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Health informatics - The International Patient Summary - Guideline for European Implementation

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/20

Táto predbežná STN je určená na overenie. Pripomienky zasielajte ÚNMS SR najneskôr do januára 2022.

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English Version

**Health informatics - The International Patient Summary -
Guideline for European Implementation**

Informatique de santé - Le résumé international des
patients - Lignes directrices pour la mise en œuvre
européenne

Medizinische Informatik - Die internationale Patienten-
Kurzakte - Leitfaden für die europäische Technische
Spezifikation (TS) zur Umsetzung

This Technical Specification (CEN/TS) was approved by CEN on 13 January 2020 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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CEN/TS 17288:2020 (E)**European foreword**

This document (CEN/TS 17288:2020) has been prepared by Technical Committee CEN/TC 251 “Health Informatics”, the secretariat of which is held by NEN.

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Introduction

This document provides a European implementation guideline for the International Patient Summary (EN 17269). The target audience is primarily software developers, and project implementation teams, but policy makers and SDOs have a role in assuring that the guideline is relevant to IPS.

European policy, directives, organisational and professional culture, and a diverse market place require implementation guidance that is technically relevant and contextually sensitive. This document describes these implementation aspects from the European perspective. The different ways that the International Patient Summary (IPS) and its content are communicated are the subject of this document. This document will reference and credit initiatives, such as the eHealth Networks' patient summary data set and the multiple European projects, that have contributed to the shared vision embodied in the joint CEN IPS and HL7 IPS Project.

The eHealth Network, the Cross border Directive, and the IPS Use Case

The requirements for the CEN IPS' deliverables come directly from the eHealth Network (eHN) and their support for the 'Specific Guidelines for Electronic Exchange of Health Data under the Cross border Directive 2011/24/EU'. "These guidelines, as adopted by the eHealth Network, are addressed to the Member States of the European Union and apply to the implementation of a patient dataset for cross border exchange." [1]

The objective of the EU policy is to support continuity and coordination of care for EU citizens across Member States (MS). In a cross border context, the eHN further asserts that "interoperability is essential to the provision of high-quality care. Member States shall therefore engage in taking appropriate measures to make their respective information systems interoperable, both technically and semantically, for this Use Case". [2]

The specific use case is more general, but the scenario from the eHN is to exchange a patient summary (PS) between countries, comprising an agreed minimal data set, for unscheduled care. Member State needs, however, require the IPS to also be useful for localized use, and to support scheduled care too. The required, core data elements in the eHN guideline are the basis around which meaningful patient summary (PS) implementations can be built. These data, their descriptions and definitions, have been formalized and refined in EN 17269 with the intention of making them usable, and reusable, for different communication purposes in the healthcare domain at a global level.

The relationship between the CEN IPS and other PS Initiatives

Patient Summaries are ubiquitous. The differences and diversity of existing implementations, however, make it currently difficult to safely communicate content. In what is an increasingly complex ecosystem there is a strong requirement to provide simple interoperable solutions for key applications. This has led to a drive to standardize patient summaries for widespread use. The EC chose to support this need for standardization by sponsoring a number of related projects, enabling international participation to consider how to deliver interoperability with respect to cross border exchange of the Patient Summary. The Health Informatics Committee of CEN (i.e. CEN/ TC 251) was commissioned to produce relevant IPS Standards based upon the eHN guideline. Figure 1 shows a map of key CEN IPS stakeholders.

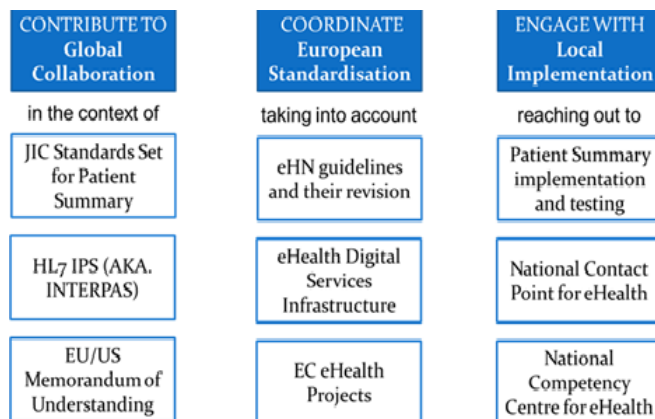
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Figure 1 — CEN/TC 251's participative role in establishing the IPS Standards

The International Patient Summary Project comprises two concurrent standardization activities; one lead by CEN/TC 251 and the other by HL7 International. The standards developed by each of them are inter-related standard products, with informed coordination to realize coherent results.

The EC eHealth projects, aware of the EU/US MOU [3], have been supportive. The Trillium Bridge [4] and Trillium II [5] projects have taken as input the initial work from both CEN/TC 251 and HL7 IPS as the basis for its elaborations and analysis, thereby contributing to the new standardization approach, described by the eStandards [6] project, as “Co-creation, governance and alignment (CGA)”. Concurrently, the eHDSI [7] under the CEF [8] project is realizing the cross border services for the Patient Summary based on the eHN PS guideline and using Patient Summary CDA specifications evolved from epSOS [9]. The lessons learnt by eHDSI (and its parent projects) have been taken into consideration for the development of the IPS Project. Figure 2 provides an illustration as to how the various products of these initiatives relate to each other.

The European Interoperability Framework

The Refined eHealth European Interoperability Framework (ReEIF) [10] is a “common refined framework for managing interoperability and standardisation challenges in the eHealth domain in Europe”; and it has been designed “for the communication and decision-making processes on projects and solutions for eHealth. ReEIF offers a framework of terms and methodologies for reaching a common language, a common starting point, for the analysis of problems and the description of eHealth solutions throughout Europe”. To leverage that fact, ReEIF is used here to structure this document so as to provide relevant European guidance material for the International Patient Summary (IPS). The clause structure that maps to the Framework is presented in Table 1.

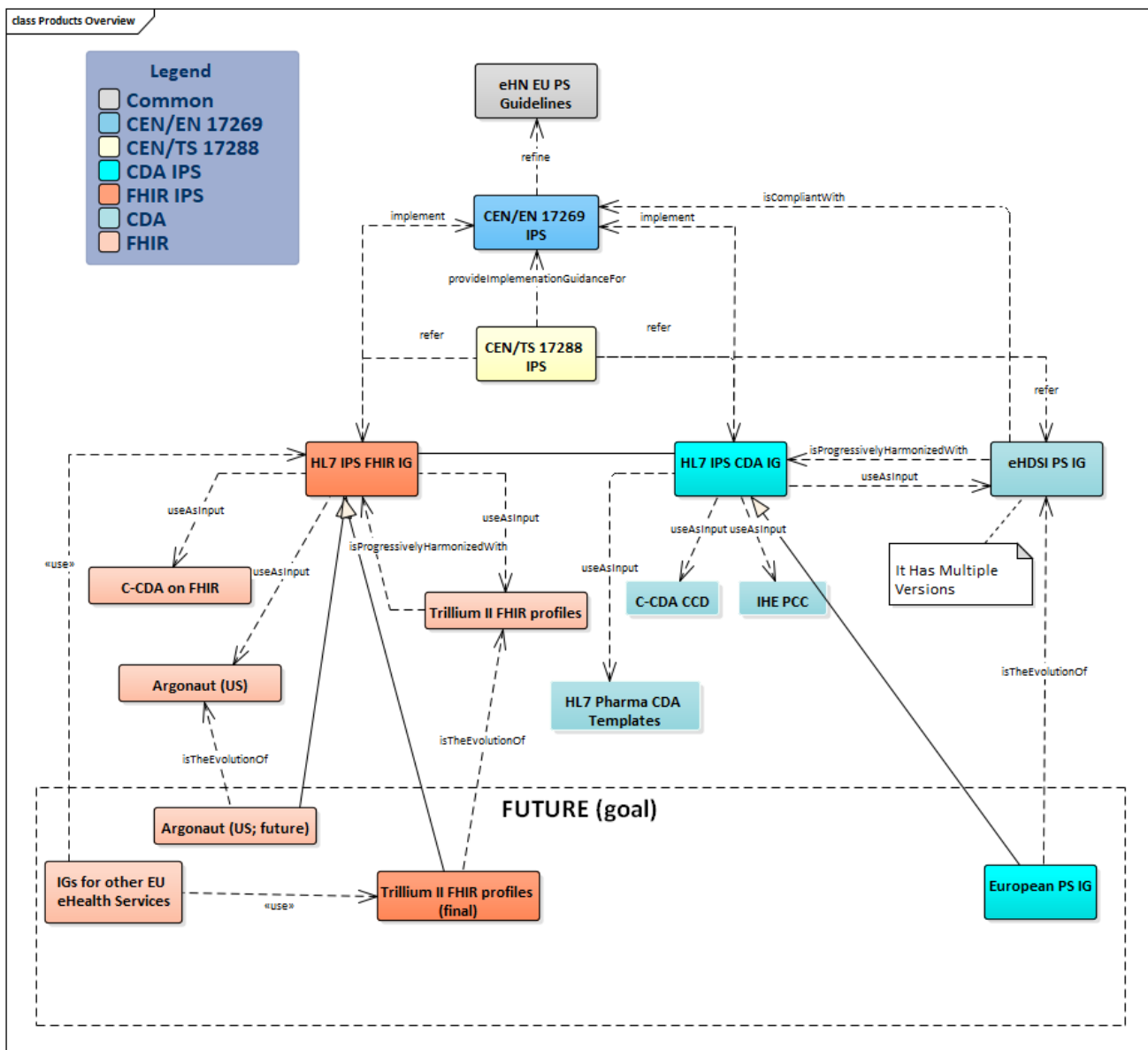


Figure 2 — An overview of the IPS Project

Table 1 — Description of the Clause mapping to ReEIF

Clause #	ReEIF's Consideration	Emphasis in this document
Clause 7	Governance	Information Governance
Clause 8	Security, Privacy and Confidentiality	Data Protection
Clause 9	Legal and Regulatory	Statutory requirements
Clause 10	Policy	European and organisational aspects
Clause 11	Care Process	Clinical Process and workflows

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Clause #	ReEIF's Consideration	Emphasis in this document
Clause 12	Information	The Data sets, models and terminologies
Clause 13	Applications	Standardized Interchange formats
Clause 14	Infrastructure	IT and protocols of exchange
Clause 15	Standards and Profiles, Certification	Examples, Conformance Testing, deployment, and Evaluation

The single topic 'Security, Privacy and Governance' in ReEIF has been managed here as two separate clauses to highlight their importance to the IPS; the original format of the ReEIF is illustrated in Annex A. Frameworks and models are simplifications of the world they attempt to represent. Consequently, interpretation plays a part in how the ReEIF categorizes and differentiates between the different considerations. This document adapts the ReEIF to support this implementation guide.

The ReEIF provides a framework for the construction concepts, i.e. the identification and specifications concerning what is needed to deploy the solutions (here 'solution' is synonymous with the IPS). However, the operational aspects, including the project and deployment space, are not directly addressed by the ReEIF. This document considers these operational aspects in the latter part of Clause 15.

One example of ReEIF adoption and adaptation by Member States is given by Nictiz, the eHealth competency centre of the Netherlands. They make extensive use of the ReEIF in their national architectures (i.e. large, e.g. hospital network) and in local ones (i.e. small, e.g. GP office). The Centre deploys what are colloquially known as building blocks, positioned at the Information layer of ReEIF, as a means of controlling communication which is "achieved by making agreements about the semantics, the meaning of the data and data structures as well as establishing these agreements in the form of health and care information models." [11].

Standardization initiatives relevant to the IPS

From the European context there are a number of formal activities that are of interest to the Standards Development Organisations (SDOs), which are mutually beneficial and compatible. They are:

- The Informative Joint Initiative Council (JIC) Patient Summary Standards Set (PSSS)
 - o This activity is not intended to create a new standard; it is essentially an informative activity and its value is to inform the stakeholders about existing or developing standards in the PS space. The PSSS has a wider scope, providing a catalogue. Both CEN and HL7 are members of JIC.
- The normative CEN IPS and HL7 IPS initiatives (known as the IPS Project) focus on delivering a single consistent IPS information standard, guideline and implementation guides.
 - o The HL7 IPS project succeeds the earlier INTERPAS project, whereas the CEN IPS project was intended to support standardization in Europe by formalizing the eHN Guideline through active participation in global SDO activities.
 - o The IPS projects have been working together to produce a single compatible solution based on vision and agreements made at the Oslo workshop organized by Trillium Bridge back in 2016.
 - o The IPS Project takes on board relevant detail from the JIC PSSS and will contribute to the PSSS content as their joint work proceeds to develop the formal standards required.

- The eHealth Digital Service Infrastructure (eHDSI) initiative for cross border health data exchange, which builds on the outputs of the epSOS pilot with a view of providing implementations for European Member States by 2019.
 - o Whilst not strictly SDO related, it is a deployment activity, and considerable effort has been made by CEN and HL7, to harmonize their work to ensure European implementation is based upon a formal set of standards.

All these initiatives rely heavily on the eHN guideline for a PS data set, version 2 of which was published in November 2016.

NOTE 1 The JIC PSSS differs from the other initiatives in that it introduces extra items reflecting homecare requirements but these are outside of the IPS Project's current scope.

These eHN guideline has supported the harmonization efforts made by CEN/TC 251 and HL7. Policy considerations, stakeholders' interests, and technical changes provide the context for this document as illustrated by a simplified overview given in Figure 3, with the lighter arrows representing the historic influences and the darker arrows indicating specific inputs.

NOTE 2 There have been a number of projects and consortia that have been funded by EC initiatives that have also contributed in direct and indirect ways to the IPS Standards. Details of these may be found in the Bibliography of this document.

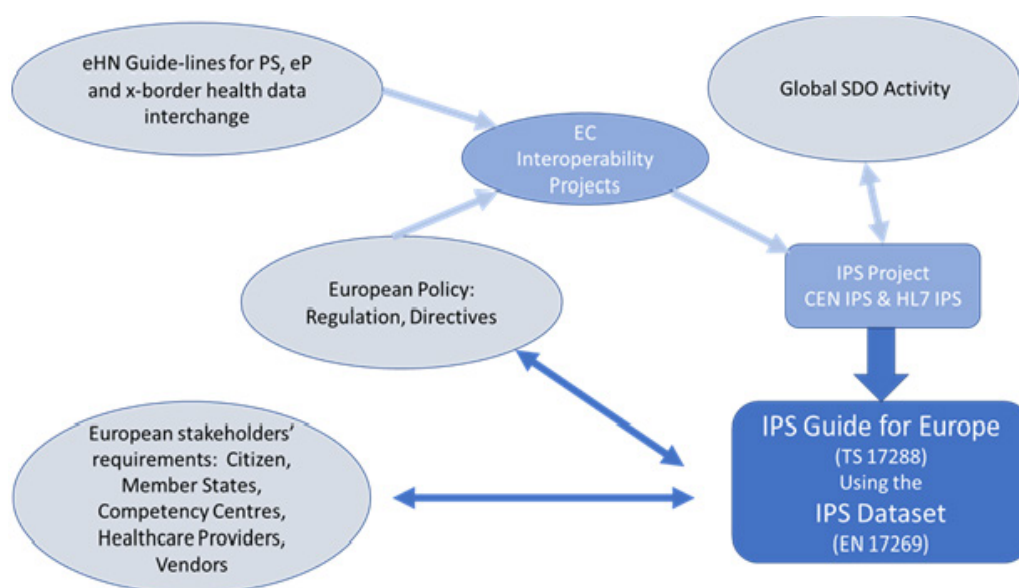


Figure 3 — Landscape affecting the IPS Guide for European Use

An amplified version of Figure 3, which explains the relationships between the CEN IPS and HL7 IPS deliverables and the context of the project work in more detail, is presented in Annex B (Informative).

CEN/TS 17288:2020 (E)**1 Scope**

This document is focussed on how the international patient summary (IPS) can be deployed within a European context. Specifically, this document provides guidance for the European implementation of EN 17269.

The guideline is also intended to be usable for more localized deployment, benefitting Member States that want to use the IPS within their own borders and, as an additional benefit, its components may be reused to improve the interoperability of EHRs through common exchange formats.

This document addresses:

- Jurisdictional requirements, such as EU directives and regulations, relevant to the usability of the International Patient Summary.
- Governance, privacy and data protection, so as to support the safe, legitimate and sustainable use of patient summary data. Continuity of care and coordination of care are considered with respect to cross border scenarios of care.
- Conformance, providing examples of conformant, derived models from EN 17269:2019 for both cross border and more localized use. Examples of transport formats for carrying patient summary data are given. Terminologies, deployment and migration guidance are also addressed.

Out of Scope:

This document will not recommend a particular delivery platform/service/template or terminology. The IPS is not a Personal Health Record (PHR), nor is it a comprehensive Electronic Health Record (EHR) both of which have different purposes.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 17269:2019, *Health Informatics - The International Patient Summary for unscheduled cross border care*

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