

# Central and East European Associations' Memorandum on further progress of Digital Automatic Coupler (DAC)



## Signatories:

ŽESNAD.CZ [Czech Association of Rail Freight Operators]

AROS [Slovak Association of Rail Freight Operators]

ZNPK [Polish Federation of Independent Rail Operators]

Hungrail [Hungarian Railway Association]

Die Güterbahnen [German Rail Freight Association]

SPV [Czech Association of Owners and Operators of Railway Vehicles]

ZVKV [Slovak Association of Owners and Operators of Railway Vehicles]

The undersigned EU national rail freight associations working together in the informal like-minded group „DAC – Voice of Reason“ have concluded follow up Memorandum to the one signed in February 2023 in Prague\*. This latest Memorandum aims at highlighting specific areas of concern and at identifying remaining preconditions for successful DAC deployment where more work needs to be done.

## **Introduction**

The like-minded group supports further development and gradual deployment of all advanced rail technologies including DAC. It represents, particularly in certain rail freight operations, significant advancement, also contributing to increased safety, interoperability, data exchange and efficiency. While DAC offers numerous benefits, hasty and arbitrary solutions could further hamper the competitiveness of the rail freight sector and slow down the modal shift. The experts of the like-minded group are ready to constructively contribute to the continuous work on DAC expecting that their observations will be reflected in the outcome of DAC development phases.

## **General observations**

The EU and stakeholders including the operators and industry have already made large investments in terms of finance and effort to DAC. Thanks to the collective effort many political and technological obstacles have already been removed. Despite this, the like-minded group is of the opinion that a number of challenges such as high initial costs, technical complexity, and reliability concerns still exist and must be first acknowledged and second carefully addressed before any final decision on DAC deployment is made.

### **1. Competitiveness of EU railways**

Rail freight needs to be the first choice of customers when making transport business decisions. With the renewed emphasis on competitiveness of the EU industry and continuous climate concerns there are other legislative and technological obstacles in the EU that need be dealt with first. The like-minded group underlines that railway undertakings are commercial enterprises. This means that the investment must pay off from the perspective of each individual company, otherwise competitiveness will be reduced.

### **2. Initial Investment**

Implementing DAC requires a significant upfront investment in infrastructure, equipment, and technology. As railway companies face decreasing market share and profitability, the initial cost poses a barrier to adoption and will only be accepted if fairly distributed and clear economic benefits are demonstrated. DAC will undoubtedly increase the rolling stock cost and without significant funding from EU and in particular Member State level, EU wide DAC uptake remains highly questionable. Lessons learnt from other projects such as ERTMS must be reflected in DAC. Therefore, DAC implementation on existing as well as newly produced rolling stock shall be fully voluntarily-based option for railway cargo undertakings in case their CBA for such implementation and use of DAC is negative. The like-minded group positions itself against permanent subsidies.

### **3. Technical Complexity**

DAC relies on sophisticated electronic and mechanical components, which will introduce unprecedented complexity into railway systems. While in theory DAC represents a leap into the 21. century for the railway, the like-minded group strongly recommends looking first into simpler and cost-effective solutions that bring more added value for the operators such as automating the break test and making the wagon inspection superfluous in all cases where it is technically feasible and applicable on a positive CBA. At the same time, DAC will not eliminate the presence of responsible personnel checking the correct and safe cargo stowage and technical condition of the wagons. DAC installation shall not negatively impact the current level of interoperability of each individual wagon. In particular, non-discrimination of conventionally equipped wagons (UIC coupler) should be ensured.

### **4. Complexity of railway operations**

Rail freight transport is complex and it takes many players to transport goods safely and comprehensively. The external conditions are not always ideal, especially regarding connecting railways (mixed operation, infrastructure restrictions, coupling in dusty and hot conditions, etc.). These problems must not only be known but also solved before the introduction of DAC.

## 5. Compatibility Challenges

While DAC aims for compatibility across different locomotive and wagon types, compatibility issues may still arise, particularly when integrating DAC into older or non-standard rolling stock. Retrofitting existing rolling stock with DAC will be costly and time-consuming. The same applies to non-EU rolling stock in particular for those coming from Turkey and Serbia. The like-minded group would like to point out that the issue of weight added by installing DAC to locomotives emerges as absolutely critical without a viable solution at the moment.

## 6. Reliability Concerns

Despite advancements in technology, DAC is not immune to technical glitches or malfunctions. If just one coupling point does not work, the train does not start and the savings are not only lost, but the effort is also higher because the staff are not on site. A failure in the coupling system could therefore disrupt rail operations, leading to delays and potential safety hazards. Ensuring the reliability and redundancy of DAC systems is crucial for maintaining operational continuity.

## 7. European Coordination

The like-minded group sees the need for a European coordination center to not only manage but also minimize risks in international transport chains.

### Specific areas for further work \*\*

1. Migration plan for locomotives and freight wagons
2. Retrofitting - procedure how to share/transfer technical and administrative solutions
3. Uniform standard and coupling compatibility - uniform and final Technical Specifications
4. Legislation, documentation - finalize document ERA1209/200 and revise 4th railway package accordingly
5. Infrastructure – DAC impact
6. Cost Benefit Analysis - objective and realistic CBA calculation
7. Funding - viable model
8. Physical retrofit issues
9. Pop-up (mobile) workshops for retrofitting
10. Miscellaneous – functionality and reliability

Annex I – Memorandum of DAC, Prague 16 February 2023

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Annex II – Areas to be solved before DAC implementation

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\* Please see Annex I

\*\* For full details please see Annex II