

## **Future - Technological assumptions**

### **An autonomous dual-mode locomotive**

PKP CARGO S.A. cooperates with Pesa Bydgoszcz S.A. and Instytut Pojazdów Szynowych "TABOR" in Poznań to conduct research and development works on constructing an autonomous dual-mode locomotive.

The relevant contract was signed at the InnoTrans trade fairs in Berlin in September. It provides that PKP CARGO and Pesa will prepare the technical assumptions and configuration of the designed locomotive, which will be reviewed by the scientists from IPS "TABOR". The second stage will involve design and research works followed by the commencement of the construction of an autonomous dual-mode, electro-diesel, locomotive by Pesa. The first vehicle will be tested by PKP CARGO, which will enable the operation of the locomotive to be checked in the conditions of a normal operation on tracks as well as corrections and improvements to be introduced to its design.

### **A hydrogen project**

Representatives of the Management Boards of Jastrzębska Spółka Węglowa and PKP CARGO signed a letter of intent for joint innovative investment projects focused on the commercial use of hydrogen fuel at the IMPACT'18 conference held in Kraków in June. The document provides, among others, for cooperation in research, analyses, and the future manufacturing of new types of rail cars and shunting locomotives with a hydrogen drive and their later maintenance and operation.

JSW and PKP CARGO identified the possibility to pursue joint ventures the key objective of which would be the development of innovative solutions for reduced energy and fuel consumption and exhaust emissions involved in the commercial use of rail cars and locomotives powered by hydrogen. The agreement was joined by H. Cegielski – Fabryka Pojazdów Szynowych in November.