

Issues with the implementation of automated vehicles in the Czech Republic

- **The CzeCCAM Association** was established in response to the unsatisfactory situation regarding the development of technologies and organizational aspects of implementing automated vehicles in the Czech Republic, as this is a highly interdisciplinary area requiring significant cooperation between the public and private sectors as well as universities.
- The legislation in the Czech Republic does not yet recognize the terms "**automated driving**" or "**automated driving without human intervention**". Several R&D projects have addressed the **issue of legislation**, but it is not clear how they will be utilized, and none have been advanced to the stage of proposing concrete legislative changes (except for an attempted proposal by M. Jurečka to amend Act 361/2000).

Additionally, there is currently a valid **EU Regulation 2019/2144 on the approval of vehicles for use on the road**, which allows for the approval of automated vehicles, and it is clearly necessary to reflect this change in Czech legislation as soon as possible, but with great care.

- The Czech Republic could fall behind in this area in the next few years, which could result in a loss of direct and indirect economic benefits. In addition to legislation, active involvement is also necessary in the areas of **vehicle homologation and testing**, where the failure to incorporate local interests in the design of (not only) vehicle technology could result in limited or completely disabled functionality of automated vehicle systems in future operations in the Czech Republic (there is a real experience of this, for example, in the homologation regulation for lane-keeping systems, where the specifics of the horizontal markings used in the Czech Republic are not included).
- Around 2019, an **action plan for autonomous driving** was prepared, which was agreed upon by the professional community with its content and proposed measures. The document was also discussed in an inter-ministerial commenting process and sent to the Government of the Czech Republic for consideration. However, the Government of the Czech Republic has not yet expressed its views on this document. In view of the current societal changes, however, the aforementioned document would deserve at least a partial professional review before being considered by the government.
- During the same period, a **tender was announced for the preparation of a feasibility study for the construction and operation of a national test track for fully automated vehicles**. The Faculty of Transportation Sciences at CTU Prague applied for this tender, but Minister Havlíček ultimately cancelled the tender. However, the faculty had prepared a **study for the construction of a national track in the area of the Velim railway testing polygon**, with which the national track for automated vehicles would gain European exclusivity. The absence of such a track is demonstrated, for example, by the activities of the city of Plzeň, which is beginning to build this track for urban environments.

The activities of private companies such as BMW and Accolade are focused on narrow, specialized issues in the private sector, and there is no guarantee that universities, research organizations, or other private entities will be able to use this infrastructure.

- The topic of autonomous transportation is often **incorrectly focused solely on (fully) automated vehicles**, not taking into account the infrastructure for managing and influencing road traffic, which must be within the competence of the public sector and addressed cooperatively with the private sector of technology and transportation development, as well as relevant research institutions, in connection with the overall European development in this field. It is necessary to take a significantly interdisciplinary and systemic approach in this area, with a limitation on the particular interests of certain, primarily private, institutions and companies. The C-ROADS platform and the European partnership CCAM can be effectively used for this purpose.
- For such an interdisciplinary and **systemic approach to be sustainable**, it requires long-term funding so that these competencies can be built beyond individual projects and partners.

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