



European Alternative Fuels Observatory & EU funding / financing opportunities Urban Mobility

Bert Witkamp, AVERE

5th E-Bus Conference Berlin, May 31st 2016



Platform for the
Electrification of
Transport

AVERE LEV Task
Force

SUBAT

ELEDRIE

HarmonHy

IEA INTERNATIONAL ENERGY AGENCY
HYBRID & ELECTRIC
VEHICLE
IMPLEMENTING
AGREEMENT



EAFO: EU Commission vision and objectives

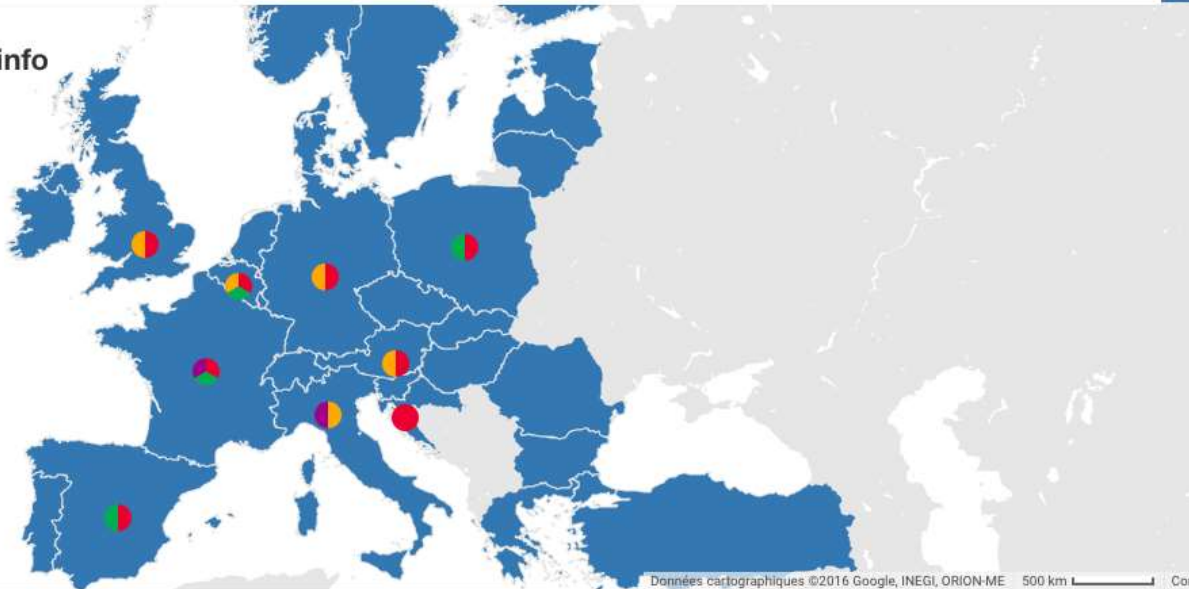
www.eafo.eu (please subscribe to newsletter!)

- EAFO will be 'the' reference point for information about alternative fuels in Europe to support the implementation of the Directive for Infrastructure for AF (electricity, H2, NG).
- All EU Member States + EFTA members + Turkey.
- The Observatory will integrate relevant data, information, news items, newsletters and other publications. Priorities : 1) electromobility, 2) hydrogen and LNG/CNG (= Directive timing)
- Target groups: 1) policymakers at all levels, 2) business actors total supply chain, 3) NGO's and other stakeholders
- National level data and information:
 - Passenger cars: update monthly
 - Buses, trucks, light electric vehicles: every 3 months (if data available)
 - Infrastructure: every 3 months
 - Legislation, incentives: updated when it changes
- City / regional data: factsheets with city specific information (10-20 in scope)





Get detailed alternative fuel info



Latest News



Top 25 Electric Cars In Europe

Wed, 01/13/2016 - 13:08

I love looking at the Dutch, French, German, and Norwegian electric car sales data, but looking at the bigger European picture is where the real fun is.

[READ MORE](#)

Recent Events

- ★ **2016 AVERE E-Mobility Conference**
Tuesday, April 12, 2016 to Wednesday, April 13, 2016
Amsterdam, The Netherlands
- ★ **EEVC 2015**
Wednesday, January 13, 2016

European Alternative Fuels Observatory (EAFO) project:

- Data collection: together with national administrations and other key stakeholders
- Dissemination of data and information (website, newsletters, conferences,..)
- Data analyses: via newsletter for short analyses and **R&D reports for in-depth research.**
- Policy recommendations to the EU Commission and Member States
- Country / city information & objectives concerning alternative fuels

Objective is to make EAFO a joint project of all interested parties to get the best possible result

We will not make use of data sources for which we will have to pay to get access and/or where the use of the data is restricted

Planning EAFO 2016

- Q1, 2016:
 - Newsletters, site live (PEV (M1, N1, Infra), incentives, news items, events, Knowledge Center, Twitter)
- Q2, 2016:
 - **e-Buses (including trolley, hybrids, fuel cell), city level, data needed!**
 - Car models info PEV, FCEV, NG
 - Hydrogen filling: vehicle statistics, infrastructure (city level)
 - Natural Gas (LNG, CNG): infrastructure, vehicle statistics
- Q3, 2016
 - City fact sheets (pilot)
 - Start of R&D work based on EU / country priorities
- **Eafo.eu updates:**
 - Newsletters, M1/N1 vehicles every month!
 - All other statistics: every quarter
 - All other information: when available

EU Vehicle categories

- **Motor vehicles with at least four wheels:**
 - Category M: used for the carriage of passengers
 - Category M1: no more than eight seats in addition to the driver seat (“passenger cars”)
 - Category M2: more than eight passenger, having a maximum mass not exceeding 5 tonnes (“small buses”)
 - Category M3: having a maximum mass exceeding 5 tonnes
 - Category N: used for the carriage of goods (trucks):
 - Category N1: having a maximum mass not exceeding 3.5 tonnes
 - Category N2: having a maximum mass exceeding 3.5 tonnes but not exceeding 12 tonnes
 - Category N3: having a maximum mass exceeding 12 tonnes
- **Light motor vehicles with 2 or more wheels** (see annex for detailed description):
 - Category L1: A two-wheeled vehicle with an engine < 50 cm³ and speed not exceeding 50 km/h.
 - Category L_e: A three-wheeled vehicle <50 cm³ and speed not exceeding 50 km/h.
 - Category L4:
 - Category L3: A two-wheeled vehicle > 50 cm³ or maximum design speed exceeding 50 km/h.
 - Category L5: A vehicle with three wheels >50 cm³ or maximum design speed exceeding 50 km/h.
 - Category L6: A vehicle with four wheels <425 kg, excl batteries in case of electric vehicles, speed <45 km/h, and <50 cm³, <4 kW
 - Category L7: A vehicle with four wheels, other than L6, <450 kg (600 kg for vehicles for carrying goods), excl batteries, <15 kW.

EAFO City AF factsheets

“for cities by cities”

- Purpose of city factsheet is to inform other cities on alternative fuel developments
 - To learn from each other
 - To provide best practices & contacts
 - To provide data at Country and European for dissemination and analyses
 - *And of course to make some publicity for the city as well*
-
- Data on Hydrogen infrastructure and e-buses will also be collected on city level

Develop together with cities !!

E-Buses: transforming cities

energy efficient, zero emission, low noise

- Which « e-buses »
 - Trolley buses
 - Battery electric buses
 - Plug-in hybrid electric buses
 - Fuel cell electric buses
 - Electric trambus
 - Any combination of the above or other vehicle types?
- Which data are we looking for?
 - Type of drivetrain
 - Type of bus (length, other characteristic?)
 - Manufacturer
 - Range, battery capacity, power, charging method/speed
 - City (operator)
 - Total # buses (public transport) per city
- Who can provide reliable information in a timely manner (update per quarter)
- How to get the historic data?
- Working together with direct stakeholders!



EU funding and financing opportunities for urban mobility and alternative fuels

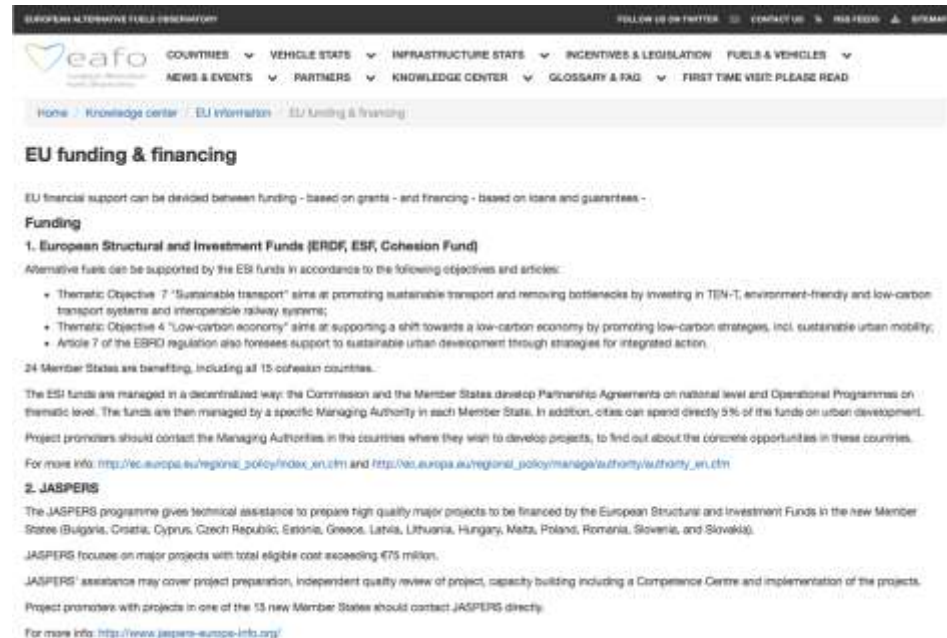
European Commission

Funding opportunities – grants + technical/advisory services:

1. European Structural and Investment Funds
2. JASPERS & Fi-Compass
3. INTERREG
4. URBACT III
5. Innovative actions in sustainable urban development
6. LIFE
7. European Energy Efficiency Fund
8. Fuel Cell and Hydrogen Joint Undertaking
9. Connecting Europe Facility (+CEF debt instrument)
10. Horizon 2020

Financing opportunities - loans & guarantees + technical/advisory services:

11. EIB loans and guarantees
12. European Fund for Strategic Investments
13. ELENA
14. JESSICA
15. COSME
16. SME Finance Instrument



The screenshot shows the EAFO website with a dark header and a light main content area. The header includes the EAFO logo and navigation links for countries, vehicle states, infrastructure states, incentives, legislation, fuels, vehicles, news, events, partners, knowledge center, glossary, and a first-time visitor guide. The main content area is titled 'EU funding & financing' and discusses EU financial support, funding objectives, and the JASPERS programme.

EUROPEAN ALTERNATIVE FIELD OBSERVATION

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eafo
European Alternative Field Observation

COUNTRIES VEHICLE STATE INFRASTRUCTURE STATE INCENTIVES & LEGISLATION FUELS & VEHICLES
NEWS & EVENTS PARTNERS KNOWLEDGE CENTER GLOSSARY & FAQ FIRST TIME VISIT: PLEASE READ

Home Knowledge center EU information EU funding & financing

EU funding & financing

EU financial support can be divided between funding - based on grants - and financing - based on loans and guarantees -

Funding

1. European Structural and Investment Funds (ERDF, ESF, Cohesion Fund)

Alternative funds can be supported by the ESI funds in accordance to the following objectives and articles:

- Thematic Objective 7 "Sustainable transport" aims at promoting sustainable transport and removing bottlenecks by investing in TEN-T, environment-friendly and low-carbon transport systems and interoperable railway systems;
- Thematic Objective 4 "Low-carbon economy" aims at supporting a shift towards a low-carbon economy by promoting low-carbon strategies, incl. sustainable urban mobility;
- Article 7 of the ERDF regulation also foresees support to sustainable urban development through strategies for integrated action.

24 Member States are benefiting, including all 15 cohesion countries.

The ESI funds are managed in a decentralized way: the Commission and the Member States develop Partnership Agreements on national level and Operational Programmes on thematic level. The funds are then managed by a specific Managing Authority in each Member State. In addition, cities can spend directly 5% of the funds on urban development. Project promoters should contact the Managing Authorities in the countries where they wish to develop projects, to find out about the concrete opportunities in these countries. For more info: http://ec.europa.eu/regional_policy/index_en.htm and http://ec.europa.eu/regional_policy/manage/authority/authority_en.htm

2. JASPERS

The JASPERS programme gives technical assistance to prepare high quality major projects to be financed by the European Structural and Investment Funds in the new Member States (Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Greece, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia, and Slovakia).

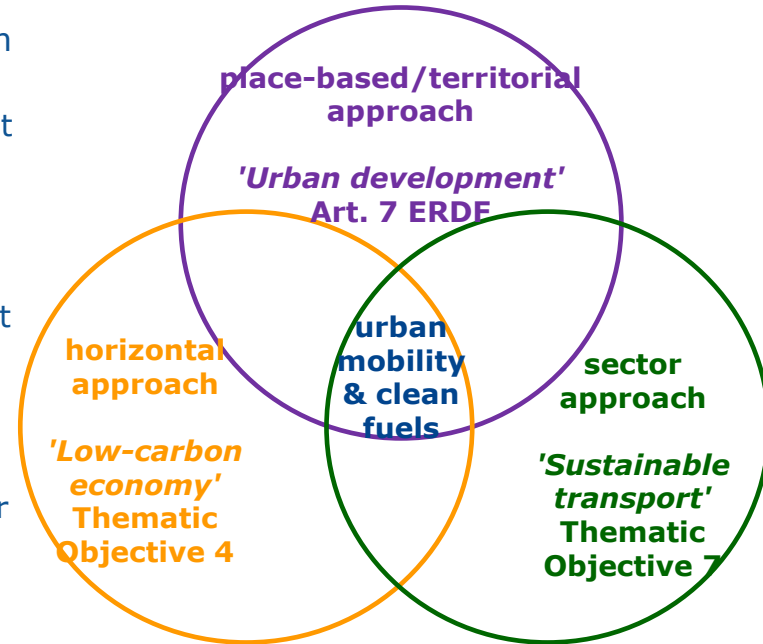
JASPERS focuses on major projects with total eligible cost exceeding €75 million.

JASPERS' assistance may cover project preparation, independent quality review of project, capacity building including a Competence Centre and implementation of the projects. Project promoters with projects in one of the 15 new Member States should contact JASPERS directly.

For more info: <http://www.jaspers-europe-info.org/>

1. European Structural and Investment Funds (ERDF, ESF, Cohesion Fund)

- Urban mobility and alternative fuels are covered in the Ops under either:
 1. Thematic Objective 7 "Sustainable transport": aims at promoting sustainable transport and removing bottlenecks by investing in TEN-T, environment-friendly and low-carbon transport systems and interoperable railway systems
 2. Thematic Objective 4 "Low-carbon economy": aims at supporting a shift towards a low-carbon economy by promoting low-carbon strategies, incl. sustainable urban mobility
 3. Article 7 of the ERDF regulation: foresees support to sustainable urban development through strategies for integrated action



10. Horizon 2020 "Smart, Green and Integrated Transport"

- Projects require cooperation between min 3 countries
- Mobility For Growth are the CIVITAS projects and also covers alternative fuels
- Calls for 2017 will include: **follow them (opening in Sept 2016)**
 - MG4.1-2017 Increasing the take-up and scale-up of innovative solutions
 - MG4.2-2017 Supporting smart electric mobility
 - MG4.3-2017 Innovative approaches for integrating urban nodes
- InnovFin is available to support with a set of financial instruments covering innovative SMEs, mid-caps and large corporate



11. European Investment Bank loans and guarantees

- Direct loans and guarantees for large-scale projects (> €25 million)
- Intermediated loans and guarantees for small and medium-scale projects, via national and regional intermediary banks
- **Contact EIB or your national or regional bank directly with your project**



13. ELENA

- Is a **technical assistance** programme covering up to 90% of the technical support costs to prepare large energy efficiency and renewables projects
- Helps get financing especially from private investors
- The Commission is giving ELENA €15 million for the transport sector over 2016-2020

<http://www.eib.org/products/advising/elena/index.htm>

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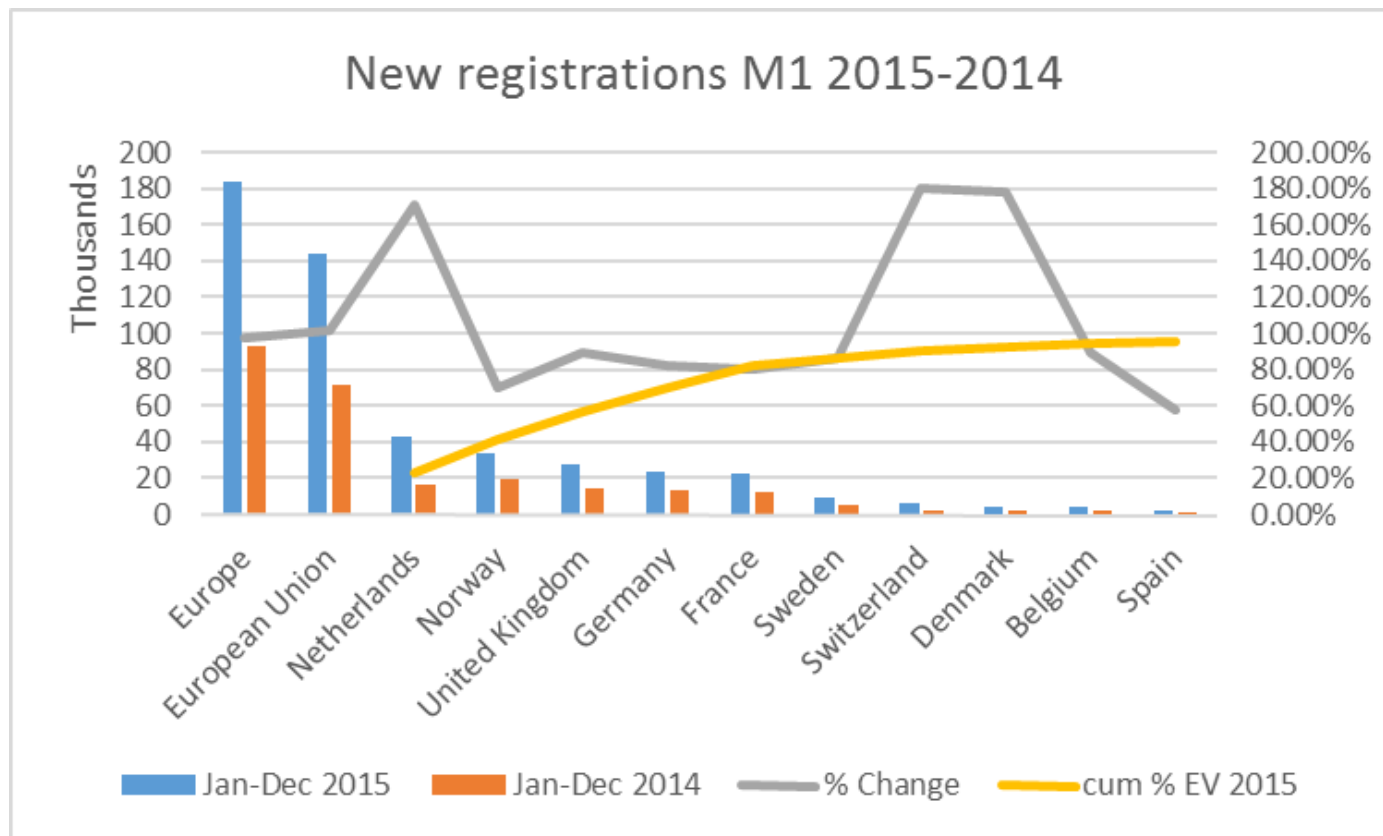
14. JESSICA

- Is an **advisory service** which supports sustainable urban development with financial engineering mechanisms
- **Member States** can choose to invest some of their EU structural fund allocations in revolving funds
- Contributions from the European Regional Development Fund (ERDF) are then allocated to Urban Development Funds (UDFs) which invest them in public-private partnerships or other projects

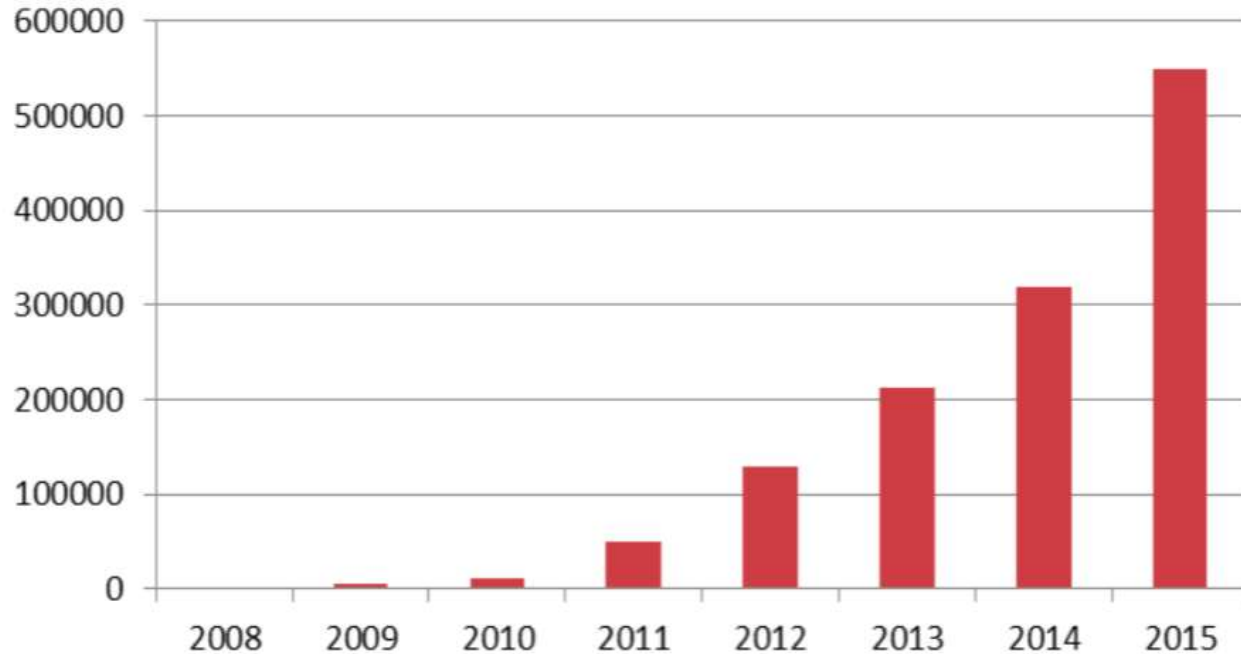
http://ec.europa.eu/regional_policy/en/funding/special-support-instruments/jessica/

European EV sales 2014 – 2015

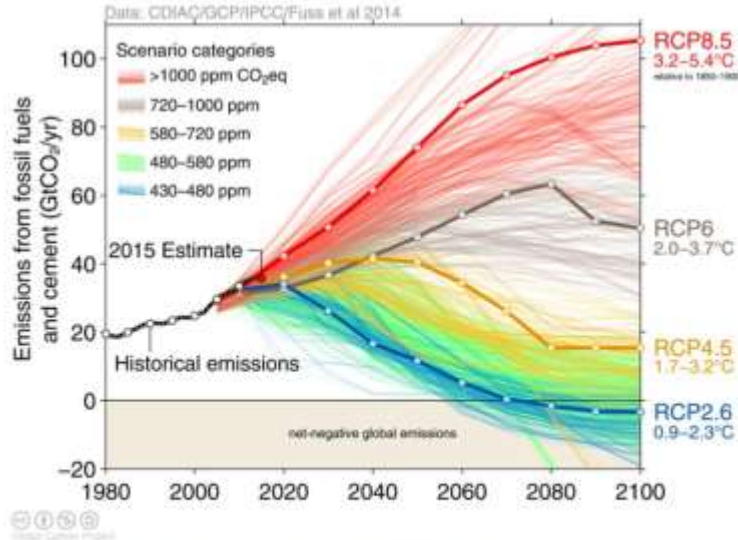
passenger cars: +/- 100% growth YoY



Current status: Global EV sales 2015 > 0.5 million
current stock 1.4 million (passenger cars only)



The COP21 challenge: what we need to do



Over 1000 scenarios from the IPCC Fifth Assessment Report are shown
Source: [Fuss et al 2014](#); [CDIAC](#); [Global Carbon Budget 2015](#)

1.5 C implies:

- Emissions peak in 2020
- Zero carbon in 2070
- Developed countries zero carbon in 2060

We have a target!

- But no idea how to do it
- We need to have long term plans
- Plans need to lead to zero carbon
- In place within 5 years

COP21 key message:

we have passed the tipping point, it can and will be done

- COP-21 Paris: **faster and deeper decarbonisation**
 - 1.5 C target
 - Realisation that we need to ACCELERATE decarbonisation
 - TRANSPORT more prominent than ever
 - POWER sector needs to fully decarbonize
 - TRANSPORT needs to (virtually) fully decarbonize
 - ROAD TRANSPORT needs to fully decarbonize
 - **Disruptive transition is needed and all stakeholders have to commit**

THANK YOU !

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SCREENSHOTS EAFO.EU

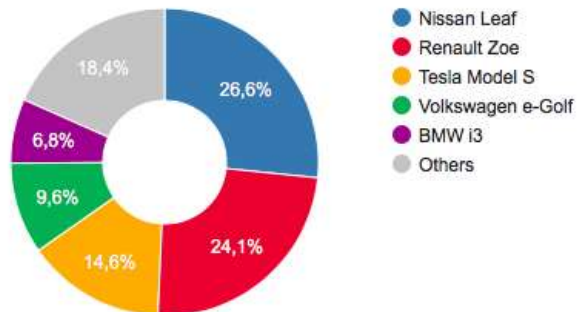
Country

ALL  **Top 5 selling BEV**

Country

ALL 

Year

2016 

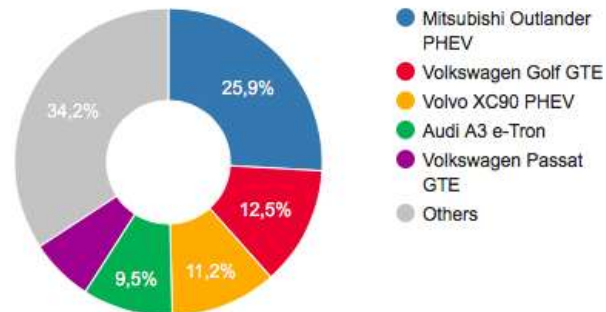
- Nissan Leaf
- Renault Zoe
- Tesla Model S
- Volkswagen e-Golf
- BMW i3
- Others

 Top 5 selling PHEV

Country

ALL 

Year

2016 

- Mitsubishi Outlander PHEV
- Volkswagen Golf GTE
- Volvo XC90 PHEV
- Audi A3 e-Tron
- Volkswagen Passat GTE
- Others

 BEV Overview table

Ranking	Make	Model	YTD 2016	Share PEV market	YTD 2015	2015 Total	Share PEV market	2014 Total	2013 Total	2012 Total	2011 Total
1	Nissan	Leaf	6168	13,1%	4956	15230	8,1%	14620	10868	5376	1740
2	Renault	Zoe	5578	11,9%	2941	18536	9,8%	11029	8833	68	0
3	Tesla	Model S	3378	7,2%	3477	15986	8,5%	9550	3975	0	0
4	Volkswagen	e-Golf	2228	4,7%	3318	11161	5,9%	2929	0	48	0
5	BMW	i3	1567	3,3%	1053	6293	3,3%	5395	992	0	0
6	Kia	Soul EV	1065	2,3%	545	7782	4,1%	595	0	0	0
7	Mercedes	B250e	740	1,6%	328	2818	1,5%	185	0	0	0
8	Volkswagen	e-Up!	615	1,3%	855	2962	1,6%	5840	940	0	0
9	Peugeot	iOn	557	1,2%	273	1460	0,8%	576	695	3125	1849
10	Citroen	C-Zero	423	0,9%	168	1105	0,6%	605	825	3214	1781
Others	/	/	852	1,8%	1599	5693	3,0%	5841	5837	6590	5659

 Go To

Summary

PEV (M1) market share in Norway

New registrations for PEV (M1) in Norway

Top 5 bestselling PEV models (M1) in Norway

Evolution in quarterly registrations: PEV (M1) in Norway

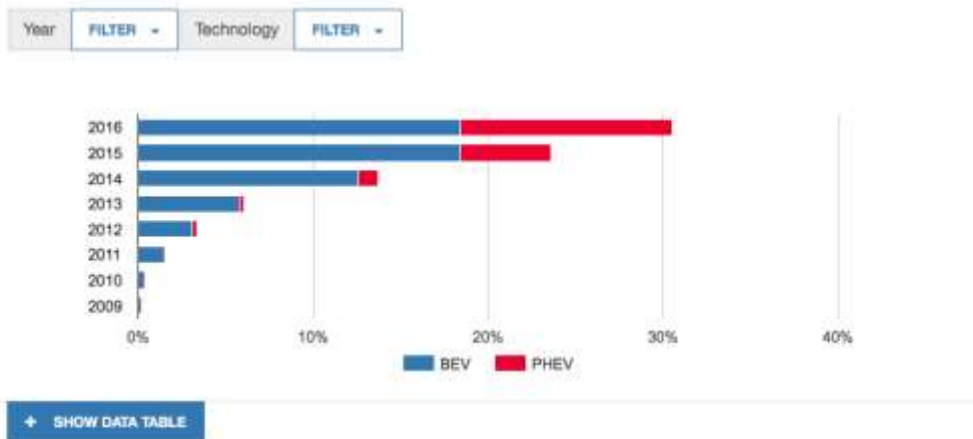
Number of publicly accessible charging positions

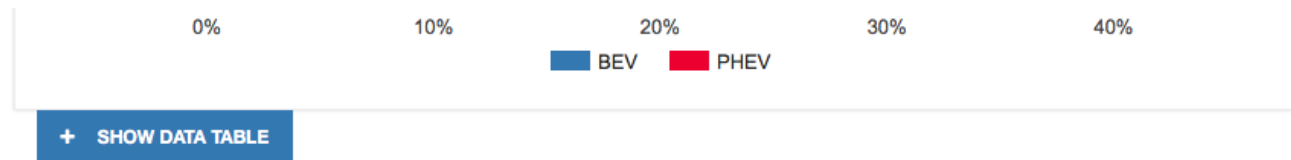
Country incentives Norway

Incentives info

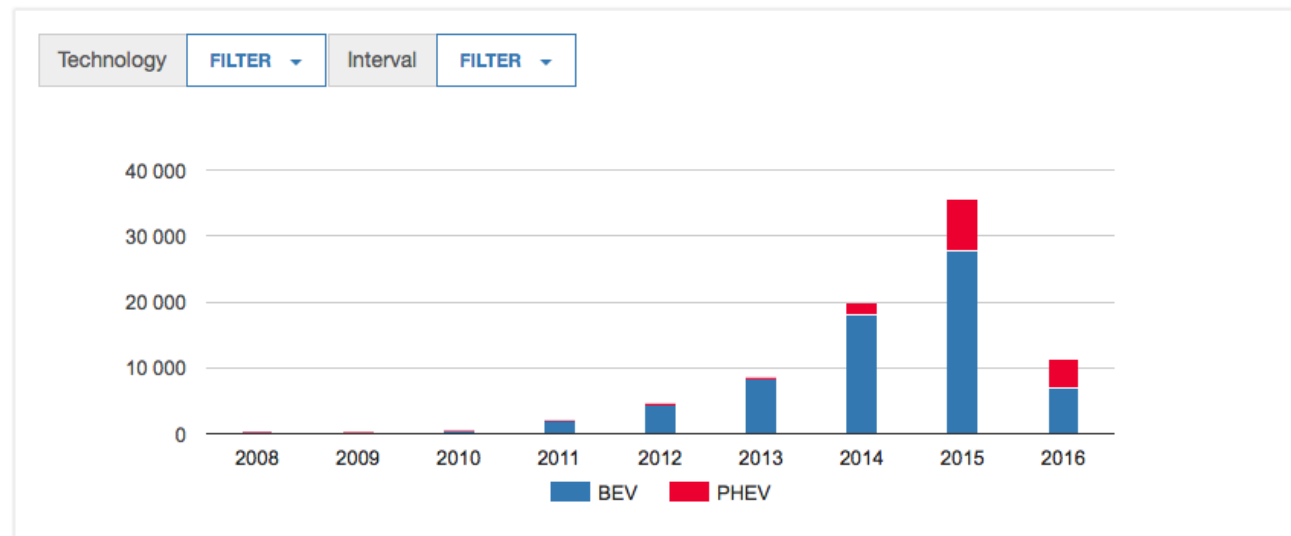
Country details

Other countries

 PEV (M1) market share in Norway **New registrations for PEV (M1) in Norway**



New registrations for PEV (M1) in Norway



Top 5 bestselling PEV models (M1) in Norway

