Vienna Declaration on

Digitalisation in the Railway Sector

Adopted at the CEO Summit in Vienna on July 9th, 2022

The participants of the CEO Summit 2022,

- *Pointing* out that innovation is the basis of two centuries of successful railway history in Europe.

- *Emphasizing* the importance of the digital revolution as a game changer currently underway in the railway sector, fostering modal shift, subsequently mitigating the effects of global warming and climate change.

- *Recognizing* today's contribution of the railway sector to European climate policy and its important role in reaching European climate goals.

- *Aiming* at using the full potential of digitalisation to better serve the needs of all railway customers.

- *Stressing* that digitalisation is creating and will further create new quality jobs in the railway sector in Europe.

- *Pointing out* the importance of well qualified and motivated employees, the role of human resources for employability in the light of digitalisation;

- *Confirming* that the roll-out of the European Railway Traffic Management System (ERTMS) will have the potential to increase freight and passenger capacity without additional tracks or locomotives, facilitating safe and interoperable rail operations in Europe.

- *Believing* that smart digital ticketing and information solutions will facilitate access to the European railway system for customers and will increase the attractiveness of rail as transport mode.

- *Emphasizing* that digitalisation has the potential to revolutionise current technical operational procedures through new innovative digital processes, such as digital automatic coupling (DAC), digital capacity management (DCM), digital platforms (DP), autonomous train operation (ATO) and autonomous movements in terminals and shunting

yards.

- *Believing* that joint efforts of European railway companies, railway suppliers, the European Union institutions and member states to accelerate digitalisation and automation in the railway sector will result in a more attractive, sustainable and resource efficient railway system.

- *Stating* that further increasing digital efforts internationally to plan and coordinate work on railway infrastructure construction sites will fully unleash the capacity for European rail transport, enabling a traffic shift from motorways to railways.

Therefore, the signatories will jointly promote the following measures:

1. Smart technical operations

The signatory companies are aware that the European railway system is currently not living up to its potential as all actors in this system are facing substantial challenges. The signatories will further collaborate to fully exploit the opportunities for the railway sector provided by digitalisation and automation:

- since capacity is one of the key levers for modal shift, we commit to the swift Europe-wide implementation of long term coordinated deployment strategies and models as the basis for an optimised performance for freight and passenger transport. The Timetable and Capacity Redesign programme (TTR) can pave the way to reach the goals of the European Green Deal;

- since digital automatic coupling (DAC) will be one of the key enablers to boost efficiency and significantly improve the competitiveness of the freight rail sector, the signatories of this Declaration commit to supporting a swift deployment of this technology in Europe, where and when appropriate. This commitment is conditional upon a sound migration plan, and sufficient additional funding ensuring economic viability;

- automatic train operations (ATO) have the potential to enable rail infrastructure managers to use the maximum pathway capacity of existing railway corridors and obtain considerable energy savings due to the optimisation of train operations. The consistent implementation of enablers such as ATO by the signatories will increase the transport capacity of the Trans-European Transport Network (TEN-T) and Rail Freight Corridors (RFC).

2. Smart infrastructure

The signatory companies are convinced that rail infrastructure is the backbone of all rail services. Rail infrastructure must enable seamless cross-border rail service operations throughout Europe. The signatories are therefore committed to create an excellent rail infrastructure to further decarbonise transport and to reach the climate targets of the European Green Deal, and therefore to:

- invest in the rail network and modern technical solutions as top priority.

- realize capacity gains by significantly increasing the potential for additional rail freight volumes and passenger trains by 2040.

- cooperate with all parties within the sector to both minimize average border transit times and increase the average cross border speed for freight trains.

- increase the competitiveness of rail freight by taking necessary steps to reduce transportation time – including the first and last mile – and to develop the infrastructure for traffic management.

- propose cost-efficient solutions that would enable regional lines to continue to act as important feeder and connecting lines;

3. Smart freight and passenger transport

The signatory companies point out that closer cooperation between rail companies and European standardisation bodies is a precondition for using the digitalisation's potential in freight and passenger transport. Therefore, the signatory companies are committed to:

- overcome national operational specifications to create a harmonized future European rail architecture within the System Pillar of Europe's Rail.

- continue and deepen our cooperation to accelerate interoperability; in particular the Europe-wide rollout of harmonised technical solutions.

- support the removal of specific national rules ("cleaning up of national technical rules") that hinder interoperability as a prerequisite for smooth cross border transport in the European railway sector.

4. Smart ticketing

The signatory companies commit to further improve the passenger experience when planning, and booking international rail tickets. They confirm their commitment for the implementation of the CER Ticketing Roadmap for seamless international passenger rail travel and its milestones for 2025 and 2030. Passengers will have a seamless user experience when searching, selecting, buying and using rail services, including first and last mile transport, through:

- access to simple, reliable and comprehensive online / real time information regarding timetables and prices for (rail) transport services, both domestic (urban, regional, long-distance) and international, through the implementation of harmonized sector-driven technical solutions.

- access to buying international train tickets from six months up to one year ahead from multiple carriers in one through ticket, allowing seamless international rail journeys.

- easy acceptance throughout Europe of tickets issued by different railways and ticket vendors.

- access to digitalized services to support passengers in case of delays and disruptions (such as the CIT Agreement for Journey Continuation), assistance on how to best continue to their destination, and guidance on passenger rights.

5. Smart Human Resources

Digitalisation is already today changing current human resource strategies and will profoundly redefine future railway job profiles. The signing companies commit to taking an active role in shaping the future of employment in the sector by:

- addressing this development and actively supporting employees throughout their career in acquiring new digital skills and competences and to ensure their employability, including the skills that will be required in the future.

- ensuring that employees are actively involved in any changes in their work environment.

- inviting the social partners to cooperate in this field.

While being committed to contribute to the above actions, the signatories of this Declaration stress that political and financial support will be needed to achieve the goals set by the European Green Deal.

The signatories call on the European Commission and member states to ensure that the railway sector is able to fully use the potentials of the digital revolution by supporting the joint efforts listed above through:

- Providing sufficient funding for the deployment of ERTMS – at trackside and for on-board units in trains

The signatories call upon the European Commission, EU stakeholders and member states to increase the available funding for the deployment of European Rail Traffic Management System ERTMS and ETCS via the financial instruments in place and to increase public financing rates (up to 100%), both for trackside and onboard units. Special considerations should be given to a synchronized and harmonized cost-efficient deployment, ensuring adequate compatibility and integration with the ERTMS already deployed, including cross border technical interoperability.

- Investing revenues from the revised ETS and Social Climate Fund into railways

Regarding the reform of the EU's carbon market, the EU Emissions Trading System (ETS), its extension to road and building emissions and the implementation of full auctioning for aviation emissions will contribute to setting a comparable carbon price applicable to all transport modes. The signatories demand that a portion of the ETS revenues and the Social Climate Fund be invested, i.a. in the rail system and its digitalisation.

- Conducting an assessment study on the ERTMS / ETCS path to 2030, 2040 and 2050

The rollout of the infrastructure and the upgrade of rolling stock with ERTMS / ETCS on-board units is crucial. Therefore, the signatories suggest that the European Commission conduct an assessment study including a deployment plan on interoperable ERTMS / ETCS up to 2030, 2040 and 2050 deadlines. This study shall not only cover the technical aspects but should also include the resources and financial support needed in order to be successful, especially for railway undertakings.

- **Successful execution of the System Pillar of Europe's Rail**

To contribute to the ambitious European mobility targets, the European rail sector needs to double capacity and reduce its costs. Therefore, the signatories call upon the European Commission to ensure the successful execution of the System Pillar despite the volatile environment.

- **Supporting the migration towards the future railway mobile communication system**

The specifications for the successor of the GSM-R radio communication system are currently under development, the so-called "Future Railway Mobile Communication System". The introduction of FRMCS will also require a coordinated deployment of 5G infrastructure along rail corridors. The signatories therefore call upon the European Institutions for political and financial support for this essential technological evolution.

- **Boosting digitalisation for maintenance, capacity, and train path management (Digital Capacity Management – DCM)**

European rail infrastructure managers will only be able to contribute effectively to achieving the Green Deal climate targets if existing infrastructure capacities are managed efficiently. This requires the use of state-of-the-art digitalisation technology in all areas of maintenance, capacity and path management. Therefore, the signatories ask the European Commission and other European decision makers to take all necessary steps to boost digitalisation in these areas, first and foremost the sector's programme "Timetabling and Capacity Redesign" (TTR).

- **Creating a resilient and sustainable Mobility Data Space**

The data economy is an essential driver for innovation, allowing transport operators to offer efficient and attractive travel options that meet passengers' needs. In order to ensure a positive and sustainable impact on the transport sector, the signatories encourage the European Commission to foster an open and fruitful discussion on the creation of a resilient and sustainable Mobility Data Space based on reciprocity, interoperability and data sovereignty.

- **Improving passenger experience through sector-driven solutions for international smart ticketing**

Ensuring a seamless user experience for international passenger rail travel is a fundamental step towards the modal shift needed to achieve the sustainability goals set by the European Green Deal. To this end, sector-driven solutions, based on the Open Sales and Distribution Model (OSDM have been developed to simplify international ticketing and distribution, harmonizing tariff and timetable information exchange and allowing a full ticket digitalisation. In order to enhance international rail ticketing, the signatories ask the European Commission to take all the necessary steps to support through an adequate regulatory framework the smooth implementation of such solutions including the integration of OSDM in the TAP-TSI Regulation (Telematics Applications for Passengers – Technical Specification for Interoperability).

Signatory companies and organisations as of 9 July 2022 in alphabetical order

Organisation	First name	Last Name	Function
BLS AG	Daniel	**SCHAFER**	CEO
CD	Michal	**KRAPINEC**	CEO
CEO BLS Cargo AG	Dirk	**STAHL**	ERFA President
CER	Alberto	**MAZZOLA**	Executive Director
CFL	Marc	**WENGLER**	CEO
CFR Calatori	Traian	**PREOTEASA**	General Director
CP	Pedro Miguel	**SOUSA PEREIRA GUEDES MOREIRA**	Vice-President
Deutsche Bahn AG	Richard	**LUTZ**	Chairman of the Management Board and CEO
DSB	Flemming	**JENSEN**	CEO
Ferrovie dello Stato Italiane	Luigi	**FERRARIS**	CEO
UIC	Darko	**BARIŠIĆ**	Board Member
LDz	Māris	**KLEINBERGS**	Chairman of the Board
LINEAS NV	Bernard	**GUSTIN**	Executive Chairman
MÁV	Zoltán	**PAFFERI**	CEO
MŽ	Hari	**LOKVENEC**	Director General
NRIC	Zlatin	**KRUMOV**	Director General
NS International	Heike	**LUITEN**	CEO
ÖBB-Holding AG	Andreas	**MATTHÄ**	CER Chair/CEO
SBB/CFF/FFS	Vincent	**DUCROT**	CEO
SNCB/NMBS	Sophie	**DUTORDOIR**	CEO
SNCF Group	Jean Pierre	**FARANDOU**	President
Správa železnic	Jiri	**SVOBODA**	CEO
SŽ	Dušan	**MES**	Director General
UIC	François	**DAVENNE**	Director General
VDV	Oliver	**WOLFF**	General Managing Director
ŽSR	Milan	**KUBICEK**	Deputy Director General
ZSSK	Karol	**MARTINČEK**	Member of the Board, Chief Business Officer
ZSSK Cargo	Roman	**GONO**	CEO