## **Instructions:**

Below you will find a selection of articles from orf.at. Read them and answer the following questions:

- 1. What is the current topic of the article? Has it already become a reality?
- 2. What challenges still need to be overcome in the future?

Time: max. 7 minutes

## **Higher efficiency without train drivers?**

orf.at, 14 Feb. 2017

Autonomous driving is currently being treated primarily as the big issue of the future for the automotive industry. However, this issue is also increasingly affecting rail transport, as was recently made clear at the presentation of "Strategy 2020" by Swiss Federal Railways (Schweizer Bundesbahnen SBB).

"Digitisation and automation open up new possibilities", SBB is convinced, and "the possibility of remote-controlled trains" should therefore also be examined. This is an initiative that is already on the agenda of other railway companies. Deutsche Bahn (DB) has already announced that not only cars but also trains will be able to drive autonomously in the future.

"I expect that in 2021, 2022 or 2023 we will be able to operate parts of our network fully automatically," said Rüdiger Grube, then head of DB, to the Frankfurter Allgemeine Zeitung ("FAZ") last year. It was only in January that ÖBB CEO Andreas Matthä showed himself open to trains without locomotive drivers and already mentioned freight traffic on feeder lines as a possible first field of application.

## Already a reality in local transport

Driverless trains are already a reality, for example, in the local transport systems of many cities and on connecting routes between airport terminals. The "Stuttgarter Zeitung" cites the metro line 15 in Sao Paulo, Brazil, the subways in Barcelona, Turin, Paris, Dubai, Copenhagen and the Docklands Light Railway in London as examples among many others. Another German pioneer is the driverless subway line 3 in Nuremberg, which has been in operation since 2008.

With the U5, Vienna's first driverless subway line has already been fixed, which - if everything goes according to plan - is to be opened in 2023. Experience with the "development of an autonomously running railway as an individual transport solution for branch lines" - as it says in a tender to the Ministry of Transport dated 2008 - has already been gained in Austria on the Traunseebahn (Upper Austria). [...]

According to "FAZ", a spokesman for the German Railway and Transport Union (EVG) still located many technical and, above all, legal open questions. Employees also sharply criticised the decision to abandon train drivers.

Ex-DB boss Grube was nevertheless convinced: "Automated driving is coming" and one cannot and must not avoid it. Driving without a driver in a complex rail system with regional, long-distance and freight trains is, however, "more difficult than with a subway", as Grube admitted: "But it is possible".

**Source:** orf.at (2017): Higher efficiency without train drivers? 14 Feb. 2017, accessed http://orf.at/stories/2379203/2379204/, 14 Feb. 2017