

DECARBONIZATION GOALS REQUIRE EFFECTIVE COOPERATION BETWEEN SCIENCE AND INDUSTRY AND WITH GOVERNMENT SUPPORT

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Moving human society away from fossil energy sources is definitely a necessary step. Both from the point of view of externalities - GHG, and from the fact of exhaustibility - availability of resources. The challenge for the advanced chemical technological world will be to ensure the maximum possible recycling of hydrocarbon compounds, or to ensure their production by RES sources.

The conflict-free source of future hydrocarbons is carbon from the almost inert greenhouse gas molecule CO₂. The historical orientation of the Czech Republic towards heavy industry results in high CO₂ production, which is on average about 50% higher per capita (about 12 t/capita/year) than the EU average.

The Association of the Chemical Industry of the Czech Republic brings together stakeholders in this area. The emerging entity **CO₂ Czech Solution group (CO₂CZ)** brings together **Czech entities from science and industry** (CO₂ emitters). The aim is to streamline R&D both in the areas of CO₂ capture (oxyfuel, rotating packed bed RPB, membrane technologies...) and in the areas of transfers to hydrocarbon commodities (catalytic, thermochemical, electrochemical, photochemical, biochemical, plasma processes...) The aim of the CO₂CZ after its transformation into a cluster will be to include the Czech Republic in international R&D cooperation so that decarbonization processes by 2050 will be systematically managed.