



European Green Cars Initiative

European Green Cars Initiative PPP Progress in the implementation

Strategy and Networking Event, 8 September 2011, Berlin

Günter Lugert

SIEMENS

Chairman of the EPoSS Executive Committee



PPP European Green Cars Initiative



- PPP in the **European Economic Recovery Plan**
(Factories of the Future, Efficient Buildings, Green Cars)
- Total Budget: **5 bn Euro** = 4 bn Euro Loans + 1 bn Euro RTD
- **PPP** of industry, member states and EC (50% funding)
- **Horizontal** activity (DGs Research, Infso, TREN, ENV, Enterprise)
- Implementation through **FP 7** (2010-2013)
- Major focus on **electrification** (appx. 2/3 of budget)
- **Climate protection** (with electricity from renewable sources)
- **Energy security** (Diversification of primary energy sources)
- **Zero local emissions**
- Global **competitiveness** of the automotive industry



Ad Hoc Industrial Advisory Group

Role:

- integration of involved sectors and European Commission services
- strategic dialogue between the EC and the industry
- implementation of the Green Cars Initiative as a PPP

Members, from ETPs ERTRAC, EPoSS, SmartGrids, EIRAC:



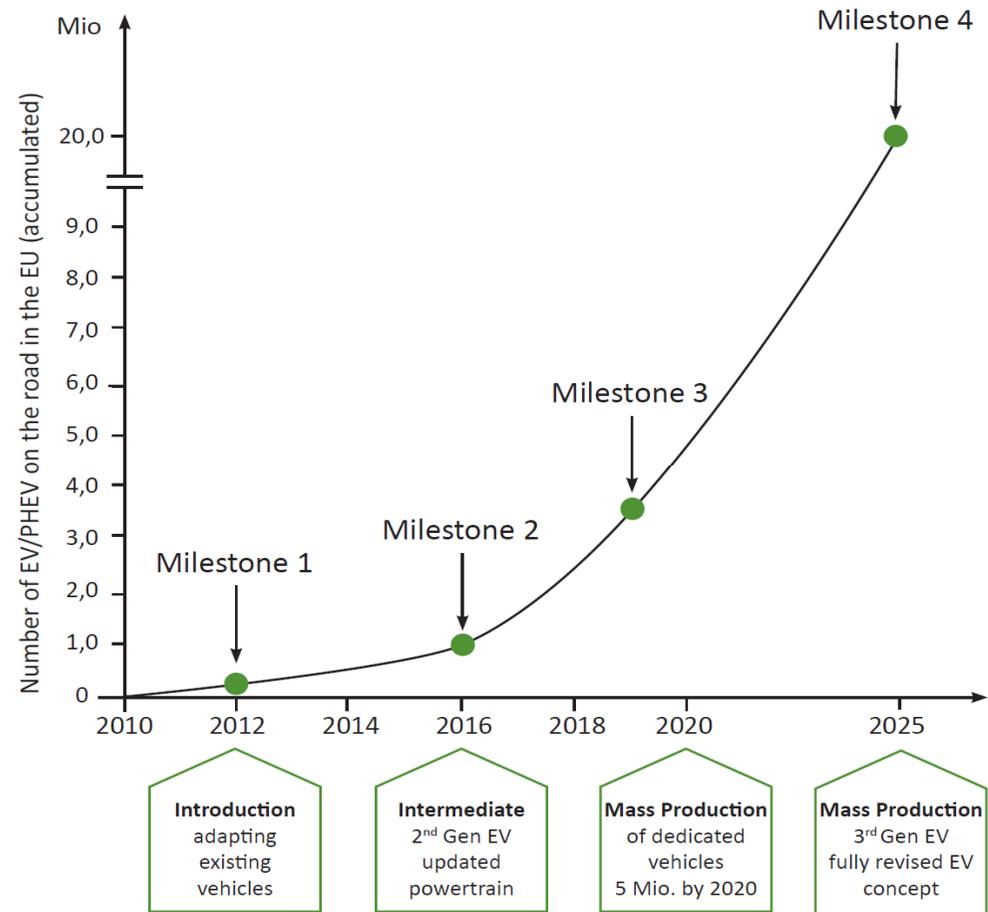
- AVL
- Bosch
- Continental
- ECT
- FEV
- Fiat Research Center
- Iberdrola
- IFP
- KU Leuven
- Procter & Gamble
- PTV
- Renault
- Ricardo
- Schachinger
- Siemens
- Valeo
- VDI/VDE-IT
- Volkswagen
- Volvo
- +
- DG RTD
- DG INF SO
- DG MOVE
- DG ENVI
- DG ENTR
- EIB



Electrification roadmap



**Drafted by
ERTRAC/EPoSS/SmartGrids**



Milestones



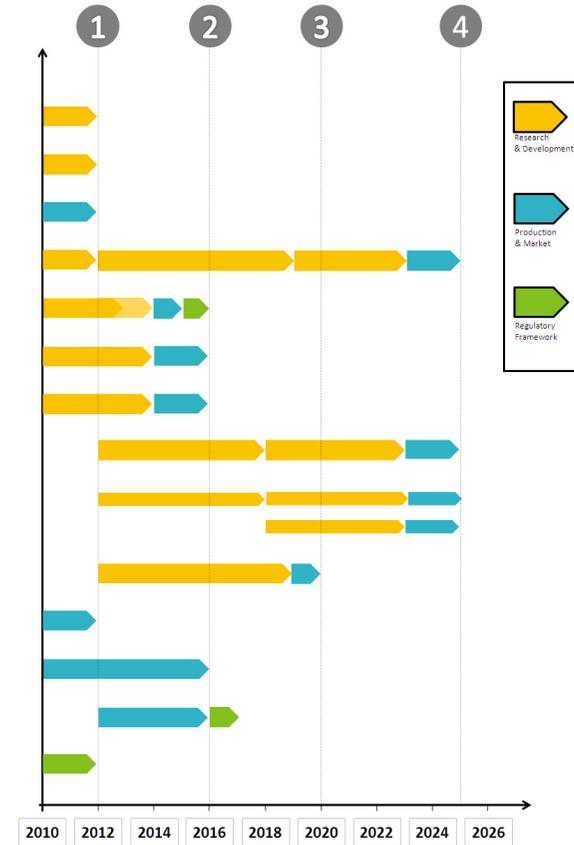
Electrification Roadmap



**Drafted by
ERTRAC/EPoSS/SmartGrids**

Energy Storage Systems

- Study Battery Cell Degradation
- Establish Battery Testing Facility
- Establish Facilities for Prototyping
- Develop Battery Management Systems
- Develop Recycling Processes for Li Batteries
- Cell Materials (Lifetime, Energy Density, Safety)
- Optimize Battery Packs
- Research on Post-Lithium Cell Technology
- Integrate New Batteries Into Vehicle Structure and Battery Management Systems
- Develop Batteries for Bidirectional Charging
- Assess Availability of Raw Materials
- Launch Battery Loan Program
- Develop Reuse Concepts for Batteries
- Set European Guidelines for Lifetime and Range



Technology Roadmaps



Technology Challenges

- **Energy Storage Systems**
(cost, performance, lifetime, safety)
- **Drive Train Technologies**
(energy recovery, range extenders)
- **System Integration**
(energy efficient interplay of components)
- **Grid Integration**
(charging, metering, renewables, V2G)
- **Safety**
(crashworthiness, HV, emergency)
- **Transport System Integration**
(road infrastructures, intermodal use)





Multi-annual Roadmap



3 EGCI priority areas:

- **Electrification**
- **Long Distance Truck**
- **Logistics and Co-Modality**

Multi-annual roadmap used by the Industrial Advisory Group to make recommendations for the Work Programmes.



Disseminations Activities

Project portfolio brochure



European Parliament public event





Conclusions from PPP Implementation

Despite having been set up in urgency, the PPP scheme has proven to be a model of **efficiency** and **speed**.

- **Experts** from different industries have quickly formed the Industrial Advisory Group, using the technology platforms.
- **Roadmaps** have been prepared quickly, in a joint effort.
- **Priorities** are set up annually, in an open cooperative approach between the industry members and the EC.
- As an **horizontal** activity, the PPP is implemented together by several services of the European Commission.

Flexibility and openness are added values to preserve.