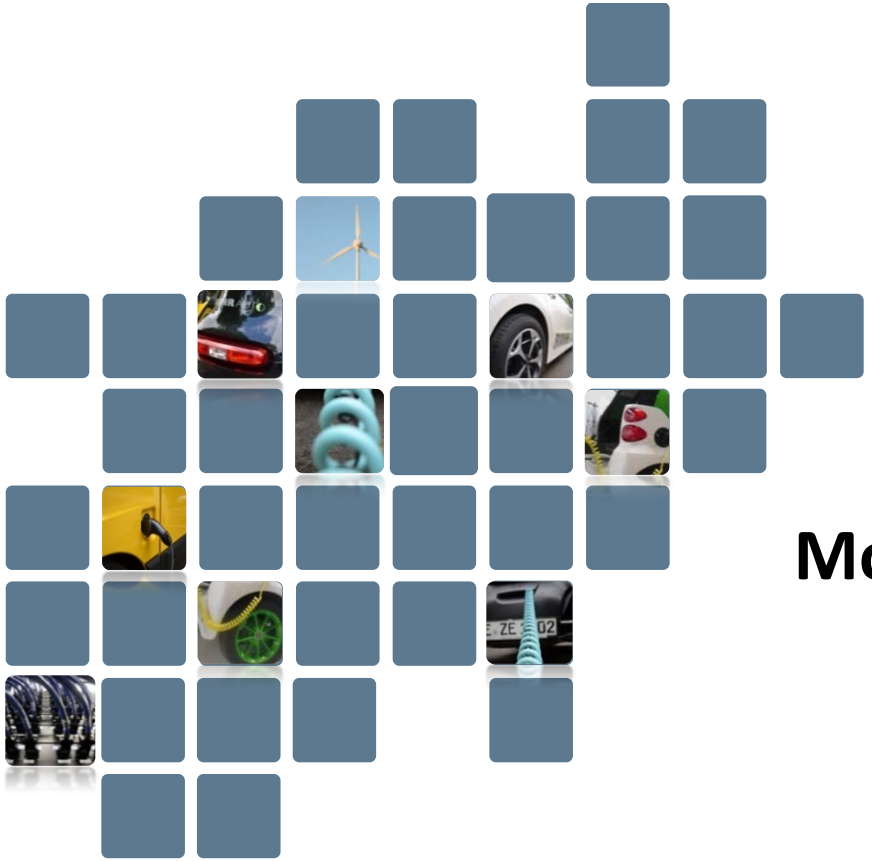
ElektroMobilität NRW



North Rhine-Westphalia

Moving towards Electromobility

Dr. Matthias Dürr
Head of Electromobility NRW

Dusseldorf 20th Oct. 2014

Agenda

- ElectroMobility NRW – Who are we?
- Motivation for E-mobility
- Objectives and Strategy of the State of North Rhine Westphalia
- R&D projects in NRW
- Market and Acceptance
- Summary

ElectroMobility NRW pools expertise from 4 state ministries and 5 NRW organisations:

Kompetenzzentren Elektromobilität NRW

Modellregion Elektromobilität Rhein-Ruhr

AutoCluster.NRW
Cluster Nordrhein-Westfalen

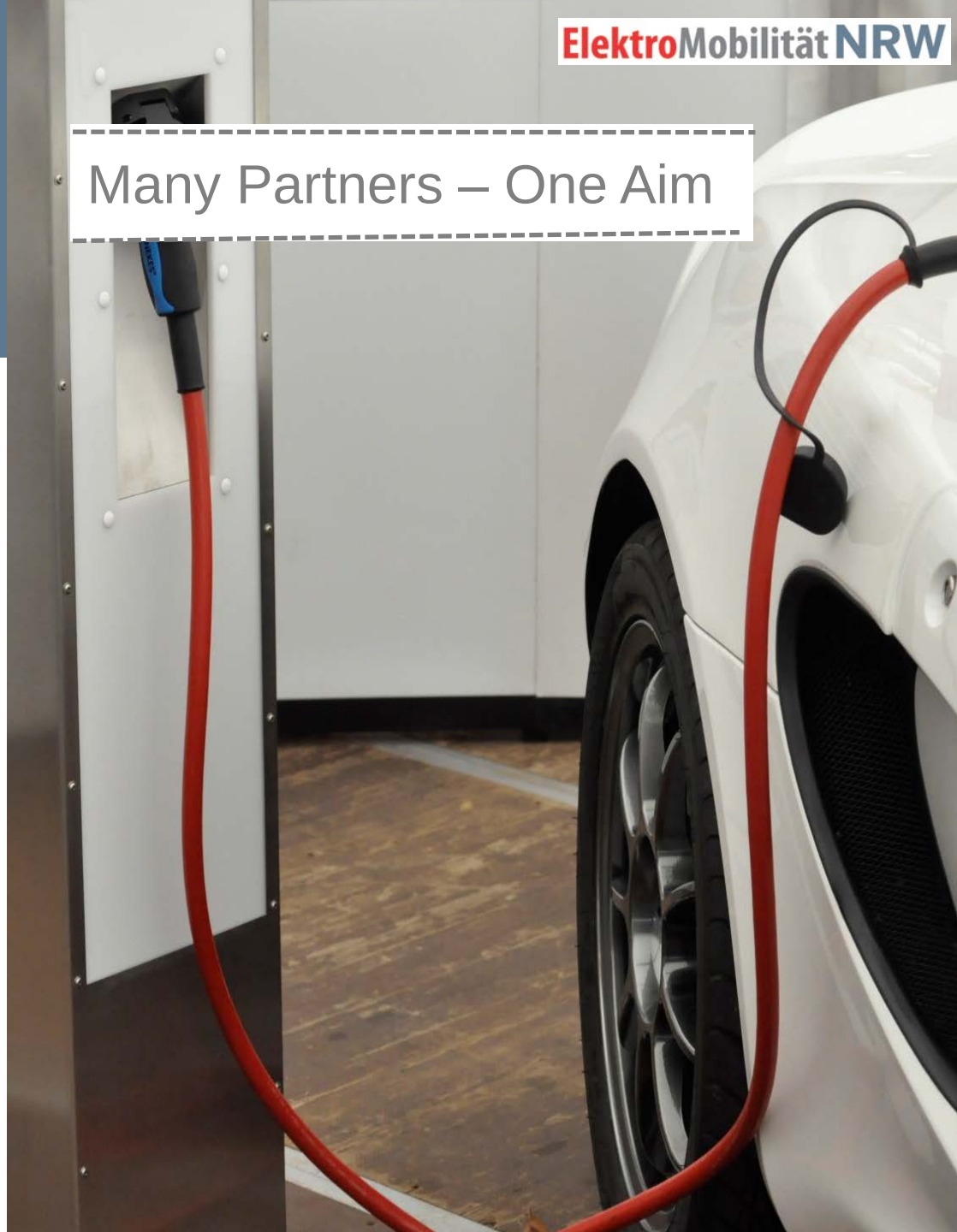
Die Landesregierung Nordrhein-Westfalen

ETN
Projektträger
Energie • Technologie • Nachhaltigkeit

EnergieAgentur.NRW
klimaschutz made in nrw

ElektroMobilität NRW

Many Partners – One Aim



ElektroMobilität NRW

ElectroMobility NRW

… is the central point of contact for electromobility in NRW

… develops and implements a state strategy to strengthen Electromobility in NRW

… supports R&D projects, finds the right partners in the value chain of electromobility, connects industry und science and gives impulses into politics

… bundles on behalf of the State Government the competences from industry, science, others

… informs the people of NRW about electromobility in order to increase the social acceptance of the technology

Motivation for Electromobility

ElektroMobilität NRW

Economy

- Securing jobs in a worldwide operating (automotive) industry
- Resource independence (oil and gas)

Ecology

- Emobility is an integral part of the „Energiewende“
- Reduction of negative mobility effects (CO_2, NO_x, combustion particals , noise)

Technical Advantages

- Efficiency potentials (Combustion vs. Electric motor)
- Holistic energy systems (housing, mobility and environment)
- New vehicle concepts possible
- Drive dynamics
- Cost reduction potentials

Objectives and Strategy of the State of North Rhine Westphalia

- Securing innovation level and competiveness of local industry and universities
- Developing NRW as a location for emobility technology and industry in Germany and Europe
- Establishing Emobility as key part of a climate friendly and sustainable state policy (NRW Energy and Climate Protection Plan)
- Reducing (local) emissions
- Reducing dependency on fossil fuels

→ North Rhine - Westphalia as a nationwide leader for electric mobility

→ **Masterplan Emobility NRW 2.0**

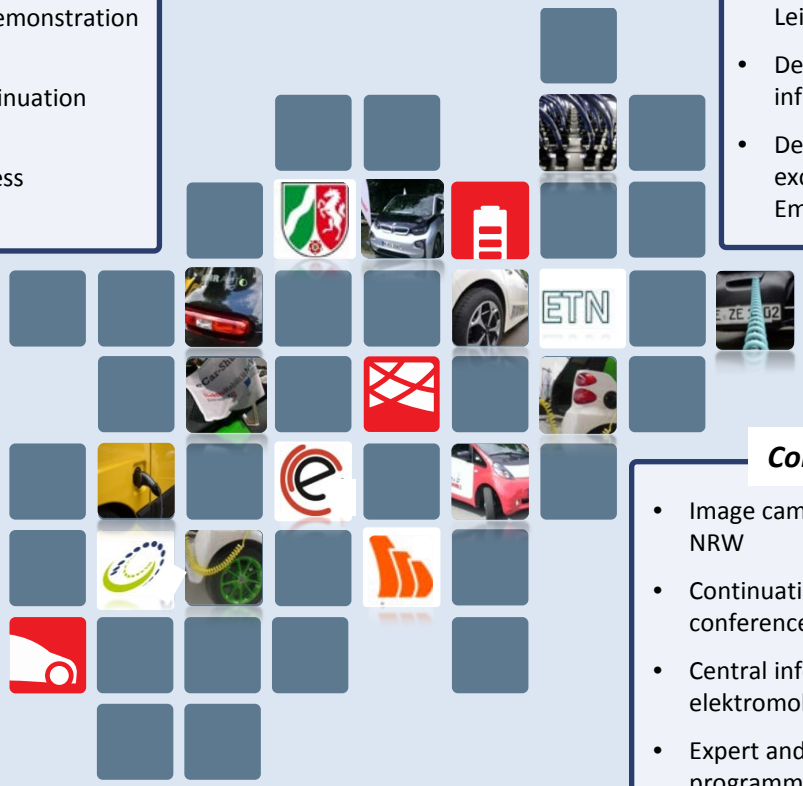
Masterplan NRW 2.0

System Innovation and market

- Procurement initiative for state owned fleet
- Strengthening of model region Rhein-Ruhr
- Expand programme to establish a large demonstration region NRW
- Use of monetary incentives , such as continuation programmme NRW.Bank Electromobility
- Expansion of compain to gain new Business investsments Elektromobilität

Research & Development

- Promote electromobility in new Research programme (EFRE Leitmarkt)
- Development of relevant research infrastructure
- Development of centers of excellence (Competence Centers Emobility)



Regulatory Framework

- Development plan to roll-out an adequate charging infrastructure including fast charging network
- Electromobility law 1 + 2
- Consistant and coordinate economic measures at EU, national, regional and municipal level
- Strengthening the NRW participation within standardization bodies

Communication Strategy

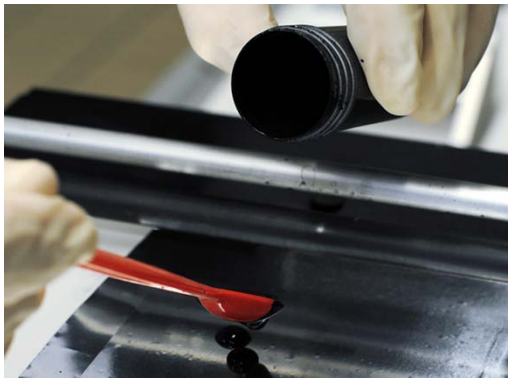
- Image campaign Elektromobilität NRW
- Continuation of established conferences and trade shows
- Central information platform on elektromobilitaet.nrw.de
- Expert and Non-Expert information programme

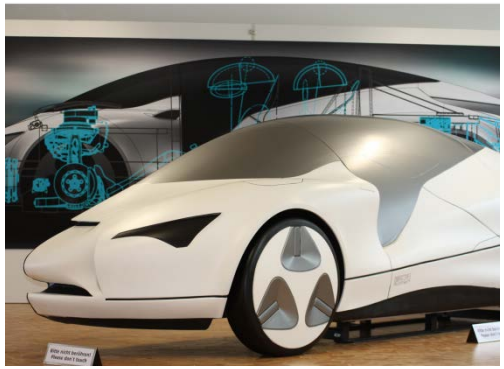
ElektroMobilität NRW

Competence Centers Electromobility NRW

Kompetenzzentrum Batterie

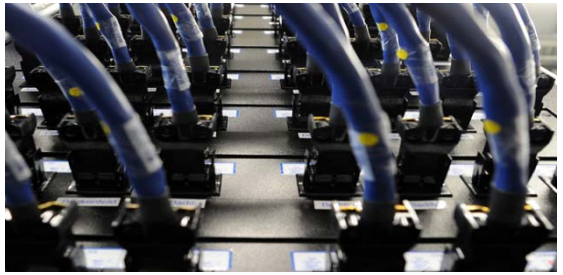
MEET Batterieforschungszentrum
Westfälische Wilhelms-Universität Münster
Prof. Dr. Martin Winter





Kompetenzzentrum Infrastruktur & Netze

Technische Universität Dortmund
Prof. Dr.-Ing. Christian Rehtanz



Kompetenzzentrum Fahrzeugtechnik

RWTH Aachen University
Prof. Dr.-Ing. Lutz Eckstein

R&D Funded Projects in NRW

First call: ElektroMobil.NRW

- 18 Förderprojekte
- € 72 Mio. Total Project Volume
- € 42 Mio. Total Funding

Second call: ElektroMobil.NRW

- 13 projects
- € 22 Mio. Total Project Volume
- € 13 Mio. Total Funding

Over 100 projects with NRW participation funded by federal government and EU

http://www.elektromobilitaet.nrw.de/Projekte-in-nrw/projektdatenbank.html

New programme starts now:
EFRE.NRW 2014 – 2020

http://www.efre.nrw.de/

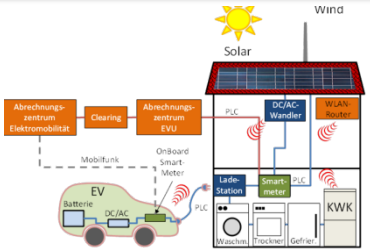
EFRE.NRW
Investitionen in Wachstum und Beschäftigung

EUROPÄISCHE UNION
Investition in unsere Zukunft
Europäischer Fonds
für regionale Entwicklung

Project Examples

eLab - Electro Mobility Laboratory

Objective: Preparation, optimization and quality assurance of the components along the production and supply chain
Lead partner: RWTH Aachen University, Werkzeugmaschinenlabor (WZL)



ZAESAR - Reliable connection of electric vehicles into a future smart home infrastructure

Objective: Entwicklung flexibler und mobiler Lade- und Abrechnungsinfrastruktur für Elektrofahrzeugen
Lead partner: TU Dortmund (ie^3 – Institut für Energiesysteme, Energieeffizienz und Energie-wirtschaft**)**

NiVVE -Commercial Vehicles in comparison - combustion vs. electric motor

Objective: Determining the efficiency of electric commercial vehicles in fleet operations
Lead partner: e-Wolf GmbH

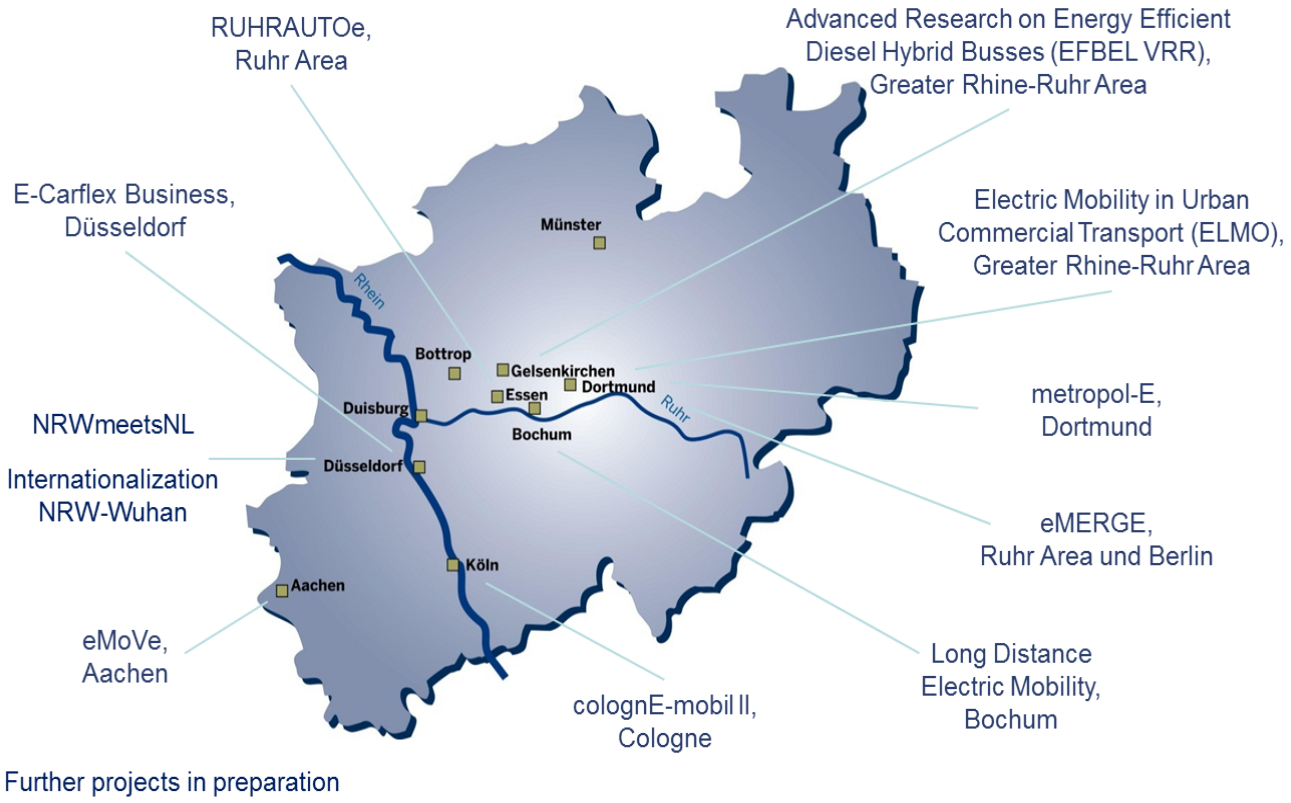
zemi-sec

zemi-sec - Zero Emission Silent Electric Carriage,

Objective: Development of a novel electrical transport concept
Lead partner: Institut für postfossile Logistik gUG

Model Region Rhine-Ruhr

Project Overview Model Region Rhine-Ruhr (Phase II)

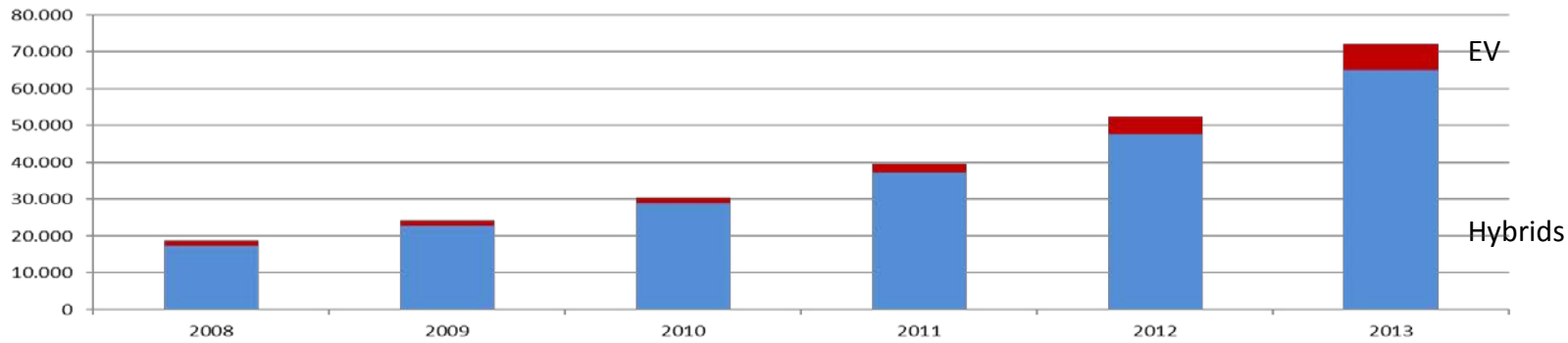


- A total of 11 projects,
- A total of 450 vehicles planned, about 350 on the road
- A total of 400 charging points planned, about 290 installed
- Kilometers traveled: about 3,25 million km (July 2014)
- More than 50 project partners
- Key aspects:
  - Commercial and municipal fleets
  - Local public transport
  - Housing and mobility (intermodality)
  - International cooperations

Modellregionen Elektromobilität | Modellregion Elektromobilität Rhein-Ruhr | Bundesministerium für Verkehr und digitale Infrastruktur | Koordiniert durch: NOW

Market ramp-up

Number of registrations for Hybrids und EV in Germany



Target: 1 Mio E-vehicles in 2020 in D (250.000 in NRW) - HOW?

- Targeting the right users! (state owned fleet, private fleets (carsharing, delivery fleets etc.), other sensible applications
- Adequate puplic infrastructure for NRW, more R&D, Image campaign
- Improvement of Regulatory Framework
- (Sensible) monetary incentives to achieve mass market by 2020

Project Day 2014

Thank you !