

Green eMotion

Development of the European Framework for Electromobility

FP7 call TRANSPORT - 2010 TREN -1

43 partners

Project Start: March 2011

3rd EGCI Clustering Event

Brussels, July 12, 2012

Ingo Bunzeck

Energy research Centre of
The Netherlands (ECN)



24.2 Mio. € funded by:



Defining the Framework for Electromobility in Europe



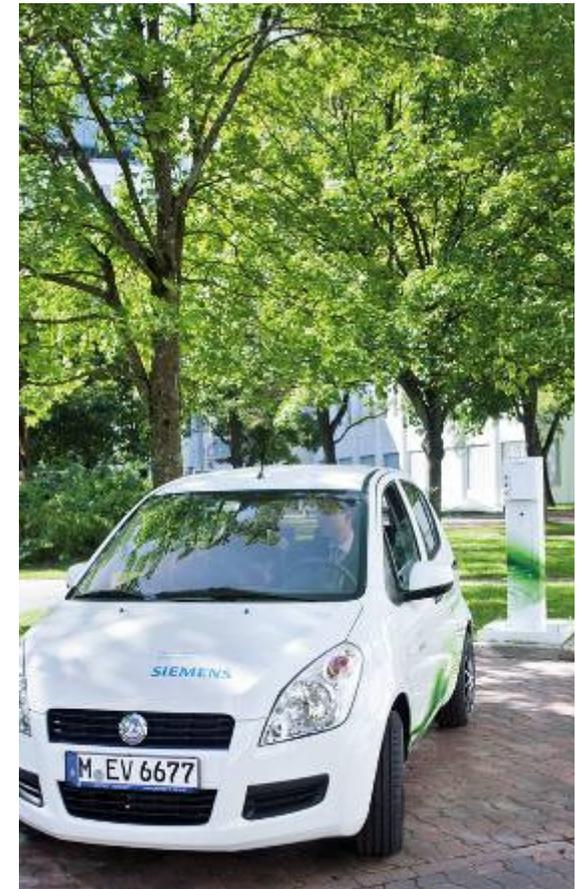
Demonstration Project Green eMotion is part of FP7 Green Cars Initiative of European Economic Recovery Plan

- Call closed in January 2010, negotiation started in July 2010
- Project start in March 2011, project time 4 years
- Budget 42 Mio €, thereof 24,2 Mio € funded by EU
- Project coordinator: Siemens

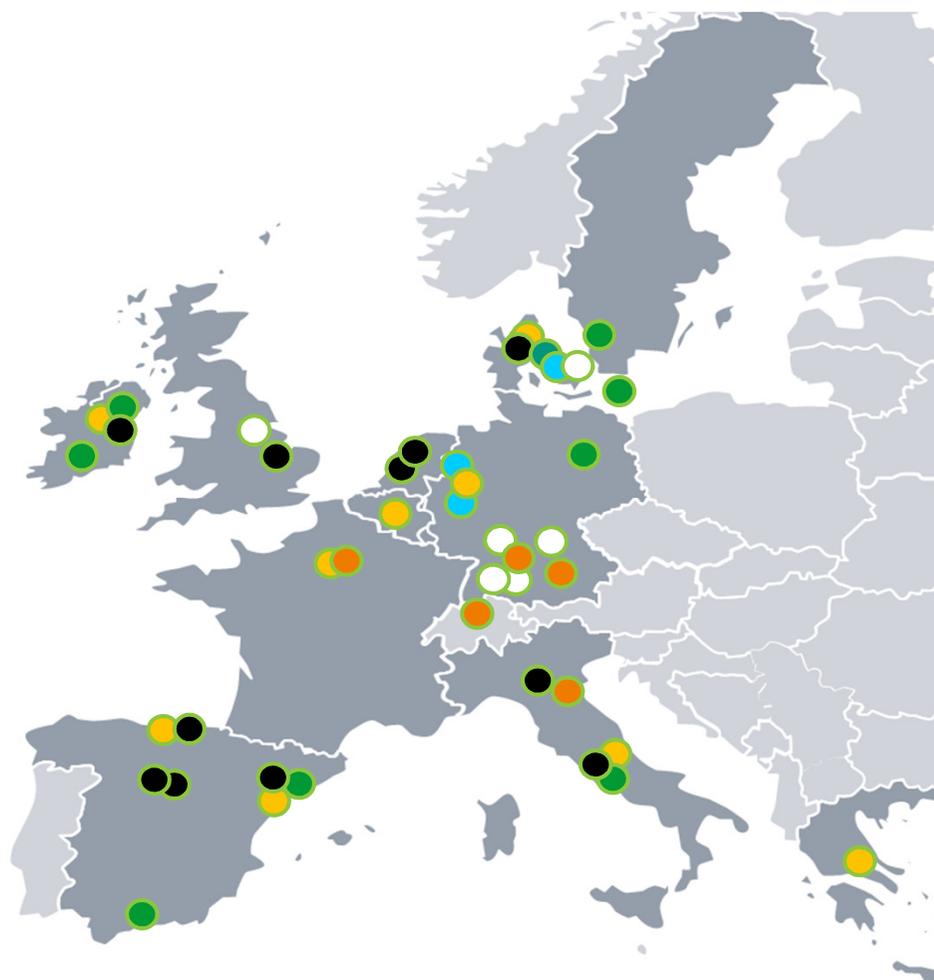
EU goals for the call :

- Acceleration of the mass market roll-out of electric vehicles in Europe
- Meeting EU policy on energy of supply, energy efficiency and green house gas emission reduction
- Viability of different types of electrical vehicles for immediate market introduction

-> 43 partners have joined forces to meet this call within the project Green eMotion



Project Consortium with 43 Partners



- Industries:**
Alstom (UK), Better Place (DK), Bosch (D), IBM (D), SAP (D), Siemens (D)
- Utilities:**
Danish Energy Association (DK), EDF (F), Endesa (ES), Enel (I), ESB (IR), Eurelectric (BE), Iberdrola (ES), RWE (D), PPC (GR)
- Electric Vehicle Manufacturers:**
BMW (D), Daimler (D), Micro-Vett (I), Nissan (CH), Renault (F)
- Municipalities:**
Barcelona (ES), Berlin (D), Bornholm (DK), Copenhagen (DK), Cork (IR), Dublin (IR), Malaga (ES), Malmö (SW), Rome (I)
- Research Institutions and Universities:**
Cartif (ES), Cidaut (ES), CTL (I), DTU (DK), ECN (NL), Imperial (UK), IREC (ES), RSE (I), TCD (IR), Tecnalia (ES), TNO (NL)
- EV Technology Institutions:**
DTI (DK), fka (D), TÜV-Nord (D)



Green eMotion – Demonstration Regions



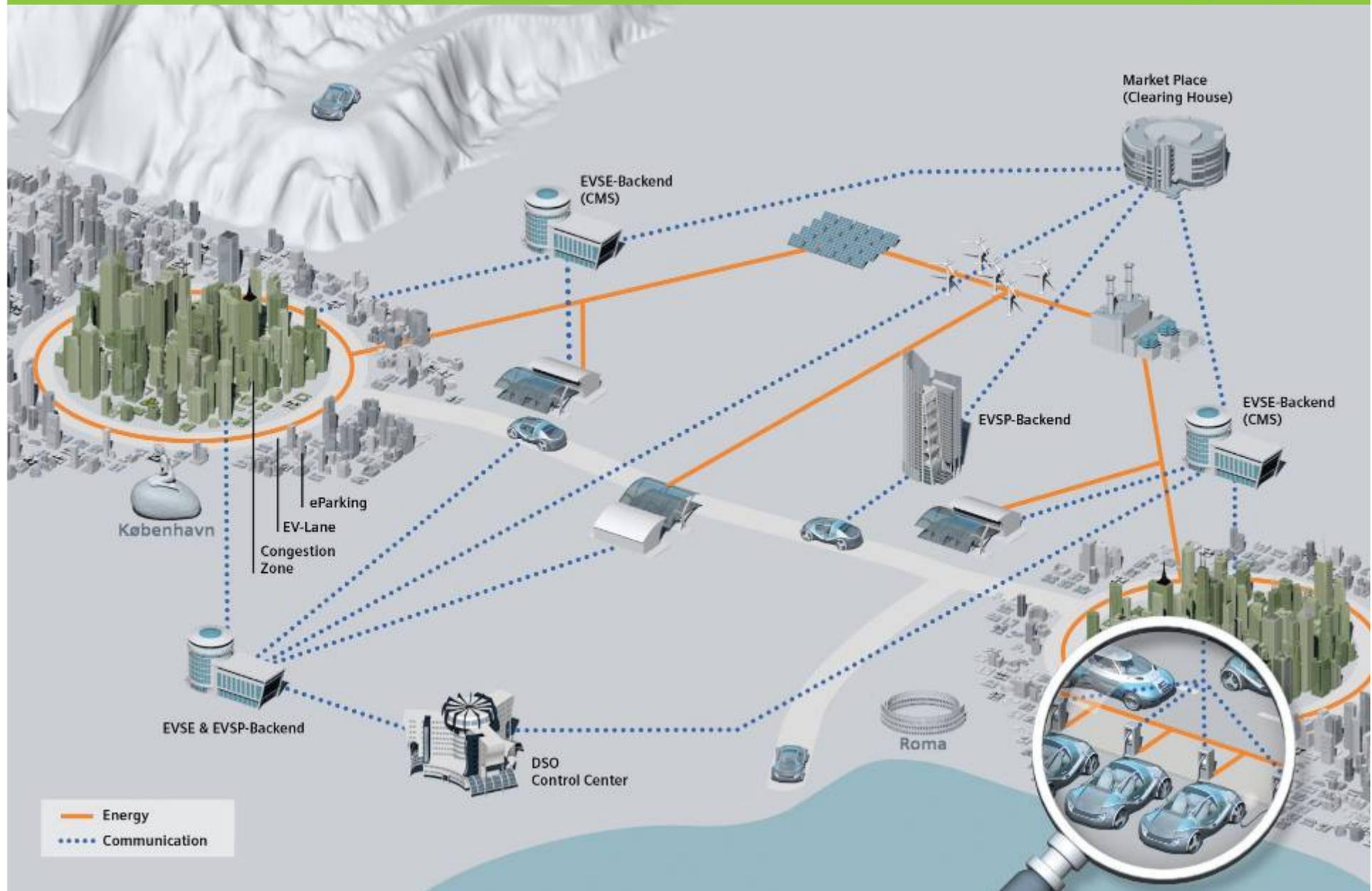
In the Green eMotion demo regions roughly 2,000 EVs are driving right now and for their electricity supply more than 2.500 charging points are installed.

This will increase to around 70.000 EVs and more than 80.000 charging posts in 2015.

In total more than 380 Mio € are spend in funded projects within these demo regions (+ private investments by GeM partners)



The Big Picture of Electromobility

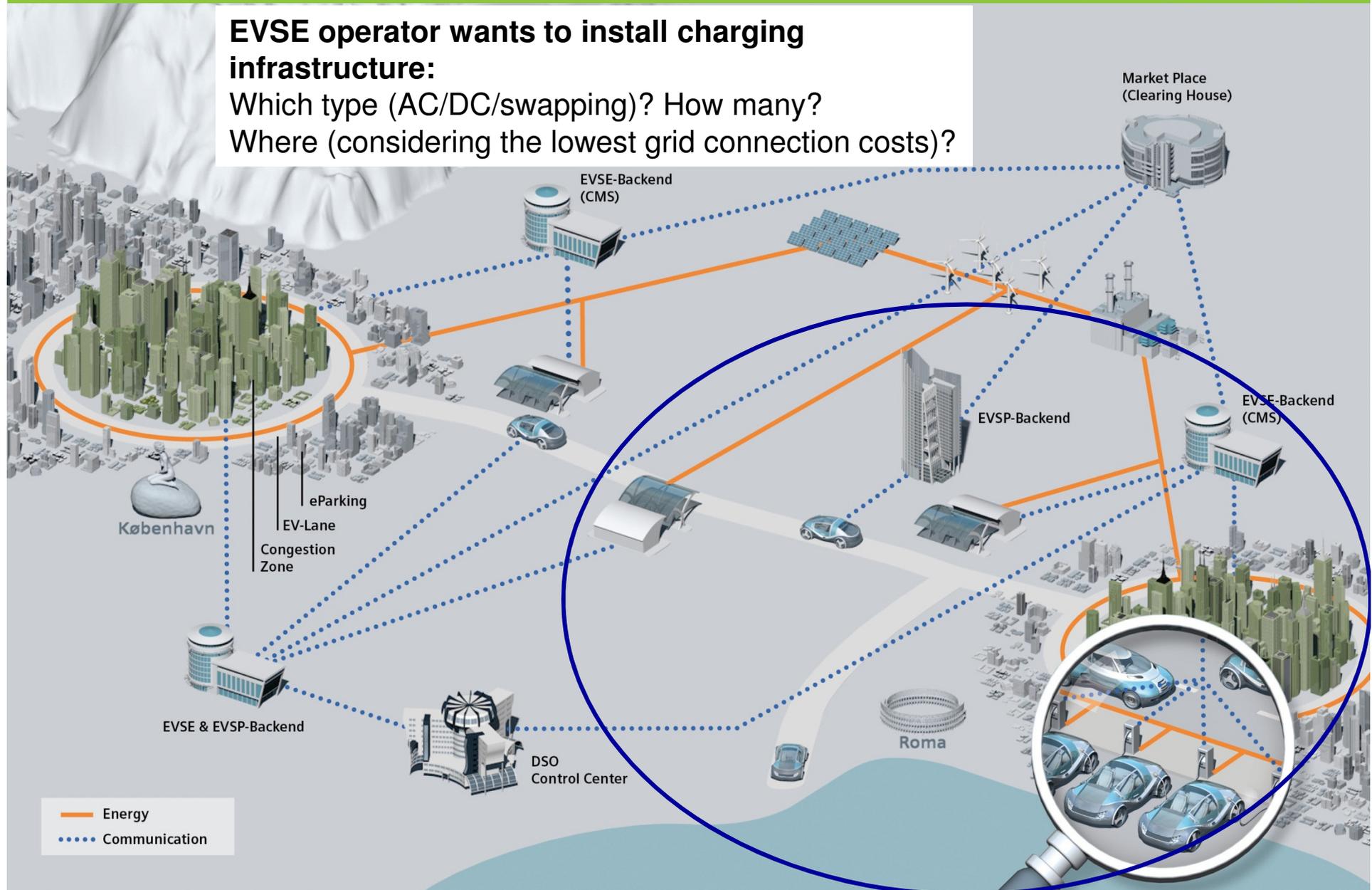


The Big Picture of Electromobility

EVSE operator wants to install charging infrastructure:

Which type (AC/DC/swapping)? How many?

Where (considering the lowest grid connection costs)?



Defining the Framework for Electromobility in Europe

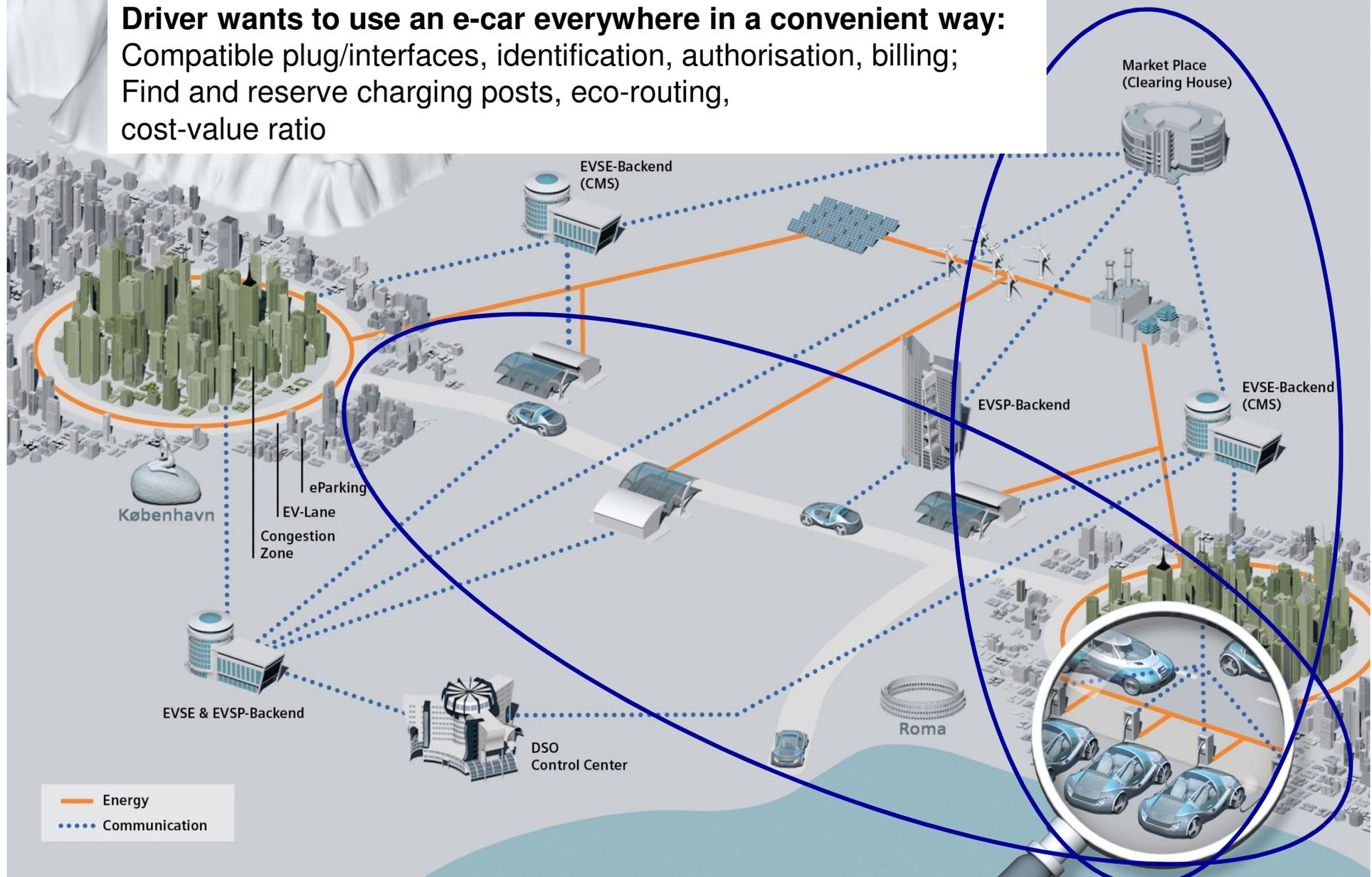


- Green eMotion recommends ways to an optimised grid and charging **infrastructure**
- Green eMotion tests and demonstrates the **interoperability** of an electromobility system in selected demo regions
- Green eMotion analyses the operability of electric cars under **real life conditions** and develops recommendations for the implementation of the mass market (to increase user acceptance)



The Big Picture of Electromobility

Driver wants to use an e-car everywhere in a convenient way:
 Compatible plug/interfaces, identification, authorisation, billing;
 Find and reserve charging posts, eco-routing,
 cost-value ratio



Defining the Framework for Electromobility in Europe



- Green eMotion recommends selected **standards** for an interoperable electromobility system (de facto standards for Europe)
- Green eMotion defines the IT architecture for a **European market place** including interfaces which allows competition in implementation
- Green eMotion adjusts the proposals and results in discussion with a broad **stakeholder** base



What we have achieved so far



- First results from the data acquisition project in the Green eMotion demo regions as input for evaluation in other work packages
- Standards: Which ones are currently in use and gap analysis
- Standardisation needs to get electromobility on track
- Vision, strategy and policy of the Green eMotion municipalities – what's necessary to roll out electromobility
- What's necessary as charging infrastructure and how to integrate it into the grid
- Business Analysis for ICT solutions including business scenarios;
ICT reference architecture for a market place system and ICT service use cases; first insights on protocol specifications for ICT solutions



External Stakeholder Forum



‘The Mission of the Green e-Motion Stakeholder Forum is to accelerate growth in the European market for electrically chargeable vehicles through the realization of complete infrastructure that delivers a seamless, integrated experience for end users. The Forum will achieve this by enhancing communication and sharing vision, experience and information between the many stakeholders in industry, national & regional authorities, the EU and wider public.’

- So far 140 companies and institutions have applied for cooperation with Green eMotion
- More than 50 additional companies and institutions have asked to be in the information loop
- Four meetings held: March 16, 2011, in Brussels, June 20, 2011, in Dublin, November 22, 2011, in Paris and May10/11, 2012, in Brussels
- Next meeting: November 27/28, 2012 in Ehningen (close to Stuttgart, Germany; host IBM)



Thank you for your attention.

Contact:

www.greenemotion-project.eu

