
Gearing up for renewables in transport post 2020

*What we really need for a shift to Renewables and why we need
stable Conditions for Bioenergy/Biofuels post 2020*



Rob Vierhout
team

*6th ISCC Conference
17 February 2016 - Brussels*

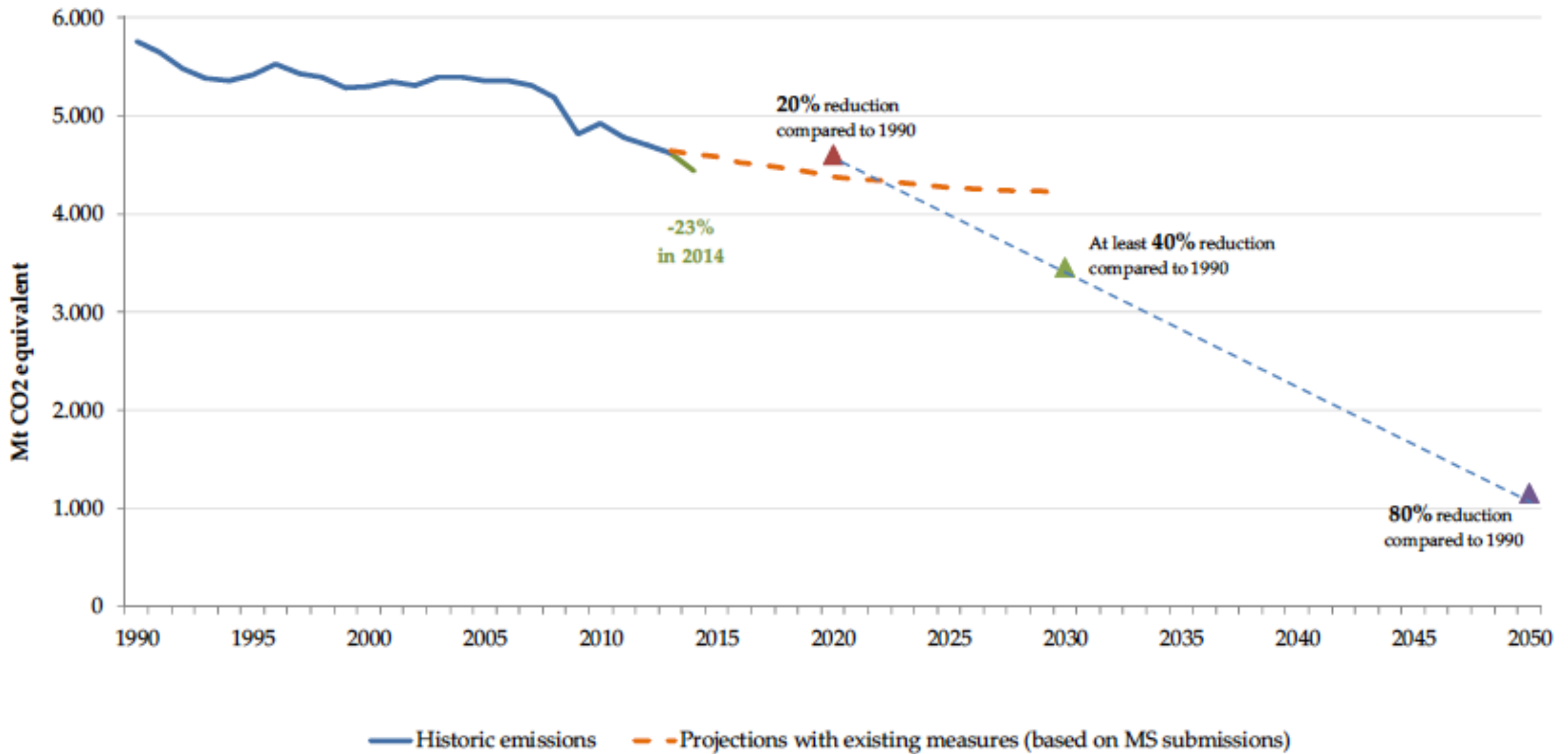
Our ambition

*“The European Union is committed to becoming the world leader in renewable energy, the global hub for developing the next generation of technically advanced and competitive renewable energies. **The EU needs to invest in advanced, sustainable alternative fuels, including biofuel production processes, and in the bio-economy more generally.**”*

(Taken from “A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy” - 25 February 2015)

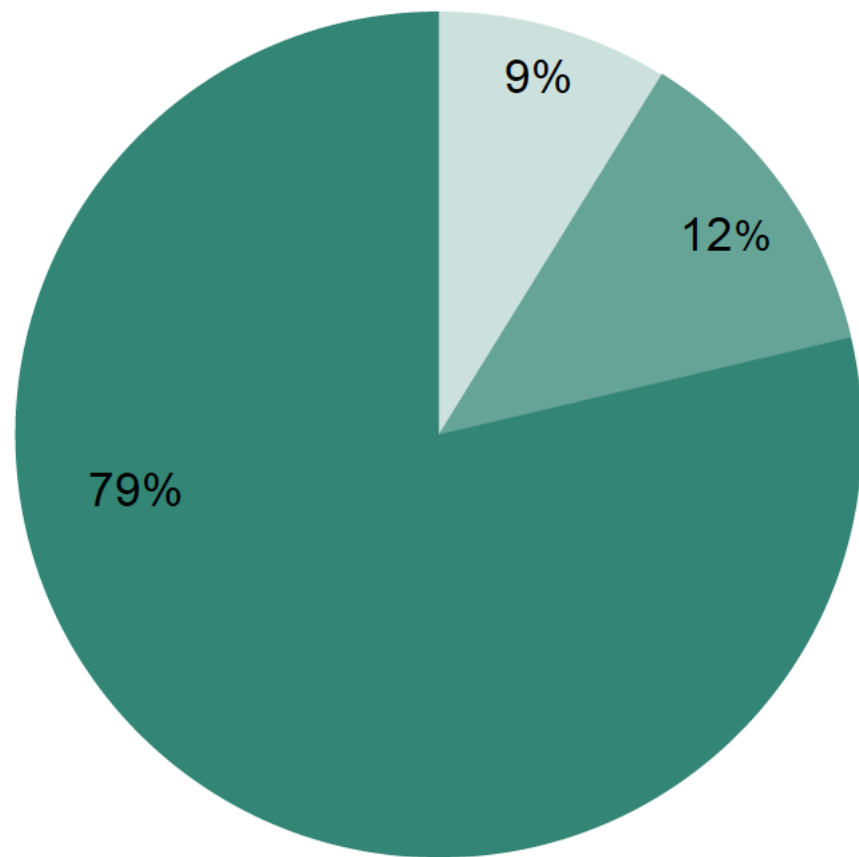
The good news

Total EU GHG emission trend



Source: EEA, Commission (DG CA)

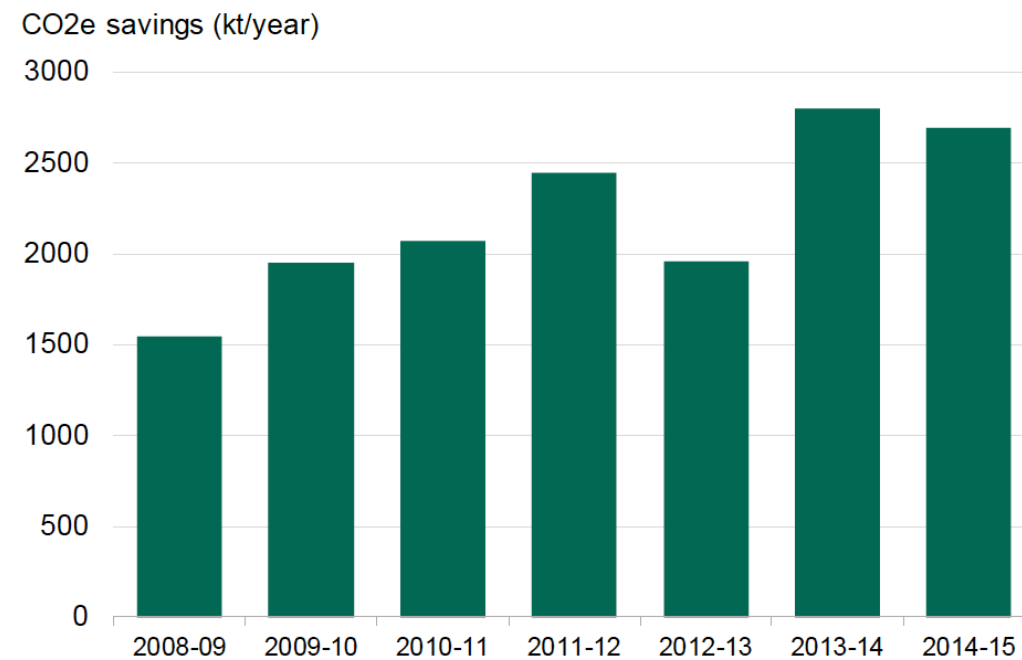
..... also thanks to biofuels



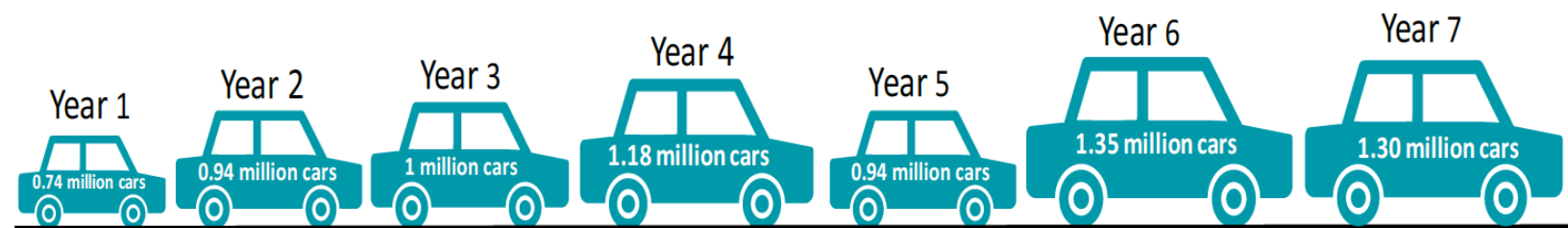
Greenhouse gas savings

- 35% - 49%
- 50%-59%
- 60% or higher

Total GHG savings this year were equivalent to taking 1.30 million cars off the road.



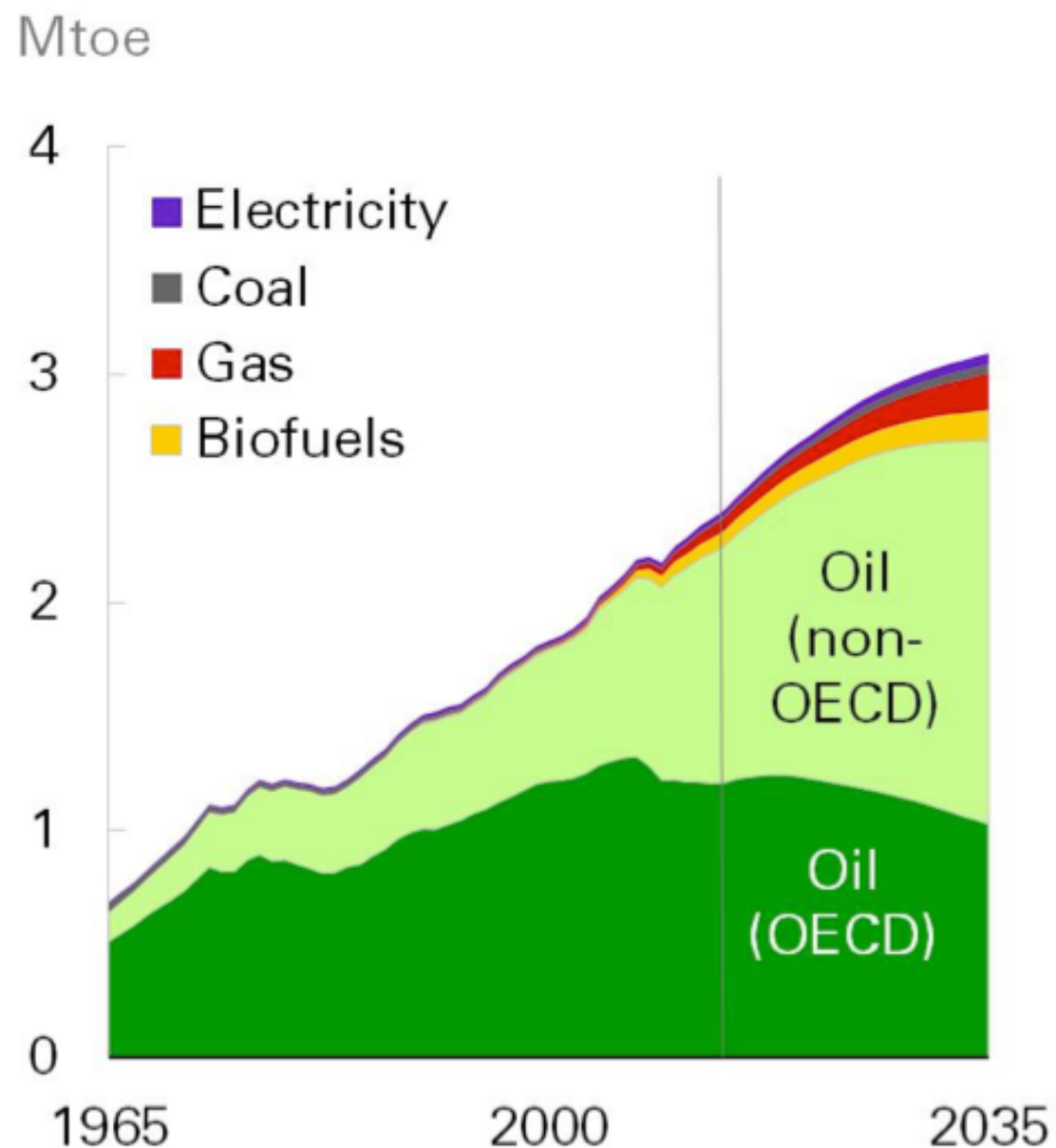
Equivalent number of average cars as a result of greenhouse gas savings



Source: RTFO statistics obligated period 7 2014/2015, report 6, DfT UK, 4 February 2016

The less good news.....

Transport demand by fuel



“Transport fuel continues to be dominated by oil (88% by 2035). Non-oil alternatives increase from 7% in 2014 to 12% in 2035, with natural gas the fastest growing transport fuel (6.3% p.a.)”

“The lower profile for biofuels reflects both slower-than-expected technological progress on advanced biofuels and weaker adoption in transport fuel.”

Source: BP Energy Outlook 2016

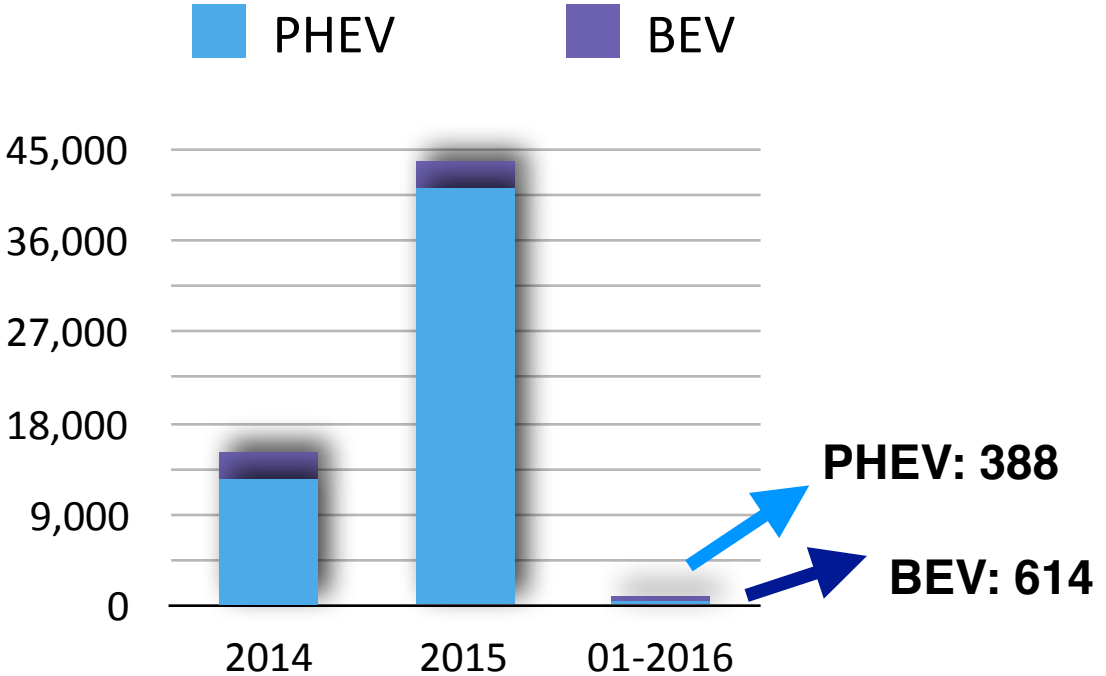
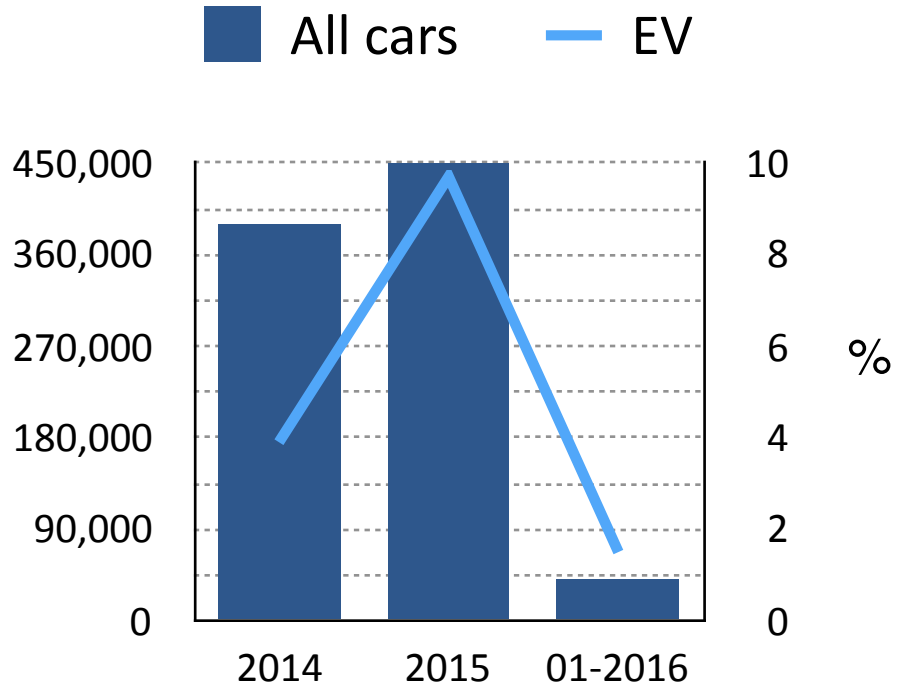
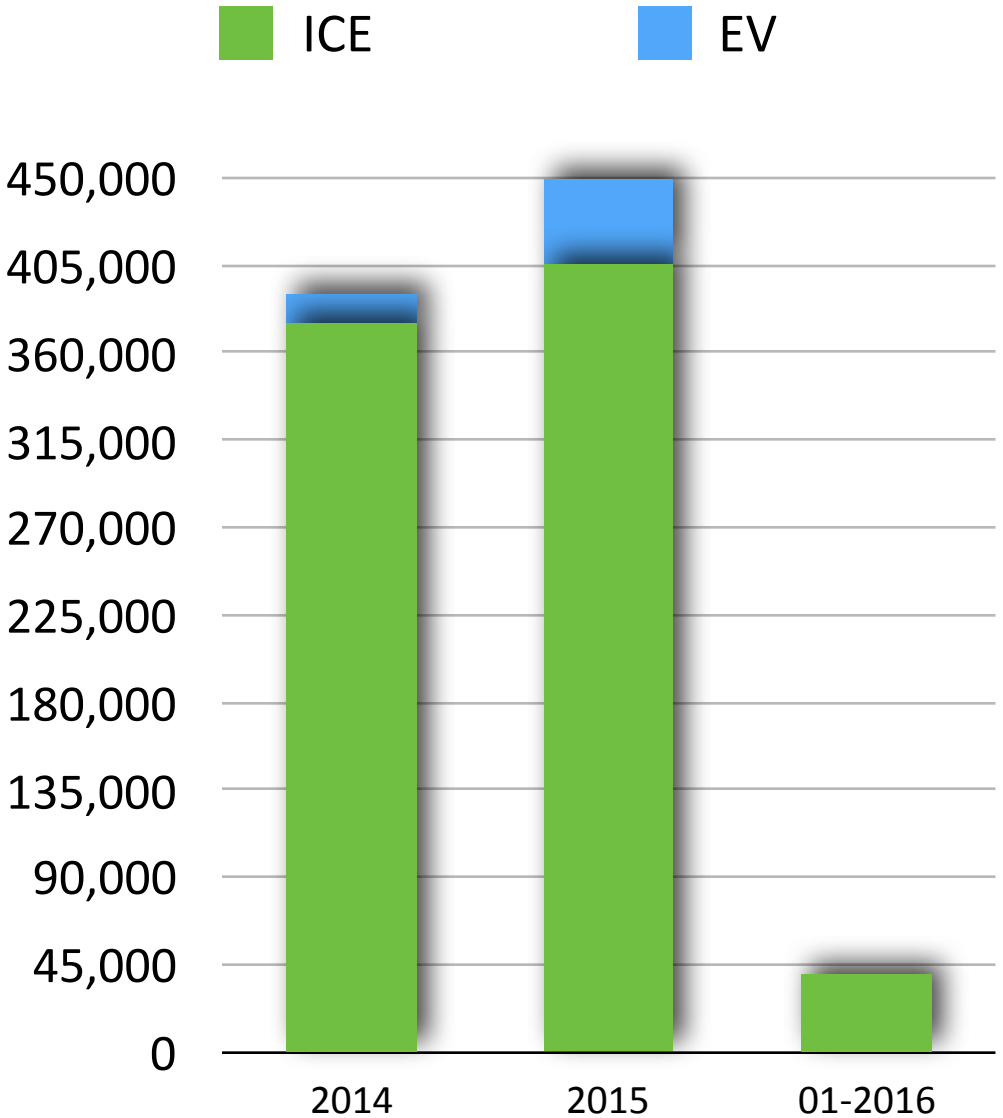
..... and there is more less good news

- **The ILUC-debate has undermined the reputation of biofuels** and resulted in:
 - The Investment community losing confidence in the legislators and stopping investments in both 1G and 2G production capacity;
 - MS delaying implementation of their NREAPS; in the case of ethanol reluctant to go to E10.
 - Traumatic biofuel behaviour of COM officials;
- **The present taxation system of energy products is unfair:**
 - Within liquid transport fuels, petrol is taxed more heavily than diesel triggering the dieselisation of the car fleet. This leads to the perverse situation that the most pollutant fuel is the lowest taxed one;
 - Renewable biofuels are also taxed more than the fossil fuel they are blended with;
 - Ethanol is, by energy content, the most heavily taxed transport fuel (DG TAXUD).
- **The European Commission has thrown in the towel on biofuels;** post 2020 it will be up to Member States what they want to do with biofuels.

What did we learn since 2009

- **The EU biofuels policy wasn't as bad and ineffective as some wanted us to believe:**
 - Much higher GHG emission savings than needed and predicted
 - No significant impact on food prices has been proven, Land grabbing in Africa did not take place
 - Indirect land use effects have still to be proven
- **The only sector that implemented strict sustainability requirements and with great success**
- **Double counting of biofuels doesn't automatically mean more innovative biofuels in the market** (In the UK 50% of biofuels is from waste-based material - of which 70% UCOME- non of which require innovative conversion processes).
- **Member States are slow and not coherent in implementing** the RED and FQD legislation resulting in:
 - Being only just over halfway the 10% target (in 2003 the EU set a 5.75% RE target for 2010!)
 - Internal market distortions
- **Tax measures drive the market** (the case of EV in the Netherlands)

Taxation impact: ICE vs EV in the Netherlands



Source: based on: <https://steinbuch.wordpress.com/2016/02/11/cijfers-elektrisch-rijden-nl-tm-januari-2016/>

.... and what more do we know?

- 94% of EU transport still relies on oil products of which 90% is imported. We spent every year 400 bn Euro on importing energy to cover 53% of our energy needs (source EU Commission).
- Transport fuel continues to be dominated by fossil fuel at least another 2 decades (according to BP).
- Investments costs for advanced biofuel plants are on average twice the costs for similar size 1G installations (Crescentino plant: 150 Meuro, 70Ml capacity).
- The EU has failed to capitalise on its R&D investments for innovative low carbon advanced biofuels technologies. The EU put through FP7 and NER300 large sums into R&D, pilot and demonstration plants, but unlike for example the US or Brazil is very unsuccessful to help innovative technologies bridge the innovation valley of death.
- That we will have stranded assets by 2020 and no significant 1G or 2G EU biofuel industry if the new RE for transport policy will be a “whatever-you-like”-policy.

What we need post 2020

- **Stable and predictable policy** with a horizon of at least 10 years if we want investors to invest again in EU bioenergy capacity - NO POLICY REVIEWS EVERY 3 YEARS
- **Targets** for RE in transport that are **mandatory** without accountancy tricks
- **Coherent implementation** in MS of (RED and FQD) legislation
- A **fair taxation** system that provides a level playing field: taxation based on caloric value, CO₂ performance (if not at EU level than at MS level)
- **Continuation of sustainability requirements and certification** also to set an example for other renewables and other jurisdictions (US, California, Asia)
- **Financial support** measures that bridge the innovation valley of death
- Development urgently of **higher biofuel blend** standards like E20 in the FQD which provide opportunities for OEMs to optimise the combustion process in the engine, allowing lower fuel consumption, reduction of CO₂ emissions and other pollutants even further

Do we still believe we can get there? Walk the talk

“The European Union is committed to becoming the world leader in renewable energy, the global hub for developing the next generation of technically advanced and competitive renewable energies. The EU needs to invest in advanced, sustainable alternative fuels, including biofuel production processes, and in the bio-economy more generally.”

(Taken from “A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy” - 25 February 2015)