



Swiss and French projectathons

8 December 2023 -
IHE-Europe Monthly Webinar



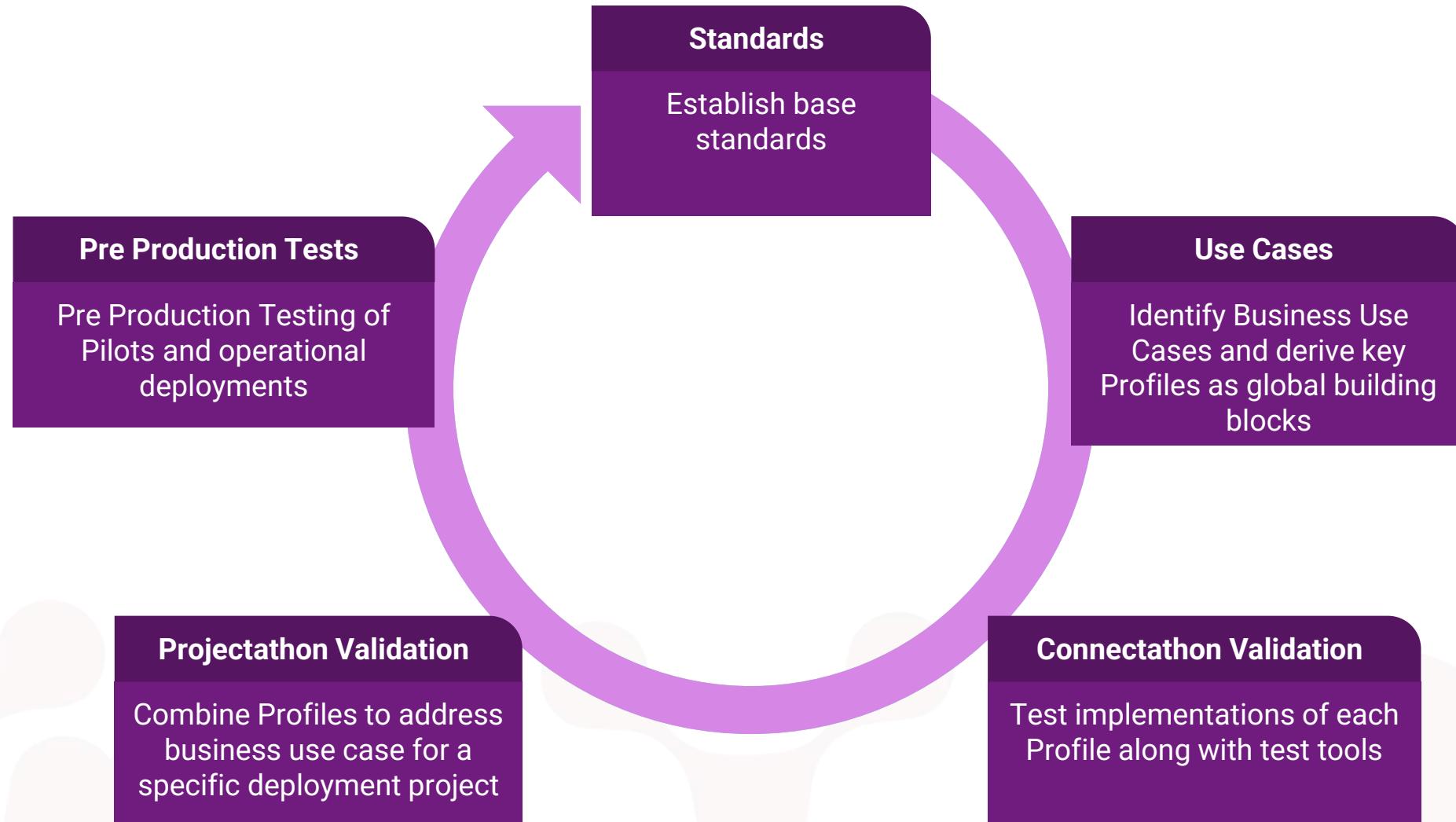
Swiss EPR Projectathon – why and how

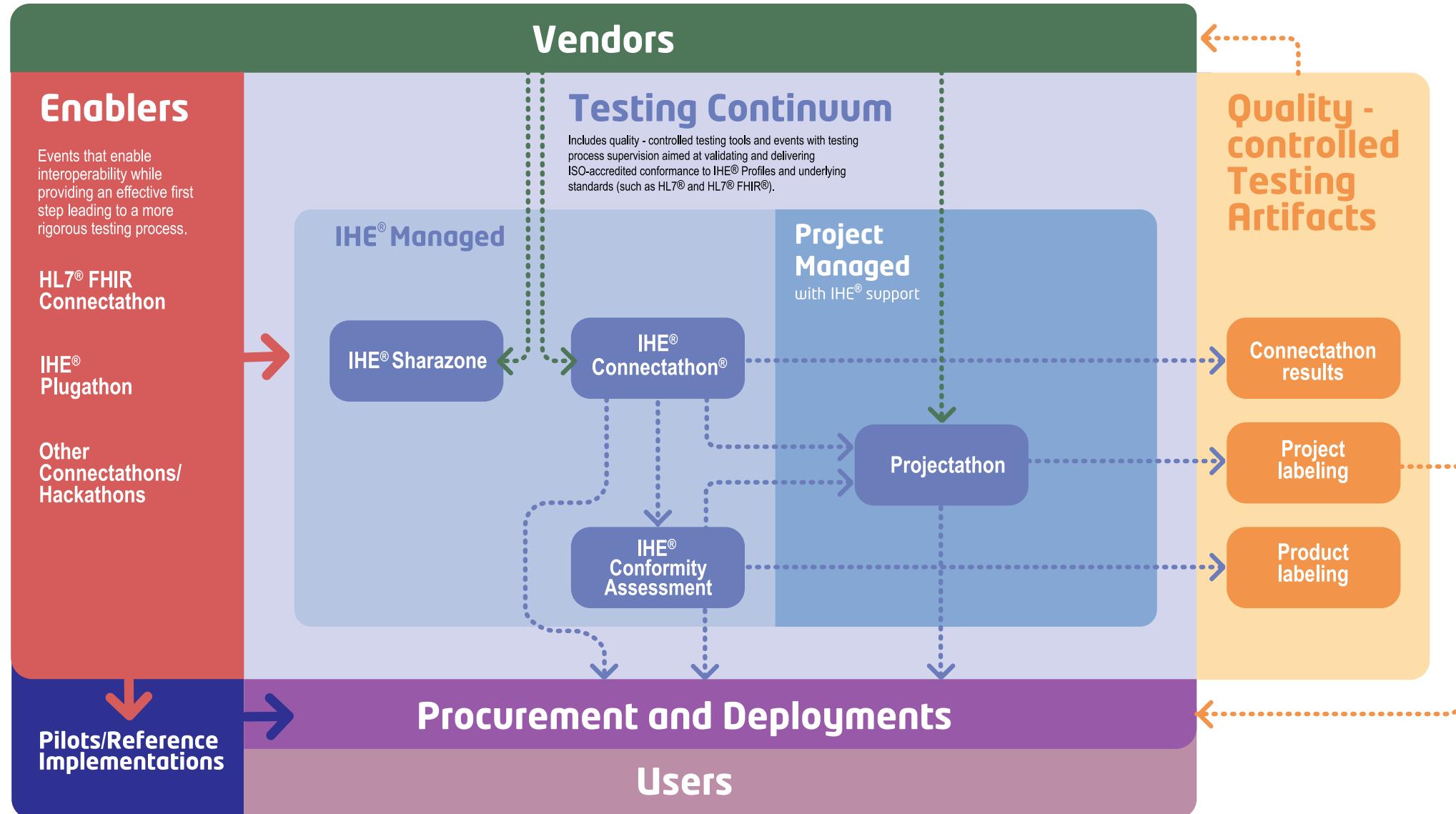
Stéphane Spahni, PhD

University Hospitals of Geneva (HUG) / IHE-Suisse / IHE-Europe
IHE-Europe Webinar, December 8, 2023



Realizing Interoperability is about teamwork





Connectathon Goals

- ❑ Promote Interoperability through the adoption of common standards (IHE Profiles)
- ❑ Validates the conformity of implemented interfaces against standards
 - « Standalone » tests
 - Tests against simulators
- ❑ Interoperability testing against *other* implementors
 - Real testing against other implementations of the same profile
- ❑ Projectathon: Connectathon dedicated to a given context



Differences between Connectathon® and a Projectathon

	Connectathon®	Projectathon
Governance	Under the supervision of IHE regional/national deployment	Under the supervision of the project (the lead organisation)
Rules for passing	IHE test methods are used Criteria are developed in the IHE Test Plan	Test methods are customized to fit the project specifications Criteria are developed by the project
Publication of the results	IHE Connectathon® Results	Published by the project (the lead organisation)

Examples of Projectathons



 Canada Health **Infoway**
Inforoute Santé du Canada



My Health @ EU
eHealth Digital Service Infrastructure
A service provided by the European Union



Connectathons & Projectathons



Montreux (CH), 2022



Rennes (F), 2023



eHealth and telemedecine unit



Swiss EPR Projectathon



Landscape – National HIE

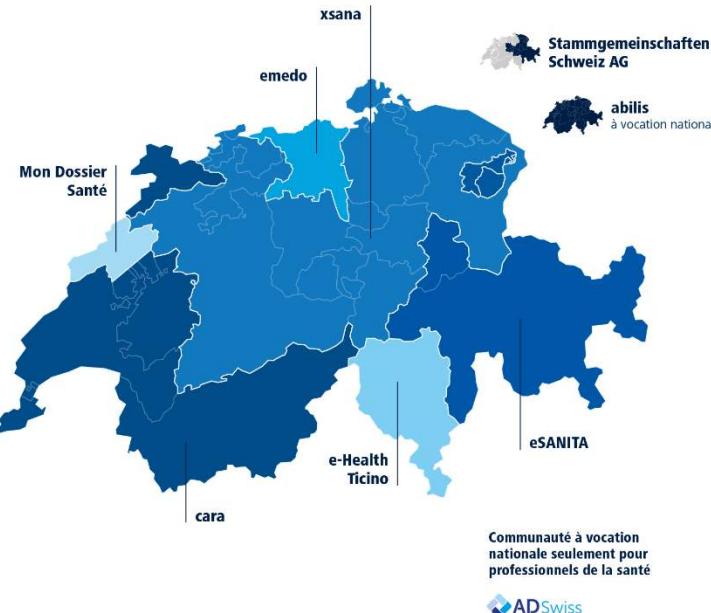
- ❑ Federal law establishing the Electronic Patient Record (EPR) published in 2018
 - In force from April 2020
- ❑ Regulation is federal, implementation responsibility is regional
 - Several “EPR Communities” (XDS affinity domains)
 - Several technical implementations
- ❑ EPR is a whole
 - Communities must be interconnected
 - Complexity hidden to users



EPR Communities



Dossier électronique du patient Aperçu des communautés Avril 2021



www.dossierpatient.ch/fournisseurs

Toutes les communautés (de référence) en cours de certification sont nommées. Une communauté (de référence) est assignée à un canton si celui-ci y joue un rôle important (p. ex. dans l'organisation responsable) ou s'il a officiellement formulé une recommandation (p. ex. aide financière).

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Fully IHE based → many profiles being used, several national extensions



❑ Communities & technical platforms have to be certified

- Processes
- Implementation of standards – IHE Profiles
- Implementation of national extensions
- Interoperability of the different implementations
- Certified auditor

❑ Primary systems deep integration has to be certified

- Technical implementation of interfaces
- Processes
- Audit by certified auditor and/or Community



How to support implementers & certifiers?

❑ “Generic” Testing

- IHE Connectathon based on international IHE Profiles
- Testing the implementation of the generic specifications (IHE Volumes 1 to 3)
- Need for a specific event devoted to EPR testing (IHE Volumes 4 and national specifications)

❑ Swiss Projectathon: EPR-related testing

- Same model than IHE Connectathon
- Test plans designed according to EPR use cases & complementary specifications
- Run in parallel with IHE Connectathon or independently

❑ Testing tools: IHE Gazelle Platform



EPR related testing – Profiles and Reference Implementation

- Profiles used in EPR = selection of some IHE profiles
 - Selection of mandatory profiles corresponding to implemented domains
 - Selection of transactions corresponding to functionality to implement (e.g. PIXv3 and not PIXv2)
 - National extensions (national profiles and/or extensions to international profiles)
 - Coherent set of profiles & transactions in relation with a concrete project

- Reference implementation
 - Testing tools for each selected profile in the EPR environment
 - Testing tools supporting national specifications
 - Samples based on national specifications



- Organized yearly since 2017 over 1 week
- National EPR projectathon every autumn
 - Use cases of EPR: patient management, document management, HPD management
 - Partners: primary systems, EPR platforms implementers, central services
 - Testing tools = EPR Reference Platform
- EPR Projectathon during IHE-Europe Connectathon in 2018, 2019, 2022
 - Creating synergies with IHE Connectathon participants
- eMedication Projectathon
 - 1st organized in Spring 2021 for introducing eMedication testing, then jointly with Projectathon



Organization of Swiss Projectathon

❑ Partnership between

- eHealth-Suisse – entity in charge of coordinating the EPR deployment (national and cantonal governments)
- IHE Suisse – Swiss IHE National Deployment Committee

❑ eHealth-Suisse tasks

- Main organizer
- Sponsoring

❑ IHE Suisse tasks

- Technical project manager
- IHE-related support



Additional testing events

Rationale:

Communities are responsible for allowing primary systems to connect to EPR platform

New primary systems may be ready anytime

- Projectathons are run once a year
- Primary systems may implement only a small subset of the selected profiles (partial integration)
- Not every primary system (yet) participates to Projectathon

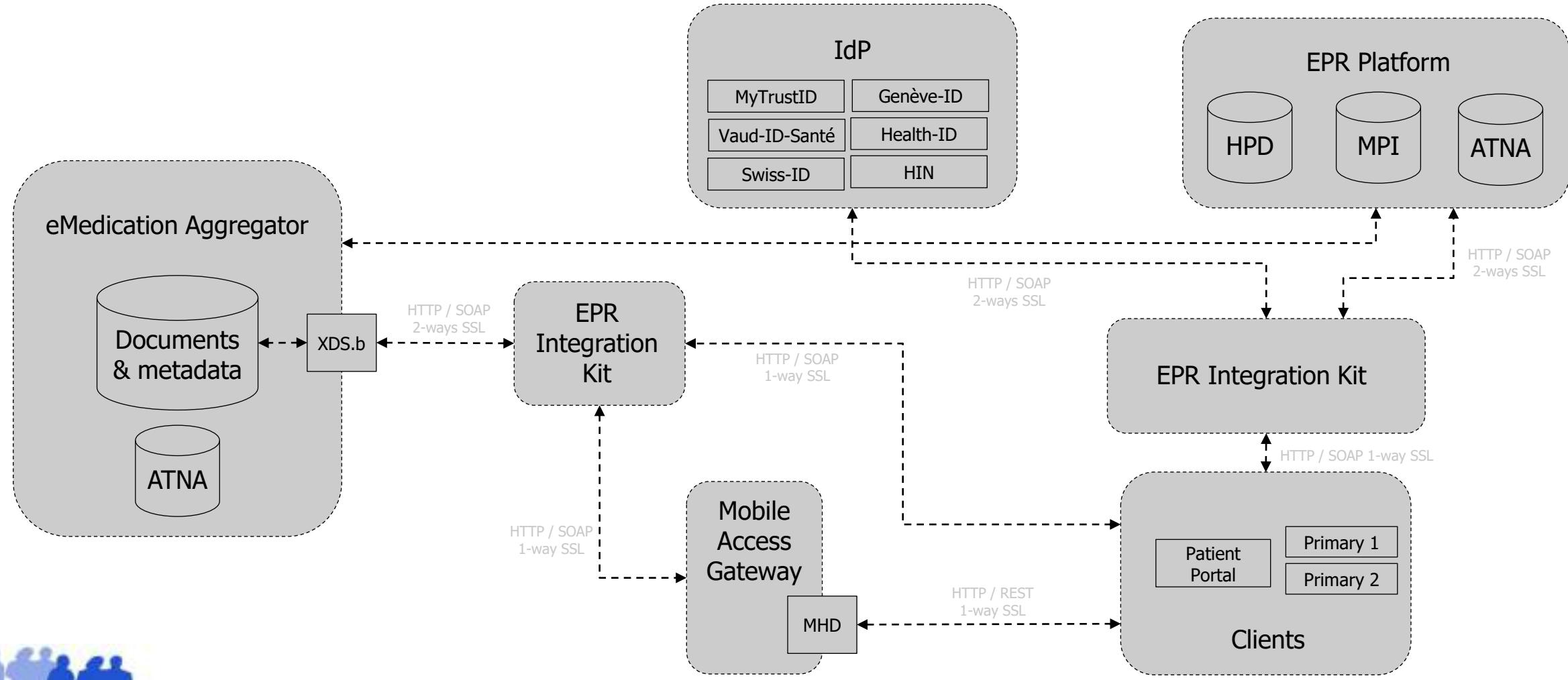
CARAthon

- Event organized by CARA EPR Community
- Testing between a primary system and a test instance of the EPR community
- Validation of the results & logs by CARA technical team

▪ Use of a proxy for easing the analysis (EPR Integration Kit – EPRIK)



Typical setting for a CARAthon (eMedication Use Case)



Source: Thomas Hendrickx, OCSIN



Questions ?

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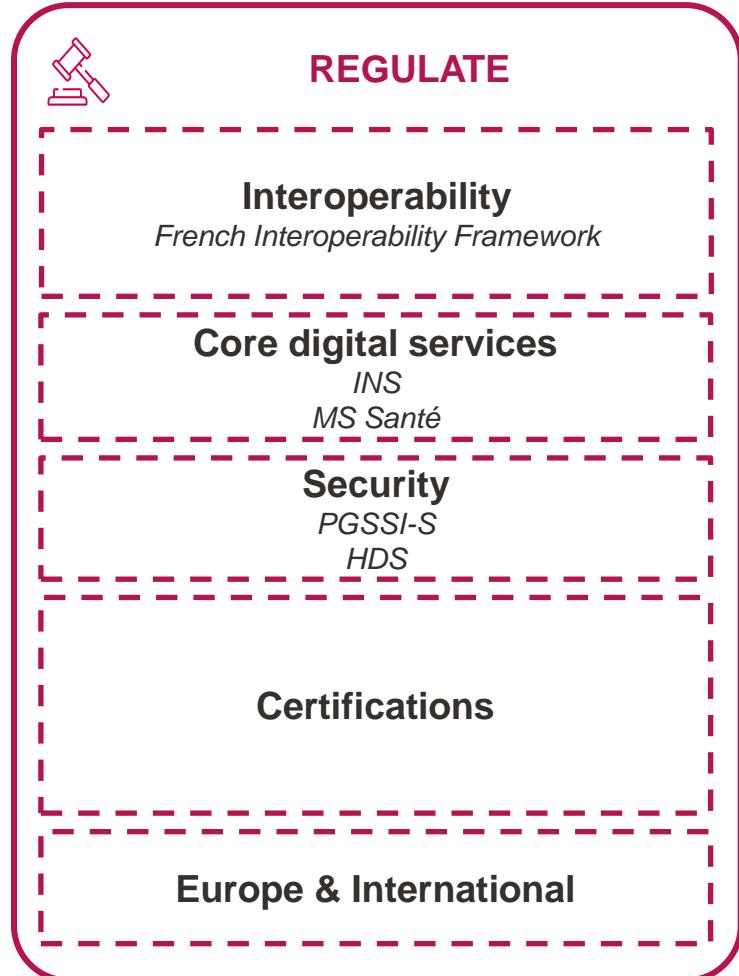
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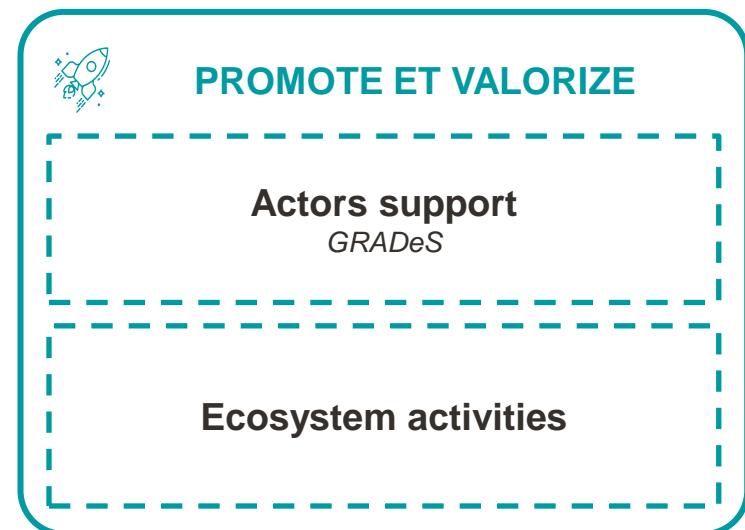
French projectahon Why and how ?

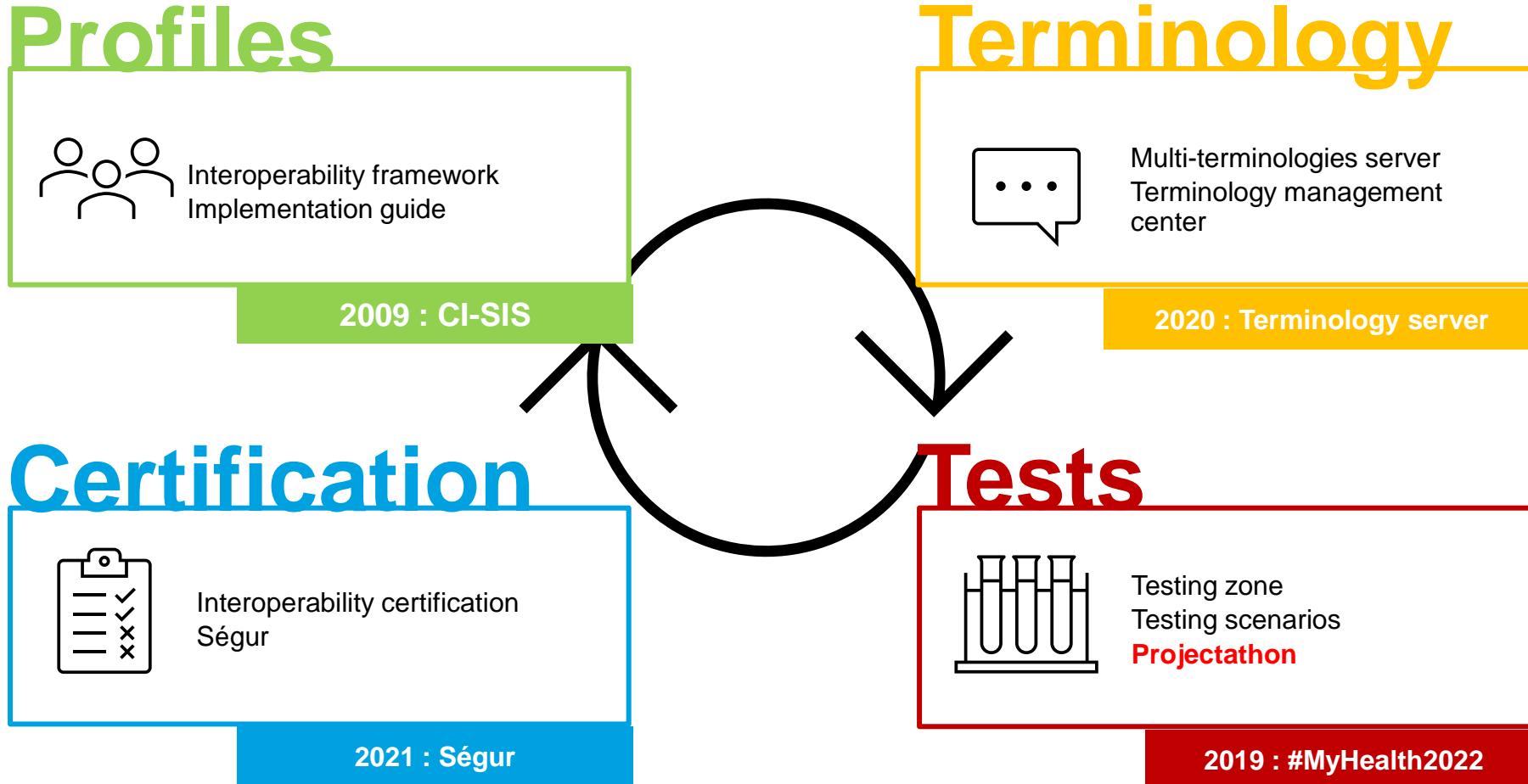
Thierry Dart, Maël Priour
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December 8, 2023



- Member of
 - IHE and HL7 International
 - IHE and HL7 France





National information systems, history

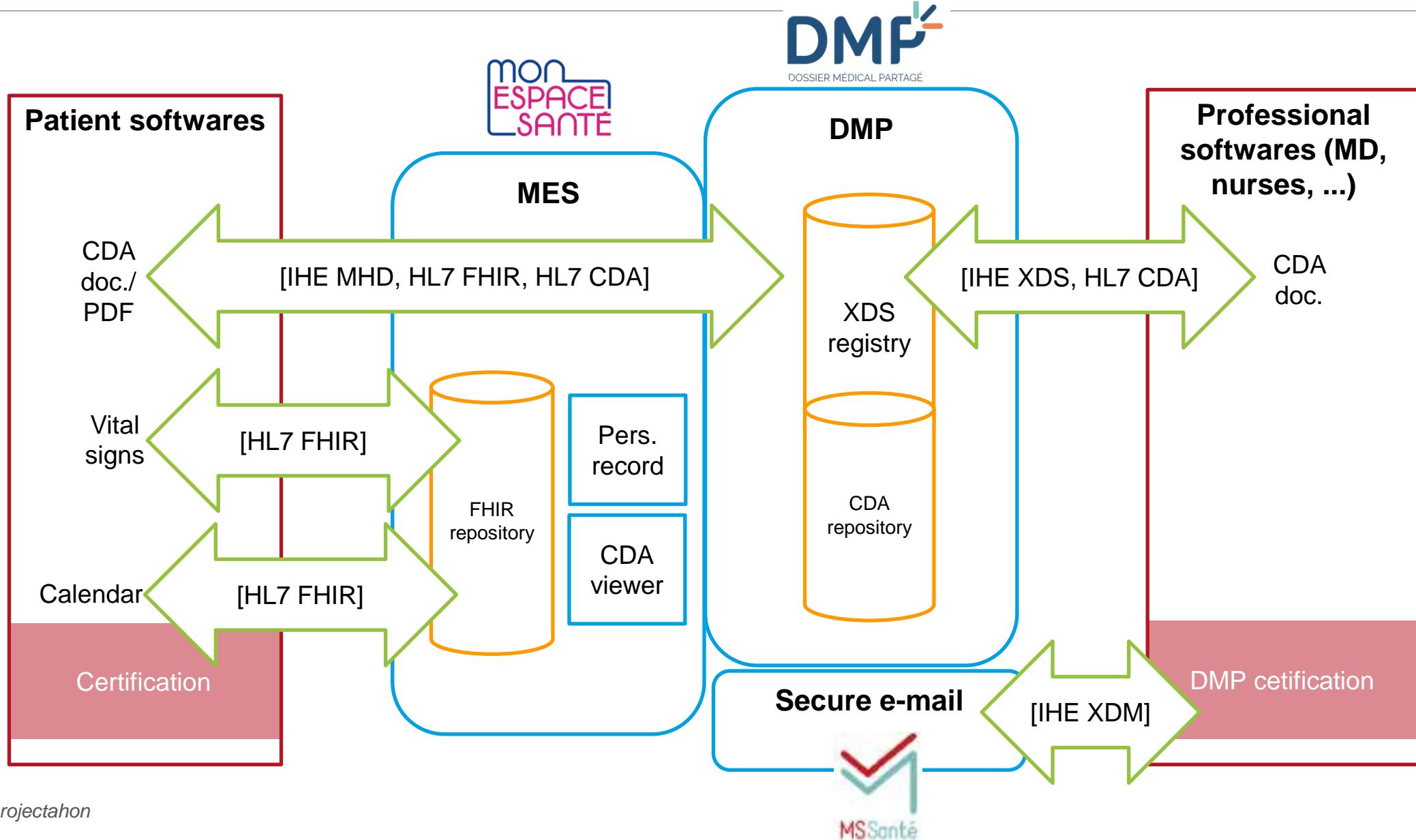
- **Laws establish**

- **INS - French eHealth Identity, RPPS – Practitioner directory**
- **DMP - Dossier Medical Partagé - <https://www.dmp.fr>**
 - National IHE XDS repository of HL7 CDA documents, since 2011
 - CDA profiles: biological report (IHE XD-LAB, mandatory 2016), immunization report (IHE IC, 2022), child health record (2024), copy of prescription and dispensation (IHE PRE and DIS, 2024) ...
- **MSSanté – Messageries Sécurisée de Santé – <https://mssante.fr>**
 - Secured e-mail (IHE XDM)
- **MES – Mon Espace Santé - <https://www.monespacesante.fr/>**
 - For patient
 - Patient calendar (HL7 FHIR), viewer of CDA document, Patient health record

National information systems, governance and regulation

- **Regulation is national**
 - **Implementation responsibility is national**
 - **National interoperability framework - ANS**
 - Based on IHE profiles and FHIR implementation guides, since 2009
 - <https://esante.gouv.fr/offres-services/ci-sis/espace-publication>
 - <https://interop.esante.gouv.fr/iq/>
 - Annual projectathon, since 2019
 - <https://industriels.esante.gouv.fr/produits-et-services/ci-sis-cadre-d-interoperabilite-des-systemes-d-information-de-sante/projectathon-interoperabilite>
 - Interoperability testing platform, since 2020
 - <https://industriels.esante.gouv.fr/produits-et-services/ci-sis-cadre-d-interoperabilite-des-systemes-d-information-de-sante/espace-de-tests-d-interoperabilite>
 - <https://interop.esante.gouv.fr>
 - Multi-Terminology Server, since 2020
 - <https://smt.esante.gouv.fr/>
 - **Certification since 2021 (Ségur)**

National information systems and interoperability



French projectathons

- **Organized yearly since 2019**
- **National projectathon**
 - Use cases of DMP
 - Use cases of MES
 - Project use cases: directories, sharing images, ...
 - Testing tools = Gazelle
- **Projectathon during IHE-Europe Connectathon in 2019 and 2023**
 - Same use cases
 - Creating synergies with IHE Connectathon participants

Main benefits of a projectathon

Benefits for e-Health vendors



- ✓ Test the **compliance** of their solutions with the French interoperability framework
- ✓ Report to the ANS team **any corrections/evolutions** that need to be considered
- ✓ Meet and test their **software** with their peers prior to deployment
- ✓ Meet the **interoperability teams** and work together
- ✓ Free event

Other benefits



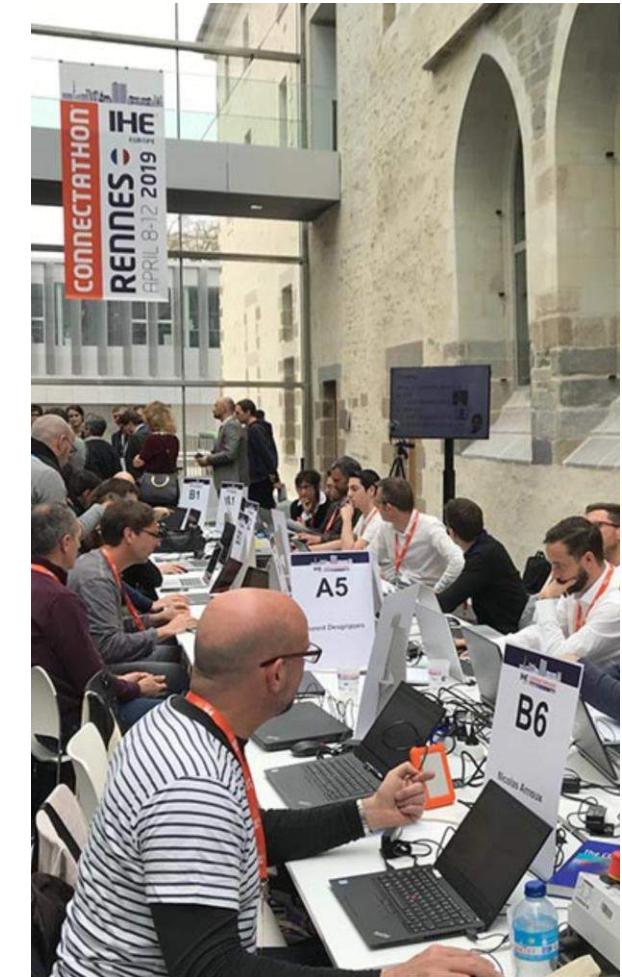
- ✓ **Benefits for ANS :**
 - Improve the maturity of the new specifications of the French interoperability framework
 - Respond directly to vendors
- ✓ **Interests for the monitors :**
 - Improve expertise in interoperability
 - Meet vendors and monitors

Take advantage of the visibility provided by the projectathon

- **Communication of results** by ANS (list of publishers, solutions tested, tests carried out)
- **Post-Projectathon feedback** (workshop with participants, etc.);
- **Different formats:** ANS news, newsletter, video, press relations around the event....

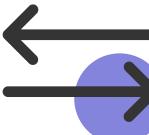
5 French projectathons

	Vendors	Profiles	Other events
2019 Rennes	8	2	IHE Connectathon Rennes
...
2022 Paris	23	20	PariSanté Campus Paris
2023 Rennes	45	36	IHE Connectathon ANS European week Rennes





45 vendors, **200** people



370 tests



6428 messages on the coordination tool



10 interoperability workshops



4,5/5 satisfaction survey



- **ANS**

- **Organizing**
- **Virtual and face-to-face events**
- **Member of IHE Int. and IHE France**



4 to 6 months



50 monitors, 18 from ANS

- **Tools**

- **Testing tool : national platform (Gazelle)**
- **Coordination tools:**

- Teams
- Slack



264 testing models



36 profiles

PHARMACY

- HL7 CDA-N1
- IHE IC
- IHE XDM

HOSPITAL - EHR

- CDA-N1
- IHE PAM

LABORATORY

- ANS CR-BIO / IHE XD-LAB
- HL7 CDA-N1
- IHE PAM
- Archive IHE XDM

HOSPITAL ESB

- CDA-N1
- IHE XDM

RADIOLOGY

- CDA-N1
- IHE PAM
- IHE IHE-XDM

AMBULATORY - EHR

- ANS VSM
- CDA-N1
- IHE IC
- IHE PAM
- IHE XDM

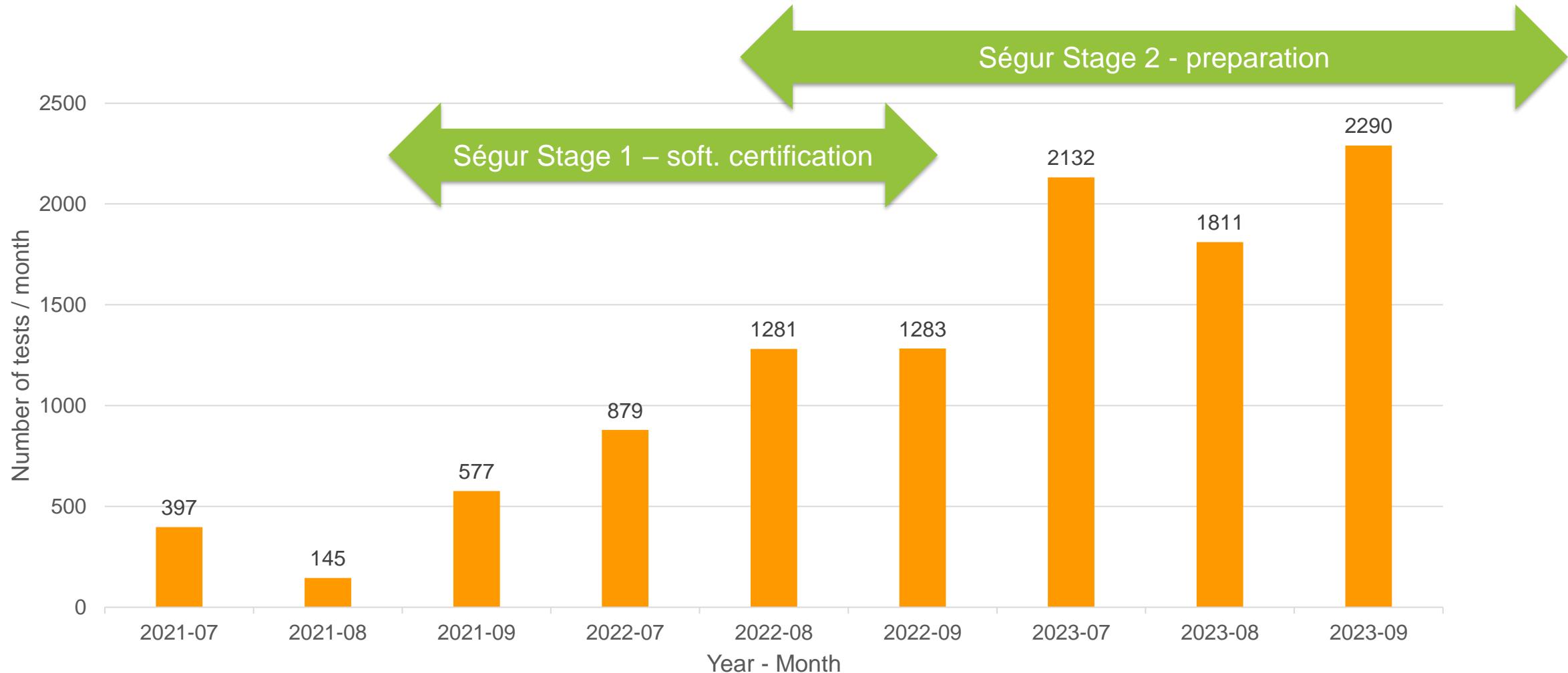
MEDICO-SOCIAL [PA/PH/DOM]

- ANS DLU
- ANS DLU-FLUDT
- HL7 CDA-N1
- IHE PAM
- IHE XDM

MEDICO-SOCIAL [PDS]

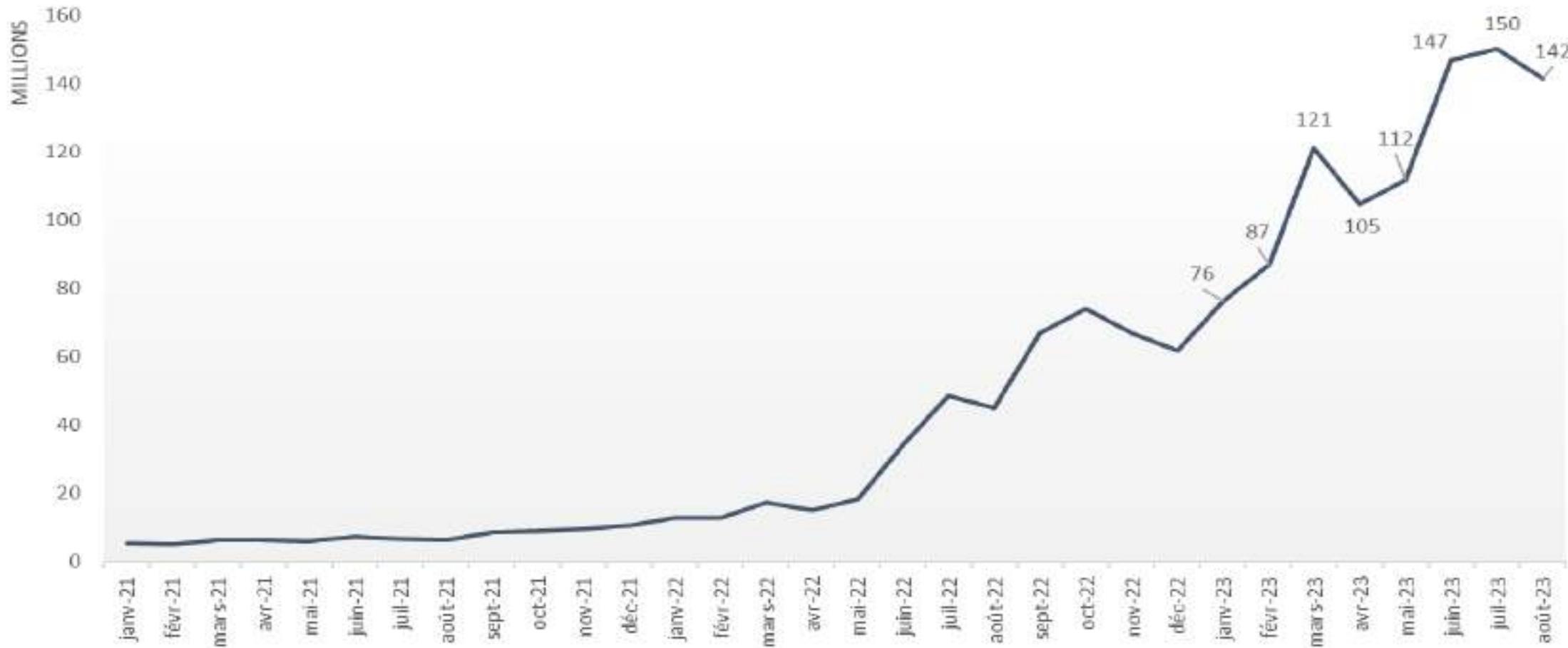
- ANS VSM
- HL7 CDA-N1
- IHE PAM-FR
- IHE XDM

Testing tools



Effects : certification + projectathon

Number of CDA documents in MES / DMP - Mon espace santé



ANS interoperability team



Thierry Dart



Nicolas Riss



Mathieu Bajat



Maël Priour



Tayeb Merabti



Mélissa Mary



Yann Briand



Alain Perie



Nicolas Arnoux



Nidal Mahraz



Abdelali Boussadi



Philippe Finet



Isabelle Gibaud



Romain Saget-Lethias



Naémé Nekooguyan



Nadia Bougacha



Maël Le Gall



Elisabeth Serrot-Damatte



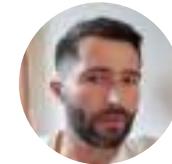
Danielle Cohen



Benjamin Reverseau



Eric Sebelin



Sylvain Demey

Thank you !



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Questions ?



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