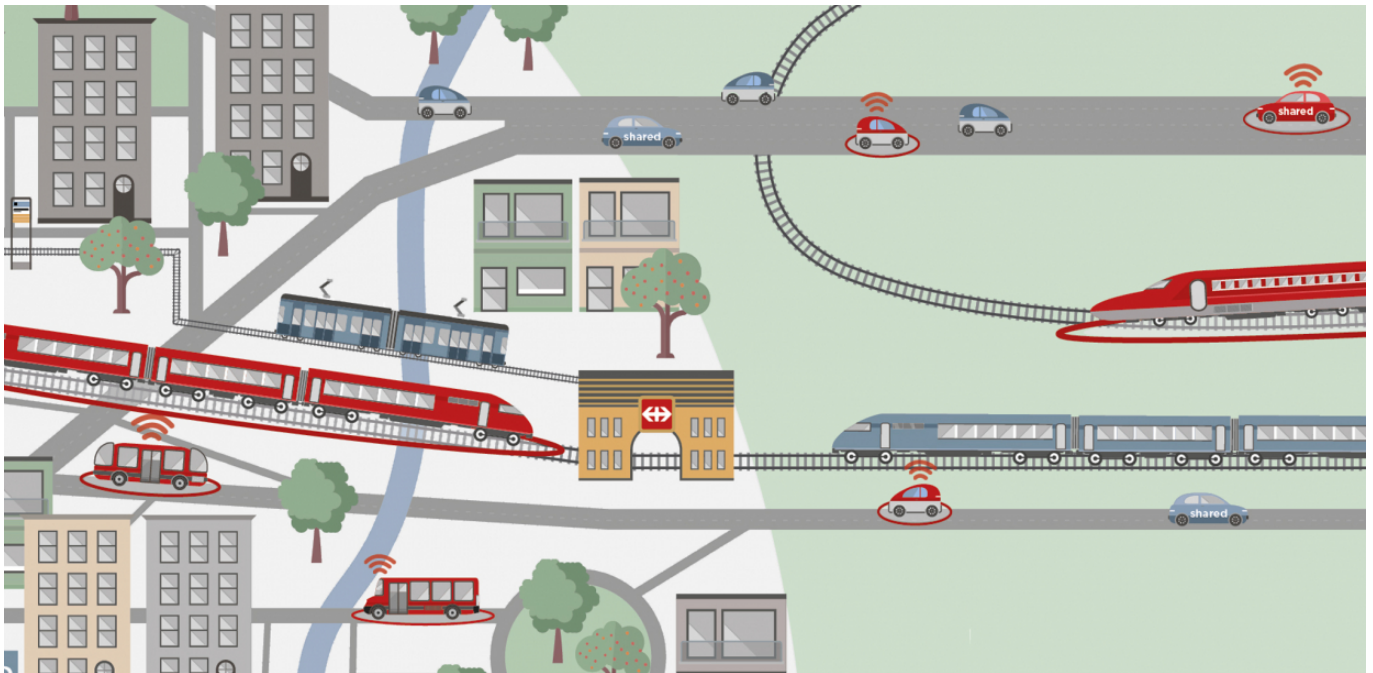


Anticipating the broad-based introduction of automated vehicles



Automated vehicles have the potential to fundamentally change our existing transportation systems. Although driverless technology is the talk of the town, we still have no clear understanding of the consequences it could have for our transportation infrastructure, our existing models of urban and rural development and our travel behavior in general. Working together with BaslerFonds and other partners, EBP has carried out a study about automated driving to anticipate what its application in Switzerland might involve.

When people talk about automated driving today, the focus is often on the technical systems behind the vehicles themselves and which companies are best positioned to exploit the technology. This focus ignores a whole range of other issues that will clearly be relevant to planners in cities and cantons and the decision makers at public-transportation agencies. What impact will automated vehicles have on our transportation infrastructure? Will this infrastructure need to be extensively redesigned or reduced? To what extent will we need to change current legal frameworks? What will be the role of the public sector? Who will own and have access to the data? And what specific forms of transportation will dominate the market? In a study entitled, «Use of Automated Vehicles in Everyday Life - Potential Applications and Effects in Switzerland», EBP seeks to provide answers to these questions.

Many challenges and opportunities for cities and cantons

We began our study by examining the basics of automated driving, including the definition of technical terms, related

Client

BaslerFonds, Association of Swiss Cities and other partners

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subject areas, legal considerations, international developments, the tech companies driving the technology and other stakeholders. Using this as a basis, we assessed the impact the technology could have on transportation and sketched a developmental path that could be beneficial for Switzerland to pursue.

Automated driving introduces numerous opportunities for cities and cantons, including the more efficient use of available parking spaces, better use of road capacity, enhanced traffic control, platforms for combining various public and private transportation services and improved access to transportation networks and destinations. The challenges can be expected to include issues relating to digital infrastructure, road-space design, traffic flow, changes to existing legal frameworks, enhanced driving performance and transportation-system management.

A pioneering role for Switzerland in the area of public transportation?

One of the study's conclusions is that Switzerland could play a pioneering role at the nexus of automated vehicles and public transportation. In particular, automated driving can be expected to introduce new opportunities in the area of local, road-based public transportation solutions. And in the long term, there may be new ways of better aligning transportation options to customer demands and eliminating existing hubs in favor of streamlined solutions. It may also be possible to introduce new services involving public and private transportation.

Areas of further research

In phase A of the project, we completed a **preliminary analysis**. The results of this analysis revealed a need for further research in different topics. In phase B, we examined these subjects in greater detail and published the following follow-up studies in german:

- **Traffic engineering**
- **Effects on road safety**
- **Data and IT infrastructures**
- **New offerings for shared transportation**
- **Freight transportation and city logistics by road**
- **Impact on resources, environment and climate**
- **Challenges for cities and other urban areas**

Study results

We compiled our findings in a **synthesis**: Large-Scale Introduction of Automated Vehicles – Applications and Effects in Switzerland, Report of September 5, 2018

Many public and private sector partners are participating in the study, including BaslerFonds, the Association of Swiss Cities, the cities of Zurich, Bern, Winterthur and St.Gallen, the cantons of St.Gallen, Zurich, Basel-Stadt and Obwalden, the public

transportation agencies Bernmobil, Schweizerische Südostbahn AG, Basler Verkehrsbetriebe BVB and AutoBus AG Liestal, the AXA Winterthur insurance company and the Viasuisse AG transportation monitoring firm.