



# EGVI

European Green  
Vehicles Initiative

## **EGVI PPP Multiannual Roadmap Information Day - Green Vehicles session**

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**21 October 2014 - Brussels**

- **The EGVI PPP Multiannual Roadmap is the document of reference for the EGVI PPP:**
  - Context, rationale and objectives
  - Research and innovation strategy
  - Expected impacts
  - Governance model
  
- Preparation based on **consultation process** launched in 2012, involving stakeholders from ERTRAC, EPoSS and SmartGrids
  
- Cross-sector approach based on **Roadmaps and Strategic Research Agendas** of the three European Technology Platforms



# Context behind the EGVI PPP

- Automotive and Smart Systems industries **key sectors** for Europe:
  - Automotive industry: 12 million direct jobs and over €500 billion/year in turnover
  - Smart Systems industry: 1 million direct jobs and €10 billion/year in turnover
  
- Vehicle market facing **pressing situation**:
  - lasting crisis situation in Europe shifts markets and profit generation to outside Europe
  - jobs under pressure from lower labour costs regions, political pressure and industrial policy outside Europe



# General Objectives of the EGVI PPP

- Research, development and demonstration of technologies to enable more energy efficient vehicles using alternative powertrains, strengthening the future competitiveness of the automotive industry, following **CARS 2020 Strategy**.
- Help to reach the **ambitious targets** set by the EU transport, energy and climate protection policies:
  - the 20/20/20 targets on renewable energy use,
  - the CO<sub>2</sub> emissions regulation,
  - the Euro emissions standards for road vehicles
- Match the transport needs within the EU with highly efficient and more flexible mobility products/services, by providing EU citizens with best-in-class technology, and matching with the **Grand Societal Challenges**, e.g. decarbonisation, safety, etc
- Support the policy goals of the **EU Transport White Paper** thanks to accelerated research, development and demonstration of technologies that allow the efficient use of clean energies in road vehicles



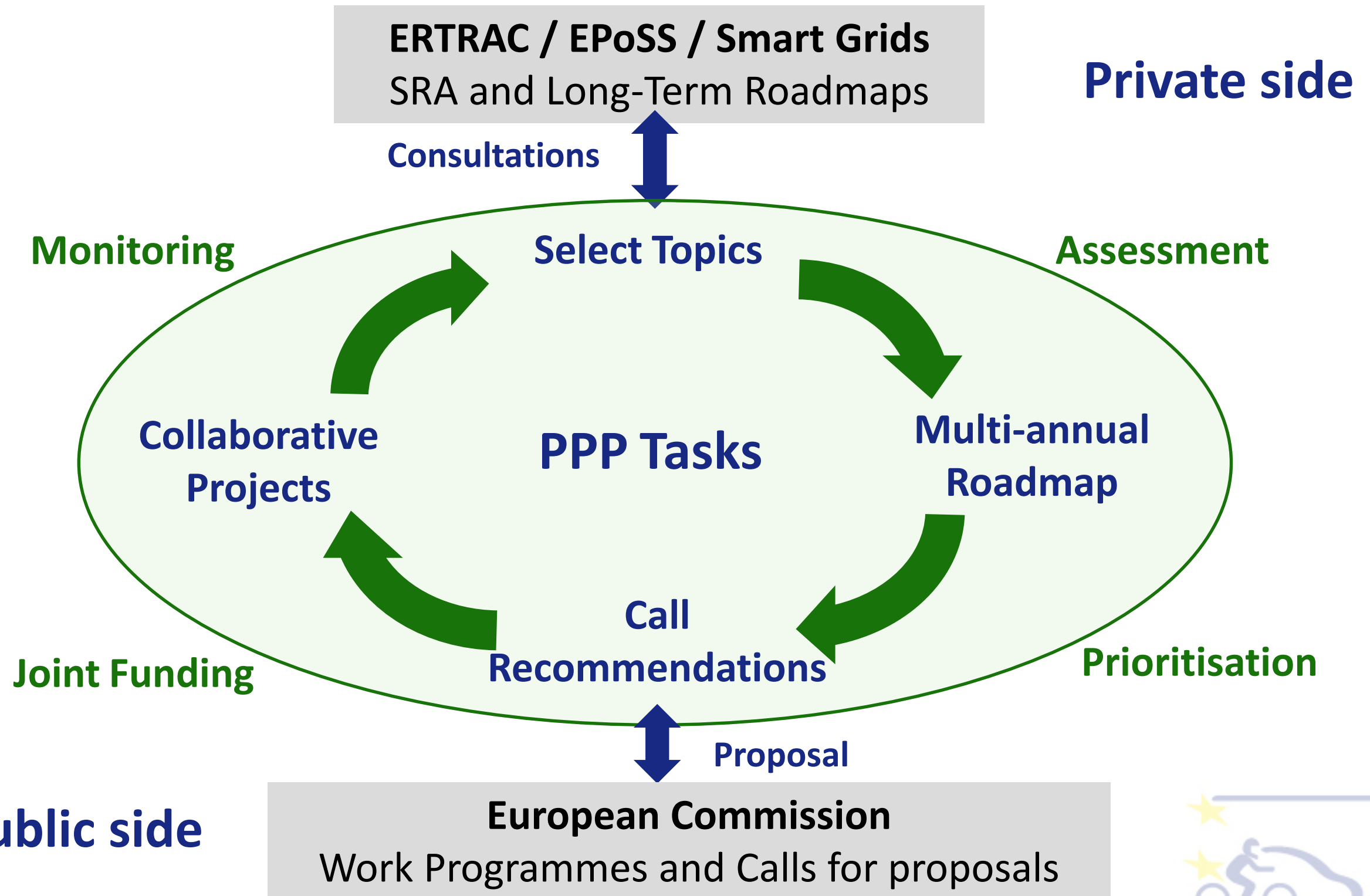
- Multi-annual implementation plan based on relevant **research and innovation roadmaps and strategic agendas** developed by the ETPs - ERTRAC, EPoSS and SmartGrids.
- Guiding objectives and milestones defined in the following documents:

- ERTRAC-EPoSS-SmartGrids joint roadmap Electrification of Road Transport
- ERTRAC roadmap European Technology and Production Concept for Electric Vehicles
- ERTRAC roadmap Hybridisation of Road Transport
- ERTRAC roadmap Light-duty Powertrains and Fuels
- ERTRAC roadmap Sustainable Freight System for Europe / Heavy Duty Truck
- ERTRAC roadmap European Bus System of the Future
- EPoSS Strategic Research Agenda chapter Automotive
- ERTRAC Strategic Research Agenda





# Implementation scheme



- **Covers all types of road transport vehicles:**
  - passenger cars
  - trucks
  - buses
  - L-category vehicles
  - new vehicle concepts
- **Defined goal and focus: energy efficiency of vehicles and alternative powertrains**



## Examples of topics contributing to the goal of the PPP:

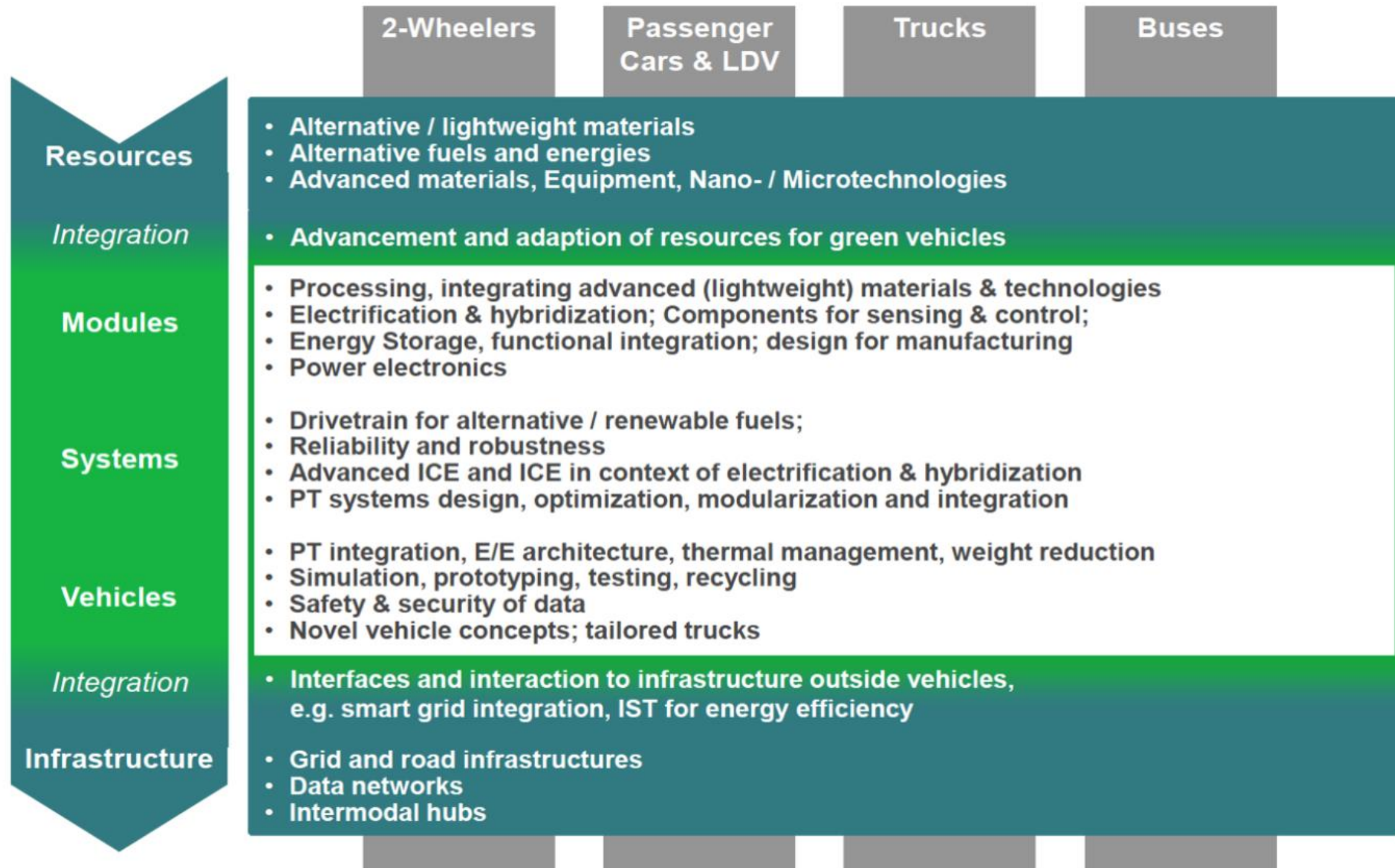
- Electrification and hybridisation of powertrains
  - Powertrain adaptation to renewable fuels
  - Functionality improvement of the vehicle
  - Reduction of the vehicle complexity and weight
  - Management of the thermal and other energy flows of the vehicle
- any **technological development** supporting these objectives at the relevant product layers of the value chain - from modules to systems and vehicles







# Example of technology content





# Expected Impacts of the PPP

- **Improvement of the energy transport system efficiency by 50% from 2010 to 2030, including:**
  - +80% energy efficiency of urban vehicles
  - +40% energy efficiency of long distance freight transport
  
- **Deployment of alternative powertrains like electric and plug-in hybrid technologies, according to milestones in 2016 and 2020 and matching respective performance parameters (cf. Electrification roadmap):**
  - 5 million electric & hybrid vehicles in the EU by 2020 (0.5 million by 2016)
  - battery life-time and energy density doubled, at 30% lower cost, in 2020 compared to 2009 Li-Ion technology



## Seven EGVI call topics in 2014:

- GV.1-2014. Next generation of competitive Li-ion batteries to meet customer expectations
  - GV.2-2014. Optimised and systematic energy management in electric vehicles
  - GV.3-2014. Future natural gas powertrains and components for cars and vans
  - GV.4-2014. Hybrid light and heavy-duty vehicles
  - GV.5-2014. Electric two-wheelers and new ultra-light vehicle concepts
  - GV.7-2014. Future alternative fuel powertrains and components for heavy-duty vehicles
  - NMP17-2014. Post lithium-ion batteries for electric automotive applications
- **Total EU funding for the 2014 EGVI Call: €129 Mn**





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# Second EGVI Call - topics 2015

## Two EGVI call topics for 2015:

- **GV.6-2015. Powertrain control for heavy-duty vehicles with optimised emissions**

*(Innovation Actions - EU contribution: EUR 5 to 7 million per project)*

- **GV.8-2015. Electric vehicles' enhanced performance and integration into the transport system and the grid**

*(Research & Innovation Actions - EU contribution: EUR 5 to 10 million per project)*

- **Total EU funding for the 2015 EGVI Call: €30 Mn**





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**Thank you for your attention!**

**More information? [www.egvi.eu](http://www.egvi.eu)**

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