

Portugal eHealth summit



Trillium II – Patient Summary Standards, Building Blocks, and Electronic Health Record Exchange Format: An IPS Ecosystem Emerges



Portugal eHealth summit



The International Patient Summary (IPS) Standards

Giorgio Cangilioli

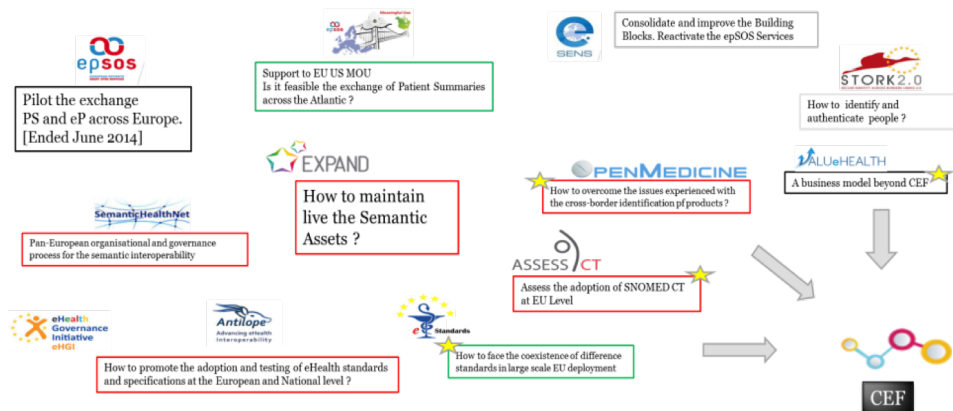




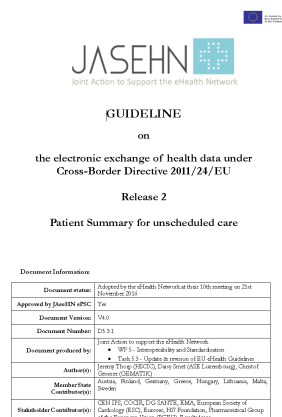
The SDOs
activity on the
IPS....is not a
flower in a
desert...

It comes from a long history

Moving to the CEF....



The **epSOS projects**, cross-border pilot for PS and eP Exchange, 2009-2014... and several others ..to the **eHDSI**



eHealth Network Guidelines

2013-2016



July 2016

Transatlantic eHealth/Health IT Cooperation Roadmap



Structure of Roadmap

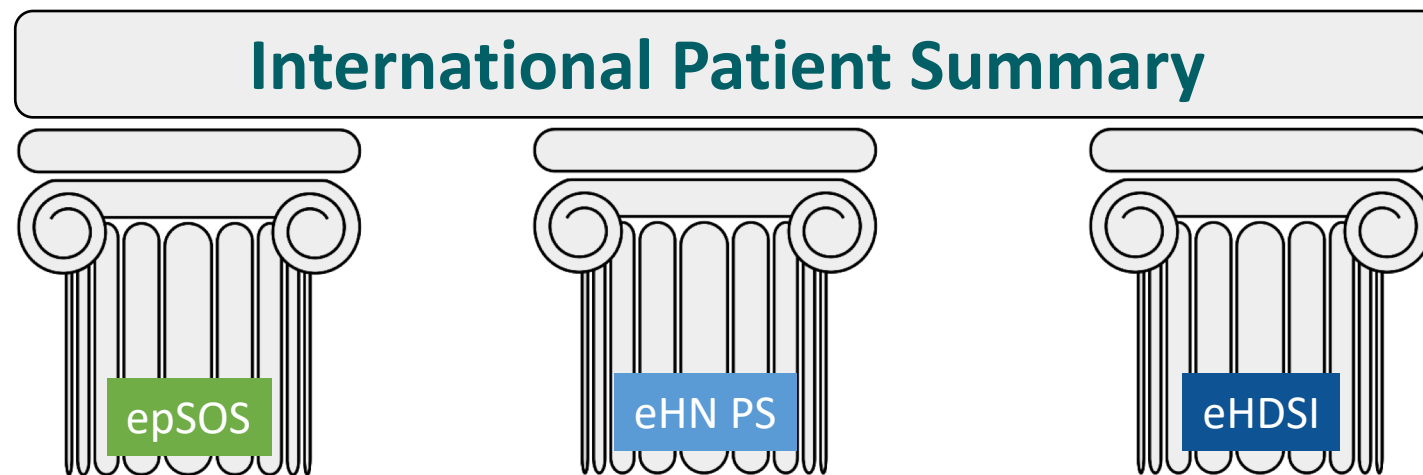
This main Roadmap document sets out the vision, the main challenges, the scope and descriptions of each of the work-streams. The Roadmap Annex contains the specific actions and outcomes/deliverables with their corresponding milestones and due dates for each work-stream. The Annex (which will cover a 12 to 18 month timeframe) will be regularly updated to keep stakeholders fully informed of progress. The Roadmap activities overall will cover a longer period.

2010 EU US EU/US MoU: ONC Standards and Interoperability Framework (ONC S&I) EU/US eHealth Cooperation Initiative; EU Trillium Project; 2013 The INTERPAS Project, HL7

2015 Transatlantic eHealth/health IT Cooperation Roadmap: enforcement of the IPS concept.

.. it has not been built on a green field...

.. but on solid foundations ...



epSOS - Project Information

Explore	Home	Search	Project	Datasets
General	Copyright	Authors	Version information	MyCommunity
Name	epSOS			
Description	<p>epSOS in ART-DECOR</p> <p>This representation of epSOS does not replace the norm</p> <p>About epSOS</p> <p>epSOS aims to design, build and evaluate a service infra</p>			

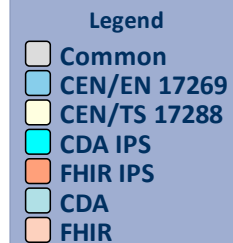


GUIDELINE
on
the electronic exchange of health data under
Cross-Border Directive 2011/24/EU
Release 2
Patient Summary for unscheduled care



.. But not
limited to
them..

class Products Overview



eHN EU PS
Guidelines

eHN EU PS

Products Overview
Author: Giorgio Cangioli
Version: 1.0
Created: 21/11/2016 00:00:00
Updated: 21/05/2018 18:13:14

CEN/EN 17269
IPS

CEN/TS 17288
IPS

HL7 IPS FHIR IG

HL7 IPS CDA IG

eHDSI

eHDSI PS IG

C-CDA on FHIR

Argonaut (US)

Argonaut (US; future)

Trillium II FHIR profiles

C-CDA CCD

IHE PCC

HL7 Pharma CDA
Templates

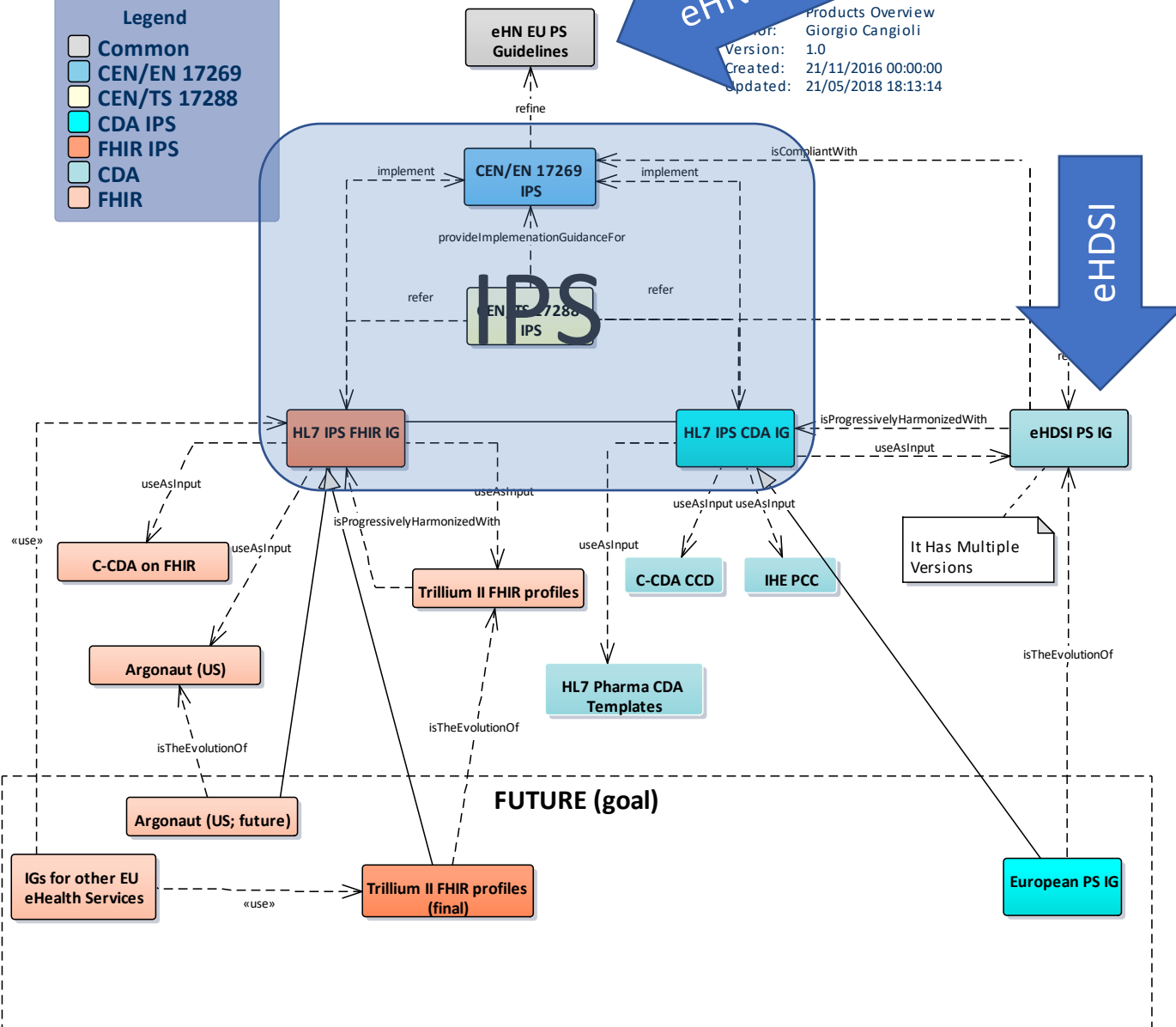
FUTURE (goal)

IGs for other EU
eHealth Services

Trillium II FHIR profiles
(final)

European PS IG

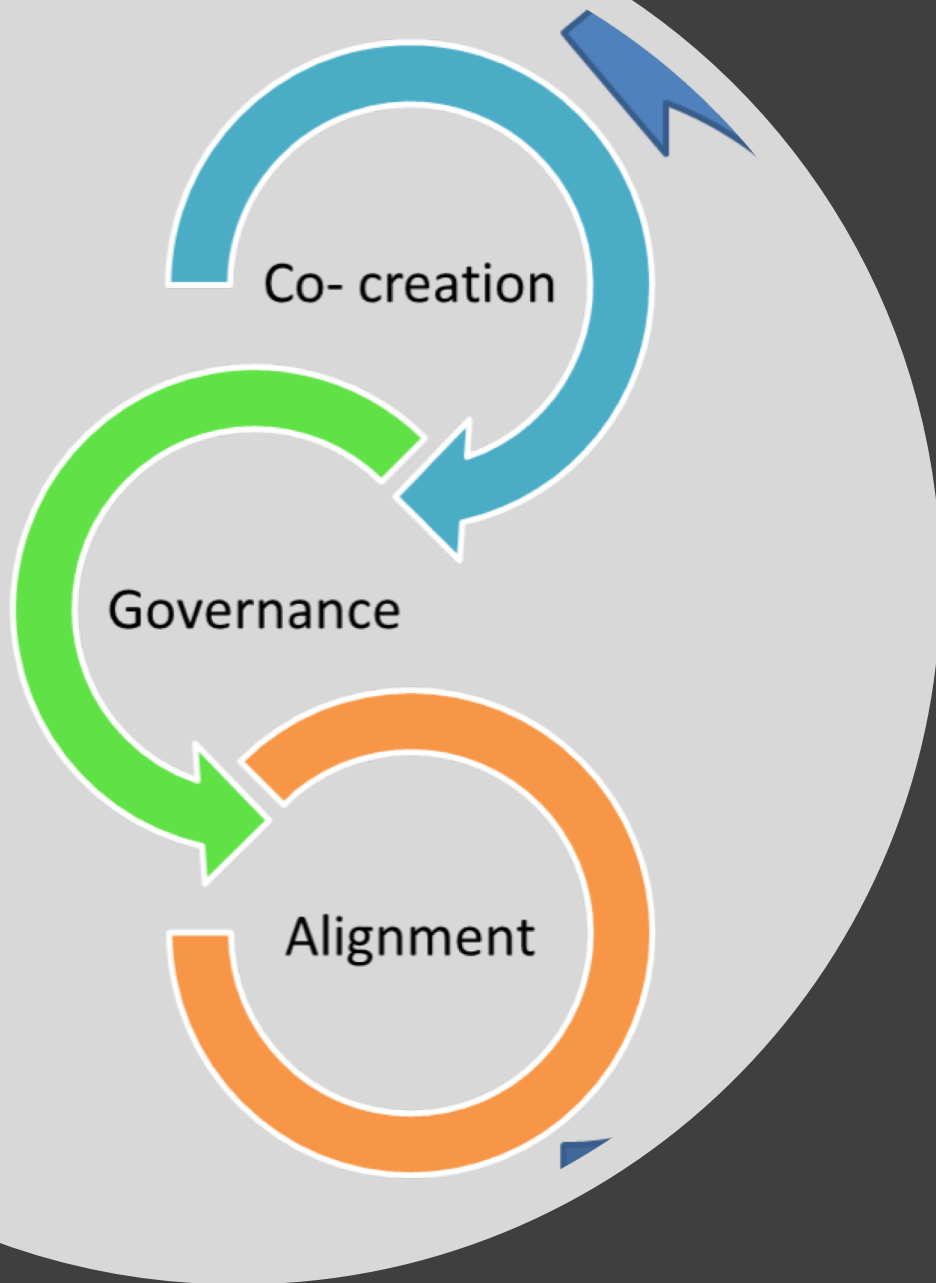
It Has Multiple
Versions



NOTICE

**CLOSED
MEETING IN
PROGRESS**

..is not a product
of a restricted
team..



.. but the result of a
wide collaboration ..



SDOs do not come
from mars...

- SDO are communities
- Most of the IPS contributors have been involved (and are now involved) in the EU initiatives mentioned before



Working for YOU!

3/16/2017

CONSENSUS

Transparency

SDOs are facilitators

[illegible]A 3D rendering of a grey humanoid figure holding a magnifying glass over the word "QUALITY". The word is written in large, bold, green capital letters. The figure is positioned as if inspecting the word closely.



July 2016

Transatlantic eHealth/Health IT Cooperation Roadmap

Structure of Roadmap

This main Roadmap document sets out the vision, the main challenges, the scope and descriptions of each of the work-streams. The Roadmap Annex contains the specific actions and outcomes/deliverables with their corresponding milestones and due dates for each work-stream. The Annex (which will cover a 12 to 18 month timeframe) will be regularly updated to keep stakeholders fully informed of progress. The Roadmap activities overall will cover a longer period.

The goal

“Standards and Profile Developing Organizations and eHealth/Health IT stakeholders should collaborate on the following items to enable a standardized international patient summary (IPS)”

The IPS Project: the HL7 Int. CEN/TC 251 agreement (April, 2017)

Vision

- “In order to further the care for citizens across the globe, we agree to **collaborate on a single, common International Patient Summary (IPS)** specification that is readily usable by all clinicians for **the (cross-border) unscheduled care of a patient.**”

Scope

- “The IPS specification shall focus on a **minimal** and **non-exhaustive** Patient Summary, which is **specialty-agnostic** and **condition-independent**, but **still clinically relevant.**”



IPS Principles

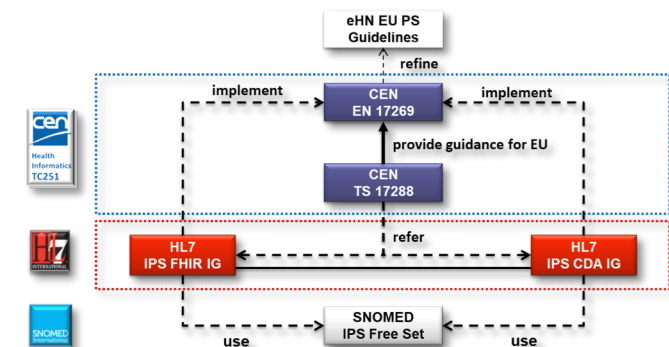
Implementable

Applicable for global use

Extensible and open

Sustainable


The Five IPS project Products



What is the first iteration of IPS ?

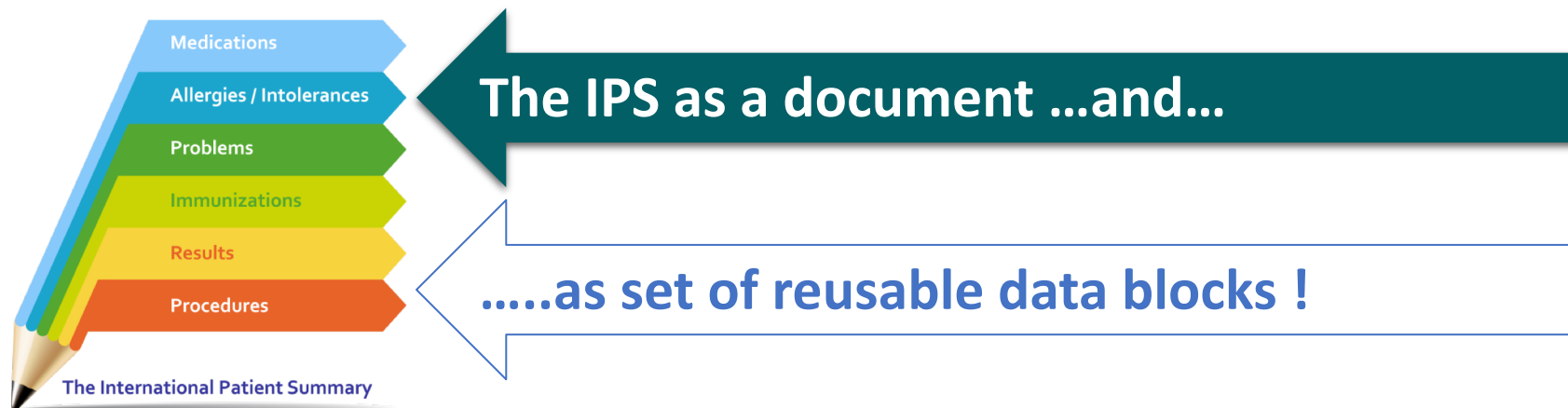
- The focus of use for **IPS** is **unscheduled (cross-border) care**
- ..the data model for the IPS has been constructed to serve this case...
- ...but it **provides a base-line usable also within other scheduled or planned care cases.**

The IPS as BEST PRACTICE



- The HL7 and CEN collaboration on IPS has worked superbly well with 4 specifications near completion in just 2 years !
- The «IPS SNOMED CT Free Set» by SNOMED International is on the way
- Hopefully, to be extended..(e.g. ISO)

IPS Progressive Approach

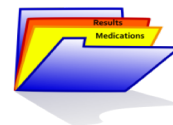


Formally today...



as a document

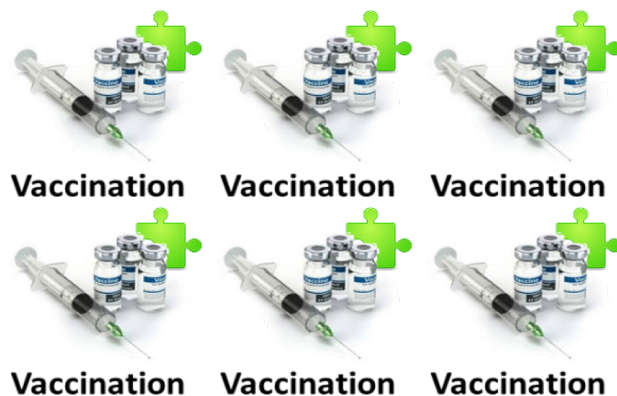
..expected use..



as a document and as a library



IPS Progressive Approach

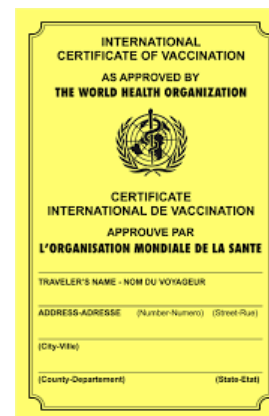


Library of reusable..
(fragments;
resources; building
blocks;...)

Common “core” set of data

With minimal common
terminologies

Extensible

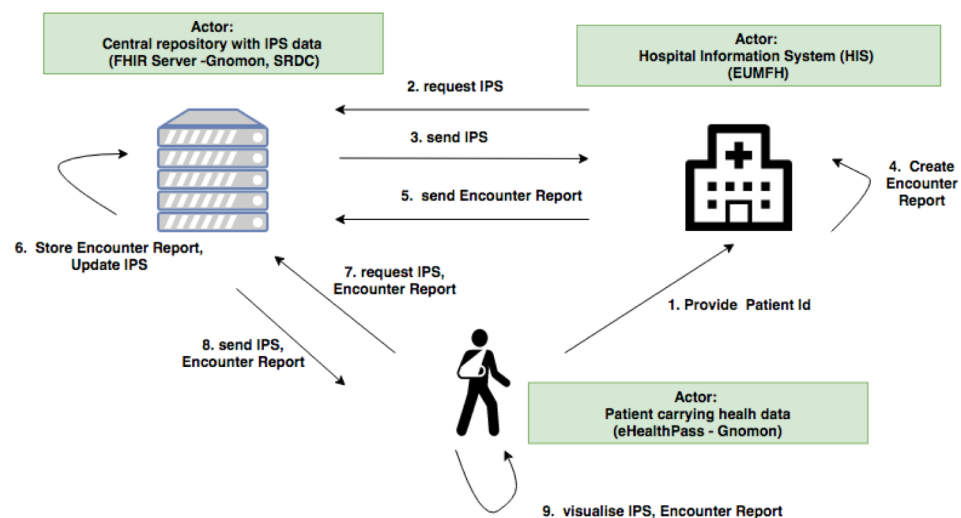


IPS Progressive Approach

EU ModEX, Bucharest, 2018 Oct 15-17

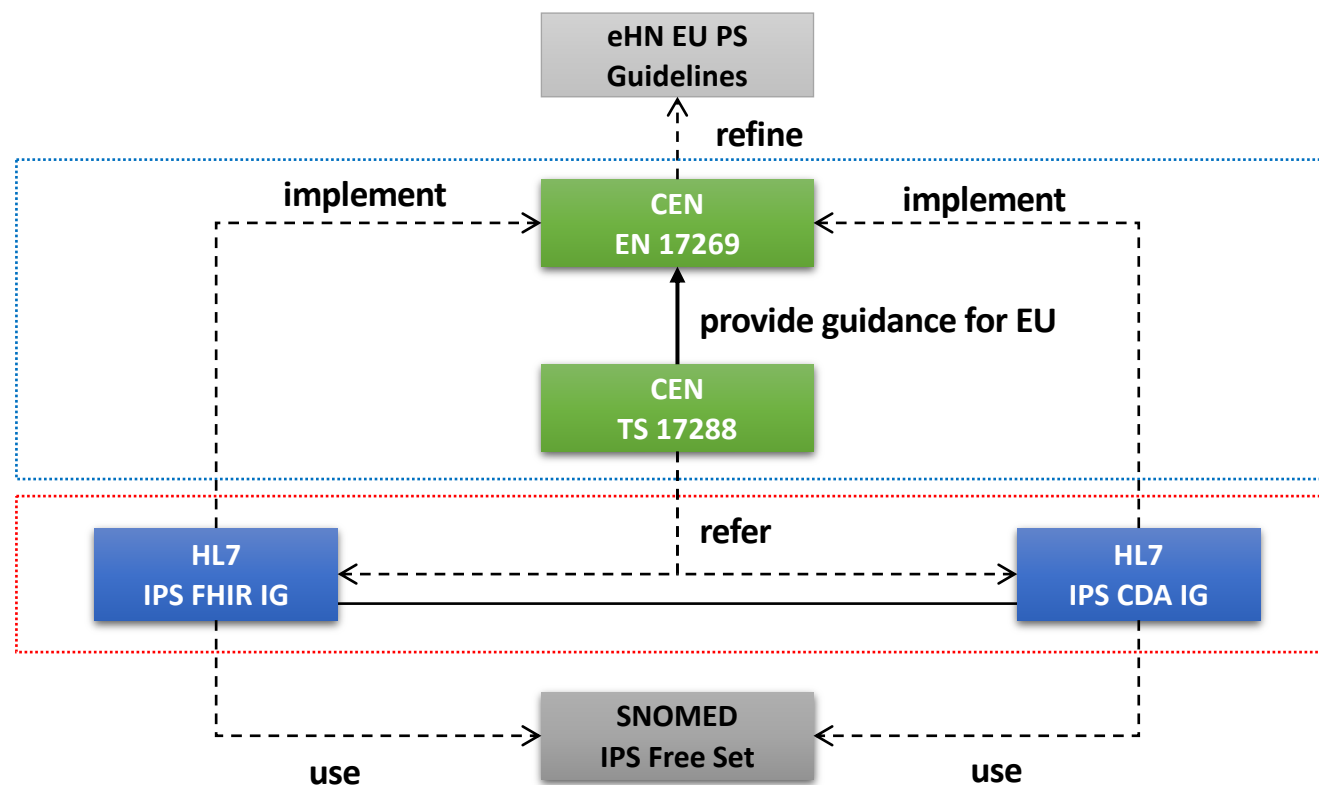


IPSs and Mobile Field Hospital Encounter Reports were build on (HL7 FHIR) IPS resources



The IPS Standards

The Five IPS project Products



EN 17269: implementation independent content of the IPS
TS 17288: guidelines for establishing a EU IPS service

IPS FHIR IG: how to implement the IPS using HL7 FHIR
IPS CDA IG : how to implement the IPS using HL7 CDA

Timelines

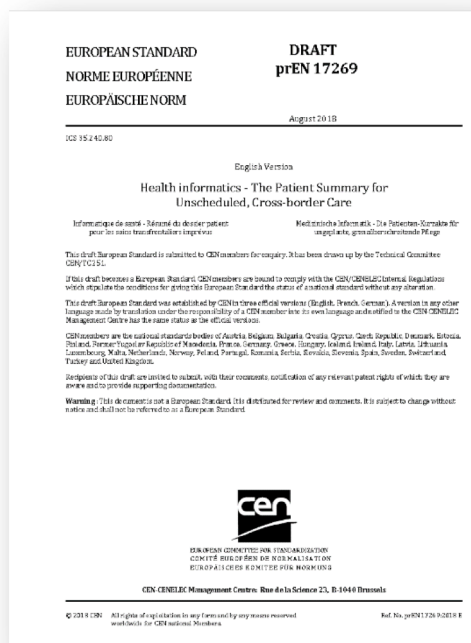
- **CEN/TC251**
- **EN 17269**
 - ballot passed
- **TS 17288**
 - ballot passed
- Ready for publication. (Summer 2019).
- **HL7 Int.**
- **HL7 CDA IPS IG (STU)**
 - published
- **HL7 FHIR IPS IG (STU)**
 - ballot passed
 - expected publication next month

SNOMED Int.

- **IPS SNOMED CT Free Set**
 - Announced by HL7 Int. and SNOMED Int. at the last HIMSS 2019
 - Publicly available from SNOMED International likely on Summer 2019

CEN IPS EN 17269

The International Patient Summary



...**formalises the dataset** required to share information about the medical background and history of a patient

.. It uses the **European guidelines** (version 2, November 2016) as an **official source** for the requirements....

The dataset is **minimal and non-exhaustive** <...> **specialty-agnostic, condition-independent** and usable by all clinicians for the **unscheduled care** of a person...

...**usable as a valuable subset** of data items for **scheduled care**...

It is **implementation independent**.

This international standard does not cover workflow processes of data entry, data collection, the summarisation act nor subsequent data presentation. ..

CEN EN 17269:2019

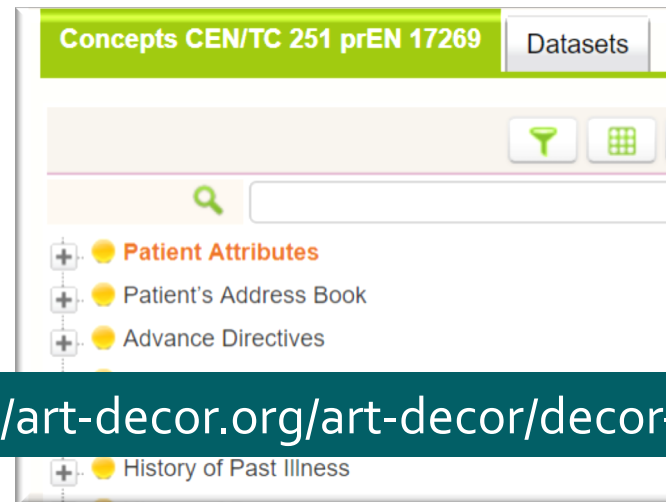
Immunizations Content Status	C	Coded Element
Immunizations list	C	List
Immunization	R	Label Concept
Vaccine for type of disease	R	Coded Element
Target disease list	O	List
Target disease	R	Coded Element
Date of immunization	R	Date Time
Product administered	O	Label concept
Brand name	RK	Text
Product Administration Process	O	Label concept
Performer	O	Healthcare Provider
Route of administration	O	Coded Element

Minimal

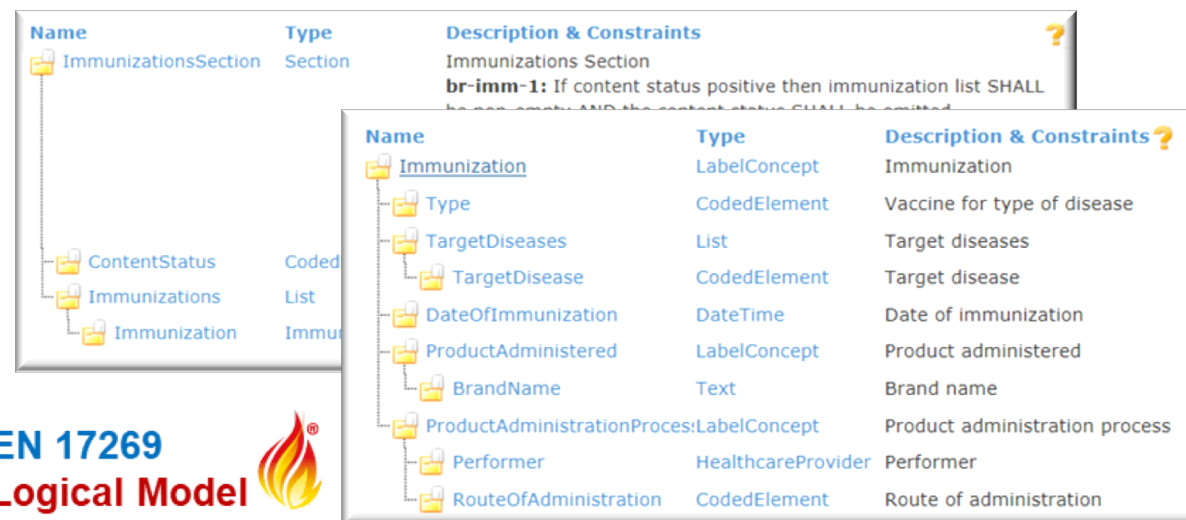
Non-exhaustive

Specialty-agnostic

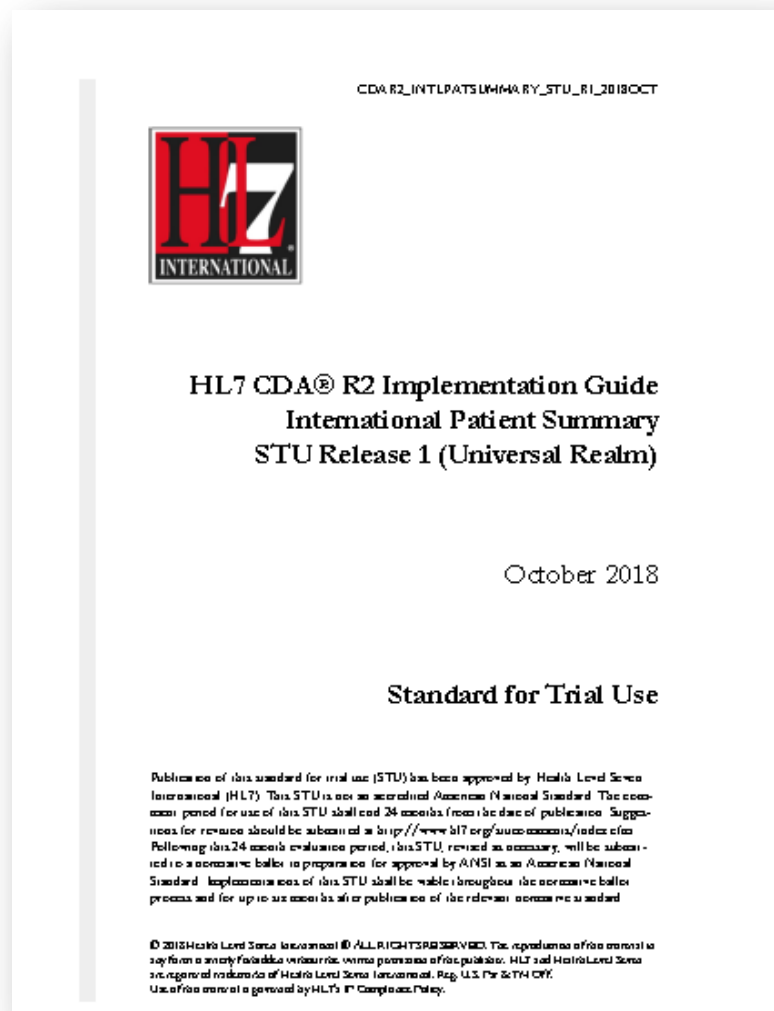
Condition-independent



<https://art-decor.org/art-decor/decor-datasets--hl7ips->



HL7 IPS CDA Implementation Guide



p0153

International Patient Summary

hl7:templateId	II	1..1	M	(IPS...ion)
root	uid	1..1	F	2.16.840.1.113883.10.22.4.15
hl7:id	II	0..*		(IPS...ion)
hl7:code	CV	1..1	M	(IPS...ion)
	CONF			The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.19709 <i>ActSubstanceAdministrationImmunization-Code</i> (DYNAMIC)
hl7:statusCode	CS	1..1	M	(IPS...ion)
@code	CONF	1..1	F	completed
hl7:effectiveTime	TS	1..1		(IPS...ion)
	Example			<effectiveTime value="20170322"/>
hl7:consumable		1..1	M	Contains 2.16.840.1.113883.10.22.4.16 <i>IPS Immunization Medication Information</i> (DYNAMIC) (IPS...ion)
	where [not(@nullFlavor)]			
hl7:author		0..*	R	Contains 2.16.840.1.113883.10.12.318 <i>CDA Author (Body)</i> (DYNAMIC) (IPS...ion)

9.9 IPS Immunization Medication Information

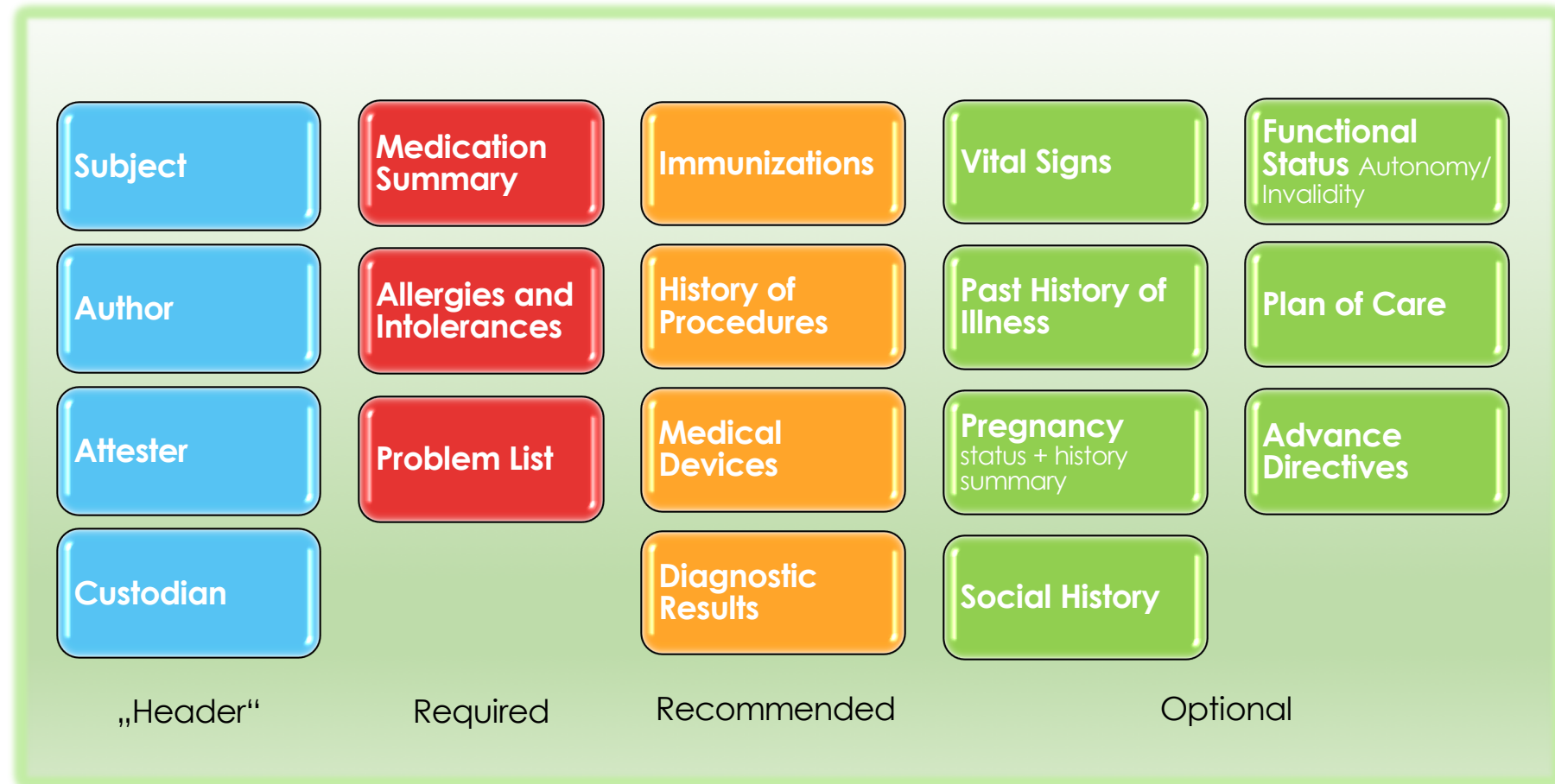
Id	2.16.840.1.113883.10.22.4.16	Effective Date	valid from 2017-03-08
Status	Draft	Version Label	

HL7 CDA® R2 Implementation Guide: International Patient Summary, Release 1
September 2017 – © 2016-2017 Health Level Seven International. All rights reserved.

153/269

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=483

IPS Sections



The FHIR IPS IG (STU)

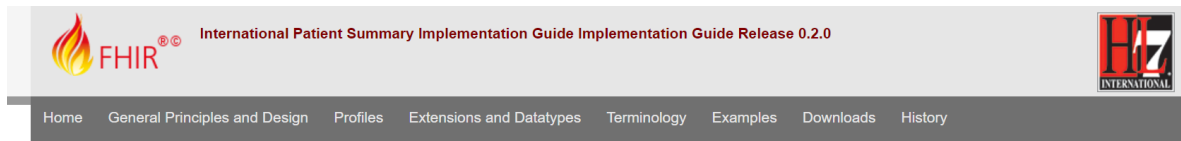


Table of Contents

This is the Version 0.2.0 Release of the International Patient Summary Implementation Guide Implementation Guide, based on FHIR Version 4.0.0. See the [Directory of published versions](#).

International Patient Summary Implementation Guide [↗](#)

This is the September 2018 Ballot Version of the International Patient Summary Implementation Guide, based on [FHIR Version 4.0.0](#). See the [Directory of published versions](#). This specification is currently undergoing ballot and connectathon testing. It is subject to change, which may be significant, as part of that process.

Feedback is welcome and may be submitted through the [FHIR gForge tracker](#) indicating "International Patient Summary" as the specification. If balloting on this IG, please, if possible, submit your comments via the tracker and then reference the tracker ids in your ballot submission spreadsheet.

Introduction

An International Patient Summary (IPS) document is an electronic health record extract containing essential healthcare information intended for use in the unscheduled, cross-border care scenario, comprising at least the required elements of the IPS dataset. The IPS dataset is **a minimal and non-exhaustive patient summary dataset, specialty-agnostic, condition-independent, but readily usable by clinicians for the cross-border unscheduled care of a patient.**

Contents:

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 - [Project Background](#)
 - [Project Scope](#)
 - [Relationships with Other Projects and Guidelines](#)
 - [Ballot Status](#)
 - [Authors and Contributors](#)

Purpose

The goal of this Implementation Guide is to identify the required clinical data, vocabulary and value sets for an international patient summary. An international patient summary is specified either as a templated document using HL7 CDA R2 (see the IPS Wiki [here](#)) or as an HL7 FHIR document (described in this implementation guide). The primary use case is to provide support for cross-border or cross-jurisdictional emergency care.

This specification aims to support:

- Cross-jurisdictional patient summaries (through adaptation/extension for multi-language and realm scenarios, including translation).
- Emergency and unplanned care in any country, regardless of language.
- Value sets based on international vocabularies that are usable and understandable in any country.
- Data and metadata for document level provenance.

<https://build.fhir.org/ig/HL7/fhir-ips/>

Based on FHIR R4
(To Be Published – by next month)

It describes the “IPS document” and the data blocks (FHIR profiles) used to build it

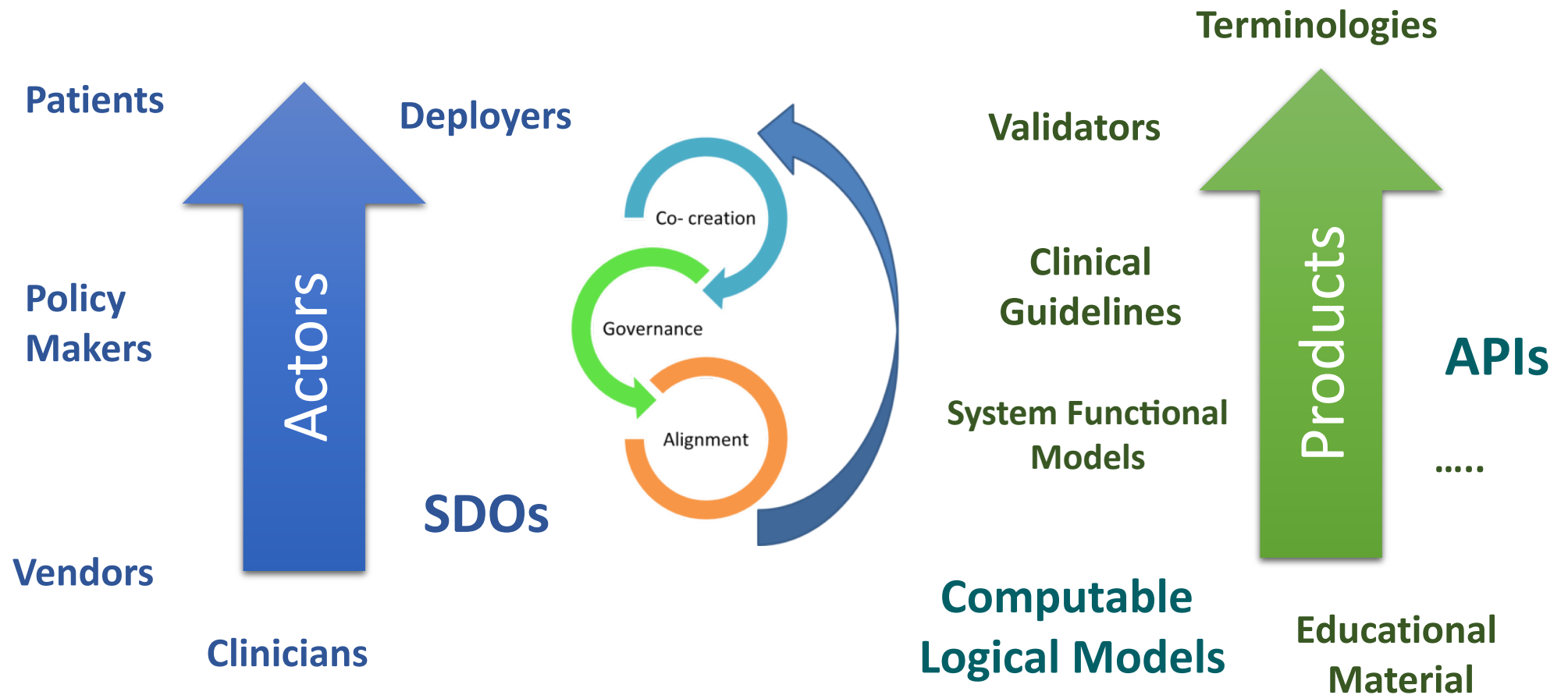
IPS as Collaboration Framework

- **SNOMED CT free subset...**
- Within the scope of the HL7 and SNOMED CT agreement approx. 8000 concepts have been proposed to be included as part of a free SNOMED CT subset.
- IPS taken as reference use case
- Free SNOMED CT subset *being* made available for CEN and HL7 IPS, and to eHDSI.

A low-angle, close-up shot of a person's legs and feet as they walk. The person is wearing blue denim jeans and white sneakers with black laces. The background is a blurred, reflective surface, possibly a wet pavement or a polished floor, showing a distorted reflection of the person's legs. The overall tone is motivational and forward-looking.

...this is not the end,
but the first step...

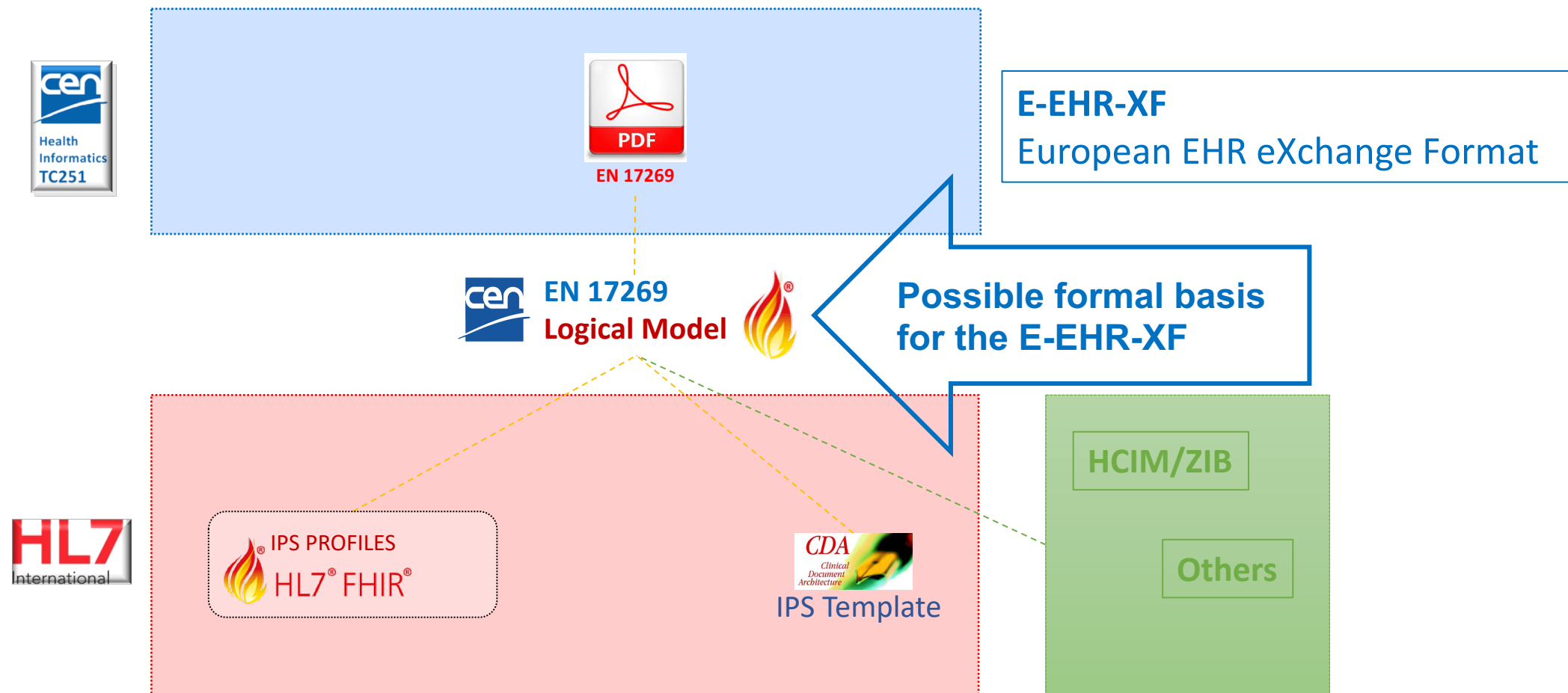
A wider «IPS ecosystem»



IPS Project and ISO

- IPS results presented at the last ISO meeting (@Paestum - Oct 2018)
- Very positive feedbacks received
- Next ISO meeting @Goteborg April 2019 discussion about moving the EN17269 (IPS data set) in ISO.

Towards an «IPS ecosystem»



So then ?

- Move the EN 17269 IPS dataset in ISO
- Develop computable model (FHIR® Logical Models) for the IPS data set
- Better support for Provenance information
- HL7 FHIR® Argonaut and IPS harmonization
- ... and much more...



Portugal eHealth summit



24th ISITeH
International
Conference



THANKS

GIORGIO CANGIOLI