

Description of e-Prescription project in Poland

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Poland in Europe



The total area of Poland

- 312,679 square kilometers

Population

- over 38,5 million people

GDP

- \$467,5 billion

GDP per capita

- \$12,315





978 - Hospitals in Poland
(stationary and 24 hour
hospital services)

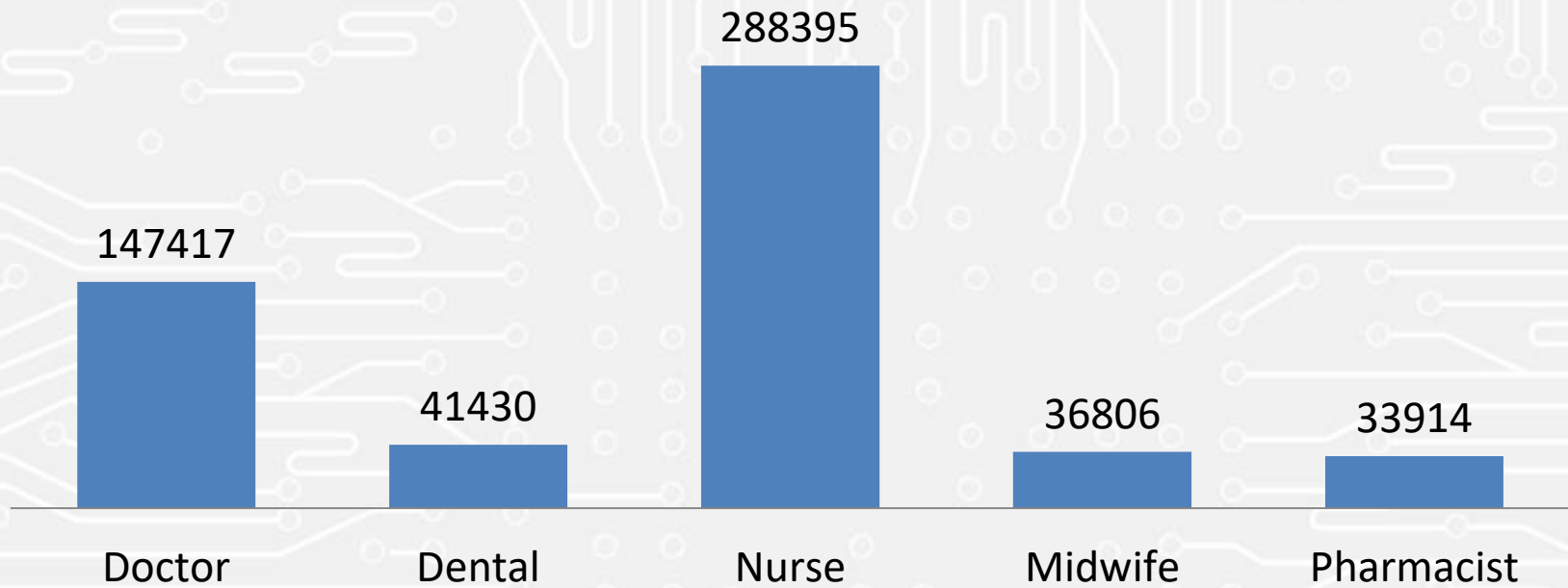


20 412 - Outpatient clinics
(outpatient health services)

Own study, data: GUS, 2016.



Medical staff licensed to practice



Totally ~1 billion prescription per year



NATIONAL CENTRE FOR HEALTHCARE INFORMATION SYSTEMS (CSIOZ)

CSIOZ

The state unit appointed by the Minister of Health responsible for the development and implementation of e-Health in Poland.



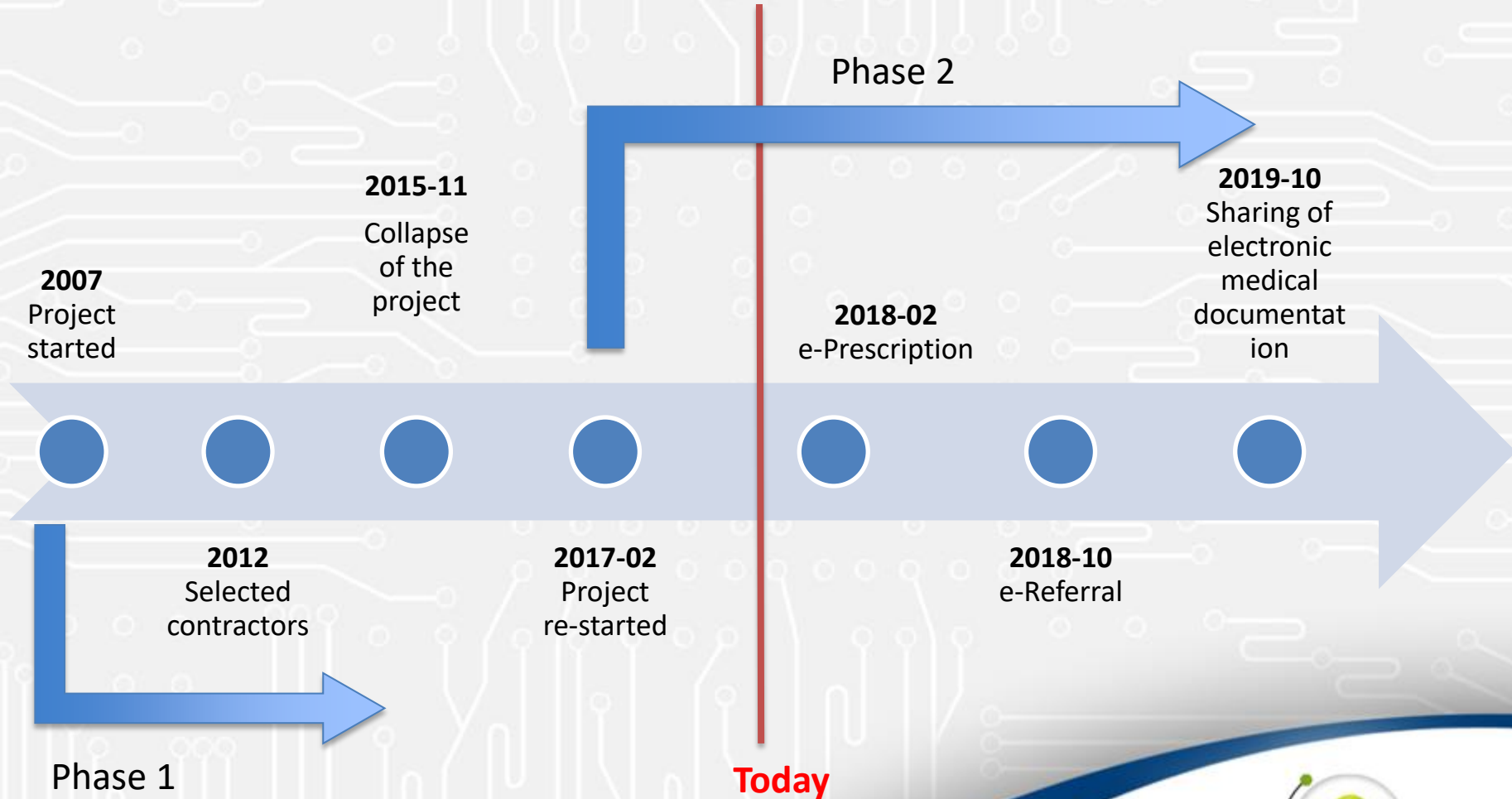
Monitoring of ICT systems at the central and regional level.



The development of interoperability and analyses in the Polish health care system.



P1 Project timeline

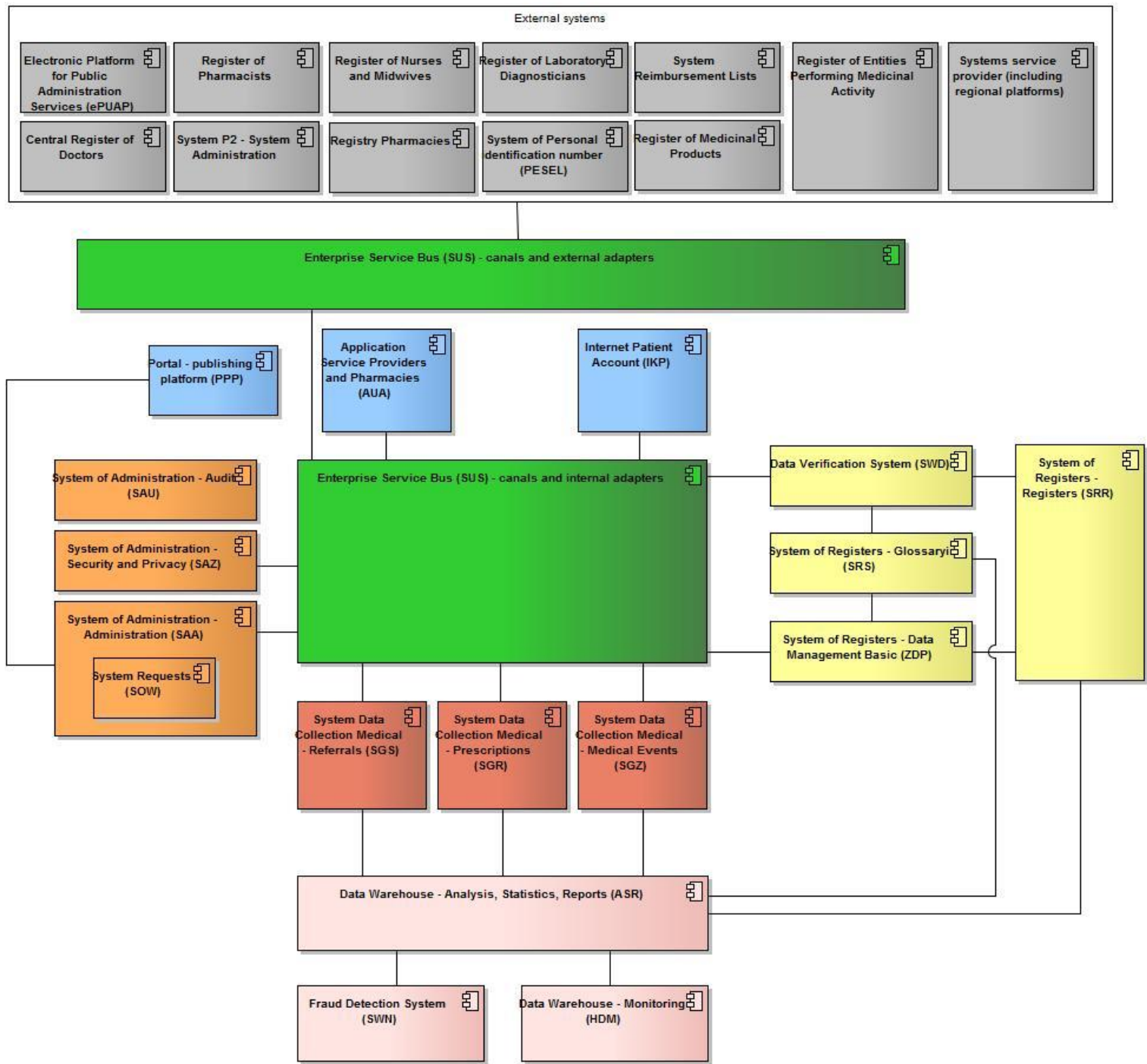


Why P1 Project failed?

1. Too many contractors to integrate (a misinterpretation of the Jaspers recommendation) - no main contractor



The informational systems architectural context

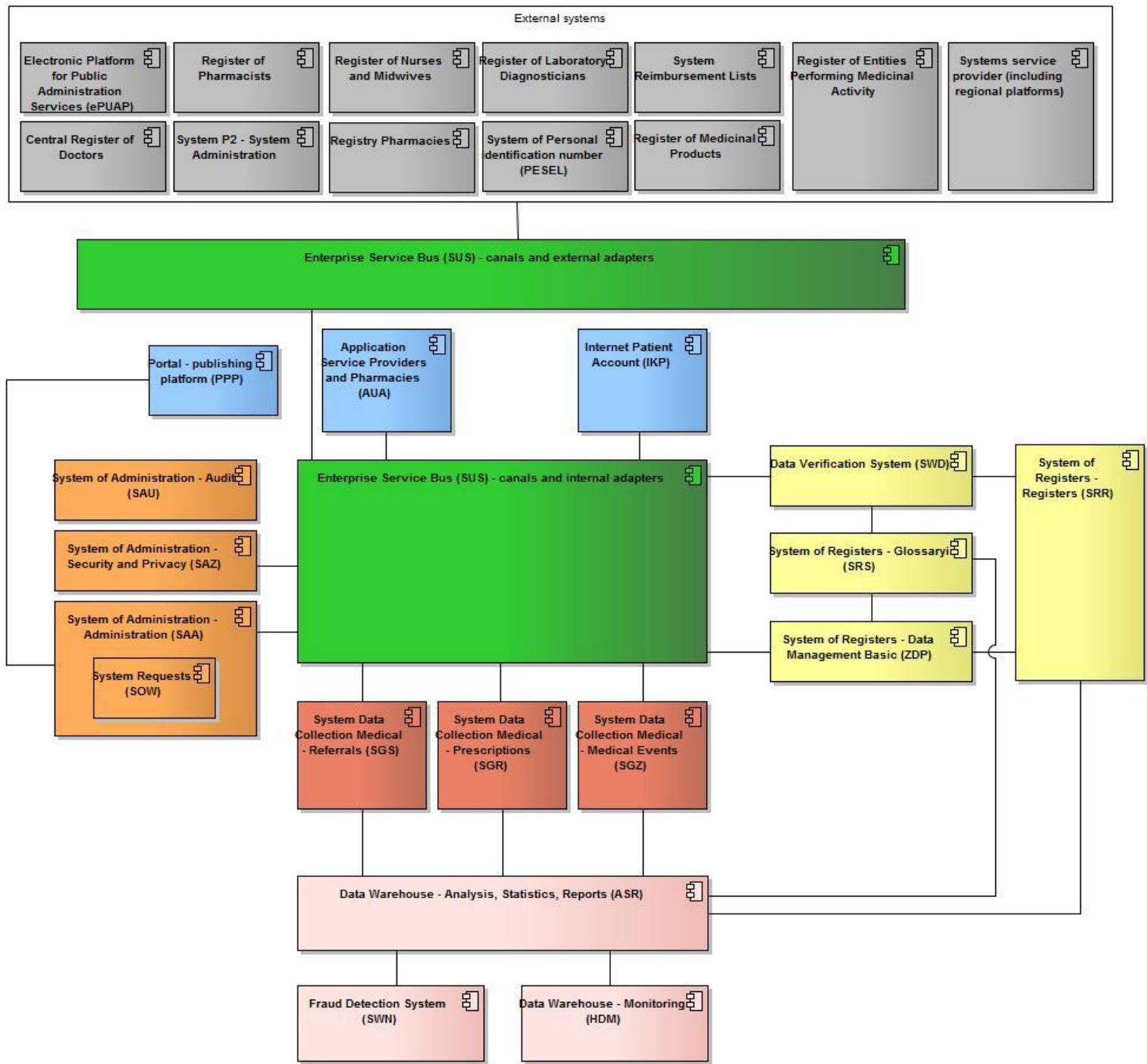


Why P1 Project failed?

1. Too many contractors to integrate (a misinterpretation of the Jaspers recommendation) - no main contractor
2. Over-interpretation of methodology - over-emphasis on management procedures for the production itself
3. There were no standards that provided interoperability and guaranteed a standardized implementation of the transaction
4. Too large project - too many services, too much functionality



The informational systems architectural context



P1 Project timeline

2013/2014
Healthcare
administrative
registries
platform

2007
Project
started

2015-11
Collapse
of the
project

Phase 2

2018-02
e-Prescription

2019-10
Sharing of
electronic
medical
documentat
ion

2012
Selected
contractors

2017-02
Project
re-started

2018-10
e-Referral

Phase 1

Today



Healthcare administrative registries platform (P2)

Registers integrated with Medical Registers Platform

- Register of Health Care Providers;
- Register of medical Staff;
- Register of medicinal products;
- Register of coding systems (terminology and classification);
- Register of pharmacies;
- Register of pharmaceutical wholesalers;
- List of Pharmaceutical Raw Materials;
- Register of laboratory diagnosticians;
- Register of Nurses and Midwives;
- Central Register of Pharmacists.

www.rejestrymedyczne.csioz.gov.pl



Semantic interoperability



Already implemented in Poland

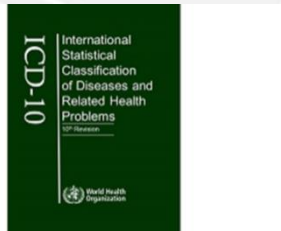


Poland is planning to implement



ICD-9 PL

ICF – the pilot implementation



ICD-10

ICNP – the pilot implementation



SNOMED CT – it will be used in the Guaranteed Medical Package



Platform (P2)
Terminology server/Register of coding systems



Electronic Platform for Collection, Analysis and Sharing of Digital Medical Records – P1 Project

Key functionalities of P1 Project

- ✓ e-prescription
- ✓ e-referral
- ✓ Support for the sharing of electronic medical documentation
- ✓ The Internet Patient Account (IKP)
- ✓ Healthcare education portal



E- prescription

Why as a first Increment ?

- Difficult to read content
- To reduce errors
- Time optimization of the entire process
- Streamlining the process of buying drugs
- Streamlining the process of patient care
- Elimination of the false prescription problems



Functional areas for „E- prescription” Increment

- E- Prescription
- e-Dispensation
- Statistics And Analysis, Business Intelligence
- Verification Of Data
- Dictionaries And Classifications
- Notifications
- The Central Register Of Health Care Service
- The Central Register Of Health Care Beneficiaries
- The Central Register Of Medical Staff
- The Register Of Payers
- Creating And Maintenance Of User Accounts
- System Administration
- Access To The Data
- Logs Collecting , Audit



Prescribing and sharing access data



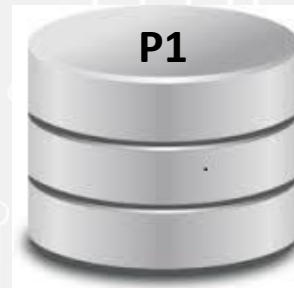
Prescribed in local information system (eg. HIS)

Electronic prescription document (IHE PRE HL7 CDA)
Qualified electronic signature

The patient receives an:

- SMS,
- email
- or printed paper with a code and a key

Web Service access



Custom developed solution (only IHE PRE and DIS content profiles for e-prescription)



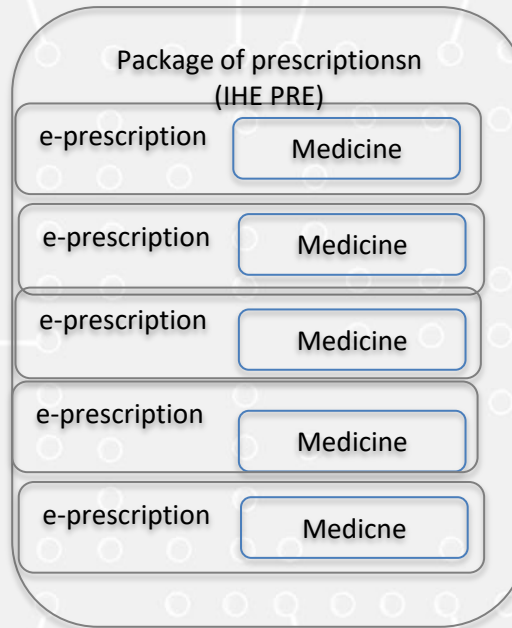
Retrieval electronic prescription



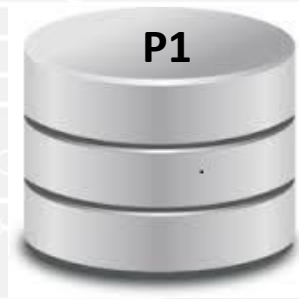
Access key

or

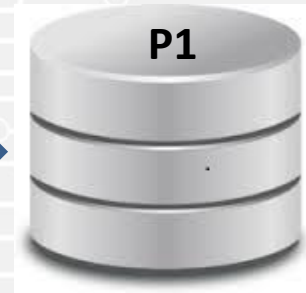
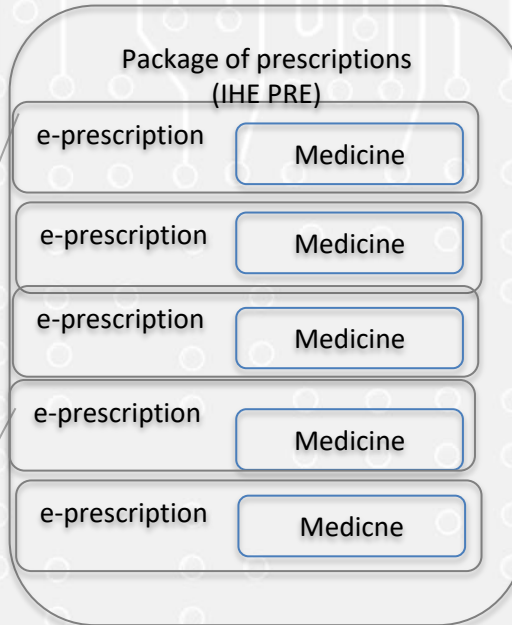
Access code +
Country ID numer
(PESEL)



Electronic prescription document
(IHE PRE HL7 CDA)



Dispensing electronic prescription



The National Health Fund



Dispensing and e-dispention (IHE DIS)

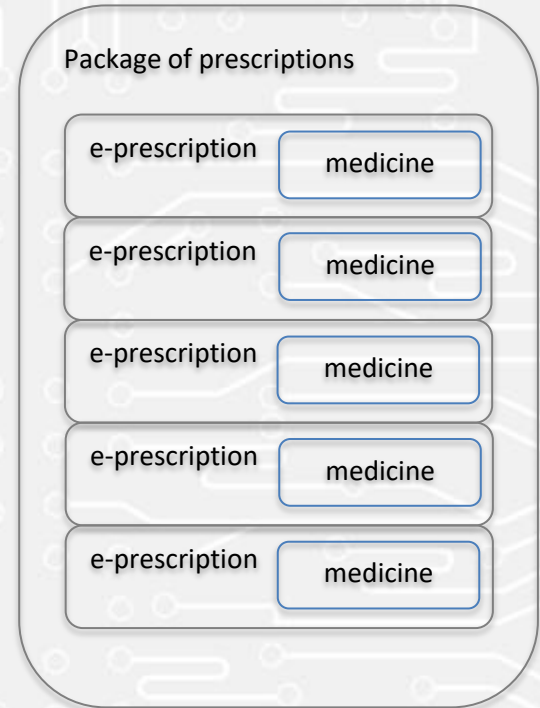
Dispensing and e-dispention (IHE DIS)

Electronic dispensation document
(IHE DIS HL7 CDA)



Electronic prescription principles

- One medication on a prescription simplifies the implementation of the e-prescription business process.
- Possibility of partial completion of the e-prescription.
- Block the e-prescription in particular (as defined by law) cases
- Qualified electronic signature
- Cancellation of issued electronic prescription
- Giving access to an e-prescription by patient only for chosen medical staff



Electronic prescription vs. Patient

- Full access to medical patient information: issued electronic prescriptions and related data via dedicated application (IKP)
- Constant availability to the access data: access code and access key, necessary for giving permission to personal data access (IKP)
- The flexibility of purchasing medicines at different times and in different pharmacies.
- Access to information about dose and the medicine, active substance (eg. contraindications)



Szczegóły pakietu

Informacje podstawowe

Data wystawienia
28.11.2016

Data ważności pakietu
24.02.2017

Status realizacji pakietu
Częściowo zrealizowany

Kod dostępu
5231

Pakiet w wersji do druku

 [Pobierz plik PDF](#)

Wystawca
lek. Jan Maria Piechnik (PWZ 71234)

Recepty w ramach pakietu

1. Enarenal 5mg tabletki (NZ) 1 op. po 60 tabl

[Zwiń szczegóły](#)

Odpłatność
Refundowany 20%

Realizacja możliwa od
29.12.2016

Status realizacji recepty
Zrealizowana

Recepta w wersji do druku

 [Pobierz plik PDF](#)

Dawkowanie
2 x 1 tabletko rano i wieczorem

2. Atorin 5mg tabletki (NZ)

[Zwiń szczegóły](#)

Odpłatność
Refundowany 20%

Realizacja możliwa od
29.12.2016

Status realizacji recepty
Zrealizowana

E- prescription
IKP view



Technical documentation for implementing medical standards already issued by CSIOZ

1. Polish National Implementation of HL7 CDA (plcda-)
 - Instructions for use Polish National Implementation of HL7 CDA*

The document includes:

- ✓ The instructions include medical documents in the range of 1.2 IG divided into two sets. The collection of first documents set (whose storage location is the system P1):
 - **Prescription (IHE PRE)**
 - Referral
 - a document cancelling the above
 - **Dispensation (IHE DIS)**

* source: <https://www.csioz.gov.pl/HL7ENG/pl-cda-html-en-US/>



Technical documentation for implementing medical standards already issued by CSIOZ

2. Polish National Implementation of HL7 CDA (plcda-)

- 23 documents templates;
- More than 200 templates, that make possible to create most of the documents used in the healthcare system;
- Hierarchy, base template, which allow to create more document templates.

** source: <https://www.csioz.gov.pl/HL7ENG/pl-cda-html-en-US/rules.html>*



Technical documentation for implementing medical standards already issued by CSIOZ

3. Transport layer description – **The National Polish IHE Technical Frameworks for IHE XDS v.0.4*** - *work in progres on next version (in cooperation with IHE Europe)*

This document determines the communication standard for **medical event**** and the **index of medical documents**. *It does not include electronic prescription documents. For e-Prescription decision pending in Increment 1.*

The basis for national transport layer description:

- IHE IT Infrastructure (ITI) Technical Framework Revision 10.0 / 10.1 Vol. 1, 2a, 2b, 3
- IHE_ITI_Suppl_XDS_Metadata_Update.pdf Revised 2013-10-25
- IHE Patient Care Coordination (PCC) Technical Framework Revision 9.0 Vol.2 – for proper mapping the structure of HL7 CDA to the profile IHE metadata.

* source: <https://www.csioz.gov.pl/interoperacyjnosc/interfejsy/>

***medical event* – it's a medical service provided by healthcare service provider like medical consultation/visit, hospital stay which usually cause that the medical document is generating



IHE Profiles in Poland.

- Review of current IHE profiles,
- We are working on selecting the right set of IHE profiles for P1.
- Currently the profiles are analyzed:
XDW, WBeR-WD, XDS, DSUB, PDQ, PIX, MHD, PDQm, CT, ATNA, XUA, BPPC or APPC, XDS, XDS-I, XD-lab, XCA, XCA-I, DSG
- Cooperation with IHE Europe



Thank you for your attention.

