RailNetEurope Non-personal Data Policy

(as approved by the RailNetEurope's General Assembly on 6 December 2022)

1/ Background principles

1.1 General economic and legal environment of (non-personal) data

- Data have acquired a function as economic resource in the data economy, because of a combination of technological and economic factors. More generally and based on further reuse, data can indeed serve a large number of purposes, whether economic or not (such as support to policy), related or possibly unrelated (or with little connection) to their original purpose. Against this background, there is a general consensus that data should be shared more.
- There is no such thing as 'data ownership', namely ownership rights on data. From the legal perspective, data are indeed not considered as a 'good'.
- Data are rather often subject to a variety of 'legacy legal frameworks', often indirectly (*i.e.*, via intellectual property rights applying to the technological environment of data rather than to data as such and confidentiality). Such legal patchwork is highly reliant on the context.
- Pursuant to the freedom of expression principle, to the free-flow of data paradigm and to the general principle that 'everything which is not forbidden is allowed', data and information are in principle free to circulate.
- Especially in the data economy, data are quickly produced, used and then quickly destroyed to the benefit of other data, especially when aggregated with other data ('derived data'). Derived data can be more or less similar to original data and, subsequently, more or less likely to be 'tainted' with entitlements of third parties related to original data (such as confidentiality).

1.2 RNE (non-personal) data

- RNE non-personal data (see Annex I 'RNE Non-personal data inventory') originate from railway activities. Most data are generated by the relations (whether commercial or operational) between a large number of actors in the railways, and especially the IMs and the RUs, whether they are automatically generated or whether their generation implies human intervention. Many actors may therefore contribute to the coming into existence of data.
- The RNE data ecosystem is fed from different places, mainly RNE Members acting as data providers.[1] The sources of data vary depending on the business processes and workflows they serve. The major source of data is the RNE IT applications which are mainly filled with data manually or automatically transferred from IMs' systems. In return, RNE applications are primarily designed for experts in the railway domain but not the general public. RNE's aim is to centralise the data and cover the whole life cycle of international freight and passenger train services and all relevant for the market information around the provision of those services:
    o Charging estimation (e.g., CIS)
    o Content of network statements and corridor information documents (e.g., NCI)
    o Capacity availability with the planned constraints on the network (e.g., TCR)
    o Service facility information regarding commercial, legal and technical access conditions (e.g., ERFP);
    o Path requests and path allocation (e.g., PCS)
    o Train traffic management with real-time information (e.g., TIS)
    o Train performance management and reporting (e.g., RNE Reporting services).
- These systems collect structured data in traditional databases. For example, locations (e.g. in GeoEditor, TCR, CIP, ERFP), companies (e.g. in CCS/CRD), standardised TAF and TAP TSI messages (e.g. in PCS and TIS).
- Various stakeholders are involved in, affected by, and contribute to RNE non-personal data:
    o European Commission/European Parliament/Council of the EU: they set the legal and regulatory framework at Union level; they can also act as a user of RNE data. For example, for evaluation of existing or an impact of new legislation (e.g., evaluation and impact assessment studies) or feeding their own systems (e.g., TRIMODE);
    o National public authorities and agencies;
    o European Union Agency for Railways (ERA): the agency is in charge for the safety and interoperability in railways (e.g., in the telematics domain about TAF and TAP TSI deployment plan, schema, messages, etc.);
    o RNE members: they primarily provide the structured data in all RNE IT applications;
    o RNE customers (e.g., RUs, terminals, freight forwarders): they can act as either data users (e.g., PCS, TIS) or data providers (e.g., CRD, ERFP);
    o Third parties: any organisation with interest in obtaining some kind of historical or real-time information from RNE (e.g. any public and private bodies like EU institutions, bodies and agencies, consultants, universities, students, scholars, IT providers, etc.).
- In most of the cases the data input is provided on a contractual basis (e.g., multi- or bi-lateral agreements between RNE and RNE Members and based on agreements between RNE Members (IMs) and RUs) or based on terms and conditions of respective websites of RNE accommodating

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[1] RNE counts 38 Full Members (infrastructure managers and allocation bodies) from over 30 different countries and 11 Associate Members (Rail Freight Corridors).

the application. If there is no contractual relation with the prospective data user, a sperate data sharing/licence agreement is signed for the data output.

- As a result, RNE finds itself in a unique position, at the intersection between all stakeholders concerning RNE data.
- Railway data – and in particular RNE data - do hold value, not only for a broad range of respective operational purposes (*i.e.*, to plan capacity allocation, to make trains run safely on tracks, to duly inform passengers, etc.) but also for other purposes, possibly not envisaged at the time when data are generated. For instance, data can support policy-makers in making (railway-, mobility- or other types of) decisions. Data can also be used by other mobility actors in other modes of transport to support them in running their respective business. Subject to further technological processing, data could also fulfil other (possibly non-mobility-related) purposes by a large number of actors.
- As data become increasingly valuable in the data economy, the provision or sharing of data incurs costs, whether organisational, technological, etc. The costs incurred by the provision or sharing of data is increasingly being recognised by the EU legislator concerning railway data (see Art. 10 (3) of the new Passenger Rights Regulation (PRR)[2], chapter 4.2 of the TAF TSI Regulation).
- It is therefore fair that the provision or sharing of data is subject to a price, which would at least cover the costs of providing or sharing data in case of already existing data. The costs incurred by data collection (whether technical or legal) and/or the costs incurred by further processing of data for commercial reasons, prior to data provision or sharing should also be eligible to be covered by the price of data provision or data sharing.
- The value of data arises from its use and reuse. As a result, the true value of RNE data can be known only subject to a data-related business and marketing strategy followed by actual reuse by third parties.
- Another consequence is that the price of data provision or data sharing may also take into account the fact that data do have a(n) (economic) value.
- The view that data can be monetised under economic conditions by RNE (members) is also confirmed by the Open Data Directive[3] (see recital 36). Public undertakings operating utilities (such as, possibly, IMs) are under the scope of the Open Data Directive. However, and save the case of 'high-value datasets' or more stringent national regulation, they remain free to charge an economic price for the provision of data. The Open Data Directive thereby confirms the role of public undertakings in utilities as economic agents and possibly active data providers in the data economy.
- Non-personal (operational) data in other modes of transport (e.g., aviation, inland water transport, maritime) are available on the market for commercial re-use since a long time (e.g., see flightradar24.com, marinetraffic.com). It seems that there is already an emerging market for data in railway sector as well (e.g., timetable and location data in passenger services offered by UIC here; transport related information for intermodal operators offered by UIRR (and CTO) here -> note: no commercial conditions are listed on the website).
- Conditions for re-use should be non-discriminatory for comparable categories of re-use. In that regard, the prohibition of discrimination should not, for example, prevent the exchange of information between 1) RNE Members and RNE 2) RNE Members and RNE Members or 3) RNE

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[2] Regulation (EU) 2021/782 on rail passengers' rights and obligations (recast) (New PRR)
[3] Directive (EU) 2019/1024 on open data and the re-use of public sector information (recast) (Open Data Directive).

and public sector bodies (e.g., European Commission, European Union Agency for Railways, national public bodies and authorities of the Member States) free of charge for the exercise of RNE/RNE Members public tasks, whilst other parties are charged for re-use of the same data (e.g., private companies). Neither should it prevent the adoption of a differentiated charging policy for commercial and non-commercial re-use (see recital 46 of the Open Data Directive).

- RNE charges for non-personal data and data-driven services shall be calculated in accordance with objective, transparent and verifiable criteria, pre-established, published and kept up to date on RNE website.
- Three types of data and information sharing or provision activities by IMs shall be distinguished, as they bear consequences on the sharing of data by RNE and, especially, on data monetisation ambitions:
    o First, the provision of data or information for operational purposes pursuant to a contractual relationship (such as the contract of use of infrastructure (CUI)/track access contract (TAC) of IMs with RUs) or to similar arrangements;
    o Second, the provision of data or information for operational purposes (possibly mandated by law) to other entities in or outside of the railway ecosystem without the existence of a prior contractual relationship (or similar arrangement) (e.g., ticket vendors and tour operators);
    o Third, the provision of data or information for non-operational purposes, and especially for commercial purposes ("data monetisation"), to entities who may or may not be in the railway sector and in all likelihood without the existence of a prior contractual relationship (or similar arrangement).

1.2 RNE Members commitments concerning non-personal data

RNE Members confirm their commitment to

- actively provide non-personal data in all RNE applications in accordance with the existing arrangements;
- provide non-personal data in satisfactory quality and timely manner;
- data exchange/sharing/transfers with or to third parties/countries of data available in RNE applications under the terms and conditions of this policy, including its annexes;
- grant RNE the right to commercialise data available in RNE applications (i.e., data assets as listed in Annex 1 'RNE data inventory') taking into account all parameters and interests at stake (e.g., confidentiality) of all parties concerned (e.g. IMs, RUs, SFOs, WKs) within the framework of services as listed in Annex 2 ('RNE service catalogue').
- gradually soften/introduce level of granularity in the confidentiality clauses regarding capacity and traffic information in their network statements, general terms and conditions and CUI/TAC with applicants (e.g., RUs).

1.3 Confidentiality of capacity and train information

- IMs are bound by confidentiality obligations *vis-à-vis* RUs, based on the SERA Directive, which has an impact on the processing and further sharing of RNE data. The (i.) scope, (ii.) procedure and (iii.) legal consequences of confidentiality are not clearly defined in the Directive.

- SERA confidentiality obligations shall be approached as part and parcel of the broader picture of EU railway law, namely in combination with the other railway legal frameworks such as the (New) PRR and the TAP and TAF TSIs, and with the overarching objectives of EU railway law. Against this background, the following concrete conclusions may be drawn:
    o Confidentiality obligations shall be interpreted with the liberalization of railway services and the establishment of a level playing field between RUs as overarching objectives.
    o A general distinction shall be made between passenger vs freight railway services, because of the different nature of such markets.
    o Based on the (New) PRR, information on passenger train circulation and information on punctuality of passenger services cannot be considered confidential.
- The interpretation of SERA confidentiality obligations depends on national law and incentives. In particular, the existence of transparency obligations, data sharing or data access obligations results in the IM having to strike a balance between confidentiality on the one hand and transparency/access/sharing on the other hand. This has implications on the scope of confidentiality, the procedure for labelling data or information as confidential and the legal consequences of confidentiality.
- The interpretation of SERA confidentiality obligations can also benefit from insights from non-railway-specific legal frameworks and initiatives, such as
    o The guidance from the European Commission on confidentiality in the context of competition law[4] could be used as a standard for (1) assessing confidentiality claims by analogy, including (2) concerning the procedural aspects.
    o Chapter II of the Data Governance Act[5] related to the making available by public sector bodies of data subject to right of third parties, including confidentiality obligations. Such legal regime demonstrates that (1) the presence of confidentiality obligations does not imply a total ban on further processing and sharing of data. (2) It also envisages an array of both legal and technical mechanisms to protect confidentiality of data while enabling further reuse, which could serve as inspiration for RNE data processing of capacity and train information considered confidential.
    o The scholarly initiative of the European Law Institute ('ELI') and the American Law Institute ('ALI') "Principles for the Data Economy" is intended to be used by law-makers, courts and contracting parties when dealing with the allocation of data as an economic resource. Based on applicable law, it aims to foster the data economy without infringing on legitimate rights of one on data (such as confidentiality). The ELI-ALI Principles for the Data Economy provide legal mechanisms for sharing data while preserving such legitimate rights and interests.
- All available legal sources discussed above converge in the following conclusions:
    o Confidentiality of capacity and train information does legally not require a total ban on further processing and sharing of these data. In other words, confidentiality shall not be used as a proxy for 'ownership', or else it would lead to over-protection, potentially to the detriment of other values (in the case of railway data, it could be the liberalisation and the level playing field of railway services).

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[4] https://ec.europa.eu/competition/antitrust/business_secrets_en.pdf
[5] Regulation (EU) 2022/868 of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act)

- o   Confidentiality claims on the side of Applicants (e.g., RUs) shall be justified and based on objective reasons. This invites to adopt a clear and transparent procedure for labelling information as confidential and to burden entities protected by confidentiality (such as RUs) to substantiate confidentiality claims.

1.4 Contractual freedom

Pursuant to the principle of contractual freedom, this data policy contains the driving principles for the further use, and in particular further sharing with third parties, of data by RNE. The data policy constitutes the cornerstone of RNE data (licencing) contracts.

Definitions and glossary

(1) 'application' means [1] a software entity that provides a set of functions to a user [2] any digital product or service that runs on an operating system.

(2) 'Application programming interface' ('API') means a collection of invocation methods and associated parameters used by one piece of software to request actions from another piece of software. In RNE data ecosystem is the main technology to transport (raw) data between parties.

(3) 'data' means any digital representation of acts, facts or information and any compilation of such acts, facts or information, including in the form of sound, visual or audio-visual recording;

(4) 'structured data' means data that adhere to a pre-defined data model and is therefore straightforward to analyse;

(5) 'raw data' means data that are not structured data;

(6) 'metadata' means 1) (TAF TSI Regulation) data about data. It describes data, software services, and other components contained in the enterprise information systems. Examples of the types of metadata include standard data definitions, location and routing information, and synchronisation management for distributing shared data OR 2) (Regulation 2017/1926) a structured description of the contents of the data facilitating the discovery and use of this data OR 3) (Directive 2007/2) information describing spatial data sets and spatial data services and making it possible to discover, inventory and use them;

(7) 'personal data' means any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person;

(8) 'non-personal data' means data other than personal data; In this policy non-personal data and industrial or business data are used interchangeably; everywhere in this policy 'data' are used with the meaning 'non-personal data' unless otherwise specified.

(9) 'human-generated data' means data generated by humans;

(10) 'machine-generated data' means data generated by machines; *in RNE data ecosystem both human and machine-generated data (co)exist.*

(11) 'dynamic data' means data subject to frequent or real-time updates, in particular because of

their volatility or rapid obsolescence; Data generated by sensors on the tracks for train movements are typically considered to be dynamic data;

(12) 'static data' means data that do not change often or an a regular basis; for example, all infrastructure data are considered to be static (e.g. data in CIP, ERFP, CRD);

(13) 'data changed on a regular basis' means data that change on regular intervals (e.g. one year); for example, publication of new network statement or corridor information document, including update of track access charges (e.g. in NCI, CIS).

(14) 'open access' means a set of principles and a range of practices through which research outputs (e.g. academic journal articles, conference papers, theses, books, monographs, reports, studies) are distributed online, free of access charges or other barriers. With open access strictly defined, or libre open access, barriers to copying or reuse are also reduced or removed by applying an open license for copyright. Open access licences (e.g. of Creative Commons) are a priori not suitable for handling data, software and hardware.

(15) 'open data' means [1] [Open Data Directive] as a concept is generally understood to denote data in an open format that can be freely used, re-used and shared by anyone for any purpose. Open data is about availability and re-use of public sector information from the general public and economic operators for private or commercial purposes. [2] [Opendefinition.org] Open data can be freely used, modified, and shared by anyone for any purpose. [3] Practice of publishing (raw) data in a way that is accessible, reusable, machine readable and licensed permissively. Can be generated by a wide range of parties, including public authorities, the semi-public sector, businesses and the public.[6] It is therefore data accessible to all, made available by public administrations or private companies that can be reused by natural or legal persons for various purposes, including the implementation of their business models or the simple identification of new ones, or also for research, journalism, development, or academic purposes. *By its legal form, purpose and activities RNE is not considered part of the EU or Austrian public sector (e.g., public body or public undertaking). At the same time, RNE is a 'keeper' of huge amount of data with legal entitlements claimed mostly by private entities (e.g., confidentiality of RUs). Thus, RNE data are in principle not open data.*

(16) 'co-generated data' means data to the generation of which a person other than RNE has contributed, such as by being the subject of the information or the owner or operator of that subject, by pursuing a data-generating activity or owning or operating a data-generating device, or by producing or developing a data-generating product or service; *This term and the concept behind it has a great importance in RNE data ecosystem where, usually, a number of different actors have contributed to the generation of (real-time) data, sometimes in very different roles. Given the fact that RNE IT and data activities are performed in Europe-wide context only and considering RNE Members decisive role in data accumulation, all RNE data are in one way or the other co-generated.*

(17) 'data available in RNE applications'/'data assets' means co-generated data in RNE IT systems.

(18) 'data affected by legal entitlements' means data affected by intellectual property rights, trade secrets, confidentiality arrangements and alike.

(19) 'data rights' means the following rights: right to access data; right to use data; right to share data with third parties.

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[6] https://op.europa.eu/en/web/eu-vocabularies/concept/-/resource?uri=http://eurovoc.europa.eu/c_5ea6e5c4

(20) 'co-generator of data' means a legal person that contributed to the initial data generation by particular technical means. *One example concerning dynamic data would be real-time train information in TIS where the co-generators are 1) IMs in their capacity of providing tracks equipped with signalling devices/transponders for initiation of TAF/TAP TSI messages in IMs domestic systems, 2) RUs in their role of entities operating trains equipped with transmitters compatible with the signalling equipment of the IMs, and 3) RNE as a provider of the TIS application as a central data bank. Another example concerning static data would be 1) all IMs filling in/automatically providing (e.g. via API) data in ERFP, CIS, NCI and 2) RNE as a provider of the said applications.*

(21) 'initial data' means non-personal data at source without any further operation(s) of processing;

(22) 'derived data' means data generated by processing other data and includes aggregated data and data inferred from other data with the help of external decision rules.

(23) 'synthetic data' means information that is artificially manufactured rather than generated by real-world events. This data is created based on existing data, mainly through minor variations of existing data. *There is no synthetic data in RNE ecosystem.*

(24) 'big data' is usually associated with three key concepts: volume, variety, and velocity. *In RNE context it means all data in all different forms generated, processed and stored mainly in RNE IT applications, websites and office tools. It does not refer to a specific Big data application which is not currently employed in RNE data ecosystem.*

(25) 'linked data' means a set of design principles for sharing machine-readable data on the Web for use by public administrations, business and citizens.

(26) 'artificial intelligence system' (AI system) means software that is developed with one or more of the techniques and approaches listed in points (a) to (c) below and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with. AI techniques and approaches are:
(a) Machine learning approaches, including supervised, unsupervised and reinforcement learning, using a wide variety of methods including deep learning;
(b) Logic- and knowledge-based approaches, including knowledge representation, inductive (logic) programming, knowledge bases, inference and deductive engines, (symbolic) reasoning and expert systems;
(c) Statistical approaches, Bayesian estimation, search and optimization methods.

(27) 'training data' means data used for training an AI system through fitting its learnable parameters, including the weights of a neural network;

(28) 'validation data' means data used for providing an evaluation of the trained AI system and for tuning its non-learnable parameters and its learning process, among other things, in order to prevent overfitting;

(29) 'testing data' means data used for providing an independent evaluation of the trained and validated AI system in order to confirm the expected performance of that system before its placing on the market or putting into service;

(30) 're-use' means the use by natural or legal persons of data available in RNE applications, for commercial or non-commercial purposes other than the initial purpose within the task for which the data were (co-)generated;

(31) 'processing of non-personal data' means any operation or set of operations which is performed on RNE Members free of or with legal entitlements data, such as collection, recording,

organisation, structuring, merging, synchronisation in and with other applications (e.g. RINF application of the European Union Agency for Railways), storage, adaptation, retrieval, consultation, use, dissemination, alignment, aggregation, combination, restriction, erasure, or destruction.

(32) 'data holder' means a legal person which, in accordance with applicable Union or national law, has the right to grant access to or to share certain non-personal data (e.g. RNE, RNE member);

(33) 'RNE Member' means infrastructure manager ('IM') or allocation body ('AB') being a full member of RNE or rail freight corridor ('RFC') being an associate member of RNE;

(34) 'data user' means a natural or legal person who has lawful access to certain non-personal data and has the right to use that data for commercial or non-commercial purposes;

(35) 'data exchange' means the circulation of non-personal (operational) data among stakeholders in the railways (e.g. IMs, RUs, WKs) under the TAF/TAP TSI framework;

(36) 'data sharing' means the provision of data by a data holder to a data user for the purpose of the joint or individual use of such data, based on voluntary agreements or Union or national law, for example under open or commercial licences subject to a fee or free of charge;

(37) 'data transfer' means the transfer of non-personal data in non-EU/EEA country.

(38) 'high-value datasets' means documents the re-use of which is associated with important benefits for society, the environment and the economy, in particular because of their suitability for the creation of value-added services, applications and new, high-quality and decent jobs, and of the number of potential beneficiaries of the value-added services and applications based on those datasets; *All high-value datasets are about spatial information (e.g., see INSPIRE Directive 2007/2 and a proposal of Commission Implementing Regulation laying down a list of specific high-value datasets and the arrangements for their publication and re-use). Thus, none of RNE data are regarded as high-value datasets.*

(39) 'FRAND' means fair, reasonable, and non-discriminatory terms of data sharing.

(40) 'FAIR' means the principles of findability, accessibility, interoperability, and reusability.[7]

(41) 'TAF TSI' means the technical specification for interoperability relating to the telematics applications for freight subsystem of the rail system in the European Union (see Commission Regulation No 1305/2014).

(42) 'TAP TSI' means the technical specification for interoperability relating to the subsystem 'telematics applications for passenger services' of the trans-European rail system (see Commission Regulation (EU) No 454/2011).

(43) 'bulk download' means download in whole or in part of particular database based on predefined criteria.

(44) 'database' means a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.

(45) 'dataset' means a structured collection of electronic data.

(46) 'data quality' means the degree to which characteristics of electronic data are suitable for secondary use;

(47) 'primary use of data available in RNE applications' means the processing of non-personal data for the provision of infrastructure, freight and passenger services in railway sector;

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[7] More on the FAIR principles can be found here: https://www.go-fair.org/fair-principles/

(48) 'secondary use of data available in RNE applications' means the processing of non-personal data for the following purposes:
(a) to support Union and/or national institutions, agencies and bodies to carry out their tasks defined in their mandates (e.g., policy making, evaluation of existing and impact assessment of new legislation);
(b) to produce national, multi-national and Union level official statistics related to railway sector (e.g. ERA's reports on railway safety and interoperability in the EU);
(c) trainees and apprentices at RNE Members;
(d) education and teaching activities in railway sector (e.g., universities, students)
(e) scientific research related to railway sector (e.g., studies);
(f) projects of RNE and RNE members;
(g) projects of railway sector organisations CER and EIM;
(h) railway museums;
(i) non-commercial and commercial projects of third parties (e.g., placing on the market of new products or services)

(49) 'data space' means a decentralized infrastructure for the trusted sharing and exchange of data in data ecosystems based on commonly agreed principles. The concept of data spaces is already explicitly used as a solution approach in the European Union's data strategy. This is not a single centralised solution, but rather individual dataspaces are planned for different domains.

(50) 'EU common mobility data space' means the EU data space dedicated to transport and mobility data.

(51) 'public body' means the State, regional or local authorities, bodies governed by public law or associations formed by one or more such authorities or one or more such bodies governed by public law;

(52) 'public undertaking' means 'public undertaking' means any undertaking active in the areas set out in point (b) of Article 1(1) of Open Data Directive over which the public sector bodies may exercise directly or indirectly a dominant influence by virtue of their ownership of it, their financial participation therein, or the rules which govern it. A dominant influence on the part of the public sector bodies shall be presumed in any of the following cases in which those bodies, directly or indirectly:
(a) hold the majority of the undertaking's subscribed capital;
(b) control the majority of the votes attaching to shares issued by the undertaking;
(c) can appoint more than half of the undertaking's administrative, management or supervisory body;

(53) 'data sharing restriction' means that the re-user is not allowed to share/resell/sublicence the data received from RNE, either in part or totally. The re-user may adapt elements contained in the received data in order to make it compatible or compliant with the format, content or characteristics of its data/products or to offer an improved user experience of its products. Depending on the purpose of re-use, exceptions to the above rule may apply.

Scope of the non-personal data policy

- Legal scope
    - o Personal data protection law (*i.e.*, GDPR) not dealt with. For the personal data activities of RNE see the privacy policy here: https://rne.eu/legal-notice/

- o IPRs not directly dealt with (*i.e.*, copyright and *sui generis* protection of databases): intellectual property rights may be found to be applicable to the technological environment of data (and especially to software and database). However, intellectual property rights do not directly apply to data.
- Scope *rationae materiae*:
  - o RNE data covered by the policy: it applies to the data assets as listed in the RNE Data Inventory (see Annex I)
  - o RNE data not covered by the policy: data available in RNE Joint Office tools supporting the daily operations of the association (e.g., Microsoft 365, Microsoft Teams, Microsoft SharePoint, RNE CMS, etc).

Addressees of the non-personal data policy and means of promotion

- Addressees:
  - o RNE, IMs/ABs, RFCs
  - o Third parties
- Means of promotion: this policy shall be published and kept up to date on RNE website (rne.eu).

Objectives and founding principles of the RNE non-personal data policy

- There is a need for a policy to regulate the interactions of all stakeholders concerning RNE data (see Annex 1) and to structure the data policy of RNE, in particular with a view to commercialising such data beyond their use and sharing for sole operational purposes.
- Objectives:
  - o moving from 'close versus open' data to more granular settings, where data can be shared in conditions which safeguard the legitimate interests of stakeholders
  - o increase the transparency of RNE data activities
  - o shift from application-centric to data-centric legal regulation of RNE data and gradual reduction of RNE templates on different IT systems concerning data collection
  - o serve as an inspiration for RNE Members in their data activities.
- In the absence of a by default right 'on' data (namely, no data ownership), claims related to data should be duly justified, necessary and proportionate
- The (contractual) relationships between the actors are so that some of RNE data is provided by the IM to RNE based on the contract between the IM and the RU (such as the contract of use of infrastructure (CUI)/track access contract (TAC) or capacity allocation contract). Other data are IM generated only (e.g., static data, data changed on a regular basis).

General principles for data sharing

- Data in RNE applications shall be made available following these principles:
  - o Fairness
  - o Transparency
  - o Non-discrimination
  - o Findability
  - o Accessibility
  - o Interoperability
  - o Reusability

- o Non-exclusivity
- o Competitiveness between suppliers/providers/vendors:
  - one solution/approach or product or company should not be favoured over other solution/approach or product or company without competitive procedure (e.g., public procurement, tender).
  - The participation in joint projects/pilots does not automatically qualify the supplier/provider/vendor for (long-term) exclusive partnership with RNE
- o Contribution to the data value chain in railway/intermodal/mobility sector and data economy; serving to the railway sector data needs and projects shall always take priority
- o Business orientated and economically advantageous for RNE and RNE members.

- In principle, RNE data shall be deemed free of legal entitlements (e.g., confidentiality, trade secrets, intellectual property rights) from third parties and therefore suitable for further processing, sharing and reuse (data in CIS, NCI, CIP, TAF TSI CRD, ERFP).
  - o RNE shall be entitled to process all free of legal entitlements data provided by its Members in RNE IT applications. For 'Processing of non-personal data' see definition 31 in the glossary above.
  - o RNE shall apply the following by default conditions for data sharing of data free of legal entitlements:
    - Pricing: see Annex 2 'Service catalogue'
    - Type of data re-users and whether further sharing is allowed or not: no limitations as to the further re-users and further sharing is allowed;
    - (Type of) purposes for reuse: no limitations as far as the purpose is deemed lawful
    - Duration: no limitations
    - Type of data (contract) (*i.e.*, whether *ad hoc* provision of data, contract for the exploitation of a data source): no limitations depending on the use case.
    - Prohibited purposes and data processing activities (if any): there no prohibited purposes
    - Liability regime: subject to the Austrian law
    - Reciprocity of data sharing or not: reciprocity of data sharing on the side of re-user is encouraged; however, it is not a precondition for data sharing on RNE side.
- By exception, some RNE data are affected by legal entitlements (i.e., of IMs, RUs, SFOs), such as confidentiality obligations (e.g., capacity allocation and traffic management data). The following distinctions shall apply:
  - o Data that should be deemed "closed", namely to be used only within the RNE data ecosystem: there are no data in the RNE data ecosystem deemed 'locked' and not suitable for further processing and sharing;
  - o Data that can be shared only with a co-generator holder of the legal entitlement: historical train information from RNE TIS with the RU(s) that has/have (in cooperation) ran the train(s);
  - o Data that can be shared only with restrictions and safeguards (e.g., anonymisation):

- Data in the Path Coordination System (RNE PCS) concerning path requests and allocated train paths of Applicants (i.e., (annual and ad-hoc) timetable)
- Data in the Train Information System (RNE TIS) concerning train movements of railway undertakings.

Purposes of third parties for data re-users

- List of purposes deemed acceptable (see also definition 48 in the glossary above):
    o policy making of Union and national public institutions, agencies and bodies of RNE Members' countries;
    o national, multi-national and Union official statistics related to railway sector (EU and RNE Members' countries);
    o education and teaching activities at RNE Members and in the railway sector in general;
    o scientific research related to railway sector;
    o projects of RNE Members;
    o CER, EIM;
    o non-commercial and commercial projects of third parties (e.g., new services and products)
- List of purposes deemed unacceptable
    o Any purpose which directly or indirectly endangers safety and security in railway infrastructure management and train operations (EU/RNE Members' countries);
    o Any purpose incriminated in applicable law.

Data processing activities of data re-users

- Data processing activities deemed acceptable: depending on the use case and subject to the arrangements in particular data sharing agreement to be signed with data re-user.
- Data processing activities deemed unacceptable: any other operation on data outside of the scope of operations under definition 31 above.

Data transfers outside of the EU/EEA countries

- Countries deemed acceptable:
    o the non-EU/EEA country such as Switzerland where the data is to be transferred by the re-user offers in its domestic legislation an essentially equivalent protection of IP rights, trade secrets and confidentiality as in the EU/EEA countries, in particular in Austria ('adequacy system').
    o Non-EU/EEA country in which the re-user contractually commits to protect the rights and interests of the data holder, even after the data is transferred ('accountability system').
- Countries deemed not acceptable:
    o Russia
    o Belorussia

Typology of data re-users

- Data re-users deemed acceptable
    - Policy making: EU and/or national bodies and their contractors of RNE Members' countries (e.g., European Commission, Ministries)
    - Consultancy:
        - consulting companies only if mandated and authorised by the above EU and national bodies
        - consulting companies' contractors of RNE under EU funding programs (e.g. CEF)
    - Research:
        - Universities
        - Researchers
        - Students
        - Interns at RNE and RNE Members
    - Regulatory and safety in railways for the sake of general analysis and statistics:
        - National railway safety authorities of RNE Members' countries
        - National railway regulatory bodies of RNE Members' countries
    - CER, EIM
    - Railway museums

Reasons which can be invoked by IM RNE Members in support of data sharing restriction claims

- List of admitted reasons: (obligation related to)
    - National/company security
    - Protection of the competitive process of train path allocation
    - Protection of the liberalization process
    - Protection of commercial confidentiality of Applicants
    - Railway safety
    - National legislation
- Process for claiming a data sharing restriction to RNE by IM/ABs/RFCs
    - Identification of the data at stake
    - Identification of the data sharing / further data processing case
    - Identification of the (likelihood of) harm with relation to an admitted reason

Safeguards which can be adopted in case of data sharing

- Technical measures - Transformation of the original data so that derived data can be shared
    - Anonymization of data
    - Aggregation of data
    - (Piloting of) regulatory sandboxes: in principle, the regulatory sandbox aims to create the technical and legal conditions for a smooth data re-use. The sandbox will facilitate the testing of specific technical solutions and compliance procedures while at the same time supporting companies to avoid uncertainty (especially in regard to confidentiality) and unnecessary burdens. If/when organised, this pilot would be expected to set up an operational framework for all interested organisations and create synergies with other initiatives. RNE Members and their customers (e.g., RUs, other applicants) are encouraged to join or follow up with similar initiatives on data re-use.

- o Multiparty computation (MPC) is a subfield of cryptography with the goal of creating methods for parties to jointly compute a function over their inputs while keeping those inputs private. Unlike traditional cryptographic tasks, where cryptography assures security and integrity of communication or storage and the adversary is outside the system of participants, the cryptography in this model protects participants' confidentiality from each other.
- Buffer period
  - o Data cannot be further processed (i.e. shared with third parties) during a given period of time in order to prevent (likelihood of) harm to a co-generator of data (e.g. 3/5 years)
  - o Conditions for the exercise of the buffer period safeguard
    - Identification of the data at stake
    - Identification of the (likelihood of) time-sensitive harm
    - Identification of the appropriate buffer period
  - o RNE Members and their customers (e.g., RUs) are encouraged to include this safeguard in their CUI/TAC by setting up of an expiry date of confidentiality of 'old' capacity and traffic management data (e.g., after 3/5 timetable periods all these data shall be considered non-confidential and suitable for further re-use).
- Contractual restrictions imposed by RNE to third parties re-users
  - o Restrictions to further use and sharing of data can be inserted in data sharing contracts of RNE, *i.e.*, the prohibition of further sharing, the prohibition of use of data for certain purposes, the obligation to pass on contractual restrictions to further re-users, contractual obligation for the data user to guarantee – vouch for - compliance (including, where appropriate, by downstream re-users), due diligence obligations, etc.
  - o As an instrumental measure, data users could be contractually bound to mark the data (via digital watermark) so that data can be identified and followed throughout the data value chain
  - o Right of monitoring and audit of data re-users by RNE (possibly by proxy, as delegated to an auditing firm)
- Right of desistance:
  - o In case of (likelihood of) harm to a co-generator of data (IM, RU, other stakeholders), the IM RNE Member can temporarily or permanently claim desistance for specific ranges of data, further data processing activities and/or vis-à-vis certain third parties
  - o Conditions for the exercise of the right of desistance by the IM:
    - Identification of the data at stake: original data versus derived data
    - Identification of the (likelihood of) harm with reference to a specific further data processing activity
    - Necessity and proportionality of the desistance (demonstration that no less stringent measure is sufficient to prevent the harm).

Governance

- **Decision-making related to the RNE data ecosystem**

In principle, RNE IT systems are sector applications of the rail community in Europe. This fact imposes a large group of stakeholders involved in their governance and development. RNE structure includes the bodies concerned in the governance and management of the IT applications:

- Change Control Boards (CCB): each system has a separate CCB. The main purpose of the CCB is to render advice, assistance and support about the development of the system, including budget proposals.
- Governance Boards (GB): currently only the ERFP has a sector GB having the same mandate as above.
- Technical Boards (TB): some of the systems have a TB (e.g. PCS, ERFP and TIS): analysing change requests, providing specifications and technical advice.
- High Level Group IT (CIOs): discussing the strategic framework and providing input into RNE strategy, proposing projects and supporting implementation of projects` results as first escalation level
- IM IT Strategy (standing working group of RNE): work out proposals for the RNE High Level Group IT (CIOs) in all IT-related matters and prepare the RNE IT strategy
- RNE Managing Board: in charge of small IT projects
- RNE General Assembly: in charge of large IT projects and the budgets' approval of all IT applications as well as mandating the Joint Office in Vienna for various data-driven activities.

- **GA authorisation to the Joint Office on data sharing with third parties in accordance with this policy**

Non-personal data in some RNE applications are, in principle, confidential (e.g., PCS, TIS). Thus, RNE shall respect the commercial confidentiality of information provided in these systems by its Members and their customers (e.g. RUs). However, there are data in several RNE applications that are free of legal entitlements (e.g. confidentiality, trade secrets, IP rights). These are data available in other forms or handled/repeated/replicated in other systems, maintained by different stakeholders or it is factual data from the physical world. For example, data such as:

- the European Rail Facilities Portal (ERFP) regarding the rail service facilities in Europe;
- the Network and Corridor Information (NCI) regarding the network statements of IMs and the corridor information documents of RFCs;
- the TAF TSI Central Reference Database (CRD) regarding company and location codes;
- the Charging Information System (CIS) regarding charges levied by IMs;
- the CIP (Customer Information Platform) regarding rail freight corridors information.

For the above reason and by mean of approval of this non-personal data policy RNE General Assembly shall mandate the RNE Joint Office to apply two approaches as follows:

- For non-confidential data: RNE Joint Office is mandated to share these data with any interested third party applying appropriate licence conditions and signing the respective agreements.
- For confidential data (e.g., in TIS, PCS): RNE Joint Office is mandated to share these data in a strictly anonymised form[8] with the parties as listed in acceptable data re-users such as 1) EU institutions, bodies and agencies (e.g. European Commission, ERA) and national public institutions, bodies and agencies of RNE Members' countries (e.g. MoT); 2) entities mandated by EU and national public institutions, bodies and agencies only (e.g. contractors, consultants); 3) consulting companies' contractors of RNE under EU funding programs (e.g. CEF); 4) universities, researchers, students and interns at RNE and RNE Members; 5) national rail safety authorities and railway regulatory bodies of RNE Members' countries for the sake

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[8] Data anonymisation is an irreversible process of modifying the dataset by erasing identifiers (e.g. name, code, country of registration, address, etc.) that connect a company to stored data.

of general analysis and statistics; 6) CER and EIM and 7) railway museums, applying appropriate licence conditions and signing the respective agreements.

Nonetheless its nature RNE may in both above cases charge for data available in its applications.

- **RNE data help desk**: In order to administratively facilitate requests for data available in RNE applications, it is appropriate to establish a help desk for data within the Joint Office in Vienna; this help desk shall:
  - o provide information and give clarifications concerning RNE non-personal data policy, data assets and service catalogue;
  - o receive, coordinate and manage all data requests directed to RNE;
  - o keep a register of the fulfilled and not fulfilled data requests;
  - o inform in a written form the respective CCB, the RNE MB and GA about the data requests fulfilled and not fulfilled since their previous meetings.
  - o provide overview to the MB and GA on data requests.

The data help desk shall consist of experts from Legal, Sales, relevant Business area and IT teams. For avoidance of doubt, it shall not have decision-making power over the requests. Its activities shall be subject to the control of the Secretary General, Chief Information Officer, the MB and the GA.

- **RNE data web shop:** optional (e.g., a section on RNE website dedicated to RNE data-driven services in which after registration one will be able to purchase selected datasets, bulk downloads, etc.)

Entry into force and application

This policy shall enter into force on 6 December 2022 with its approval by the RNE General Assembly and shall replace the RNE Big Data Governance Framework.

It shall apply from 1 January 2023.

This Policy is without prejudice to:
(a) specific provisions in Union or national law regarding the access to or re-use of certain categories of data; and
(b) the obligations of RNE and RNE members under Union or national law to allow the re-use of data or to requirements related to processing of non-personal data.
Where sector-specific Union or national law requires RNE members to comply with specific additional technical, administrative or organisational requirements, those provisions of that sector-specific Union or national law shall also apply.

Publication

This Policy shall be published and kept up to date on RNE website (rne.eu).

Annex I – RNE Non-personal Data Inventory

(Note: please check the separate file provided on the RNE website under: https://rne.eu/it/rne-data)

Annex II - RNE Service Catalogue

(Note: please check the separate file provided on the RNE website under: https://rne.eu/it/rne-data)