



European Green Cars Initiative

Roadmaps, Projects And Future Plans of the European Green Cars Initiative PPP

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EU Policy for Clean Transport

- **Europe 2020 Strategy**
 - 20% cut of GHG emissions
 - 20% more renewable energy
 - 20% less energy consumption
(in 2020, compared to 1990)
- **Transport 2050 Strategy**
 - 60% cut of carbon emissions by 2050
 - 50% less conventionally fuelled cars in cities 2030
 - no more conventionally fuelled cars in cities 2050
- **EU Fleet Emission Standards for New Cars**
 - 130g CO₂/km (2012 – 2015, phase-in)
 - 95g CO₂/km (2020)





European Green Cars Initiative

- **Public Private Partnership (PPP)** in the European Economic Recovery Plan
- **Total budget:**
1 bn EUR for research and development (500 Mio EUR funding)
- PPP of industry and European Commission
- **Implementation** through the instruments of the 7th Framework Programme (2010-2013)
- **Goals:** climate protection, energy security, zero local emissions, safety, traffic fluidity, and global competitiveness of the automotive industry
- **Major focus** on electrification (ca. 2/3 of budget)



European Green Cars Initiative

- **Three Pillars:**
 - Electrification / Fully Electric Vehicle
 - Long Distance Trucks
 - Logistics and Comodality
- Implemented by **European Technology Platforms**



EPoSS
European Technology Platform
on Smart Systems Integration

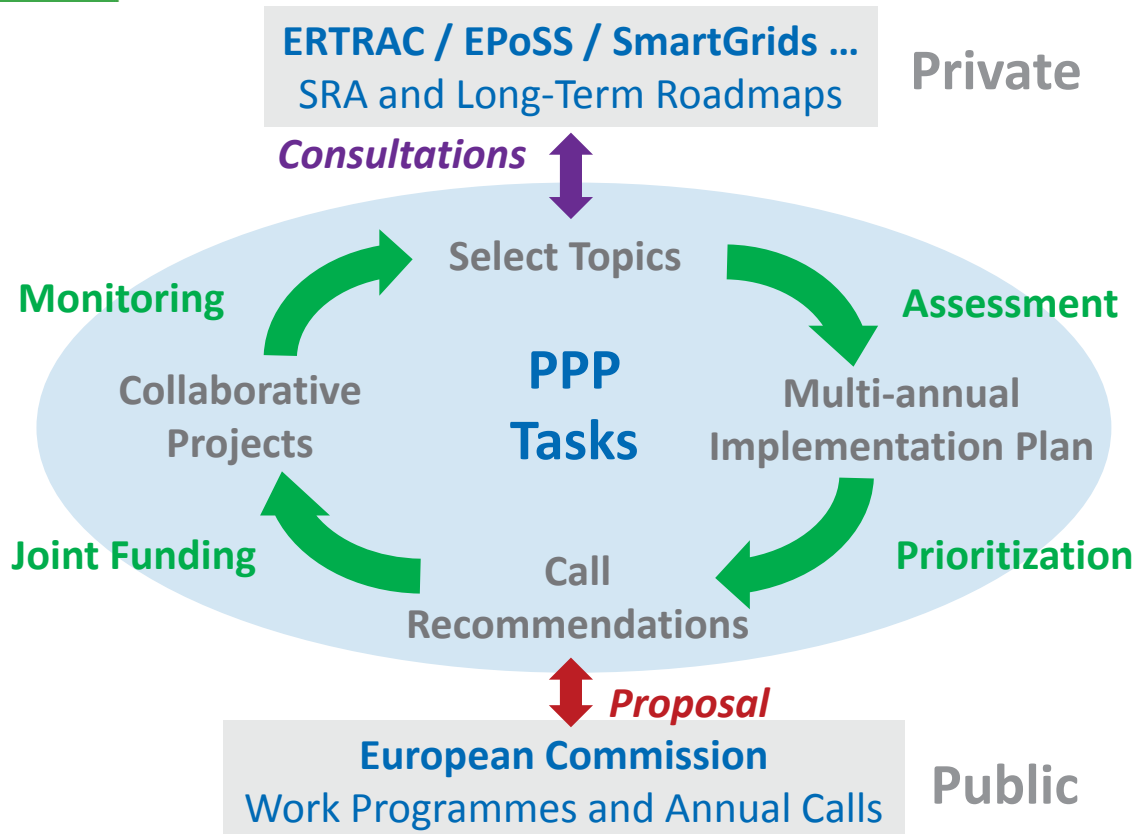


- **Industrial Advisory Board** established
- Supported by **Coordination Actions**

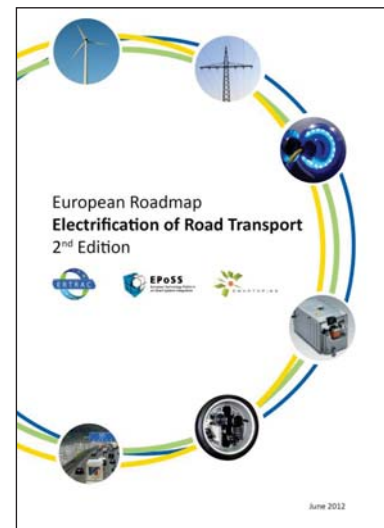
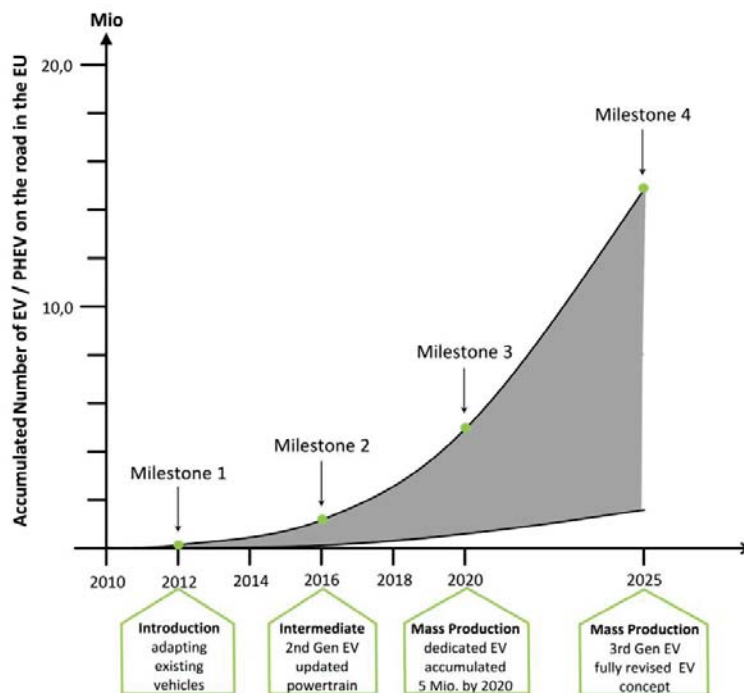




Public-Private Partnership



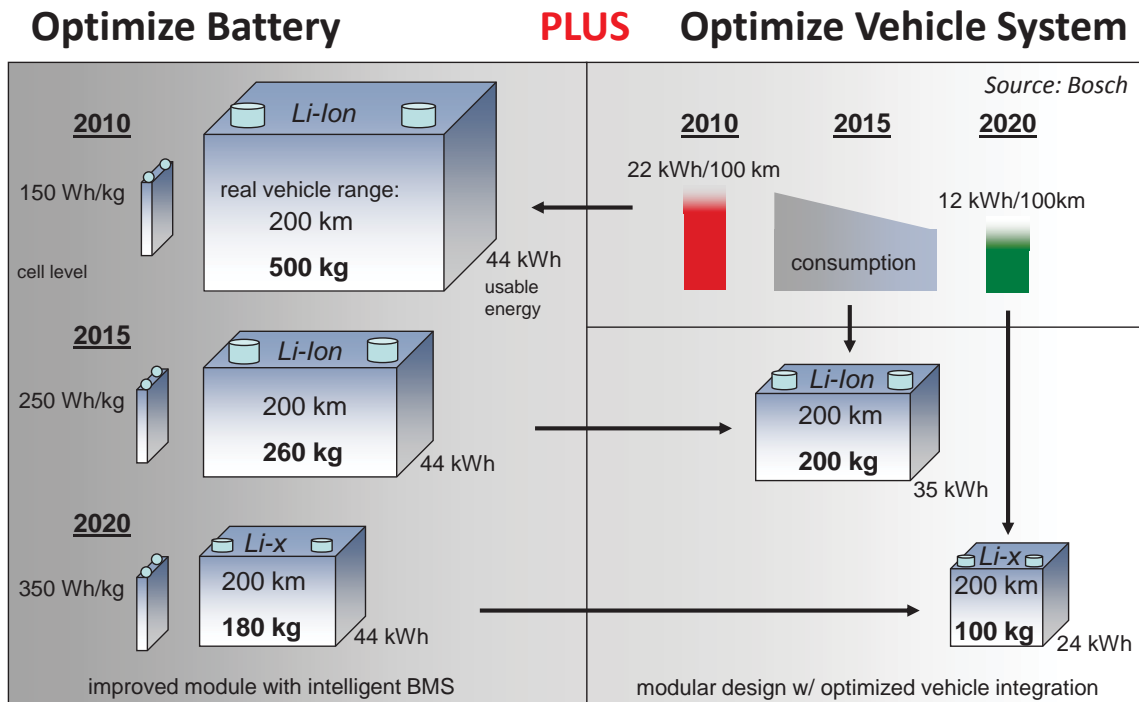
Electrification Roadmap



Drafted by an industrial task force
of ERTRAC, EPOSS, SmartGrids (2009, updated 2012)



Milestone 4 (2025)



Synergies in various technology fields lead to increased energy efficiency and cost reductions



Transversal Topics as Annexes

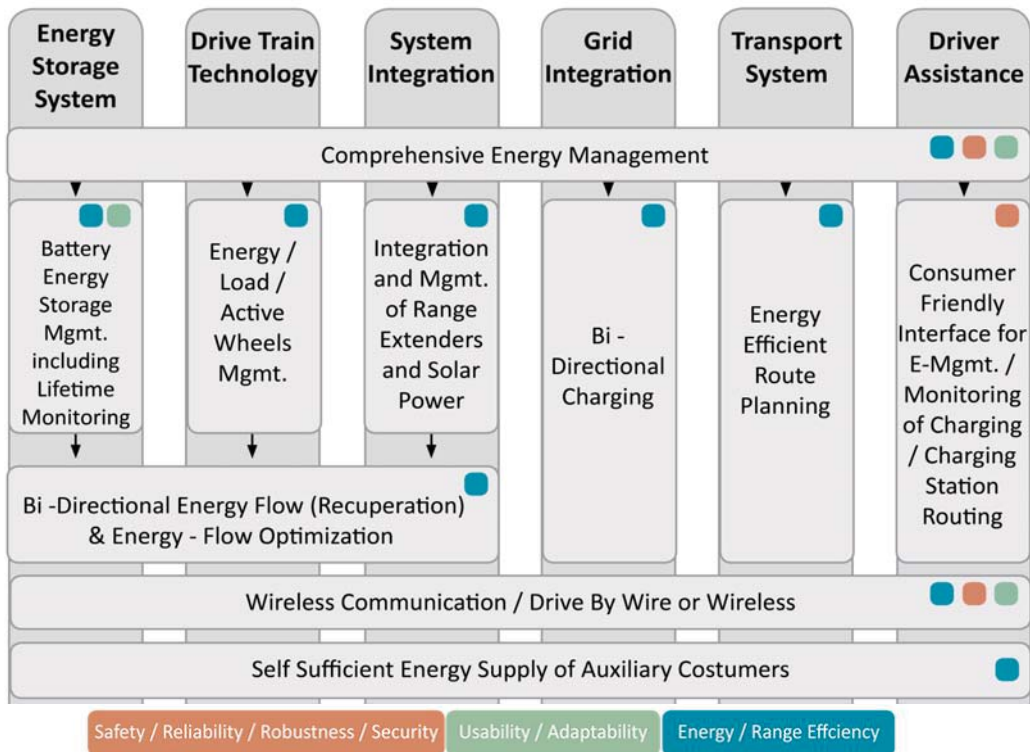
- Modelling & simulation (CAPIRE)
- **ICT for the FEV (ICT4FEV)**
- Grid Infrastructure (CAPIRE)
- Materials (CAPIRE/Smart EV-VC)



ICT for the FEV Roadmap



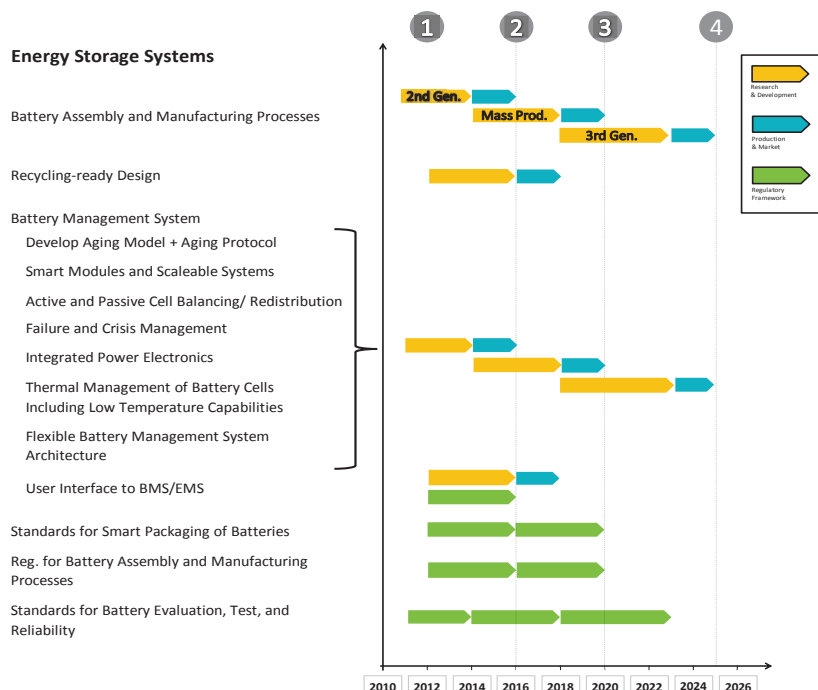
Enabling energy-efficient, safe and user friendly FEVs



ICT for the FEV Roadmap



Translation of Functionalities into critical ICTs and smart components & systems





Calls for Proposals

- **2009**
 - Electrical **Components** and **Machines**
 - **ICT** for the Fully Electric Vehicle
 - Electrochemical **Storage** Applications
 - Integrated **Demonstration** Project
- **2010**
 - **Safety** Issues of EV
 - **Manufacturing of Batteries** and Components
 - **ERA-Net+** Electromobility
 - Optimization of **Internal Combustion Engines**
 - Efficient **Logistics**
- **2011**
 - **Lightweight Materials**
 - **Smart infrastructures** and services
 - **Modeling and testing** for Safety of EVs
 - **Urban Freight** Electric Vehicles (Demo)



Calls for Proposals

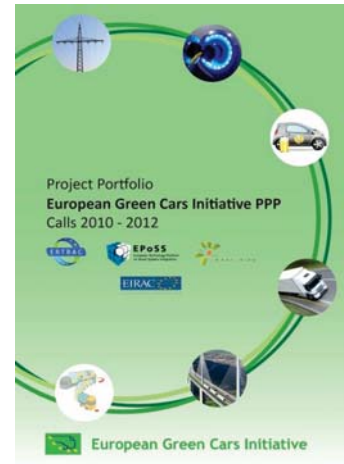
- **2012**
 - **Ageing resistant batteries**
 - Feasibility analysis and technological development of **on-road charging**
 - Next generation **electric motors**
 - Future **light urban electric vehicles**
 - Demonstration of **electric buses**
 - Advanced **System Architecture for FEV**
 - Comprehensive **Energy Management**
 - Configurable and adaptable **truck**
 - **Energy conversion** for heavy duty transport
 - Technical and operational connectivity in **intermodal freight transport**



Collaborative Projects

- 117 projects within the EGCI and related initiatives as ARTEMIS, ENIAC, CIP
- 99 dealing with electric mobility

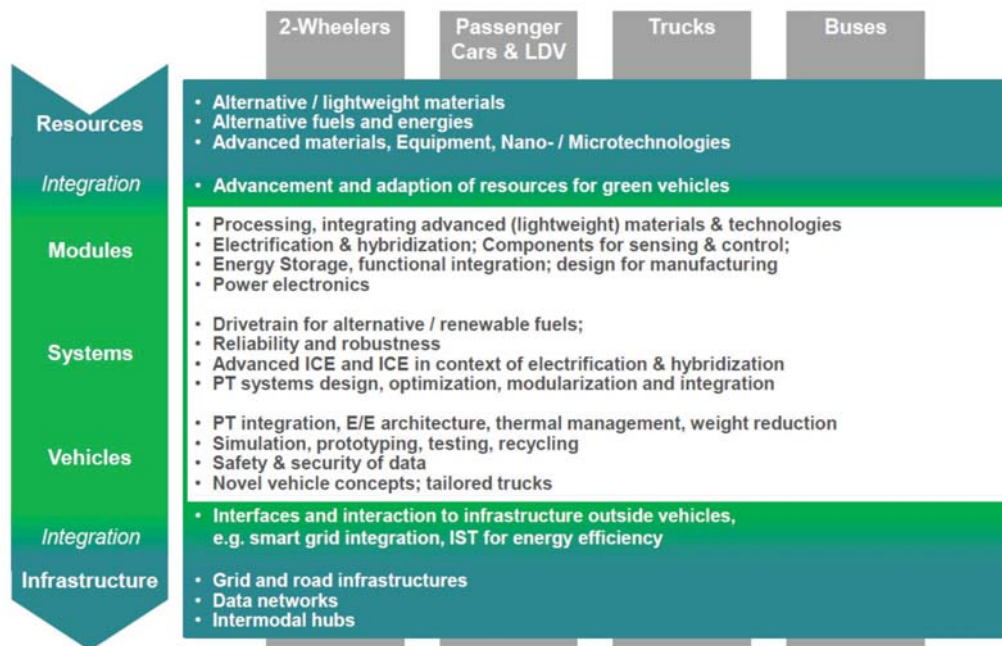
Topic	# of Projects
Energy Storage Systems	27
Drive Train Technologies	18
Vehicle System Integration	32
Grid Integration	17
Safety	9
Transport Syst. Integration	11



Project Portfolio
Update currently on-going



Continuation in Horizon 2020



European Green Vehicles Initiative PPP:
Energy Efficiency of Vehicles & Alternative Powertrains



Joint EC/EGCI Workshop

**EV Systems Architecture and Standardization Needs,
23 October 2013, Brussels**

Agenda

Session 1: Results of current research projects

Session 2: From R&D and innovation towards standardization

Session 3: Steps towards standardization and implementation

Posters of EGCI projects dealing with Components and Systems

Online registration: www.green-cars-initiative.eu
(in events section)



AMAA 2014 – Call for Paper

Smart Systems for Safe, Clean, and Automated Vehicles

- 23-24 June 2014, Berlin
- **Topics:** Driver Assistance & Vehicle Automation, Networked Vehicles, ITS & Road Safety, Green Power Trains & Vehicle Efficiency, Vehicle Electrification, Components & Systems
- **Abstract Submission: 1 November 2013**
- **Paper Submission: 1 February 2014**
- Conference Book will be published in Springer Series: Lecture Notes in Mobility
- **More information:** www.amaa.de



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www.green-cars-initiative.eu

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