

Moving Europe towards a
sustainable and
safe railway system without frontiers.

OPINION

ERA/OPI/2025-3

OF THE EUROPEAN UNION AGENCY FOR RAILWAYS

for

THE EUROPEAN COMMISSION

regarding

the spelling alphabet used for safety related communications
adapted to all operating languages

Disclaimer:

The present document is a non-legally binding opinion of the European Union Agency for Railways. It does not represent the view of other EU institutions and bodies, and is without prejudice to the decision-making processes foreseen by the applicable EU legislation. Furthermore, a binding interpretation of EU law is the sole competence of the Court of Justice of the European Union.

1. General Context

The European Commission identified a deficiency in Commission implementing regulation (EU) 2019/773 (OPE TSI), specifically Appendix C1. Oral communication, Section 3.1, which mandates the use of the *International Phonetic Alphabet* for safety-related communication. As the regulation sets out, this alphabet is used “to identify letters of the alphabet; to spell words and location names that are difficult to say, or may be misunderstood; [and] when quoting the identity of signals or points.” However, the table in Section 3.1 contains **code words for the 26 letters of the ISO basic Latin alphabet**, not phonetic symbols. This mismatch creates a structural deficiency.

Under OPE TSI 4.2.1.5¹, infrastructure managers must publish the *operating language* used on their network. Several operating languages contain **letters beyond the 26 Latin characters**, meaning that the current spelling alphabet is insufficient for unambiguous safety-related communication. Not all Member States (‘MSS’) apply the rules of OPE TSI, Appendix C1, section 3.1, including the international spelling alphabet.

Following the Commission’s request of 3 February 2025, the Agency collected input from Member States and assessed the operational, linguistic and interoperability implications.

In its letter of 3 February 2025, the European Commission requested the European Union Agency for Railways (hereafter ‘the Agency’) to provide a solution and issue a technical opinion to solve this deficiency according to Article 6 Directive (EU) 2016/797 (see letter in Annex 1).

This opinion is addressed to the European Commission.

2. Legal Background

This opinion is issued in accordance with Article 6 Directive (EU) 2016/797² of the European Parliament and of the Council of 11 May 2016 and Articles 4 (c) and 10 (2) Regulation (EU) 2016/796³ (‘Agency Regulation’). This opinion is on deficiencies in technical specifications for interoperability.

The applicable EU legislation which is relevant for this opinion is:

- Directive (EU) 2016/797 of 11 May 2016 on the interoperability of the rail system within the European Union;
- Commission implementing regulation (EU) 2019/773 of 16 May 2019 on the technical specification for interoperability relating to the operation and traffic management subsystem of the rail system within the European Union and repealing Decision 2012/757 EU.

3. Analysis

3.1. Background

Appendix C1, Section 3.1 of the OPE TSI requires the use of the “International Phonetic Alphabet”, but the table provided is in fact the **International Spelling Alphabet** (ICAO/NATO). This inconsistency has operational consequences:

- The table only covers **26 Latin letters**.
- Many operating languages used on EU networks include **additional characters** (e.g. Ä, Ö, Ł, Ř, Ž, Å, etc.).

¹ Safety-related communications between train crew, other railway undertaking staff and staff authorising train movement

² OJ L 138, 26/5/2016, p. 1.

³ OJ L 138, 26/05/2016, p. 1

- Safety-related communication often requires spelling location names or identifiers containing these characters.

This creates a gap between the TSI requirement and operational reality.

3.2. Received input

Through meetings and an extensive survey, the Agency requested information on:

- operating languages used on each network
- additional characters required
- code words used for spelling
- any additional rules or instructions

Twelve Member States reported no need for additional characters: Belgium, France, Ireland, The Netherlands, Portugal, Luxemburg, Lithuania, Switzerland, Italy, Estonia, Latvia and Croatia.

Fourteen Member States reported a need for additional characters, covering 11 Latin-based alphabets : (Austria, Germany, Czech Republic, Denmark, Finland, Spain, Norway, Poland, Sweden, Slovenia, Slovakia, Hungary, and 2 non-Latin alphabets (Bulgaria (Bulgarian Cyrillic alphabet), Greece (Greek alphabet)).

No information was received from Romania despite the fact that the agency sent out several reminders to the concerned MS representative:

- E-mail on 14/03/2025 with subject "Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages";
- E-mail on 23/06/2025 with subject "Kind reminder : Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages";
- E-mail on 02/03/2026 with subject "Need for additional characters in the operating languages used on your railway network(s)";
- E-mail on 10/04/2026 with subject "FW: Need for additional characters in the operating languages used on your railway network(s)".

The received input from the Member States is available in Annex 2.

A potential inconsistency within the TSI OPE has been identified (Ref. Ares(2025)806736 – 03/02/2025 – see Annex 1). On the one hand, TSI OPE requires the use of the International Spelling Alphabet in three specific cases of safety-related communication. On the other hand, it also states in more than one section, that: *"The operating language is the language or languages used in daily operation an infrastructure manager and published in its Network Statement, for the communication of operational or safety related messages between the staff of the infrastructure manager and the railway undertaking."* In the ERA initial letter to the Member States, it was specifically asked whether additional rules were needed in this respect and no Member State identified a need for an additional rule.

In relation to this, the Agency did not identify documented evidence demonstrating that the exclusive use of the International Spelling Alphabet (ICAO/NATO alphabet) instead of a national spelling alphabet has resulted in recorded safety occurrences or has created a quantifiable safety risk. Nevertheless, few Member States identified operational situations in which the use of characters not covered by the International Spelling Alphabet may lead to ambiguity or misunderstanding. In some cases, concrete examples were provided, such as the use of signal identifiers containing national characters that are visually and operationally distinct from standard Latin characters contained in the ICAO/NATO alphabet. While the available evidence does not allow the safety impact to be quantified, it indicates a potential for miscommunication in safety-critical communication and has therefore been taken into account in the development of this technical opinion.

3.3. Identified issues

3.3.1. *Misleading title and terminology in the OPE TSI.*

The title “International Phonetic Alphabet” is technically incorrect and misleading (OPE TSI App. C 1, section 3.1 [twice]; App. C2, section 8;). The table contains **code words, not phonetic symbols**. Several Member States explicitly highlighted pronunciation issues, confirming the need to correct the terminology.

Proposed correction in a future revision of OPE TSI:

Rename the section to “International **Spelling** Alphabet” and adjust the introductory sentence accordingly.

3.3.2. *Divergent national practices and inconsistent implementation*

Based on the inputs provided by the MSs, the Agency identified several patterns indicating poor or inconsistent implementation:

- Some Member States use two parallel spelling systems (e.g. Slovak, Bulgarian), without clear rules on when each applies.
- Some languages propose code words for digraphs (e.g. Czech “CH”), although these can be spelled using existing code words (“Charlie–Hotel”).
- Some networks do not use code words at all except in exceptional cases (e.g. Slovenia).

These practices undermine harmonisation and create avoidable operational risks.

Proposed solution:

For all characters already included in the International Spelling Alphabet, only the code words listed in the OPE TSI shall be used.

Staff shall be trained to use the spelling alphabet consistently for all safety-related communication. When additional characters are required for an operating language used in safety-related communication, staff must be trained in the use of those characters, even if communication may also take place in another language.

3.3.3. *Challenges for non-Latin alphabets (Greek and Bulgarian)*

Some Member States’ operating languages do not use the Latin script but other alphabets, such as the Greek and Bulgarian Cyrillic alphabets. The International Spelling Alphabet provides clear code words for the Latin alphabet, but when characters in Greek or Cyrillic share the same visual shape as Latin letters while having different phonetic values, its use may lead to ambiguity.

For Greece, several letters look identical to Latin characters but are pronounced differently (e.g. Greek “P” pronounced /r/ vs Latin “P” pronounced /p/). Using Latin-based code words such as “Papa” therefore creates confusion.

For Bulgaria, the alphabet contains characters with no Latin equivalent (e.g. ж, ч, ш, ц) as well as letters that resemble Latin characters but have different pronunciation (e.g. Б, Н, Р, С, Х). In safety-related communication—particularly between drivers and traffic controllers under degraded conditions—this can lead to misunderstandings. Examples include “P” pronounced /r/ versus the code word “Papa” (/p/), or “X” pronounced /h/ versus “X-ray”.

Proposed correction in a future revision of OPE TSI and Agency Opinion as per Art. 6(2) of Directive (EU) 2016/797:

While the OPE TSI methodology and rules for safety-related communication apply to all EU networks, including Greek and Bulgarian, the Agency proposes to include in OPE TSI:

- the use of the Greek Spelling Alphabet for safety-related communication on the Greek network;

- the use of the Bulgarian Spelling Alphabet for safety-related communication on the Bulgarian network.

3.3.4. Corrections to the International Spelling Alphabet in a future revision of OPE TSI

To align with ICAO/NATO standards, the Agency supports correcting:

- A → Alfa** (not Alpha)
- J → Juliett** (double t)

4. The opinion

In forming this opinion, the Agency applied three principles:

- harmonise as much as possible (removing barriers – technical and national rules);
- make as few changes as possible to the current operational situation (stability);
- take into account the operational staff involved (human factors).

The Agency recommends updating Appendix C, Section 3 of the OPE TSI as follows:

4.1. Correct the terminology

Replace “International Phonetic Alphabet” with “**International Spelling Alphabet**” throughout in OPE TSI.

4.2. Correct the code words for A and J

Adopt **Alfa** and **Juliett**.

4.3. Add a new Section 3.2 in OPE TSI appendix C for additional characters in a future revision of OPE TSI:

3.2 Additional characters and their code word for spelling

On certain networks, in addition to the 26 letters of the International Phonetic Spelling Alphabet, additional characters are required to spell location names or to identify objects containing letters specific to the operating language used on that network.

The tables below sets out the additional characters that shall be used for each operating language requiring such characters, together with the corresponding code words.

German

German character	Code word for spelling	Countr(y)(ies) in which these letters are used
Ä	Ärger	Austria, Germany
Ö	Öse	Austria, Germany
Ü	Übel	Austria, Germany
ß	Eszett	Germany

Czech

Czech character	Code word for spelling	Countr(y)(ies) in which these letters are used
Á	káva	Czech Republic
Č	Čeněk	Czech Republic
Ď	Ďáblce	Czech Republic

É	lék	Czech Republic
Ě	pět	Czech Republic
Í	pít	Czech Republic
Ň	Nina	Czech Republic
Ó	tón	Czech Republic
Ř	Řehoř	Czech Republic
Š	Šimon	Czech Republic
Ť	Těšnov	Czech Republic
Ú	úsek	Czech Republic
Ů	půl	Czech Republic
Ý	výlet	Czech Republic
Ž	Žofie	Czech Republic

Danish

Danish character	Code word for spelling	Countr(y)(ies) in which these letters are used
Æ	Ægir	Denmark
Ø	Ødis	Denmark
Å	Åse	Denmark

Spanish

Spanish character	Code word for spelling	Countr(y)(ies) in which these letters are used
ñ	ñoño	Spain

Finnish

Finnish character	Code word for spelling	Countr(y)(ies) in which these letters are used
Å	Åke	Finland
Ä	Äiti	Finland
Ö	Öljy	Finland

Norwegian

Norwegian character	Code word for spelling	Countr(y)(ies) in which these letters are used
Æ	Ærlig	Norway
Ø	Østen	Norway
Å	Åse	Norway

Polish

Polish character	Code word for spelling	Countr(y)(ies) in which these letters are used
Ą	Ącki	Poland
Ć	Ćma	Poland
Ę	Ęsi	Poland
Ł	Łukasz	Poland
Ń	śłoń	Poland
Ó	Ósemka	Poland
Ś	Światowid	Poland
Ż	Żrebak	Poland
Ż	Żaba	Poland

Swedish

Swedish character	Code word for spelling	Countr(y)(ies) in which these letters are used
Å	Åke	Sweden
Ä	Ärlig	Sweden
Ö	Östen	Sweden

Slovene

Slovene character	Code word for spelling	Countr(y)(ies) in which these letters are used
Č	Čatež	Slovenia
Š	Šmarje	Slovenia
Ž	Žalec	Slovenia

Slovak

Slovak character	Code word for spelling	Countr(y)(ies) in which these letters are used
Č	Čečina	Slovakia
Ď	Ďumbier	Slovakia
DZ	Dzindžík	Slovakia
DŽ	Džbán	Slovakia
CH	Chopok	Slovakia
Ľ	Ľudovít	Slovakia
Ň	Ňufák	Slovakia

Š	Šimon	Slovakia
Ť	Ťava	Slovakia
Ž	Žofia	Slovakia

Hungarian

Hungarian character	Code word for spelling	Countr(y)(ies) in which these letters are used
Á	Ágnes	Hungary
É	Éva	Hungary
Í	Írisz	Hungary
Ó	Ottó	Hungary
Ö	Ödön	Hungary
Ő	Őrs	Hungary
Ú	Újlaki	Hungary
Ü	Üllő	Hungary

4.4. Clarify usage rules for additional characters

Specify that:

- For the 26 letters of the International Spelling alphabet, **only** the code words for spelling listed in the OPE TSI section 3.1 may be used.
- Additional characters as identified in OPE TSI appendix C section 3.2 may be used **only** on networks whose operating language requires them.
- Staff must be trained to use the spelling alphabet consistently. When additional characters are required for an operating language used in safety-related communication, staff must be trained in the use of those characters, even if communication may also take place in another language.

4.5. Clarify the use of the international spelling alphabet and any additional characters for certain networks

The input received from the Member States does not contain a need for additional rules for the use of the spelling alphabet other than the ones defined in OPE TSI, appendix C section 3.1.

However, to make sure that the International spelling alphabet, and when needed the combination with additional characters, is correctly used, the agency proposes to add a description for this by adding a section after the table with the international spelling alphabet:

“On certain networks, additional characters are necessary to spell location names or to identify objects that contain letters specific to the operating language used on that network. The tables below present the additional characters used in each operating language requiring such characters, along with the associated code words for spelling.”

4.6. Add a new Section 3.3 in OPE TSI appendix C for the use of specific spelling alphabets in operating languages that use alphabets not based on the Latin alphabet

Allow the use of the **Greek Spelling Alphabet** and **Bulgarian Spelling Alphabet** for safety-related communication on their respective network and include them in OPE TSI.

(Modern) Greek

Greek character	Code word for spelling	Countr(y)(ies) in which these letters are used
A	Αστήρ	Greece
B	Βύρων	Greece
Γ	Γαλή	Greece
Δ	Δόξα	Greece
Ε	Ερμής	Greece
Z	Ζεύς	Greece
H	Ηρώ	Greece
Θ	Θεός	Greece
I	Ίσκιος	Greece
K	Κενόν	Greece
Λ	Λάμα	Greece
M	Μέλι	Greece
N	Ναός	Greece
Ξ	Ξέρξης	Greece
O	Οσμή	Greece
Π	Πέτρος	Greece
P	Ρήγας	Greece
Σ	Σοφός	Greece
T	Τίγρης	Greece
Υ	Υμνος	Greece
Φ	Φωφώ	Greece
X	Χαρά	Greece
Ψ	Ψυχή	Greece
Ω	Ωμέγα	Greece

Bulgarian⁴

Bulgarian character	Code word for spelling	Countr(y)(ies) in which these letters are used
ж	Жеравна	Bulgaria
ч	Челопеч	Bulgaria
ш	Шумен	Bulgaria

⁴ Pending clarification from BG authorities for the entire Bulgarian Cyrillic spelling alphabet and related code words needed for safety-related communication

Ц	Царево	Bulgaria

To ensure that the Greek and Bulgarian spelling alphabets are used correctly, the Agency proposes adding a clarifying description before the tables with their respective spelling alphabets and code words:

“On the Greek and Bulgarian networks, specific spelling alphabets are necessary to avoid misunderstandings during safety-related communication. Instead of the International Spelling Alphabet, the Greek and Bulgarian spelling alphabets are used on their respective networks.”

Valenciennes

Qualified electronic signature by: OANA
RODICA GHERGHINESCU
Date 2026-10-26 11:56:00 UTC

Oana Gherghinescu
Executive Director

Annex 1 – Letter of the European Commission requesting for a TO Ref. Ares(2025)806736 - 03/02/2025

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MOBILITY AND TRANSPORT
Directorate C – Land
The Director

Brussels
MOVE.DDG2.C/KS

NOTE FOR THE ATTENTION OF 
– EUROPEAN UNION AGENCY FOR RAILWAY

Subject: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages

Article 6 of the Interoperability Directive (EU) 2016/797 allows that if a deficiency is identified in legislation containing technical specification for interoperability (TSI), the Commission may request an opinion from the Agency on the subject matter and ask for solutions.

The Commission has been made aware of a deficiency in the Commission Implementing Regulation 2019/773 on the technical specification for interoperability relating to the operation and traffic management subsystem of the rail system in the European Union (OPE TSI).

In OPE TSI Appendix C1, point 3 establishes the requirement that during safety-related communications the international phonetic alphabet, as described in point 3.1 shall be used. The international phonetic alphabet, as included in point 3.1, only covers the letters of the Roman alphabet (26 characters) with corresponding code words for spelling.

Stakeholders raised concerns related to the implementation of the above requirement, given that OPE TSI 4.2.1.5 sets out that the infrastructure manager is responsible for publishing the 'operating' language(s) used by its personnel in daily operational use, in accordance with Directive 2012/34/EU, which include the languages using further letters than those prescribed in OPE TSI Appendix C1 point 3.1.

As the safety-related communications include, amongst others, spelling locations and objects identifiers, the names of which include the letters of the local language, the limitation to use only the 26 characters and code words defined in point 3.1 is considered to be a deficiency.

Therefore, the Commission hereby requests the Agency for an opinion regarding the TSI OPE Appendix C1 point 3, in particular related to the use of a spelling alphabet, which will constitute acceptable means of compliance.

Commission européenne/Europese Commissie, 1049 Bruxelles/Brussel, BELGIQUE/BELGIË – Tél. +32 22991111
Office: DM28 04/110 – Tél. direct line +32 229-61616

Kristian.Schmidt@ec.europa.eu

The opinion should include:

- The additional letters needed for each operating language, including their code words used for spelling
- Rules related to the use of the additional letters, in addition to the already defined international alphabet in point 3.1

The Agency is requested to confirm that all rail operating languages have been considered, and where relevant, their additional letters included in the opinion.

In the Annex below you'll find the reference to the already received notifications from Member States regarding the additional letters and their code words needed. The listed ARES tasks have been assigned to the TSI OPE Working Party leaders in ARES and transmitted via email as well.

The Commission asks you to ensure the delivery of technical opinion as soon as reasonably possible, but by 15 October 2025 the latest.

Electronically signed



c.c.:

ERA
DG MOVE



Annex:

- [Ares\(2024\)8251490](#) - List of special characters and phonetics of Czech alphabet for OPE TSI
- [Ares\(2024\)4730388](#) - Phonetic alphabets used in Finnish railways
- [Ares\(2024\)4730353](#) - TSI OPE Appendix C1 point 3.1, additional characters to phonetic alphabet – Norway
- [Ares\(2024\)4730319](#) - Sweden phonetic alphabet
- [Ares\(2025\)721612](#) - DE: TSI OPE Appendix C.1: phonetic alphabet and national characters
- [Ares\(2024\)4730278](#) - TSI OPE, Phonetic Alphabet in Austria
- [Ares\(2024\)4730217](#) - ES: Notification of "ñ" to International Phonetic Alphabet
- [Ares\(2024\)4730186](#) - DK: Additional letters needed for Denmark

Annex 2 – List of received notifications and bilateral meetings held

The Agency wrote a formal letter (ref. PG/bc/D/2025/9636 and PG/bc/D/2025/9637) to the RISC representatives of all Member States on 14 March 2025 asking to provide the information by 16 May 2025. Below the list of the received notifications from Member States regarding additional characters and their code words for spelling for the operating language(s) used on their network(s).

AT: Position earlier communicated to EC with reference “Ares(2024)4730278 – TSI OPE: Phonetic alphabet in Austria”. E-mail of 16/05/2025 with subject “AW: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

BE: E-mail of 27/03/2025 with subject “RE: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

BG: E-mail of 18/05/2025 with subject “Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”. E-mail of 17/04/2026 with subject “RE: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”, including a follow-up e-mail for receiving all the additional characters of the Bulgarian alphabet including their codewords for spelling;

CH: E-mail of 23/05/2025 with subject “Int. Spelling Alphabet” and follow-up e-mails;

CZ: Position earlier communicated to EC with reference “Ares(2024)8251490 – List of special characters and phonetics of Czech alphabet for OPE”. E-mail of 19/11/2024 with subject “List of special characters and phonetics of Czech alphabet for OPE TSI”. Bilateral meeting held on 16/03/2026. E-mail of 14/04/2026 with subject “Re[3]: Need for additional characters in the operating languages used on your railway network(s)” confirming the need for 15 additional characters for the Czech language;

DE: Position earlier communicated to EC with reference “Ares(2025)721612 – DE: TSI OPE Appendix C1: phonetic alphabet and national characters”. E-mail of 16/05/2025 with subject “AW: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

DK: Position earlier communicated to EC with reference “Ares(2024)4730186 – DK: additional letters needed for Denmark”. E-mail of 18/03/2025 with subject “SV: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

EE: Bilateral meeting held on 27/03/2026; E-mail of 10/04/2026 with subject “RE: Kind reminder: Request for Bilateral Meeting on Additional Characters to the International Spelling Alphabet”;

EL: E-mail of 16/05/2025 with subject " RE: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages" containing a draft proposal due to high workload;

ES: E-mail of 17/10/2025 with subject “INTERNATIONAL SPELLING ALPHABET”;

FI: Position earlier communicated to EC with reference “Ares(2024)4730388 – Phonetic alphabets used in Finnish Railways”. E-mail of 05/06/2024 with subject “Phonetic alphapets used in Finnish railways”;

FR: E-mail of 18/03/2025 with subject “RE: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

HR: E-mail of 16/03/2026 with subject “RE: Need for additional characters in the operating languages used on your railway network(s)”. Bilateral meeting held on 16/03/2026;

HU: E-mail of 07/04/2026 with subject “RE: Need for additional characters in the operating languages used on your railway network(s)”. Bilateral meeting held on 20/03/2026 (report available confirming the need of additional characters);

IE: E-mail of 25/04/2025 with subject “RE: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

IT: E-mail of 25/09/2025 with subject “R: Kind reminder : Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

LT: E-mail of 25/06/2025 with subject “RE: Kind reminder : Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

LU : E-mail of 30/06/2025 with subject “RE: Kind reminder : Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

LV: Bilateral meeting held on 27/03/2026; E-mail of 10/04/2026 with subject “RE: Kind reminder: Outcome Bilateral Meeting on Additional Characters to the International Spelling Alphabet” confirming no need for additional characters;

NL: E-mails of 02/04/2025 and 15/05/2025 with subject “RE: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

NO: E-mail of 14/05/2025 with subject “vs. Request for technical opinion to the Comission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages - reply from Norway”;

PL: E-mail of 13/05/2025 with subject “Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”. Bilateral meeting held on 13/04/2026;

PT: E-mail of 13/05/2025 with subject “FW: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;

RO: No information was received from Romania despite the fact that the agency sent out several reminders to the concerned MS representative:

- E-mail on 14/03/2025 with subject “Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;
- E-mail on 23/06/2025 with subject “Kind reminder : Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”;
- E-mail on 02/03/2026 with subject “Need for additional characters in the operating languages used on your railway network(s)”;
- E-mail on 10/04/2026 with subject “FW: Need for additional characters in the operating languages used on your railway network(s)”.

SE: E-mail of 15/05/2025 with subject “VB: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages” to confirm position earlier communicated to EC with reference “Ares(2024)4730319 – Sweden phonetic alphabet”;

SI: E-mail of 23/04/2025 with subject “Re: Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”. Bilateral meeting held on 13/04/2026;

SK: E-mail of 16/05/2025 with subject “Request for technical opinion to the Commission pursuant to Article 6 of the Interoperability Directive (EU) 2016/797 on the spelling alphabet adapted to all operating languages”. Bilateral meeting held on 13/04/2026. E-mail from 17/04/2026 with subject “RE: Request for Bilateral Meeting on Additional Characters to the International Spelling Alphabet” in which Slovakia confirms the need for additional characters (report available confirming the need of additional characters).

Annex 3 – Received input from Member States (as well as Switzerland and Norway)

Austria

For operational use Austria considers the following letters in the phonetic alphabet of TSI OPE (German version) to be necessary:

Ä – Ärger

Ö – Öse

Ü – Übel

NATO has adopted the ICAO (International Civil Aviation Organisation) alphabet, as provided in the current TSI, and has defined characters Ö (Öse), Ä (Ärger) and Ü (Übel) for German-speaking countries. On this internationally harmonised basis, we consider this definition to be appropriate and already established.

Belgium

No need for additional characters for the operational languages used in Belgium.

Bulgaria

The operational language used in the railway system of Bulgaria is Bulgarian language. For safety-related communication, a phonetic alphabet is used at the national level. In Bulgaria, two spelling systems are commonly used — one based on personal names, and another based on the names of Bulgarian cities.

The Bulgarian language uses Cyrillic script (30 characters), which contains additional letters compared to the International Phonetic Alphabet. Below we present a list of the additional letters not included in the International Phonetic Alphabet, along with code words used for spelling.

Bulgarian letters	Code words
ж	Жеравна
ч	Челопеч
ш	Шумен
ц	Царево

We agree that the issue is broader than initially described. Besides the four letters (ж, ч, ш, ц), which do not have equivalents in the Latin alphabet, there are also letters such as B, H, P, C and X that may cause confusion due to their visual similarity to Latin characters but different pronunciation.

In our previous message, we focused on the four letters because they cannot be represented by the International Spelling Alphabet. However, we acknowledge that the other letters mentioned may also lead to misunderstandings in practice.

In Bulgaria, spelling is used in safety-related communication, especially in communication between train drivers and traffic controllers, including the transmission of train identifiers, vehicle numbers, locations and signals, often under degraded conditions (e.g. poor radio quality).

In practice, the following situations may lead to confusion:

- transmission of train identifiers containing Cyrillic letters (e.g. “P” pronounced /r/, while the code word “Papa” corresponds to /p/),
- communication of vehicle numbers (e.g. “X” pronounced /h/ versus “X-ray”), communication of route points or locations (e.g. “X” in “Hitrino”),
- spelling of station names containing letters not present in the Latin alphabet (e.g. “Ч” in “Cherven bryag”), confirmation of recorded messages (e.g. “C” pronounced /s/ but interpreted via “Charlie”)

For this reason, a national phonetic spelling system is used in Bulgaria, based on commonly known names (cities and personal names), which ensures clarity and avoids ambiguity.

Considering the similarities with the situation in Greece, we believe that allowing the use of a full national spelling system for Bulgarian would be a practical solution. Bulgaria was asked to communicate if further details or examples are needed.

Switzerland

NSA Switzerland has no comments

Czech Republic

List of special characters and phonetics of Czech alphabet for OPE TSI

Czech character	IPA transcription	Characteristics of the sound	Czech word	English sound
Á	/a:/	open central long	káva (“coffee”)	a in hard
Č	/tʃ/	postalveolar affricate	Čeněk (“Czech name”)	ch in church
Ď	/ɟ/	palatal plosive	Ďáblice (“Czech geographic name”)	dj in duke
É	/ɛ:/	open-mid front long	lék (“medicine”)	a in care
Ě	/jɛ/	open-mid front long	pět (“five”)	ye in yes
CH	/x/	velar fricative	Chrudim (“Czech geographic name”)	ch in loch
Í	/i:/	close front long vowel	pít (“drink”)	ee in eel
Ň	/ɲ/	(alveo-)palatal nasal consonant	Nina (“Czech name”)	ni in onion
Ó	/o:/	mid back long vowel	tón (“tone”)	o in more
Ř	/ʀ/	alveolar fricative trill consonant	Řehoř (“Czech name”)	rzh but with the r rolled
Š	/ʃ/	postalveolar fricative consonant	Šimon (“Czech name”)	sh in ship

ř	/c/	alveolar affricate consonant	Těšnov (“Czech geographic name”)	<i>tj</i> in tune
Ú	/u:/	close back long vowel	úsek (“section”)	<i>oo</i> in tool
Ů	/u:/	close back long vowel	půl (“half”)	<i>oo</i> in tool
Ý	/i:/	close front long vowel	výlet (“trip”)	<i>ee</i> in eel
Ž	/ʒ/	postalveolar fricative consonant	Žofie (“Czech name”)	<i>s</i> in measure

Germany

Ä - Ärger

Ö – Öse

Ü – Übel.

In addition to that, we have identified the need for:

ß - Eszett

For your information: We have coordinated this request with colleagues from AT and CH. As a result, "ß - Eszett" is not needed in AT and CH, but they also do not see a problem in adding it.

Denmark

The needed additional letters for Denmark used for communication are (small letters in brackets):

“Æ” (æ), “Ø” (ø) and “Å” (å)

Words to be used for identification:

“Æ”: Ægir

“Ø”: Ødis

“Å”: Åse

As all ETCS stop markers is identified by abbreviation for the location and a three digit number and some locations are abbreviated with one of these letters, they are needed.

Examples:

Ølgod abbreviated Øg

Højslev abbreviated Hø

Vørslev abbreviated Væ

Høje Taastrup abbreviated Htå

Rønbjerg abbreviated Røn.

For the rest we use the English letters and have no problem with them. All 29 letters have been used in daily operation since introduction of ETCS and operational rules for running in ETCS in 2018 (and of course also long before that). It's important to stress that the need for these three additional letters is not limited to

when the communication is done in Danish but is needed when the communication is done in Denmark. Both in Danish AND in English.

Greece

Greece provided a draft answer, due to high workload the final answer is not yet received.

I. The language of operation is Greek (Modern Greek)

II. Regarding the issue of phonetic spelling we have to bring to your attention the following

1. The Greek Alphabet consists of 24 letters.
2. The letters, for known historic reasons bear many similarities with the Latin Script. However, there are discrepancies, indicated in the following table:

Greek Letter	Pronunciation (IPA)	Discrepancy
A	/e/	Identical/Similar shape and pronunciation in both alphabets
B	/v/	Exists in both alphabets, entirely different pronunciation
Γ	/ɣ/	Exists only in Greek Alphabet
Δ	/ð/	Exists only in Greek Alphabet
E	/ɛ/	Identical/Similar shape and pronunciation in both alphabets
Z	/z/	Identical/Similar shape and pronunciation in both alphabets
H	/i/	Exists in both alphabets, entirely different pronunciation
Θ	/θ/	Exists only in Greek Alphabet
I	/i/	Identical/Similar shape and pronunciation in both alphabets
K	/k/	Identical/Similar shape and pronunciation in both alphabets
Λ	/l/	Exists only in Greek Alphabet
M	/m/	Identical/Similar shape and pronunciation in both alphabets
N	/n/	Identical/Similar shape and pronunciation in both alphabets
Ξ	/ks/	Exists only in Greek Alphabet
O	/o/	Identical/Similar shape and pronunciation in both alphabets
Π	/p/	Exists only in Greek Alphabet
P	/r/	Exists in both alphabets, entirely different pronunciation
Σ	/s/	Exists only in Greek Alphabet
T	/t/	Identical/Similar shape and pronunciation in both alphabets
Υ	/i/	Exists in both alphabets, entirely different pronunciation
Φ	/f/	Exists only in Greek Alphabet
X	/x/ (/kh/)	Exists in both alphabets, entirely different pronunciation
Ψ	/ps/	Exists only in Greek Alphabet

Ω	/ο/	Exists only in Greek Alphabet
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3. Summarizing the comparison between Greek and Latin Alphabet:

- 10 letters are Greek Specific
- 9 letters share the same shape and phonetic value between Greek and Latin
- 5 letters share the same shape but have entirely different phonetic value.

4. There is no “official” Greek phonetic alphabet. There exist 3 phonetic alphabets (military, merchant navy, radio amateurs); the military one used by Armed and Security Forces has higher status described extensively in their manuals.

5. The introduction of phonetic alphabet will be a novelty and will probably puzzle railway personnel.

6. Letters are used as:

- signal identifiers
- Railway specific abbreviations (ΧΣ Kilometer Post, ΙΔ Level Crossing).
- Train identification is exclusively numeric and does not use any letter whatsoever.

7. We have given lot of thought in order to implement and incorporate Appendix C into OSE’s processes and procedures



Fig. 1. A signal from Liosia Station (real case)



Fig. 2. A signal from Doukissis Plakentias Station (real case)

8. The above sample signals give illustrative examples

9. OSE prescribes the following:

- Signals
 - The signal is identified by the initials of the station where it belongs plus an alphanumeric additional identifier.
 - The reference to signals contains the station name *not abbreviated plus the alphanumeric code spelled with Greek phonetic alphabet*.
 - In the case of Fig. 1, the signal is “Liosia *(name of the station)* **A**stir **E**rmis Two.
 - In the case of Fig. 2, the signal is “Doukissis Plakentias *(name of the station)* **R**igas Four Zero Three.
 - Notice that:
 - Station initials contain every possible combination of the Greek Alphabet.
 - Alphanumeric identifiers contain the letters A, E, K, P.
 - A, E and K have similar phonetic value for both scripts (Greek and Latin) whereas P is entirely different.
- Abbreviations

- Abbreviations usually contain some letter unique to the Greek script. However, the context where these abbreviations are used cannot create ambiguities and beyond that the personnel is accustomed to use the full text of the abbreviation.
- So OSE prescribes that for references to Kilometer posts, Level Crossings etc., the full wording will be used, not the initials.

III. Conclusion

We propose that for the Greek Case the Greek Phonetic Alphabet (as used by the Armed Forces) should be used.

OSE also proposes the use of specific calls for the symbols “+”, “/”, “-”, “.” and “,” using Greek wording.

It would be useful to share with us the position of Bulgaria on the subject. They use the Cyrillic script. In that case, there are letters of similar shape with Latin script too, but with entirely different phonetic value (*B /v/, H /n/, P /r/, C /s/, Y /u/*) with letters also unique to the Bulgarian script (e.g. Б, Ж, З etc.).

Spain

The code word for spelling to identify the letter “ñ” is “ñoño”

Finland

Finland does not have national rules for alphapets used for railway communication, but our main IM - Finnish Transport and Infrastructure Agency (FTIA) have determined in their operating rules the following scandic alphapets that shall be used in their network.

Å = Åke

Ä = Äiti

Ö = Öljy

France

- 1) The identification of the ‘operating languages’ used on your network(s) for the purpose of safety-related communication.
FR answer: French language,
- 2) For each identified operating language, a list of the additional characters and their codewords for spelling required.
FR answer: no need for additional characters.
- 3) The identification of any rules or instructions deemed necessary in addition to those already included in section 3.1 (paragraph just above the table of Roman characters and their codewords for spelling).
FR answer: no need for additional rules.

Croatia

Croatia confirms that no additional characters or additional instructions are needed for the International Spelling Alphabet in the context of Croatian railway operations. Their operational model does not rely on spelling, and the signal identification system avoids any ambiguity.

Ireland

The operating language used for safety-related communications on the rail network in Ireland is English. Accordingly, there is no need for additional characters for our operating language.

Latvia

Currently there is no practice of using spelling alphabet, the practical necessity can be only with designation of signals. However these could be only two cases with letters Č and Š, related to neighboring stations, and even without specific spelling for these letters the designation cannot be misinterpreted.

Lithuania

No need for additional characters for the operational language(s) used in Lithuania.

Luxembourg

No need for additional characters for the operational languages used in Luxembourg in the context of safety-related communication. The 26 letters of the Roman alphabet, as defined in Section 3.1 of Appendix C1 of the OPE TSI, are fully sufficient.

The Netherlands

The Netherlands does not need additions on the spelling alphabet.

Norway

Norway reported specific letters Æ, Ø, and Å along with their spelling. Please note the change of spelling for these three letters under. The background for the change in spelling is that the infrastructure manager has carried out a harmonization of the spelling of these letters to ensure they are in accordance with the emergency services in Norway.

The Norwegian Railway Authority have the following information to your request 14.03.2025 on the spelling alphabet:

1) The identification of the 'operating languages' used on your network(s) for the purpose of safety-related communication.

Answer: The operating language in Norway is Norwegian.

2) For each identified operating language, a list of the additional characters and their codewords for spelling required.

Answer:

Æ: Ærlig

Ø: Østen

Å: Åse

3) The identification of any rules or instructions deemed necessary in addition to those already included in section 3.1 (paragraph just above the table of Roman characters and their codewords for spelling)

Answer: We have not identified any additional rules.

Poland

In Poland, the “operating language” between the infrastructure manager's staff and the railway undertakings' staff, according to Network Statement 2024/25 of the PKP PLK manager, is Polish.

In Poland, the letters of the national alphabet are used in the naming of locations (e.g. Środa Wielkopolska, Łódź), therefore the principle of accepting Polish letters and their phonetic pronunciation is essential for the correct understanding of the given notation of names and abbreviations of descriptions of traffic posts and stations, as well as for the preservation of the priority of safety in rail transport. Incorrect articulation of sounds or over-simplification of consonant groups can cause confusion and lead to the complete renaming of a location.

For the “operational language” of Poland, I am providing below a list of additional characters and their code words for the required spelling, which are essential for the safe operation of rail traffic. The lack of Polish letters in the names of locations and in the naming of signalling devices is likely to pose a threat to the safety of railway traffic in Poland.

Furthermore, I would like to inform that the infrastructure manager PKP PLK has requested the Ministry of Infrastructure to officially notify the European Commission Directorate (DG MOVE) and the European Commission Safety and Interoperability Committee of the need to add Polish additional letters and characters with their phonetic pronunciation in the Guide for the Application of Technical Interoperability Specifications for the Traffic Operation and Management Subsystem (TSI).

List of Polish characters and codewords together with their pronunciation:

- A [ɔ̃] or [õ] e.g. “są” [sɔ̃]. In Polish languages there are no words beginning with „ą”. Artificial creation: „Ącki” [ˈɔntsɕi];
- Ć [tɕ] e.g. „ćma” [tɕma] or [tɕma];
- Ę [ɛ̃] or [ẽ] e.g. “pieć” [pʲɛ̃tɕ]. In Polish languages there are no words beginning with „ę”. Artificial creation: „Ęsi” [ˈɛɲɕi];
- Ł [w] e.g. „Łukasz” [ˈwukaɕ];
- Ń [ɲ] e.g. „śłoń” [swɔɲ]. In Polish languages there are no words beginning with „ń”;
- Ó [u] e.g. „ósemka” [uˈsɛmka]. „Ó” and „u” phonetically they are the same;
- Ś [ɕ] e.g. „Światowid” [ɕʲʌtɔvʲɪt];
- Ź [ʐ] e.g. „żrebak” [ʐɛbak];
- Ż [ʒ] e.g. „żaba” [ˈʒaba]. Also, the notation ‘rz’ corresponds to the phonetic [ʒ].

Portugal

- 1) The identification of the ‘operating languages’ used on your network(s) for the purpose of safety-related communication.
Portuguese.
- 2) For each identified operating language, a list of the additional characters and their codewords for spelling required.
We don’t need additional Characters in our operating langue.
- 3) The identification of any rules or instructions deemed necessary in addition to those already included in section 3.1 (paragraph just above the table of Roman characters and their codewords for spelling).
We do not have, or need, any rules or instructions deemed necessary beyond those already included in section 3.1.

Sweden

The needed additional letters for Sweden used for safety-related communication:

Å [ɔ] – Åke

Ä [æ:] – Ärlig

Ö [ø:] – Östen

Problems with the English phonetic alphabet:

C – Charlie	C in Swedish is pronounced [s]. The first sound in Charlie, to a Swede sounds like a word that could be spelled in several different ways; starting with TJ, K, or KJ.
J – Juliet	J in Swedish is pronounced [j]. Swedish has no equivalent sound to the English pronunciation of J.
K – Kilo	could be problematic because K is pronounced in two ways, [k] or [ɕ]. The specific word kilo in Swedish is pronounced with [ɕ] and not like the English with [k].
Q – Quebec	that this Canadian city is spelled with a Q might be evident to a northern American, but maybe not to a European. Since Q often is pronounced as K, the chosen word needs to be simple so that you easily recognise that it should be Q and not K.
U – Uniform	U in Swedish is pronounced [ʉ:]. To a Swede the pronunciation of Uniform sounds like a word that begins with a J.
W – Whisky	could be problematic because in Swedish there is no difference in pronunciation between V and W. The pronunciation of W in English has no equivalent Swedish sound.
Y – Yankee	Y in Swedish is pronounced [y:]. To a Swede the pronunciation of Yankee sounds like a word that begins with a J.

Slovenia

The text below is a free translation in English of the Slovenian text received.

In relation to your email of 28 March 2025 in which you provided us with Request to reply to ERA's call on point 3. - Communication rules, Appendix C of the TSI OPE, please find below a coordinated reply with SŽ – Infrastruktura, d.o.o., as follows:

- ad 1) The official language used on the PRI network is Slovenian.
- ad 2) The Slovenian alphabet uses 25 letters, among which there are also nouns (č, š, ž), The code words for these are: **č – Čatež, š – Šmarje, ž – Žalec.**
- ad 3) When performing train traffic, we do not use specially coded words, except for transport of non-routine consignments, where non-routine consignments are defined according to the conditions of carriage with the codes "A" - Alpha, "B" - Bravo, "C" - Charlie, "D" - Delta and "E" - Echo.

Slovakia

Thank you for focusing on the issue of identifying additional letters used in the operating languages of infrastructure managers in various Member States.

As regards safety-related communications in Slovakia, the relevant national operational/safety rules issued by the single national infrastructure manager Železnice Slovenskej republiky (ŽSR), in document Z 1 – Rules of Railway Operation, specify the operating language as follows:

Article 10: "Conversations and records relating to transport activities shall be conducted and documented in Slovak language."

Annex No. 8a, paragraph 1: "Slovak language is used for transmitting messages on ŽSR."

The same document sets out, in accordance with Appendix I of the OPE TSI, the following two ways of spelling words or groups of letters – one for "Slovak" locations or objects (i.e. including eight additional letters of the Slovak alphabet) and the other for "international" locations or objects (i.e. in accordance with the table in Section 3.1 of Appendix C1 of the OPE TSI):

	<i>Slovak</i>	<i>International</i>
A	Adam	Alpha
B	Božena	Bravo
C	Cyril	Charlie
Č	Čadca	
D	Dávid	Delta
Ď	Ďumbier	
E	Emil	Echo
F	František	Foxtrot
G	Gustáv	Golf
H	Helena	Hotel
CH	Chalupa	
I	Ivan	India
J	Jozef	Juliet
K	Karol	Kilo
L	Ladislav	Lima
Ľ	Ľubochňa	
M	Mária	Mike
N	November	November
Ň	Nitra	
O	Oto	Oscar
P	Peter	Papa
Q	Quido	Quebec
R	Rudolf	Romeo
S	Svätopluk	Sierra
Š	Šimon	
T	Tomáš	Tango
Ť	Teplá	
U	Urban	Uniform
V	Viktor	Victor

W	Dvojité vé	Whisky
X	Xaver	X-ray
Y	Ypsilon	Yankee
Z	Zuzana	Zulu
Ž	Žofia	

No rules in addition to those already included in Section 3.1 of Appendix C1 of the OPE TSI are considered necessary for our Member State.

Estonia

Estonia reached to the conclusion that additional characters are not needed for safety-related communication. The station names with Estonian characters can be also understood when spelled with characters already in place in TSI OPE.

Annex 4 – Impact assessment

Issued as per Art. 8(1) of Regulation (EU) 2016/796 and the Impact Assessment procedure adopted by the ERA Management Board (Decision n.290, 16/03/2022)

1. Context and assessment of impacts
1. The context
This opinion has been requested by the European Commission following inputs from stakeholders and Member States of an alleged deficiency in OPE TSI causing risks of confusion for safety-related communication, mostly verbal communication between train drivers, signallers and dispatchers. This refers OPE TSI Appendix C1, point 3 for the spelling of locations and object identifiers using code words in different operating languages whereby the current OPE TSI foresees only the use of the international phonetic alphabet (or ICAO/NATO alphabet) for spelling letters. The languages used for safety-related communication are set by the IMs as their 'operating language(s)' as per point 4.2.1.5 of OPE TSI and contained in the IM network statement as per Directive (EU) 2012/24/EU.
1.2. Analysis performed
A review of the work undertaken by ERA teams in charge of the Opinion has been performed and allowed to delve into the topic not only addressing the Commission request but also providing more robust evidence for the needed corrections and updates of OPE TSI with regards to spelling alphabets. The obligation for the use of the International Phonetic Alphabet was contained already in Commission Decision 2002/734/EC and Commission Decision 2006/920/EC which are somehow the predecessors of current OPE TSI. Earlier versions of the legislation however allowed <i>'The Infrastructure Manager may add further letters, along with a phonetic pronunciation for each letter added, if required by the alphabet of the Infrastructure Manager's operating language(s). The Railway Undertaking may add further indications about pronunciation, as it deems necessary.'</i> This possibilities has been kept in all subsequent modifications of OPE TSI up until Commission Regulation (EU) 2019/773 which removed such possibilities for IMs/RUs mandating only the International Phonetic Alphabet to spell letters. In its Guide for the application of the OPE TSI published in 2025, the Agency highlighted this as a possible deficiency and advised infrastructure managers to possibly <i>'add further letters, along with a word for spelling each letter added, if required by the alphabet of the IM's operating language(s); define the pronunciation of symbols (e.g. the symbol '/' or ';' if required for safety-related communications).'</i> In this opinion, it was concluded that the OPE TSI deficiency signalled by the Commission is not wide spread to all Member States but focussed primarily in Bulgaria and Greece. These two Member States use as operating languages Bulgarian and Greek respectively, which are not in latin alphabet and would need this opinion as acceptable mean of compliance to ensure unambiguous spelling of locations and object identifiers using code words, pending a revision of OPE TSI. Moreover, the work performed allowed to identify other changes needed in OPE TSI to ensure accuracy of terminology used but also other additional characters for languages based on latin alphabet whom particular characters are not available in the ICAO/NATO alphabet. Following extensive consultation with Member States in the form of surveys, email exchanges and meetings, only very limited evidence was found with regards to risk of confusion and consequent safety risks if only the ICAO/NATO alphabet and its related code words are used for spelling locations and object identifiers in safety-related communication.
1.3. Assessment of impacts
The possibility for IMs to add of special characters for spelling other than the ICAO/NATO alphabet was present in OPE TSI in the past but then removed in Commission Regulation (EU) 2019/773. This change

was present in the [ERA REC 125](#) however it was not analysed in the related impact assessment. Most likely such change was deemed to be of minor importance. Nevertheless the impact of this opinion is assessed as having positive impacts on rail safety since it provides an acceptable means of compliance for a deficiency in OPE TSI affecting safety-related communication in Bulgaria and Greece.

With regards to the possible future revisions of OPE TSI, the impact assessment of adding a new Section 3.3 in OPE TSI appendix C, for the use of specific spelling alphabets in operating languages that use alphabets not based on the Latin alphabet, will be issued together with the relevant future ERA Recommendation. It can be anticipated however that the impact of such change will most likely be positive as self evidence consequence of the deficiency identified in this Opinion.

With regards to the possible future revision of OPE TSI, the impact assessment of adding a new Section 3.2 in OPE TSI appendix C, for the use of additional characters and their code words for spelling letters in Latin alphabet-based operating languages, will be issued together with the relevant future ERA Recommendation. It can be anticipated however that the impact of such change will need to possibly consider alternative options such as adding such new Section 3.2 as suggested in this Opinion, allow IMs to outline in their network statement the additional characters and related code words to be used or keep the baseline option of the OPE TSI currently in force. Such assessment of impacts would focus mostly on the opportunity and cost of keeping the OPE TSI stable vs other means to ensure the mitigation of safety risks from misunderstanding of the spelling of locations and object identifiers using code words in different operating languages.

1.5. Stakeholders affected

Railway undertakings (RU)	☒	Member States (MS)	☐
Infrastructure managers (IM)	☒	Third Countries	☐
Manufacturers	☒	National safety authorities (NSA)	☒
Dispatchers	☒	European Commission (EC)	☐
Signallers	☒	European Union Agency for Railways (ERA)	☐
Notified Bodies (NoBo)	☐	Shippers	☐
Associations	☐	Train drivers	☒

2. Preferred option

2.1. Recommendation

In light of the above, it is recommended to adopt this Opinion as having positive benefits for rail safety.