



International NoAE Project-Day E-mobility 12/06/2013 in Aachen

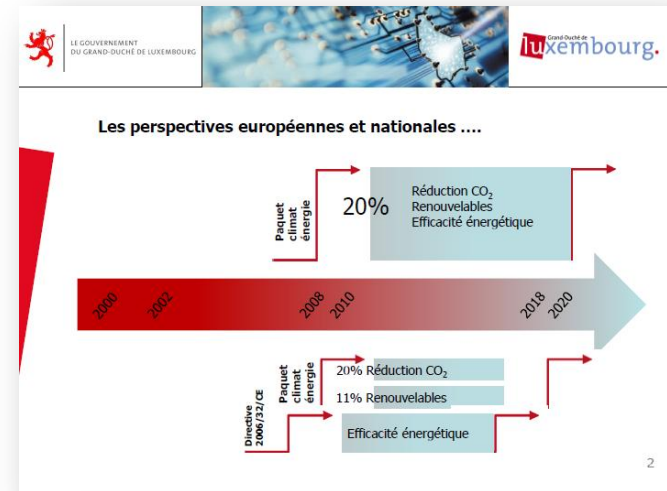
Electric mobility in Luxembourg



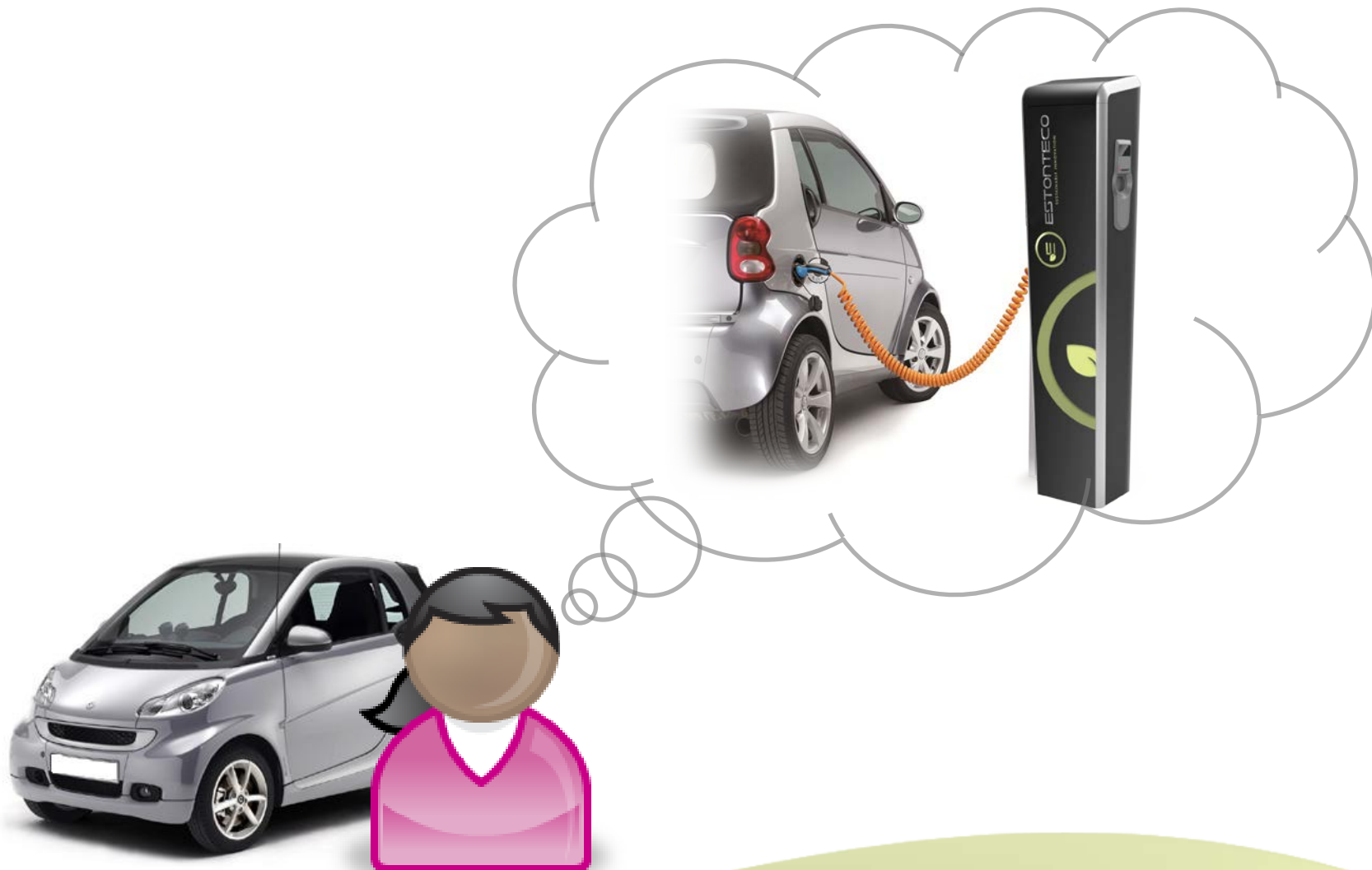
• On 21/12/2010 Estonteco and its partners submitted an official bid to the Luxembourg government about the turnkey deployment for a national charging infrastructure and all required services for client identification, localization, billing and roaming.

• Estonteco has been supporting the Luxembourg government in the decision making for a national concept aiming to stimulate & promote an ecologic traffic model for individual mobility.

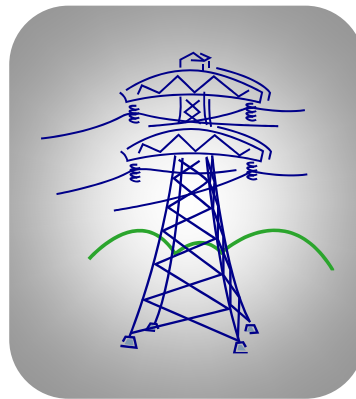
• On 22/08/2012 a new law came into force setting the ground work for a national public charging infrastructure, obliging all grid operators to join forces for the development of a uniform solution for the entire country.



Desire



Need



OPEN CHARGE POINT



- All electric vehicle owners can easily view every Open Charge Point and its actual current status (available or occupied) on the Internet.
- Open Charge Points are extremely easy to access 24/7.
- Open Charge Points are networked with other regional and international charging points; smooth and safe “roaming” guarantees the secure identification of every customer right across Europe.
- Public or private parking space operators and local electricity suppliers can always be sure that they will be paid correctly for all electricity supplied.
- If our customers have any questions, they can call our multilingual customer service team. Thanks to our close proximity to the customer, our engineers can be quickly deployed to resolve any potential technical problems on site.



From Luxembourg...



...to Europe



*a world you like
with a climate you like*



Our targets for a low-carbon society are not about some distant future. It's all about jobs. It's about innovation and competitiveness which we can harness today.

Connie Hedegaard,
EU Commissioner for Climate Action

<http://world-you-like.europa.eu>

Screenshot of the 'a world you like with a climate you like' website. The page features a video player showing a hand plugging a charging cable into a station, with the title 'Establishing a comprehensive infrastructure for electric vehicle owners (Luxembourg)'. Below the video, there is a section titled 'More Videos' with a grid of nine video thumbnails, each with a red play button icon. The thumbnails are arranged in three rows of three. The first row includes: 'Coordinating local production to support short transportation distances (Belgium)', 'Making electric cars more accessible with solar-powered charging stations (Bulgaria)', and 'Helping rural communities develop eco-awareness (Czech Republic)'. The second row includes: 'A school with the latest green technologies (Denmark)', 'Some houses save energy, but the greenest can even produce it (Germany)', and 'Using sea heat to power a museum (Estonia)'. The third row includes: 'Meet the firemen who are also fighting climate change (Ireland)', 'What goes up? A home elevator powered by the sun (Greece)', and 'Zero-energy decorations putting a shine on the festive season (Spain)'. At the bottom of the page, there is a 'JOIN US' section with social media icons for Twitter, Facebook, YouTube, and LinkedIn. The footer contains the text 'Last Update: 09-05-2012 | About this site | Legal notice | Contact | Data protection and social networks'.

Borderless mobility

- Eight partners from seven countries confirmed their will to cooperate in order to develop a transnational network of charging stations, granting drivers of electric vehicles an unlimited access to the electric grid in several countries. The Treaty of Vaals had been signed on 30th of March 2012 by e-laad.nl (NL), ladenetz.de (D), Blue Corner & becharged (B), Estonteco (L/B), Vlotte (A), ESBeCars (IRL) and Inteli/mobi.e (PT).
- In the long run international standards will make bilateral agreements between individual players obsolete. E-roaming and interoperability will stimulate competition and will help decreasing prices while raising the quality of products and services such as customer confidence.

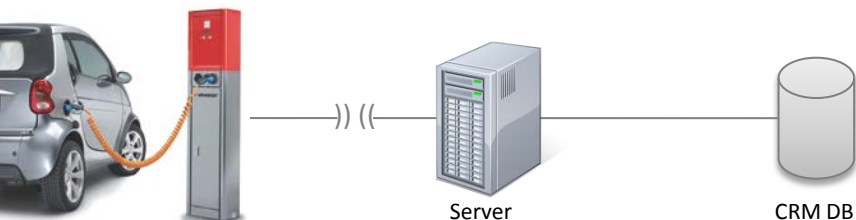


*Mr. Foeteler is the official Luxembourg delegate in the committees IEC/TC 69 Electric road vehicles and electric industrial trucks and ISO/TC 22 Road vehicles.



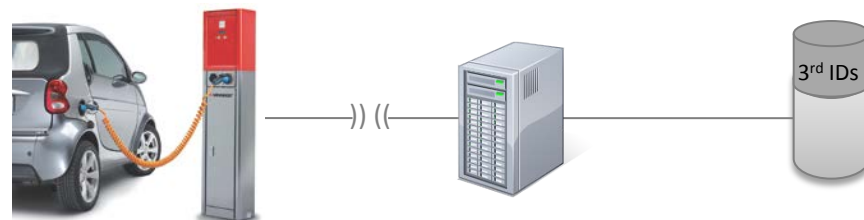
Stages of maturation

Proprietary



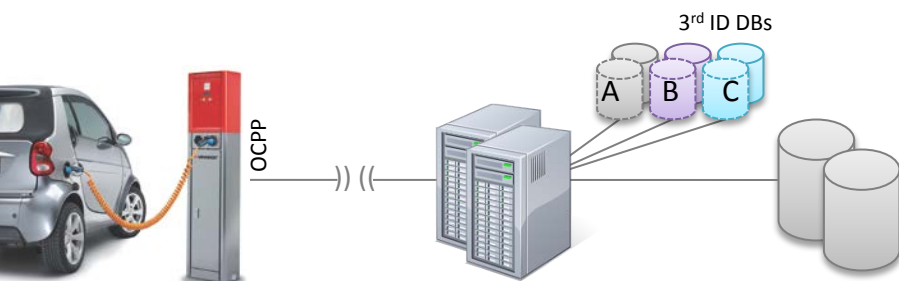
Proprietary combination of stations and central system.
Archaic approach, restricted to local/regional application.

Pragmatic



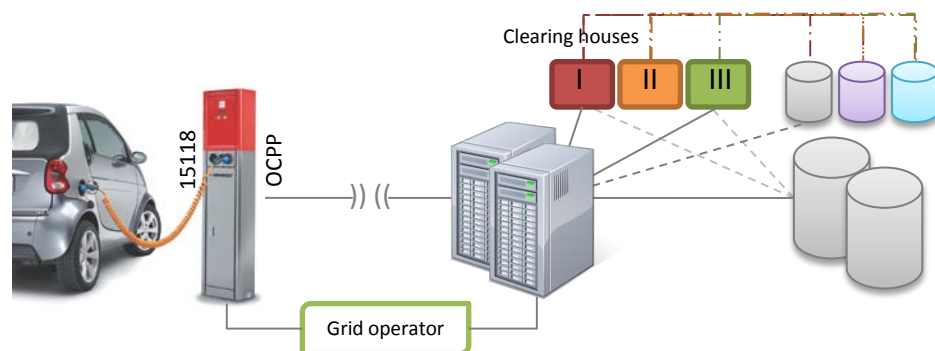
Inappropriate for multichannel operations & online validations.
Strongly dependent on single supplier; limited expandability.
Suitable as intermediate solution.

Proper



Open & extensible architecture, online data exchange with 3rd parties.
Complexity increases with B2B agreements.

Progressive



Online data exchange via specialized service providers.
Online or offline identification based on contract-ID (*LU-AAA-XXXXXX-P*).
Individual or generic commercial agreements.
Extensible & available, complexity reciprocal to standardization maturity.

Standardization

eMobility ICT Interoperability Innovation Group (eMI³)



- Under the umbrella of ERTICO, the eMI³ Innovation Platform is an open interest group of significant players in the global Electric Vehicles market. eMI³ has started to align the current fragmentation within the EV market to support mass market adoption.
- Members: ABB, Alliander, Bayerische Motoren Werke AG, BELECTRIC Drive GmbH, Betterplace, Blue Corner nv, Bosch Software Innovations GmbH, Chargepoint (Coulomb Technologies Inc), Circontrol, CISC, Critical Software SA, Daimler AG, EDF, e-laad, EnBW Operations GmbH, ENEL Distribuzione, Enexis, E.ON SE, ESB, Estonteco, Etrell d.o.o, EValu8 Transport Innovations Limited, FIR e.V. at RWTH Aachen, FITSA Foundation, Flemish Living Lab Electric Vehicle, FULLCHARGER International, Green eMotion Project, Hubeit GmbH, IBM Deutschland GmbH, INTELI - Inteligência em Inovação (MOBI.E), Mennekes, Mobi-europe, Navteq North America llc (Nokia), Nissan Europe SA, Panasonic, Renault SAS, SAP, Siemens AG, smartlab, TomTom International B.V., Greenlots (Zeco Systems Pte Ltd), 4is, art-reinhardt, Blue Mobility, Bridging IT GmbH, CGI, chargemaster plc, chargeyourcar, Clever, elektromotive, Endesa, EURELECTRIC, GIR, ihomer, INDRA, KEMA, MPSA, Novabase, plugsurfing, RWE, The New Motion, Volkswagen.
- Working groups:
 - User cases & services
 - Architecture & Interfaces
 - Business Objects & Identification
 - Communication Protocols





Thank you very much!

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