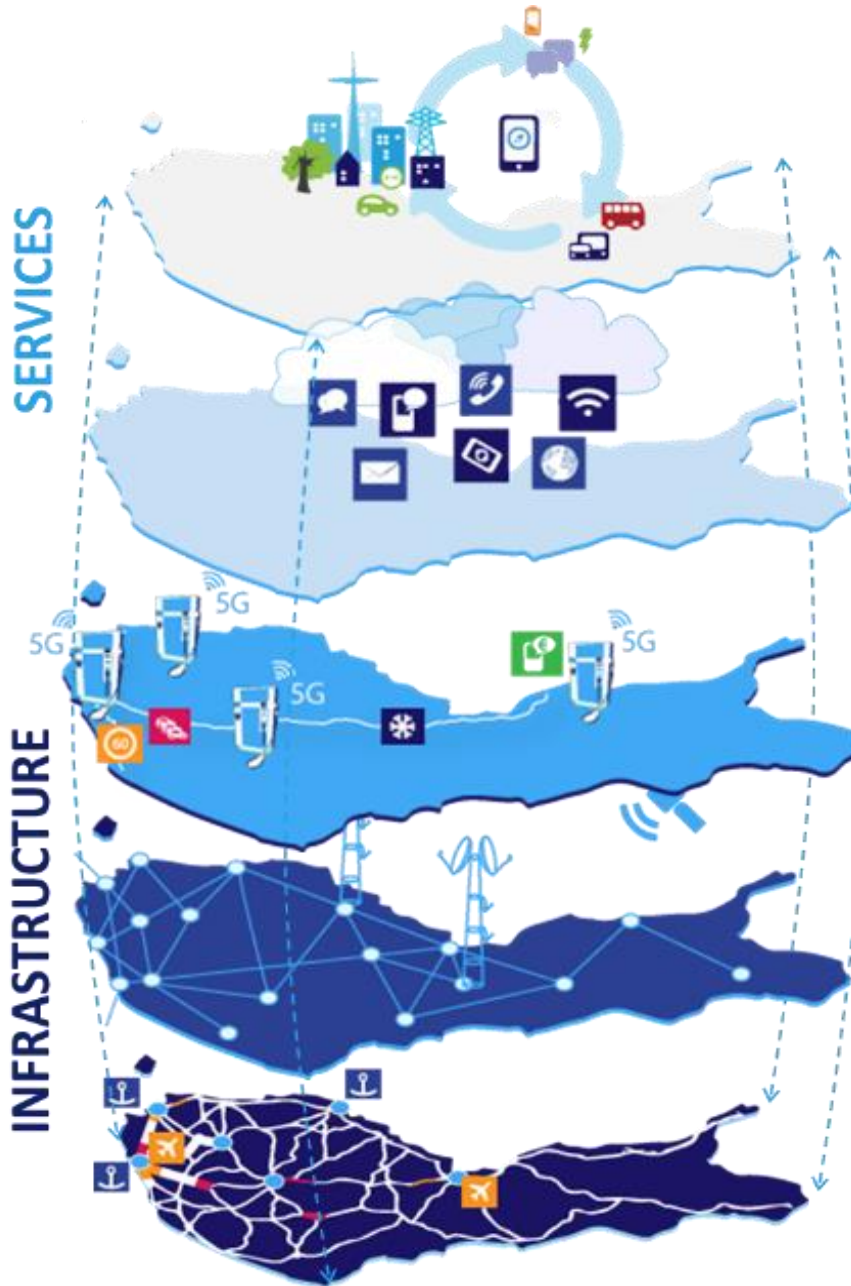
  
Kari Nenonen  
Kaupunginjohtaja  
Vantaan kaupunki

  
Tiina Kähö  
Toimitusjohtaja  
Pääkaupunkiseudun  
Smart & Clean -säätiö

  
Kari Wihlman  
Pääjohtaja  
Liikenteen turvallisuusvirasto  
Trafi

# FINNISH ECOSYSTEM FOR THE FUTURE MOBILITY

ENABLING GOVERNANCE AND REGULATION



## Mobility as a service

Mobility-as-a-service operators (big & small),  
Multiple customized services  
All Transport modes with single User Interface,  
Internet of traffic.

## Integrated online services and interfaces

Online services platform: Open Data, Interfaces and APIs, Cloud Services, Internet of Things

## Intelligent traffic infrastructure

Traffic management systems  
Digital ticketing, routing services  
Seamless connectivity

## Telecommunications & Charging infrastructure

Mobile data networks 4G/5G  
Static networks enabling international interoperability,  
broadband for all

## Core infrastructure

Roads, rails, airports and ports.  
Growth Corridors

# Roadmap 2018-2022

1. The renewal process will be based on a common vision and enabling legislation.
2. Cities will serve as a platform for pioneer markets.
3. Digital data will be put into effective use.
4. Achieving a competitive edge through research and education.
5. Leverage for development through a broad funding base.
6. Top development results through testing.
7. Market references and scalability through public contracts.
8. Opening up internationalisation opportunities for all.
9. Turning business-driven growth ecosystems into export growth engines.



The background is a vibrant blue with a complex, futuristic design. It features glowing circuit-like patterns, including lines, nodes, and circular elements, some of which are illuminated with bright white and yellow light, creating a sense of depth and energy. The overall aesthetic is high-tech and digital.

**Thank you!**