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DRAFT
prEN 18221

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English version

Digital product passport - data storage, archiving, and data persistence

Passeports numériques de produit - stockage,
archivage et persistance des données

Digitaler Produktpass - Speicherung, Archivierung und
Persistenz von Daten

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/CLC/JTC 24.

If this draft becomes a European Standard, CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation. Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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European foreword

This document (prEN 18221:2025) has been prepared by Technical Committee CEN/CLC/JTC 24 "Digital Product Passport – Framework and System", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative [Annex ZA](#), which is an integral part of this document.

1 Scope

This document specifies requirements for decentralized data storage, archiving and data persistence of digital product passports. The archiving service securely stores historical passport data, preserving a comprehensive record of past information. This feature is particularly relevant for market surveillance purposes. Persistence is required to make sure that data included in the digital product passports remains available even when the economic operator creating the digital product passport is no longer active.

This document also specifies requirements for the replication between economic operators and back-up operators as well as rules for data lifetime definition.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

3.1

economic operator

manufacturer, authorized representative, importer, distributor, dealer or fulfilment service provider

3.2

digital product passport

digital record of product characteristics throughout its life cycle

Note 1 to entry: Example characteristics include environmental sustainability, environmental impact, and recyclability

3.3

digital product passport service provider

natural or legal person that is an independent third party authorized by the economic operator (3.1) that places the product on the market or puts it into service and that processes the digital product passport data for that product for the purpose of making such data available to economic operators and other relevant actors with a right to access those data

3.3.1

main digital product passport service provider

digital product passport service provider (3.3) that is optionally hosting the main copy of the digital product passport (3.2)

3.3.2

back-up digital product passport service provider

digital product passport service provider (3.3) that is hosting the back-up copy of the digital product passport (3.2)

3.4

digital product passport lifetime

period during which the digital product passport (3.2) is required by regulation to be available to any operator or natural or legal person with a right to access its data

4 General principles and requirements

4.1 Requirements for storage of the digital product passport data and assets

The digital product passport shall be stored by the economic operator or manufacturer responsible for its creation, or by digital product passport service providers acting on their behalf.

The data in the digital product passport that is stored shall be accurate, complete and up to date.

The **manufacturer** shall make the digital product passport available online during the digital product passport lifetime.

A digital product passport may contain references to other digital product passports, and digital product passports are always stored independently of each other.

Digital product passport data shall be stored in a way that human readable or machine readable presentations can be generated from the stored data.

The digital product passport architecture is decentralized, and this document does not impose specific data storage technologies. This allows economic operators and digital product passport service providers to leverage existing systems for the underlying storage.

4.2 Archiving and rules for archiving

The archiving service securely stores historical passport data, preserving a comprehensive record of past information. This feature is particularly relevant for market surveillance purposes.

Archiving starts when the first change of the initial digital product passport occurs.

Archived versions of the digital product passport shall be stored by both the main digital product passport repository and the back-up digital product passport repository.

All archived versions shall be maintained during the digital product passport lifetime.

All changes to the digital product passport shall be archived except frequently updated or temporally based data, the latter unless mandated by any requirements specific to the product.

Archived versions are subject to the same access restrictions as the corresponding attributes in the current digital product passport.

The archived version corresponding to a given point in time shall be retrievable by authenticated and authorised actors.

Integrity and originality of the archived versions shall be ensured, following European standard(s) on data authentication, reliability, integrity.

4.3 Data persistence and rules for data persistence

Data persistence is required to make sure that data included in the product passports remains available even when the economic operator creating the passport is no longer active on the market.

The economic operator, when placing the product on the market, after registration, shall make available a back-up copy of the digital product passport through a digital product passport service provider which shall store a back-up copy of the most up-to-date version of the digital product passport.

The back-up digital passport service provider shall store all versions to the digital product passport, unless exempted by any requirements specific to the product.

The back-up digital passport attributes are subject to the same access restrictions as the corresponding attributes in the original digital product passport.

Commented [PL1]: The use cases where a brand is acquired by another company isn't mentioned. Also the use case when it's the backup operator ceasing the activity is not covered. To Be Added as these are common situations

Commented [PL2]: Change to "The economic operator shall make the Digital Product Passport available"

Commented [PL3]: "Digital product passport data shall be stored so that human-readable or machine-readable presentations can be generated from it"

Commented [PL4]: The chapter specifies plenty of responsibilities in charge to the Backup DPP service provider. This responsibilities must be matched with specific requirements by regulation. Otherwise these are not applicable

If the economic operator creating the passport is no longer active on the market, then the back-up digital product passport service provider shall be responsible for integrating updates to the digital product passport, when changes are made by an authorized third party.

The digital product passport shall then be available from the back-up digital passport service provider during the digital product passport lifetime.

Access to the digital product passport from the back-up digital product passport service provider shall be available at the same quality of service as legally required from the economic operator creating the digital product passport, starting with the date when the latter is no longer active on the market.

4.4 Additional digital documentation attached to digital product passport

When providing additional digital documentation, the manufacturer shall include it, directly or by reference, in the digital product passport and make it accessible through the digital product passport.

The manufacturer shall present the digital instructions in a format that makes it possible to download and save them on an electronic device so that the user can access them at all times and shall make them accessible online during the digital product passport lifetime.

The back-up digital product passport service provider is also responsible for storing and making accessible any additional digital documentation included directly or by reference in the digital product passport.

4.5 Replication between economic operators and back-up digital product passport service providers

The economic operator creating the digital product passport shall be responsible for ensuring continuous replication of the digital product passport and all changes as required by section 4.3 to its back-up digital product passport service provider.

The frequency of this replication in the case of modifications, shall be sufficient to safeguard the data in the case of an economic operator leaving the market, but the frequency may be further defined by any requirements specific to the product.

Replication between the economic operator and its back-up digital product passport service provider shall be possible through the use of a standardized digital product passport lifecycle API but may also be performed with other mutually agreed secure replication mechanisms.

Replication between the economic operator and its back-up digital product passport service provider shall take place on a secure channel, e.g. over an encrypted connection after successful [\[1\]](#) Certificat  Transparency validation.

Commented [PL5]: The economic operator going out of business need not necessarily mean the DPP service provider goes out of business – so the back-up may not need to become the primary/main DPP. Replace with “no longer active on the market and the main digital product passport service provider is no longer active, then the back-up”

Annex ZA
(informative)

Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) No 2024/1781 aimed to be covered

This European Standard has been prepared under a Commission’s standardisation request C(2024) 5423 final of 31.07.2024 to provide one voluntary means of conforming to ecodesign requirements of Commission Regulation (EU) No 2024/1781 of 28.06.2024 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for digital product passports in support of Union policy on ecodesign requirements for sustainable products and on batteries and waste batteries

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative Clauses of this standard given in confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding requirements of that Regulation, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Commission Regulation (EU) No 2024/1781 of 28.06.2024 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements digital product passports in support of Union policy on ecodesign requirements for sustainable products and on batteries and waste batteries and Commission’s standardisation request C(2024) 5423 final of 31.07.2024

Commented [PL6]: The mapping doesn't appear consistent. The responsibilities and rules specified in the document doesn't explicitly appear in the articles of the law they are supposed to refer to. This part is to be verified or removed

part 6: European standard(s) on data storage, archiving, and data persistence

[Essential]/ [interoperability]/[...] Requirements of [Directive]/ [Regulation]/[Decision] [...]	Clause(s)/sub- Clause(s) of this EN	Remarks/Notes
Article 9.1	4.1	définés requirements for storage of DPP data and assets
Article 10.4	4.3	définés rules for data persistence
Article 11.c	4.5	ensures replication EO --> back-up DPP service provider
Article 11.d	4.2	définés rules for archiving or historical data
Article 11.e	4.5	ensures replication from EO to back-up DPP service provider
Article 13.1	4.1	définés requirements for storage of DPP data and assets
Article 13.2	4.4	définés handling of additional digital documentation
Article 13.4	4	définitions of general principles and requirements
Article 13.5	4.1	définés requirements for storage of DPP data and assets
Annex III.l	4.5	ensures replication from EO to back-up DPP service provider

WARNING Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING Other Union legislation may be applicable to the falling within the scope of this standard.

Bibliography

- [1] IETF RFC 9162 Certificat  Transparency