

EPA Parking Data Essentials – Part 2A

Review of European Regulations concerning Parking Data

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EPA Parking Data Essentials

Review of European Regulations concerning Parking Data

Introduction

Within the European Union there are over 800 cities with 50,000 or more inhabitants. The majority of those cities, almost 700, are small and medium-sized cities with between 50,000 and 250,000 inhabitants. To a greater or lesser extent, they are all seeking to enhance their liveability and their offer of services, work, leisure, commerce, and culture activities. To this end many municipalities are developing and implementing sustainable mobility policies with the objectives of reducing pollution and congestion, while improving liveability, accessibility and social inclusion for residents, workers, visitors and supporting the local economy. This is both a complex task and a politically sensitive one.

Parking management plays a key role in ensuring the success of such policies. As noted in the Parking and SUMP report ¹ “Effective parking management has proven to be beneficial in promoting sustainable urban mobility in our cities. It can help free up valuable public space, which increases the attractiveness of cities. Furthermore, managing the parking of private motor vehicles can also reduce traffic, improve congestion, road safety and air pollution. Moreover, it generates revenues (from car parking fees and fines) to invest in sustainable mobility and urban improvements.”

The European Parking Association (EPA) promotes and supports the parking sector within the context of broader mobility and sustainable development strategies and policies within Europe.

The EPA aims to facilitate cooperation between the professional parking organisations of different European countries, and to exchange professional know-how amongst its members and with external stakeholders and policy makers within the context of sustainable mobility.

An important part of EPA’s mission is to exchange information and best practices at European and international levels, developing and harmonizing standards, promoting their adoption and implementation, and delivering services to our members.

The National Access Points (NAPs) are the central platforms for mobility data, facilitate access, easy exchange and reuse of transport related data in Europe. The NAPs help support the provision of EU-wide interoperable travel and traffic services to end users. NAPCORE (National Access Point Coordination Organisation for Europe) is the EU funded organisation with the mission to coordinate and harmonise the more than 30 mobility data platforms across Europe.

NAPCORE focus is on cooperation and joint work on standards, formats and processes to significantly improve the discoverability and accessibility of data in Europe. In this regard, parking represents an important sector within Europe as it is linked to a wide range of ITS and transport domains. Major parking stakeholder bodies play a major role in the development of technical specifications towards the exchange of parking-centric data between operators, service providers, municipalities, and other stakeholder communities.

¹ PARKING AND SUMP – Using parking management to achieve SUMP objectives effectively and sustainably
European Commission – October 2022

Therefore, NAPCORE and EPA signed a cooperation agreement in May 2023 with the following objectives:

- Foster joint work on alignment and interoperability of standards (DATEX II, APDS, NeTEx).
- Encourage and ensure the provision of parking data on the NAPs by EPA's national member associations and commercial associate members.
- Identify challenges and issues regarding parking as well as identifying countermeasures to address them.
- Enable NAPCORE and EPA to join forces to have a stronger voice in the alignment of data, data quality, usability and standardisation to guarantee a functioning exchange of information.
- Create a win-win situation for NAPCORE and EPA and enable the pooling of knowledge.

Within this context EPA, together with the NAPCORE, is developing a European Regulated Parking Data Profile.

The present European Regulated Parking Data Profile is a result of EPA's analysis of the current Delegated Regulations, in so far as they apply to parking (data).

Why is this important for the European parking sector?

In support of the EU ITS directive (2010/40/EU), Delegated Regulations have been established and adopted to support the deployment of more coherent ITS information services covering a range of topics including multimodal travel information, traffic management, traffic information, safe and secure truck parking, etc. These Delegated Regulations place obligations upon EU Member States to enact national legislation that will make a range of transport and mobility data available, including references to parking data, park and ride information, etc.

The European Union Delegated Regulations have been adopted by the European Parliament and Council of Ministers and cascade to become national law in each of the European Union Member States. How each Member State goes about achieving the requirements of the Delegated Regulations may be different. In general, a lead national ministry (most likely the ministry of transport) will take steps to ensure the data required by the Delegated Regulations is made available.

How does this affect the European parking sector?

Municipalities, parking providers, parking service suppliers or parking data integrators are potentially the actual source of the required parking-related data and will thus have to comply directly with the described Delegated Regulations.

The figure below illustrates the relationship of between the relevant Delegated Regulations, the European Regulated Parking Data Profile – Review of Regulations (this document), the European Regulated Parking Data Profile spreadsheet, and technical profiles that are being developed:

EU Delegated Regulations

885/2013
2015/962
2017/1926
2022/670
2024/490

Parking Data Essentials – Part 2 – European Regulated parking data profile



Part 2A - Review of Parking Data Requirements



Part 2B – European Regulated Parking Data Profile (Detail)



APDS or DATEX II Profiles to meet data requirements



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In addition to the above summary there are 3 appendices to this paper:

- **Appendix A** - Provides links to each of the published and adopted Delegated Regulations
- **Appendix B** - Examines the relevant Delegated Regulations in more detail and draws out which requirements reasonably apply to parking data. It also discusses the geographic extent of the Regulations and their implementation timeframes.
- **Appendix C** is the European Regulated Parking Data Profile - This spreadsheet aims to identify parking data concepts that are required to meet the obligations of the relevant EU Delegated Regulations.

The table on the following page gives a summarised view of the parking-related requirements contained within the various EU Delegated Regulations.

² To try to keep the information in this document as simple as possible, EPA has chosen to baseline this information based on currently adopted Delegated Regulations and requirements that are valid from 1st January 2025 onwards (i.e. Delegated Regulation 2015/926 is not included in the detailed analysis as it is set to be repealed 1 January 2025).

| | |
|---|---|
| Summarised view of the parking-related data requirements | |
| Regulation 885/2013 - the provision of information services for safe and secure parking places for trucks and commercial vehicles | |
| Status- LIVE | |
| Timing – now | Geographic coverage – Regulation applies to all relevant truck parking places on the Trans-European Road Network (TERN), and priority areas defined nationally |
| Focus – Safe and secure truck parking places | |
| Summary of required data – Static information concerning truck parking places, plus, if available, dynamic data on availability status | |

| | |
|--|--|
| Regulation 2017/1926 - the provision of EU-wide multimodal travel information services | |
| Status – LIVE | |
| Timing – Now on the comprehensive TERN - 1 December 2023 for EU transport network | Geographic coverage – staged deployment: initially comprehensive TERN; then whole transport network |
| Focus – Multi-modal sites | |
| Summary of required data – Open to interpretation (see details below). Static information on parking places; information on where & how to pay; dynamic availability information. | |

| | |
|--|---|
| Regulation 2022/670 - Provision of EU-wide real-time traffic information services | |
| Status - From 1 January 2025 | |
| Timing – Effective 1 January 2025 | Geographic coverage – entire road network* |
| Focus – Real time traffic information – but no parking data | |
| Summary of required data – For parking, none, except EV chargepoints. | |

| | |
|---|---|
| Regulation (EU) 2024/490 (amendment) Provision of EU-wide multimodal travel information services | |
| Status – LIVE | |
| Timing – Effective 1 December 2023, 2024, 2025, 2026 & 2028 | Geographic coverage – entire road network* |
| Focus – Location, tariff and availability data for all parking places | |
| <p>Summary of required data – For the entire European Transport Network (unless otherwise stated):</p> <p>Static Data: By 1 December 2023, where and how to pay for parking. By 1 December 2024, location of parking places (on and off-street). By 1 December 2025, information on parking tariffs.</p> <p>Dynamic data: by 1 December 2026, parking tariffs and availability check and location for car parking spaces available (on and off-street) for the comprehensive TEN-T network; 1 December 2028, parking tariffs and availability check and location for car parking spaces available (on and off-street) for the other parts of the Union transport network</p> | |

Appendix A - Relevant European Regulations

There are five Delegated Regulations that have been established linked to the ITS Directive [2010/40/EU](#). There are some that clearly have no relationship to parking data. Those that have some reference to parking data are listed below.

It should be noted that these Delegated Regulations have been adopted and published at different times and that some of the later Regulations either amend or revoke earlier ones. The dates for compliance to the Regulations are also varied.

To try to keep the information in this document as simple as possible, EPA has chosen to baseline this information based on currently adopted Delegated Regulations and requirements that are valid from 1st January 2025 onwards (i.e. Delegated Regulation 2015/926 is not included in the detailed analysis as it is set to be repealed 1 January 2025). This removes earlier requirements that are in the process of being revoked.

- Commission Delegated Regulation (EU) No [885/2013](#) of 15 May 2013 supplementing ITS Directive 2010/40/EU of the European Parliament and of the Council with regard to **the provision of information services for safe and secure parking places for trucks and commercial vehicles**, referenced as Priority Action E in the EU ITS Directive.

This is colloquially referred to as “safe and secure truck parking”.

- Commission Delegated Regulation (EU) [2017/1926](#) of 31 May 2017 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to **the provision of EU-wide multimodal travel information services**, referenced as Priority Action A in the EU ITS Directive (2010/40/EU).

There is a [Corrigenda](#) for specific language corrections.

This is colloquially referred to as “multimodal travel information services” or “MMTIS”.

- Commission Delegated Regulation (EU) [2022/670](#) of 2 February 2022 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to **the provision of EU-wide real-time traffic information services**, referenced as Priority Action B in the EU ITS Directive.

This is colloquially referred to as “real-time traffic information services” or “RTTI”.

The original RTTI Delegated Regulation was Commission Delegated Regulation (EU) [2015/962](#) of 18 December 2014 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of **EU-wide real-time traffic information services**.

- Commission Delegated Regulation (EU) [2024/490](#) of 29 November 2023 amending Delegated Regulation (EU) 2017/1926 supplementing Directive 2010/40/EU of **the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services**, referenced as Priority Action A in the EU ITS Directive (2010/40/EU).

Appendix B - Parking requirements in EU Delegated Regulations

This section looks at the parking related requirements in the relevant Delegated Regulations as listed above.

Text in italics is extracted directly from the Regulations.

General Requirement – Establishment of National Access Points

These regulations require, for each EU Member State, the establishment and use of a National Access Point (NAP), which shall constitute a single point of access for users of a range of data categories listed in the regulations.

For example, Regulation 2015/962 on real-time traffic information services states:

Article 3

National access points

- 1. Each Member State shall set up a national access point. The national access point shall constitute a single point of access for users to the road and traffic data, including data updates, provided by the road authorities, road operators and service providers and concerning the territory of a given Member State.*
- 2. Existing national access points that have been set up to comply with the requirements arising from other delegated acts adopted under Directive 2010/40/EU may be used, if deemed appropriate by the Member States, as national access points.*
- 3. National access points shall provide appropriate discovery services to users.*

Requirement – To publish existing data

The various Delegated Regulations provide slightly different wording but broadly indicate that existing data held by the data holder shall be provided to the National Access Points. These Regulations make no distinction whether existing data is already published in the public realm.

Regulation 2015/962 on real-time traffic information services states:

Article 4

Accessibility, exchange and re-use of static road data

*For the purpose of facilitating the provision of compatible, interoperable, and continuous real-time traffic information services across the Union, road authorities and road operators **shall provide the static road data they collect** and update pursuant to Article 8 in a standardised format, if available, or in any other machine readable format.*

Regulation 2024/490 amending the requirements on multimodal travel information states:

Article 4

Accessibility, exchange and reuse of static, historic and observed travel and traffic data

- 1. The **data holders shall provide**, via the national access point set up in accordance with Article 3, **access to the static, historic and observed travel and traffic data** listed in point 1 of the Annex...*

Similar requirements exist in both Regulations for dynamic data.



Requirements – Licensing and Commercial Rights for use of Data

Data that is made available, via the National Access Points, must be done so on a non-discriminatory manner. Licensing of data provision is permitted; however the terms of the license shall not unnecessarily restrict possibilities for reuse or be used to restrict competition. Licence agreements, whenever used, shall in any event impose as few restrictions on reuse as possible. Any financial compensation shall be reasonable and proportionate to the legitimate costs incurred of providing and disseminating the relevant data.

Again, the specific wording in the various relevant Delegated Regulations differs. An example below is taken from Regulation 2024/490 amending the requirements on multimodal travel information:

Article 8

*1. The travel and traffic data listed in the Annex and the corresponding metadata including information on the quality thereof shall be accessible for exchange and reuse within the Union on a **non-discriminatory basis**, via the national access point set up in accordance with Article 3 and within a timeframe allowing reliable and effective reuse of the data. **Such data shall be accurate and up to date and based on minimum data quality requirements.** To that effect, Member States, in cooperation with relevant ITS stakeholders, shall reach an agreement on such minimum data quality requirements.*

*2. The data referred to in paragraph 1 shall be reused in a neutral manner, without discrimination or bias, towards the data holder. Criteria used for ranking travel options of different transport modes or combinations thereof, or both, shall be transparent and not be based on any factor directly or indirectly relating to the data user or end user identity or, if any, the **commercial consideration related to the reuse of the data and shall be applied on a non-discriminatory basis to all participating data users or end users.** The first principle travel itinerary presentation shall not mislead the end user.*

*3. Where reusing the static, historic, observed and dynamic travel and traffic data, **the source of those data shall be indicated, if the data holder so requires.** The update interval of the static, historic, observed and, where possible, of the dynamic data shall also be indicated.*

*4. The terms and conditions for the use of the traffic and travel data provided via the national access point set up in accordance with Article 3 **may be determined through a licence agreement.** Those **conditions shall not unnecessarily restrict possibilities for reuse or be used to restrict competition.** Licence agreements, whenever used, shall in any event **impose as few restrictions on reuse as possible. Any financial compensation shall be reasonable and proportionate to the legitimate costs resulting from providing and disseminating the relevant travel and traffic data.***

The following sections provide details for each relevant Delegated Regulation. For each Regulation the following sub-sections are provided:

- Parking data requirement – which details the description of data categories relating to parking directly taken from the Regulation
- Timing – which outlines the dates by which regulations are to be met
- Geographical coverage – which outlines which localities data shall be made available
- Data standards – which details which data standards shall be used for the coding and exchange of data

- Interpretation – an EPA commentary relating to the requirements of the Regulation

Delegated Regulation 885/2013 (the provision of information services for safe and secure parking places for trucks and commercial vehicles)

Parking data requirement

Article 4 (Data Collection):

1. Static data related to the parking areas, including (where applicable)

- Identification information of parking area (name and address of the truck parking area)
- Location information of the entry point in the parking area (latitude/longitude)
- Primary road identifier1/direction, and Primary road identifier2/direction if same parking accessible from two different roads —
- If needed, the indication of the Exit to be taken/Distance from primary road km or miles
- Total number of free parking places for trucks
- Price and currency of parking places

2. Information on safety and equipment of the parking area

- Description of security, safety and service equipment of the parking including national classification if one is applied
- Number of parking places for refrigerated goods vehicles
- Information on specific equipment or services for specific goods vehicles and other
- Contact information of the parking operator:
 - Name and surname
 - Telephone number
 - E-mail address
- Consent of the operator to make his contact information public (Yes/No)

3. Dynamic data on availability of parking places including whether a parking is: full, closed or number of free places which are available.

Delegated Regulation 885/2013 defines:

'safe and secure parking place' means a parking place for commercial users allowing them to avoid unsuitable parking and contributing to safety of drivers and freight;

'unsuitable parking' means stopping or parking of heavy goods vehicles outside of safe and secure parking places on motorways or corridors, on hard shoulders, or inside overcrowded parking places;

Timing

Timing: Regulation published in the Official Journal 18th September 2013.

This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

It shall apply:

— *from 1 October 2015 to the provision of services already deployed on the date of entry into force of this Regulation,*

— *from 1 October 2013 to the provision of services to be deployed after the date of entry into force of this Regulation.*

Geographical coverage

It shall apply to the provision of information services situated on the trans-European road network (TERN).

Member States shall designate areas where traffic and security conditions require the deployment of information services on the safe and secure parking places.

They shall also define priority zones where dynamic information will be provided.

‘priority zone’ means a section, as defined by the national authorities, where there is a shortage of spaces at one or several safe and secure parking places, which can be alleviated by providing information on other unused parking capacities in the same zone.

Data standards

Article 5 - Sharing and exchange of data

1. Public or private parking operators and service providers shall share and exchange data referred to in paragraph 1 of Article 4. For these purposes they shall use DATEX II (CEN/TS 16157) format or any DATEX II compatible international machine-readable format...

Interpretation

This is an interpretation of the Regulation above with respect to the provision of parking-related data. This interpretation is for the purposes of this paper alone and has no formal standing or ratification either by the European Parking Association, the European Commission, or any stakeholder bodies.

Data requirements are for limited static information concerning safe and secure truck parking sites, and dynamic availability data if available. A profile for the required data specified in DATEX II format, which meets the requirements of the Regulation, has been published. This profile supplies the required data detailed in the Regulation in a profile of the DATEX II CEN standard (CEN TS 16257-6:2022). The details of data required to meet the Regulation as rather specifically defined. (i.e. specific data fields, their type and length are defined in the Regulation).

The specific geographical boundary of parking sites to be included is not tightly defined, and open to some interpretation and agreement with national authorities.

The Regulation requires the provision of data in DATEX II (CEN/TS16157) format or compatible format. The European Parking Association has been collaborating as a Founding Member of the Alliance for Parking Data Standards (APDS), developing international recognised parking industry-led census data standards for parking data. The APDS specification form the basis of ISO TS 5206-1:2023 which is the global standard for parking data. The latest release of the CEN Technical Specification CEN/TS 16157-6:2022 “DATEX II” Parking Publications is also strongly aligned to the APDS specifications.

Due to this strongly alignment EPA recommends primary use of the APDS specifications as the parking industry reference standard for the exchange and publication of parking data. EPA is working closely with the DATEX II community to ensure APDS data can be published in a manner than is fully compatible with CEN/TS 16157:2022

Delegated Regulation 2017/1926 (provision of EU-wide multimodal travel information services):

Parking data requirement

Annex – Data Categories:

1. The types of the static travel data

1.1. Level of service 1

(a) Location search, including:

(iii) Points of interest to which people may wish to travel,

1.2 Level of service 2

(a) Location search (demand-responsive modes), including:

(i) Park & Ride stops,

(ii) Bike sharing stations,

(iii) Car-sharing stations,

(iv) Publicly accessible refuelling stations for petrol, diesel, CNG/LNG, hydrogen powered vehicles, charging stations for electric vehicles

(v) Secure bike parking (such as locked bike garages)

Note these regulations apply to demand-responsive modes which are specified as:

Shuttle bus, shuttle ferry, taxi, car-sharing, car-pooling, car-hire, bike-sharing, bike-hire.

(b) Information service:

Where and how to buy tickets for scheduled modes, demand responsive modes and car parking (all scheduled modes and demand-responsive incl. retail channels, fulfilment methods, payment methods)

1.3 Level of service 3:

(b) Information service (all modes), including:

(iii) Where how to pay for car parking.... (incl. retail channels, fulfilment methods, payment methods)

2. Types of the dynamic travel and traffic data

2.2. Level of service 2

(c) Availability check

(ii) Car parking spaces available (on and off-street), parking tariffs.

Timing

Regulation published in the Official Journal 21st October 2017.

This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

There is a staged requirement for availability of different data sets, specified as follows:

(a) for the travel and traffic data set out in point 1.1 of the Annex for the comprehensive TEN-T network, by 1 December 2019 at the latest;

(b) for the travel and traffic data set out in point 1.2 of the Annex for the comprehensive TEN-T network, by 1 December 2020 at the latest;

(c) for the travel and traffic data set out in point 1.3 of the Annex for the comprehensive TEN-T network, by 1 December 2021 the latest;

(d) for the travel and traffic data set out in points 1.1, 1.2 and 1.3 of the Annex for the other parts of the Union transport network, by 1 December 2023 at the latest

Geographical coverage

See timing above.

'comprehensive trans-European transport network' means the transport infrastructure that is part of the comprehensive network as defined in Regulation (EU) No 1315/20.

The term 'Union transport network' is not defined.

Data standards

Article 4 - Accessibility, exchange and reuse of static travel and traffic data

1. Transport authorities, transport operators, infrastructure managers or transport on demand service providers shall provide the static travel and traffic data and historic traffic data listed in point 1 of the Annex, of the different transport modes by using:

(a) for the road transport, the standards defined in Article 4 of Delegated Regulation (EU) 2015/962;

(b) for other transport modes, the use of one of the following standards and technical specifications: NeTEx CEN/TS 16614 and subsequent versions, technical documents defined in Regulation (EU) No 454/2011 and subsequent versions, technical documents elaborated by IATA or any machine-readable format fully compatible and interoperable with those standards and technical specifications;

(c) for the spatial network the requirements defined in Article 7 of Directive 2007/2/EC.

2. The relevant static travel and traffic data listed in point 1 of the Annex that are applicable to NeTEx and DATEX II shall be represented through minimum national profiles...

Interpretation

This is an interpretation of the Regulation above with respect to the provision of parking-related data. This interpretation is for the purposes of this paper alone and has no formal standing or ratification either by the European Parking Association, the European Commission, or any stakeholder bodies.

Data requirements is for a range of multi-model travel information.

The requirements to supply parking-related data are open to some interpretation – however the requirements of Delegated Regulation 2024/490, covered later in this document should also be considered.

Requirement 2.2 (c)(ii) requires dynamic information on car parking spaces for both on and off street and parking tariffs.
The Regulation is silent on which parking places this regulation applies to other than stating requirements for on and off street parking information for the whole European Union transport network (this appears therefore to apply to all parking places).
Parking is generally related to road transport. The data standard to be used are specified as follows:

Article 4, 1, (a) for the road transport, the standards defined in Article 4 of Delegated Regulation (EU) 2015/962. And it states:

1. For the purpose of facilitating the provision of compatible, interoperable, and continuous real-time traffic information services across the Union, road authorities and road operators shall provide the static road data they collect and update pursuant to Article 8 in a standardised format, if available, or in any other machine readable format.

The Regulation requires the provision of data in a manner conformant to a specified standard. However, there are grounds for interpretation of which data shall be provided using which standard.

In the Data Standards section above, one clause states : for the road transport, the standards defined in Article 4 of Delegated Regulation (EU) 2015/962

As the aforementioned article 4 of Regulation 2015/962 points towards use of the DATEX II (CEN 16157 series of standards) and parking can be considered to be road transport DATEX II can be argued to be the primary data standard.

The public transport lobby argue that parking is related to other modes of transport – in which case NeTex CEN/TS 16614 is the primary referenced data standard.

As mentioned in previous sections the ADPS specifications are closely aligned to the DATEX II Part 6: 2022 standard. APDS has developed a proof of concept data converter/adaptor than enables APDS compliant data to be converted into NeTex format.

EPA recommends primary use of EPA recommends primary use of the APDS specifications as the parking industry reference standard for the exchange and publication of parking data, which can be converted into both DATEX II and NeTex formats.

Delegated Regulation 2022/670 (provision of EU-wide real-time traffic information services)

Parking data requirement

None.

However, data requirements do include:

Annex – Data Categories:

(1) The types of data on infrastructure

(e) location of recharging points for electric vehicles and the conditions for their use

(g) location of refuelling points and stations for all other fuel types;

(h) location of delivery areas

(6) The types of data on the real-time use of the network:

(f) availability of delivery areas;

(g) availability of recharging points and stations for electric vehicles;

(h) availability of refuelling points and stations for alternative fuel types;

(i) price of ad hoc recharging/refuelling.

Timing

Regulation published in the Official Journal 25th April 2022.

This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

European Parking Association

It shall apply from 1 January 2025

– with exception of Article 13, effective now, relating to reporting.

Regulation 2022/670 includes:

Delegated Regulation (EU) 2015/962 is repealed from 1 January 2025.

There is no direct requirement for parking-related data under this regulation.

Geographical coverage

This Regulation applies to the entire road network that is publicly accessible to motorised traffic. By way of exception, it shall not apply to private roads, unless they are part of the comprehensive TEN-T network or they are designated as a motorway or as a primary road.

Data standards

Article 4 Accessibility, exchange and re-use of data on infrastructure

1. For the purpose of facilitating the provision of compatible, interoperable, and continuous real-time traffic information services across the Union, road authorities, road operators, tolling operators and recharging and refuelling related stakeholders shall provide the data on infrastructure listed in the Annex they collect in a standardised format such as the INSPIRE data specification on transport networks, TN-ITS (CEN/TS17268 and subsequently upgraded versions) or DATEX II (EN 16157, CEN/TS 16157 and subsequently upgraded versions). Any update to this data shall be carried out pursuant to Article 8...

Interpretation

This is an interpretation of the Regulation above with respect to the provision of parking-related data. This interpretation is for the purposes of this paper alone and has no formal standing or ratification either by the European Parking Association, the European Commission, or any stakeholder bodies.

This Regulation (2022/670) will replace Regulation 2015/962 from 1 January 2025. It contains no requirement for the provision of parking related data, however there are obvious links with the requirements for recharging and refuelling points locations.

The Regulation requires the provision of data in DATEX II (CEN/TS16157) format or compatible format. The European Parking Association has been collaborating as a Founding Member of the Alliance for Parking Data Standards (APDS), developing international recognised parking industry-led census data standards for parking data. The APDS specification form the basis of ISO TS 5206-1:2023 which is the global standard for parking data. The latest release of the CEN Technical Specification CEN/TS 16157-6:2022 “DATEX II” Parking Publications is also strongly aligned to the APDS specifications.

Due to this strong alignment EPA recommends primary use of the APDS specifications as the parking industry reference standard for the exchange and publication of parking data. EPA is working closely with the DATEX II community to ensure APDS data can be published in a manner than is fully compatible with CEN/TS 16157:2022.

Delegated Regulation 2024/490 (amendment to Regulation (EU) 2017/1926 – provision of EU-wide multimodal travel information services)

Context

Delegated Regulation 2024/490 provides an amendment to Delegated Regulation 2017/1926 – as such both Regulations need to be read together.

The content presented below provides the parking related requirements as laid out in Regulation 2024/490.

Parking data requirement

Pretext:

(4) To be consistent and avoid overlaps with Commission Delegated Regulation (EU) 2022/670 (6), specific data types on parking should be added to the scope of Delegated Regulation (EU) 2017/1926 and data types on refuelling and charging stations should be removed from the scope of Delegated Regulation (EU) 2017/1926. Data on parking, such as location and availability of parking places, where and how to pay for parking, and information on parking tariffs, are considered important for the further development of reliable travel information services, and should be made accessible by data holders, such as transport authorities, transport operators, infrastructure managers, transport on demand service providers or parking operators.

(8) Regarding the exchange of static, historic, observed and dynamic travel and traffic data, data holders should make that data accessible via the national access point as specified in Article 3 by using the standards and technical specifications referred to in Articles 4 and 5. This can also be done in any other standard, where data holders can prove that it is fully compatible with the reference standards, and provided that all requested information is made available. To prove compatibility, data holders can use converters or validators.

Annex – Data Categories:

1. TYPES OF THE STATIC, HISTORIC AND OBSERVED TRAVEL AND TRAFFIC DATA

1.2. Level of service 2

(a) location search – for transport on demand and personal transport:

(i) location of parking places (on and off-street), including accessible parking places for persons with disabilities and persons with reduced mobility;

(ii) Park & Ride stops;

(iii) Park & Drive stops; ...

(b) information service:

(ii) where and how to pay for parking, including retail channels, fulfilment methods, payment methods;

1.4. Level of service 4

(d) information on parking tariffs

2. TYPES OF THE DYNAMIC TRAVEL AND TRAFFIC DATA

2.2. Level of service 2

(a) information service on parking tariffs – for transport on demand and personal transport;

(b) availability check and location – for transport on demand and personal transport where relevant:

(ii) car parking spaces available (on and off-street).

Note these regulations apply:

Partition of transport modes and transport means and included services, such as

Scheduled transport such as: Air, rail including high speed rail, conventional rail, light rail, cableways, long-distance coach, maritime including ferry, inland waterways, metro, tram, bus, trolley-bus.

Transport on demand such as: Shuttle bus, shuttle ferry, dial-a-ride services, taxi, car-sharing, car-pooling, car-hire, ride-sharing, bike-sharing, bike-hire, bike-rental, e-scooter sharing.

Personal transport such as: Car, motorcycle, bicycle, scooter, walking.

Timing

Article 4 Accessibility, exchange and reuse of static, historic and observed travel and traffic data

3. The data holders shall provide static, historic and observed travel and traffic data via the national access point set up in accordance with Article 3 in the required formats in accordance with the following timetable:

(b) for the travel and traffic data set out in point 1.2 of the Annex, except for points 1.2(a)(i) and (iii), and point 1.2(c) (ii), for the comprehensive TEN-T network, by 1 December 2020;

EPA comment: this includes 1.2 (b)(ii) “where and how to pay for parking” on the Comprehensive TEN-T network

(d) for the travel and traffic data set out in points 1.1, 1.2 and 1.3 of the Annex, except for point 1.1(d)(ix), points 1.2 (a)(i), (iii) and (vii), point 1.2(c)(ii), point 1.3(c)(iii), as well as point 1.2(c)(i), and points 1.3(a)(ii) and (iii) for transport on demand, for the other parts of the Union transport network, by 1 December 2023;

EPA comment: this includes 1.2 (b)(ii) “where and how to pay for parking” for the other parts of the Union transport network

(e) for the travel and traffic data set out in point 1.1(d)(ix), points 1.2(a)(i)

EPA comment: namely, location of parking places (on and off-street)},

(iii) and (vii), point 1.2(c)(ii), point 1.3(c)(iii), point 1.2(c)(i), and points 1.3(a)(ii) and (iii) for transport on demand of the Annex, for the entire transport network of the Union, by 1 December 2024;

(f) for the travel and traffic data set out in point 1.4 of the Annex, for the entire transport network of the Union, by 1 December 2025.

EPA comment: this includes 1.4 (d) information on parking tariffs for the entire transport network of the Union

Article 5

Accessibility, exchange and reuse of dynamic travel and traffic data

3. The data holders shall provide the dynamic travel and traffic data via the national access point set up in accordance with Article 3 in the required formats in accordance with the following timetable:

(b) for the travel and traffic data set out in point 2.2 of the Annex, for the comprehensive TEN-T network, by 1 December 2026;

EPA comment: this includes : 2.2(a) parking tariffs and availability check and location for car parking spaces available (on and off-street) for the comprehensive TEN-T network

(c) for the travel and traffic data set out in points 2.1 and 2.2 of the Annex for the other parts of the Union transport network, by 1 December 2028.

EPA comment: this includes : 2.2(a) parking tariffs and availability check and location for car parking spaces available (on and off-street) for the other parts of the Union transport network

Geographical coverage

In the timing text above it indicates the geographic coverage required for different data categories at different times. In general, the requirements move towards provision of data for the whole European Union transport network (i.e. all parking places, both on and off street).

Data standards

Article 4

Accessibility, exchange and reuse of static, historic and observed travel and traffic data

1. *The data holders shall provide, via the national access point set up in accordance with Article 3, access to the static, historic and observed travel and traffic data listed in point 1 of the Annex, of the different transport modes and means by using:*

(a) for the road transport, the standardised format referred to in Article 4 of Delegated Regulation (EU) 2015/962;

(b) for other transport modes, one of the following standards and technical specifications, or any digital machine-readable format that can be proven fully compatible and interoperable with those standards and technical specifications, including for example through automatic converters and validators:

(i) NeTEx CEN/TS 16614 and subsequent versions;

(ii) the technical specifications set out in Regulation (EU) No 454/2011;

(iii) the technical documents published under the authority of the IATA Passenger Services Conference;

(iv) Transmodel EN 12896 where there is no reference exchange protocol;

(c) for the spatial network the requirements set out in Article 7 of Directive 2007/2/EC.

2. *The static, historic and observed travel and traffic data listed in point 1 of the Annex, for which NeTEx and DATEX II are applicable, shall be represented through minimum EU profiles or national profiles.*

4. *APIs providing access to static, historic and observed travel and traffic data listed in the Annex via the national access point set up in accordance with Article 3 shall be publicly accessible to data users, where relevant subject to registration.*

5. *Data users and data holders shall collaborate in order to ensure that any inaccuracies related to the static, historic and observed travel and traffic data are notified without delay to the data holder from which the data originates.*

6. *The data provided by data holders via the national access point shall not include personal data as defined in Article 4(1) of Regulation (EU) 2016/679.*

Article 5

Accessibility, exchange and reuse of dynamic travel and traffic data

1. *The data holders shall provide, via the national access point set up in accordance with Article 3, access to the dynamic travel and traffic data listed in points 2.1 and 2.2 of the Annex, of the different transport modes and means by using:*

(a) for the road transport, the formats referred to in Articles 5 and 6 of Delegated Regulation (EU) 2015/962;

(b) for the other transport modes, either of the following standards and technical specifications, or any digital machine-readable format that can be proven fully compatible and interoperable with those standards and technical specifications, including for example through automatic converters and validators:

- (i) SIRI CEN/TS 15531 and subsequent versions;
- (ii) the technical specifications set out in Regulation (EU) No 454/2011.
2. The dynamic travel and traffic data referred to in points 2.1 and 2.2 of the Annex, for which SIRI and DATEX II are applicable, shall be represented through minimum EU profiles or national profiles.
 4. Each Member State may decide that data holders shall provide the dynamic travel and traffic data of different transport modes listed in point 2.3 of the Annex, within the territory of that Member State, via the national access point set up in accordance with Article 3. In that case, data holders shall use SIRI CEN/TS 15531 and subsequent versions, or any digital machine-readable format that can be proven fully compatible and interoperable with those standards and technical specifications, including for example through automatic converters and validators.
 5. APIs that provide access to dynamic travel and traffic data listed in the Annex via the national access point set up in accordance with Article 3 shall be publicly accessible to data users, where relevant subject to registration.
 6. Data users and data holders shall collaborate in order to ensure that any inaccuracies related to the dynamic travel and traffic data are notified without delay to the data holder from which the data originates.

Interpretation

This is an interpretation of the Regulation above with respect to the provision of parking-related data. This interpretation is for the purposes of this paper alone and has no formal standing or ratification either by the European Parking Association, the European Commission, or any stakeholder bodies.

Regulation 2022/670 is drafted as a revision to Regulation 2015/962, and will come into effect in 2025. See Sections 5.3 and 5.5. Regulation 2022/670 removes most requirements concerning parking-related data (except EV chargepoint data). Hence the revision of Regulation 2017/1926 is seen as the focus for parking-related data by the EC.

In the Data Standards section above, one clause states :

for the road transport, the standards defined in Article 4 of Delegated Regulation (EU) 2015/962

As the aforementioned article 4 of Regulation 2015/962 points towards use of the DATEX II (CEN 16157 series of standards) and parking can be considered to be road transport DATEX II can be argued to be the primary data standard.

The public transport lobby argue that parking is related to other modes of transport – in which case NeTEx CEN/TS 16614 is the primary referenced data standard.

As mentioned in previous sections the APDS specifications are closely aligned to the DATEX II Part 6: 2022 standard. APDS has also developed a proof of concept data converter/adaptor than enables APDS compliant data to be converted into NeTEx format. This convertor is currently under test and review.

NOTE EPA does not currently have a proof of concept convertor for APDS to SIRI data.

EPA recommends primary use of the APDS specifications as the parking industry reference standard for the exchange and publication of parking data, which can be converted into both DATEX II and NeTEx formats.

Appendix C - European Regulated Parking Data Profile

The European Regulated Parking Data Profile is a spreadsheet which is complementary to this document (Part 2B of the Parking Data Essentials). This spreadsheet identifies parking data concepts that are required to meet the obligations of the relevant EU Delegated Regulations, starting from the data concepts listed in the legal texts of the Delegated Regulations and expanding these into concrete generalised data concepts. The spreadsheet then continues to map from these generalised data concepts to identify specific data concepts that exist in the Alliance for Parking Data Standards data specification (which is also ISO TS 5206-1:2023).

The European Profile aims to provide both parking data holders and their developers identify more precisely what data is required to meet the obligations of the Delegated Regulations. The example below provides an illustrative example of the transition from the description of the data category in a relevant [Delegated Regulation](#), to a [generalised description of data concepts](#), and finally the mapping to [specific data concepts in APDS](#).

| Regulated Parking Data Profile – Review of Requirements (this document) | | | European Regulated Parking Data Profile | | | | | |
|---|-----------------------------------|--|--|----------------------------|---------------------------|-----------------|----------------------|--------------------|
| Direct extract from Del. Reg | | | Commentary | Profile data items | Profile data items | APDS data items | | |
| Del. Reg. | Group | Item | | GENERAL | SPECIFIC | | | |
| 2015/962 | The types of the static road data | Location of parking places and service areas | parking place name and address & spatial coordinates of entrance | (parking place) identifier | | | identifier | Place.identifier |
| | | | | | | | (parking place) name | |
| | | | | (parking place) address | | | address (city) | Place.Address.city |
| | | | | address (postcode) | Place.Address.postcode | | | |
| | | | | address (country) | Place.Address.countryCode | | | |

