

Why Cañete's claims about 'car factory closures' are misleading

July 2018

Background

Transport is Europe's biggest source of CO2 emissions and are still increasing, undermining progress to achieve climate goals and the progress made in every other sector. Road transport represents three-quarters of transport emissions; and cars and vans three-quarters of these. It is therefore surprising that rather than seeking to aggressively drive down emissions from Europe's cars and vans, Climate Commissioner Cañete and his Department are deliberately and repeatedly misleading the co-decision makers in the Parliament and Council about the impact of its proposals for post-2020 CO2 targets for new cars and vans.¹

Back in November 2017, as part of its 2nd Mobility Package the Commission announced its proposal for a 15% reduction in CO2 emissions from cars and vans for 2025 and a 30% reduction for 2030 (from 2021 levels). The Commissioner said its package "strikes the right balance" between environmental, social and industrial policy objectives. But the response of most co-decision makers has been lukewarm. First, Miriam Dalli, the European Parliament's lead negotiator, proposed a 50% reduction for 2030. Then, EU Environment Ministers had their say with most Scandinavian and Western European countries pitching for a reduction of at least 40% or more in a brutal rejection of the Commission's approach. The defensive moves of the Commissioner and his department have been to discredit electric cars and warn of job losses. But his claims are not supported by the evidence including the analysis of the Commission's own impact assessment – this paper matches the claims to the evidence.

Claim 1: "Thousands of jobs would be lost in Europe's auto sector if the European Parliament pushes for a 50% CO2 emissions cut for cars and vans by 2030"

The basis for the Commissioner's clear threat to Environment Ministers is not known and certainly NOT in the impact assessment. This did not analyse the impacts of 50% CO2 reduction, as only 30% and 40% targets were modelled. But the impact assessment suggests the opposite in Part I² on page 96 stating "Higher levels of ambition for the CO2 target would lead to a higher increase in the number of jobs". Table 25 shows that a 30% reduction scenario creates 22,000 additional jobs in the EU economy in 2030. But with a higher reduction of 40%, between 86-88,000 net jobs are created by 2030, rising to 213-314,000 in 2040 depending on whether the battery cells are manufactured in Europe or outside. There are now at least five battery gigafactories in development in the EU. As regards jobs in the automotive industry, Table 26 on page 95 estimates that a 30% reduction scenario results in a 0.1% reduction in 2030, while a 40% reduction decreases the automotive employment by 0.5%. The impact assessment concludes that "at sectoral level... the overall impacts are small".

Other studies also show a net positive impact on jobs. For example, *Fueling Europe's Future*³ by Cambridge Econometrics (endorsed by BMW, VW, Daimler, Renault-Nissan and Toyota) finds that moving to zero and low-emission vehicles/electrification will create 206,000 net additional jobs in Europe by 2030. Based on a scenario, assuming that in 2030 50% of vehicles sold will be alternative powertrains – hybrid (25%), PHEV (8%), BEV (15%) and 2% fuel cell cars – it finds a net increase in the employment in: construction, electricity,

¹ Transport & Environment, <https://www.transportenvironment.org/publications/clean-2nd-mobility-package>

² European Commission, https://ec.europa.eu/clima/sites/clima/files/transport/vehicles/docs/swd_2017_650_p1_en.pdf

³ Cambridge Econometrics, <https://www.camecon.com/how/our-work/fuelling-europes-future/>

hydrogen, services and most manufacturing sectors. The study finds that in the automotive sector employment rises to 2030 before declining again. This is because increasing deployment of technologically more complex hybrids, PHEVs and fuel cell vehicles offsets the smaller numbers required to build battery electric models.

*Claim 2: Extreme transition to purely battery electric vehicles in Europe would result in “**factory closures**”*

The Commission impact assessment is clear that there are many factors influencing automotive manufacturing employment, quoting a recent analysis by Deloitte **that highlights** “the multitude of drivers the automotive value chain is faced with until 2025 and beyond. Key challenges include digitalization, new business models such as car sharing, and **the uptake of alternative powertrains.**” Part II⁴, page 48 presents various scenarios that can be summarized as follows: rather than electrification itself, it is an interplay of many factors that affect employment, with the biggest ones being car sharing, loss of trust and digitalisation.

The impacts assessment (Part II, pp.48-49) also quotes the first ELAB study that modelled the effect of 40% **battery electric vehicles and 10% fuel cell vehicle sales in 2030. This concludes, “Under all scenarios – except for the very conservative ICE-scenario with no uptake of BEVs – an immediate increase in employment is expected. Under the battery electric scenario a peak in employment will be reached after 10 years and will then decrease. In all scenarios employment will be higher in 2030 compared to the starting point.”**

In Part II, page 50, **the impacts assessment says, “Net employment increases most in the scenario with the highest uptake of alternative powertrains. Assuming that electric vehicles will have a share of 9.5% in 2020 and 80% in 2030, with the remaining 20% being hybrid-electric vehicles, direct and indirect jobs in the automotive value chain increase by 591,200, and economy-wide 508,800 jobs are created due to avoided oil use. This takes account of jobs lost in the transition such as in the refining industry.”**

More recently a study by IGMetall (ELAB2) has specifically looked at automotive manufacturing employment effects. The results shows that rather than the shift to plug-in cars being the main cause of job losses in the automotive industry, it will be innovations in manufacturing leading to increased automation and productivity gains. The study modelled several scenarios for the take-up of plug-in cars. In the case of 25% battery electric cars and 15% PHEVs (more than the Commission proposal) by 2030, there would be a net loss in employment of about 20,000 jobs as a result of electrification and 55,000 jobs through productivity changes. Of the total of 75,000 **jobs ‘affected’ only about 20,000 is related** to the transition to e-mobility. An even more ambitious scenario of 40% sales of battery EVs and 20% sales of PHEV models resulted in 27,000 automotive jobs affected by the transition to e-mobility. No comprehensive estimates were made in the study of jobs created through the shift to e-mobility.

By presenting battery electric cars as a cause of factory closures, Commissioner Cañete is at best being highly misleading. Furthermore, there is no scenario that shows battery electric cars will completely replace engine vehicles before 2030 – there is a widespread acceptance that it will be a combination of battery, plug-in hybrid and fuel cell vehicles; the latter two creating more manufacturing employment.

*Claim 3: “**There will be serious bottlenecks in raw materials needed for battery production which could create problems in any effort to replace conventional vehicles with battery-powered ones**”*

Jobs is not the only area where Commissioner Cañete is scaremongering; he has also been raising concerns about raw materials availability. But the impact assessment presents no data to support his claims, and prior to the proposal the Commission was so “concerned” about this issue it did not even consider the topic. The Commissioner’s claims that over 100 GWh of batteries will be needed in 2025/2030 is impossible to evaluate because it depends on a number of assumptions about: battery capacity (which increases rapidly

⁴ European Commission, https://ec.europa.eu/clima/sites/clima/files/transport/vehicles/docs/swd_2017_650_p2_en.pdf

with innovation in advanced Li-ion and solid-state batteries); range of electric vehicles; and density of charging infrastructure.

While the impact assessment for the cars proposal does not comment on the availability of materials, the new EU Strategic Action Plan on Batteries⁵ aims to have 10 battery gigafactories in the EU by 2025, and a number are already planned:

1. NorthVolt gigafactory in Sweden, aiming at 32GWh battery production by 2023⁶
2. CATL battery factory in Erfurt, Germany, aiming for 24GWh capacity⁷ by early 2020s
3. TerraE factory in Germany
4. LG Chem in Wroclaw, Poland, producing enough battery capacity for 100,000 EVs annually by 2020⁸
5. Samsung SKI in Hungary

The Commission battery action plan does not highlight an immediate shortage of raw materials, and other literature also points to an adequate availability in the medium term. A study on the supply of raw materials for electric vehicles by Agora⁹ concluded that: secondary Cobalt from recycling can meet up to 10% of EU EV demand in 2030; secondary Lithium from recycling can meet around 10% of 2030 demand; and secondary nickel can further meet 7% of EU EV demand in 2030.

Conclusion

The real risk to jobs is that in the future electric vehicles would be supplied from China and not built in the EU. Last year European carmakers invested seven times more in electric vehicle manufacturing in China than at home¹⁰. **Carmakers' intention is clear: to prevent an interim 2025 target in the regulation so they can keep selling diesel cars in Europe for as long as possible.** In the meantime it will meet the limited EU demand for electric cars with vehicles made in China. It is a strategy focused on maximising profits and will be disastrous for the global competitiveness of the European industry and the creation of the jobs of the future in Europe.

The process of finalising post-2020 CO2 targets will inevitably be heated and highly political. But Commissioner Cañete, while defending the proposal, needs to be accurate and evidence-based in the claims he makes to remain credible. He and his department have become misleading and they need to be more accurate in future statements.

Further information:

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⁵ European Commission, https://ec.europa.eu/transport/sites/transport/files/3rd-mobility-pack/com20180293-annex2_en.pdf

⁶ <https://electrek.co/2018/04/27/northvolt-construction-first-phase-planned-battery-gigafactory/>

⁷ <https://www.reuters.com/article/us-bmw-batteries-catl/bmw-signs-battery-order-with-chinas-catl-idUSKBN1JO2VT>

⁸ <https://www.reuters.com/article/us-lgchem-factory-poland/lg-to-open-europes-biggest-car-battery-factory-next-year-idUSKBN1CH21W>

⁹ Agora Verkehrswende, <https://www.agora-energiewende.de/en/publications/ensuring-a-sustainable-supply-of-raw-materials-for-electric-vehicles/>

¹⁰ Transport & Environment, <https://www.transportenvironment.org/publications/eu-playing-catch-china-leading-race-electric-car-investments>