AutomotiveNL

EV & Smart Grids Living Lab

Marc de Haas **Brabantse Ontwikkelings Maatschappij** **18th April 2012**

the national cluster organisation for the Dutch automotive sector.

Dutch sector 2012

- 300 organisations
- 17 billion Euro TO
- 45.000 positions FTE

Program focus

- Future Powertrain
- Smart Mobility

Activities

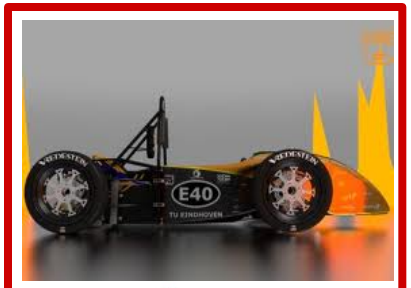
- Innovation program management
- Business development & Incubator support
- Manufacturing support
- Education and knowledge transfer
- Improvement of the Dutch ecosystem
- Management of valorisation projects
- Internationalisation

Target 2020 24 billion Euro TO & 55.000 positions FTE

Challenges for an EV & Smart Grids Living Lab

- **Business development = cross sector development (automotive, energy sector, high tech)**
- **The challenge is integral = from well to wheel**
- **Car manufacturers, mechanical and electrical companies want proven solutions.**
- **Proven in real life = right technology, right mobility and social acceptable**

EV & Smart Grids Living Lab



TU/e

12 km

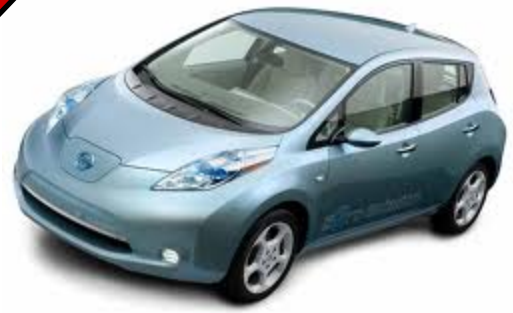
HighTechAutomotiveCampus.nl

10 km

22 km

>> 6 x

High Tech Campus Eindhoven



potential consortium
(in development)

TU/e

ACE
Automotive Center of Expertise

TOMTOM

SYCADA.GREEN

ABB

TNO

Provincie Noord-Brabant

ENEXIS

AutomotiveNL

AutomotiveNL EV testsite

Description

This project describes the set up of an integral electric mobility concept for people traffic between three high tech campus sites in the SE of the Netherlands. It offers a transport connection for employees between three technology campus sites: AutomotiveCampusNL in Helmond, the High Tech Campus and the Technical University of Eindhoven. The EV testsite is an integral EV pilot, i.e. should offer an 'from well to wheel' solution. The main energy source is the sun. The ultra fast charging stations are using wireless inductive charging techniques. The pilot is realized using a number of fixed routes and selected drivers (employees). Therefore the pilot can be run as a test environment while collecting data and monitoring the GPS position of the vehicle. The test site is run by employees and students of the campus sites. Service can be integrated in the education program of the involved technical education institutes.

Aim

Integral E mobility pilot from well to wheel (sun, smart grid, induction, ultra fast charging, E driver experience); Realization of modular charging stations; EV traffic for technical employes between the three high tech campus sites; Real world datalogging for analysis and specification of systems; Set up of a real world reference database; Test environment for electric vehicles; Research and education environment. Showcase for E mobility.

Consortium

Participant	Role
AutomotiveNL	Program management
Industrie	Project management
3 x Campus	Charging stations and site management (keys, availability, planning of transport, etc)
Solliance	Solar charging
Province NB	Pilot support and finance
Enexis	Smart Grid
ABB-Epyon	Ultra fast charging
TomTom	GPS Technology
Sycada	Datalogging
TNO	Research & development; data analysis
3TU	Research & education
ACE/MAC	Service and education projects
	We are looking for interested participants ::
OEM	Electric Cars & E systems
Automotive-Tiers	Testing of Powertrain, batteries, auxiliaries, etc etc.
Energy-Tiers	Testing of Energy systems and charging data
Cities	New sites for implementing modular charging and mobility solutions
etc, etc.	.....

Planning (project start)

Quarter	Milestone/ deliverable
Q1 & Q2 2012	Consortium completion key partners, LOI's
Q3 2012	Project description: deliverables, scope, workpackages, panning & risk analysis
Q4 2012	Financial engineering: Funding and financing; commitment of the partners
Q1 2013	Start project

Remarks

This project can easely been realized in phases: Cars > charging stations > GPS monitoring > datalogging > smart grid connection > solar connection > etc. Due to the modular character of the pilot it is also relatively easy to copy the modular charging station and to enlarge the size of the basic pilot. It is the aim to realize this project with a maximum in kind and minimal cash contribution by the project partners; the focus is mainly on an in kind contribution by participants : **Win-winning from the beginning!!**

Value EV & Smart Grids Living Lab

- **High value test & demonstration facility to acceleration the proces from experiment to implementation.**
- **Demonstration in real life enhance posibilities for business & trade.**
- **Less capital requirement due to shared investments for development.**
- **Savings due to shared costs for development and demonstration**

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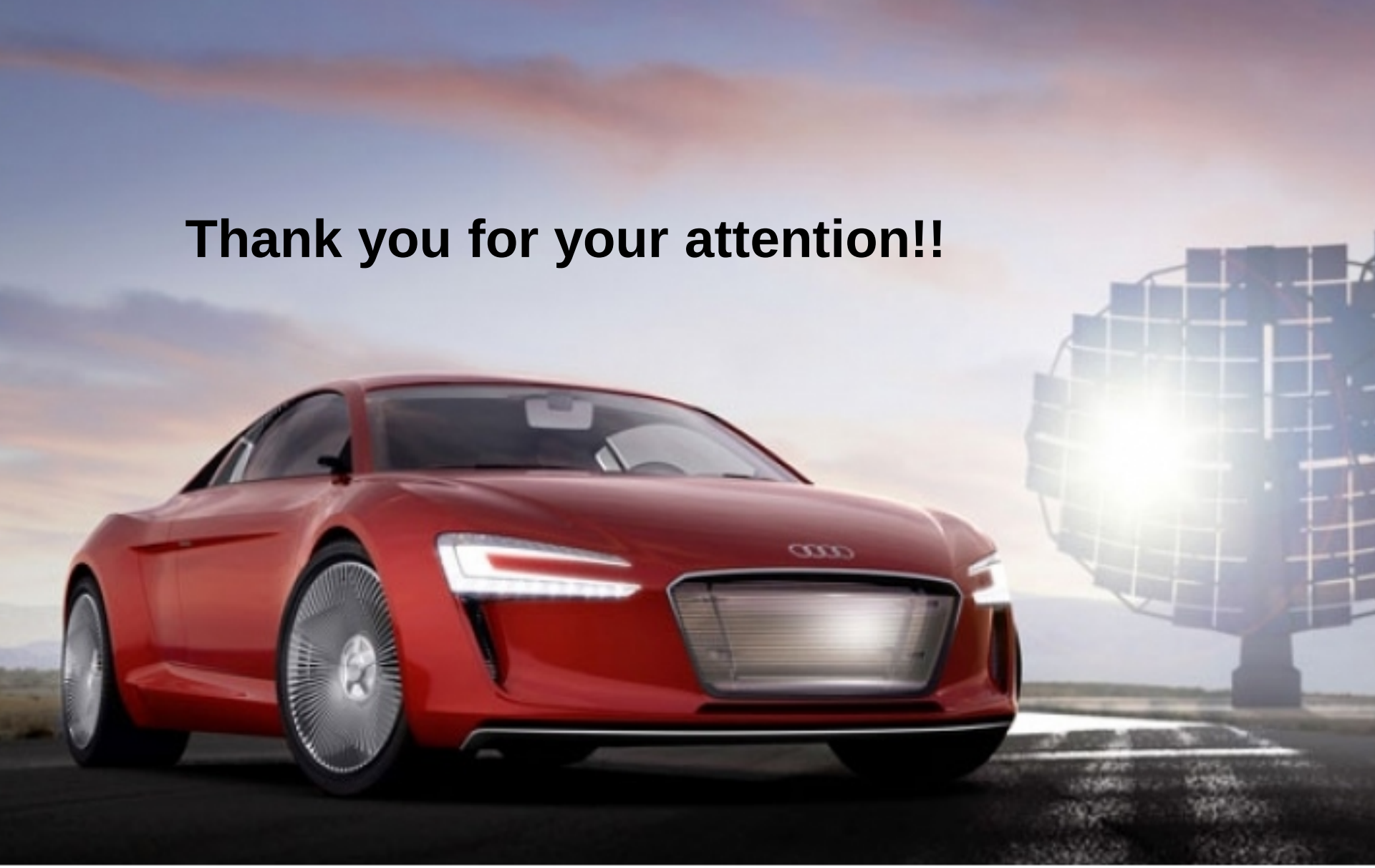

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