Smart Mobility Innovations
12.01.2017

Jukka Lintusaari
EiR, Smart Traffic Business Development
University of Tampere

+358 40 190 1332
Jukka.lintusaari@staff.uta.fi
SMART TRAFFIC / CITY ECOSYSTEM

Industrial disruption with digitalization

Car and traffic (r)evolutions

1st revolution – new mass vehicle for transportation
1900 – 1960 Mechanical car generation
1960 – 1990 Electronic car generation
1990 – 2010 Software car generation

2nd revolution – services for connected smart citizens
A) 2010 - ... Services for connected cars
B) 2012 - ... Services for smart traffic
C) 2015 - ... Services for hybrid / electric cars

A. We are rapidly moving into a world where vehicle, phone and home/office will be interconnected and allow a seamless experience to the driver

B. Vehicle and driver will also be connected to the road infrastructure and they will get real-time data for traffic and service information (traffic alerts, expected rush times, weather, free parking lots, real time public transportation information, local services etc)

C. European directive (24.01.2013) will require 8 000 000 electric car charging stations in Europe before 2020. Finland has to invest 71 000 stations (7 000 public stations)

12.01.17
ITS Factory Welcomes all intelligent transport parties to co-operate in building a future of ITS!

Where is Your place?
Smart Traffic Business Development Team is actively contributing to Tampere ITS Factory and develops working practices & tools for smart traffic industry to grow and get into international markets.

SMART OPEN DATA

From FRAGMENTED APPLICATIONS...

...to COMPLETE AND SCALABLE SOLUTIONS.
Developer Wiki http://wiki.itsfactory.fi/
MaaS Core Use Cases

1. Car sharing
2. Ride hailing
3. Travel chains

The company logos mentioned are only for descriptive purpose. Based on Frost & Sullivan & Tekes & University of Tampere material.
ITS Data Sources

Road Traffic
- Traffic Flow
- Roadworks and Streetworks
- Incidents and Accidents
- Road Weather

Parking
- Occupancy Facility Information

Geodata
- Road network
- Other traffic infrastructure
- Street addresses
- Map data
- POIs

Public Transport
- Timetables
- Stop Timetables
- Bus Location
- Route Planning

Pedestrians and Cyclists
- Cyclist & Pedestrian Traffic Flow
- Route Planning

“In God we trust. Everyone else bring data.”
Michael Bloomberg, Mayor of New York 2002 – 2013
Agreement by Leading Ecosystem Providers

The company logos mentioned are only for descriptive purpose. Based on Frost & Sullivan & Tekes & University of Tampere material
Digital Smart City Solution Roadmap

**Solution elements**

**Technology Enablers**

**SYSTEM**

**BUSINESS ENABLERS**

**SMART VEHICLES**
- Mobility as a Service (MaaS) in travel chains
- "Always on-line" vehicles & passengers
- Sensing vehicles Vehicle & position data

**SMART INTEGRATED MULTIMODAL TRAFFIC**
- Integrated MaaS (e.g. automated logistics, enhanced autonomy)
- Multi-modal traffic data

**SMART INTEGRATED CITIES & COMMUNITIES**
- Smart connected & integrated city systems
- Big data city systems

12.01.17
Smart traffic driven solutions

Smart City Ecosystem

Joint Architecture
(Open system: std i/f, modularity)

System Interoperability
(Single market: roaming & clearing)

Smart city driven solutions

12.01.17
GROWTH AND SCALABILITY THROUGH BUSINESS DRIVEN RESEARCH

Jukka Lintusaari
Tel +358 40 190 1332, e-mail jukka.lintusaari@uta.fi