



2016 MELBOURNE

23rd World Congress on Intelligent Transport Systems

Melbourne Convention and Exhibition Centre

10–14 October 2016

MEET IN ASIA PACIFIC FOR THE
WORLD'S LEADING TRANSPORT TECHNOLOGY EVENT

ACTIVATING GLOBAL MOBILITY SOLUTIONS

ITS—ENHANCING LIVEABLE CITIES AND COMMUNITIES



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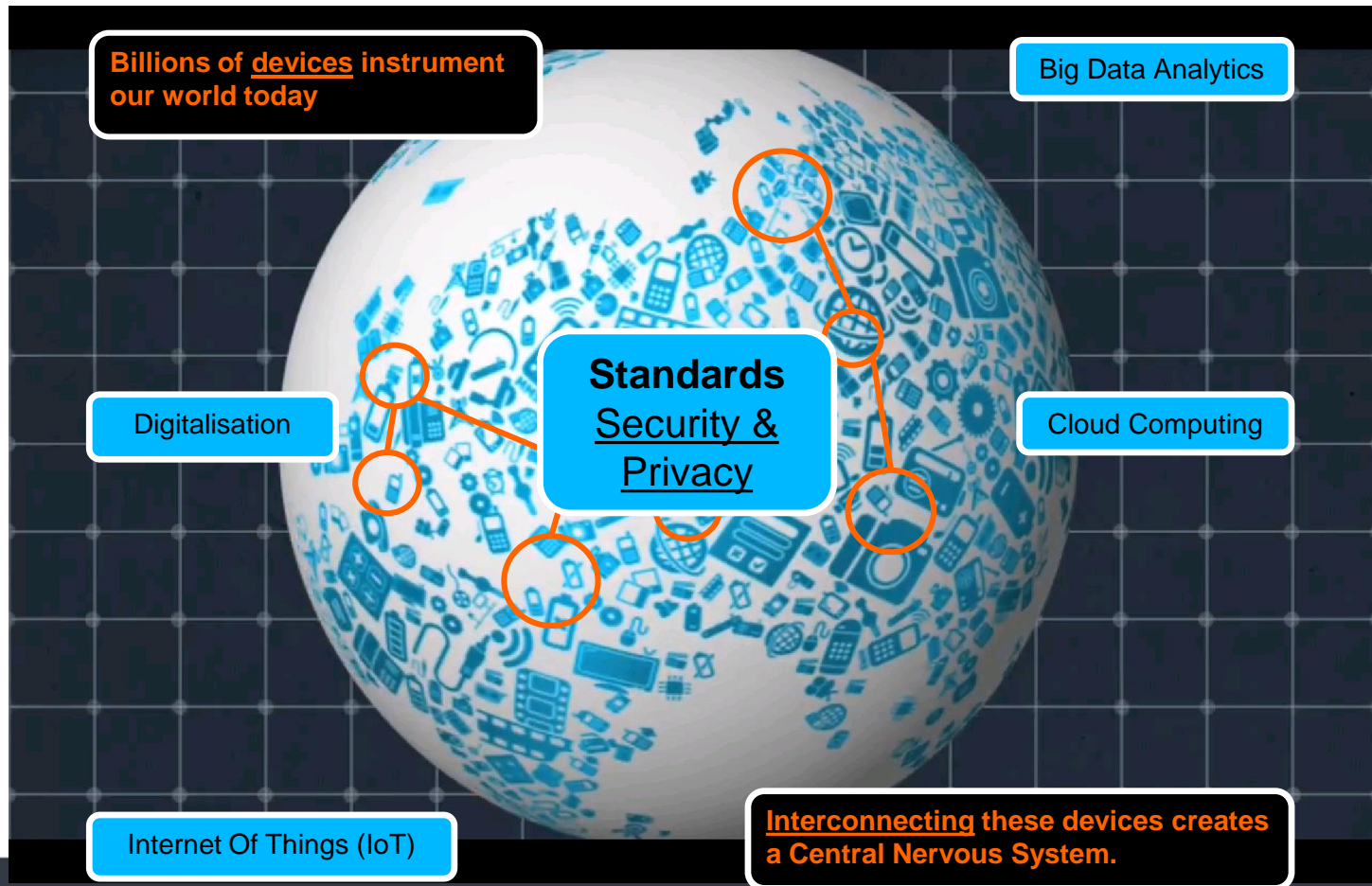
Speaker: Ning Duan, IBM China

Author: Volker Fricke, IBM Germany
IBM

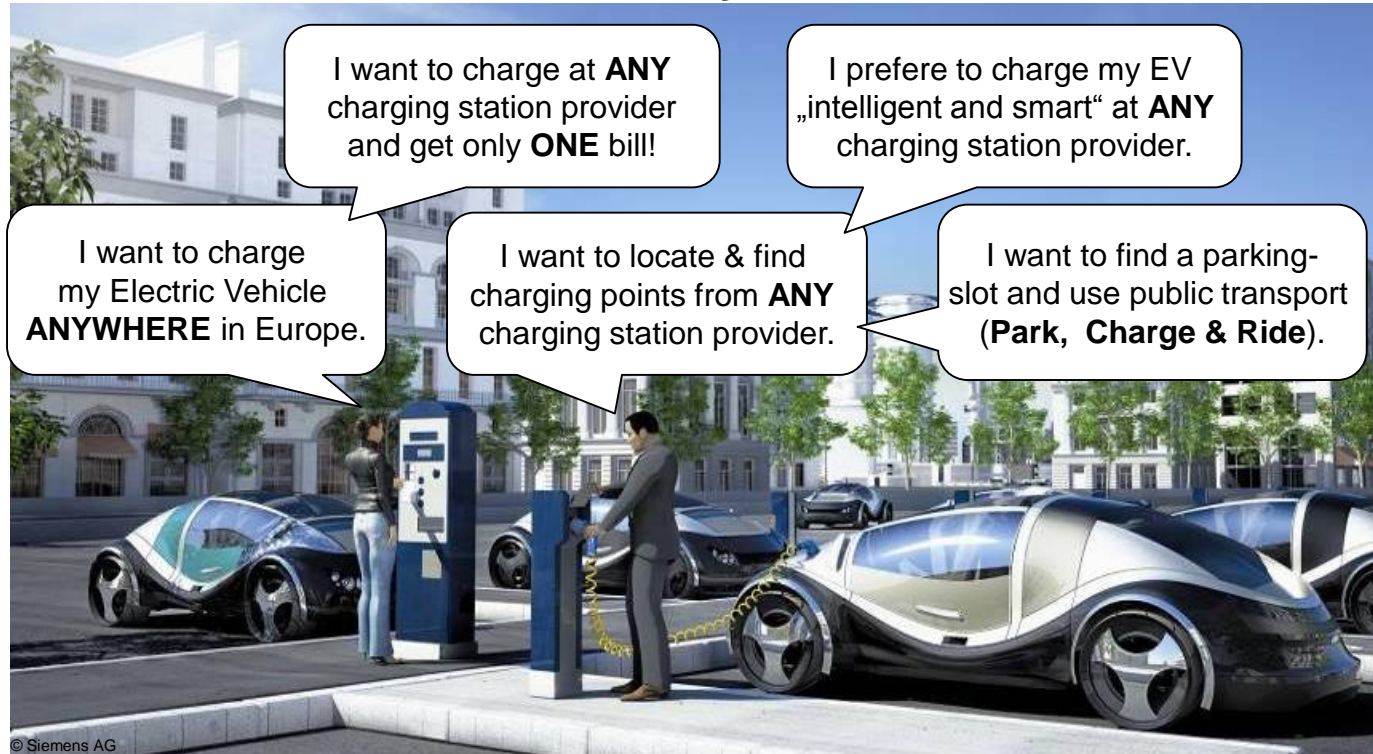
On the road towards seamless electromobility services in Europe

“NeMo Hyper-Network project and challenges”









The world is becoming interconnected and more complex ...



What are the End User's requirements about electromobility services?



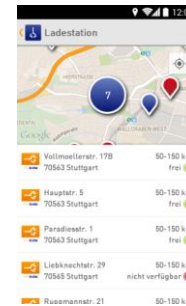
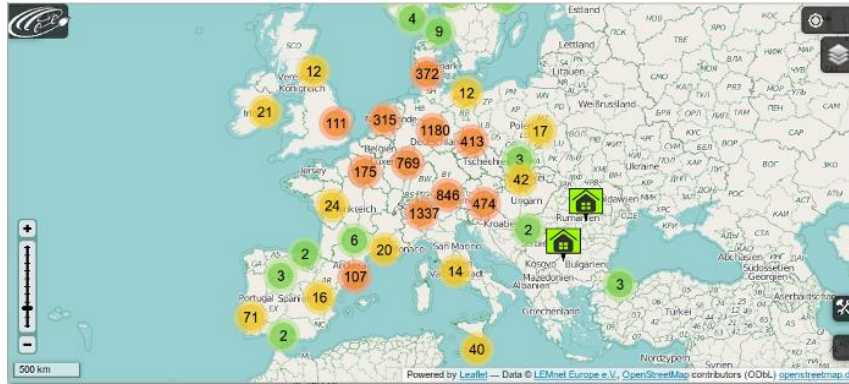
Charging-plug standards in Europa and world-wide: How do I have the right plug to charge my EV?

	Europa	USA	Japan	China
	Combined Charging System			
AC-Charging				
Communication	PWM / PLC *	PWM / PLC *	PWM / PLC *	China GB/T PWM **
Charging Power	Max. 43 kW AC 3ph	Max. 19,2kW AC 1ph	Max. 19,2kW AC 1ph	Max. 12,8kW AC 1ph
DC-Charging				
Communication	PWM / PLC	PWM / PLC	CAN	China GB/T CAN ***
Charging Power	Max. 200 kW Perspektivisch Max. 350 kW	Max. 90 kW, Perspektivisch Max. 240 kW	Max. 50 kW	Max. 187 kW
Standards	IEC 62196-1/-2/-3 ISO 15118 DIN SPEC 70121 IEC 61851	IEC 62196-1/-2/-3, SAE J1772 ISO 15118, SAE J2931 DIN SPEC 70121 IEC 61851	IEC 62196-1/-2/-3 SAE J1772 IEC 61851-1/-23/-24	GB/T 20234, 1/2/3 GB/T 27930

* 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?



The “Green eMotion” Project



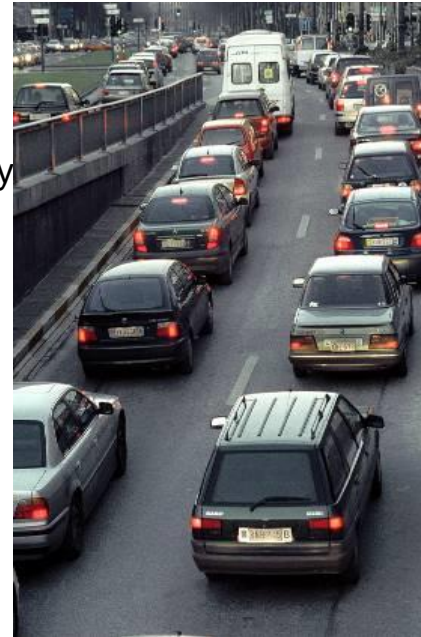
This Demonstration Project is part of European Framework Program for “Green Cars” Initiative of EU Economic Recovery Plan.

Objectives of the project:

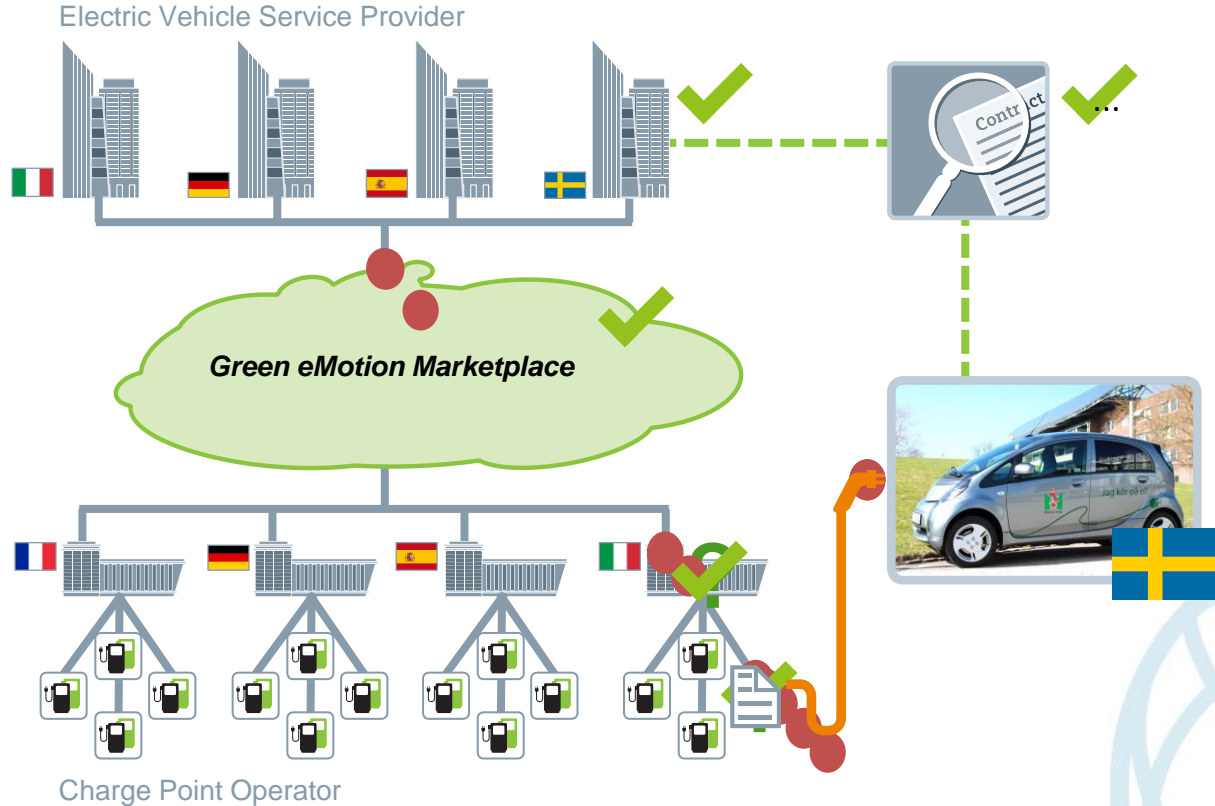
1. Acceleration of the market roll-out of electric vehicles in Europe
2. Meeting EU policy on energy of supply, energy efficiency and green house gas emission reduction
3. Viability of different types of electrical vehicles for immediate market introduction

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.



eMobility ICT Interoperability Innovation Group: eMI3 Group

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.

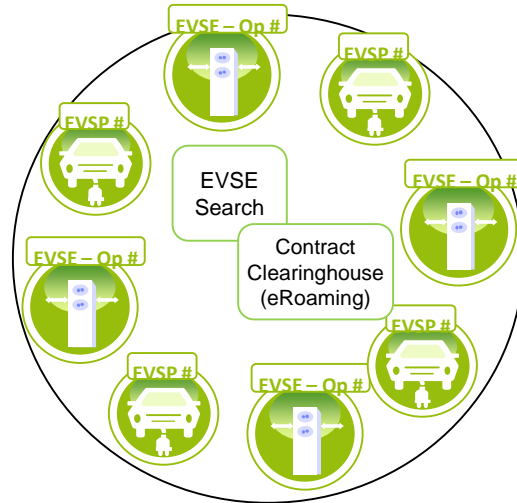


- **NeMo**: Hyper-**N**etwork for **e**lectro**M**obility
- Consortium and project key facts:
 - 19 partners from Automotive, Energy & Utility, IT, research institutes, universities and others
 - 3 years duration: Start expected 3Q16 (1.September 2016) to end in 2Q19
 - Total project budget: 7,8 Million EURO
- Key project partners:
 - IBM, ICCS, Renault, Fiat (via CRF), TomTom, Verbund, Hubeit, GIREVE
- Project objective:

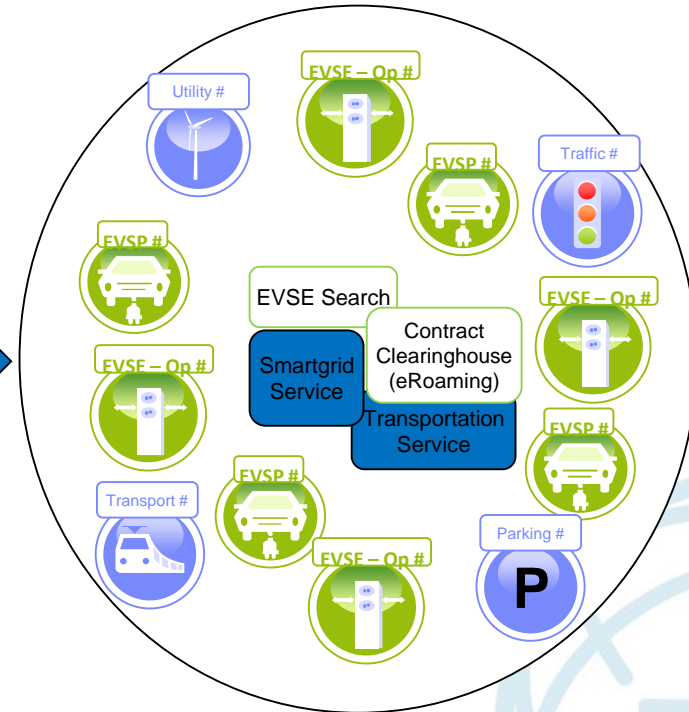
The vision of NeMo is to create a Hyper-Network of new and existing tools, models and services which will provide seamless interoperability of electromobility services, creating an open, distributed and widely accepted ecosystem for electromobility. NeMo aims at bringing the successful interoperability 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)**



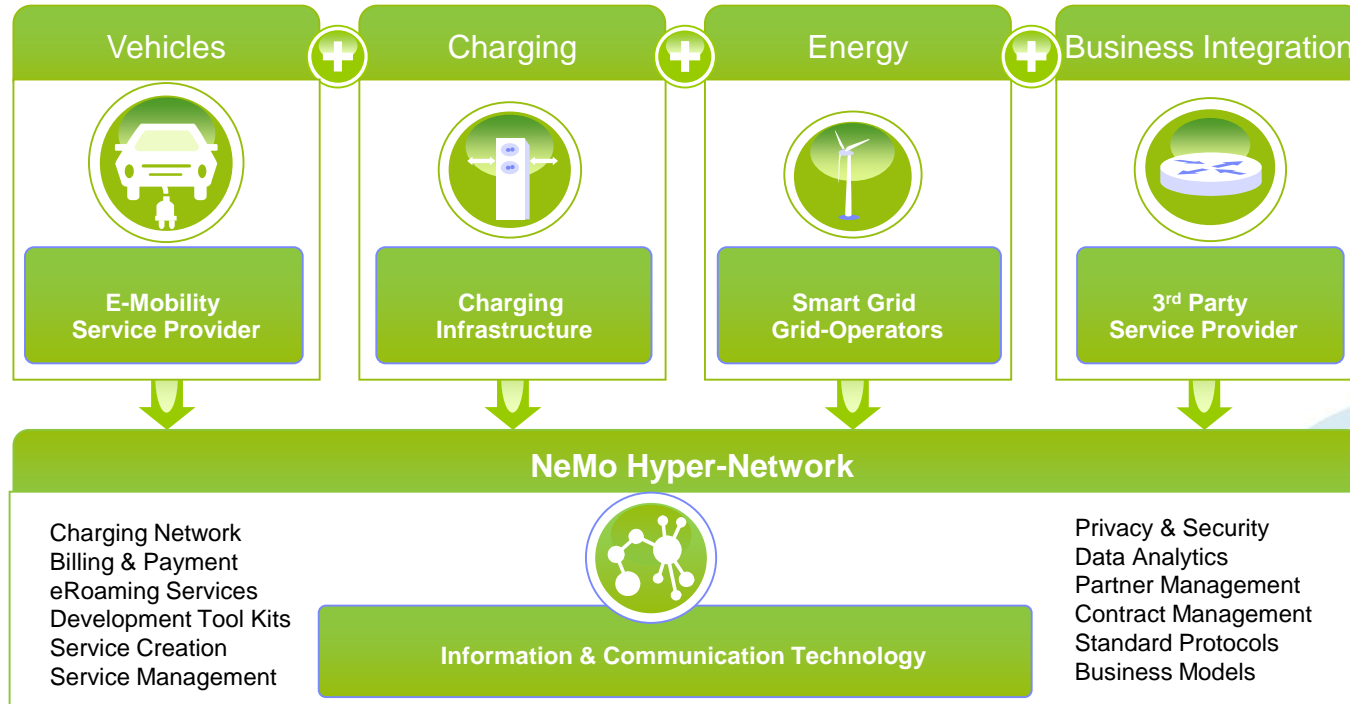
**Extended
to NeMo**



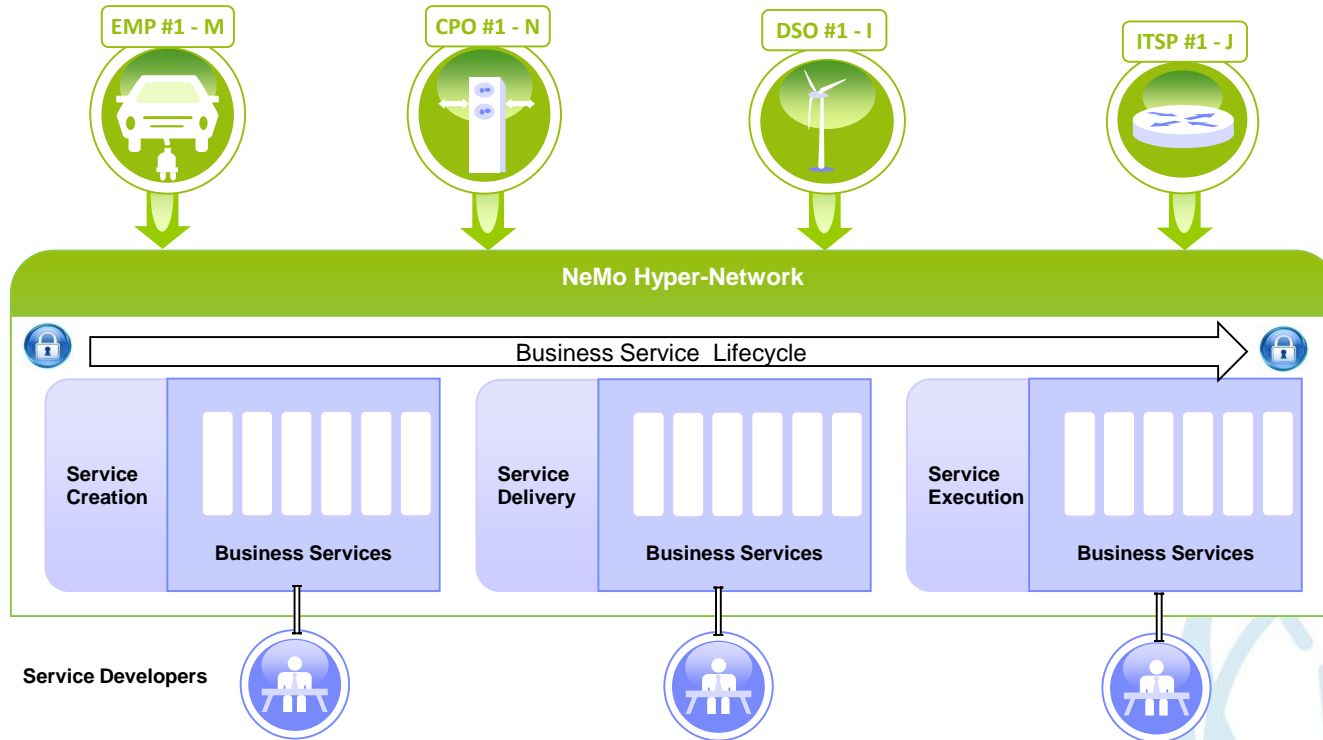
NeMo ICT services will allow EV integration services into smart grid and transportation ecosystem.

Information and Communication Technology (ICT) plays an important role in realizing successful electromobility scenarios.

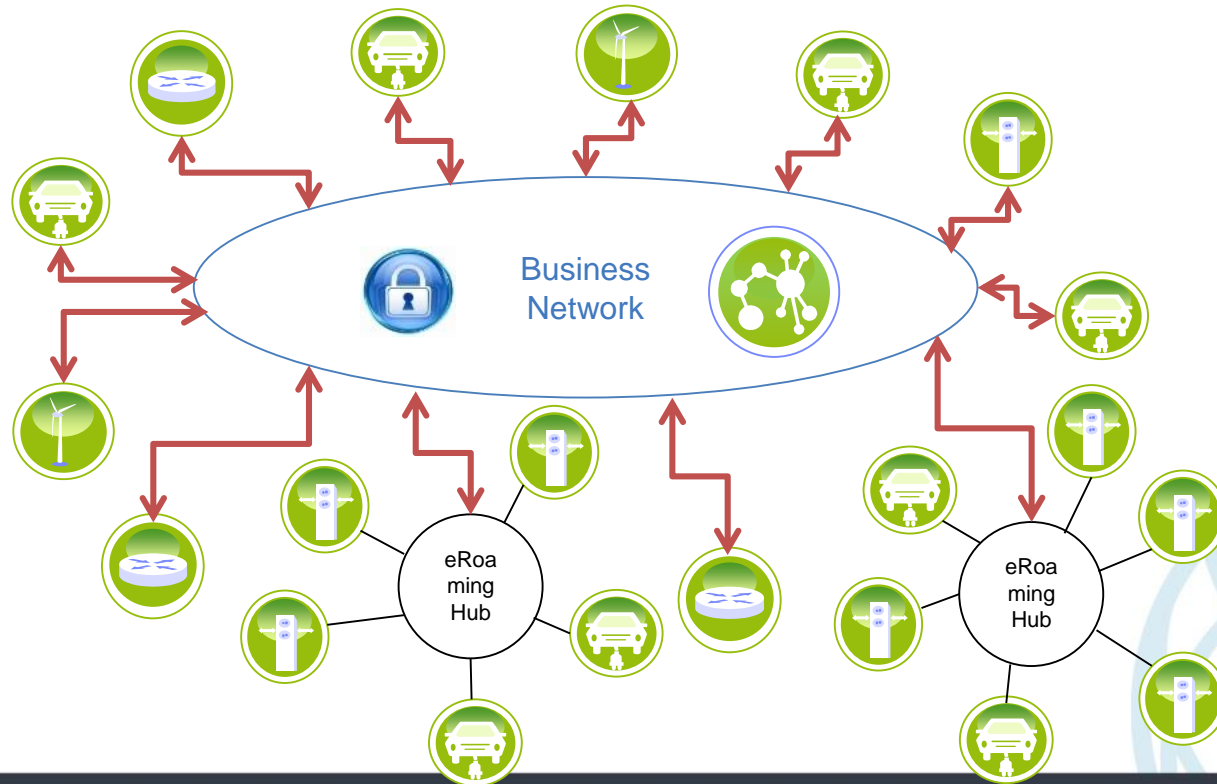
NeMo environment enables seamless integration of data and services.



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?

धन्यवाद
Hindi Спасибо

多謝

Traditional Chinese

תודה רבה
Hebrew Gracias

Spanish

Russian

شكراً

Arabic

Thank You

English

Obrigado

Brazilian Portuguese

Grazie

Italian

多谢

Simplified Chinese

Danke

German

Merci

French

ขอบคุณ

Thai

நன்றி

Tamil

Tamil

ありがとうございました

Japanese

감사합니다

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Korean