

Green Wheels



Operation, Repair and Service of Hybrid
and Electric Cars

GREENWHEELS 4. NEWSLETTER

NEW STRICT CO₂ EMISSION REQUIREMENTS OF THE EUROPEAN UNION

Manufacturers



2021

95 g CO₂/km on average
for all sold vehicles
(in case of non compliance: heavy
fines aimed at manufacturers)

2030

- 37.5% of the 2021 level,
i.e. up to 59 g/km (as per NEDC)

Source: Confirmed EU agreement 17 Decemeber 2018

Minimum targets for public procurements

(valid for
the Czech
Republic)



2025

29.7% of a new fleet must comply
with CO₂ below 50 g/km

2030

29.7% of a new fleet must
comply with CO₂ of 0 g/km

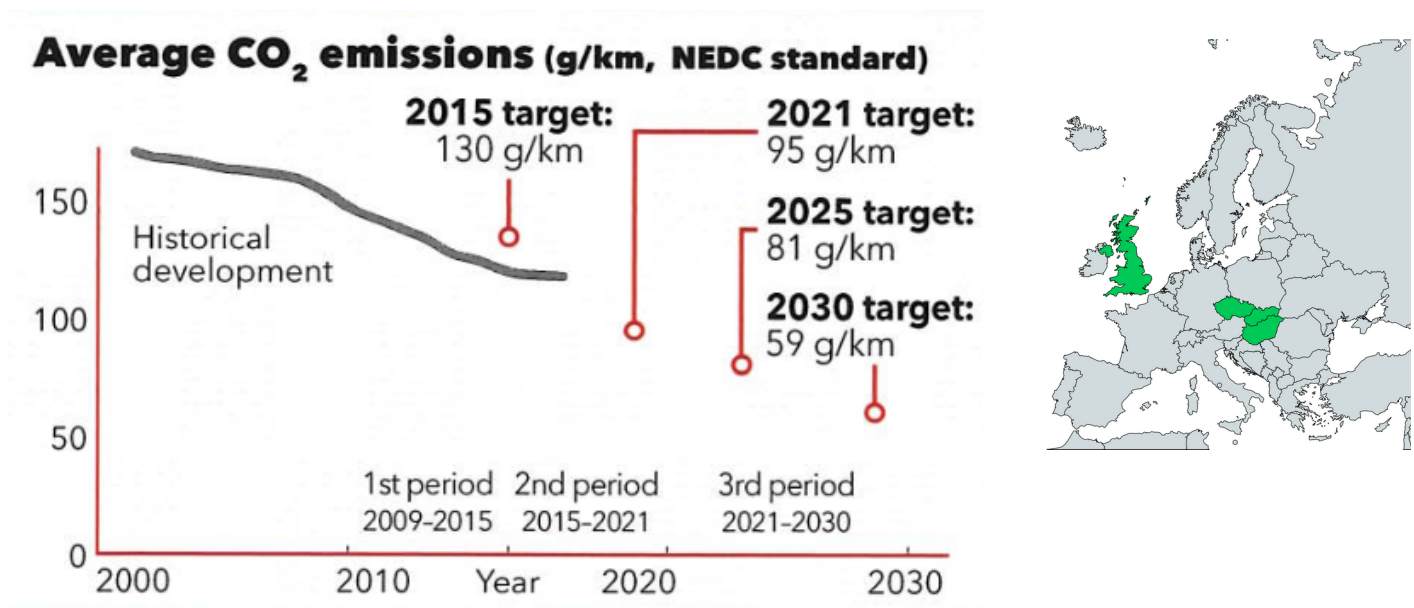
Source: Preliminary agreement between EU Council and EU Parliament from 11
February 2019

www.gwproject.eu info@gwproject.eu

CO₂ EMISSION STANDARDS FOR PASSENGER CARS AND LIGHT-COMMERCIAL VEHICLES IN THE EUROPEAN UNION

17 DECEMBER 2018

On December 17, 2018, representatives of the European Commission, the European Parliament, and the European Council agreed on a compromise for the European Union (EU) regulation setting binding carbon dioxide (CO₂) emission targets for new passenger cars and light-commercial vehicles for 2025 and 2030. The agreed-upon targets aim to reduce the average CO₂ emissions from new cars by 15% in 2025 and by 37.5% in 2030, both relative to a 2021 baseline. For light-commercial vehicles, a 15% target for 2025 and a 31% target for 2030 were agreed upon.



Average historical CO₂ emission values and adopted CO₂ standards for new passenger cars in the EU. All CO₂ values refer to New European Driving Cycle (NEDC) measurements.

Source: ACEA, AutoSAP, ICCT

EV AND HEV SALES IN GREENWHEELS PROJECT COUNTRIES

2018 SALES

Including the examples of state aid for the sales and operation of electric vehicles



United Kingdom

- › Contribution reduced down to 3500 pounds for the purchase of a BEV or PHEV
- › According to the emission restriction fees and taxes for citizens and businesses
- › £ 500 contribution for the purchase and installation of a wallbox
- › Road to Zero government plan: objective to cease the sales of combustion engines by 2040

registration 2018:

2 367 147

| | |
|-----------------|-------------|
| EV/share | 59 947/2.5% |
| BEV | 15 510/0.7% |
| PHEV | 44 437/1.9% |
| HEV | 81 323/3.4% |

Hungary

- › A discount of 21% may be applied during the purchase, corresponding up to EUR 4800
- › Electric cars and plug-in hybrids do not pay the registration tax, road tax and company car tax
- › Special number plate
- › Simplified billing system at charging stations

registration 2018:

136 594

| | |
|-----------------|------------|
| EV/share | 2 070/1.5% |
| BEV | 1 300/1.0% |
| PHEV | 770/0.6% |
| HEV | 5 642/4.1% |

Slovakia

- › The first round of subsidies of EUR 3000-5000 for the purchase of a PHEV or BEV by 2018
- › The lowest registration rate, zero road tax for EVs
- › HEVs have a 50% discount on rates

registration 2018:

98 080

| | |
|-----------------|------------|
| EV/share | 293/0.3% |
| BEV | 293/0.3% |
| PHEV | 0/0.0% |
| HEV | 2 434/2.5% |

Note: SK reports BEV+PHEV together

Czech Republic

- › Road tax 0%
- › Parking in Prague for free

registration 2018:

261 437

| | |
|-----------------|------------|
| EV/share | 981/0.4% |
| BEV | 703/0.3% |
| PHEV | 278/0.1% |
| HEV | 4 553/1.7% |

EU+EFTA registration 2018:

15 624 486

| | |
|-----------------|--------------|
| EV/share | 384 052/2.5% |
| BEV | 201 284/1.3% |
| PHEV | 182 768/1.2% |
| HEV | 606 210/3.3% |

Source: ACEA, AutoSAP



Ladislav Glogar: Autoklastr

5TH INTERNATIONAL MEETING IN OSTRAVA

6.-8.2.2019

On 6-8. 2. 2019 the Moravian-Silesian Automobile Cluster held the 5th international meeting of the GREEN WHEELS project. The meeting took place in Ostrava, at the headquarter of Autoklastr.

26 representatives of participating organizations from 4 GW countries participated (Great Britain, Czech Republic, Slovak Republic and Hungary)

The GreenWheels Project successfully finished the development and piloting of all learning outcome. The learning outcome of the project is currently available to all at lms.gwproject.eu



Tom Denton: IMI



Tomas Harach: VSB-TUO

During the project meeting all partners has chance to see modern automotive laboratory on Technical University of Ostrava and Collaborative robots centrum made by Autoklastr.

Project meeting in Ostrava was successfully evaluated by all partners and all partners are looking forward for upcoming meeting Praha.

ACTIVITIES OF PARTNERS

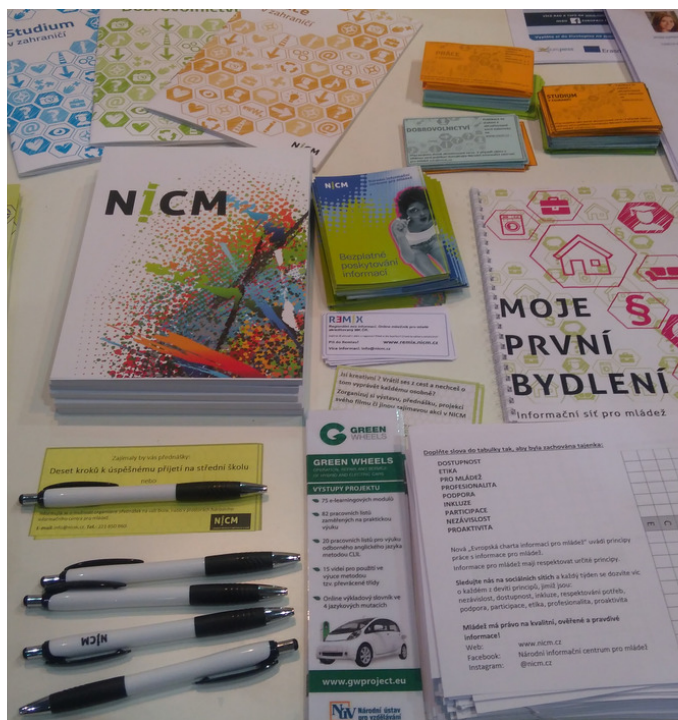
NUV CZECH REPUBLIC

Since autumn 2018, NUV has been intensively engaged in dissemination activities informing wider audience about the Green Wheels project and its outputs at various events, e.g. during seminars for VET schools (member schools of ENERSOL network, partner schools of P-KAP project, etc.).

One of the most interesting dissemination event was the NUV participation in the Gaudeamus higher education fair held in Brno (October 2018). Gaudeamus fair is one of the biggest Czech higher education fair for VET schools with participation of foreign universities. During the event, GW bookmark with accompanying information on GW project and its outputs was distributed. Representatives of our Czech project partner MAK have been present there as well (see the picture).



Tomas Harach: VSB-TUO



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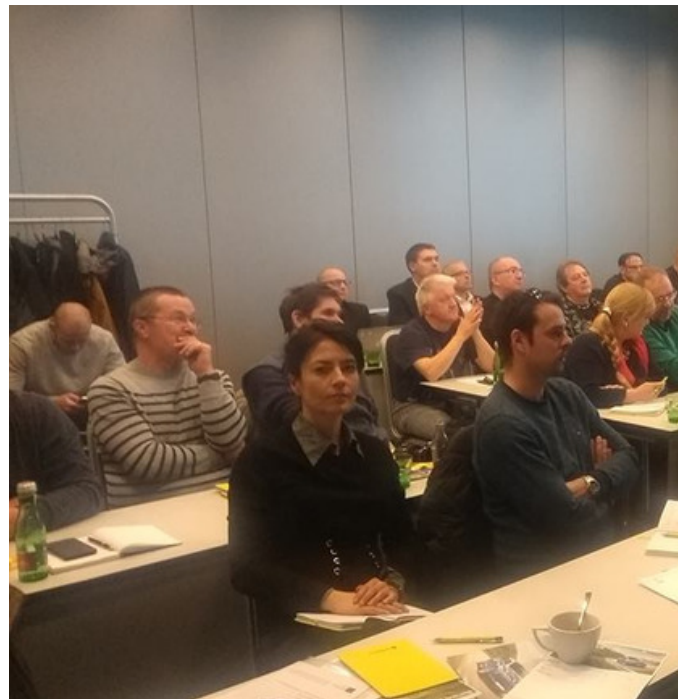
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ACTIVITIES OF PARTNERS

SIOV SLOVAKIA

On 14 March 2019, the State Institute of Vocational Education Bratislava in cooperation with Renault Slovakia organized a teachers' training on electromobility called „Zero Emission” for teachers from non-partnering and partnering schools from Slovak Republic and Czech Republic. The training enjoyed great interest from among pedagogues of electro-technical and automotive schools alike and itself was another successive teachers' training organized in cooperation with private automotive sector company. The training encompassed both the theoretical part and practical part in the venue of Autoideal Renault, with attractive test drive on Renault Zoe. Renault possess a great know-how within the EV segment and feels responsibility in cooperating on education.

The press report in National Slovak Media RTVS and media report from the automotive webpage benzin.sk



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ACTIVITIES OF PARTNERS

CFME CZ AND CFME SK

Article in CfME electronic magazine – we are use to inform schools and stakeholders about updates regarding Green Wheels project activities in CfME electronic magazine 1 x year. Article was published on December 2018

Brochure – brochure in 4 languages was distributed to stakeholders, schools, etc. each partner is responsible for distribution..

Teachers often wonder how to work with students so that the learning process is meaningful for them. How to support their inner motivation to look forward to school, to trust the school, and to gain new and voluntary knowledge from them in their vocation and to be the source of wisdom in their lives? Fortunately, the world around us brings a lot of new perceptions and that gives us the opportunity to react and learn.

The automotive industry has literally transformed over the last few years. Development and expansion is in the spirit of alternative sources. New apprenticeships are emerging, the requirements for car school students are increasing and teachers often do not have the necessary support for teaching. Project Green Wheels - Operation, repair and service of hybrid and electric cars was able to react at the right moment.

In connection with the project, a comprehensive set of teaching materials for teaching automotive repair and maintenance is being developed for alternative propulsion, which is unique in its location in European countries where the automotive industry is the dominant. Much of the material is already available at www.gwproject.eu and without having to register here you can find for example: worksheets in four language versions (English, Czech, Slovak, Hungarian), methodology, teacher's manual, video tutorials for teachers , online forum or interactive dictionary.

These newly developed teaching materials were tested by the project's partner schools. Other project partners (ie professional organizations in the automotive industry) have enriched the materials with current industry knowledge. Last but not least, the leading educational institutions are involved in the development of ECVET and ensure that these materials meet the necessary legislative criteria in the partner countries. Every teacher is aware that the development of high-quality professional materials using modern methods is the main pillar of the teaching itself, but it is equally important to pay attention to the teaching itself. For this reason, the project does not only provide training for vocational teachers. If you are interested, you can participate. Next training will be next spring. For more information, go to: pcupakova@cfme.net. Training focuses on expertise and on the use of modern teaching methods.



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