

5th Meeting of the Electric Vehicles and the Environment Informal Working Group

Tokyo, 11 & 12 April 2013



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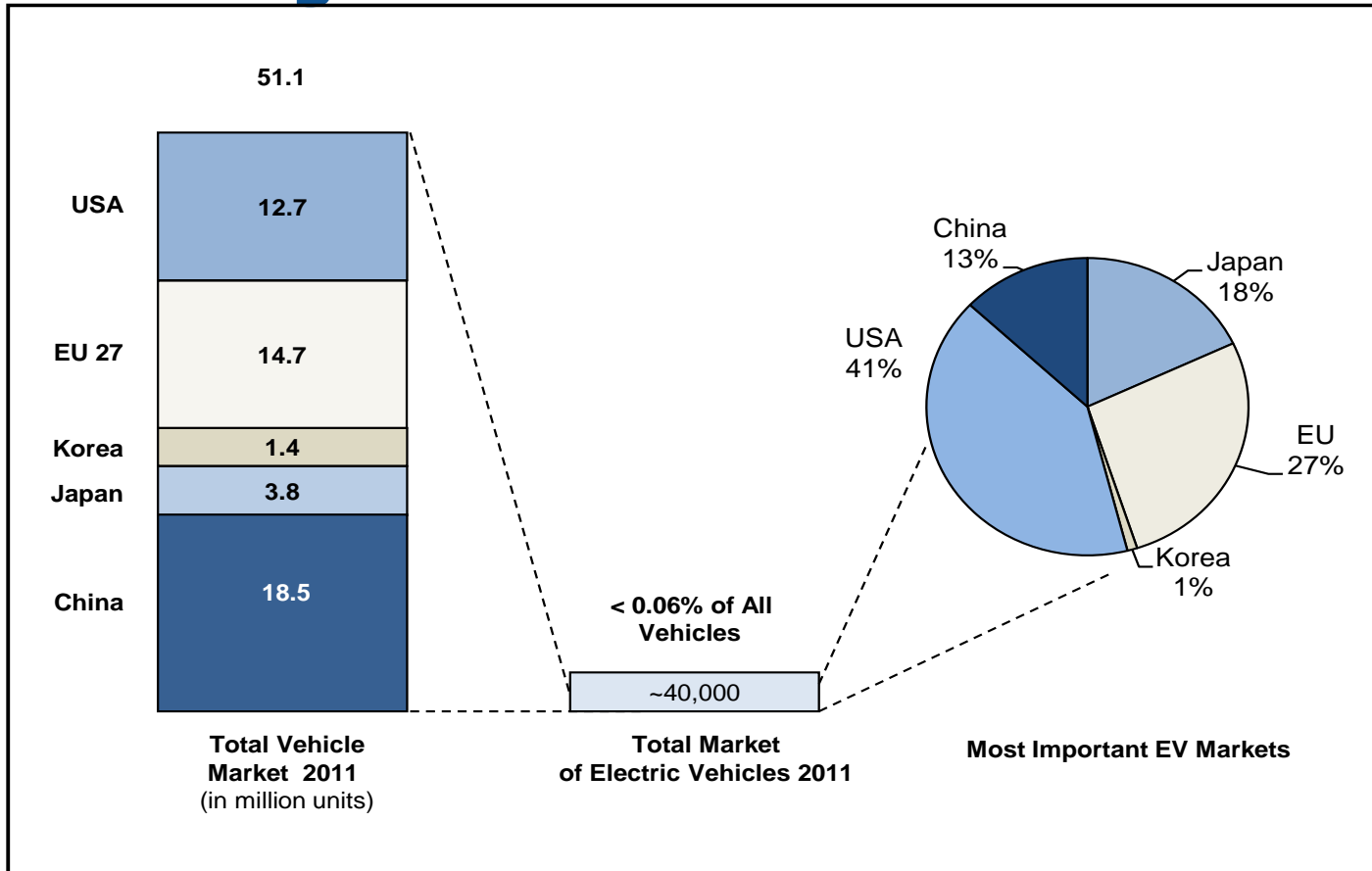
European Union Strategy for clean and energy-efficient vehicles

Electric vehicles in 2012

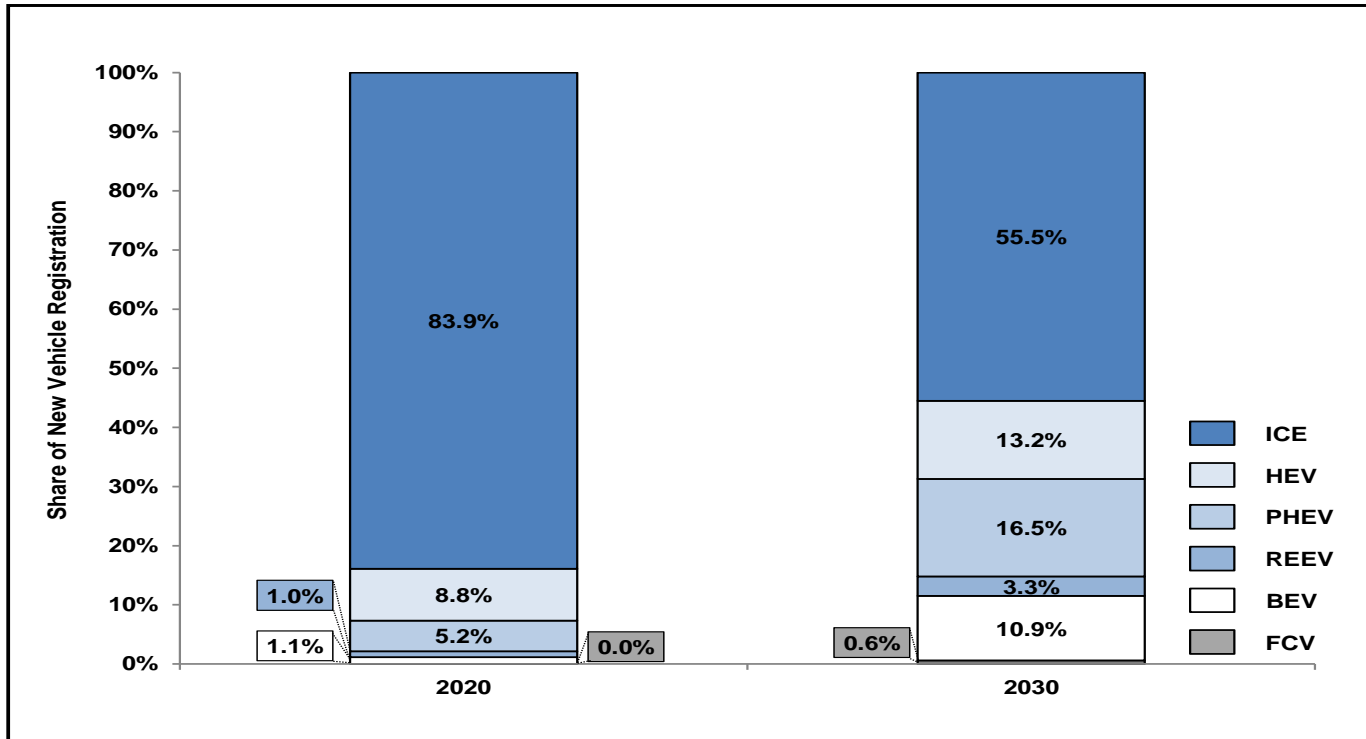
“reality check”

- Currently, registrations of new electric vehicles are very low - an average share of 0.06% in EU, USA, Japan, South Korea and China
- 11.000 electric vehicles sold on WE markets in 2011
- “conversion design” still predominant
- Electric vehicles are still very expensive
- Pilot project and test-fleets are still predominant
- Impact of the crisis?
- Revision of public and industrial targets
- BUT market participants believe that there is “no going back” from electromobility

Current global sales of electric vehicles



EU27 Electric Vehicle Registrations in 2020 and 2030



- In the EU: 7% market share for electric vehicles expected in 2020 and 31% in 2030



European policy for electric vehicles “reality check” and new actions

- Implementation of the European strategy for clean and energy-efficient vehicles
 - ***Investment in RDI***
 - ***Type-approval framework and standards***
 - ***Legislative framework***
 - ***Pilot projects***
- CARS 21 High-Level Group working over 2010-2012 (e-mobility prominently discussed)
- CARS 2020 Action Plan

European Strategy on clean and efficient vehicles

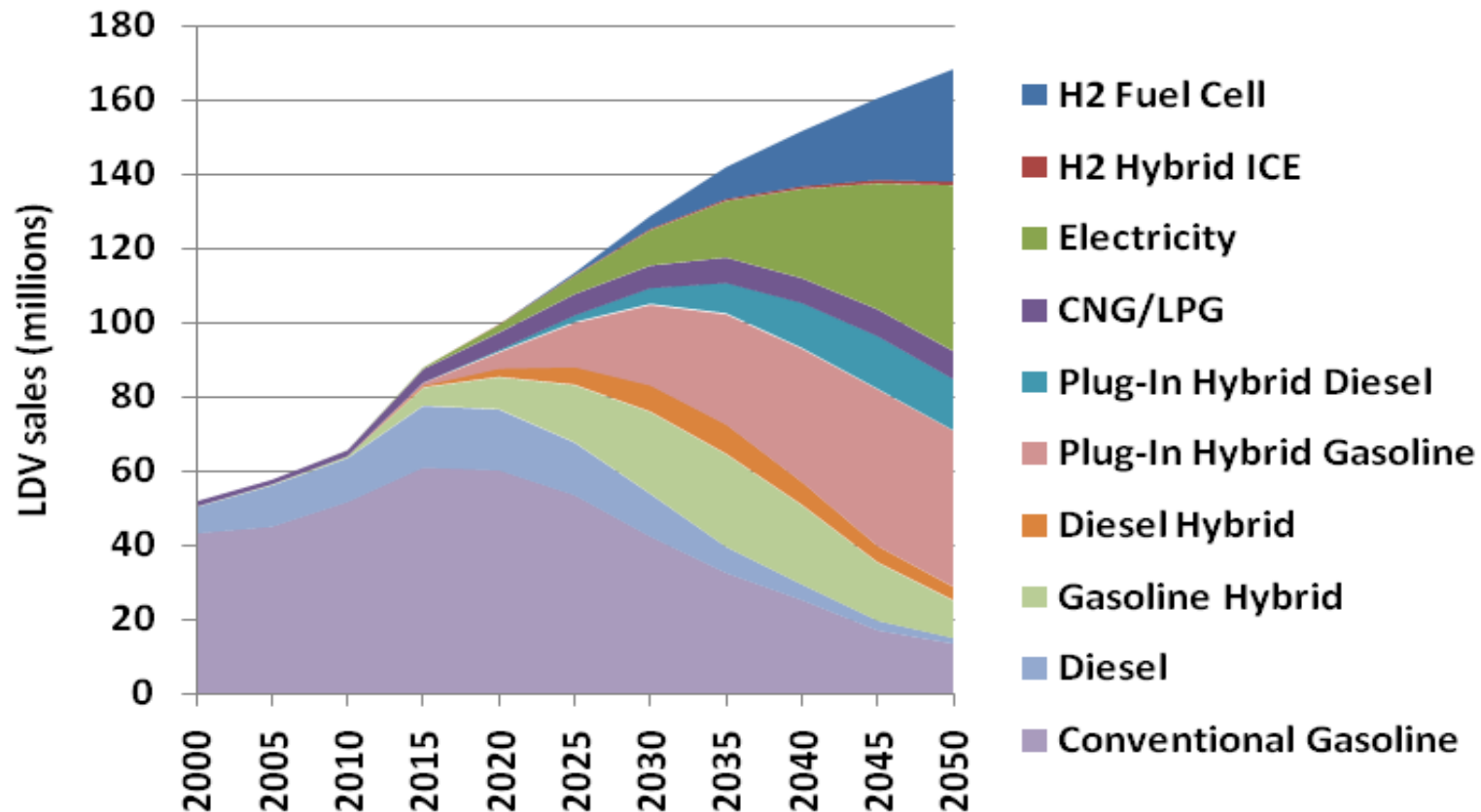
- European Strategy adopted in May 2010
- Part of the European response to the financial/economic crisis of 2008/2009
- Provides a **public policy** framework for the support to the development of alternative technologies in the automotive sector
- With the main objective to stimulate the **competitiveness** of the European auto industry and promote **sustainable mobility**

European Strategy on clean and efficient vehicles

- *The European Strategy contributed to guide the European debate on:*
 - the measures to promote the decarbonisation of transport, low emissions
 - the changing preferences of consumers (need for industry adaptation and innovation)
 - How to safeguard the functioning of the European internal market during crisis periods (avoid the risk of protectionism)
- *The Strategy maintains its interest: the recovery (to pre-crisis levels) is not expected before 2013-2014*
- *Green technologies have a central role in sustainable development in Europe*

Importance of green technologies

Which green technologies?



Source: International Energy Agency

European strategy on clean and efficient vehicles

- **The Strategy defends a two-track approach, assuring technology neutrality:**
 - *Promotion of technologically advanced and fuel efficient vehicles to be put on the market in near future*
 - Focus is on the **combustion engine** in 2020 perspective
 - Increased use of sustainable bio-fuels, gaseous fuels
 - *European road map and action plan for promoting and facilitating the emergence and proliferation of breakthrough technologies*
 - Main focus is on **electric vehicles** (plug-in hybrids and fully electric)
 - **Hydrogen-powered** vehicles

European strategy on clean and efficient vehicles

Specific actions for the deployment of Electric Vehicles:

- *Placing of electric vehicles on the market*
- *Standardisation*
- *Synergies between renewable energies and electric vehicles*
- *Infrastructure development*
- *Recycling and transportation of batteries*

European strategy on clean and efficient vehicles

- Main actions under development refer to the **Regulatory Framework for Electric vehicles:**
 - The main objective: ensuring the **safety** of electric vehicles
 - The main trend: preference for an **international approach to standardisation:**
 - to create an international level-playing field for these new technologies, and
 - to provide clarity for vehicle and components manufacturers and gaining confidence of consumers

European strategy on clean and efficient vehicles

- **Regulatory Framework for Electric vehicles:**
 - **How?**
 - Via the updating of the **regulatory framework** to the existence of electric vehicles – this is done in UNECE WP.29 (World Forum for Harmonization of Vehicle Regulations): and adopted by the European Union (*type-approval framework directive*)
 - Via the adoption of a specific Regulation on the safety of electric vehicles: **UNECE Regulation 100**
 - Via the work on safety requirements for **batteries** (also under UNECE 1998 Agreement)



European strategy on clean and efficient vehicles

Updating and completing the regulatory approach to electric vehicles - under 1958 Agreement (UNECE):

UNECE Regulation N°100 [series 00] on Electric powertrain vehicles

Regulation 100 amended & revised [Series 01] to cover all M & N category vehicles, specifies electric safety requirements (protection against electric shocks). Compliance for new types: **end 2012**, for all new vehicles 2014.

Crash Safety: Existing Regulations 12, 94 & 95 amended to cover electric powertrain vehicles.

Braking systems: adaptation of Regulation 13

Batteries: informal Group on **Rechargeable Energy Storage Systems (RESS)** – [series 02] amendments to Regulation 100

European strategy on clean and efficient vehicles

The global approach:

UNECE initiative on Electric Vehicles:

- ***Two informal working groups set up under UNECE 1998 Agreement (November 2011)***
 - (1) ***safety aspects*** of electric vehicles and their components, including the batteries (safety of occupants against electric shocks in-use, while recharging as well as after an accident,
 - (2) ***environmental aspects*** of regulations applied to electric vehicles
- *Initiative of EU, USA, Japan and China*

European strategy on clean and efficient vehicles

The global approach:

Objectives of the UNECE initiative on Electric Vehicles:

- *Convergence of regulatory obligations related to electric vehicles in the global context:*
 - Electric vehicles are still produced in relatively small volumes in the different parts of the globe
 - Regulatory convergence can enhance competitiveness and control costs (still one of the deterrents for consumers)
 - *While reinforcing the safety of these vehicles – essential to build confidence in this new technology*
- > a **shared objective** for all producing countries/regions



Communication CARS 2020

- CARS 2020 Action Plan adopted on 8 November
- Building on CARS 21 High-Level Group vision and recommendations
 - ***High-Level Group launched in 2010***
 - ***7 Commissioners involved, 9 Member States and a number of stakeholders***
 - ***Final Report adopted on 6 June***
 - ***Electro-mobility discussed under « new mobility solutions »***
- Implementation of new industrial policy
 - ***Communication "A Stronger European Industry for Growth and Economic Recovery" adopted on 10 October***
 - ***The need to re-industrialise Europe***
 - ***Application of horizontal policy in sectoral setting***
 - ***Coordination on electro-mobility to be performed by the Commission***
- The need to react to current economic crisis

Four pillars of the Action Plan

I. Investing in advanced technologies and financing innovation

- *European Green Vehicles Initiative under Horizon 2020*
- *Legislative proposal on alternative fuel infrastructure (recharging interface)*

II. Improving market conditions

- *Coordination of financial incentives for « green » vehicles put in place by EU Member States*

III. Enhancing competitiveness on global markets

- *Work on global standard (GTR) for electric vehicles safety*
- *Work on WLTP*

IV. Anticipating adaptation



Conclusions

- ✓ Reality check for electro-mobility but outlook still positive
- ✓ “no going back from electro-mobility”
- ✓ Progress in implementation of the 2010 strategy
- ✓ EU type-approval framework for EV now in place
- ✓ Development of global technical requirements under the UNECE 1998 Agreement
- ✓ CARS 2020 Action Plan to be implemented (EV charging standard, infrastructure roll-out, research framework, etc)
- ✓ One of the responses to the crisis = invest in innovation
- ✓ European Commission proposed the Action Plan.
EU Member States and stakeholders are encouraged to take complementary actions

Thank you for your attention!



For more information:

http://ec.europa.eu/enterprise/sectors/automotive/index_en.htm