

## **Use of Hydrogen Powered Vehicles in the Czech Republic – context and recommended measures**

*J. Dvořák<sup>1</sup>*

*<sup>1</sup>Grant Thornton Advisory, Manager, Praha 1, Czech Republic*

Grant Thornton Advisory prepared a study “Utility of hydrogen propulsion in transport in the Czech Republic”, which will serve as a basis for the actualization of the National Action Plan of Clean Mobility, which focuses on valuating the potential of its utility based on the global context, all-European technological advancement context and trends in this area, and primarily based on the simulation of adopting hydrogen mobility in the Czech Republic. The goal was to prepare a basic outline for hydrogen mobility in CR. The study contains a SWOT analysis, questionnaire research of public opinion, an analysis of in-depth interviews with the representatives of the transport sector, a modelled simulation of 4 possible future scenarios of the market development in CR regarding both supply and demand based on the selected form of support with the recommendation of locations where to construct filling stations and a pilot estimation of the appropriateness and effectiveness of the support for the expansion of hydrogen technology in the transport sector of CR. Everything was executed in the cooperation of Grant Thornton Advisory and the Ministry of Transport with the expertise of a newly establish expert group for hydrogen transportation.

The study is comprised of fundamental strategic recommendations, on which should be put emphasis in the case if Czech Republic decides to head towards hydrogen mobility. It mainly concerns the preparation of clearly defined state concept of support for the construction of public filling stations and private filling stations for public transportation and purchase of hydrogen vehicles, which motivates both the private and public sector. Other recommendations are in regards to modifications of regional and state manifests, which could ease the initiation of hydrogen mobility just as an extensive and strong PR. Last but not least the study contains a recommendation regarding the actualization of current goals in NAP CM, which is the increase of the number of constructed filling stations by the year 2025 from 3-5 stations to at least 12 stations, so that at least the basic scenario is fulfilled. The continuity of the expert hydrogen group is also considered as suitable as it could gain a permanent character when actualizing NAP CM.