

Innovative projects in Adif: the new OGI automatic axle gauge change system will improve and facilitate freight traffic

As part of Adif's commitment to innovation in railways, the company has taken a further step in the development of the railway sector by receiving from the Spanish State Agency for Railway Safety (AESF) the approval for the automatic axle gauge change system for freight wagons (OGI). This system was developed by Adif through a joint venture with the companies Azvi and Tria, by sharing their knowledge and experience in order to achieve this great milestone in the field of railway innovation.

For the first time, the OGI system allows for freight trains to cross borders with different track gauges thanks to an axles' system on the wagons that can vary its axle width automatically while passing through a gauge changeover facility. This process eliminates the current need to tranship the load or interrupt composition settings. This reduces the goods' travel times and the associated economic cost.

The approval of the system by the AESF takes place after the development of laboratory tests and circulation tests, where 500 changes have been made between Iberian gauge (1,668 mm) and international gauge (1,435 mm).

The system has undergone three stages of on-track testing. The first stage included running over 50,000 km on Iberian gauge, the second included running 50,000 km on conventional and international gauge tracks and the third and last stage included an additional 150,000 km, running on tracks of both widths, with maximum authorized load and speed, being able to circulate in this case as trains in commercial service. This third stage of the traffic tests is co-financed by the "Connecting Europe" Mechanism (CEF) with an aid of 1.1 million euros.

The last phase of the project, apart from the ongoing tests, has involved the formalization of the contract for the granting of the exclusive license of the rights to exploit patents and property in the geographical area of the European Union. This contract gives Adif the power to grant sub-licenses in order to make the technology available to axle manufacturers to incorporate it into freight wagons and thus boost freight traffic by rail.