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IBM

On the road towards seamless electromobility services in Europe

“NeMo Hyper-Network project and challenges”
The world is becoming interconnected and more complex …

Billions of devices instrument our world today

Interconnecting these devices creates a Central Nervous System.
What are the End User’s requirements about electromobility services?

- I want to charge my Electric Vehicle **ANYWHERE** in Europe.
- I want to charge at **ANY** charging station provider and get only **ONE** bill!
- I prefere to charge my EV „intelligent and smart“ at **ANY** charging station provider.
- I want to locate & find charging points from **ANY** charging station provider.
- I want to find a parking-slot and use public transport (Park, Charge & Ride).
Charging-plug standards in Europa and world-wide: How do I have the right plug to charge my EV?

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Combined Charging System

- **Typ 2**: IEC 62196-1/-2/3, ISO 15118, DIN SPEC 70121, IEC 61851
- **Typ 1**: IEC 62196-1/-2/3, ISO 15118, SAE J1772
- **Combo 2**: IEC 62196-1/-2/3, SAE J1772
- **Combo 1**: IEC 62196-1/-2/3, SAE J1772
- **CHAdeMO**: GB/T 20234, 1/2/3, SAE J1772, IEC 61851-1/-2/3

*PLC optional, **Ähnlich IEC 61851, ***Herstellerspezifisch unterschiedlich, inkompatible Varianten

Nationale Plattform Elektromobilität: Fortschrittsbericht 2014
Charging station locations from different providers: Where do I find the right charging station for my EV?
RFID / Electric-Vehicle / App Authorisation in Europa:
How do I need to authorize my EV at the charging station?
Objectives of the project:
1. Acceleration of the market roll-out of electric vehicles in Europe
2. Meeting EU policy on energy of supply, energy efficiency and green house gas emission reduction
3. Viability of different types of electrical vehicles for immediate market introduction

Key Facts of the project:
- 43 partners have signed the consortia agreement
- Over all EU Funding: 24.226.954,89 Euro
- Project Start: March 2011
- Project End: February 2015
The Green eMotion Marketplace interconnects **ANY** Electric Vehicle Service Provider with **ANY** Charge Point Operator.
Formation of eMI3 in 11/2012 with leading Green eMotion members and others to better cover ICT standardisation issues.

Goal: Accelerating E-Mobility to the next level through Open ICT Standards
The NeMo consortium won as one from 3 out of total 41 consortia the GV.8 European Union call and got awarded in March 2016.

- **NeMo**: Hyper-Network for electroMobility
- Consortium and project key facts:
  - 19 partners from Automotive, Energy & Utility, IT, research institutes, universities and others
  - 3 years duration: Start expected 3Q16 (1.September 2016) to end in 2Q19
  - Total project budget: 7,8 Million EURO
- Key project partners:
  - IBM, ICCS, Renault, Fiat (via CRF), TomTom, Verbund, Hubject, GIREVE
- Project objective:
  The vision of NeMo is to create a Hyper-Network of new and existing tools, models and services which will provide seamless interoperability of electromobility services, creating an open, distributed and widely accepted ecosystem for electromobility. NeMo aims at bringing the successful interoperability paradigm of seamless roaming (as in mobile telecommunications) into the domain of electromobility services, paving the way for a Pan-European eRoaming framework.
IBM has demonstrated „Open Marketplace“ ICT solution which allows new innovative business services to be provided by 3rd Party Developer. This will be the base of IBM‘s contribution in NeMo.

B2B Marketplace from EU Project
Green eMotion
(Open Marketplace)

NeMo ICT services will allow EV integration services into smart grid and transportation ecosystem.
Information and Communication Technology (ICT) plays an important role in realizing successful electromobility scenarios. NeMo environment enables seamless integration of data and services.
The NeMo project provides a distributed environment to create, execute and deliver business services available to all ecosystem partners connected.
The NeMo business network provides the decentralized and open environment for seamless integration of data and services.
Questions?