



## Experience of the CROME Project

Connecting eMobility

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EVS27, Barcelona





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# EVS 27





Every EV can connect to a charging spot



French & German electric vehicles Charging **EDF** · Smart functionalities Operation **EnBW** 

connector /

data exchange

Public charging station or place with type-2 & type-3 plug

nteroperability

nteroperabi

\*Information Communication Technology

**Partners** 

#### **Existing** ICT\* Service Platforms

- · Access / Authentication services
- Billing / roaming services

**BOSCH** 





connector / data exchange



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European





#### Roaming Service Layer Requirement

- Connect a dynamic network of independent international partners having their autonomous business and systems.
- Roaming must accelerate the development of Ecosystems by providing a brokering platform to connect services between partners (marketplace) without being a bottleneck – extended service portfolio as a benefit for the end customers
- Each partner can participate on the highest level of security regarding data protection and data security.
- Partners must be able to offer the end customer a seamless roaming service

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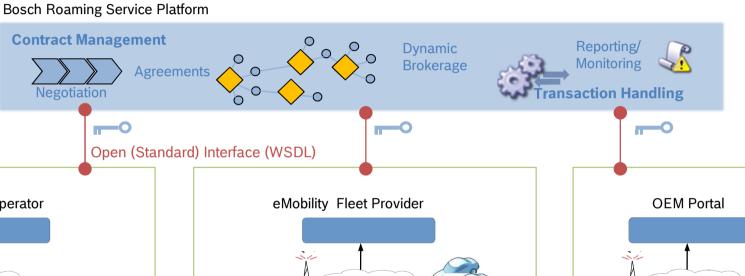


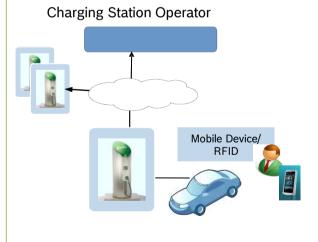


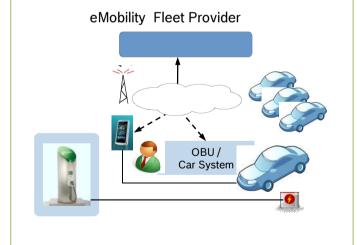


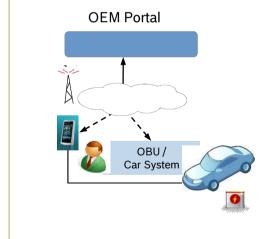


#### Proposal for Roaming Service Platform









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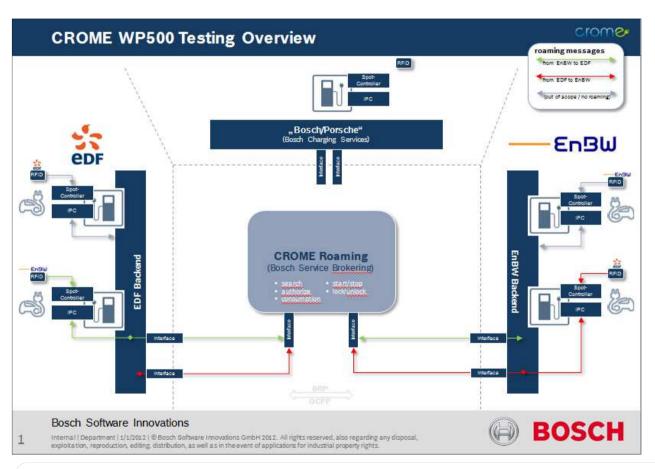








#### Roaming Service Platform Implementation



- Online services implemented : search, authorization, consumption, (reservation, billing) incl. mobile App
- Standardization is the key RFID card, type 2 / 3 plug, mode 3 charging, OCPP
- System successfully tested
- EnBW, EDF, Bosch/Porsche connected and operational
- Citizens profit from the solution

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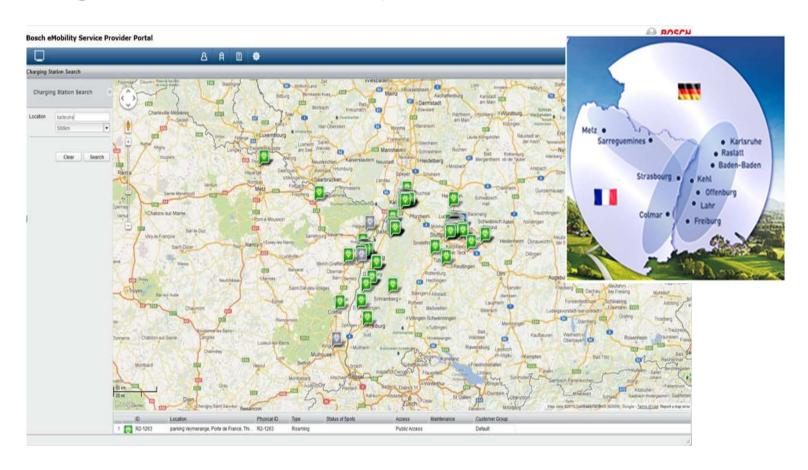








### Roaming Service Platform Implementation



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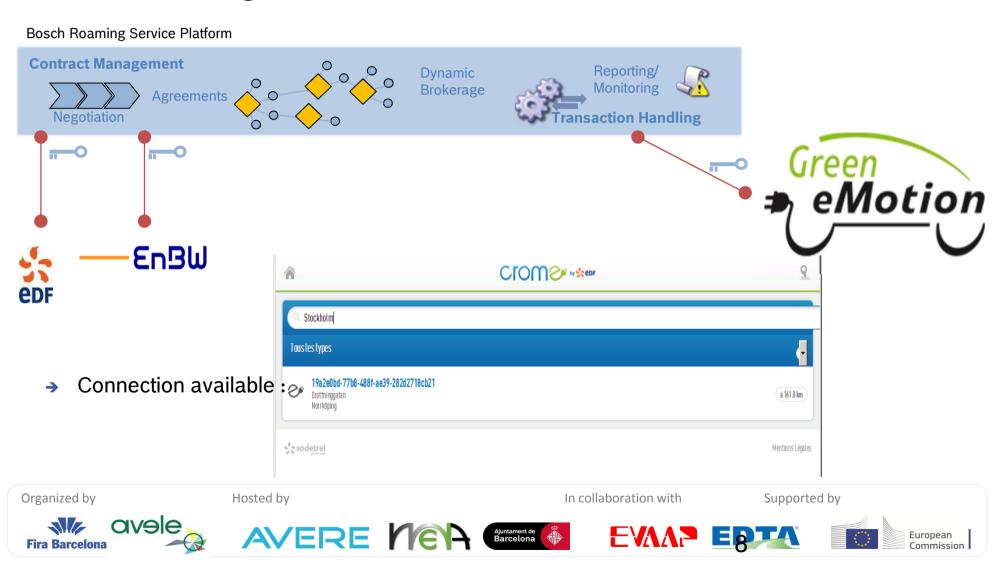








#### Inter-Roaming Service Platforms Communication







#### Summery & Outlook

- CROME shows service interoperability by roaming of services
- To build a network of independent international partners (competitors) having their autonomous business and systems, the system design has to ensure that each partner keeps his independence (data)
- Standardization (RFID card, type 2 / 3 plug, mode 3 charging, OCPP) is key to enable a marketplace
- Roaming of services will be a key enabler for future mobility solutions









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## Thank You

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