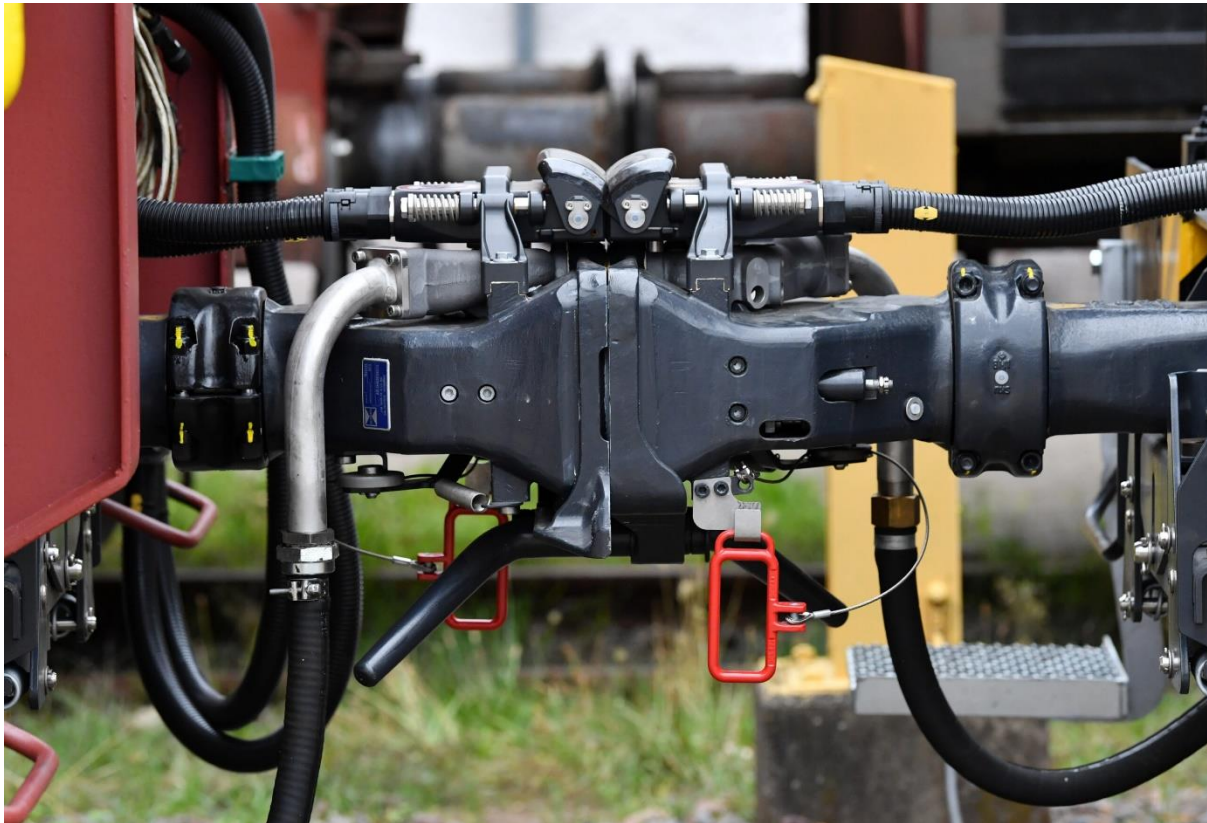


## Digital Automatic Coupling (DAC) Should Revolutionise European Rail Freight



*DB presents first test of digital automatic coupling (DAC) for its freight wagons  
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“By the end of this decade, digital automatic coupling should be the norm in Europe. That is the aim of the DAC4EU consortium. The first tests journeys are currently being carried out with what are now still prototypes, but this is only the beginning of what will be step change for the rail freight industry”, says Clemens Först, CEO at ÖBB Rail Cargo Group.

Europe is the only continent in the world where the coupling of wagons is still done manually. In almost all other countries, automatic coupling is the norm. Automated coupling makes for a more efficient rail freight operation. Först explains. “Within the next ten years, the coupling in Europe should not only be automated but also digitalised. With digital automatic coupling, you also gain data and energy.”

### **Timeframe**

The Rail Cargo Group (RCG) is part of a consortium consisting of six other members: Deutsche Bahn and its subsidiary DB Cargo, SBB Cargo as well as the wagon keepers Ermewa, GATX Rail Europe and VTG. Four prototypes have been equipped with the technology and are now doing rounds in Germany, Austria, Switzerland and other European countries.

The test runs will be carried out until the start of 2021. It is the first time that DB Systemtechnik in Minden (Westphalia) has connected several freight wagons using digital automatic coupling. Over the coming months twelve freight wagons will be equipped with coupling systems from four

manufacturers. After performing technical tests, one system will be chosen. A test train with 24 wagons will then spend several months travelling around Germany, Austria and Switzerland as well as other EU countries. The DAC technology will be tested in day-to-day operations in shunting yards too. Based on this experience, a coupling design will be selected. “The industry will have to agree on a coupling design that meets everyone’s requirements. A so-called “demonstrator train” will then drive through Europe in order to gain more operating experience”, RCG says.

### **Gradual decision**

By 2030, DAC should be the norm in Europe, says Först. “This should be a gradual transition, where subfleet by subfleet converts to the new technology. This will cause productivity losses, but that is one of the investments we as a rail freight industry need to make. We ask the European Commission to support us in that in the coming Green Deal. We do not want to fall in the trap of the ERTMS rollout”, he continues, where many different systems are applied. “Therefore, we will first select one single design, which the European rail freight industry should align with. The German Federal Ministry of Transport and Digital Infrastructure (BMVI) is funding the project with around 13 million euros over the next two and a half years, while the Austrian Research Promotion Agency FFG is funding Austrian participation and operational preparation with around 1 million euros.

### **Digitalised rail freight**

The DAC technology automatically connects freight wagons, as well as their lines for power, data and compressed air, without any need for strenuous physical work. Moreover, it creates a basis for other automated operating processes – for example an automatic brake test or a train integrity test.

DAC creates the prerequisites for the automation and digitisation of rail freight transport in Europe and is therefore an important step towards increasing its attractiveness and productivity, says RCG. Indeed, manual coupling was one of the main obstacles towards efficient railways, concludes Först.