

avenir special

Sustainable Powertrain Technologies: Full Throttle to Net Zero

The Swiss Federal Council's aim is for greenhouse gas emissions to be reduced to net zero by 2050. To reach this goal, motorized road transportation will have to change fundamentally. Avenir Suisse joined forces with Empa Materials Science and Technology to find out what technological, economic, and business decisions will be required to reduce carbon emissions as efficiently as possible.

Electric motors are on a roll. The trouble is, technological fixation on this particular powertrain technology won't get us to the declared target of net zero by 2050. A new Avenir Suisse publication entitled "Nachhaltige Antriebskonzepte" (Sustainable Powertrain Technologies) not only shows why this is the case, but also sketches out better paths to reach the goal.

In various contributions, experts from Empa, the Swiss Federal Laboratories for Materials Science and Technology, question the consensus on the road to decarbonized transportation. Peter Richner (Deputy CEO) and Christian Bach (Head of Automotive Powertrain Technologies) explain why it's not just the vehicles themselves that have to become sustainable, but the entire energy system. They also explain the important role of alternative fuels for internal combustion engines.

The new publication doesn't just look at the topic from a technological point of view. There's also an interview in which Morten Hannesbo, CEO of Amag, Switzerland's biggest auto importer, and vice president of the industry association Auto Schweiz/Auto Suisse, outlines the market environment. Avenir Suisse research directors Patrick Dümmler and Jürg Müller describe the economic significance of road motor transportation. In their article they outline measures for efficiently and effectively achieving a reduction in carbon emissions. Think tank director Peter Grünenfelder finishes by examining the political implications of the current technological and economic landscape, showing how with detailed regulation, prohibitions, and subsidies, politicians are only cementing past trends rather than creating a technologically-neutral environment of effective market incentives.



Media conference: Thursday, 16 July 2020, 9am, Rotbuchstrasse 46, 8037 Zurich. With Patrick Dümmler, Jürg Müller, Peter Richner (Empa), and Urs Steiner. Livestream of the media conference on www.avenir-suisse.ch

avenir special: Nachhaltige Antriebskonzepte: Mit Vollgas Richtung netto null. (Sustainable Powertrain Technologies: Full Throttle to Net Zero). Christian Bach (Empa), Patrick Dümmler, Peter Grünenfelder, Jürg Müller, Peter Richner (Empa), Urs Steiner, and Marc Tribelhorn (NZZ). 24 pages. Print edition available on order; download: <https://www.avenir-suisse.ch/publication/nachhaltige-antriebskonzepte/>

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