

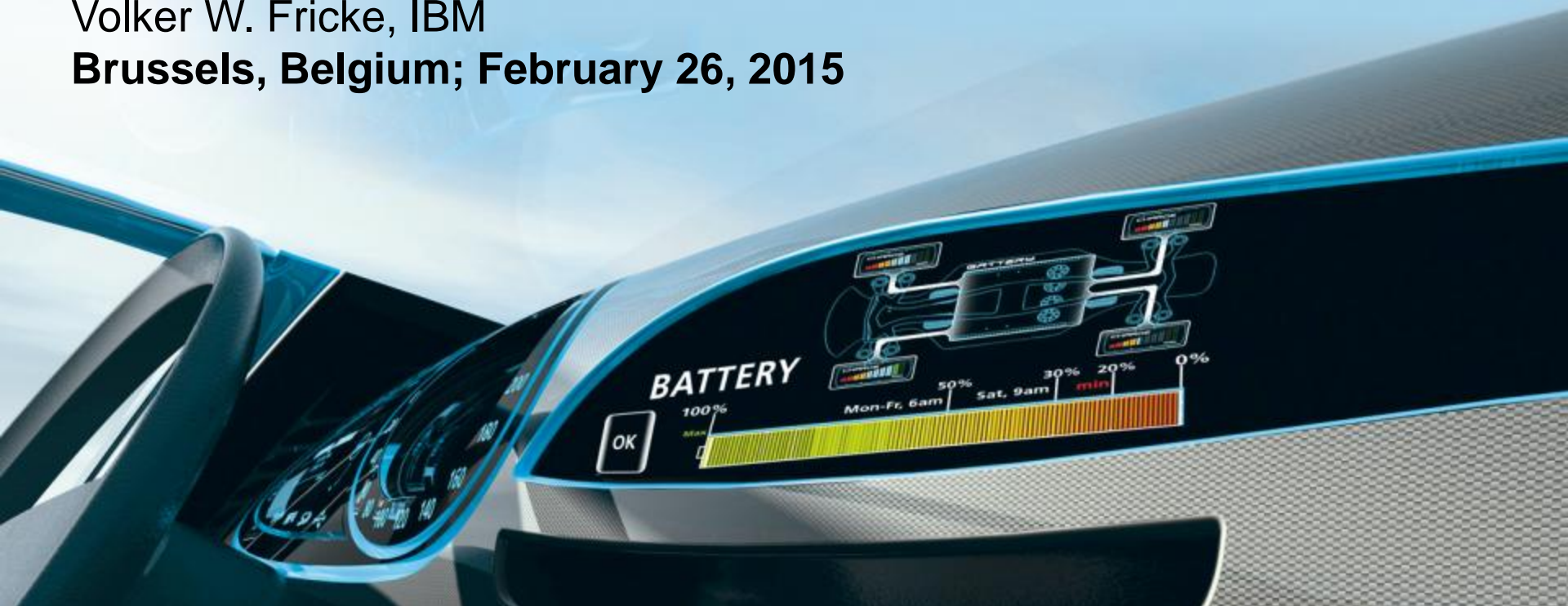
## Stakeholder Forum: Plenary Session

# Setup of an European Marketplace for Electromobility

Interoperable electromobility systems - What's still open?

Volker W. Fricke, IBM

Brussels, Belgium; February 26, 2015



# The world is becoming more interconnected and complex...

**Billions of devices instrument our world today**

Big Data Analytics

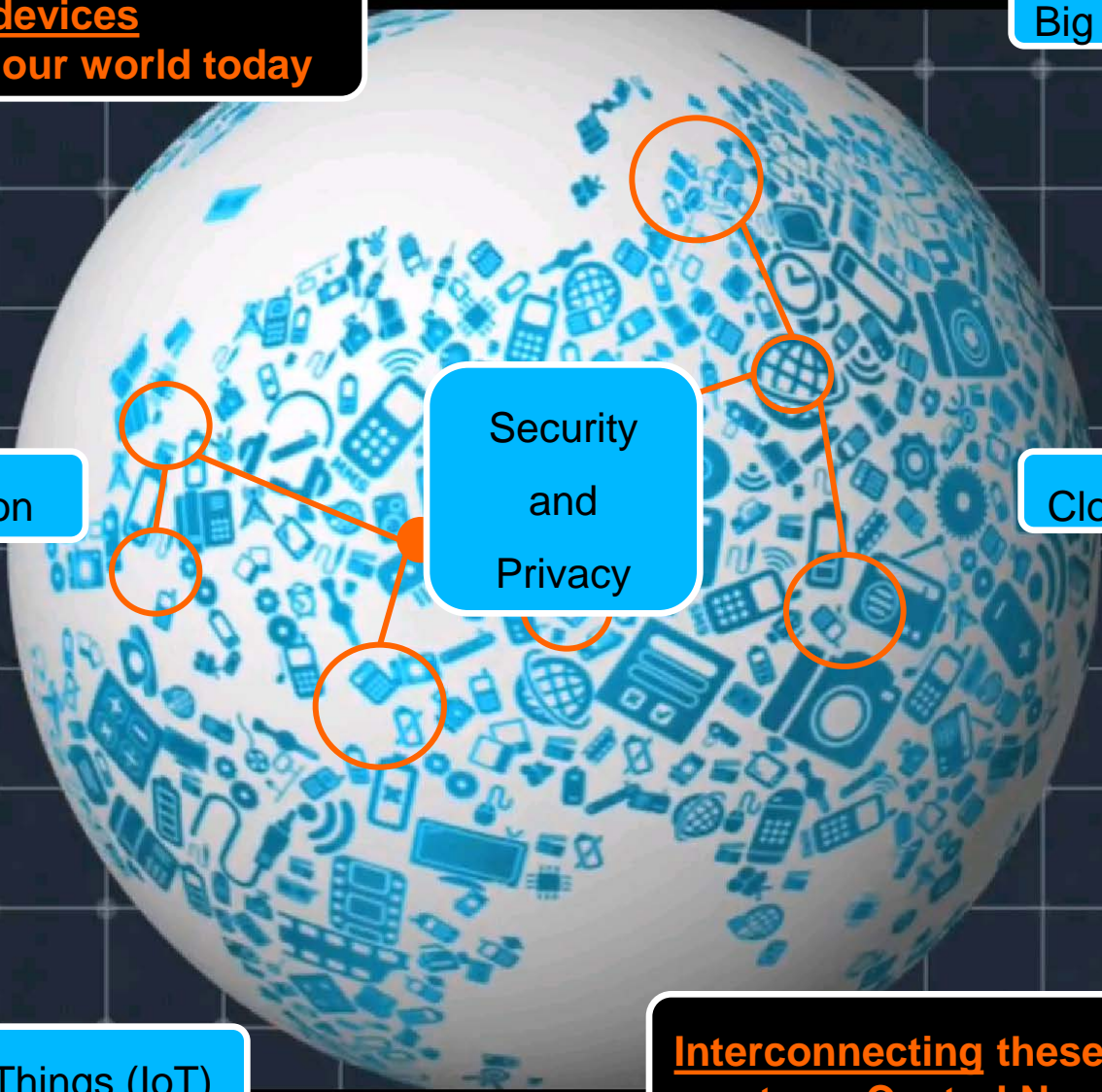
Digitalisation

Security and Privacy

Cloud Computing

Internet Of Things (IoT)

**Interconnecting these devices creates a Central Nervous System.**



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



I want to charge at **ANY** charging station provider and get only **ONE** bill!

I prefer to charge my EV „intelligent and smart“ at **ANY** charging station provider.

I want to charge my Electric Vehicle **ANYWHERE** in Europe.

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**).

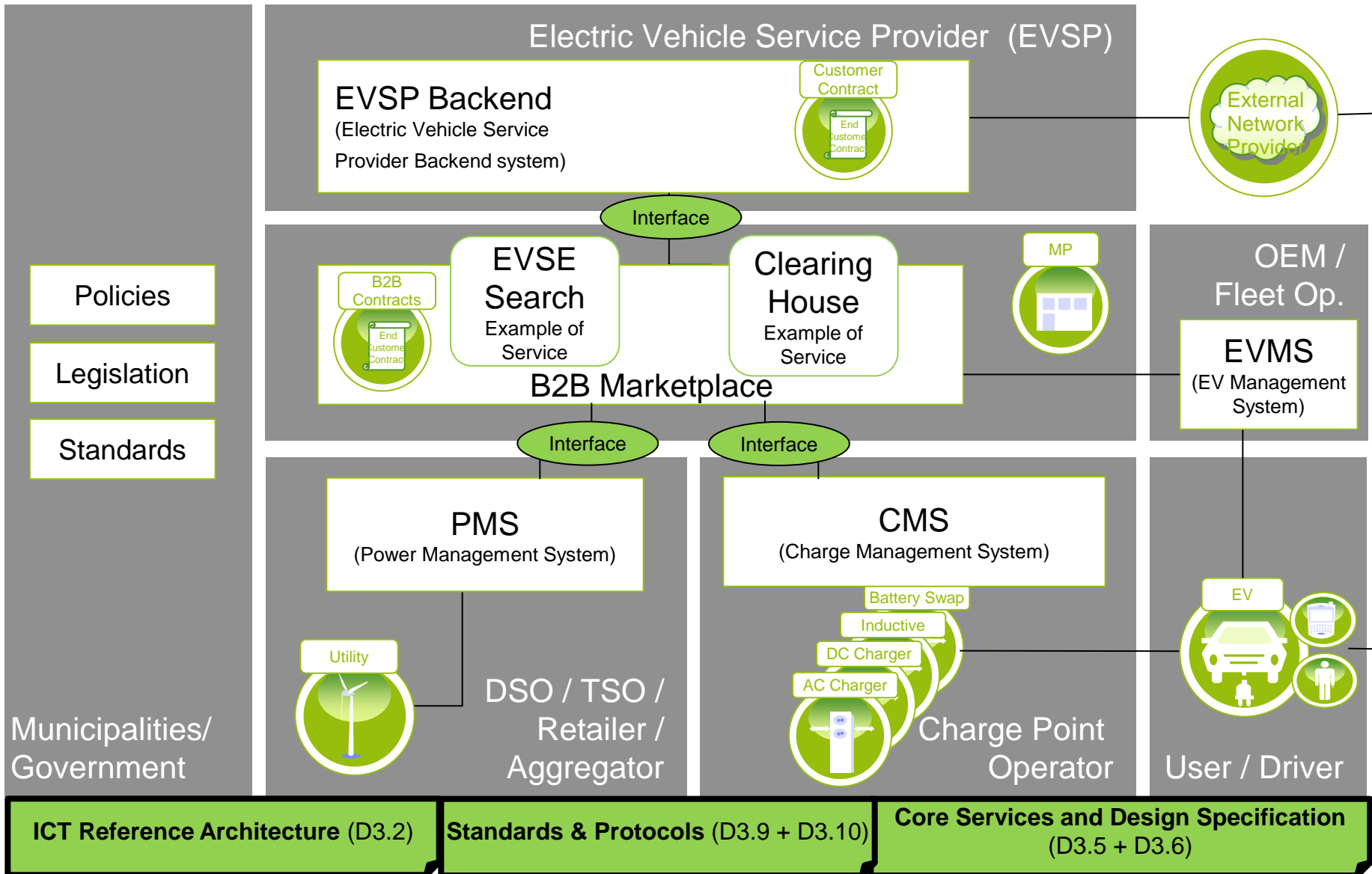
## Common Glossary, Terms and Definitions

Business Analysis (D3.1)

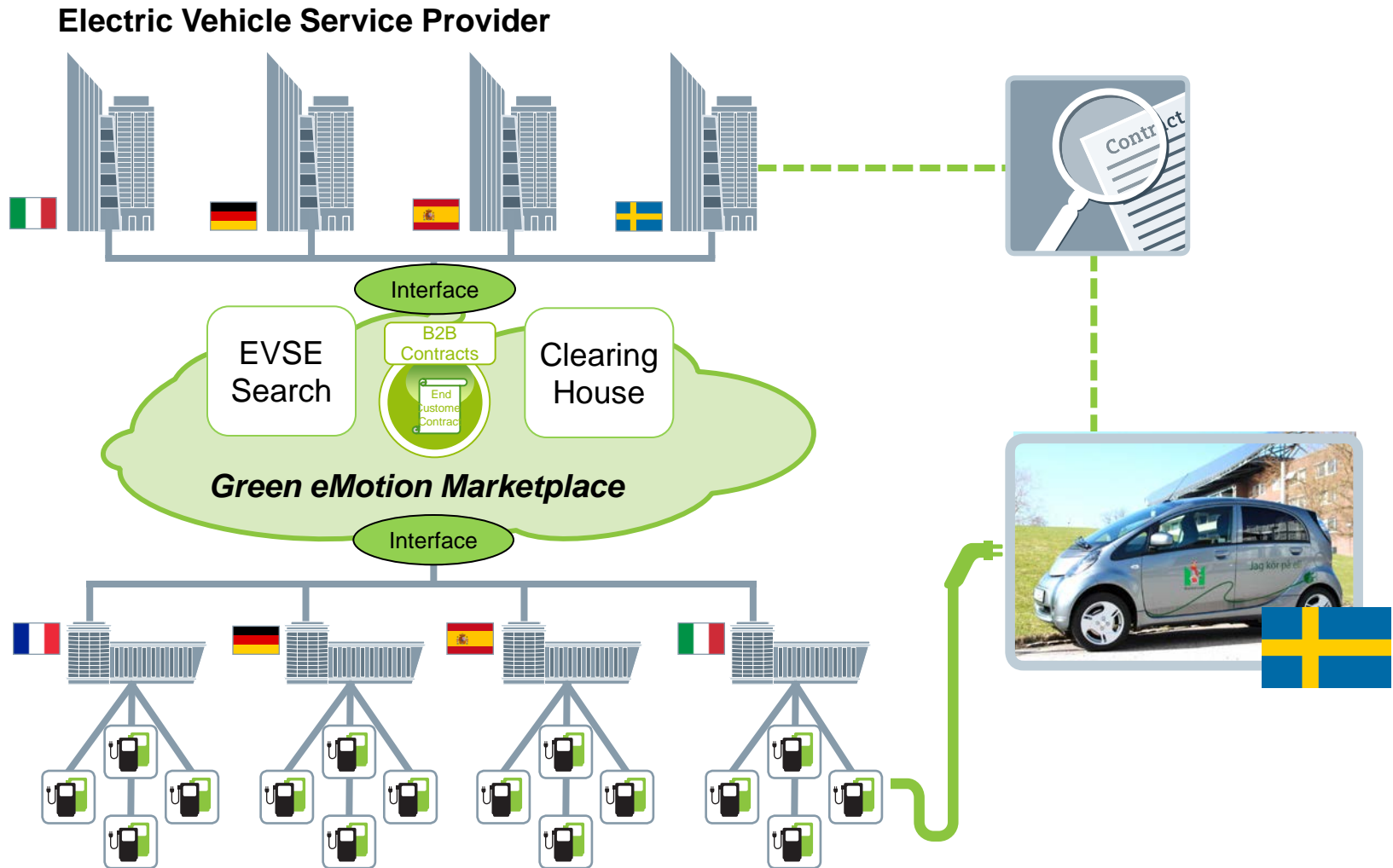
Service Use Cases and Requirements (D3.3 + D3.4)



# Green eMotion Building Blocks – The Big Picture



# The Green eMotion Marketplace interconnects ANY Electric Vehicle Service Provider with ANY Charge Point Operator



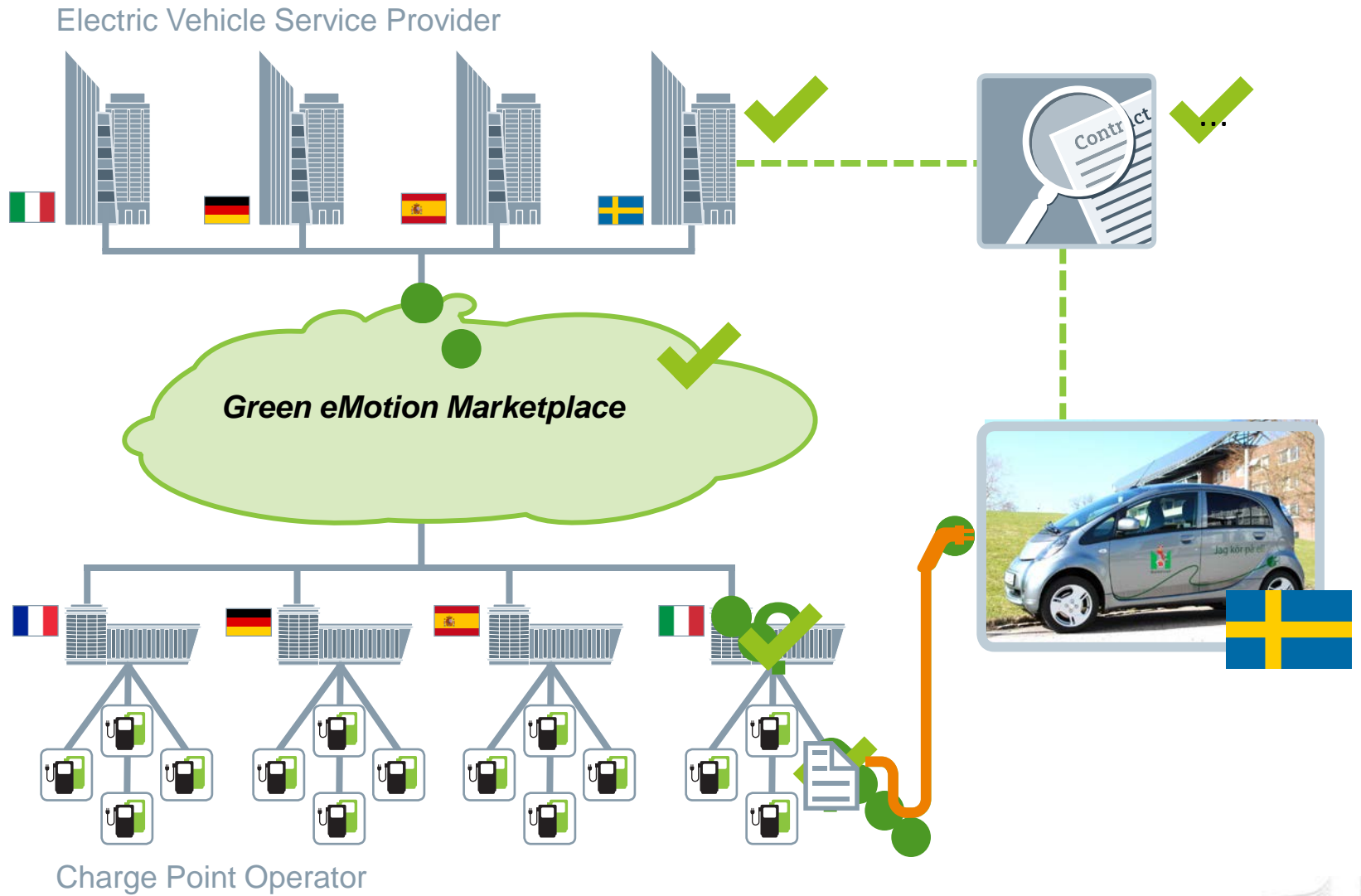
## Charge Point Operator

Implementation of Prototype  
(D3.7 + D3.8)

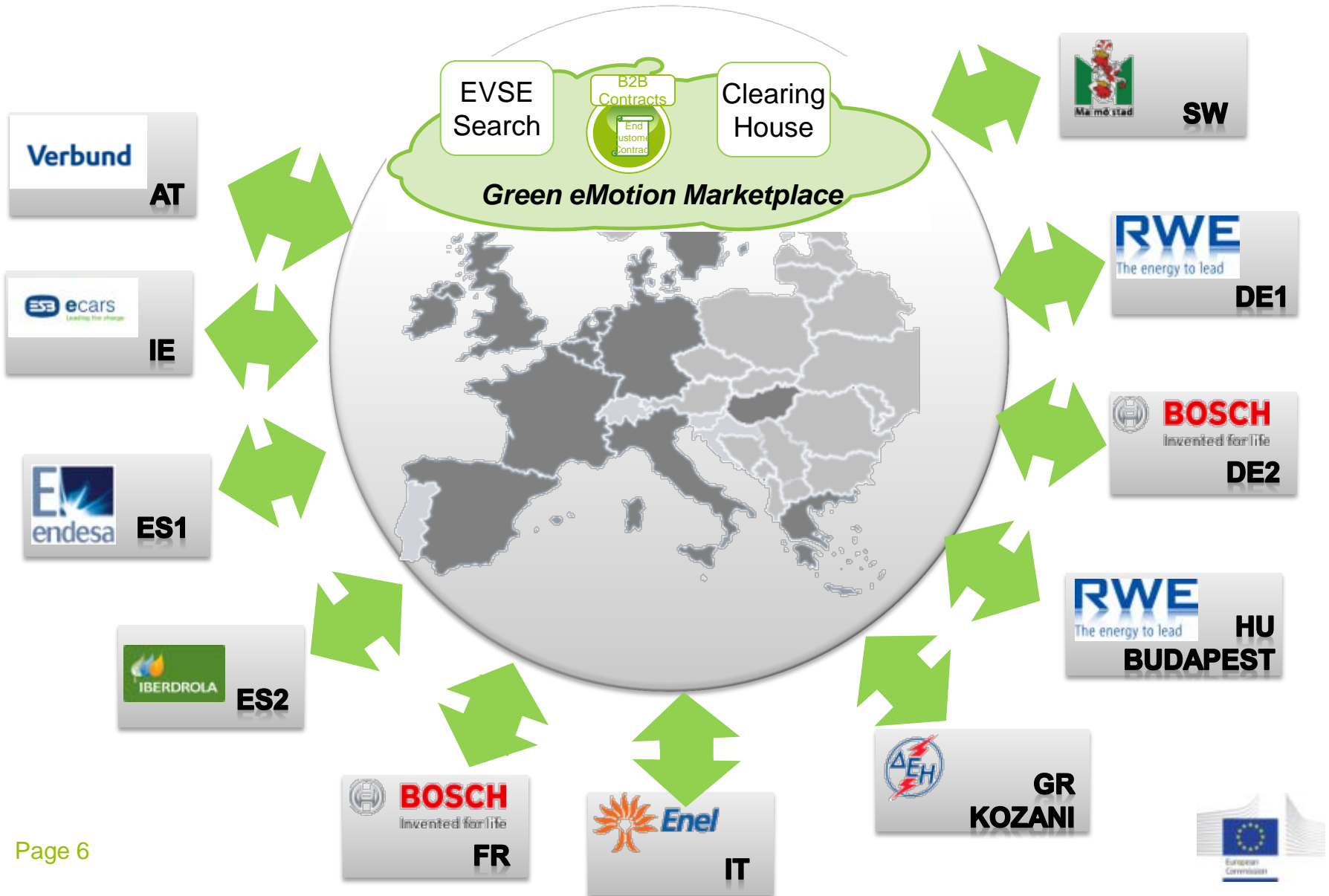
ICT System Release (D3.12 + D3.13)

Deployment & Operation (D3.11)

# How it works: Roaming Authentication via RFID or Vehicle ID at Charge Point Operator.



# Electromobility Services ICT Interoperability in Europe - Roaming and MORE ...



# What's still open?

## 1) Policy, Regulation:

- All public charge points should be connected to ANY kind of Charge Management System (CMS)
- All Charge Management Systems should to be connected to ANY kind of „Roaming“ platform using ONE standard interface



## 2) Standardization:

- Agree on ONE public Clearing House and EVSE Search protocol in Europe
- Unique Business Objects / Identifiers for Contract and Charge Point ID
- RFID Card standard with eMobility Unique Ids



## 3) Integration into Smart Grid:

- DSO and Charge Point Operator for Load Management
- Open Access to In-Vehicle data for charge plans
- Vehicle to Home (V2H) and Grid to Vehicle (V2G)



## 4) Integration into Transportation Ecosystem:

- Parking
- Traffic
- Public Transportation

Cooperative  
ITS (C-ITS)  
EU Platform



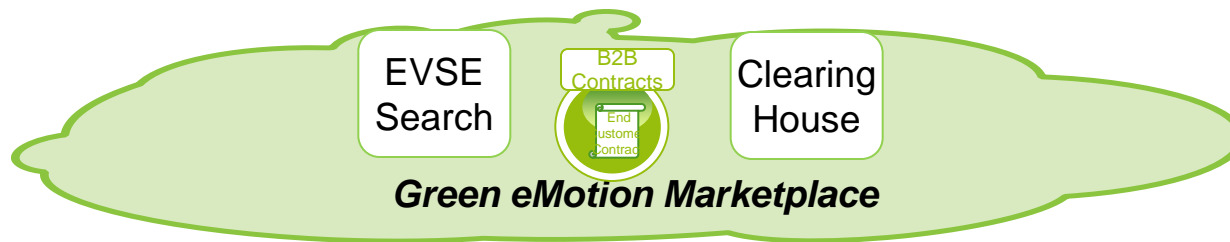
# Driving an Electric Vehicle is emotional...



Watch on Youtube: <https://www.youtube.com/watch?v=LpaLgF1uLB8>



...and will be limitless across Europe –  
Thanks to Green eMotion Marketplace



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