

Report

Brussels, 27 September 2023

CER Ticketing Roadmap – 2nd Implementation Monitoring Report Spring 2023



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1. Executive Summary

The CER Ticketing Roadmap ("Roadmap") continues to be a key vehicle for the CER railways to improve the cross-European passenger experience by 2025 and 2030, respectively. It establishes concrete actions to further improve the experience of rail passengers in the Single European Railway Area. Timely implementation of the Roadmap is a key token of the sector's commitment to the European Union's climate and growth goals.

Since the adoption of the Roadmap by the CER General Assembly in autumn 2021, concrete actions have been launched both on a common level and on an individual railway level. Solution development and implementation work, with a focus on the 2025 goals, is in full swing. To gauge implementation progress and to identify areas that need special attention, the CER passenger railways are surveyed twice a year and results are presented to the member railways' CEOs at the CER General Assembly. The report at hand presents a synthesis of the second such survey performed in April and May of this year. It summarises the state of play and highlights where efforts need to be reinforced. The survey findings and recommendations were endorsed by the CER General Assembly on 18 September 2023. As a token of transparency and commitment, it was decided to make the key elements of the underlying report available to the wider public in a concise manner.

Survey turnout has improved versus the first survey undertaken in autumn 2022. This time, 21 of 29 CER member railways representing 94% of CER passenger traffic participated. Geographical coverage extends to rail traffic in and between 19 EU Member States on the continent as well as the Eurostar operations to and from London.

Responses to the second survey generally show a further improved awareness and confidence level by the railways, in as much as the number of "not sure" and similarly inconclusive answers to what needs to be implemented has significantly dropped. Moreover, a previous observation has been reconfirmed: Those railways who are actively involved in the development of common services and in the CER Ticketing Task Force are generally more advanced in their implementation work. To leverage on the nexus "involvement = awareness = better progress" all CER passenger railways are urged to participate in the established working groups and in the established dissemination and facilitation formats. It is important to note, however, that a solid number of member companies do already actively participate in the multilateral solution development.

The responding railways largely reconfirmed their individual implementation timelines, with only a very few, non-mission critical, delays reported. On the other hand, some railways report acceleration in some areas. However, implementation is still somewhat 2025-heavy. CER passenger railways have been urged to consider further accelerating their individual timelines by prioritizing tasks accordingly.

The second survey also highlighted the dependence on third parties such as infrastructure managers and national authorities for some of the less mature Roadmap actions, e.g. the extension of booking horizons and the harmonisation of ticket conditions. The railways are asked to address with national stakeholders the need for convergence between national legacies and the requirements of the Single European Railway Area as featured in the Roadmap. Moreover, survey respondents reconfirmed areas where support from third parties such as European institutions and national bodies is needed.

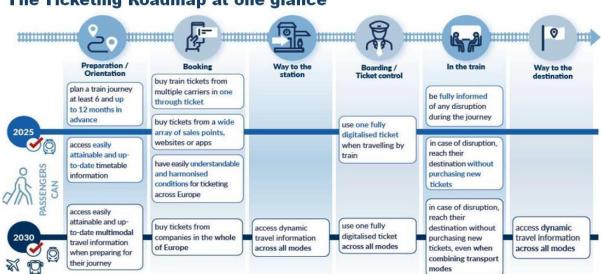
The next implementation progress monitoring survey will be carried out in late autumn 2023. The key results will be reported accordingly once endorsed by the CER members.



2. Background and Purpose of this Report

CER Ticketing Roadmap

In September 2021 the CER General Assembly adopted the CER Ticketing Roadmap ("Roadmap"). The Roadmap encapsulates a vision of railway ticketing and distribution by 2025 and 2030, respectively, summarizing concrete actions to further improve the customer experience from planning and booking to travelling internationally by rail. The roadmap naturally respects the regulatory requirements, more importantly, in several cases it exceeds them. It is thus a key token of the sector's commitment to a truly Single European Railway Area and to meeting its own and the European Union's climate and growth goals. It is crucial that the CER community delivers on its pledges. The voluntary effort of the CER member railways has so far been well received by stakeholders. However, they expect continuous and tangible progress and customer improvements. Delivery on the roadmap is not only a pledge but also in the railways' very own interest, and crucial to help shape meaningful legislation in this area.



The Ticketing Roadmap at one glance

Important Roadmap milestones are to be achieved by 2025 in each of the eight core areas of action:

#	Action (Focus: implementation by 2025)
1	More up to date timetables
2	Being able to buy train tickets at least 6 and up to 12 months in advance (booking horizon)
3	More up to date tariff exchange, enabling through tickets



4	European wide standardized API¹ for selling train tickets	
5	Increased harmonization of ticketing conditions (general conditions of use)	
6	6 Full digitalization of tickets	
7	Real time information during the journey	
8	Better support during disruptions and delays	

To make this a reality, the CER Ticketing Task Force² has published an Implementation Handbook and set up suitable governance structures for each of the core action areas of the Roadmap. No new governance structures have been established. Rather, the actions draw on already established sector working bodies, notably at UIC and CIT.

¹ Application Programming Interface that allows two IT programs to communicate with each other.

² The CER Ticketing Task Force consists of representatives from ČD, DB, MÁV-START, NS, ÖBB, Renfe, SBB, SNCF, Trenitalia and ZSSK and is supported by CER, UIC and CIT. Participation is open and encouraged to all CER member railways



Implementation Monitoring

To add weight to its Roadmap commitment and to ensure timely delivery, the sector has decided to monitor and report progress continuously. For this, and to drive and steer implementation, CER has contracted a consultant. In collaboration with the Ticketing Task Force and CER members, comprehensive progress reports are presented bi-annually to the CER General Assembly. The document at hand is a synthesis of the second such report. The key findings and recommendations of that report were presented in detail to the General Assembly on 18 September 2023.

The synthesis was produced for a broader audience such as the European institutions.

The purpose of this first report is to:

- take stock of Roadmap implementation maturity, especially progress made since the last report
- point out alignment needs with third parties such as national bodies
- recommend concrete steps to gain broader traction for implementation across the CER constituency and in the dialogue with the European institutions about smart legislation in the ticketing domain
- highlight areas of progress that substantiate the CER community's commitment.



3. Key Results and Recommendations

3.1. Overall Findings

Implementation of the CER Ticketing Roadmap's 2025 milestones is on track even if planning is somewhat 2025-heavy. CER members' awareness of and involvement in Roadmap related activities has improved. 21 railways participated in the second monitoring survey versus 15+5 in the first campaign³. The results presented in this report can be considered authoritative and representative for the CER constituency, not least because the responding railways represent 94% of the CER members' combined ridership.

The participating railways have largely established their internal project plans and depending on the maturity of the common services of specific actions - have initiated internal implementation projects. For several actions, implementation is in full swing. Some railways already report completion of specific elements of the Roadmap. The risk, however, of a widening implementation gap between actively involved railways and nonrespondents remains.

The participating railways also demonstrate a significantly improved understanding of what needs to be done and have provided contacts and expert resources to the multilateral working groups. Additional RUs have joined the CER Ticketing Task Force, which is now made up of representatives from ten railways plus from CER and CIT. Several meetings with the nominated company contacts were held to further step-up awareness and a sense of urgency.

Development of new and enhancement of existing common services that railways need to implement is making solid progress as well. The multilateral working groups that are tasked with specific actions of the Roadmap are working to plan. Together with the Ticketing Task Force, the action owners have paid additional attention to activating resources and to de-risking their areas of responsibility.

Even though implementation plans tend to be on the cautious side it is fair to assume that European rail passengers will experience significant improvements by the end of 2025, thus meeting the Roadmap quality and timeline goals.

To better understand the railways' implementation maturity, special attention in the second monitoring campaign was attached to concrete delivery planning. Survey responses have been summarised and Action specific timelines have been established in an aggregated way. In the following, two examples are presented in more detail.

Example 1: More up to date timetables (Action 1)

Action's goal:

When passengers search for journeys, the timetable information they find is easy to reach and the data is accurate, complete, and up to date, on any channel of their choosing.

³ In the first survey in October/ November 2022, 15 member railways participated. A rerun for non-participating CER members was undertaken in February/ March 2023, following which an additional 5 submitted their survey responses.

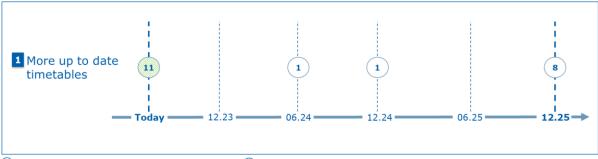


The more frequently an RU's timetable data is uploaded to the UIC MERITS database for others to integrate it in their sales and information channels, the more accurate and up to date this data is for customers and third parties such as distributors.

Key survey findings:

This survey focused on the railways' current timetable data upload frequency and on their plans to move towards the Roadmap goal of more frequent data uploads. Future editions of the survey will additionally address data quality and consistency improvement goals as there are still important gaps in this respect today.

Eleven out of 21 respondents already report compliance with this Action's upload frequency target. All others report plans to do so latest by the end of 2025.



More specifically, the survey yielded the following timeline commitments:

(x) Number of RUs with planned implementation by that date (x) Already compliant at time of survey (self-declared) Source: 2nd Survey

No critical delays versus previous planning were reported, nor have any material awareness and involvement issues been identified. This Action is therefore one of the most mature ones of the Roadmap. Yet, up-to-date timetable data of consistently high quality across the European network needs additional work, for instance by including replacement bus services, other domestic rail operators and public transport authorities, minimum connecting times for international journeys etc. Tackling these impediments is work in progress at the topical UIC working group in close collaboration with the member railways.

Attention also needs to be paid in some geographies to the interaction between infrastructure manager and RU when it comes to providing timetable data. Practices and responsibilities vary between member states. As a matter of principle, the Roadmap addresses the RUs' responsibilities and there is no intention to change established national practices. Nonetheless, as part of their implementation planning RUs need to factor in the potentially lengthy alignment process with their infrastructure manager(s) and take appropriate measures to ensure the Roadmap goals are met on time and with the desired quality irrespective of the specific IM – RU interplay.

In principle, it appears to be relatively easy for railways that are only planning to be compliant in 2025 to accelerate their implementations. It is suggested that such an acceleration potential is investigated internally as soon as possible to bring about customer improvements in the timetable area faster and to then re-focus resources on more challenging timetable data matters.

Example 2: Better support during disruptions and delays (Action 8)

Action's goal:

In case of a disruption or delay on a train that will hinder passengers' continuation of their journey by rail, the passengers will be notified of the situation, informed about their



passenger rights, and be given options on how to best continue to their destination. Upon inspection of their tickets in any subsequent trains, the disruption or delay becomes apparent to staff and their tickets remain valid.

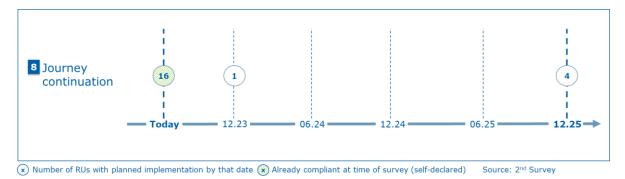
Key element of the Roadmap at this stage is related to the handling of missed connections as laid out in the CIT Agreement concerning Journey Continuation (AJC). It should be noted, however, that Action 8 of the Roadmap comprises more than just joining the AJC, for example the digitisation of the processes. Therefore, additional questions were asked in the survey to feel the railways' pulse about scenarios and concrete measures to further enhance the scope and depth of the AJC and about digitizing processes such as delay confirmations.

Key survey findings:

A substantial number of 16 (out of 21) survey respondents have already signed up to the AJC. All respondents are planning to ultimately join the agreement.

This is encouraging, not least because several railways have recently joined in following some extensive sector-internal lobbying triggered and reinforced by the Roadmap. Awareness about the AJC has experienced significant improvement since the first survey campaign as well, both in the rail sector and on the level of critical stakeholders; CIT and CER have communicated widely on this tangible customer improvement, including in social media (Youtube, LinkedIn). In addition, a special task force was established to improve the AJC in the framework of Action 8. The task force is composed of CIT contacts as well as Action 8 contacts submitted by the RUs.

More specifically, the survey yielded the following timeline commitments:



Overall implementation timeline considerations and recommendations

The aspired step changes entail a degree of dependency on third parties such as Infrastructure Managers and on national or European legislation. Railways and groups of, for example, "neighbouring" railways, are urged to accelerate implementation of all common services that are already available or that are sufficiently mature. The Agreement on Journey Continuation (cf. Roadmap Action 8), the OSDM online sales interface (cf. Actions 3+4) and connecting to the UIC Electronic Ticket Control Database (cf. Action 6) are examples where additional progress could be made faster. Those RUs that have not yet launched internal projects are requested to do so as a matter of urgency. It is also recommended to follow an agile approach wherever possible. For example, increasing booking horizons in incremental steps constitutes tangible customer improvements that can typically be brought about faster than larger scale leaps. Likewise, timetable and tariff data upload frequencies to the respective UIC databases can be increased in a stepwise



manner. The railways are urged to follow such an agile philosophy of Roadmap implementation, geared towards bringing about tangible customer improvements ahead of the 2025 milestones.

3.2. Risk Assessment

CER Ticketing Task Force risk assessment of Roadmap implementation status as planned, based on the survey responses and additional insights into the maturity of sector solutions:

Action	Assessment
1. Timetables	Good progress in increasing RUs' frequency of making timetable data available. Data quality and consistency needs additional attention.
2. Booking horizon	Relatively good number of RUs with concrete plans to increase booking horizons in the context of annual timetable changes. Domestic and cross-border services still to be harmonized.
3. Tariff exchange	Already solid use of established sector solution. Focus on incremental improvements.
4. Standardized API	Various RUs have started implementing the technical sector solution of choice (OSDM), most others have concrete plans. European institutions' delayed commitment to integrate OSDM in TAP TSI and MDMS regulations entails risk of implementation delays.
5. Harmonization of ticketing conditions	Common development of solutions to this broad-scope Action gained traction with new project leadership. Dependency on third parties requires increased efforts to align especially with national stakeholders needed.
6. Digitalization of tickets	Several RUs already compliant or have concrete plans to become so shortly. Focus of multilateral work on incremental improvements.
7. Real time information	Demanding process to identify most suitable common solution in heterogeneous systems landscape that is largely influenced by legacy systems and national considerations.
8. Support during disruptions and delays	Agreement on Journey Continuation applied by most railways already. Enhancement steps defined. Additional traveller support activities launched.



3.3. Recommendations to CER Member Railways

To leverage on additional established sector work and to better link Roadmap activities with European ticketing regulation obligations, which the railways are subject to in any case, it is recommended that more railways join and use the data management services of the sector-led TAP TSI Services Governances Association (TSGA). The TSGA is stipulated in the TAP TSI Regulation and was founded as a not-for-profit legal entity (a Belgian "aisbl" like CER) by the sector as a lightweight response to regulatory obligations related to certain reference data that are also key for the success of the Roadmap. TSGA founding members, in 2016, were DB, SNCF and Trenitalia. These have meanwhile been joined by CFL, DSB, NS and SBB. Additional members would add credibility and traction vis-à-vis European stakeholders. It would also help avoid a stricter data management regime, which the TAP TSI Regulation had initially foreseen against the sector's interests and which is likely to be tabled again in upcoming revisions of the regulation.

In summary, railways are advised to:

- be bold by pursuing implementation acceleration potentials,
- launch internal implementation projects as a matter of urgency, if not yet done so,
- lobby national stakeholders where third-party support and alignment is needed (especially regarding timetable stability/ booking horizons, ticket conditions, real time information exchange),
- participate in the CER Ticketing Task Force and in international working groups such as different action task forces, the overall Roadmap contact meetings, or owner meetings (if not yet done so),
- consider joining and using the services of the sector-led TAP TSI Services Governance Association (TSGA),
- take upcoming implementation monitoring surveys as an opportunity to check internally that implementation activities are on track,
- provide evidence of communicable passenger improvements that CER can use to underpin progress made.

3.4. Concerted Effort

The survey respondents reiterated previous remarks about the dependencies on third parties and required stakeholder support to help facilitate Roadmap implementation and overcome barriers to implementation.

Suggestions were made specifically regarding:

- a) European Commission and ERA
 - Refrain from legislative proposals that impose new or conflicting requirements that may jeopardize railways' efforts and investments already made
 - $_{\odot}$ Take over the sector solutions like OSDM into the TAP TSI regulation so the sector only needs to invest once
- b) Sector bodies (Action Owners, Ticketing Task Force)
 - $_{\odot}\,$ Foster dialogue, alignment and synchronization between multilateral working bodies and RUs as well as between RUs



- \circ Launch implementation meetings and workgroups per Action or specific subsets thereof
- Exert strong project management, leadership and visibility
- Reiterate implementation deadlines and intermediate steps on an ongoing basis
- Take the diversity and specificities of CER passenger RUs, for instance of open-access international high-speed operators, into account
- c) Others
 - $_{\odot}$ National governments to support the Roadmap consistently and refrain from contradictory or additional legislation in that field
 - National bodies and stakeholders to align national standards and requirements with the Roadmap; overcome the patchwork of conflicting national or even regional approaches and solutions.

Meeting the quality and timeline goals of the Roadmap will greatly benefit from a concerted effort, building on the CER members' commitment and the recommendations presented to their CEOs.

About CER

The Community of European Railway and Infrastructure Companies (CER) brings together railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 78% of the rail network length, 81% of the rail freight business and about 94% of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policy makers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit www.cer.be or follow us on Twitter @CER_railways or LinkedIn.

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