

# Third Swiss EPR Projectathon September 23–27, 2019, Bern Final Report



## Introduction

This document provides summarized information about the third Swiss Projectathon on the Electronic Patient Record (“EPR Projectathon”) performed in September 2019. It contains the following sections:

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## Aims

This year’s slogan for the EPR Projectathon was “Last Stop before Certification”: For the first time at an EPR Projectathon, the complete and officially revised EPR specifications were available for testing. Therefore, the testing was an ideal preparation opportunity for technical providers before going into the technical certification process in autumn/winter 2019. Apart from this **preparation support for vendors** aspect, the Projectathon aimed at the following points:

- Identify potential issues in the **test tools** and the test plans;
- Identify potential issues in the **basic specifications**;
- Strengthen implementation guidelines (as IHE) and **standards** (as HL7) in the health sector;
- **Communication** about the EPR through on- and offline means (e.g. social media and public guided tours).

## Test organisation

### General overview

- **Event organisation:** The event was organised by the three parties eHealth Suisse, IHE Suisse and the Federal Office of Public Health FOPH with the technical support of IHE Europe Services.
- **Testing venue:** Testing was organised at [the Eventforum](#) in Bern.
- **Date:** The event started on Monday, September 23, at 9AM, and finished on Friday, September 27, at noon, 12PM. Opening hours were from 8AM to 6PM; testing took place from 9AM to 5PM.
- **Monitors:** A team of seventeen monitors was set up and trained to assist testers and verify the test cases. The monitors owned expertise on EPR specifications, and most of them had served before at one or more IHE European Connectathon or EPR Projectathon.

The team was recruited, managed and led by Tony Schaller, IHE Suisse Technical Project Manager.



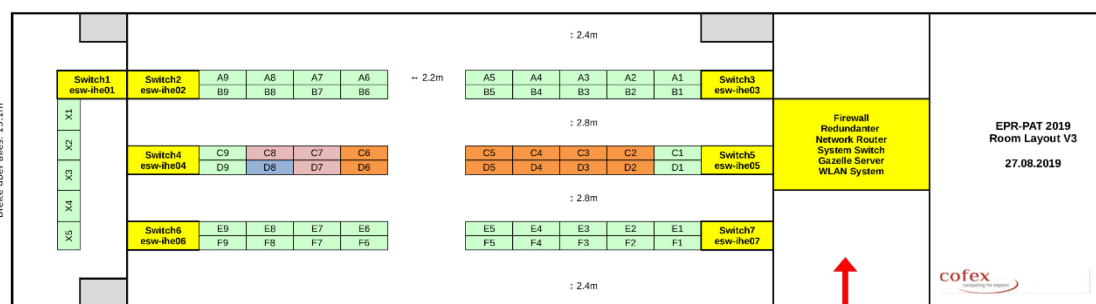
Monitor team of EPR Projectathon 2019

- **Tools:** All EPR profiles and specs were testable. The tests were driven and reported by using the Swiss EPR reference environment, which is another instance of the IHE Gazelle toolbox (<https://ehealthsuisse.ihe-europe.net/gazelle>).
- **Virtual Machine:** All the tools used during the event were grouped in the same virtual machine under the URL <https://ehealthsuisse.ihe-europe.net>. The physical server was brought on site in order to secure the testing and prevent the risk of a loss of internet connectivity.



Technical support team of IHE Europe Services

- **Network:** The network was managed by a subcontractor of eHealth Suisse (cofex).



Room and cable set up of EPR Projectathon 2019

- **Preparation:** A brochure on the event was available from May 2019 [in German](#) and [in French](#). Information on the event was regularly updated on the website [www.epr-projectathon.ch](http://www.epr-projectathon.ch) (in German, French, Italian, and English) and posted into the [Projectathon Googlegroup](#). Three webinars regarding the registration process and pre-Projectathon-tests were held by eHealth Suisse and IHE Europe Services in June and July 2019. The pre-Projectathon test phase lasted from July 1<sup>st</sup>, to September 13, 2019.
- **Fees:** The participant fee per person was 350 Swiss francs and included the participation, catering and the entrance to the social event. There were no additional fees per company or system.
- **Side events:** The “Social Event” took place in the event location Bierhübli in Bern and offered food, beverages and live music from the group “AlpTon”. From Monday to Wednesday, before and after testing hours, participants could visit the “technical coffee breaks” and listen to short presentations concerning eHealth / the EPR.
- **Communication:** During the event, external guests could visit the Projectathon with a “Guided Tour”, led by eHealth Suisse and IHE Suisse. eHealth Suisse, the FOPH and several participating vendors and monitors tweeted about the Projectathon. [Photographs](#) and a [short clip](#) about the event were produced and made freely available.



Tweet by FOPH



Tweet by eHealth Suisse

## Participating organisations

A total of 19 vendor organisations from 3 countries (Switzerland, Germany, France) participated with altogether 82 employees. Most of the companies, namely 17, had already participated at least once in an EPR Projectathon before, be it in Bern or at an IHE Connectathon.

- [Abilis AG](#)
- [Agfa HealthCare AG](#)
- [BINT GmbH](#)
- [CISTEC AG](#)
- [CompuGroup Medical Schweiz AG](#)
- [ELCA Informatique SA](#)
- [Enovacom](#)
- [GE Medical Systems \(Schweiz\) AG](#)
- [Health Info Net AG \(HIN\)](#)
- [Integic AG](#)
- [Meierhofer AG](#)
- [openmedical AG](#)
- [Post CH AG](#)
- [Sectra Medical Systems GmbH](#)
- [Swisscom Health AG](#)



- [synedra Schweiz AG](#)
- [the i-engineers AG](#)
- [Uptime Services AG](#)
- [VISUS IT Solutions AG](#)

Additionally, two federal institutions' EPR services were present at the Projectathon as testing partners, offering their support for the UPI and the EPR central query services:

- [Central Compensation Office CCO](#)
- [Federal Office of Information Technology, Systems and Telecommunication FOITT](#)

In comparison with the last two EPR Projectathons in Bern, the participation figures lie between the values of 2017 and 2018. However, the number of the participating companies follows the registration number which can be misleading, since some vendors joined together and registered as one company only.

Year of Projectathon	2019	2018	2017
Companies	19	23	16
Participants	82	88	79
Monitors + Technical support	17 monitors + 8 technical support	17 + 9	13 + 8
Countries	3 (CH, D, F)	3 (CH, D, PL)	3 (CH, D, AT)

Table 1: Figures of the last three EPR Projectathons



Participants at EPR Projectathon 2019

## List of systems

There were twenty-six systems registered at the EPR Projectathon, meaning that some of the participating firms contributed more than one system (see table 2). Most of the systems concerned Health Professional Portals, whereby it is notable that primary systems can reference the same actors as a Health Professional Portal.

Organisation	System keyword	Components concerned
ABILIS SA	HP-PORTAL_ABILIS	Health Professional Portal
ABILIS SA	PAT-PORTAL_ABILIS	Patient Portal
Agfa HealthCare AG	HP-PORTAL_Agfa	Health Professional Portal
BINT GmbH	HP-PORTAL_BINT_2.2	Health Professional Portal
BINT GmbH	CCC_BINT_AD_52+	Community Components
BINT GmbH	PAT-PORTAL_BINT_aph_1.1	Patient Portal
BIT / FOITT	GVT-SERVICES_BIT_0	Government Services
CISTEC AG	HP-PORTAL_CISTEC_KISIM_19	Health Professional Portal
CompuGroup Medical Schweiz AG	HP-PORTAL_CGM_CLINICAL_CH_2019	Health Professional Portal
Elca Informatique	IdP_Elca	Identity Provider
Enovacom	HP-PORTAL_ENOVACOM	Health Professional Portal
GE Medical Systems (Schweiz) AG	2ND_SYSTEM_GE_HCD	Secondary System
GE Medical Systems (Schweiz) AG	HP-PORTAL_GE_HCD_2019	Health Professional Portal
Health Info Net AG	IdP_HIN_3.3	Identity Provider
Integric	HP-PORTAL_EHR_1	Health Professional Portal
Meierhofer AG	HP-PORTAL_MAG_2019	Health Professional Portal
openmedical AG	2ND_SYSTEM_OM_M2U	Secondary System
openmedical AG	2ND_SYSTEM_OM_MN	Secondary System
Post CH AG	Community_Post_3	Community Components
SECTRA MEDICAL SYSTEMS GMBH	HP-PORTAL_EIDMS	Health Professional Portal
Swisscom Health AG	Community_SCHAG_COPY_1	Community Components
synedra Schweiz AG	2ND_SYSTEM_synedra_PACS_2019	Secondary System
the i-engineers AG	Community_TIE_19_3	Community Components
Uptime Services AG	HP-PORTAL_ARTS	Health Professional Portal
VISUS IT Solutions AG	HP-PORTAL_VISUS_1	Health Professional Portal
ZAS / CCO	GVT-SERVICES_EPR-ID provider	Government Services

Table 2: Participating systems, Projectathon 2019

## Tests performed

### Overall view

414 tests were executed during the third EPR Projectathon, of which 280 were verified.

	Number of test instances	To be verified	Partially verified	Verified	Aborted	Paused	Running	Failed
Group tests	45	0	1	29	5	0	10	0
Peer-to-peer-tests	319	3	18	205	34	3	52	4
No-peer-tests	50	0	0	46	2	0	2	0
<b>Total</b>	<b>414</b>	<b>3</b>	<b>19</b>	<b>280</b>	<b>41</b>	<b>3</b>	<b>64</b>	<b>4</b>

3: Executed tests at EPR Projectathon 2019

### Peer-to-peer-tests

The largest share of verified tests (about three quarters, 205 out of 280) concern peer-to-peer-tests with two testing partners involved.

	Number of test instances	To be verified	Partially verified	Verified	Aborted	Paused	Running	Failed
213, 214, 215	12	0	0	12	0	0	0	0
CH:ADR	3	0	1	2	0	0	0	0
CH:ATC	3	0	0	2	0	0	1	0
CH:ATNA	38	0	4	23	6	0	5	0
CH:CPI	9	0	0	8	1	0	0	0
CH:HPD	33	1	1	19	5	0	7	0
CH:PDQV3	33	0	3	20	0	2	5	3
CH:PIXV3	50	0	5	42	1	0	1	1
CH:PPQ	12	0	0	7	4	0	1	0
CH:RMU	2	0	0	0	2	0	0	0
CH:XDS	49	1	2	21	11	1	13	0
CH:XDS-I	4	0	0	0	1	0	3	0
CH:XUA	63	1	2	41	4	0	15	0
SVS	8	0	0	8	0	0	0	0
<b>Total</b>	<b>319</b>	<b>3</b>	<b>18</b>	<b>205</b>	<b>35</b>	<b>3</b>	<b>51</b>	<b>4</b>

4: Executed peer-to-peer-tests at EPR Projectathon 2019



Testing venue

## Group tests

29 of the executed tests were group tests where several test partners are involved. This allows realistic and complex scenarios to be simulated, for example the retrieval of a document by a health professional.

	Test instances (#TI)	#TI Started	#TI Verified	#TI Aborted	#TI Partially Verified
<a href="#">HP access images Patient In RC</a>	3	1	2	0	0
<a href="#">HP gets document Patient 3of3</a>	3	1	1	1	0
<a href="#">Patient gets document from AC</a>	2	2	0	0	0
<a href="#">Patient modifies CC document</a>	2	0	2	0	0
<a href="#">PatientAssignsAccessLevel HP</a>	1	0	1	0	0
<a href="#">Patient modifies Conf Code</a>	1	1	0	0	0
<a href="#">Patient verifies audit trail</a>	1	0	1	0	0
<a href="#">HPPProvidesDocumentForPatient</a>	7	0	6	1	0
<a href="#">Patient uploads document In RC</a>	2	0	2	0	0
<a href="#">Patient gets document from RC</a>	3	0	2	1	0
<a href="#">Patient Mod Writing pp</a>	1	1	0	0	0
<a href="#">HP gets document Patient1of3</a>	9	1	6	1	1
<a href="#">HP gets document Patient 2of3</a>	2	0	2	0	0
<a href="#">Patient export documents</a>	1	1	0	0	0
<a href="#">Patient access images in RC</a>	1	0	0	1	0
<a href="#">TCU Provide Document for patient</a>	6	2	4	0	0
<b>Total</b>	<b>45</b>	<b>10</b>	<b>29</b>	<b>5</b>	<b>1</b>

5: Executed group tests at EPR Projectathon 2019. Columns with zero values (e.g. #TI paused or failed) are not indicated.

## Other results

### Reported issues

As an outcome of the testing performed during the EPR Projectathon, 33 Jira issues were reported concerning:

- Specs (4 tickets)
- Test cases (17 tickets)
- Tooling (12 tickets)

The issues reported are processed by eHealth Suisse and FOPH or allocated to other parties (e.g. IHE Services Europe).

### Maturity levels

The maturity of the profiles, metadata and exchange formats of the Swiss EPR is graded into five levels, depending on their readiness for testing (level 1, 2, and 3) or their verification at test events (level 4 and 5). Through the 2019 EPR Projectathon testing, the grade of seven profiles rose from level 4 to the highest level 5: HPD, XCA, XUA, CH:ADR, CH:CPI, CH:PPQ, eCH. For the overview of the maturity levels of all EPR profiles, see the [published document](#).

### Quality survey

A quality survey was conducted at the end of the EPR Projectathon. Eleven people responded to it. The following is a summary of the survey's results:

**Motivation:** All participating vendors see the (in-depth) testing of their EPR implementations as the main reason to participate.



**Satisfaction with registration and communication:** Participants were generally satisfied with the registration process and were able to find relevant information in order to decide about participation, although the satisfaction was lower than last year. People comment critically on the usability of Gazelle and frequent changes of its tools before the Projectathon. One participant suggests to make a screen recording of a test instance creation (for vendors) and test validation (for monitors) to explain the basics.

**Satisfaction with technical infrastructure:** Only about half of the participants (6 out of 11, i.e. 54,5 %) found Gazelle intuitive enough and easy to use while last year it were three quarters of respondents. The participants complain about the constantly required re-login, would like some example messages, direct links to configuration resources of counterparties, the possibility to bookmark pages and a better overview of the tools available. The tooling was in comparison better-judged (72 % satisfaction) and the network response best of all, with 90 % of the respondents rating it 7 and above out of ten.

**Opinion on monitors and event management:** The participants were satisfied with the monitors's work (77 % "very efficient") and the event management (90 % "very efficient"). One participant mentions his good experience with group testing: the monitor explained the actors and objectives clearly.

**Market readiness:** According to the participants, 30 % of the tested products are ready to go on the market. A large share is targeting the market in less than six months (40 %) or one year (30 %).

**Catering and side events:** The catering and services at the testing venue were very much appreciated and get only high ratings from 8 to 10 (out of 10). Also very popular, though with a few exceptions and on a lower level, were the location and the social event. 7 out of the 11 respondents participated at a "technical coffee break" and liked it mostly, although one participant found it too superficial.

**General feedback:** People praised most of all the good, open, friendly and supportive spirit among the participants. Other things they liked were the testing, the organisation, the possibility to learn from each other and the technical coffee break as well as the social event. On the other hand, the participants disliked the changes of the test tools before the event and criticized missing configurations and partial absence of their peers.

**Suggested improvements:** Several vendors suggested to "freeze" the testing environment from the pre-Projectathon phase, since short-dated changes are difficult to handle. The need to prepare their test systems should be communicated clearly to the participants. The event organisers should be stricter on this point as well as on the attendance of all parties during the whole week.



Public "Guided Tour"

## Conclusion

Altogether, the three organising parties eHealth Suisse, IHE Suisse and the FOPH consider the EPR Projectathon 2019 a **very successful event**:

- The **goals** as described on page 2 have been **reached** to a big extent.
- Compared to the first and the second EPR Projectathon 2017 and 2018, a **huge progress** could be observed. The participating companies with their products as well as the reference environment tooling and the specifications have made an enormous development since 2017, making the test processes **run smoothly** throughout the week.
- The number of the reported issues was much lower than the years before and **no blocking issue** was detected.
- There were as **many group tests** performed as never before at an EPR Projectathon, showing the risen maturity of the vendors and complexity of test organisation.
- The **overall number** of the executed test instances seems to be much lower than last year, but these figures have to be put into perspective: Last year, the pre-Projectathon-tests were included in the overall test numbers while they were separated this year. Secondly, vendors were encouraged to focus on group tests and peer-to-peer-tests instead of no-peer-tests during the week, leading to less tests performed in number, but higher in complexity.
- According to the survey, the **participant's satisfaction** with the event was generally high.

Hence, the responsible parties make the following **conclusions regarding the further steps**:

- The technical basics for the **technical certification** of EPR communities proved to be ready, both in terms of underlying specifications and reference environment (which is the base for the certification system).
- The Projectathon series will be continued to further enhance interoperability around the EPR system and attract additional vendors (e.g. primary systems). The **next Projectathon** will take place from 21 to 25 September 2020 in Bern. The focus of the test week will be decided at a later point. Possible topics are exchange formats, mHealth, etc.
- Although there will be no EPR corner offered this time, vendors are still encouraged to participate at the **IHE Connectathon** to test the basic IHE profiles. The next Connectathon takes place from 23 to 27 March 2020 in Brussels.
- In addition, **online testing** is permanently available on the reference environment in Gazelle. Vendors should make use of this opportunity. The communication via the **Google group epd\_Projectathon** will be continued. People wanting to join [contact the group managers](#).
- According to the satisfaction survey, the organisers will keep most of the event elements **as hitherto** (e.g. venue, food, technical coffee breaks). **Changes to be considered** concern mostly the handling of the Gazelle tooling (e.g. no adaptations during pre-Projectathon-phase, log-in-issues, better overview).



Test floor