

# Swiss EPR Projectathon 2018 – Final Report



## Introduction

This document provides summarized information about the second Swiss Projectathon on the Electronic Patient Record EPR performed in September 2018 (“EPR Projectathon”). It contains the following sections:

General Overview .....	2
Aims .....	2
Participating organizations .....	2
List of systems .....	2
Test Organisation .....	5
Results .....	8
Executed Tests .....	8
Reported Issues .....	8
Maturity levels .....	8
Quality Survey Results .....	9
Conclusion .....	10

Further documentation on the event can be found on [www.epd-projectathon.ch](http://www.epd-projectathon.ch) (in German, French and Italian; soon available in English as well).

## General Overview

### Aims

The aims of the testing at the EPR Projectathon were multiple ones (see also brochure on the EPR Projectathon 2018, available [in German](#) and [in French](#)):

- Identify and gather issues in the basic specifications;
- Identify and gather issues in the test tools and the test plans developed by IHE services;
- Communication about the Swiss EPR to the community through public guided tours.

### Participating organizations

A total of 23 vendor organizations from 3 different countries participated with altogether 88 employees:

- [Agfa HealthCare AG](#)
- [Avintis SA](#)
- [BINT GmbH](#)
- [CISTEC AG](#)
- [Comarch Healthcare S.A.](#)
- [CompuGroup Medical Schweiz AG](#)
- [d.velop AG](#)
- [GE Medical Systems \(Schweiz\) AG](#)
- [Health Info Net AG \(HIN\)](#)
- [Ines GmbH](#)
- [Integic AG](#)
- [InterSystems Corporation](#)
- [Meierhofer AG](#)
- [NEXUS Schweiz GmbH](#)
- [Ofac Group](#)
- [openmedical AG](#)
- [Post CH AG](#)
- [SwissSign Group AG](#)
- [synedra Schweiz AG](#)
- [Tecost SA](#)
- [the i-engineers AG](#)
- [Uptime Services AG](#)
- [VISUS IT Solutions AG](#)

Additionally, the two federal institutions [Federal Office of Information Technology, Systems and Telecommunication FOITT](#) and the [Central Compensation Office CCO](#) were also present at the event as testing partner.

### List of systems

There were 33 systems participating in the EPR Projectathon. A system groups different actors depending on the configuration.

Organization	System keyword	System/ Product name	Version
Agfa	<a href="#">HP-PORTAL_Agfa_orbis</a>	AGFA_ORBIS	
Agfa	<a href="#">2ND_SYSTEM_Agfa_HYDMedia</a>	AGFA_HYDMedia	
ARTS	<a href="#">2ND_SYSTEM_ARTS</a>	ARTS_4_1_6	4.1.6
Avintis	<a href="#">2ND_SYSTEM_Avintis_eHealth_Gateway</a>	Avintis eHealth Gateway	1.1.0
BINT	<a href="#">CCC_BINT_AD51</a>	BINTmed AD 5.1	5.1

BINT	<a href="#">HP-PORTAL_BINT_Adaptor</a>	BINTmed Adaptor	1.2
BIT	<a href="#">GVT-SERVICES BIT PAT-2018-Bern</a>	EPD Government Central Services	1.0.22
CAH	<a href="#">CCC CAH_1</a>	Comarch EHR_01	2.1
CGM	<a href="#">HP-PORTAL_CGM_CLINCIAL_CH</a>	CGM CLINICAL CH	2018.03
CISTEC	<a href="#">HP-PORTAL_CISTEC_KISIM_18</a>	KISIM_18	
d.velop	<a href="#">HP-PORTAL_d.velop</a>	d.velop connect orchestra for EPD	1.0.0
EHR	<a href="#">HP-PORTAL_EHR_18</a>	Orchestra Healthcare Edition	
EPR-ID provider	<a href="#">GVT-SERVICES_EPR-ID_provider_2018</a>	EPR SPID Provider	Bern2018
GE HCD	<a href="#">2ND_SYSTEM_GE_HCD_dummy</a>	DUMMY	1.0
GE HCD	<a href="#">2ND_SYSTEM_GE_HCD_COPY_0</a>	Centricity clinical archive_COPY_0	16.0 SP 19
GE HCD	<a href="#">HP-PORTAL_GE_HCD_COPY_0</a>	Centricity universal viewer ZFP_COPY_0	6.0 SP9
HIN	<a href="#">IdP_HIN_3.1</a>	IdP IAM	3.1
INES	<a href="#">HP-PORTAL_INES_KIS</a>	inesKIS	6.8.0
InterSystems	<a href="#">Community_InterSystems_1809</a>	InterSystems HealthShare	InterSystems HealthShare
MAG	<a href="#">HP-PORTAL_MAG_M-KIS</a>	M-KIS	1
Nexus	<a href="#">CCC_Nexus_XDS</a>	NEXUS_XDS	
Nexus	<a href="#">CCC_Nexus_ADT</a>	NEXUS_ADT_HP	
Ofac	<a href="#">IdP_Ofac_ELCA</a>	IDP_ELCA_Ofac	
Ofac	<a href="#">HP-PORTAL_Ofac</a>	Abilis HP-Portal	1.0
Ofac	<a href="#">PAT-PORTAL_Ofac</a>	Abilis PAT-PORTAL	1.0
OM	<a href="#">2ND_SYSTEM_OM_MEDNET</a>	mednet	
OM	<a href="#">2ND_SYSTEM_OM_0</a>	med2unify	
Post	<a href="#">Community_Post</a>	Post ITH E-Health Plattform	
SwissSign	<a href="#">Identity Provider Trusted Identity_SWISSID4_COPY_0</a>	SwissID 4_COPY_0	4.0
synedra	<a href="#">2ND_SYSTEM_synedra_PACS_2018</a>	synedra AIM	Apollon 18.0
Tecost	<a href="#">HP-PORTAL_Tecost_Carefolio-LongTerm</a>	Carefolio LongTerm	6.4
TIE	<a href="#">Community_TIE_1</a>	health engine	10

VISUS	<a href="#">HP-PORTAL_VISUS</a>	JiveX Healthcare Portal	5.0.8
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Table 1: List of participating systems



## Test Organisation

**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 Connectathons or an EPR Projectathon. This means, they were already familiar with most of the tooling principles and the process in place.

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



**Testing event organization:** Testing was organized at [the Eventforum](http://the-eventforum.com) in Bern. The test platform (reference platform) <https://ehealthsuisse.ihe-europe.net> was installed on site during the event. The event started on Monday September 17<sup>th</sup> at 8AM, and finished on Friday September 21<sup>st</sup> at noon, 12PM.

**Tools:** The tests were driven and reported by using the IHE Gazelle Test Management Tool (<https://ehealthsuisse.ihe-europe.net/gazelle>). All the tools used during the event were grouped in the same Virtual Machine under the URL: <https://ehealthsuisse.ihe-europe.net>.

**Virtual Machine:** The virtual machine residing in the cloud was brought on site in order to secure the testing and prevent the risk of a loss of internet connectivity. On site, the network was organized and managed by a subcontractor of eHealth Suisse (Cofex).





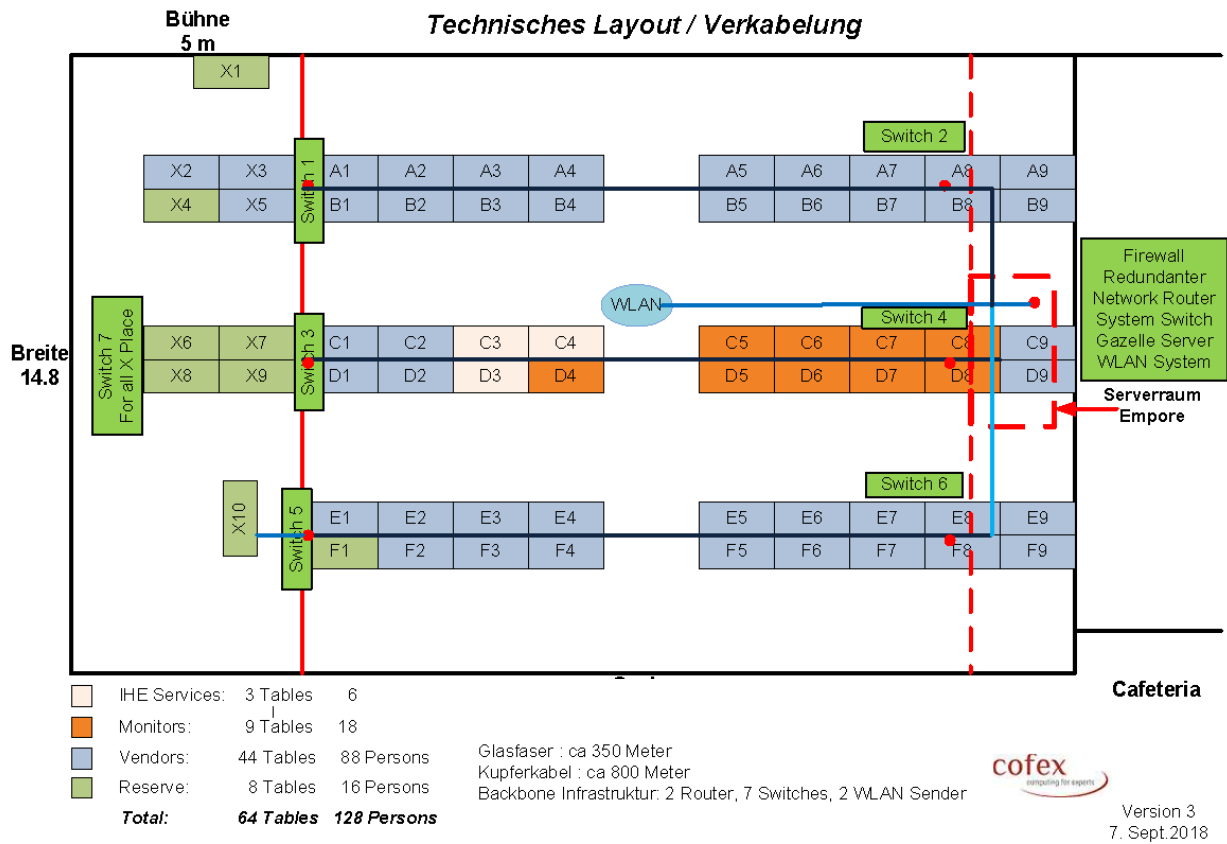
## Tools on the Machine

Support Tools		Version
Gazelle Test Management		5.9.3-SNAPSHOT
Proxy		4.5.0
Assertion Manager Gui		4.1.0
Demographic Data Server		4.1.1
Sharing Value Set Simulator		2.1.4
Test tools		Version
EVS Client		5.7.0
Gazelle HL7 Validator		3.4.2-SNAPSHOT
Schematron Validator		2.3.1
PatientManager		9.10.5
HPD Simulator		2.1.2
Gazelle Security Suite		5.7.2-SNAPSHOT
XDStarClient		2.3.8
XDS Testing		4.3.4
Gazelle Webservice Tester		1.3.0
CDAGenerator		2.2.1
Gazelle Fhir Validator		2.2.0
Web services		Version
Assertion Provider		rev #64567
ADR Provider		rev #64372
PPQ Repository		rev #64317
RMU Update Responder		rev #63953
ATC Patient Audit Record Repository		rev #64512
Authentication Simulator		0.1.0

During the EPR Projectathon, the same set of tools and simulators was used to assist testers and monitors in their tasks. The tools and versions are listed in the table above. Tools included test management, simulators and validation tools.

**Test Plan:** The test plan was elaborated based on the set of sequence diagrams available on Gazelle. The test list used during the Projectathon is available in Appendix B.

## Room set up



## Results

### Executed Tests

856 tests were executed during the Projectathon:

- 792 verified
- 54 partially verified
- 10 to be verified

Other tests:

- 80 aborted tests
- 10 paused tests
- 68 running tests

Summing up to a total of 1014 tests during the Projectathon. The results of the tests performed are provided in Appendix A.

### Reported Issues

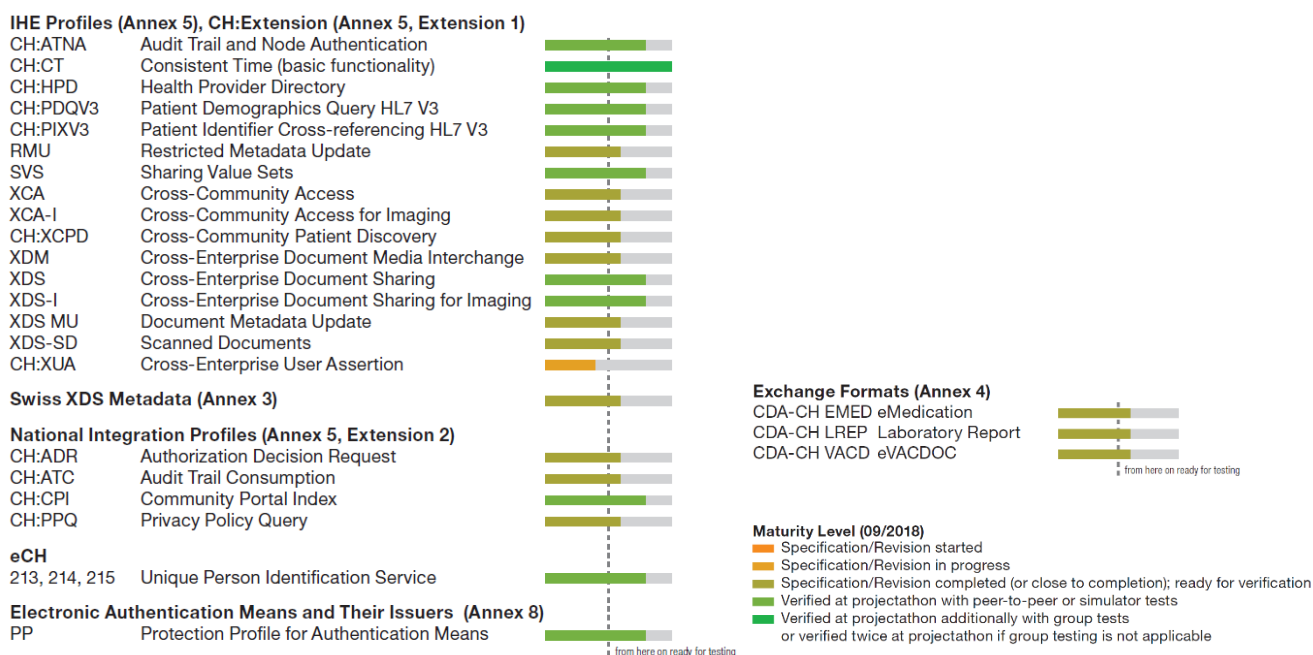
The outcome of the testing performed during the Projectathon is a set of 102 Jira reported issues/recommendations:

- 43 issues on specs
- 16 issues on tools
- 43 issues on test cases

The issues on specs are indicated in the second last column of Appendix A.

### Maturity levels

The maturity of the profiles, metadata and exchange formats of the Swiss EPR is graded into five levels, dependent on their readiness for testing (level 1, 2 and 3) or their verification at test events (level 4 and 5). Through the 2018 Bern Projectathon testing, the grade of five profiles could be lifted (from 3 to 4) whereas one profile, CH:XUA, had to be downgraded by one level (from 3 to 2). Changes in the maturity level are indicated in the last column of Appendix A. The following graphic shows the state of the maturity levels after the EPR Projectathon 2018.<sup>1</sup>



<sup>1</sup> For the original document on maturity levels see eHealth Suisse website: <https://www.e-health-suisse.ch/gemeinschaften-umsetzung/umsetzung/roadmap-einfuehrung-epd.html>.



## Quality Survey Results

A quality survey was performed at the end of the EPR Projectathon. Thirty participants responded to it. The detailed results are depicted in Appendix C, the following is a summary of the survey's results:

**Motivation:** Half of the responding participants are former participants in an IHE Connectathon and thus familiar with the process. The majority, though, has not participated in the precedent EPR Projectathons before. This reflects the fact that only half of the vendors at the Projectathon 2018 had already been present at Projectathon 2017 (12 firms out of 23). The motivation of the participants to take part was to test, develop and improve their software, to learn more about the EPR and to see how far they are compared to the competitors.

**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. The only downside was that some information was not available in English.

**Satisfaction with technical infrastructure:** Participants were in the vast majority satisfied with the gazelle tooling. There were some remarks on improvement for the management of meta actors and group tests. The network provider did an excellent job. Everyone was satisfied with the service offered.

**Opinion on monitors and event management:** The participants were satisfied with the monitors. Quick and accurate information was given if needed. One participant suggested that the monitors could coach the vendors more actively. Satisfaction with the event management, the location and venue was generally high.

**Market readiness:** According to the participants, 21.7 % of the tested products are ready to go on the market. A large share is targeting the market in less than six months or one year.

**Suggested improvements:** Several vendors suggested to add pictures of the participants—in Gazelle or another media—to facilitate the identification of testing partners. Some found the announcements on webinars etc. too short-handed. Others came up with the idea of having technical coffee breaks for exchange or to introduce short meetings in the morning to share some good practices. Several vendors remarked that an overall picture of the testing was missing.

**General remarks:** People praised the good spirit among the participants and liked the organisation and the location. On the other hand, some of them disliked the food, the long testing hours and that some tools were not 100 % ready.



## Conclusion

Altogether, the EPR Projectathon 2018 can be considered as **a successful event**:

- The goals as described on page 2 have been reached to a big extent.
- Compared to the first EPR Projectathon one year ago, many and huge improvements could be made, concerning several aspects:
  - o The number of the participating firms could be risen by 50 % (23 compared to 16 vendors in 2017); the firms were better prepared and a lot more tooling—in fact the whole set—was available than last year. The high participation contributed to the success of the event, bringing a large choice of testing partners together and leading to a steep learning curve.
  - o The number of verified tests could be increased almost fivefold (792 verified tests compared to 159 last year; altogether 856 tests executed in 2018 compared to 185 in 2017); thereby rising the maturity level of five profiles and contributing over 100 reported issues. The testing was much more efficiently organized and conducted. The complexity was stepwise increased, starting with peer-to-peer-tests in the beginning of the week and leading to group tests on Thursday and Friday.
  - o The participant's satisfaction with the organisation, communication, IT infrastructure and support of the monitors was generally higher than last year, meaning that the responsible parties eHealth Suisse, IHE Suisse and FOPH could include the lessons learnt from last year.
- There was no major “show blocker”. Thanks to the presence of many IHE specialists, upcoming questions could be solved in parallel extra sessions during the event.



There were also **a few challenges** which had to be faced during the event:

- The complexity of testing made it impossible to test the complete set of tests that had been created. Mainly the new profiles as RMU, ATC, PPQ and ADR were weakly tested.
- The maturity of the EPR profiles has not risen as much as expected. The profile CH:XUA had to be downgraded by one level.
- Some vendors faced difficulties with implementing the required and correct profiles before the event. One main vendor had to cancel its participation due to lack of human resources.
- Some more mature vendors, on the opposite, would have preferred to have complex testing from the beginning of the test week.

Hence, the responsible parties take the following **decisions regarding the further steps**:

- The testing has to continue in order to further enhance the maturity of the EPR profiles and the vendor's products. The next two main events will be the EPR Projectathon corner at the IHE Conncetathon in Rennes in April 2019 and the third Swiss EPR Projectathon in September 2019 in Bern. Since satisfaction with the location was high, the Swiss event will again take place in the Eventforum Bern.
- Additional measures to increase the maturity levels are subject of current discussions.
- Online testing is permanently available on the reference environment in Gazelle. All vendors are strongly encouraged to make further use of this testing opportunity, to give feedback and to participate in the above-mentioned events. In the future, the focus on pre-testing will be further strengthened.
- The communication via the Google group *epd\_Projectathon* will be continued. People wanting to join should [contact the group managers](#).
- The Jira tickets collected at the EPR Projectathon 2018 are processed by eHealth Suisse and FOPH or allocated to other parties (e.g. IHE Services Europe, working group "technic semantic integration").
- The revision of the EPR ordinance (EPRO) which is largely based on the results of the EPR Projectathon will take effect in 2019.





## Appendix A

Outcome of the Testing of the IHE Profiles (Annex 5), CH:Extension (Annex 5, Extension 1):

IHE Profiles (SR 816.111, Annex 5), CH:Extension (Annex 5, Extension 1)		Systems registered (without IHE tools)	Tests partially validated	Tests verified	Number Validations or Req/Resp (Total incl failed)	Issues reported <sup>2</sup>	Comments, Change in Maturity Level
CH:ATNA	Audit Trail and Node Authentication	28	1	99	167		Maturity level +1
CH:CT	Consistent Time (basic functionality)	26	0	24	0		
HPD, CH:PIDD	Health Provider Directory	13	2	29	476	EHS-145 EHS-138	
CH:PDQV3	Patient Demographics Query HL7 V3	20	5	85	680	EHS-156 EHS-109 TESEH-22	
CH:PIXV3	Patient Identifier Cross- referencing HL7 V3	25	6	194	986	EHS-137 EHS-119 EHS-120	
SVS	Sharing Value Sets	11	1	18	39		Maturity level +1
XCA	Cross-Community Access*	3	0	8	26		
XCA-I	Cross-Community Access for Imaging*	2	0	0	5		

<sup>2</sup> EHS stands for the responsibility of eHealth Suisse and TEHES for IHE Services Europe.

RMU	Restricted Metadata Update	2	0	0	0	TESEH-27 TESEH-26 TESEH-25 TESEH-24	
CH:XCPD	Cross-Community Patient Discovery	4	0	4	25	EHS-146 EHS-148 EHS-139	
XDM	Cross-Enterprise Document Media Interchange*	2	0	0	0		Systems registered, but they did not test
CH:XDS	Cross-Enterprise Document Sharing*	27	2	179	669	EHS-150 EHS-126 EHS-122 EHS-86	
XDS-I	Cross-Enterprise Document Sharing for Imaging*	14	2	21	33	EHS-143 EHS-142	Maturity level +1
XDS MU	Document Metadata Update*	0	0	0	0		No participants
XDS-SD	Scanned Documents*	3	0	6	0		
CH:XUA	Cross-Enterprise User Assertion	30	31	59	201	EHS-151 EHS-129 EHS-152 EHS-141 EHS-134 EHS-117 TESEH-29	Maturity level -1



Outcome of the Testing of the National Integration Profiles (Annex 5, Extension 2):

National Integration Profiles (Annex 5, Extension 2)		Systems registered (without IHE tools)	Tests partially validated	Tests verified	Number Validations or Req/Resp (Total incl failed)	Issues reported	Comments, Change in Maturity Level
CH:ADR	Authorization Decision Request	4	3	9	99	EHS-154 EHS-130 EHS-121 EHS-135 EHS-106 EHS-107 EHS-113 TESEH-20	
CH:ATC	Audit Trail Consumption	2	0	1	0		Systems registered, but they did not test
CH:CPI	Community Portal Index	5	0	6	0	TESEH-16 TESEH-19	Maturity Level +1
CH:PPQ	Privacy Policy Query	8	2	5	45	EHS-140	

Outcome of the Testing of eCH, Electronic Authentication Means and Their Issuers (Annex 8) and Exchange Formats (Annex 4):

eCH		Systems registered (without IHE tools)	Tests partially validated	Tests verified	Number Validations or Req/Resp (Total incl failed)	Issues reported	Comments, Change in Maturity Level
213, 214, 215	Unique Person Identification Service	7	0	22	87	EHS-48	
<b>Electronic Authentication Means and Their Issuers (Annex 8)</b>							
PP	Protection Profile for Authentication Means (idp)						included in CH:XUA in Gazelle Maturity Level +1
<b>Exchange Formats (Annex 4)</b>							
CDA-CH EMED eMedication		1	0	1	0		
CDA-CH LREP Laboratory Report		2	0	4	4	EHS-108	
CDA-CH VACD eVACDOC		1	0	1	1		

## Appendix B

These were the tests available during the Projectathon:

<a href="#">ADR_due_to_PPQ</a>
<a href="#">ADR_due_to_PPQ_for_Consumer</a>
<a href="#">ADR_due_to_PPQ_for_Provider</a>
<a href="#">ADR_due_to_XDS</a>
<a href="#">ADR_due_to_XDS_for_Consumer</a>
<a href="#">ADR_due_to_XDS_for_Consumer_Error_case</a>
<a href="#">ADR_due_to_XDS_for_Provider</a>
<a href="#">ATC_ARR_DoThisFirst</a>
<a href="#">ATC_ARR_NormalCases</a>
<a href="#">ATNA_Audit_Msg_Check</a>
<a href="#">ATNA_Authenticate_Error_Cases</a>
<a href="#">ATNA_Authenticate_with_Tool</a>
<a href="#">ATNA_Logging</a>
<a href="#">ATNA_Questionnaire</a>
<a href="#">CDA-CH-EMED_Import_document</a>
<a href="#">CDA-CH-LREP_Create_document</a>
<a href="#">CDA-CH-LREP_CreateAndImport_doc</a>
<a href="#">CDA-CH-LREP_Import_document</a>
<a href="#">CDA-CH-VACD_Import_document</a>

<a href="#">CH-ATC_Translate-Audit-Events</a>
<a href="#">Consistent_Time</a>
<a href="#">CPI_CIDD</a>
<a href="#">CPI_Community_Information_Query</a>
<a href="#">HP_access_images_Patient_In_RC</a>
<a href="#">HP_Directory_Feed_and_Updates</a>
<a href="#">HP_gets_document_Patient_1of3</a>
<a href="#">HP_gets_document_Patient_2of3</a>
<a href="#">HPD_Consumer_initiates_ITI-58</a>
<a href="#">HPD_Directory_responds_to_ITI-58</a>
<a href="#">HPD_Directory_responds_to_ITI-59</a>
<a href="#">HPD_Directory_Setup</a>
<a href="#">HPD_Provider_Info_Feed</a>
<a href="#">HPD_Provider_Info_Query</a>
<a href="#">HPD_Source_initiates_ITI-59</a>
<a href="#">HPProvidesDocumentForPatient</a>
<a href="#">IdP_XUA_HTTP_authentication</a>
<a href="#">IdP_XUA_SOAP_authentication</a>
<a href="#">ITI-57_Document_Administrator</a>

<a href="#">ITI-57_Document_Registry</a>
<a href="#">ITI-57_Update_Document_Set</a>
<a href="#">Patient_access_images_in_RC</a>
<a href="#">Patient_uploads_documentInRC</a>
<a href="#">PDQv3_Consumer_Test_Set</a>
<a href="#">PDQv3_Multiple_Query</a>
<a href="#">PDQv3_PDS_Tests_Prerequisite</a>
<a href="#">PDQv3_Special_Handling</a>
<a href="#">PDQv3_Supplier_Test_Case_1</a>
<a href="#">PDQv3_Supplier_Test_Case_2</a>
<a href="#">PIX_Load</a>
<a href="#">PIX_Mgr_Configuration</a>
<a href="#">PIXv3_CLIENT</a>
<a href="#">PIXV3_Consumer_initiates_ITI-45</a>
<a href="#">PIXv3_FEED</a>
<a href="#">PIXV3_Manager_Feed_Merge_PAT</a>
<a href="#">PIXV3_Manager_Feed_W_known_dom_P</a>
<a href="#">PIXV3_Manager_Feed_W_Unknown_dom_</a>
<a href="#">PIXV3_Manager_Feed_Wknownom_OLD</a>

<a href="#">PIXV3 Manager initiates ITI-46</a>
<a href="#">PIXV3 Manager Query Case1 PAT COPY</a>
<a href="#">PIXV3 Manager Query Case2 PAT</a>
<a href="#">PIXV3 Manager Query Case3 PAT</a>
<a href="#">PIXV3 Manager Query Case4 PAT</a>
<a href="#">PIXV3 Manager Query Case5 PAT</a>
<a href="#">PIXV3 Manager Query Case6 PAT</a>
<a href="#">PIXV3 Manager reponds to ITI-44</a>
<a href="#">PIXV3 Manager reponds to ITI-45</a>
<a href="#">PIXV3 Manager Update Notif</a>
<a href="#">PIXV3 Manager Update unknown dom_</a>
<a href="#">PIXV3 Query PAT</a>
<a href="#">PIXV3 Source Feed</a>
<a href="#">PIXV3 Source initiates ITI-44</a>
<a href="#">PIXV3 Source Merge</a>
<a href="#">PIXV3 Source Update</a>
<a href="#">PPQ AddPolicy</a>
<a href="#">PPQ AddPolicy for Repository</a>
<a href="#">PPQ DeletePolicy</a>
<a href="#">PPQ UpdatePolicy</a>
<a href="#">PPQ XACMLPolicy</a>
<a href="#">ProviderInformationDeltaDownload</a>

<a href="#">QP from UPI by Demographics SSN</a>
<a href="#">QueryHealthProviderDirectory</a>
<a href="#">Querying Community Portal Index</a>
<a href="#">Querying Metadata Index Service</a>
<a href="#">RMU-UpdateDocumentSet for Initiator</a>
<a href="#">RMU-UpdateDocumentSet for Responder</a>
<a href="#">SVS Consumer initiates ITI-48</a>
<a href="#">SVS Consumer initiates ITI-60</a>
<a href="#">SVS Retrieve Value Sets HTTP</a>
<a href="#">UPI cancel SPID</a>
<a href="#">UPI creating SPID for a patient</a>
<a href="#">UPI inactivate SPID</a>
<a href="#">UPI receive broadcast message</a>
<a href="#">UPI request from demographics</a>
<a href="#">UPI request person from NAVS</a>
<a href="#">UPI request person from SPID</a>
<a href="#">XC Read This First PAT</a>
<a href="#">XCA ITI-38 Cross Gateway Query</a>
<a href="#">XCA ITI-38 Initiating Gateway</a>
<a href="#">XCA ITI-38 Responding Gateway</a>
<a href="#">XCA ITI-39 Cross Gateway Retrieval</a>
<a href="#">XCA ITI-39 Initiating Gateway</a>

<a href="#">XCA ITI-39 Responding Gateway</a>
<a href="#">XCPD IG Query PAT</a>
<a href="#">XCPD Patient Discovery</a>
<a href="#">XCPD Responding GW Setup</a>
<a href="#">XCPD RG ITI55 PAT</a>
<a href="#">XCPD RG Prerequisite PAT</a>
<a href="#">XDS-I.b PnR CDA Imaging Report</a>
<a href="#">XDS-I.b PnR DICOM Manifest</a>
<a href="#">XDS-I.b PnR Img Doc Set for Repository</a>
<a href="#">XDS-I.b PnR Img Doc Set for Source</a>
<a href="#">XDS-I.b PnR PDF Report</a>
<a href="#">XDS-I.b PnR Text Report</a>
<a href="#">XDS-I.b Retrieve DICOM Doc</a>
<a href="#">XDS-I.b Retrieve Img Doc Set</a>
<a href="#">XDS-I.b Retrieve Img Doc Set for Consumer</a>
<a href="#">XDS-I.b Retrieve Img Doc Set for Source</a>
<a href="#">XDS.b ITI-18 Document Consumer</a>
<a href="#">XDS.b ITI-18 Document Registry</a>
<a href="#">XDS.b ITI-18 Reg Stored Query</a>
<a href="#">XDS.b ITI-41 Document Repository</a>
<a href="#">XDS.b ITI-41 Document Source</a>
<a href="#">XDS.b ITI-41 PnR Document</a>

<a href="#"><u>XDS.b ITI-42 Document Registry</u></a>
<a href="#"><u>XDS.b ITI-42 Document Repository</u></a>
<a href="#"><u>XDS.b ITI-42 Register Doc Set-b</u></a>
<a href="#"><u>XDS.b ITI-43 Document Consumer</u></a>
<a href="#"><u>XDS.b ITI-43 Document Repository</u></a>
<a href="#"><u>XDS.b ITI-43 Retrieve Doc Set</u></a>
<a href="#"><u>XDSSD Create PDF or Text</u></a>

<a href="#"><u>XDSSD Process PDF</u></a>
<a href="#"><u>XDSSD Process Text</u></a>
<a href="#"><u>XServiceUser HTTP authentication</u></a>
<a href="#"><u>XServiceUser SOAP authentication</u></a>
<a href="#"><u>XUA Assertion Validation Setup</u></a>
<a href="#"><u>XUA Authenticate User</u></a>
<a href="#"><u>XUA Authenticate User IdP Init</u></a>

<a href="#"><u>XUA Authenticate User XSU Init</u></a>
<a href="#"><u>XUA Get X-User Assertion</u></a>
<a href="#"><u>XUA Get X-User Assertion for user</u></a>
<a href="#"><u>XUA Provide X-User Assertion</u></a>
<a href="#"><u>XUA X-Service Provider Setup</u></a>

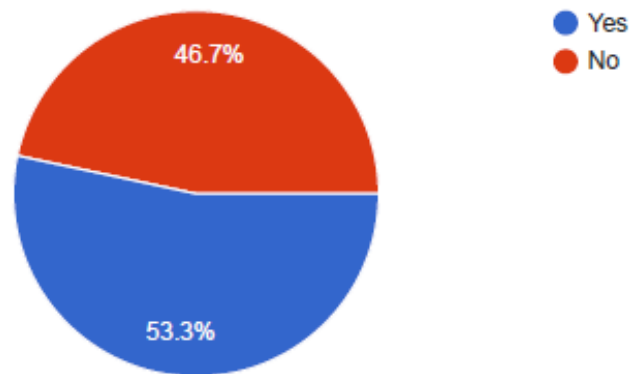


## Appendix C

Detailed answers on the quality survey results (30 responses out of 88 Projectathon participants):

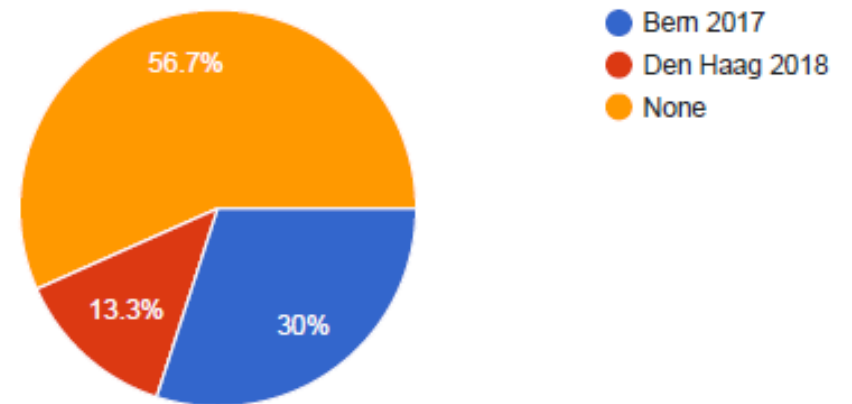
Have you ever participated to one of the European or North American IHE Connectathon

30 responses



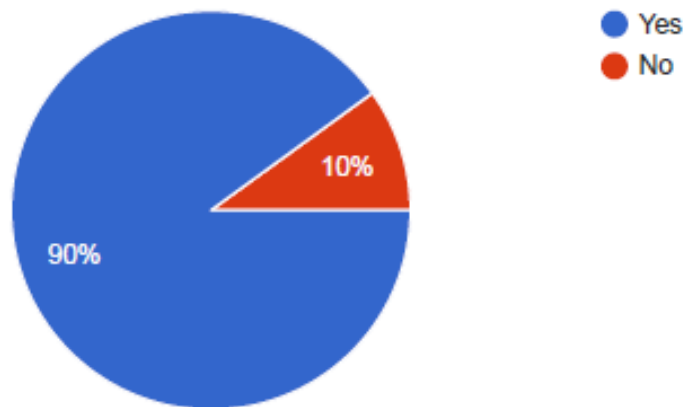
Have you ever participated to a EPR projectathon before

30 responses



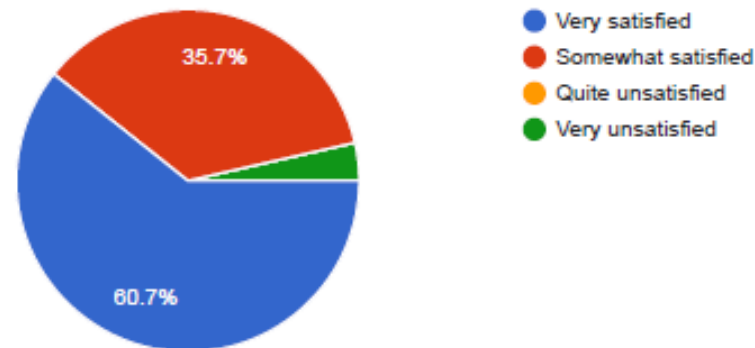
Could you easily find all information you needed on the website and the documentation to make your mind ?

30 responses



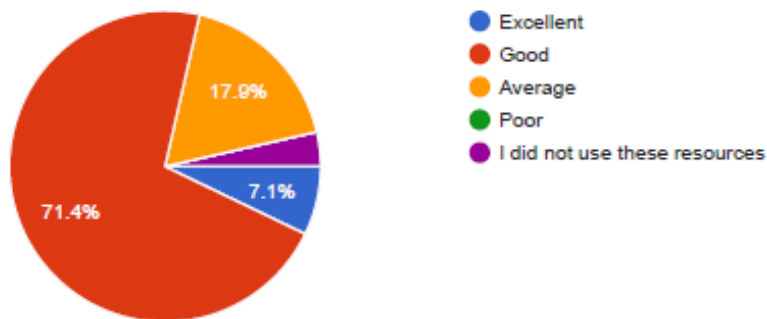
How can you describe your satisfaction regarding the registration process ?

28 responses



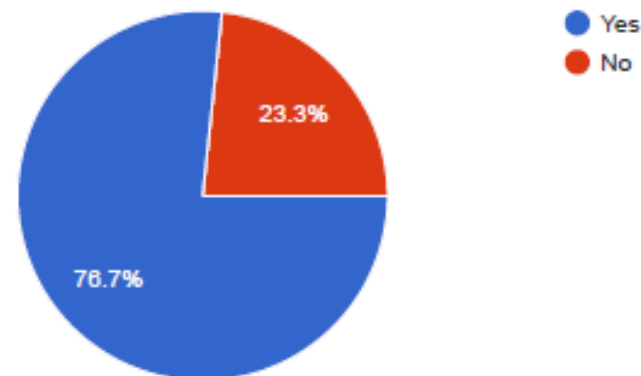
Please rate your satisfaction with the communication, Webinars, and the Technical Support Materials website used from registration till the event to help you prepare for Projectathon testing.

28 responses



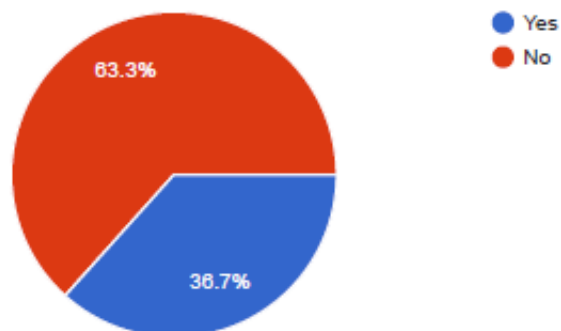
Is the Gazelle tool intuitive enough and easy to use?

30 responses



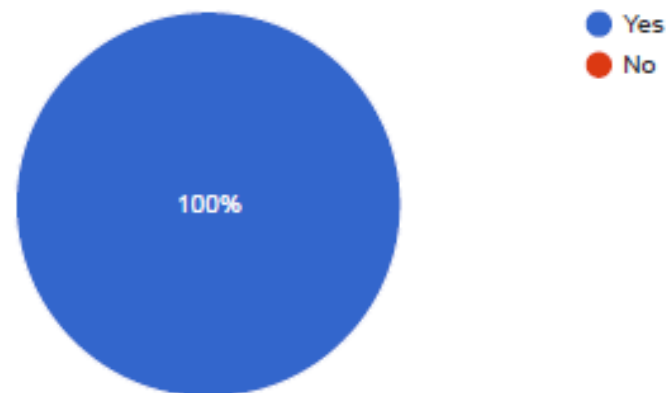
Did you report problems using the issue tracker tool  
(<https://gazelle.ihe.net/jira/servicedesk/customer/portal/8>) ?

30 responses



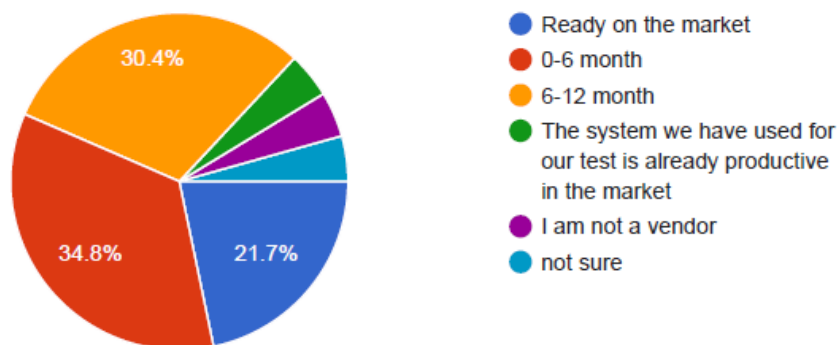
Was the network response time satisfactory enough?

29 responses



How far from the market is the system you have tested at the  
Projectathon ?

23 responses



How will you describe the location and venue; were you ?

30 responses

