

A black and white photograph showing a person's hand plugging a white charging cable into the charging port of a white electric vehicle. The background is blurred, showing other people and what appears to be a charging station or parking area.

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Smart mobility for the future

A view from the
pioneering country



INTRODUCTION

PRESENTER

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NOW! Innovations

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NOW! Innovations

software platform provider for
mobility services





AGENDA

MOBILITY IS CHANGING

BUT WHY?

CONVERSION OF “e” AND “i” MOBILITY TRENDS

CAN WE MAKE IT TO “e” WITHOUT “i”?

CHALLENGES ON THE ROAD

“E&I”- GAP IN EUROPE?

PIONEER’S CASE

ELMO IN ESTONIA

EVOLUTION HAPPENING

FASTNED & EKORENT CASES IN THE NETHERLANDS AND FINLAND

SUMMARY

MOBILITY IS CHANGING

E-TREND

MORE AND MORE ELECTRIC VEHICLES ON ROAD

Exhibit 1.1

Norway and Netherlands are clear frontrunners in EV uptake, with France, Germany and UK sales material and growing significantly



1 Data for 2013 partly estimated based on monthly data availability through 2013 (depending on country September, October or November)
SOURCE: IHS Automotive Driven by Polk, Association Avere, Autoverseniging RAI ACEA, Ebi.no, Grombi, Agentschap NL, SMMT

I-TREND

MORE AND MORE I-SERVICES FOR MOBILITY USERS.

MOBILE PARKING, SOCIAL NAVIGATION, CONNECTED CARS, SELF-DRIVING CARS, SOCIAL PERSONAL MOBILITY SERVICES, ETC.





BUT WHY?

PRESSING CONSTRAINTS

- CLIMATE POLICY ISSUES
- URBANIZATION ISSUES
- PUBLIC HEALTH ISSUES
- ENERGY POLICY ISSUES
- GLOBAL COMPETITIVENESS ISSUES

ETC.

ENABLING TECHNOLOGIES

- INTERNET IS EVERYWHERE
- GLOBAL IT SERVICES
- FINANCIAL TECH
- ENHANCED BATTERY TECH
- ENHANCED MANUFACTURING TECH

ETC.

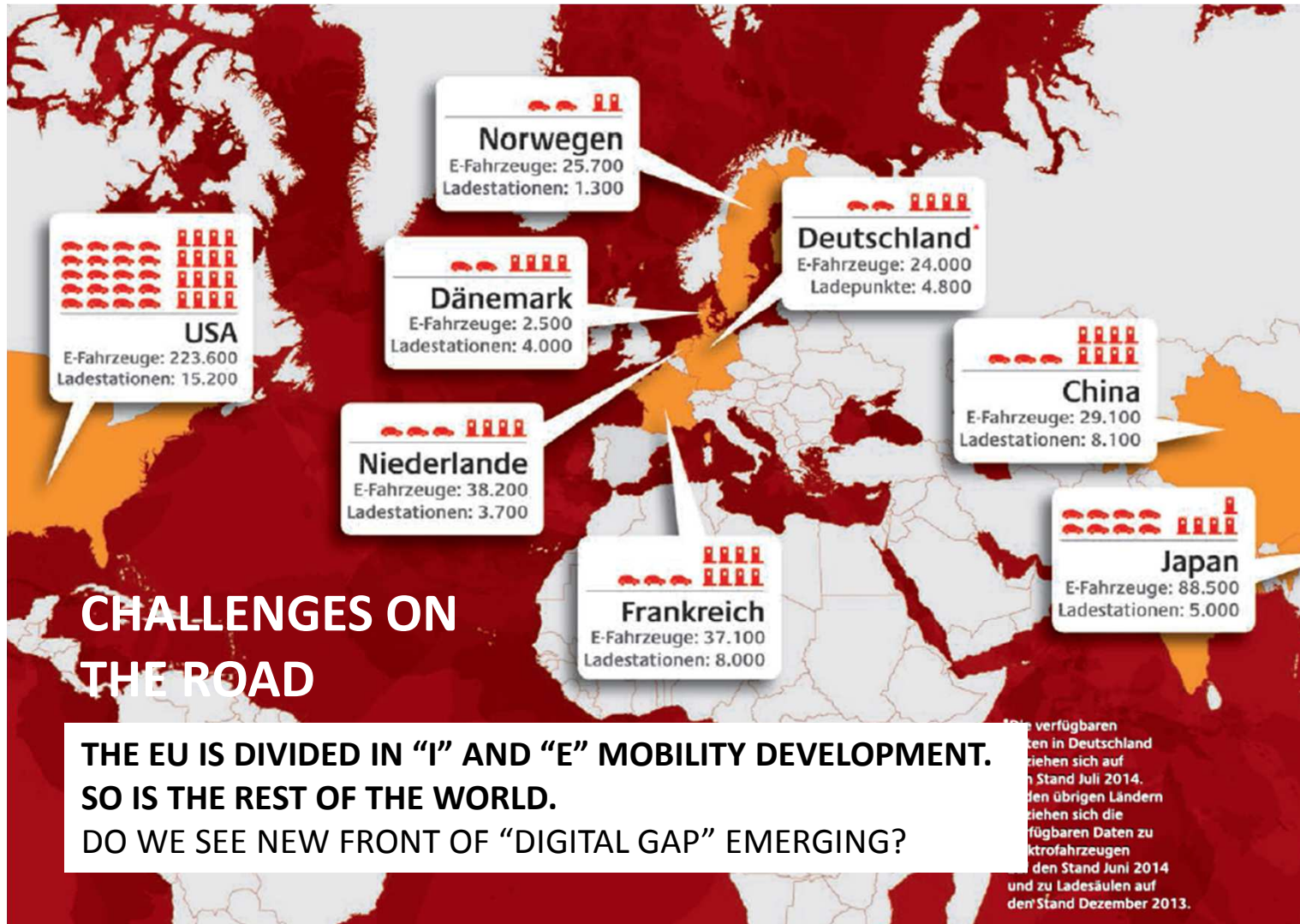
CONVERSION OF “E” and “I” TRENDS

E-CARS ARE SMARTER. THEY

- ARE BORN CONNECTED
- ARE BETTER CONTROLLED AND DRIVEN
- INTEGRATE WITH SMART CHARGING SYSTEMS
- NEED SOPHISTICATED ENERGY MANAGEMENT IN-CAR
- THEY ARE LOCATION AWARE

I-SERVICES LOVE E-CARS.





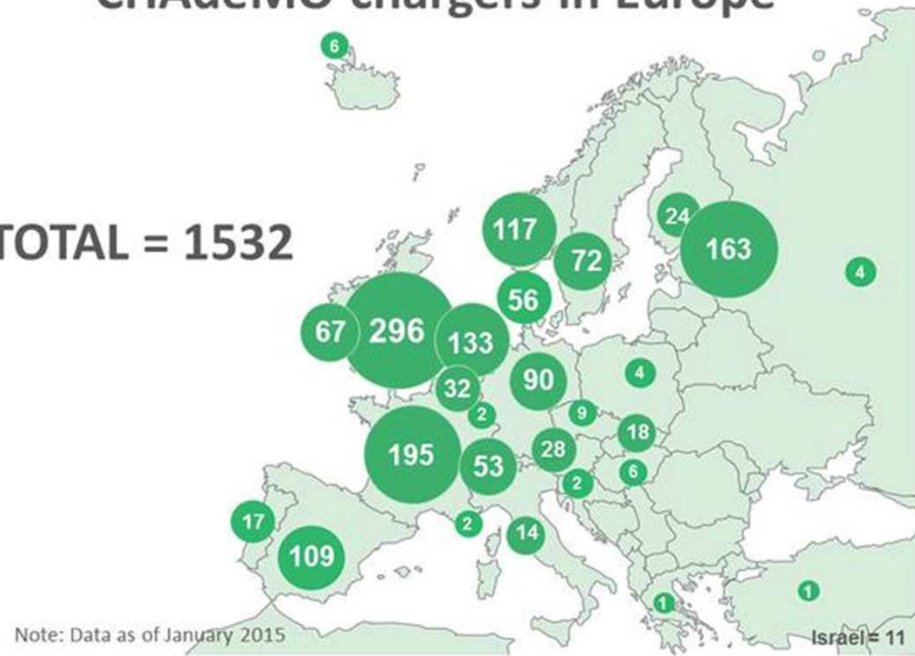
E-MOBILITY GAP IN THE EU

MAJOR DIFFERENCES IN UPTAKE OF E-MOBILITY. WHY?

WHAT MAKES NORWAY DIFFERENT FROM SWEDEN?
OR LATVIA FROM ESTONIA?

CHAdeMO chargers in Europe

TOTAL = 1532





WHY E-MOBILITY IN ESTONIA?

STRONG “I” TREND

- **INNOVATION CULTURE IN BUSINESS AND PUBLIC SECTOR**
DIGITAL ID'S, E-RECIDENCY, E-MEDICINE, MOBILE PARKING, FREE WIFI, START-UP HOTSPOT, BROADBAND CONNECTIONS ETC.
- **OPEN AND ADAPTIVE TO GLOBAL INNOVATION**
NO BARRIERS FOR FOREIGN COMPANIES AND TECHNOLOGIES, QUICK TO ADOPT NEW TECHNOLOGIES, SHORT LEARNING CURVES

GROWING “E” TREND

- **PROMOTION OF GREEN ENERGY PRODUCTION**
~15% OF ELECTRICITY CONSUMPTION FROM RENEWABLES
- **ENERGY AND ENVIRONMENTAL GOALS**
PROMOTE CLEAN TECHNOLOGIES AND INCREASE ENERGY INDEPENDENCE.

PIONEER'S VIEW CASE STUDY: ELMO

ELMO e-mobility program was launched by Estonian government as a comprehensive approach to support the uptake of EVs.

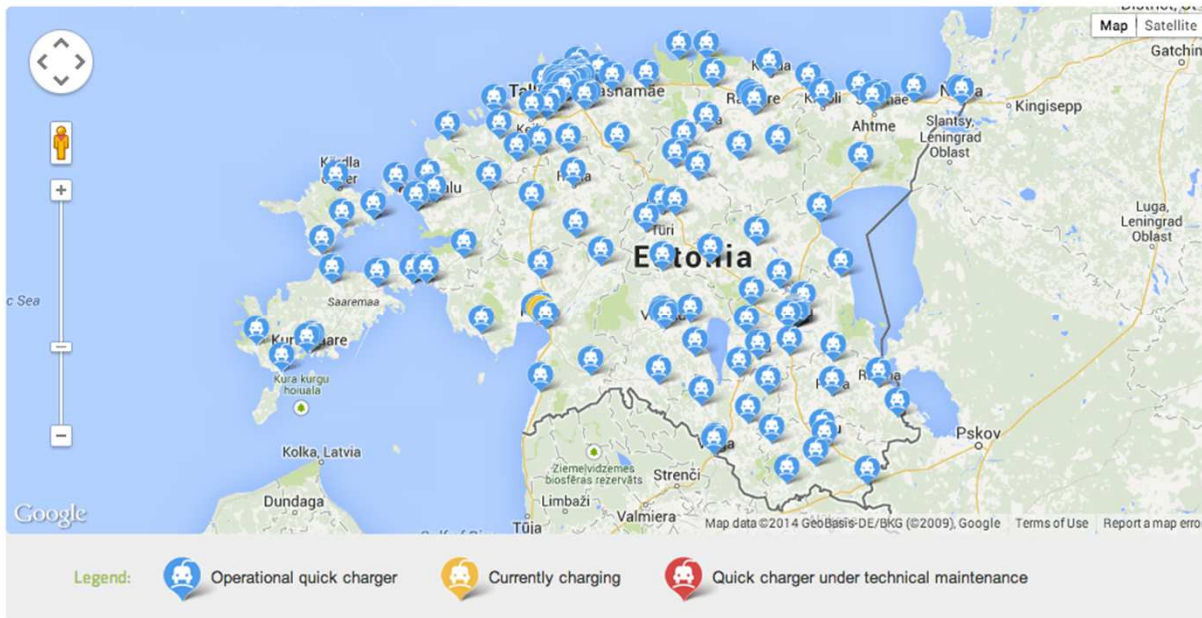
Program is financed by selling CO2 emission quota to Japanese corporation Mitsubishi.

- EV purchase grants (until 2014) up to 18000EUR
- Nationwide quick charging network
- EV car sharing
- Social workers fleet of 507 EVs
- Awareness raising campaigns
- Free parking
- Free access to bus lanes (from May 2015)

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ESTONIAN QUICK CHARGING INFRASTRUCTURE

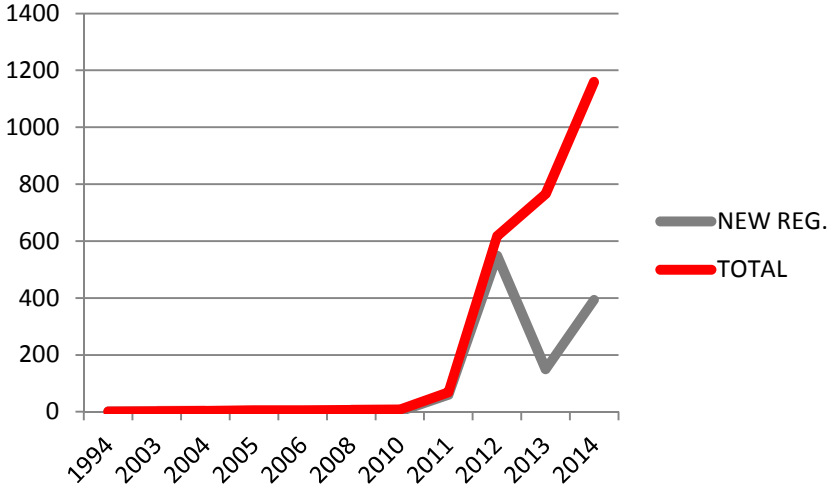


- Completed in January 2013
- 165 quick chargers
- 100 quick chargers were in towns and
- 65 on roads.

- Owned by KredEx
- Developed by ABB and NOW! Innovations

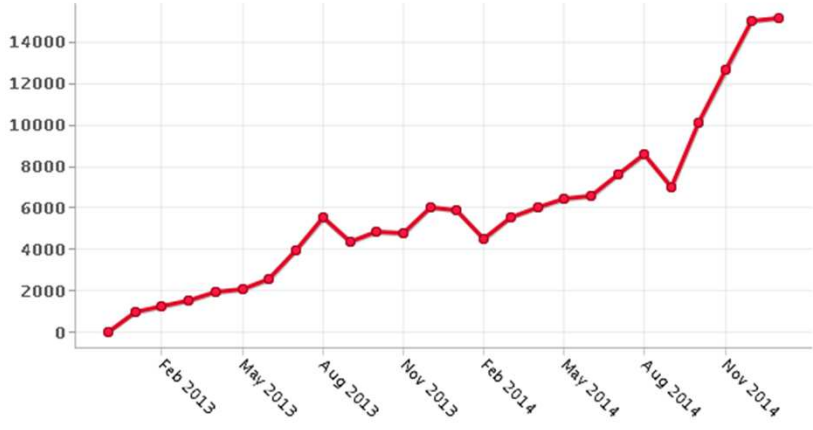
GROWTH OF EV USAGE IN ESTONIA

REGISTERED EV'S IN ESTONIA



DATA: ESTONIAN ROAD AUTHORITY, FEB 2015


CHARGING SESSIONS IN NETWORK



DATA: KREDEX, JAN 2015



E-MOBILITY
MADE IN
ESTONIA



FASTNED is building a nationwide quick charging infrastructure for the Netherlands.

FASTNED team visited Estonia in 2012 while we were setting up the nationwide infrastructure.

FASTNED uses Estonian developed IT-platform for mobile payments in charging stations

EVOLUTION HAPPENING CASE STUDY: FASTNED

- 200 stations
- Each station 2-8 chargers

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EKORENT is building an EV car sharing service in Helsinki area

EKORENT visited Estonia in 2013 while we were setting up the EV car sharing service.

EKORENT uses Estonian developed IT-platform for mobile payments for car sharing service.

EVOLUTION HAPPENING CASE STUDY: EKORENT

- 10 cars
- 5 rental stations



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E+I MOBILITY FOR FUTURE EUROPE

INEVITABLE: GROWING ROLE OF “E” SUPPORTED BY “I”-TREND IN MOBILITY SECTOR

E-MOBILITY WITH I-SERVICES
WILL PROVIDE USERS
GREATER INCENTIVES TO
CHANGE THE DECADES
CULTIVATED OIL-BASED
TRANSPORT HABITS.

E-MOBILITY WITH I-SERVICES
WILL PROVIDE INVESTORS
BETTER ROI THROUGH
FLEXIBILITY IN BUSINESS
MODEL DEVELOPMENT



NEW PUBLIC MANAGEMENT THINKING NEEDED

- **CAN DO MENTALITY**
- **FLEXIBILITY INSTEAD OF BUREAUCRACY**
- **NEW STRATEGIC THINKING:**
 - ATTRACTIVE AND COMPELLING VISION
 - LONG TERM FRAMEWORK
 - SHORT TERM WELL DEFINED CUSTOMER ORIENTED PROJECTS
 - ADAPTATION BASED ON CUSTOMER FEEDBACK
 - NEW SKILLS REQUIRED FROM PUBLIC POLICY DESIGNERS AND DEVELOPERS

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Thank you

More information

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