

An aerial night view of a city, likely Helsinki, with numerous skyscrapers and buildings illuminated. Overlaid on the city is a network of glowing white lines that connect various points, symbolizing a smart mobility or digital infrastructure network. The lines are curved and intersect, creating a complex web across the cityscape.

# BUSINESS FINLAND

# SMART MOBILITY

Ulla Lainio  
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# DIGITALISATION STRATEGY

## SUB-THEMES/ PROGRAMS



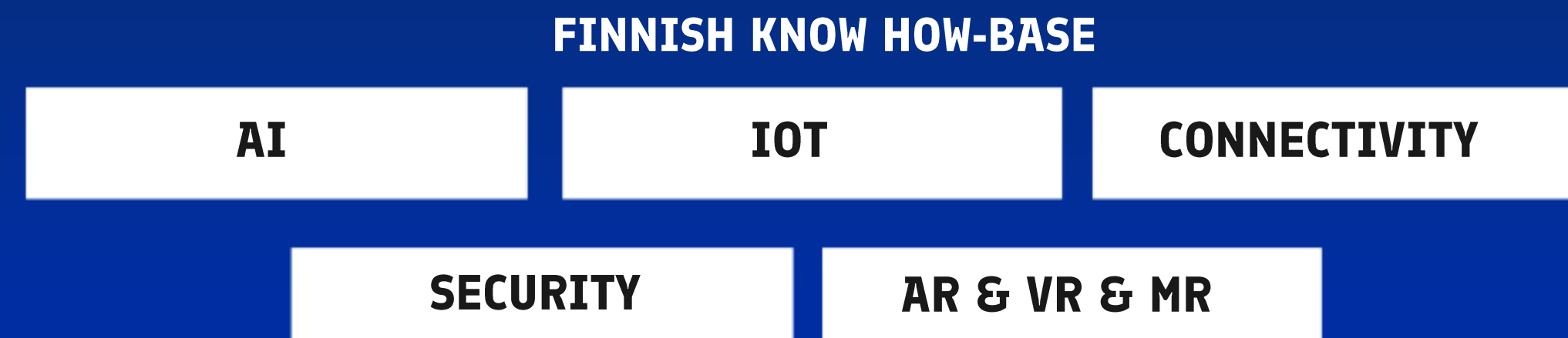
PROGRAM PORTFOLIO

## GOALS



GOAL IS TO MAKE THE WORLD

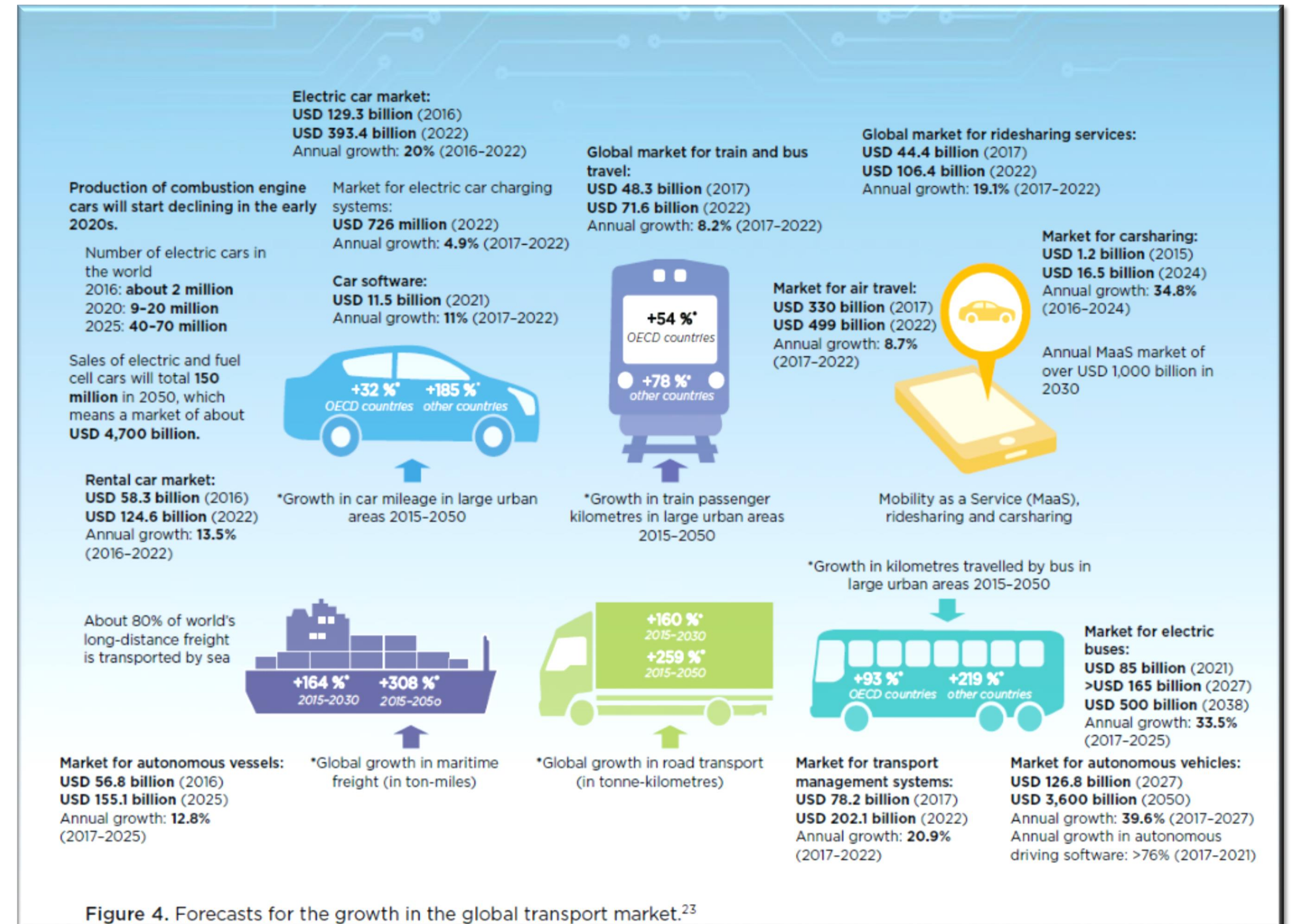
## KNOW-HOW





# NEED FOR SMART MOBILITY PROGRAM

- Estimated **global markets** for mobility is 6.500 billion US dollars (McKinsey), while **Finnish mobility market** is 30 billion euros
- **Mobility markets are in disruption:**
  - Fast growing service businesses: carsharing, ride sharing, MaaS, smart parking (CAGR 20-25% 2016-2025)
  - Disruptive technologies: autonomous & electric vehicles and vessels, drones, hyperloop (est. > 500 billion US dollars 2025)
  - Logistics: fast growing material flows and changes in retail (maritime and road transport growth 160% by 2030)
- **National transport sector growth programme 2018-2022**
  - Data, **BF funding**, experiment, IJH, **export & invest in Finland**
- **Disruption creates possibilities for the Finnish companies**





# SMART MOBILITY PROGRAM FOCUS

Globally leading seamless logistics and people transportation solutions

Radical emission reduction and fossil free mobility to exceed climate agreement requirements

Disruptive mobility services and traffic systems through wide data usage and sharing

From door to door: Smooth urban mobility services (MaaS)

From forest to sea: Autonomous and secure industrial logistics

From store to home: Autonomous and secure consumer logistics

From Forest to Sea and City Logistics

Seamless People Transportation Chains

Without delays and congestions: Intelligent vehicles, infrastructure and traffic systems

Enrich Ecosystems via FDI

Growth Through Export

Innovation Funding and Testbeds

Logistics

People

Export & FDI: B2B and Consumer Logistics

Export & FDI: Intelligent Vehicles and MaaS



# SMART MOBILITY 2018-2022 SUMMARY

- Scope: Autonomous, safe and secure transportation of passengers and goods
- From Forest to Sea and City Logistics
- Seamless People Transportation Chains

- Estimated global market for mobility is 6.500 billion US dollars (McKinsey), Finnish market is 30 billion eur
- Fast growing service businesses: car sharing, ride sharing, MaaS, smart parking (CAGR 20-25% 2016-2025)
- Disruptive technologies: autonomous & electric vehicles and vessels, drones, hyperloop (est. > 500 billion US dollars 2025)
- Logistics: (maritime and road transport growth 160% by 2030)
- Part of the national growth programme for transportation

**Finland recognized as a leading country of smart logistics & mobility systems**

- **Service business companies**
- **Industrial companies**
- **Manufacturing industry**
- **ICT industry**
- **Research organisations**
- **Public organisations (cities, municipalities)**
- **Initial focus markets: Germany, Sweden, Japan, China, US**

- **Innovation funding 50 Meur / 4 years**
- **Mission based calls**
- **Invest in Finland services for new ecosystems**
- **Internationalization services for industries**
- **Matchmaking, events, delegations**
- **Studies, research**

# SMART MOBILITY MARITIME FOCUS COUNTRIES & THEMES 2019

TRANSPORT & LOGISTICS, DIGI SHIP, ENERGY & ENVIRONMENT

- |   |   |   |  |
|---|---|---|--|
| 1 | <b>USA</b> U.S. ICE BREAKER PROGRAM; DIGISHIP, AUTONOMOUS VESSELS<br>CLEANTECH FOR U.S. NAVY, COMMERCIAL VESSELS, CRUISE LINES,<br>SYSTEM INTEGRATORS; AI PLATFORM COOPERATION WITH U.S. NAVY | 2 | <b>FRANCE</b> CRUISE SHIPS, PORTS  |
| 3 | <b>GERMANY</b> CRUISE & FERRY, SYSTEM INTEGRATORS, PORTS  | 4 | <b>RUSSIA</b> ICE GOING VESSELS, NORTHERN SEA ROUTE<br>DEVELOPMENT   |
| 5 | <b>CANADA</b> NATIONAL SHIPBUILDING STRATEGY; FERRY RENEWALS,<br>ELECTRIC FERRIES, ICE GOING NAVAL VESSELS  | 6 | <b>DENMARK &amp; NORWAY</b> DIGISHIP, AI, CLEANTECH<br>FOR COMMERCIAL VESSELS, CRUISE LINES,<br>SYSTEM INTEGRATORS |
| 7 | <b>CHINA</b> ICE GOING VESSELS, ARCTIC PROJECTS , LNG,<br>PASSENGER SHIPS, AUTONOMOUS VESSELS   | 8 | <b>JAPAN</b> ICE GOING VESSELS AT ARCTIC PROJECTS,<br>LNG, CRUISE & FERRY, DIGISHIP, AUTONOMOUS<br>VESSELS         |

# SMART MOBILITY MARITIME EVENTS 2019

## MAIN EVENTS

- |   |  |  |   |  |  |
|---|--|--|---|--|--|
| 1 |  | <b>USA</b> BUSINESS DELEGATION WAS DC U.S. NAVY DIGI SHIP, IPB 1/2019<br>SEA AIR SPACE WAS 4/2019      | 2 |  | <b>RUSSIA</b> SOVCOMFLOT, ROSMORPORT DIGI SHIP & GREEN LOGISTICS, MOSCOW 3/2019; ARCTIC CONFERENCE ARHANGELSK 4/2019<br>NEVA, ST.PETERSBURG 9/2019 |
| 3 |  | <b>FRANCE</b> THE ENERGY FOR SMART MOBILITY, E4SM @ MARSEILLE 3/2019<br>MER XXL NANTES 6/2019          | 4 |  | NORRSHIPPING OSLO 6/2019<br><b>NORWAY</b>  |
| 5 |  | <b>CHINA</b> MARINTEC CHINA SHANGHAI & DIGISHIP 12/19<br>CHI-FIN MARINE LOGISTICS INNOVATION COMMITTEE | 6 |  | <b>BELGIUM</b> ANTWERP XL 5/2019   |
| 7 |  | <b>DENMARK</b> NGS NORDIC GREEN SHIPPING CPH<br>DANISH SHIPOWNERS 10/2019                              | 8 |  | <b>JAPAN</b>   |

# SMART MOBILITY EVENTS 2019 IN FINLAND

- Smart Mobility Launch event
- Technology Forum
- 1. Mission call "From Forest to Sea"
  - Workshops 2-3 pcs
- Test Beds for Smart Mobility in Finland
  - Workshops 1-2 pcs
- Transport-Logistics expo, Helsinki 5/2019



# **SMART MOBILITY EVENTS 2019, EXPORT & IIF**

- ITS America, ITS World Congress
- Marine Logistics, Connectivity, Digiship
- Mobile World Congress Barcelona & Shanghai
- Smart City
- Automotive & Maas
- Transport - Logistics
- Smart Mobility Energy
- Nordic Future Mobility week
- Business delegations to USA, China, Japan



# **LOPPUVUODEN TAPAHTUMAT**

2018



# INMATION

WORKSHOP IN HELSINKI ON NOVEMBER 28, 2018

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## THE ROLE AND NEEDS OF THE LEADING SYSTEMS INTEGRATORS AND SYSTEMS MANUFACTURERS INVOLVED WITH THE DIGITAL TRANSFORMATION OF THE US MARITIME INDUSTRY

In many cases, the system integrators are the right sales channel to Finnish companies focusing on demanding shipbuilding projects in the U.S. Join the workshop and learn more about the role and needs of the leading US systems integrators and systems manufacturers providing digital, AI and other autonomous solutions to the US Navy and the private sector including shipping and cruise industries.

U.S. based ship owners have 134 vessels in their order book (situation in November 2018). Those include cruise vessels, passenger ferries, LPG's, PSV's, tankers and container ships. U.S. Navy has launched a 30-year shipbuilding plan / Service Life Extensions covering 355 vessels. There is a growing demand for artificial intelligence, automation, cyber-security and advanced systems for communications and navigation services – particularly related to autonomous vessels.

The situation creates business opportunities for Finnish companies in the US market. The workshop provides details on the selected companies, their customers, the technologies offered, the current status of the market, the main players leading the digital transformation, existing technology gaps, as well as current and future trends related to digitalization and autonomous systems in the marine industry.

The workshop will be based on a market study ordered by the Confederation of Finnish Industries (EK) and conducted by Len La Vardera, La Vardera & Associates. The workshop is organized by the Confederation of Finnish Industries (EK) and Business Finland.

### TIME AND VENUE:

28<sup>th</sup> of November, 13:00-14:30

Address: Eteläranta 10, 00130 Helsinki

At the premises of Confederation of Finnish Industries (EK)





# REMINDER: INVITATION

TEAM FINLAND VISIT TO CANADA ON 10 – 14 DECEMBER 2018

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## BUSINESS OPPORTUNITIES FOR FINNISH COMPANIES IN MARITIME AND OFFSHORE

Canadian maritime sector will be very active during the next 20 years, and the situation creates real business opportunities for the Finnish companies. Join the high-level business delegation to Canada (Ottawa, Montreal, Halifax, Quebec and Vancouver) on **December 10 – 14, 2018**. This high-level Team Finland visit to Canada will be organized in cooperation with Business Finland, Ministry of Economic Affairs and Employment, Ministry for Foreign Affairs of Finland, and Team Arctic Finland.

**Interested?**



# KIITOS THANK YOU

**Ulla Lainio, Head of Smart Mobility**  
**[ulla.lainio@businessfinland.fi](mailto:ulla.lainio@businessfinland.fi)**



# Supporting Materials



# ECOSYSTEMS IN SMART MOBILITY & LOGISTICS

## ”FROM FOREST TO SEA”

