HYPER-NETWORK SERVICES

Stefano Persi-Theodoros Theodoropoulos
CEO of Mosaic Factor- Researcher ICCS

NeMo Stakeholder Forum Conference,
Ehningen (Stuttgart), 12 October 2017
NeMo SW Services

- eMobility Services
  - Grid related services
  - EV driver/owner related services
  - EV and Battery related services

- Horizontal Services
- NeMo HyperNetwork

Common Data Models, interfaces, protocols and smart algorithms

12 October 2017 NeMo, Stakeholders Forum
Why develop Services in NeMO?

- Showcase the **potentiality of added value services on the top of** the functionalities of the **NEMO Hyper-Network**

- Test the **flexibility and robustness** offered by the NEMO Hyper-Network to (external) **service developers**
Purpose of the Services developed in NeMO

• To design and develop a set of **specific smart** and **horizontal services on top of the NeMo Hyper-Network**, so as to enable the **integration of intelligent functionalites** in existing or new services.

• To provide a **set of new as well as existing (adapted) electromobility services**, offered through the **Open Cloud Marketplace**.
Sharing limited resources
Need for booking or prediction
Different drivers, different contexts

Knowing your users

- Expectations
- Needs
- Experience
- Goals & Tasks
- Thoughts
- Feelings
- Context of Use
Hyper-Network Horizontal Services

• Electromobility actors’ Monitoring and Profiling

• Finder and Optimiser

• Brokerage

• Service Pricing (static and dynamic)
EV driver/owner related services

- Smart Navigation
- Smart Journey Planner
- Wireless authentication solution
Grid related services

• Navigation to Charging Point based on user and grid power requirements

• Global customer charging behaviour

• Load management

• Load forecasting due to EV charging

• Local energy management
EV and Battery related services

• Adaptive SOC Limit
• Remote BMS parameterization
• Thermal pre-conditioning
• Improved SOC estimation
• Battery capacity calculation
• Battery load management
Methodology

• **1st iteration**
  – To provide a first release of services in M18 for System Integration and Technical Verification

• **2nd iteration**
  – To provide the full set of services in M24 for complete test conduct

• **Short cycle iterations**
  – During test conduct and validation phase, to provide support in order to perform corrections actions to the services
Discussion

DO YOU HAVE GOOD IDEA
Discussion

• Which service would you (or other entities) be interested in using?
• Which other services would you suggest NeMO to address?
Discussion

• How should trust in services hosted by NeMo be developed?
• How do we increase re-usability of e-mobility services and patterns?
Thank you!

Stefano Persi
CEO of Mosaic Factor
stefano.persi@mosaicfactor.com
www.mosaicfactor.com

Theodoros Theodoropoulos
ICCS
t.theodoropoulos@iccs.gr