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Are We Doing the Right Thing Correctly?

The complete defossilization of transportation, of industry, actually of our entire living environment by 2050 is one of the most important undertakings for the next decades. At the same time, CO₂ emissions must be reduced as quickly as possible in the next years. The main challenge is therefore, to find ways that facilitate a rapid conversion to CO₂-neutral technologies – of both powertrains and operating energies – and can be implemented in an overall economic approach. The efficiency and effectiveness of climate policy measures are crucial and central issues for successfully protecting the environment.

We need a comprehensive view especially in the automotive field. One that is not concentrated on new vehicles alone, but also recognizes the need to reduce the CO₂ emissions of the existing fleet. Here, all technological options to reduce emissions should be pursued. In the short term substantial contributions could be made by, for example, improved hybrid powertrains with relatively low investments.

In Europe, the strong focus on CO₂ emissions in the transport sector in a simplified tank-to-wheel perspective involves risks. ICE-free is not CO₂-free – the entire life cycle of a vehicle (and with it the CO₂ footprint from production through use to recycling) must be taken into consideration. Critical for success is the

technological coupling of all measures in the individual sectors, with a prioritization of the energy supply, so that green electricity can be produced in sufficient quantities as soon as possible.

In terms of CO₂-neutral primary energy, Europe has a good starting position. But in a global comparison we do not have the best conditions for the further expansion of regenerative energy production. For example, a comparable solar energy plant in the MENA countries produces twice the output as a European plant and a wind turbine in Chile produces three times the output. Through the development and use of otherwise not exploitable regenerative energy sources outside of Europe, the chances for synthetic fuels are higher, and new perspectives emerge in terms of uncomplicated distribution as well as strategic storability (Keyword: Annual supply). From a global viewpoint, they represent not only an integral part of a fully regenerative energy economy, but also form the basis for a sustainable chemical industry.

Is the question of climate-relevant CO₂ reduction answered comprehensively with the current legislative approach? Hardly – the topic will remain a challenging and important undertaking in the future. For AVL, this means not only a forceful portfolio expansion beyond the vehicle, but also a basic orientation – from design-to-function via design-to-cost towards design-to-CO₂.