https://www.youtube.com/watch?v=TXe8oPttvGg
Ecosystem for Autonomous Ships

Finland aims to operate world’s first autonomous ship system in 2025
Ecosystem activities

Ecosystem core activities

Ecosystem program activities

Vision
- Nexus of capabilities

Strategy
- Startup ecosystem
- R&D Programs
- Proof of Concepts
- Test areas, Labs

Roadmaps
FINNISH EXCELLENCE IN INTELLIGENT TRAFFIC

Mobility Services

Information Services and Ecosystems

Intelligent Traffic Infrastructure

Intelligent Communications Infrastructure

TEN-T Core Network
EXAMPLES OF COMPANIES

INTELLIGENT VEHICLES
- leadin
- FICONIC
- SOLUTIONS
- RIGHTWARE
- SUNIT
- IN VEHICLE COMPUTING
- NOMOVOK
- FORECA
- Qt
- Eximap
- TUXERA
- valmet automotive
- LINKMOTION
- ADA
- DRIVECO
- Haltian
- OurCnC Oy
- WIREPAS
- TELECONER OY
- MAXTECH
- gspartenkabel

INTELLIGENT MOBILITY
- embelin
- MATTERTSOFT
- MOBI Software
- Maas GLOBAL
- Lindström
- Pay iQ
- EKORENT
- tziip
- tietomekka
- NODEON
- LEAN PARK
- Parking Made Smart
- GoSwift
- StormCloud
- refecor
- VIONICE
- dirica
- ROADSCANNERS
- FLEETLOGIS
- Aplicom
- Verkotan
- N Fleet
- space maker

Mobility as a Service - Intelligent Vehicle and Traffic Growth Program (MaaS)
HEL-ITS themes

- Autonomous vehicles
- Sharing
- MaaS, new services
- Logistics
- Behaviour change, Sustainable mobility
- Innovative procurement, ”Sandbox-model”
- Mobility data
- Electrification
- Parking
- Networking, dissemination
- ”Traditional” ITS
- Long-term leads
FVH perspective on HEL smart mobility

"Services"

Innovative procurement
Sustainability, IoT
Open data & access
Parking, EV

"Autonomous"

"Soft measures"

"Information"
Agile piloting, Q2/17

FinEst Smart Mobility:
- Townhall24, intelligent container /Coreorient
- Jiffi – hands-free mobile ticketing system /Jiffi
- Cross-border movements in Tallinn-Helsinki urban regions, using mobile phone location data of Estonian mobile network operators /Positium
- FinEst Sherpa Challenge, study on on-going on services and existing open API definitions /Flou
- Heavy goods traffic "just-in-time” logistics /GoSwift

Smart Kalasatama:
- Dynamic parking spaces
H2/2014:

> 300 articles

Dozens of Radio TV Keynotes etc

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**From Bloomberg View**

What it would take for cities to eliminate the need to own a car

Helsinki's ambitious plan to make car ownership pointless in 10 years

Finland's capital hopes a 'mobility on demand' system that integrates all forms of shared and public transport in a single payment network could essentially render private cars obsolete.

- Should we ban cars in city centres?

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**From The Guardian**

The Finnish capital has announced a transport network into a 'completely demand' system by 2025 - one that would have no reason to own a car.

Helsinki aims to transform ideas into well-coordinated projects that become reality.

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**From The Verge**

Finland's largest city wants to replace cars with apps

New system would integrate all the city's public transport and private ridesharing services into one app.

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A 24-Year-Old Transport Engineer Is About To Free Her City From Car Ownership

By now it's become clear that Scandinavians and Nordic nations do a lot of things better than other countries. They have the smallest gender gaps, among the highest test scores, and the lowest levels of inequality.

Now, they're set to rob their transportation superiority in our faces.

Finland's capital, Helsinki, is about to launch a program that could virtually eliminate car ownership and give its residents the ability to plot an on-demand commute from their phones.
ABI Research Forecasts Global Mobility as a Service Revenues to Exceed $1 Trillion by 2030

London, United Kingdom - 12 Sep 2016

Mobility as a Service (MaaS), which provides aggregated, single account, on-demand multimodal transportation services in a seamless and convenient way, is quickly gaining momentum. ABI Research forecasts global MaaS revenues will exceed $1 trillion by 2030. Its anticipated disruptive impact on traditional transportation modes like car ownership, buses, trains, aviation, taxis, and rental cars is stirring up not just the automotive but also the entire transportation industry.

“Driverless technology, through the Car as a Service, or Caas, paradigm, will be the defining factor for the success of on-demand mobility, offering consumers the possibility to summon transportation on the fly,” says Dominique Bonte, Managing Director and Vice President at ABI Research. “MaaS will result in more environmentally friendly transportation through the deployment of fleet-based, alternative powertrain vehicles and reduced congestion through improved utilization rates of available resources.”

Autonomous operation will eliminate the need for paid drivers, cut insurance costs, increase utilization rates to more than 70%, and enable Over the Air-based self-servicing and preventive maintenance. This will drive down the total variable cost per mile to a level that significantly undercuts the cost of car ownership and enable MaaS ecosystem development. Vehicle-to-Grid, demand-response charging of electric powertrains and the economies of scale of fleet-based deployments will further enhance this.

The MaaS ecosystem will breed a competitive environment full of dynamic transportation marketplaces, public/private partnerships, and aggregators moderating and managing supply and demand according to government policies and frameworks. While the multimodal character and complex interdependence of different transportation models is at the heart of MaaS, Caas models will remain the dominant contributor to on-demand mobility through 2030.

Bicycle rental revenues will remain small. And Transit as a Service—on-demand buses and driverless shuttles—and Aviation as a Service—autonomous passenger drones and flying cars—models will only start to become significant by 2025 and 2030, respectively. But rail-based and other fixed route and fixed schedule transit will become part of the MaaS paradigm, as well, with digital technology and open platforms allowing seamless and automated multimodal routing and single account billing.

“MaaS will fuel economic growth through lower transportation pricing,” concludes Bonte. “But it will have to overcome resistance from both private and public entrenched players before it begins to progress. Pioneers like MaaS Global and the public-private MaaS Alliance, with smart mobility leaders Xerox and Siemens among its members, are paving the way for this new uber paradigm to gain a foothold.”

These findings are from ABI Research’s Mobility as a Service. This report is part of the company’s Enterprise IT & OT Convergence sector, which includes research, data, and analyst insights.
Finland

ARPU (Average Revenue Per User)
in Transport
~300 € / month
Telecom
~30 € / month

Global Market
10 000 000 000 000 €
market reshaped

MaaS
Private car usage < 4%
240 € / month

Decline of car ownership
New means of transport
Sharing economy
Servicizing
Expensive traffic space

Internet of vehicles
Self driving vehicles
Apps for traffic

Global Market

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Apps for traffic
Mobility as a Service seems to be…

On-demand transport services
• such as Bridj, Split, Kutsuplus, also Uberpool, Lyftline

Car-as-a-Service
• Uber/Lyft/etc, car sharing, ride sharing, car pooling, bike sharing, …

Integrated information about transport options
• With or without booking / payment

Pay-per-use / Pay-as-you-go pricing

All-inclusive packages
Mobility as a Service

Introducing a new player: “Mobility operator”

As a customer you make a contract with one commercial operator, who provides you all the services chosen by you. Terms of contract may vary, and are up to you and your operator to negotiate.

Could mobility be viewed as a service?

Fresh ideas about mobility

https://www.youtube.com/watch?v=ZQjeTU7_5xo

ITS & Smart Mobility, Helsinki/FVH, sami.sahala@forumvirium.fi

Video courtesy of Ministry of Transport
Kiitos, Thank you!

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