ΚΟΙΝΟΠΡΑΞΙΑ: ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΥΠΡΟΥ ΚΑΙ ΥΠΟΥΡΓΕΙΟ ΥΓΕΙΑΣ

Project Title:

Deployment of Generic Cross Border eHealth Services in Cyprus

Agreement number: INEA/CEF/ICT/A2015/11S1451

Action No: 2015-CY-IA-0095

Τίτλος: Annex TE 4 NCPeH CY Pre-Production Testing Results

Release: v7.0

Αρ. Αναφ. Φακέλου: ΠΚ/2018/05/03

Λευκωσία 22 Ιουλίου, 2020

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2	21/06/2018	Ζήνωνας Αντωνίου Ιωάννης Κωνσταντίνου	ΠΚ	Δεύτερο Προσχέδιο
3	18/09/2018	Ζήνωνας Αντωνίου Ιωάννης Κωνσταντίνου	ΠΚ	Τρίτο Προσχέδιο
4	19/03/2019	Ζήνωνας Αντωνίου Ιωάννης Κωνσταντίνου Δρ Βάσος Σκουτέλλας Μιχάλης Αντωνίου	ΠΚ & ΥΥ	Τέταρτο Προσχέδιο
5	03/04/2019	Ζήνωνας Αντωνίου Ιωάννης Κωνσταντίνου Δρ Βάσος Σκουτέλλας Μιχάλης Αντωνίου	ΠΚ & ΥΥ	Πέμπτο Προσχέδιο
6	05/07/2019	Ζήνωνας Αντωνίου Ιωάννης Κωνσταντίνου Δρ Βάσος Σκουτέλλας Μιχάλης Αντωνίου	ΠΚ & ΥΥ	Έκτο Προσχέδιο
7	22/07/2020	Ζήνωνας Αντωνίου Ιωάννης Κωνσταντίνου Δρ ΒάσοςΣκουτέλλας Μιχάλης Αντωνίου	ΠΚ & ΥΥ	Τελική Έκδοση

Θεώρηση Εντύπου

Όνομα	Ιδιότητα	Ημερ. Θεώρησης
Δρ Βάσος Σκουτέλλας	Συντονιστής ελέγχου ποιότητας παραδοτέων	07/10/2020

Έγκριση Εντύπου

Όνομα	Ιδιότητα	Ημερ. Έγκρισης
Καθ. Χρίστος Σχίζας	Πρόεδρος Εθνικής Αρχής Ηλεκτρονική Υγείας	08/10/2020

Abstract

The eHDSI Test Framework defines a set of test-driven events that eHDSI Deploying Countries SHOULD (optional) and MUST (mandatory) undergo to prove by evidence the NCPeH technical gateway conformance with eHDSI Specifications.

Within the Test Events, Pre-Production-Testing we have the opportunity of joining deploying NCPeHs from Wave 1, 2 and 3. This Test Event is a 5 week-long event.

Also, the functional end-to-end testing takes place the final week of the testing events. Its purpose is to validate, from the user point of view, the process and the information presented to the health professional (end-user testing).

The evaluation is performed by health professionals along with semantic experts and is submitted using a questionnaire, the Evaluation form.

The testing results regarding the NCP CY Operations Validation and the results of the Functional End-2-End testing periods are presenting in this annex.

The University of Cyprus along with GNOMON are in charge for participating in Test Events and performing the necessary Pre-Production Tests.

Table of Contents

1 Introduction

This annex includes the testing results regarding the NCP CY Operations Validation through Gazelle test management system that took place during the Projectathon Events.

Also, this annex includes the results of the Functional End-2-End testing periods. The functional end-to-end testing takes place during the final week of the eHDSI testing events. Its purpose is to validate, from the user point of view, the process and the information presented to the health professional (end-user testing). The evaluation is performed by health professionals along with semantic experts and the feedback is submitted using a questionnaire.

1.1 NCP CY Operations Validation

To validate our Cyprus' NCP operations, we participated on the Formal Pre-Production -Testing Events – Wave 2, three times. The Report Summaries that include the results can be found below.

1.1.1 eHDSI - 2018-09 Preparatory Pre-Production-Testing - Wave 2

1. Report summary

1.1. Test Laboratory

Contact	Yacoubou WAOLANY
E-mail address	yacoubou.waolany@ext.ec.europa.eu

1.2. Tested Organization

Name	University of Cyprus
Mailing address	75, Kallipoleos, 1678 Nicosia Cyprus

1.3. Tested System(s)

eHDSI - 2018-09 Preparatory Pre-Production-Testing - Wave 2		
Product Name	Version	Owner
CY_NCP_A_PS_eP_eD_10_2018		Zinonas Antoniou
CY_NCP_B_PS_eP_eD_10_2018		Zinonas Antoniou
This testing session was held from 9/24/18 to 10/26/18		

1.4. Report identification

This report has been generated on 7/10/19 with identifier 2018.Europe.Connectathon.UCY.20190710002602

1.5. Disclaimer

This report summarizes the outcome of the testing performed by University of Cyprus during the connectathon eHDSI - 2018-09 Preparatory Pre-Production-Testing - Wave 2, it includes information about success and failure and should only be used internally. This report does not certify the capabilities of any commercial product offered by University of Cyprus. Potential purchasers of the organization's products should consult any IHE Integration Statements [http://product-registry.ihe.net] published by the organization to confirm the IHE profiles and actors supported by its products.

2. System : CY_NCP_A_PS_eP_eD_10_2018 ()

2.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
epSOS Identification Service	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	None	T	Pass
epSOS Patient Summary Document	Content Creator	Pivot Document Option	T	Pass
SMP	National Contact Point Country A	None	T	Pass
epSOS Consent Service	National Contact Point Country A	None	T	Pass
Non Repudiation Evidence Emitter	National Contact Point Country A	None	T	Pass
epSOS-Authentication	National Contact Point Country A	None	T	Pass
epSOS Security	Secure Node	None	T	Pass
epSOS Patient Service	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS Order Service	National Contact Point Country A	None	T	Did not complete
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS ePrescription Document	Content Creator	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Consumer	None	T	Pass
epSOS eDispensation Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Consumer	Friendly-A Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country A	None	T	Pass
T: thorough / S: supportive				

2.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
9	15	15	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

2.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

2.3.1. epSOS Identification Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.2. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.3. epSOS Patient Summary Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPA	1	R	15438 (ghysmat)		

2.3.4. SMP / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_ SI_Scrutiny	1	R	15430 (ghysmat)		
e-SENS_ SI_push	1	R	15431 (ghysmat)		

2.3.5. epSOS Consent Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.6. Non Repudiation Evidence Emitter / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_NCPA_NREE_Scrutiny	1	R	15442 (subigje)		

2.3.7. epSOS-Authentication / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Authorization	3	R	15381 (ghysmat) 15382 (ghysmat) 15383 (ghysmat) 15465 (ghysmat)		

2.3.8. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_Certificates	1	R	15387 (ghysmat)		

2.3.9. epSOS Patient Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_PS	3	R	15402 (ghysmat) 15406 (ghysmat) 15408 (ghysmat)		

2.3.10. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPA	1	R	15438 (ghysmat)		

2.3.11. epSOS Order Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_ePresc_eDispens	3	R	15405 (subigje) 15426 (ghysmat)		

2.3.12. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.13. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPA	1	R	15439 (ghysmat)		

2.3.14. epSOS ePrescription Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPA	1	R	15439 (ghysmat)		

2.3.15. epSOS eDispensation Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.16. epSOS eDispensation Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

2.3.17. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.18. epSOS eDispensation Document / Content Consumer / EPSOS_FRIENDLY_A

No test has been defined for this Integration Profile/Actor/Option

2.3.19. epSOS Dispensation Service / National Contact Point Country A / NONE

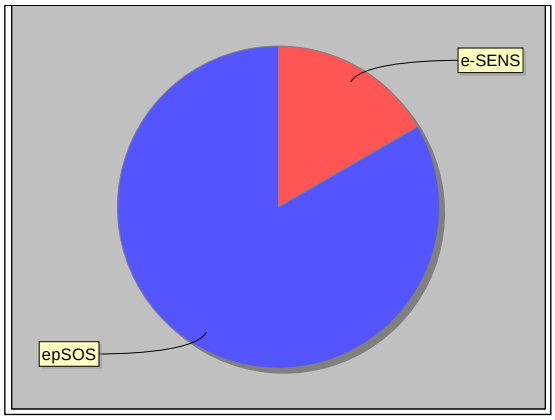
No test has been defined for this Integration Profile/Actor/Option

2.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

2.4.1. Test instances per domain

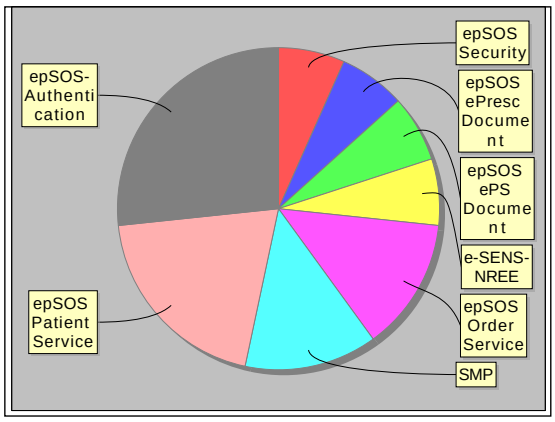
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	15
e-SENS	3

2.4.2. Test instances per integration profile

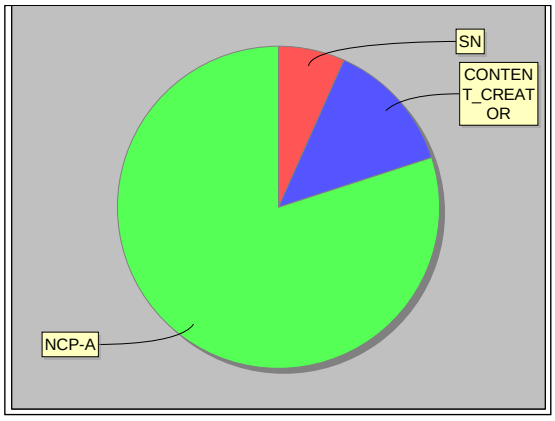
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	4
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	2
epSOS Patient Service	3
epSOS ePS Document	1
e-SENS-NREE	1
SMP	2

2.4.3. Test instances per actor

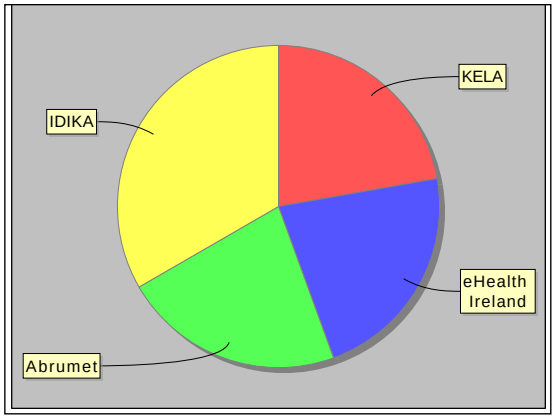
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-A	12
SN	1
CONTENT_CREATOR	2

2.4.4. Test instances per partner (organization level)

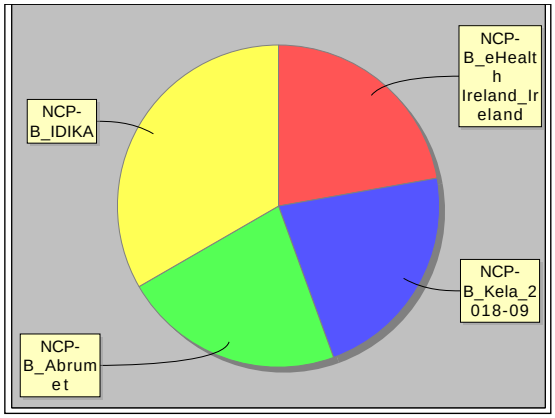
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
KELA	2
eHealth Ireland	2
Abrumet	2
IDIKA	3

2.4.5. Test instances per partner (system level)

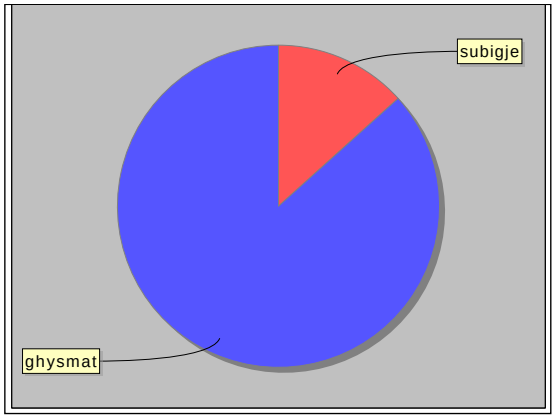
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-B_eHealth Ireland_Ireland	2
NCP-B_Kela_2018-09	2
NCP-B_IDIKA	3
NCP-B_Abrumet	2

2.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
subigje	2
ghysmat	13

3. System : CY_NCP_B_PS_eP_eD_10_2018 ()

3.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
epSOS Patient Summary Document	Content Creator	None	T	Pass
SMP	National Contact Point Country B	None	T	Pass
epSOS Patient Service	National Contact Point Country B	None	T	Did not complete
epSOS-Authentication	National Contact Point Country B	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-B Document Option	T	Pass
Non Repudiation Evidence Emitter	National Contact Point Country B	None	T	Pass
epSOS Patient Summary Document	Content Consumer	Pivot Document Option	T	Pass
epSOS Security	Secure Node	None	T	Pass
epSOS Patient Summary Document	Content Consumer	None	T	Pass
epSOS Consent Service	National Contact Point Country B	None	T	Pass
epSOS Identification Service	National Contact Point Country B	None	T	Pass
epSOS Order Service	National Contact Point Country B	None	T	Pass
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS ePrescription Document	Content Consumer	None	T	Pass
epSOS ePrescription Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country B	None	T	Pass
T: thorough / S: supportive				

3.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
10	13	13	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

3.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

3.3.1. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.2. SMP / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_ SSM_import	1	R	15450 (ghysmat)		

3.3.3. epSOS Patient Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_PS	3	R	15411 (ghysmat)		

3.3.4. epSOS-Authentication / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Authorization	3	R	15410 (ghysmat) 15440 (ghysmat) 15463 (ghysmat)		
epSOS_Scrutiny_SAML	1	R	15437 (ghysmat)		

3.3.5. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPB	1	R	15452 (ghysmat)		

3.3.6. Non Repudiation Evidence Emitter / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_NCPB_NREE_Scrutiny	1	R	15447 (subigje)		

3.3.7. epSOS Patient Summary Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.8. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_Certificates	1	R	15386 (ghysmat)		

3.3.9. epSOS Patient Summary Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.10. epSOS Consent Service / National Contact Point Country B / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.11. epSOS Identification Service / National Contact Point Country B / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.12. epSOS Order Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_ePresc_eDispens	3	R	15404 (subigje) 15427 (ghysmat)		

3.3.13. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.14. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPB	1	R	15451 (ghysmat)		

3.3.15. epSOS ePrescription Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.16. epSOS ePrescription Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.17. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.18. epSOS eDispensation Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPB	1	R	15453 (ghysmat)		

3.3.19. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPB	1	R	15453 (ghysmat)		

3.3.20. epSOS Dispensation Service / National Contact Point Country B / NONE

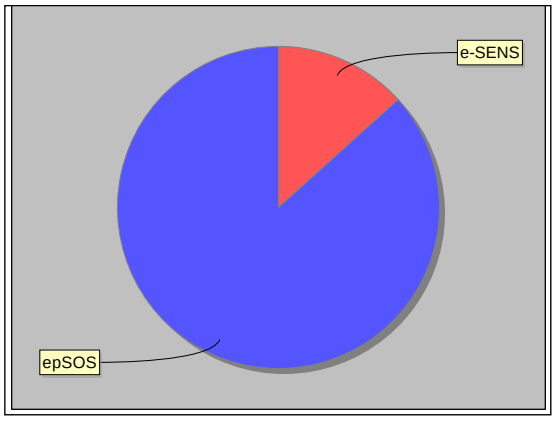
No test has been defined for this Integration Profile/Actor/Option

3.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

3.4.1. Test instances per domain

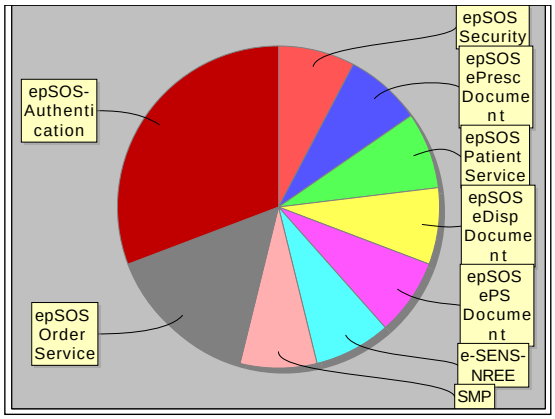
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	13
e-SENS	2

3.4.2. Test instances per integration profile

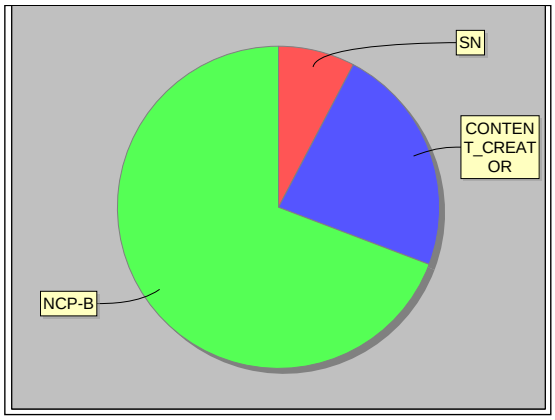
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	4
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	2
epSOS Patient Service	1
epSOS eDisp Document	1
epSOS ePS Document	1
e-SENS-NREE	1
SMP	1

3.4.3. Test instances per actor

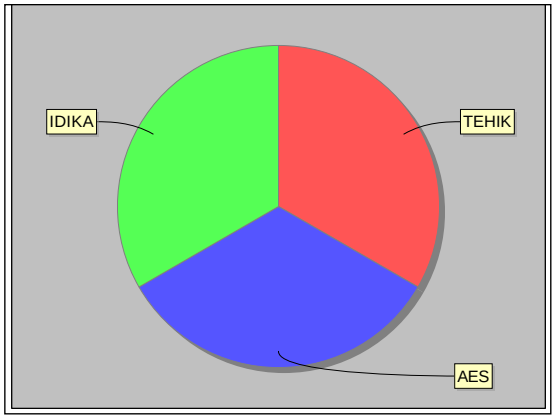
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-B	9
SN	1
CONTENT_CREATOR	3

3.4.4. Test instances per partner (organization level)

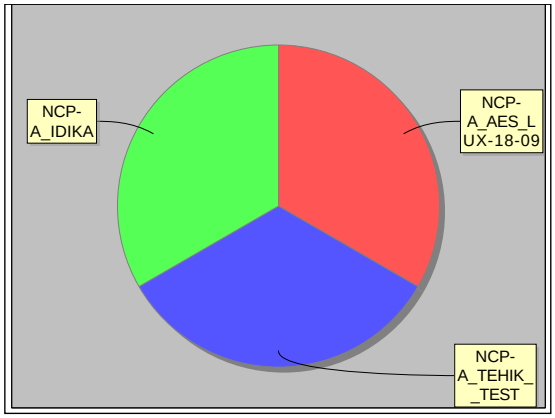
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
TEHIK	2
AES	2
IDIKA	2

3.4.5. Test instances per partner (system level)

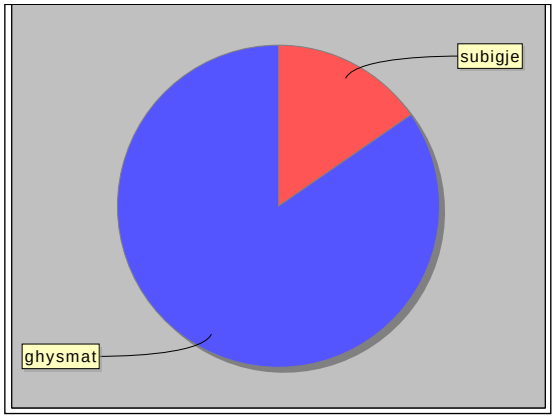
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-A_AES_LUX-18-09	2
NCP-A_TEHIK__TEST	2
NCP-A_IDIKA	2

3.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
subigje	2
ghysmat	11

The line below indicates the end of this report, any text below this line is not part of the initial content of this report

1.1.2 eHDSI - 2019-02 FORMAL Pre-Production-Testing - Wave 2

eHDSI - 2019-02 FORMAL Pre-Production-Testing - Wave 2

1. Report summary

1.1. Test Laboratory

Contact	Yacoubou WAOLANY
E-mail address	yacoubou.waolany@ext.ec.europa.eu

1.2. Tested Organization

Name	University of Cyprus
Mailing address	75, Kallipoleos, 1678 Nicosia Cyprus

1.3. Tested System(s)

eHDSI - 2019-02 FORMAL Pre-Production-Testing - Wave 2		
Product Name	Version	Owner
CY_NCP_A_PS_eP_eD_02_2019		Zinonas Antoniou
CY_NCP_B_PS_eP_eD_02_2019		Zinonas Antoniou
This testing session was held from 2/4/19 to 2/22/19		

1.4. Report identification

This report has been generated on 7/10/19 with identifier 2019.Europe.Connectathon.UCY.20190710005633

1.5. Disclaimer

This report summarizes the outcome of the testing performed by University of Cyprus during the connectathon eHDSI - 2019-02 FORMAL Pre-Production-Testing - Wave 2, it includes information about success and failure and should only be used internally. This report does not certify the capabilities of any commercial product offered by University of Cyprus. Potential purchasers of the organization's products should consult any IHE Integration Statements [http://product-registry.ihe.net] published by the organization to confirm the IHE profiles and actors supported by its products.

2. System : CY_NCP_A_PS_eP_eD_02_2019 ()

2.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
epSOS Security	Secure Node	None	T	Pass
epSOS-Authentication	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS Patient Service	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	None	T	Pass
Non Repudiation Evidence Emitter	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	Pivot Document Option	T	Pass
epSOS Identification Service	National Contact Point Country A	None	T	Pass
SMP	National Contact Point Country A	None	T	Pass
epSOS Order Service	National Contact Point Country A	None	T	Pass
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS ePrescription Document	Content Creator	Pivot Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country A	None	T	Pass
epSOS eDispensation Document	Content Consumer	None	T	Pass
epSOS eDispensation Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-A Document Option	T	Pass
T: thorough / S: supportive				

2.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
10	21	20	1	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

2.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

2.3.1. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_Certificates	1	R	15537 (ghysmat)		

2.3.2. epSOS-Authentication / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Authorization	3	R	15532 (subigje) 15539 (caodieg) 15569 (ghysmat) 15620 (subigje) 15652 (ghysmat)	15666 (ghysmat)	

2.3.3. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPA	1	R	15558 (ghysmat)		

2.3.4. epSOS Patient Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_PS	3	R	15592 (ghysmat) 15643 (ghysmat) 15647 (subigje) 15650 (ghysmat)		

2.3.5. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.6. Non Repudiation Evidence Emitter / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_NCPA_NREE_Scrutiny	1	R	15570 (ghysmat)		

2.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPA	1	R	15558 (ghysmat)		

2.3.8. epSOS Identification Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.9. SMP / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_ SI_Scrutiny	1	R	15551 (subigje)		
e-SENS_ SI_push	1	R	15552 (ghysmat)		

2.3.10. epSOS Order Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_ePresc_eDispens	3	R	15616 (ghysmat) 15625 (ghysmat) 15626 (ghysmat) 15631 (ghysmat)		

2.3.11. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.12. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPA	1	R	15561 (ghysmat)		

2.3.13. epSOS ePrescription Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPA	1	R	15561 (ghysmat)		

2.3.14. epSOS Dispensation Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.15. epSOS eDispensation Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.16. epSOS eDispensation Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

2.3.17. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.18. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

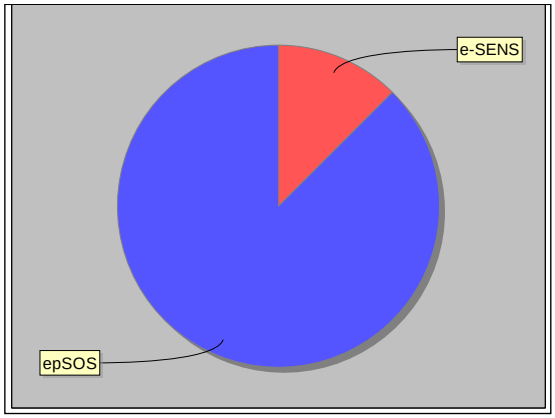
Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPA	1	R	15559 (ghysmat)		

2.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

2.4.1. Test instances per domain

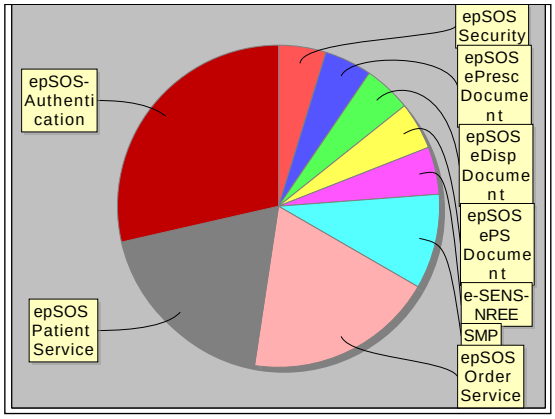
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	21
e-SENS	3

2.4.2. Test instances per integration profile

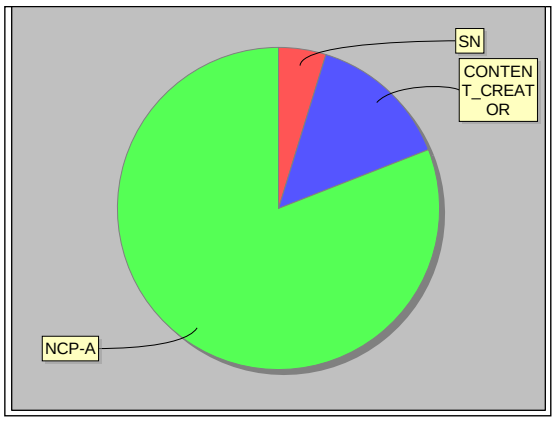
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	6
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	4
epSOS Patient Service	4
epSOS eDisp Document	1
epSOS ePS Document	1
e-SENS-NREE	1
SMP	2

2.4.3. Test instances per actor

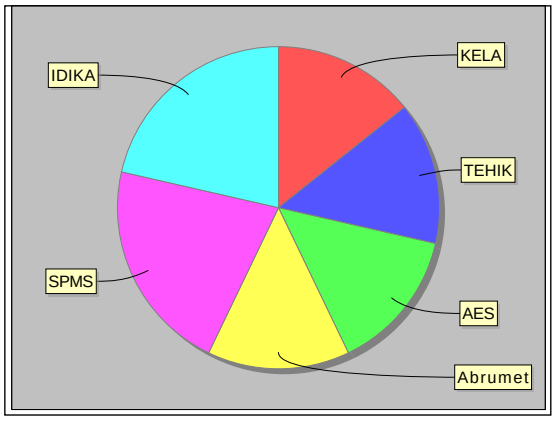
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-A	17
SN	1
CONTENT_CREATOR	3

2.4.4. Test instances per partner (organization level)

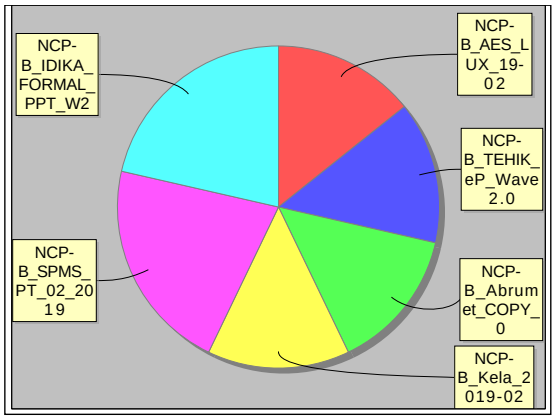
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
KELA	2
TEHIK	2
AES	2
SPMS	3
Abrumet	2
IDIKA	3

2.4.5. Test instances per partner (system level)

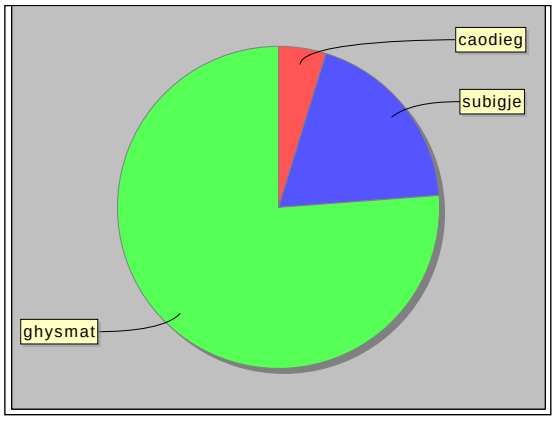
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-B_SPMS_PT_02_2019	3
NCP-B_AES_LUX_19-02	2
NCP-B_IDIKA_FORMAL_PPT_W2	3
NCP-B_TEHIK_eP_Wave2.0	2
NCP-B_Abrumet_COPY_0	2
NCP-B_Kela_2019-02	2

2.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
subigje	4
ghysmat	16
caodieg	1

3. System : CY_NCP_B_PS_eP_eD_02_2019 ()

3.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
Non Repudiation Evidence Emitter	National Contact Point Country B	None	T	Pass
epSOS Patient Summary Document	Content Creator	None	T	Pass
epSOS Patient Summary Document	Content Consumer	Pivot Document Option	T	Pass
epSOS Patient Summary Document	Content Consumer	None	T	Pass
epSOS-Authentication	National Contact Point Country B	None	T	Pass
epSOS Security	Secure Node	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS Identification Service	National Contact Point Country B	None	T	Pass
epSOS Patient Service	National Contact Point Country B	None	T	Did not complete
SMP	National Contact Point Country B	None	T	Pass
epSOS Order Service	National Contact Point Country B	None	T	Pass
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS ePrescription Document	Content Consumer	None	T	Pass
epSOS ePrescription Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country B	None	T	Pass
T: thorough / S: supportive				

3.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
10	18	16	2	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

3.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

3.3.1. Non Repudiation Evidence Emitter / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_NCPB_NREE_Scrutiny	1	R	15572 (ghysmat)		

3.3.2. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.3. epSOS Patient Summary Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.4. epSOS Patient Summary Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.5. epSOS-Authentication / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Authorization	3	R	15554 (bugilje) 15556 (ghysmat) 15639 (subigje) 15665 (bugilje)	15555 (subigje)	
epSOS_Scrutiny_SAML	1	R	15553 (subigje)		

3.3.6. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_Certificates	1	R	15536 (ghysmat)		

3.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPB	1	R	15563 (ghysmat)		

3.3.8. epSOS Identification Service / National Contact Point Country B / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.9. epSOS Patient Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_PS	3	R	15573 (ghysmat) 15575 (ghysmat)	15574 (subigje)	

3.3.10. SMP / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_ SSM_import	1	R	15576 (ghysmat)		

3.3.11. epSOS Order Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_ePresc_eDispens	3	R	15564 (ghysmat) 15565 (ghysmat) 15566 (ghysmat)		

3.3.12. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.13. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPB	1	R	15562 (ghysmat)		

3.3.14. epSOS ePrescription Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.15. epSOS ePrescription Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.16. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.17. epSOS eDispensation Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPB	1	R	15560 (ghysmat)		

3.3.18. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPB	1	R	15560 (ghysmat)		

3.3.19. epSOS Dispensation Service / National Contact Point Country B / NONE

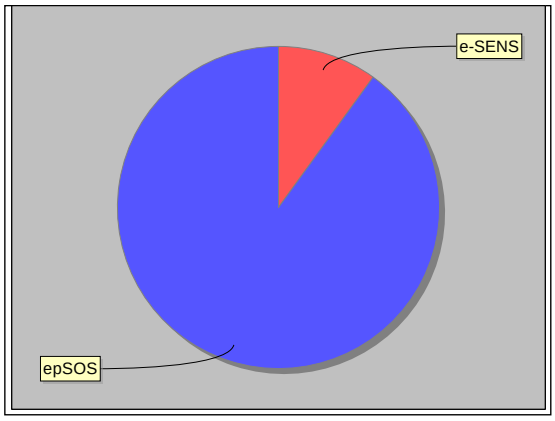
No test has been defined for this Integration Profile/Actor/Option

3.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

3.4.1. Test instances per domain

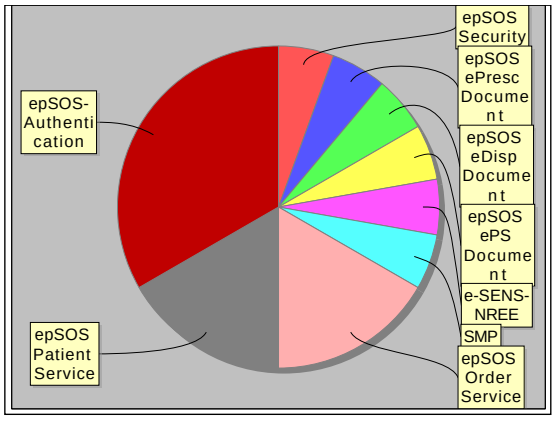
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	18
e-SENS	2

3.4.2. Test instances per integration profile

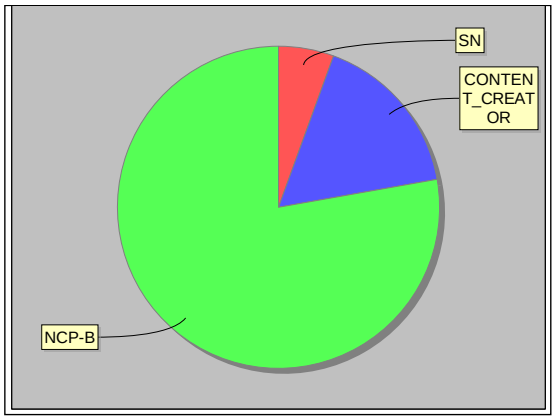
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	6
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	3
epSOS Patient Service	3
epSOS eDisp Document	1
epSOS ePS Document	1
e-SENS-NREE	1
SMP	1

3.4.3. Test instances per actor

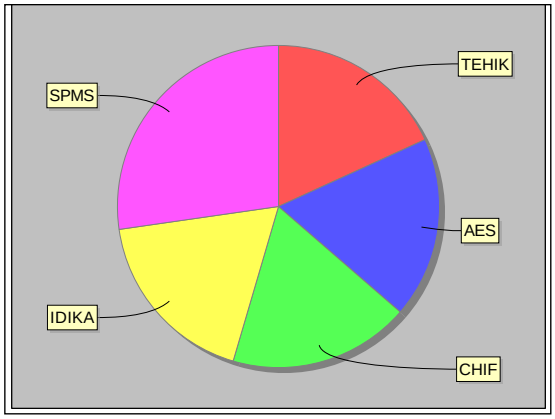
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-B	14
SN	1
CONTENT_CREATOR	3

3.4.4. Test instances per partner (organization level)

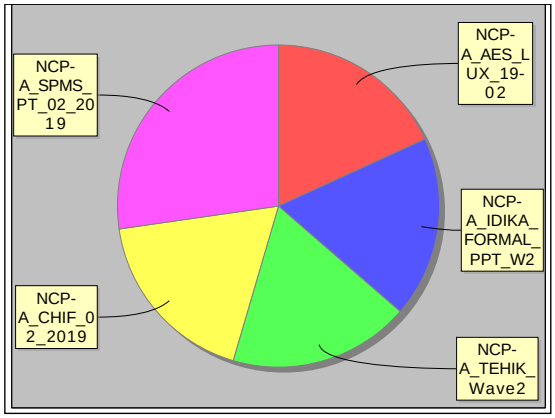
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
TEHIK	2
AES	2
CHIF	2
SPMS	3
IDIKA	2

3.4.5. Test instances per partner (system level)

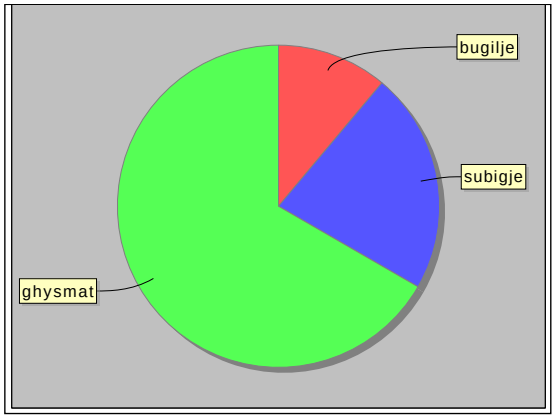
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-A_SPMS_PT_02_2019	3
NCP-A_AES_LUX_19-02	2
NCP-A_IDIKA_FORMAL_PPT_W2	2
NCP-A_TEHIK_Wave2	2
NCP-A_CHIF_02_2019	2

3.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
bugilje	2
subigje	4
ghysmat	12

The line below indicates the end of this report, any text below this line is not part of the initial content of this report

1.1.3 eHDSI - 2019-06 FORMAL Re-Testing - Wave 1 (upgrade), Wave 2 (re-test), Wave 3 (Connectivity)

eHDSI - 2019-06 FORMAL Re-Testing - Wave 1 (upgrade), Wave 2 (re-test), Wave 3 (Connectivity)

1. Report summary

1.1. Test Laboratory

Contact	Yacoubou WAOLANY
E-mail address	yacoubou.waolany@ext.ec.europa.eu

1.2. Tested Organization

Name	University of Cyprus
Mailing address	75, Kallipoleos, 1678 Nicosia Cyprus

1.3. Tested System(s)

eHDSI - 2019-06 FORMAL Re-Testing - Wave 1 (upgrade), Wave 2 (re-test), Wave 3 (Connectivity)		
Product Name	Version	Owner
CY_NCP_A_PS_eP_eD_June_2019		Zinonas Antoniou
CY_NCP_B_PS_eP_eD_June_2019		Zinonas Antoniou
This testing session was held from 6/3/19 to 7/5/19		

1.4. Report identification

This report has been generated on 7/10/19 with identifier 2019.Europe.Connectathon.UCY.20190710005707

1.5. Disclaimer

This report summarizes the outcome of the testing performed by University of Cyprus during the connectathon eHDSI - 2019-06 FORMAL Re-Testing - Wave 1 (upgrade), Wave 2 (re-test), Wave 3 (Connectivity), it includes information about success and failure and should only be used internally. This report does not certify the capabilities of any commercial product offered by University of Cyprus. Potential purchasers of the organization's products should consult any IHE Integration Statements [http://product-registry.ihe.net] published by the organization to confirm the IHE profiles and actors supported by its products.

2. System : CY_NCP_A_PS_eP_eD_June_2019 ()

2.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
epSOS Security	Secure Node	None	T	Did not complete
epSOS-Authentication	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-A Document Option	T	Did not complete
epSOS Patient Service	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	None	T	Pass
Non Repudiation Evidence Emitter	National Contact Point Country A	None	T	Did not complete
epSOS Patient Summary Document	Content Creator	Pivot Document Option	T	Did not complete
epSOS Identification Service	National Contact Point Country A	None	T	Pass
SMP	National Contact Point Country A	None	T	Did not complete
epSOS Order Service	National Contact Point Country A	None	T	Did not complete
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-A Document Option	T	Did not complete
epSOS ePrescription Document	Content Creator	Pivot Document Option	T	Did not complete
epSOS Dispensation Service	National Contact Point Country A	None	T	Pass
epSOS eDispensation Document	Content Consumer	None	T	Pass
epSOS eDispensation Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-A Document Option	T	Did not complete
T: thorough / S: supportive				

2.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
3	10	10	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

2.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

2.3.1. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_Certificates	1	R			

2.3.2. epSOS-Authentication / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Authorization	3	R	15753 (ghysmat) 15759 (ghysmat) 15771 (bugilje) 15792 (VALLELU) 15862 (subigre)		

2.3.3. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPA	1	R			

2.3.4. epSOS Patient Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_PS	3	R	15828 (fbulckaen) 15899 (VALLELU) 15903 (subigre) 15911 (subigre)		

2.3.5. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.6. Non Repudiation Evidence Emitter / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_NCPA_NREE_Scrutiny	1	R			

2.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPA	1	R			

2.3.8. epSOS Identification Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.9. SMP / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_ SI_Scrutiny	1	R			
e-SENS_ SI_push	1	R			

2.3.10. epSOS Order Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_ePresc_eDispens	3	R	15901 (ghysmat)		

2.3.11. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.12. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPA	1	R			

2.3.13. epSOS ePrescription Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPA	1	R			

2.3.14. epSOS Dispensation Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.15. epSOS eDispensation Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.16. epSOS eDispensation Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

2.3.17. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.18. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

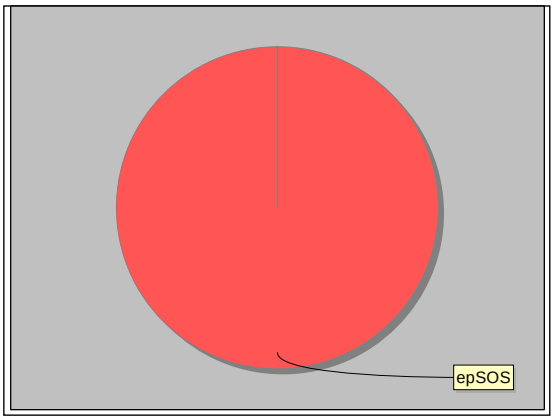
Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPA	1	R			

2.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

2.4.1. Test instances per domain

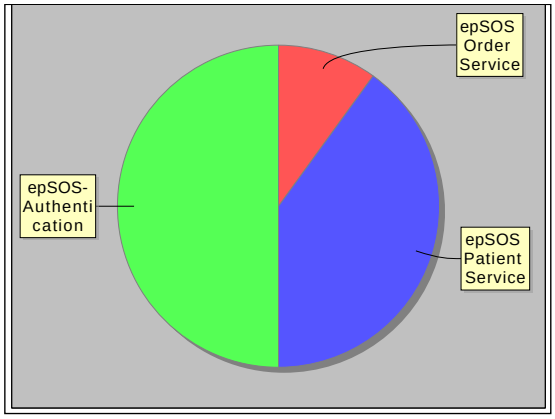
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	10

2.4.2. Test instances per integration profile

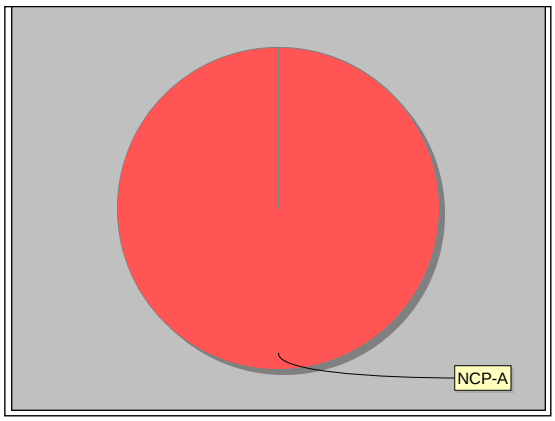
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	5
epSOS Order Service	1
epSOS Patient Service	4

2.4.3. Test instances per actor

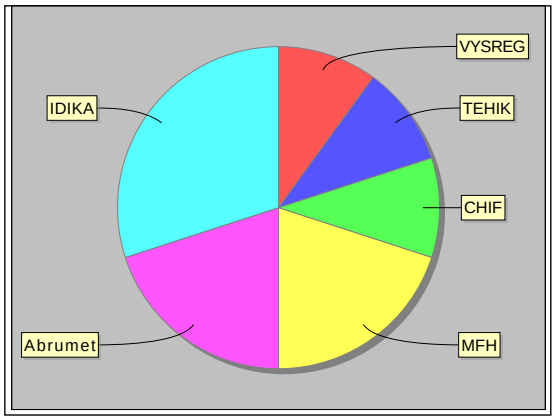
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-A	10

2.4.4. Test instances per partner (organization level)

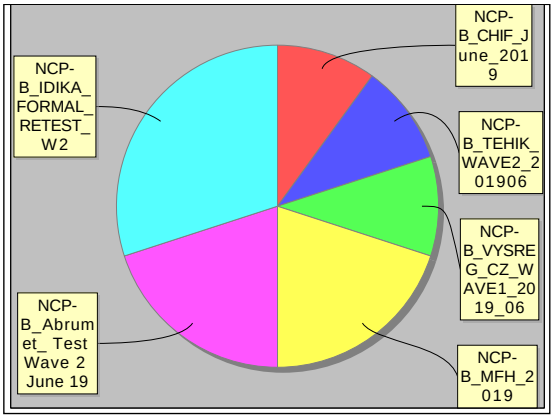
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
VYSREG	1
TEHIK	1
MFH	2
CHIF	1
Abrumet	2
IDIKA	3

2.4.5. Test instances per partner (system level)

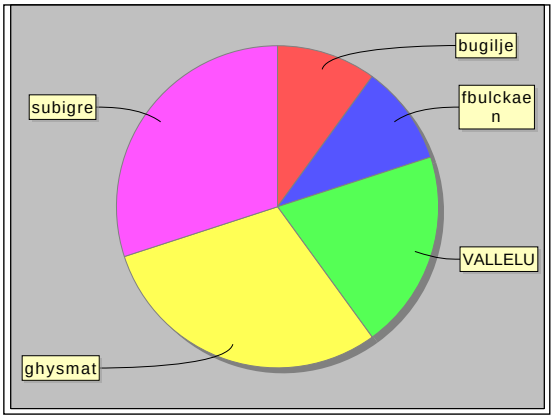
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-B_CHIF_June_2019	1
NCP-B_MFH_2019	2
NCP-B_IDIKA_FORMAL_RETEST_W2	3
NCP-B_TEHIK_WAVE2_201906	1
NCP-B_VYSREG_CZ_WAVE1_2019_06	1
NCP-B_Abrumet_ Test Wave 2 June 19	2

2.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
bugilje	1
VALLELU	2
ghysmat	3
subigre	3
fbulckaen	1

3. System : CY_NCP_B_PS_eP_eD_June_2019 ()

3.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
epSOS Patient Summary Document	Content Consumer	Pivot Document Option	T	Pass
epSOS Security	Secure Node	None	T	Did not complete
epSOS Dispensation Service	National Contact Point Country B	None	T	Pass
epSOS eDispensation Document	Content Creator	Pivot Document Option	T	Did not complete
epSOS ePrescription Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-B Document Option	T	Did not complete
epSOS ePrescription Document	Content Consumer	None	T	Pass
epSOS Patient Summary Document	Content Consumer	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-B Document Option	T	Did not complete
epSOS Order Service	National Contact Point Country B	None	T	Did not complete
epSOS Identification Service	National Contact Point Country B	None	T	Pass
epSOS Patient Service	National Contact Point Country B	None	T	Pass
SMP	National Contact Point Country B	None	T	Did not complete
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-B Document Option	T	Did not complete
epSOS Patient Summary Document	Content Creator	None	T	Pass
Non Repudiation Evidence Emitter	National Contact Point Country B	None	T	Did not complete
epSOS-Authentication	National Contact Point Country B	None	T	Pass
T: thorough / S: supportive				

3.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
4	11	11	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

3.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

3.3.1. epSOS Patient Summary Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.2. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_Certificates	1	R			

3.3.3. epSOS Dispensation Service / National Contact Point Country B / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.4. epSOS eDispensation Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPB	1	R			

3.3.5. epSOS ePrescription Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.6. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_PS_NCPB	1	R			

3.3.8. epSOS ePrescription Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.9. epSOS Patient Summary Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.10. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_ePresc_NCPB	1	R			

3.3.11. epSOS Order Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_ePresc_eDispens	3	R	15796 (VALLELU) 15924 (subigre)		

3.3.12. epSOS Identification Service / National Contact Point Country B / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.13. epSOS Patient Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_WF_PS	3	R	15840 (fbulckaen) 15859 (VALLELU) 15914 (subigre)		

3.3.14. SMP / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_ SSM_import	1	R			

3.3.15. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.16. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Scrutiny_eDisp_NCPB	1	R			

3.3.17. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.18. Non Repudiation Evidence Emitter / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
e-SENS_NCPB_NREE_Scrutiny	1	R			

3.3.19. epSOS-Authentication / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

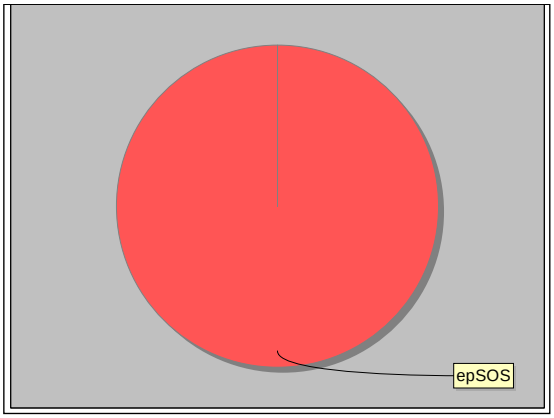
Test (Meta Test)	#	Opt	Verified	Failed	Partially V
epSOS_Authorization	3	R	15775 (waolaya) 15777 (waolaya) 15778 (waolaya) 15791 (waolaya) 15831 (subigre)		
epSOS_Scrutiny_SAML	1	R	15780 (subigre)		

3.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

3.4.1. Test instances per domain

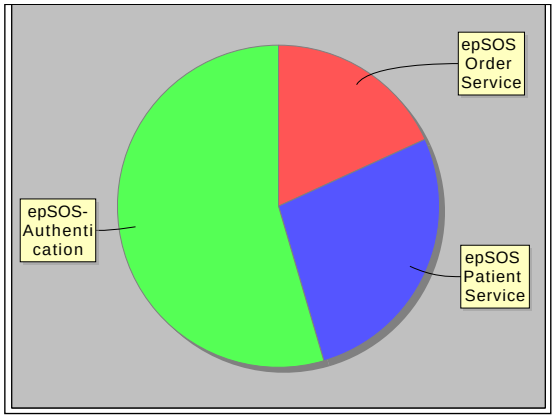
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	11

3.4.2. Test instances per integration profile

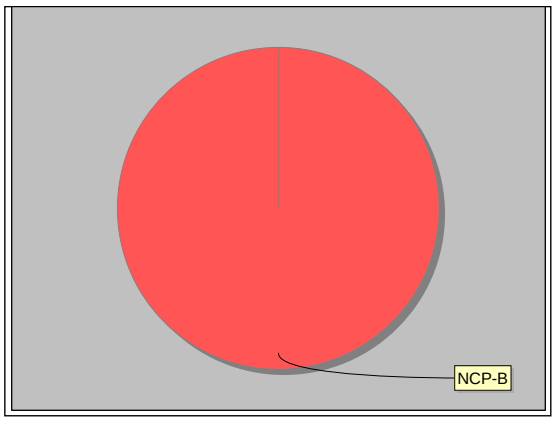
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	6
epSOS Order Service	2
epSOS Patient Service	3

3.4.3. Test instances per actor

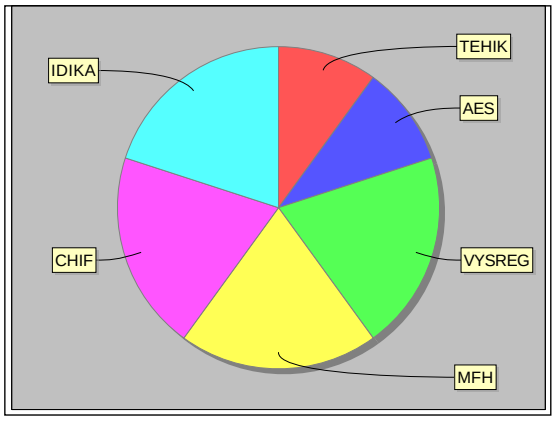
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-B	11

3.4.4. Test instances per partner (organization level)

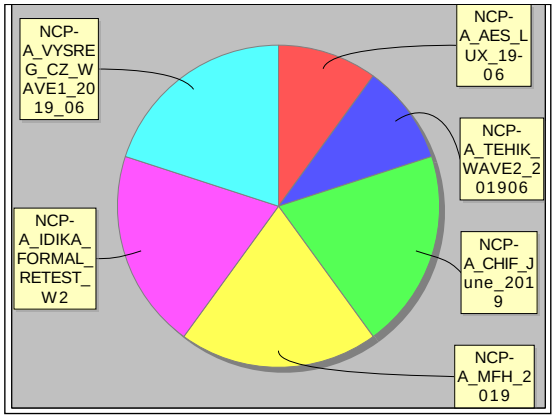
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
VYSREG	2
TEHIK	1
AES	1
MFH	2
CHIF	2
IDIKA	2

3.4.5. Test instances per partner (system level)

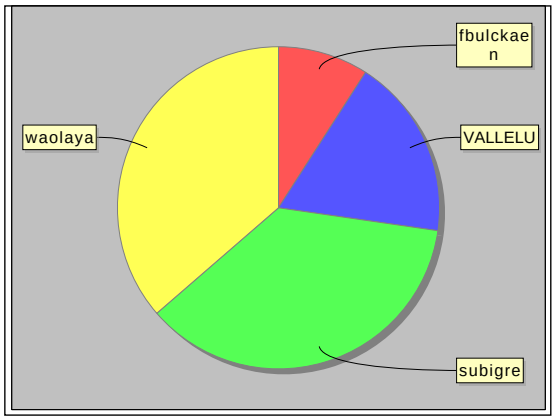
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-A_CHIF_June_2019	2
NCP-A_MFH_2019	2
NCP-A_AES_LUX_19-06	1
NCP-A_IDIKA_FORMAL_RETEST_W2	2
NCP-A_TEHIK_WAVE2_201906	1
NCP-A_VYSREG_CZ_WAVE1_2019_06	2

3.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
VALLELU	2
subigre	4
waolaya	4
fbulckaen	1

The line below indicates the end of this report, any text below this line is not part of the initial content of this report

1.1.4 eHDSI - 2019-10 eHDSI Wave 3 Preparatory (PPT) Pre-Production-Testing

eHDSI - 2019-10 Wave 3 Preparatory (PPT) Pre-Production-Testing

1. Report summary

1.1. Test Laboratory

Contact	Yacoubou WAOLANY
E-mail address	yacoubou.waolany@ext.ec.europa.eu

1.2. Tested Organization

Name	University of Cyprus
Mailing address	75, Kallipoleos, 1678 Nicosia Cyprus

1.3. Tested System(s)

eHDSI - 2019-10 Wave 3 Preparatory (PPT) Pre-Production-Testing		
Product Name	Version	Owner
CY_NCP_A_PS_eP_eD_10_2019		Zinonas Antoniou
CY_NCP_B_PS_eP_eD_10_2019		Zinonas Antoniou
This testing session was held from 10/14/19 to 11/15/19		

1.4. Report identification

This report has been generated on 7/24/20 with identifier 2019.Europe.Connectathon.UCY.20200724151740

1.5. Disclaimer

This report summarizes the outcome of the testing performed by University of Cyprus during the connectathon eHDSI - 2019-10 Wave 3 Preparatory (PPT) Pre-Production-Testing, it includes information about success and failure and should only be used internally. This report does not certify the capabilities of any commercial product offered by University of Cyprus. Potential purchasers of the organization's products should consult any IHE Integration Statements [http://product-registry.ihe.net] published by the organization to confirm the IHE profiles and actors supported by its products.

2. System : CY_NCP_A_PS_eP_eD_10_2019 ()

2.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
epSOS Security	Secure Node	None	T	Pass
epSOS-Authentication	National Contact Point Country A	None	T	Did not complete
epSOS Patient Summary Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS Patient Service	National Contact Point Country A	None	T	Did not complete
epSOS Patient Summary Document	Content Creator	None	T	Pass
Non Repudiation Evidence Emitter	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	Pivot Document Option	T	Pass
epSOS Identification Service	National Contact Point Country A	None	T	Pass
SMP	National Contact Point Country A	None	T	Pass
epSOS Order Service	National Contact Point Country A	None	T	Pass
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS ePrescription Document	Content Creator	Pivot Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country A	None	T	Pass
epSOS eDispensation Document	Content Consumer	None	T	Pass
epSOS eDispensation Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-A Document Option	T	Pass
T: thorough / S: supportive				

2.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
10	20	20	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

2.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

2.3.1. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_Certificates	1	R			

2.3.2. epSOS-Authentication / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Authorization	3	R	15976 (VALLELU) 16087 (subigre) 16127 (subigre) 16164 (subigre) 16168 (subigre) 16220 (subigre)		

2.3.3. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_PS_NCPA	1	R			

2.3.4. epSOS Patient Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_Patient_Summary	3	R			

2.3.5. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.6. Non Repudiation Evidence Emitter / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_NREE_Scrutiny_NCPA	1	R			

2.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_PS_NCPA	1	R			

2.3.8. epSOS Identification Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.9. SMP / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_SMP_SI_Push	1	R			
eHDSI_SMP_SI_Scrutiny	1	R			

2.3.10. epSOS Order Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_ePresc_eDispens	3	R			

2.3.11. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.12. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_ePresc_NCPA	1	R			

2.3.13. epSOS ePrescription Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_ePresc_NCPA	1	R			

2.3.14. epSOS Dispensation Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.15. epSOS eDispensation Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.16. epSOS eDispensation Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

2.3.17. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.18. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

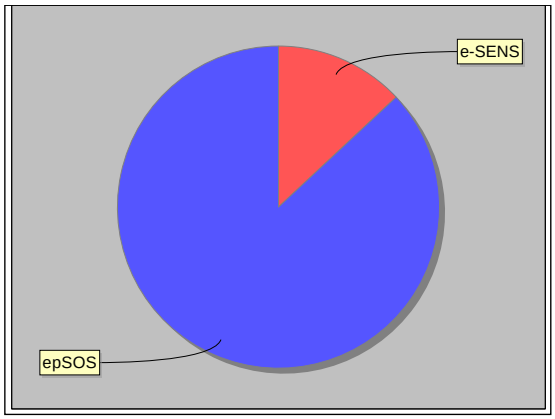
Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_eDisp_NCPA	1	R			

2.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

2.4.1. Test instances per domain

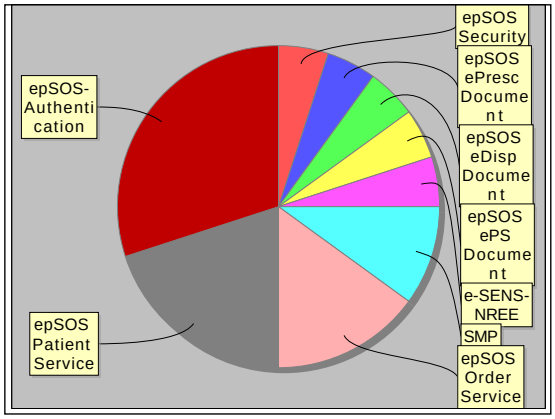
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	20
e-SENS	3

2.4.2. Test instances per integration profile

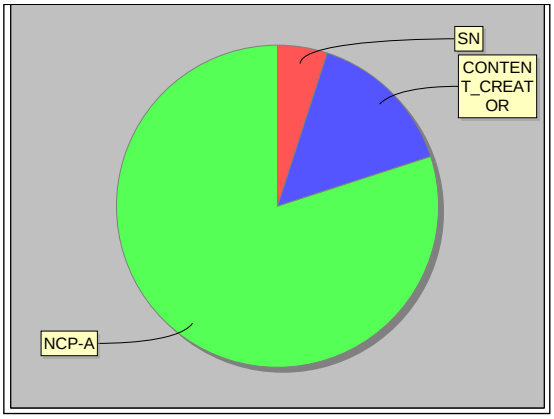
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	6
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	3
epSOS Patient Service	4
epSOS eDisp Document	1
epSOS ePS Document	1
e-SENS-NREE	1
SMP	2

2.4.3. Test instances per actor

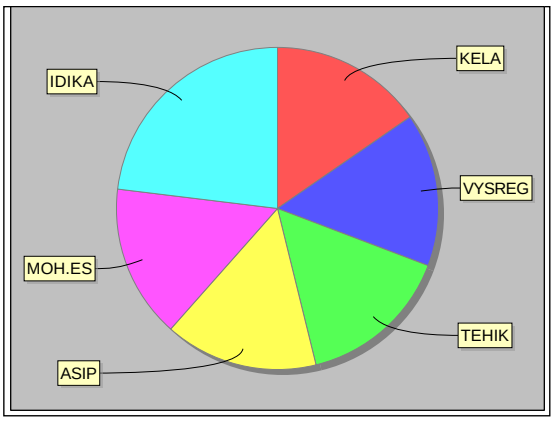
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-A	16
SN	1
CONTENT_CREATOR	3

2.4.4. Test instances per partner (organization level)

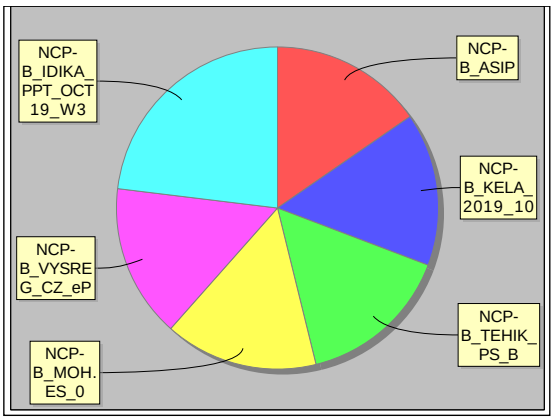
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
KELA	2
VYSREG	2
TEHIK	2
ASIP	2
MOH.ES	2
IDIKA	3

2.4.5. Test instances per partner (system level)

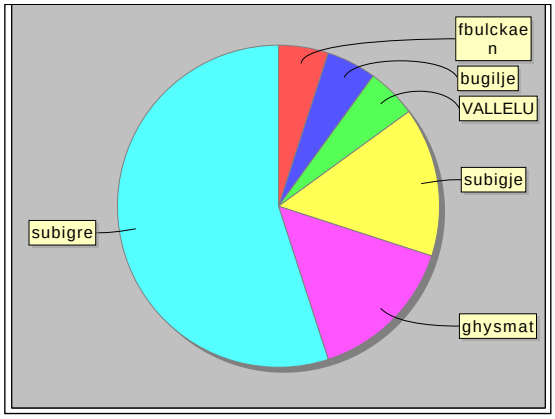
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-B_ASIP	2
NCP-B_KELA_2019_10	2
NCP-B_TEHIK_PS_B	2
NCP-B_MOH.ES_0	2
NCP-B_IDIKA_PPT_OCT19_W3	3
NCP-B_VYSREG_CZ_eP	2

2.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
subigje	3
ghysmat	3
fbulckaen	1
subigre	11
bugilje	1
VALLELU	1

3. System : CY_NCP_B_PS_eP_eD_10_2019 ()

3.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
Non Repudiation Evidence Emitter	National Contact Point Country B	None	T	Pass
epSOS Patient Summary Document	Content Creator	None	T	Pass
epSOS Patient Summary Document	Content Consumer	Pivot Document Option	T	Pass
epSOS Patient Summary Document	Content Consumer	None	T	Pass
epSOS-Authentication	National Contact Point Country B	None	T	Pass
epSOS Security	Secure Node	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS Identification Service	National Contact Point Country B	None	T	Pass
epSOS Patient Service	National Contact Point Country B	None	T	Pass
SMP	National Contact Point Country B	None	T	Pass
epSOS Order Service	National Contact Point Country B	None	T	Pass
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS ePrescription Document	Content Consumer	None	T	Pass
epSOS ePrescription Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country B	None	T	Pass
T: thorough / S: supportive				

3.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
10	18	18	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

3.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

3.3.1. Non Repudiation Evidence Emitter / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_NREE_Scrutiny_NCPB	1	R			

3.3.2. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.3. epSOS Patient Summary Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.4. epSOS Patient Summary Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.5. epSOS-Authentication / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Authorization	3	R	16107 (subigre) 16119 (subigre) 16142 (bugilje) 16211 (bugilje) 16221 (subigre)		
eHDSI_Scrutiny_SAML	1	R			

3.3.6. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_Certificates	1	R			

3.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_PS_NCPB	1	R			

3.3.8. epSOS Identification Service / National Contact Point Country B / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.9. epSOS Patient Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_Patient_Summary	3	R			

3.3.10. SMP / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_SMP_SSM_Import	1	R			

3.3.11. epSOS Order Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_ePresc_eDispens	3	R			

3.3.12. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.13. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_ePresc_NCPB	1	R			

3.3.14. epSOS ePrescription Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.15. epSOS ePrescription Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.16. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.17. epSOS eDispensation Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_eDisp_NCPB	1	R			

3.3.18. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_eDisp_NCPB	1	R			

3.3.19. epSOS Dispensation Service / National Contact Point Country B / NONE

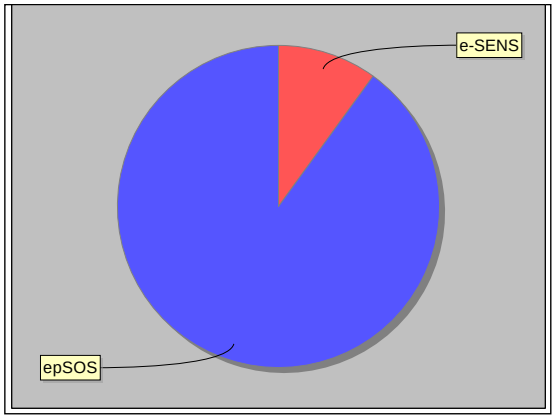
No test has been defined for this Integration Profile/Actor/Option

3.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

3.4.1. Test instances per domain

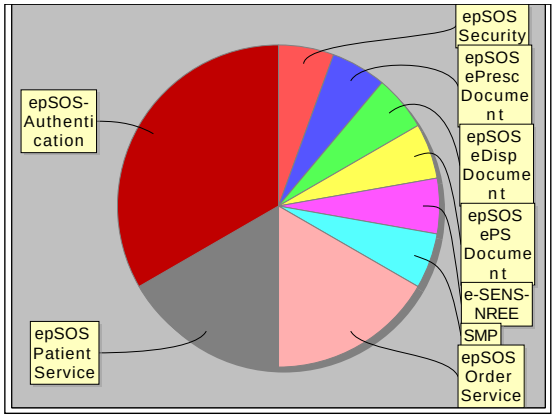
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	18
e-SENS	2

3.4.2. Test instances per integration profile

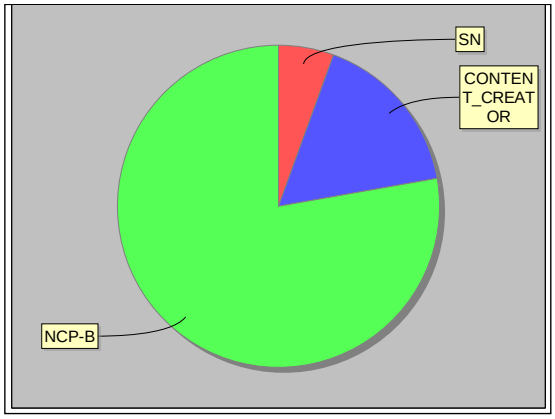
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	6
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	3
epSOS Patient Service	3
epSOS eDisp Document	1
epSOS ePS Document	1
e-SENS-NREE	1
SMP	1

3.4.3. Test instances per actor

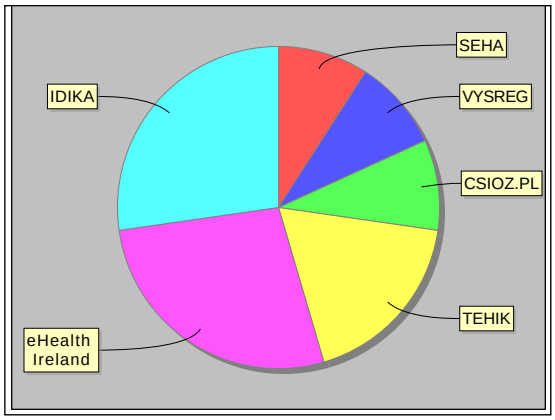
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-B	14
SN	1
CONTENT_CREATOR	3

3.4.4. Test instances per partner (organization level)

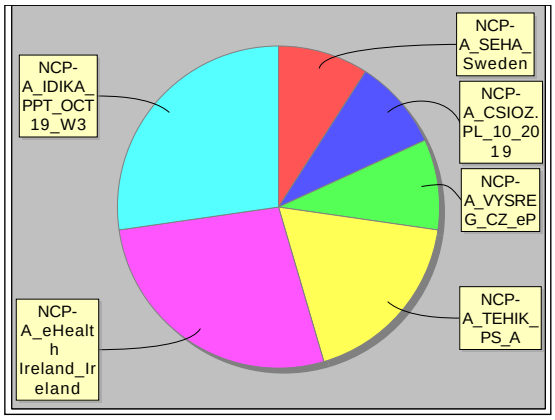
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
SEHA	1
VYSREG	1
TEHIK	2
eHealth Ireland	3
CSIOZ.PL	1
IDIKA	3

3.4.5. Test instances per partner (system level)

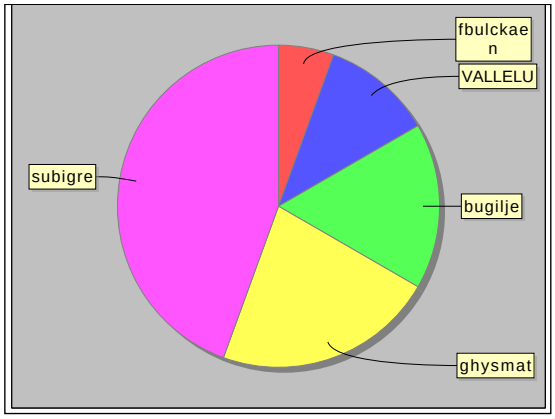
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-A_TEHIK_PS_A	2
NCP-A_SEHA_Sweden	1
NCP-A_CSIOZ.PL_10_2019	1
NCP-A_eHealth Ireland_Ireland	3
NCP-A_IDIKA_PPT_OCT19_W3	3
NCP-A_VYSREG_CZ_eP	1

3.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
ghysmat	4
fbulckaen	1
subigre	8
bugilje	3
VALLELU	2

The line below indicates the end of this report, any text below this line is not part of the initial content of this report

1.1.5 eHDSI - 2020-02 Wave 3 Formal & Upgrade (PPT) Pre-Production-Testing

eHDSI - 2020-02 Wave 3 Formal and Upgrade Pre-production Testing

1. Report summary

1.1. Test Laboratory

Contact	Yacoubou WAOLANY
E-mail address	yacoubou.waolany@ext.ec.europa.eu

1.2. Tested Organization

Name	University of Cyprus
Mailing address	75, Kallipoleos, 1678 Nicosia Cyprus

1.3. Tested System(s)

eHDSI - 2020-02 Wave 3 Formal and Upgrade Pre-production Testing		
Product Name	Version	Owner
CY_NCP_A_PS_eP_eD_02_2020		Zinonas Antoniou
CY_NCP_B_PS_eP_eD_02_2020		Zinonas Antoniou
This testing session was held from 2/17/20 to 3/20/20		

1.4. Report identification

This report has been generated on 7/24/20 with identifier 2020.Europe.Connectathon.UCY.20200724151614

1.5. Disclaimer

This report summarizes the outcome of the testing performed by University of Cyprus during the connectathon eHDSI - 2020-02 Wave 3 Formal and Upgrade Pre-production Testing, it includes information about success and failure and should only be used internally. This report does not certify the capabilities of any commercial product offered by University of Cyprus. Potential purchasers of the organization's products should consult any IHE Integration Statements [http://product-registry.ihe.net] published by the organization to confirm the IHE profiles and actors supported by its products.

2. System : CY_NCP_A_PS_eP_eD_02_2020 ()

2.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
epSOS Security	Secure Node	None	T	Pass
epSOS-Authentication	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS Patient Service	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	None	T	Pass
Non Repudiation Evidence Emitter	National Contact Point Country A	None	T	Pass
epSOS Patient Summary Document	Content Creator	Pivot Document Option	T	Pass
epSOS Identification Service	National Contact Point Country A	None	T	Pass
SMP	National Contact Point Country A	None	T	Pass
epSOS Order Service	National Contact Point Country A	None	T	Pass
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-A Document Option	T	Pass
epSOS ePrescription Document	Content Creator	Pivot Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country A	None	T	
epSOS eDispensation Document	Content Consumer	None	T	Pass
epSOS eDispensation Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-A Document Option	T	Pass
T: thorough / S: supportive				

2.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
10	19	19	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

2.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

2.3.1. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_Certificates	1	R	16554 (subigre)		

2.3.2. epSOS-Authentication / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Authorization	3	R	16334 (subigre) 16459 (subigre) 16540 (subigre) 16569 (subigre)		

2.3.3. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_PS_NCPA	1	R	16397 (subigre)		

2.3.4. epSOS Patient Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_Patient_Summary	3	R	16366 (waolaya) 16385 (fbulckaen) 16408 (subigre) 16541 (subigre)		

2.3.5. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.6. Non Repudiation Evidence Emitter / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_NREE_Scrutiny_NCPA	1	R	16451 (subigje)		

2.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_PS_NCPA	1	R	16397 (subigre)		

2.3.8. epSOS Identification Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.9. SMP / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_SMP_SI_Push	1	R	16549 (waolaya)		
eHDSI_SMP_SI_Scrutiny	1	R	16548 (waolaya)		

2.3.10. epSOS Order Service / National Contact Point Country A / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_ePresc_eDispens	3	R	16413 (subigre) 16489 (subigre) 16542 (fbulckaen) 16568 (subigre)		

2.3.11. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.12. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_ePresc_NCPA	1	R	16452 (subigre)		

2.3.13. epSOS ePrescription Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_ePresc_NCPA	1	R	16452 (subigre)		

2.3.14. epSOS Dispensation Service / National Contact Point Country A / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.15. epSOS eDispensation Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.16. epSOS eDispensation Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

2.3.17. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

2.3.18. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_A

See below the details of the test instances performed for this Integration Profile/Actor/Option

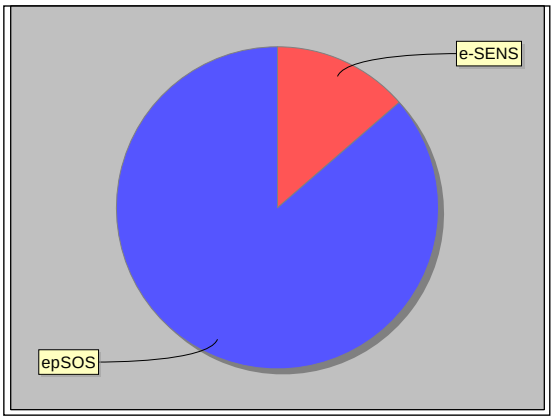
Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_eDisp_NCPA	1	R	16453 (subigre)		

2.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

2.4.1. Test instances per domain

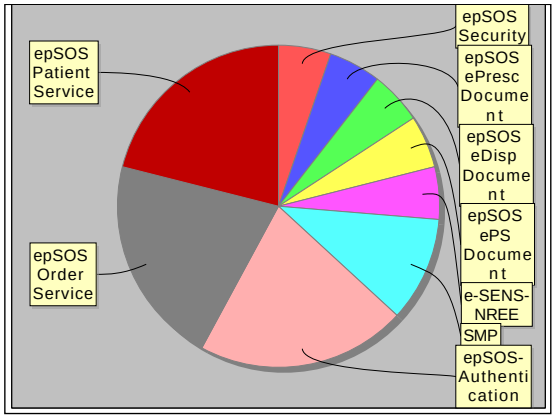
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	19
e-SENS	3

2.4.2. Test instances per integration profile

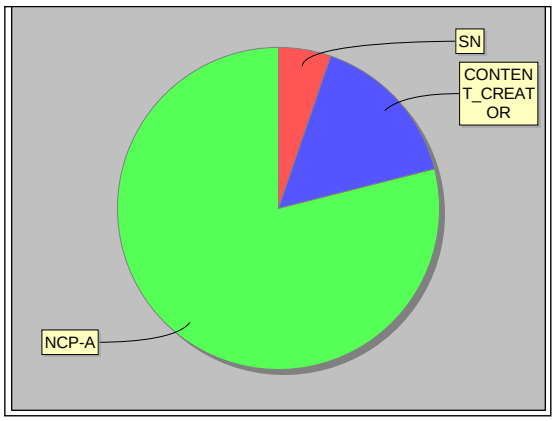
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	4
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	4
epSOS Patient Service	4
epSOS eDisp Document	1
epSOS ePS Document	1
e-SENS-NREE	1
SMP	2

2.4.3. Test instances per actor

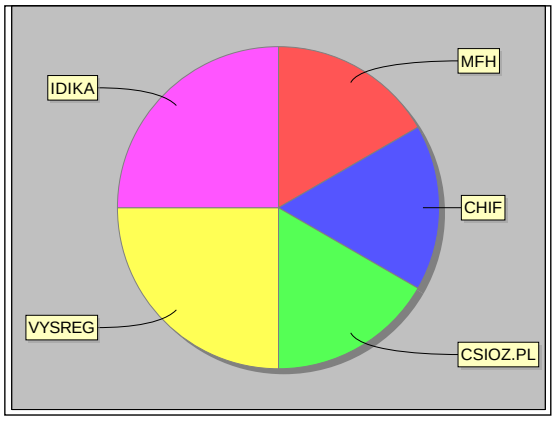
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-A	15
SN	1
CONTENT_CREATOR	3

2.4.4. Test instances per partner (organization level)

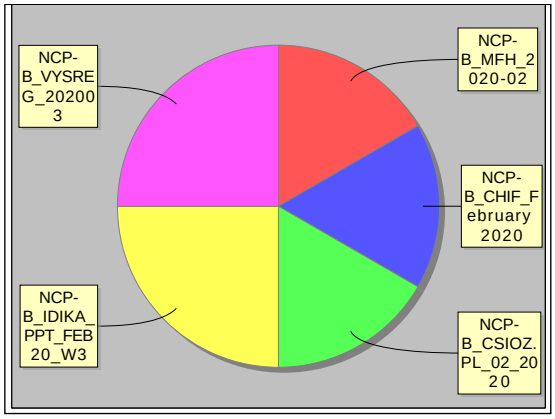
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
VYSREG	3
MFH	2
CHIF	2
CSIOZ.PL	2
IDIKA	3

2.4.5. Test instances per partner (system level)

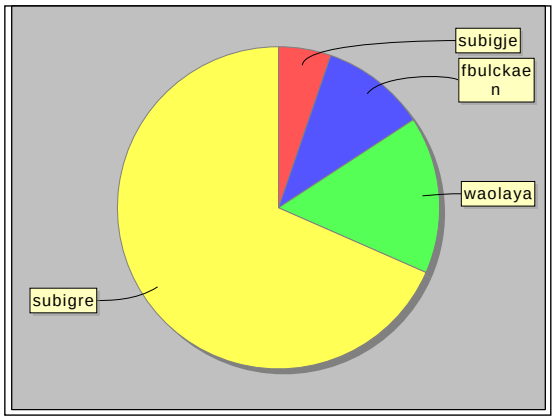
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-B_MFH_2020-02	2
NCP-B_CHIF_February 2020	2
NCP-B_IDIKA_PPT_FEB20_W3	3
NCP-B_VYSREG_202003	3
NCP-B_CSIOZ.PL_02_2020	2

2.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
fbulckaen	2
subigje	1
subigre	13
waolaya	3

3. System : CY_NCP_B_PS_eP_eD_02_2020 ()

3.1. Results per Integration Profile/Actor/Option

Results per Integration Profile/Actor/Option				
Integration Profile	Actor	Option	Type	Result
Non Repudiation Evidence Emitter	National Contact Point Country B	None	T	Pass
epSOS Patient Summary Document	Content Creator	None	T	Pass
epSOS Patient Summary Document	Content Consumer	Pivot Document Option	T	Pass
epSOS Patient Summary Document	Content Consumer	None	T	Pass
epSOS-Authentication	National Contact Point Country B	None	T	Pass
epSOS Security	Secure Node	None	T	Pass
epSOS Patient Summary Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS Identification Service	National Contact Point Country B	None	T	Pass
epSOS Patient Service	National Contact Point Country B	None	T	Pass
SMP	National Contact Point Country B	None	T	Pass
epSOS Order Service	National Contact Point Country B	None	T	Pass
epSOS ePrescription Document	Content Creator	None	T	Pass
epSOS ePrescription Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS ePrescription Document	Content Consumer	None	T	Pass
epSOS ePrescription Document	Content Consumer	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	None	T	Pass
epSOS eDispensation Document	Content Creator	Pivot Document Option	T	Pass
epSOS eDispensation Document	Content Creator	Friendly-B Document Option	T	Pass
epSOS Dispensation Service	National Contact Point Country B	None	T	
T: thorough / S: supportive				

3.2. Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
10	23	23	0	0

Tests: the number of individual test cases run during the session

Performed: the total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

Passed/Failed: the number of test instances verified and set to passed/failed by a monitor

Partially verified: the number of different test intances that was reviewed but on which some work still need to be done

3.3. Test instance details (per Integration profile/Actor/Option)

In the next sub-sections, performed test instances are gathered by Integration profile / Actor / Option. For each of the test instances, the detailed informations are available by following the link.

3.3.1. Non Repudiation Evidence Emitter / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_NREE_Scrutiny_NCPB	1	R	16447 (subigje)		

3.3.2. epSOS Patient Summary Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.3. epSOS Patient Summary Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.4. epSOS Patient Summary Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.5. epSOS-Authentication / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Authorization	3	R	16285 (subigre) 16340 (subigre) 16401 (subigre) 16464 (waolaya) 16566 (subigre)		
eHDSI_Scrutiny_SAML	1	R	16375 (subigre)		

3.3.6. epSOS Security / Secure Node / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_Certificates	1	R	16556 (subigre)		

3.3.7. epSOS Patient Summary Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_PS_NCPB	1	R	16396 (subigre)		

3.3.8. epSOS Identification Service / National Contact Point Country B / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.9. epSOS Patient Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_Patient_Summary	3	R	16287 (subigre) 16341 (subigre) 16388 (subigre) 16410 (subigre) 16537 (bugilje) 16574 (subigre)		

3.3.10. SMP / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_SMP_SSM_Import	1	R	16550 (waolaya)		

3.3.11. epSOS Order Service / National Contact Point Country B / NONE

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_WF_ePresc_eDispens	3	R	16292 (fbulckaen) 16419 (fbulckaen) 16491 (subigre) 16567 (subigre) 16575 (subigre)		

3.3.12. epSOS ePrescription Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.13. epSOS ePrescription Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_ePresc_NCPB	1	R	16393 (subigje)		

3.3.14. epSOS ePrescription Document / Content Consumer / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.15. epSOS ePrescription Document / Content Consumer / EPSOS_PIVOT

No test has been defined for this Integration Profile/Actor/Option

3.3.16. epSOS eDispensation Document / Content Creator / NONE

No test has been defined for this Integration Profile/Actor/Option

3.3.17. epSOS eDispensation Document / Content Creator / EPSOS_PIVOT

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_eDisp_NCPB	1	R	16395 (subigje)		

3.3.18. epSOS eDispensation Document / Content Creator / EPSOS_FRIENDLY_B

See below the details of the test instances performed for this Integration Profile/Actor/Option

Test (Meta Test)	#	Opt	Verified	Failed	Partially V
eHDSI_Scrutiny_eDisp_NCPB	1	R	16395 (subigje)		

3.3.19. epSOS Dispensation Service / National Contact Point Country B / NONE

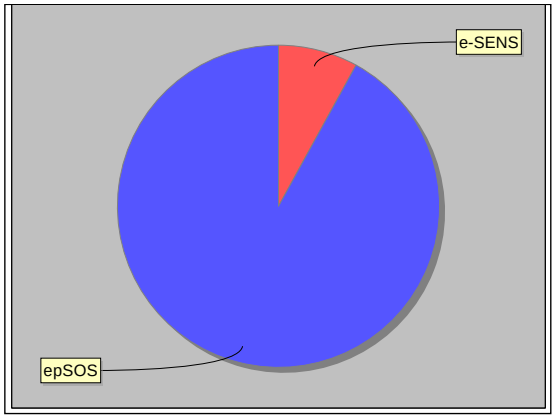
No test has been defined for this Integration Profile/Actor/Option

3.4. Statistics

This section gathers some statistics on test instances. Only passed, failed and partially verified test instances are represented there.

3.4.1. Test instances per domain

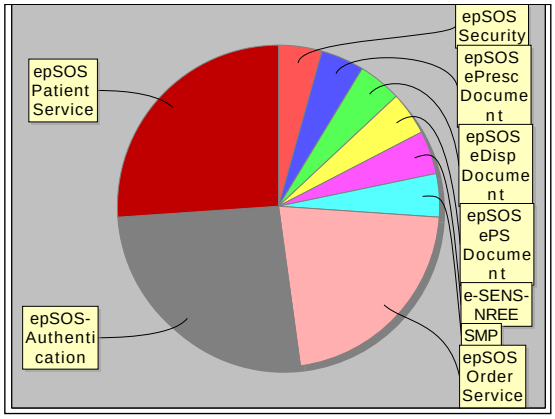
Below is the distribution of test instances performed according to the various IHE domains your system was registered for.



Domain	nb of TI
epSOS	23
e-SENS	2

3.4.2. Test instances per integration profile

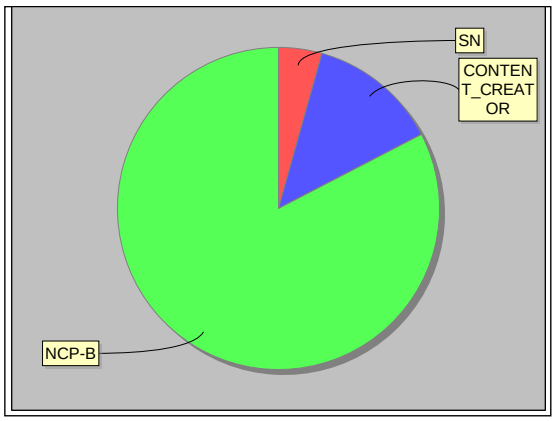
Below is the distribution of test instances performed according to the various IHE integration profiles your system was registered for.



Integration profile	nb of TI
epSOS-Authentication	6
epSOS Security	1
epSOS ePresc Document	1
epSOS Order Service	5
epSOS Patient Service	6
epSOS eDisp Document	1
epSOS ePS Document	1
e-SENS-NREE	1
SMP	1

3.4.3. Test instances per actor

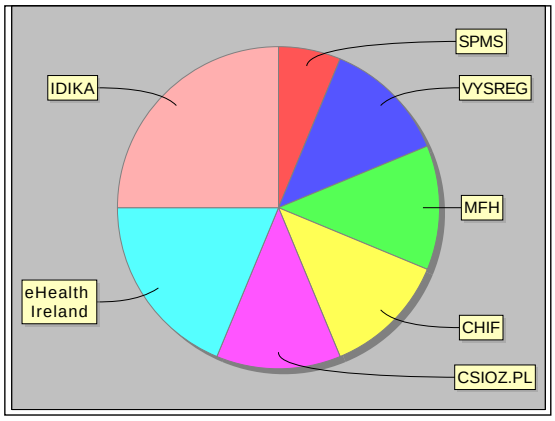
Below is the distribution of test instances performed according to the various IHE actors your system was registered for.



Actor	nb of TI
NCP-B	19
SN	1
CONTENT_CREATOR	3

3.4.4. Test instances per partner (organization level)

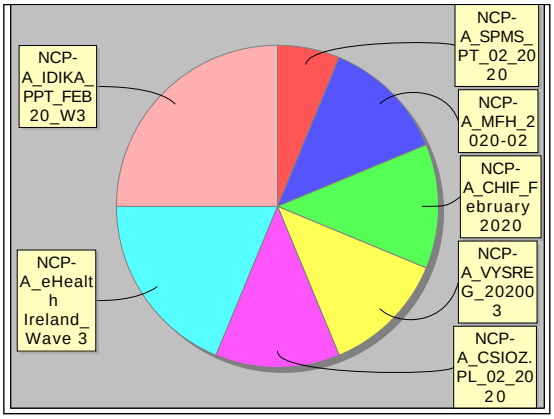
Below is the distribution of test instances performed per peer organization



Organization	nb of TI
VYSREG	2
MFH	2
CHIF	2
SPMS	1
eHealth Ireland	3
CSIOZ.PL	2
IDIKA	4

3.4.5. Test instances per partner (system level)

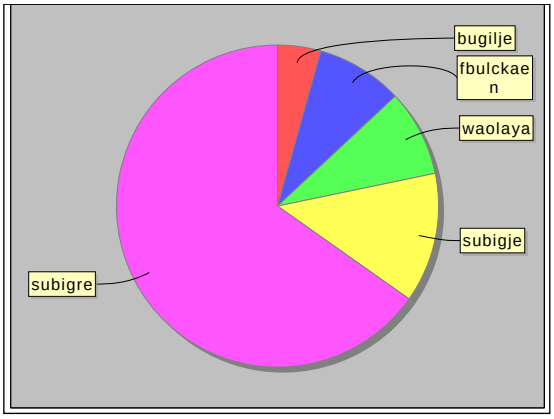
Below is the distribution of test instances performed per peer system



System	nb of TI
NCP-A_MFH_2020-02	2
NCP-A_CHIF_February 2020	2
NCP-A_IDIKA_PPT_FEB20_W3	4
NCP-A_VYSREG_202003	2
NCP-A_CSIOZ.PL_02_2020	2
NCP-A_eHealth Ireland_Wave 3	3
NCP-A_SPMS_PT_02_2020	1

3.4.6. Test instances per monitor

Below is the distribution of test instances verified per monitor



Monitor	nb of TI
fbulckaen	2
bugilje	1
subigje	3
subigre	15
waolaya	2

The line below indicates the end of this report, any text below this line is not part of the initial content of this report

1.2 Functional End-2-End Testing Results

To validate our CDA and PDF PS, eP and eD documents, we participated in the Functional end-2-end testing periods of the Wave 2 Conformance Tests. The detailed reports from the Functional end-2-end testing – Cyprus are presented below.

1.2.1 Wave 2 Preparatory Pre-Production Testing October 2018

DG SANTE

Detailed report from the end-to-end functional testing – Cyprus

Wave 2 Preparatory Pre-Production Testing October 2018

Document Control Information

SETTINGS	INFO
Document Title:	Detailed report from the end-to-end functional testing – Cyprus Wave 2 Preparatory Pre-Production Testing October 2018
Project Title:	eHealth DSI – ePrescription and Patient Summary
Document Author:	eHDSI Solution Provider
Doc. Version:	1.0
Sensitivity:	eHDSI restricted
Date:	09/11/2018

Document Approver(s) and Reviewer(s):
NOTE: All Approvers are required. Records of each approver must be maintained. All Reviewers in the list are considered required unless explicitly listed as Optional.

NAME/ROLE	ACTION	DATE
eHMSEG / eHN		
eHOMB		
eHDSI Solution Provider	Prepare Report	09/11/2018

Document history:
Changes to this document are summarized in the following table in reverse chronological order (latest version first).

REVISION	DATE	CREATED BY	SHORT DESCRIPTION OF CHANGES
1.0	09/11/2018	eHDSI Solution Provider	Initial version

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Purpose of this document

This document presents the **detailed results of the end-to-end functional testing** that took place during the final week of the Wave 2 Preparatory Pre-Production Testing of October 2018. Specific country results are provided for **Cyprus**.

2 END-TO-END FUNCTIONAL TESTING

2.1 Role of the end-to-end functional testing

The end-to-end functional testing aims to validate, from the user point of view, the process and the information presented to health professionals by the eHDSI services.

In fact, this is the final and most relevant test of the services: by evaluating the process and the information provided, in a situation as close as possible to that of operation, the entire service is assessed to be conformant to the specifications and to be finally useful to those who will employ it for providing healthcare or dispensing a medicinal product.

The end-to-end functional testing, as its designation claims, is expected to detect flaws or malfunctioning in any step of the process, from the processing of the original document to its transferring and subsequent processing and display in the receiver country. Furthermore, health professionals participating in the testing will assess the eventual clinical usefulness of the information provided.

2.2 Methodology of the tests

The evaluation is carried out for all eHDSI services (Patient Summary and ePrescription/eDispensation) in an environment that intends to emulate the normal operation as much as possible: e.g. a pharmacist dispensing a medicinal product or a physician in an emergency department providing care to a citizen from a different deploying country.

The only difference with a real scenario is that only test patient and test data are used and no real patients are involved.

The complete methodology for the tests as well as a repository for the test data were set up by the eHDSI Solution Provider on the Operations space on Confluence[1], with the aim of facilitating the performance of the tests and the understanding by the health professionals.

Fulfilment criteria for the testing is that each deploying country participating has to test their services with all other participants offering the same services. For example, if a deploying country will participate in the eHDSI as Patient Summary Country B, then it has to test with all participating countries acting as Patient Summary Country A by submitting evaluations for the requested documents; likewise a Country A (i.e. a deploying country providing patient summaries of its citizens) had to be tested by all countries that would request such documents, i.e. countries B for the Patient Summary service.

2.3 Preparation, operation, and follow-up of the end-to-end functional testing during the Wave 2 Preparatory Pre-Production Testing

A preparatory conference prior to the testing week was scheduled on October 18 to explain the methodology and present the timeline of the testing. The testing week took place from

[1] https://ec.europa.eu/cefdigital/wiki/x/Mj2HAw

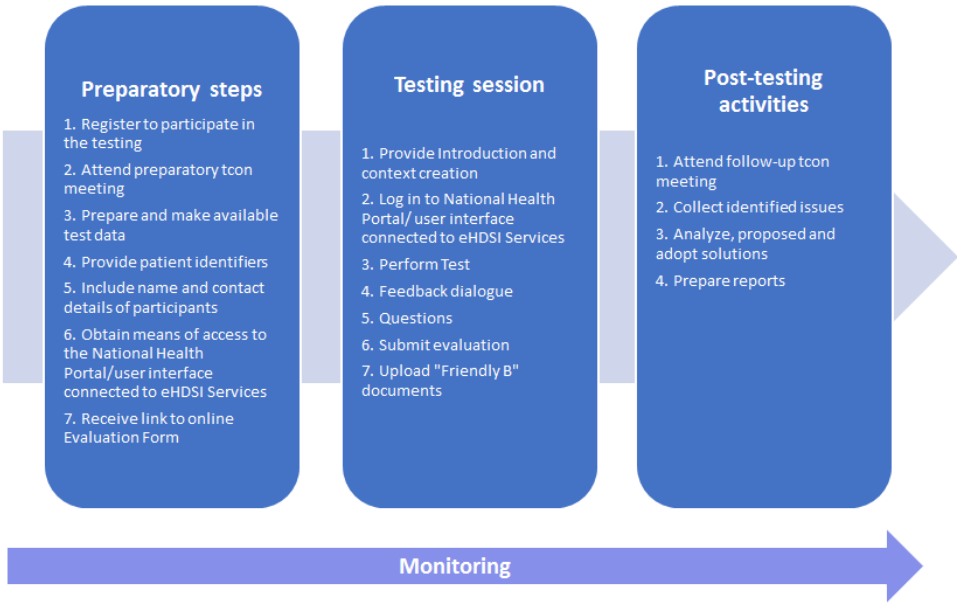
October 22 to 26, with two progress report teleconferences on Tuesday, October 23, and Thursday, October 25.

As soon as the testing week finished, Solution Provider started analysing each individual submission. A first follow-up teleconference with the participants in the test was celebrated on Wednesday, October 31, to discuss and continue collecting findings and explain the next steps. As part of these next steps, the eHMSEG Semantic Task Force will discuss the identified findings during the 7th Face-to-Face meeting organised in Brussels on November 12-13.

All the findings identified, either by the participants in the testing or by Solution Provider during the review of the submissions received from the health professionals, have been collected on Confluence[2] and assigned a JIRA ticket for issue tracking. Solution Provider is now working in close collaboration with the eHMSEG Semantic Task Force on solving the Semantic-related issues as well as the others with relevant groups (e.g. OpenNCP Technical Community).

The diagram below shows a schematic view of the phases of the testing.

Figure 1: Phases of the end-to-end functional testing



[2] https://ec.europa.eu/cefdigital/wiki/x/ro8vB

3 EVALUATIONS SUBMITTED DURING THE END-TO-END FUNCTIONAL TESTING – WAVE 2 PREPARATORY PRE-PRODUCTION TESTING OCTOBER 2018

3.1 Overall submissions

- Seven deploying countries participated in the testing: Belgium, Cyprus, Estonia, Finland, Greece, Ireland (Wave 3), and Luxembourg.

Table 1: Participants in the e2e functional testing

Deploying country	2-letter Country Code	eHDSI Services offered
Belgium	BE	Patient Summary (B)
Cyprus	CY	Patient Summary (A & B), ePrescription (A & B)
Estonia	EE	ePrescription (A)
Finland	FI	ePrescription (B)
Greece	EL	Patient Summary (B), ePrescription (A & B)
Ireland	IE	Patient Summary (B) *in Wave 3*
Luxembourg	LU	Patient Summary (A)

- The total number of evaluations submitted was 16 submissions:
  - 8 correspond to the Patient Summary service
  - 7 correspond to ePrescription documents
  - and 1 correspond to the associated eDispensation document

- The table below shows the number of evaluations performed by each participating country and whether the required number of tests was performed (i.e. testing and/or being tested by all the partners offering the same service):

Table 2: Evaluations submitted during the e2e functional testing and fulfillment of testing criteria

Deploying country	Services offered	PS evaluations	eP evaluations	eD evaluations	Fulfilled criteria
Belgium	PS(B)	2	NA	NA	**Yes**
Cyprus	PS (A & B) eP (A & B)	2	1	0	**Partially**
Estonia	eP(A)	NA	NA	1	**Partially**
Finland	eP(B)	NA	5	NA	**Yes**
Greece	PS (B) eP (A & B)	1	1	0	**Partially**
Ireland	PS(B)	3	NA	NA	**Yes**
Luxembourg	PS(A)	NA	NA	NA	**Yes**
Total (# evaluations: 16)		**8**	**7**	**1**	

3.2 Submissions for the evaluation of the Patient Summary Service

- The table below shows the **evaluations performed for the Patient Summary service (number of PS documents retrieved and evaluated by health professionals in Country B)**:

Table 3: PS documents evaluated and fulfilment of testing criteria

Deploying country	Services offered	# PS evaluations	PS documents evaluated	Fulfilled criteria: test all PS (A)
Belgium	PS(B)	2	PS documents from CY and LU	**Yes**
Cyprus	PS (A & B)	2	1 PS document from LU evaluated by 2 different HP	**Yes**
Greece	PS(B)	1	PS document from LU	**Partially** (not evaluated PS from CY)
Ireland	PS(B)	3	PS documents from CY (2) and LU	**Yes**
Luxembourg	PS(A)	NA	NA	NA
Total (8)				

- The next table shows the evaluations of each deploying country performed by its partners in the Patient Summary service, i.e. **tested as Country A for PS**:

Table 4: PS documents evaluated by partners and fulfilment of testing criteria

Deploying country	Services offered	# PS evaluations done by partners	Partners in the service that evaluated the service	Fulfilled criteria: being tested by all PS (B)
Belgium	PS(B)	NA	NA	**NA**
Cyprus	PS (A & B)	3	Evaluated by BE, IE (2)	**Partially** (not evaluated by EL)
Greece	PS (B)	NA	NA	**NA**
Ireland	PS (B)	NA	NA	**NA**
Luxembourg	PS(A)	5	Evaluated by BE, CY (2), EL, IE	**Yes**
Total (8)				

3.3 Submissions for the evaluation of the ePrescription/eDispensation Service

- The table below shows the **evaluations performed for the ePrescription service**, i.e. dispensations of eP by countries B:

Table 5: eP documents evaluated and fulfilment of testing criteria

Deploying country	Services offered	# eP evaluations	eP documents evaluated	Fulfilled criteria: test all eP Countries A
Cyprus	eP (A & B)	1	eP document from EL	**Partially** (not evaluated eP from EE)
Estonia	eP (A)	NA	NA	**NA**
Finland	eP (B)	5	eP document from CY (2), EE, EL (2)	**Yes**
Greece	eP (A & B)	1	eP document from CY	**Partially** (not evaluated eP from EE)
Total (7)				

- The table below shows the **evaluations received for the ePrescription service**, i.e. for each Country A for ePrescription whether all partners have evaluated the service:

Table 6: eP service as Country A evaluated and fulfilment of testing criteria

Deploying country	Services offered	# eP evaluations	eP documents evaluated	Fulfilled criteria: tested by all eP Countries B
Cyprus	eP (A & B)	3	eP evaluated by EL and FI (2)	**Yes**
Estonia	eP (A)	1	eP evaluated by FI	**Partially** (not evaluated by CY and EL)
Finland	eP (B)	NA	NA	**NA**
Greece	eP (A & B)	3	eP evaluated by CY and FI (2)	**Yes**
Total (7)				

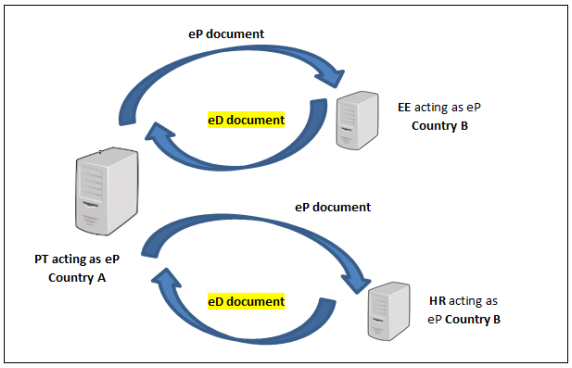
- The next table shows the **evaluations performed for eDispensation**, i.e. Country A retrieving eDispensation documents after a dispensation has taken place in Country B but also that eD dispensation documents have been retrieved and evaluated when the deploying country acts as eP(B):

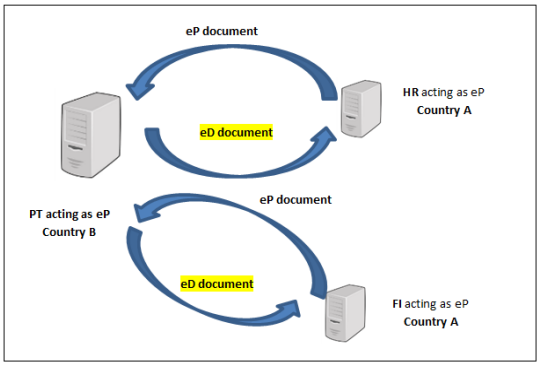
Table 7: eD documents evaluated and fulfilment of testing criteria

Deploying country	Services offered	# eD evaluations	Retrieved eD documents from partners in the eP service	Fulfilled criteria*	
				Evaluated eD retrieved as eP(A)	Evaluated by partners
Cyprus	eP (A & B)	0	-	**No**	**No**
Estonia	eP (A)	1	1 eD document from FI	NA	**Partially** (could not retrieve eD due to not previous eP dispensed by CY and EL)
Finland	eP (B)	NA	-	**Partially** (not evaluated eD from FI by CY and EL)	NA
Greece	eP (A & B)	0	-	**No**	**No**
Total (1)					

*To evaluate the eD when a deploying country participating in the eP service both as Country A and B fulfills the testing criteria, the processes and documents that need to be evaluated are depicted below (using PT as example): not only that deploying country has to evaluate the eD documents from the partners that are dispensing its prescriptions, but also when dispensing prescriptions from partners it has to be able to provide eD documents, which will be evaluated by the partners (see diagrams in the next page).

Figure 2: Diagrams detailing the transactions involved in the eP/eD service for a Country acting as both A&B





3.4 General conclusion from the analysis of the of the number submissions received

- Patient Summary Service
  - All possible testing scenarios between the participating countries were partially performed, i.e. that a Country A for the service was tested by all the partners (countries A) and, likewise, a Country B testing with all potential countries A.

    Greece missed the evaluation of the service with Cyprus, which, in turn lacks a complete evaluation by all possible partners.

- ePrescription/eDispensation Service
  - All possible testing scenarios between the participating countries were partially performed.

    Only few transactions were evaluated; 7 eP documents and 1 eD document were submitted. None of the countries participating has been fully tested for the complete array of possible transactions.

4 DETAILED RESULTS OF THE END-TO-END FUNCTIONAL TESTING

This section presents a detailed report per deploying country and service after the analysis of the evaluations submitted by health professionals and semantic experts.

The analysis has been carried out by Solution Provider, examining carefully all evaluations and issues reported by evaluators, checking whether the cause was a misalignment in the technical/semantic components or in the clinical document initially provided; if due to the former, the necessary fixes have been proposed to the eHMSEG Semantic Task Force or corresponding body for adoption.

Two errors in the services were encountered. In one case in the PS service, where it was mentioned a failed attempt when searching for a patient, which was solved when Country B contacted the technical team in Country A. In the ePrescription/eDispensation service, an error occurred that impeded opening the prescriptions once the list of prescription was received and, therefore, the dispensation of the medicinal product could not be performed.

The perception of the response time was considered as follows:

Table 8: Perception of the response time

Perception of the response time*	# submissions	percentage
Good	4	26.70%
Acceptable	11	73.30%
Not acceptable	0	%
Total	15	100%

*Response time is not included in the Evaluation Form for eDispensations

4.1 Results of the testing of the Patient Summary Service

4.1.1 Cyprus

Deploying Patient Summary A & B services

Table 9: Summary of test data provided and/or evaluations submitted

Number of PS test data provided: ▪ PS for patient id 876543 – based on the eHDSI Reference Test Data (although, not containing the full eHDSI RTD Sections) ▪ PS for patient id 101010 – National Representative Test Data
Number of evaluations submitted for PS retrieved from partners: ▪ 2 evaluations for PS retrieved from LU (the same PS document was evaluated by 2 different health professionals) ▪ PS for patient id 1990010112385 – based on the eHDSI Reference Test Data
Number of evaluations submitted for its services provided by partners: 3 submissions, evaluated by BE, IE (2)

Analysis of the test data provided for the testing: PS based on the Reference Test Data sample (patient id 876543)

Table 10: Analysis of the test data provided for the testing: PS based on Reference Test Data sample (patient id 876543)

Item		
Elements in the Header of the document present	Yes	*See comment about the date of birth*
Original PDF of the PS provided	Yes	*See comment about original document being in English*
All the required Sections present (Allergies, Active Problems, Medication Summary, Coded List of Surgeries, Medical Devices)	Yes	*See comments*
Other Sections present	Yes	History of Past Illness *(see comments)*, Immunizations, Physical Findings *(see comments)*, Social History *(see comments)* Missing: Pregnancy Section present in the eHDSI Reference Test Data
General evaluation of the clinical usefulness of the document	Useful	

Comments
■ In one evaluation, it was mentioned a failed attempt when searching for a patient, which was solved when Country B contacted the technical team in Cyprus. ■ HPs evaluating the PS service with documents from CY commented that they would expect the original document to be in Greek when they are asked about the PDF of the original document before any transformation and also when comparing the data for the sections in the original narrative part vs the translated part (entries). ■ The date of birth for the patient in the PS document is 01/01/1990, while when searching the patient, the date of birth is 31/12/1989. ■ Allergies and Adverse Reactions and Medication Summary Sections are not displayed to health professionals in Country B: those sections contain coded entries in the original, but the reason why they are not displayed is that there are missing elements. eHDSI Solution Provider has already informed CY of these findings. ■ History of Past Illness Section: the display name in the original narrative part for the ICD-10 code, D09.3, is not presented in full ("Thyroid and other endocrine glands", instead of "Carcinoma in situ: Thyroid and other endocrine glands"). The evaluator in Country B noted that the information in the original narrative was not corresponding -was less specific- to the text presented to him in the coded translated part. ■ Physical Findings Section: the original document contains two measures of the blood pressure taken at two different times, but the way in which the observations were included in the file was not as stated in the Implementation Guide (two entry organizers for the vital signs with two measures each, corresponding to the diastolic and diastolic blood pressure). eHDSI Solution Provider has already informed CY of this finding. ■ Social History Section: the values for the lifestyle habits (smoking and alcohol intake present in the eHDSI Reference Test Data) are not included in the CDA L3 XML file prepared by CY.

Analysis of the test data provided for the testing: PS National Representative Test Data (patient id 101010)

Table 11: Analysis of the test data provided for the testing: PS National Representative Test Data (patient id 101010)

Item		
Elements in the Header of the document present	Yes	-
Original PDF of the PS provided	Yes	-
All the required Sections present (Allergies, Active Problems, Medication Summary, Coded List of Surgeries, Medical Devices)	Yes	*See comments*
Other Sections present	Yes	Immunizations *(see comments)*
General evaluation of the clinical usefulness of the document	Useful	
Comments		

- Allergies and other Adverse Reactions Section and Medication Summary Section are present in the PS CDA file provided by CY with coded entries, but the information is not displayed to the health professional in Country B: nothing was translated and was left blank. The reason for those situations is missing elements in the CDA file. eHDSI Solution Provider has already informed CY of these findings.
- Immunizations Section: the Section presents an adequate coded entry, although, as noted by the evaluator, the brand name of the vaccine, Boostrix, does not correspond with the provided vaccination (Tetanus vaccine).

Results of the analysis of the evaluations submitted as Country B:

- CY fulfilled the criteria of testing and evaluating the PS service with countries A for the service (i.e. LU, with 2 evaluations carried out by 2 different health professionals).

4.2 Results of the testing of the ePrescription/eDispensation Service

4.2.1 Cyprus

Deploying eP/eD A and B services

Table 12: Summary evaluations submitted and/or evaluations received for eP/eD documents

Number of evaluations submitted for eP documents: **1 submission** (eP from EL being dispensed in CY)
Number of evaluations submitted for eD documents retrieved from partners: 0
Number of evaluations submitted for its eP services provided by partners: **3 submissions** (2 eP being dispensed by FI and 1 eP by EL)
Number of evaluations submitted for its eD capability provided by partners: 0

Analysis of the submissions received for eP services of CY acting as Country A (patient id 876543)

Table 13: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 876543)

Item		
Elements in the Header of the document present	Yes	*See comments*
Display of prescriptions and possibility to select the appropriate one	Issues	*See comments*
Original PDF of the eP provided	Yes	-
Dataset in Country B language	Yes	*See comments*
Information need to safely dispense provided	**NO**	*See comments*
Dispensation possible	Yes	It was necessary to perform a substitution (*see comments)*

Comments

- The Prescriptions List only contained one document, “ePrescription ePrescription”, not providing more information.
- Evaluators of the eP document had doubts about the patient’s family and given name being correctly assigned as well as for the name of other actors in the document. Once dispensation is performed, the prescription was still presented to the pharmacist in Country B.
- The Prescription id is <id extension="medicine.1" root="2.16.620.1.101.10.3.29.54290" /> which looked as manually entered for the evaluators.
- The Prescriber's id is <id extension="gov.cy" root="2.16.470.1.100.1.1.1000.990.1" />, extension looks like a fixed value. In addition, the value is the same as the prescriber's organization id.
- The document contains ClinicalDocument/participant and ClinicalDocument/documentationOf constructs, which are not included in the eHDSI prescription document template.
- The prescription creation time is "20181014" (in October), however author/time is "2018032900+0300" (in March). The author/time is provided with hour precision. legalAuthenticator/time is "20180329000000+0300", also in March but with second precision.
- About the dataset, the following comments were noted:
  - The ATC code was included in a wrong element, in the list of ingredients instead of the field reserved for it.
  - The strength for the active ingredient is incorrect as the strength of levothyroxine sodium preparations is 100microgram, not 100 miligram.
  - In the XML document, in the manufacturedMaterial/name field (which should contain the brand name) “levothyroxine sodium" is indicated, which is active ingredient.
  - The package type is "Tablet", which looks incorrect.
  - The package size in the structured document is 100 mg, the same as strength, looks incorrect (should be the number of tablets). In the PDF and in the narrative (which is not displayed by display tool) it is 30 tablets.
  - The containerPackagedMedicine includes a capTypeCode-named field, which is not part of the official specification.
  - The number of packages is 100.0 mg when it should be an integer (how many packages).
  - The dosage information is provided in a semi-structured way. Dosage regimen is "1 before breakfast (from lat. ante cibus matutinus)" (only visible in PDF), but in the structured dosage regimen section, only the information about dosage period (1 day) and start and stop time of the medication regimen (14-28.10.2018) is provided. Information about the dosage regimen is included in XML in the narrative section, which is not shown by the display tool. No other patient instructions or pharmacist instructions are provided.
  - The ATC code is included in a wrong place, in the list of ingredients instead of the field reserved for it.
  - Euthyrox (brand name) is in the list of active ingredients, in addition to the active ingredient itself (levothyroxine sodium). It is therefore unclear whether the prescription is brand name or active ingredient based.
- About the possibility to safely dispense (answered: No), the following is noted:
  - Strength is wrong and dosage instructions are not clear.
  - The prescribed amount is not clear. In PDF it is provided as 30 tablets, but the only package size in Country B is 100 tablets, which is a considerably bigger amount. Not all pharmacies in Country B would agree to supply a partial package.
  - It was assumed that Euthyrox was a brand name, even if it is provided in a wrong field. Euthyrox is not available in Country B.
- At the moment of dispensing:
  - The package size (100 mg) could not be changed to indicate that the dispensed package size was 100 tablets, neither the unit in number of packages (mg).
  - Despite that, they tried the dispensation in order to see if the system would work. Dispensation goes through, but the prescription did not disappear from the list of prescriptions (as indicated previously).

Analysis of the submissions received for eP services of CY acting as Country A (patient id 100004)

Table 14: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 100004)

Item		
Elements in the Header of the document present	Yes	*See comments*
Display of prescriptions and possibility to select the appropriate one	Issue	*See comments*
Original PDF of the eP provided	Yes	-
Dataset in Country B language	Yes	*See comments*
Information need to safely dispense provided	**NO**	*See comments*
Dispensation possible	**NO**	*See comments*
Comments		

- Doubts in Country B around the given and family name of the patient: in the document they appear as Patient's first name Aspou and family name Filippos. Likewise, doubts around the name of the prescriber/legalAuthenticator/participant should be checked, as Marinos was presented as a family name and in other participant role it was a surname.
- The Prescription id was <id extension="medicine.1" root="2.16.620.1.101.10.3.29.54290" />, which looks as manually entered. It was the same as in another prescription that Country B reviewed.
- In the Prescriptions List, it is only indicated ePrescription, without providing the name of the medicinal product or the active ingredient.
- About the dataset, the following comments were noted:
  - The ATC code was included in a wrong place, in the list of ingredients instead of the field reserved for it.
  - The contents of the prescription is totally unclear and illogical, as **in one element it stated "Calcium, combinations with vitamin D and/or other drugs" and in the same prescription "Lantus", insulin glargine.**
  - The Pharmaceutical dose form was Chewable tablet in one place, and Solution for injection in the other place.
  - The Number of packages is "500 mg", which is unclear.
  - The Dosage instructions were only present in PDF and in the narrative. The narrative was not shown.
  - The PDF is more understandable as it was clearly for Calcium, combinations with vitamin D and/or other drugs, 500mg; while the XML document contained some other data.
- About the possibility to safely dispense (answered: No), the following is noted:
  - It was unclear whether insulin or calcium with combinations should be dispensed.
  - The Strength was unclear, also in the case it would have been "Calcium, combinations with vitamin D and/or other drugs", as only 500 mg was provided as strength, whereas the strength of the second (missing) active ingredient was likewise missing.
- No dispensation was possible and the following was noted:
  - Country B could not enter information about the unit for the number of packages, as it was fixed as "mg" taken from the prescription.

- Country B did not know what do dispense.

Analysis of the submissions received for eP services of CY acting as Country A (patient id 101010)

Table 15: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 101010)

Item		
Elements in the Header of the document present	Yes	
Display of prescriptions and possibility to select the appropriate one	Yes	*No issues*
Original PDF of the eP provided	Yes	
Dataset in Country B language	No	
Information need to safely dispense provided	**Yes**	*See comments*
Dispensation possible	**Yes**	Substitution was necessary (*see comments)*
Comments		

- About the dataset:
  - ATC code, strength, pharmaceutical dose form provided
    - *eHDSI Solution Provider comments*:
      - The ATC code is not coherent with the medicinal product description included (manufacturedMaterial name element) and for the brand name (included in the epsos:asContent name as well as in the epsos:ingredient name elements).
      - The Strength provided as for the medicinal product as a whole corresponds to only one of the active ingredients.
      - The Package size present as 20mg (same as the strength).
      - The Number of packages provided is 20mg.
      - The Frequency of administration is correct.
- About the possibility to safely dispense (answered: Yes):
  - See *eHDSI Solution Provider comments* above.
- Dispensation was possible and the following was noted:
  - Substitution was necessary as the brand name was not available in Country B
  - "There is no response after dispensing the prescription (blank page)."

As Country B evaluating the eP service, the following can be noted:

- The evaluation was performed by a medical doctor, not by a pharmacist. As an end-user testing the functional end-to-end testing should be carried out by the expected users of the service, i.e. pharmacists and pharmacy technicians.

  As a consequence, the feedback provided would not reflect the real user's point of view, but a medical doctor's expectations.

- Some comments received are useful to improve the wording of the questions in the Evaluation Form and to reflect that national implementations of the CDA Display Tool or national user interface could differ from the Reference implementation provided; likewise, to improve the questionnaire not to imply prior "insider" knowledge from the user, this will be, in fact, the real situation when the service goes live. Nevertheless, even future users of the systems will need to have background information or context about the eHDSI service.

1.2.2 Wave 2 FORMAL Pre-Production Testing February 2019

DG SANTE

Detailed report from the Functional end-to-end testing - Cyprus

Wave 2 FORMAL Pre-Production Testing February 2019

Document Control Information

SETTINGS	INFO
Document Title:	Detailed report from the Functional end-to-end testing – Wave 2 FORMAL Pre-Production Testing February 2019 - Cyprus
Project Title:	eHealth DSI – ePrescription and Patient Summary
Document Author:	eHDSI Solution Provider
Doc. Version:	1.0
Sensitivity:	eHDSI restricted
Date:	29/03/2019

Document Approver(s) and Reviewer(s):
NOTE: All Approvers are required. Records of each approver must be maintained. All Reviewers in the list are considered required unless explicitly listed as Optional.

NAME/ROLE	ACTION	DATE
eHMSEG / eHN		
eHOMB		
eHDSI Solution Provider	Prepare Report	

Document history:
Changes to this document are summarized in the following table in reverse chronological order (latest version first).

REVISION	DATE	CREATED BY	SHORT DESCRIPTION OF CHANGES
1.0	29/03/2019	eHDSI Solution Provider	Initial version

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Purpose of this document

This document presents the **results from the end-to-end functional testing** that took place during the final week of the Wave 2 FORMAL Pre-Production Testing of February 2019. Specific country results are provided for Cyprus.

2 END-TO-END FUNCTIONAL TESTING

2.1 Role of the end-to-end functional testing

The end-to-end functional testing aims to validate, from the user point of view, the process and the information presented to health professionals by the eHDSI services.

In fact, this is the final and most relevant test of the services: by evaluating the process and the information provided, in a situation as close as possible to that of operation, the entire service is assessed to be conformant to the specifications and to be finally useful to those who will employ it for providing healthcare or dispensing a medicinal product.

The end-to-end functional testing, as its designation claims, is expected to detect flaws or malfunctioning in any step of the process, i.e. from the processing of the original document to its transferring and subsequent processing and display in the receiver country. Furthermore, health professionals participating in the testing will assess the eventual clinical usefulness of the information provided.

2.2 Methodology of the tests

The evaluation is carried out for all eHDSI services (Patient Summary and ePrescription/eDispensation) in an environment that intends to emulate the normal operation as much as possible: e.g. a pharmacist dispensing a medicinal product or a physician in an emergency department providing care to a citizen from a different deploying country.

The only difference with a real scenario is that only test patient and test data are used and no real patients are involved.

The complete methodology for the tests as well as a repository for the test data were set up by the eHDSI Solution Provider on the Operations space on Confluence[1] with the aim of facilitating the performance of the tests and the understanding by the participants.

Fulfilment criteria for the testing is that each deploying country participating has to test their services with all other participants offering the same services. For example, if a deploying country will participate in the eHDSI as Patient Summary Country B, then it has to test with all participating countries acting as Patient Summary Country A by submitting evaluations for the requested documents; likewise a Country A (i.e. a deploying country providing patient summaries of its citizens) needs to be tested by all countries that will request such documents, i.e. countries B for the Patient Summary service.

For the ePrescription/eDispensation service, additional tests are executed. The ePrescription Test Framework Extension[2] was designed to fully test the service functionality given the more complex workflow and particularities of this service.

[1] https://ec.europa.eu/cefdigital/wiki/x/Mj2HAw
[2] https://ec.europa.eu/cefdigital/wiki/x/5hrQAg

2.3 Preparation, operation, and follow-up of the end-to-end functional testing during the Wave 2 FORMAL Pre-Production Testing

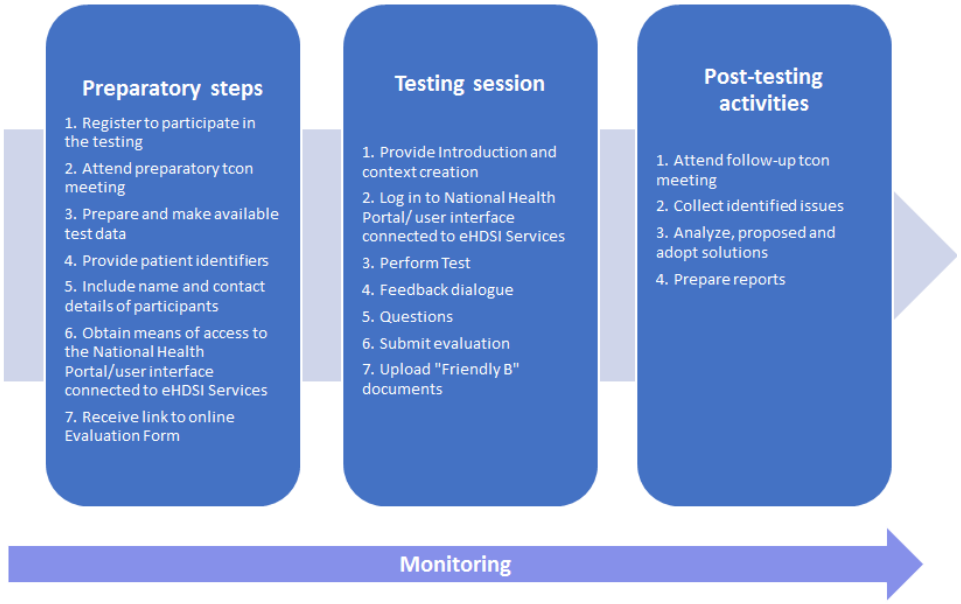
A preparatory conference prior to the testing week was scheduled on February 21 to explain the methodology and present the timeline of the testing. The testing week took place from February 25 to March 1, with two progress report teleconferences on Wednesday, February 27, and Thursday, February 28.

As soon as the testing week ended, Solution Provider started analysing each individual submission. A first follow-up teleconference with the participants in the test was scheduled on Wednesday, March 6, to discuss and continue collecting findings and explain the next steps. As part of these next steps, the eHMSEG Semantic Task Force will discuss the identified findings during the 8th Face-to-Face meeting organised in Brussels on March 27-28.

All the findings identified, either by the participants in the testing or by Solution Provider during the review of the submissions received from the health professionals, are been collected on Confluence[3] and assigned a JIRA ticket for issue tracking. Solution Provider is now working in close collaboration with the eHMSEG Semantic Task Force on solving the Semantic-related issues as well as the others with relevant groups (e.g. OpenNCP Technical Community).

The diagram below shows a schematic view of the phases of the testing.

Figure 1: Phases of the end-to-end functional testing



[3] https://ec.europa.eu/cefdigital/wiki/x/84ZqB

3 EVALUATIONS SUBMITTED DURING THE END-TO-END FUNCTIONAL TESTING – WAVE 2 FORMAL PRE-PRODUCTION TESTING FEBRUARY 2019

3.1 Overall submissions

- Eight deploying countries participated in the testing: Belgium, Croatia, Cyprus, Estonia, Finland, Greece, Luxembourg, and Portugal.

Table 1: Participants in the functional e2e testing

Deploying country	2-letter Country Code	eHDSI Services tested
Belgium	BE	Patient Summary (B)
Croatia	HR	Patient Summary (A)
Cyprus	CY	Patient Summary (A & B), ePrescription (A & B)
Estonia	EE	ePrescription (A) & ePrescription (B) *upgrade*
Finland	FI	ePrescription (B)
Greece	EL	Patient Summary (B), ePrescription (A & B)
Luxembourg	LU	Patient Summary (A) & Patient Summary (B) *upgrade*
Portugal	PT	Patient Summary (A & B), ePrescription (A & B)

- The total number of evaluations submitted was **40**:
  - **11** correspond to the Patient Summary service
  - **18** correspond to ePrescription documents (*1 duplicate detected excluded*)
  - and **11** correspond to the associated eDispensation documents (*1 duplicate detected excluded*)

- The table below shows the number of evaluations submitted by each participating country and whether the required number of tests was performed (i.e. testing and/or being tested by all the partners offering the same service):

Table 2: Evaluations submitted during the functional e2e testing and fulfillment of testing criteria

Deploying country	Services tested	PS evaluations	eP evaluations	eD evaluations	Fulfilled criteria
Belgium	PS(B)	3	NA	NA	**Partially**
Croatia	PS(A)	NA	NA	NA	**Partially**
Cyprus	PS (A & B) eP (A & B)	3	4	3	**Partially**
Estonia	eP(A & B)	NA	4	4	**Partially**
Finland	eP(B)	NA	4	NA	**Partially**
Greece	PS (B) eP (A & B)	1	1	1	**Partially**
Luxembourg	PS(A & B)	2	NA	NA	**Partially**
Portugal	PS (A & B) eP (A & B)	2	5	3	**Partially**
Total (# evaluations: **40**)		**11**	**18**	**11**	

3.2 Submissions for the evaluation of the Patient Summary Service

- The table below shows the **evaluations performed for the Patient Summary service (number of PS documents retrieved and evaluated by health professionals in Country B)**:

Table 3: PS documents evaluated and fulfilment of testing criteria

Deploying country	Services tested	# PS evaluations	PS documents evaluated	Fulfilled criteria: test all PS (A)
Belgium	PS(B)	3	PS documents from CY, HR, and PT	**Partially**
Croatia	PS(A)	NA	NA	**NA**
Cyprus	PS (A & B)	3	PS documents from HR, LU, and PT	**Yes**
Greece	PS(B)	1	PS document from CY	**Partially**
Luxembourg	PS(A & B)	2	PS documents from CY and PT	**Partially**
Portugal	PS (A & B)	2	PS documents from CY and LU	**Partially**
Total (11)				

- The next table shows the evaluations of each deploying country performed by its partners in the Patient Summary service, i.e. **tested as Country A for PS**:

Table 4: PS documents evaluated by partners and fulfilment of testing criteria

Deploying country	Services tested	# PS evaluations done by partners	Partners in the service that evaluated the service	Fulfilled criteria: being tested by all PS (B)
Belgium	PS(B)	NA	NA	**NA**
Croatia	PS(A)	2	Evaluated by BE and CY	**Partially**
Cyprus	PS (A & B)	4	Evaluated by BE, EL, LU, and PT	**Yes**
Greece	PS (B)	NA	NA	**NA**
Luxembourg	PS (A & B)	2	Evaluated by CY and PT	**Partially**
Portugal	PS (A & B)	3	Evaluated by BE, CY and LU	**Partially**
Total (11)				

3.3 Submissions for the evaluation of the ePrescription/eDispensation Service

- The table below shows the **evaluations performed for the ePrescription service**, i.e. dispensations of eP by countries B:

Table 5: eP documents evaluated and fulfilment of testing criteria

Deploying country	Services tested	# eP evaluations	eP documents evaluated	Fulfilled criteria: test all eP Countries A
Cyprus	eP (A & B)	4	eP documents from EE, EL (2), and PT	**Yes**
Estonia	eP (A & B)	4	eP documents from CY (2), EL, and PT	**Yes**
Finland	eP (B)	4	eP documents from CY, EE, EL, and PT	**Yes**
Greece	eP (A & B)	1	eP document from EE	**Partially**
Portugal	eP (A & B)	5	eP documents from CY, EE (3), EL	**Yes**
Total (18)				

- The table below shows the **evaluations received for the ePrescription service**, i.e. for each Country A for ePrescription whether all partners have evaluated the service:

Table 6: eP service as Country A evaluated and fulfilment of testing criteria

Deploying country	Services tested	# eP evaluations	eP documents evaluated	Fulfilled criteria: tested by all eP Countries B
Cyprus	eP (A & B)	4	eP evaluated by EE (2), FI, and PT	**Partially**
Estonia	eP (A & B)	6	eP evaluated by CY, FI, EL, PT (3)	**Yes**
Finland	eP (B)	NA	NA	**NA**
Greece	eP (A & B)	5	eP evaluated by CY (2), EE, FI, and PT	**Yes**
Portugal	eP (A & B)	3	eP evaluated by CY, EE, and FI	**Partially**
Total (18)				

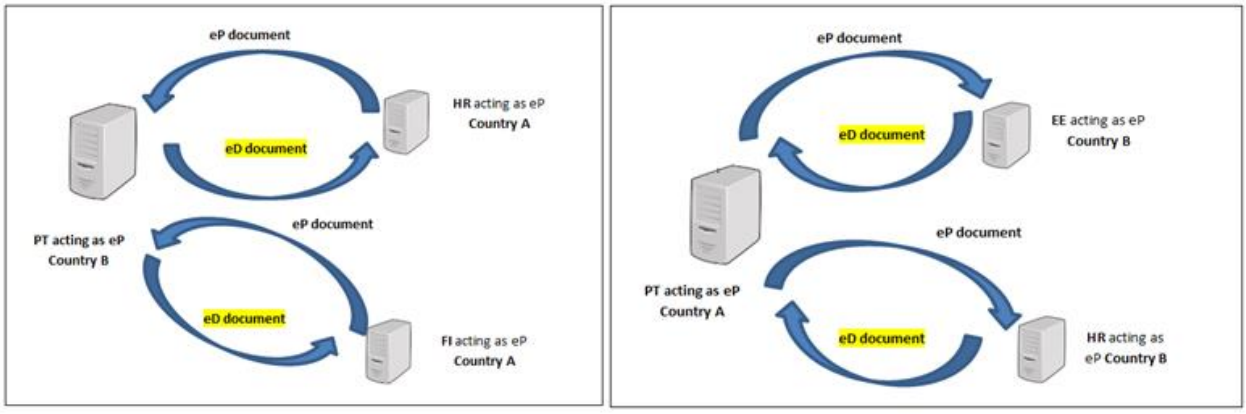
- The next table shows the **evaluations performed for eDispensation**, i.e. Country A retrieving eDispensation documents after a dispensation has taken place in Country B but also that eD dispensation documents have been retrieved and evaluated when the deploying country acts as eP(B) and its capability to generate eD documents is tested :

Table 7: eD documents evaluated and fulfilment of testing criteria

Deploying country	Services tested	# eD evaluations	Retrieved eD documents from partners in the eP service	Fulfilled criteria*	
				Evaluated eD retrieved as eP(A)	Evaluated by partners
Cyprus	eP (A & B)	3	eD documents from EE, EL, and PT	**Partially**	**Yes**
Estonia	eP (A & B)	4	eD documents from CY, EL, FI, and PT	**Yes**	**Partially**
Finland	eP (B)	NA	NA	**NA**	**Partially**
Greece	eP (A & B)	1	eD documents from CY	**Partially**	**Partially**
Portugal	eP (A & B)	3	eD documents from CY, EE, and FI	**Partially**	**Partially**
Total (11)					

*To evaluate the eD when a deploying country in the eP service - both as Country A and B - fulfills the testing criteria, the processes and documents that need to be evaluated are depicted below (using PT as example): not only that deploying country has to evaluate the eD documents from the partners that are dispensing its prescriptions, but also when dispensing prescriptions from partners it has to be able to provide eD documents, which will be evaluated by the partners (see diagrams below, Figure 2).

Figure 2: Diagrams detailing the transactions involved in the eP/eD service for a Country acting as both A&B



3.4 General conclusions from the analysis of the number of submissions received

- Patient Summary Service

  - Based only on the number of submissions, only one of the countries participating, Cyprus, fulfilled the criteria of performing all the necessary tests and evaluations, and being, at the same time, tested and evaluated by all the counterparts in the service.

- ePrescription/eDispensation Service

  - Based only on the number of submissions, none of the countries participating fulfilled the criteria of performing all the necessary tests and evaluations, and being, at the same time, tested and evaluated by all the counterparts in the service.

4 DETAILED RESULTS OF THE END-TO-END FUNCTIONAL TESTING

This section presents a detailed report per deploying country and service after the analysis of the evaluations submitted by health professionals and semantic experts.

The analysis has been carried out by Solution Provider, examining carefully all evaluations and issues reported by evaluators, checking whether the cause is a misalignment in the technical/semantic components or in the clinical document initially provided; if due to the former, the necessary fixes will be proposed to the eHMSEG Semantic Task Force or corresponding body for adoption.

Issues with the generation of the documents by one of the participating countries in the Patient Summary service impeded that all the tests for the service were executed.

Regarding the ePrescription/eDispensation service, two errors were reported at the moment of the dispensation.

The perception of the response time was considered as follows (Table 8):

Table 8: Perception of the response time

Perception of the response time*	Patient Summary service		ePrescription/eDispensation service	
	# submissions	percentage	# submissions	percentage
Good	8	72.73%	7	38.89%
Acceptable	3	27.27%	11	61.11%
Not acceptable	0	0%	0	0%
Total	11	100%	18	100%

*Response time for eDispensation is not taken into account

4.1 Results of the testing of the Patient Summary Service

4.1.1 Cyprus

Deploying Patient Summary A & B services

Table 9: Summary of test data provided and evaluations submitted

Number of PS test data provided	1 document based on the Reference Test Data sample (not complete)
Number of evaluations submitted for PS retrieved from partners	3 – evaluations for PS documents from HR, LU, and PT
Number of evaluations submitted for its services provided by partners	4 - from BE, EL, LU, and PT

Analysis of the test data provided for the testing: PS based on the Reference Test Data sample (patient id 876543)

Table 10: Analysis of the test data provided for the testing: PS based on Reference Test Data sample (patient id 876543)

Item		
Elements in the Header of the document present	Yes	*See comment*
Original PDF of the PS provided	Yes	
All the required Sections present (Allergies, Active Problems, Medication Summary, Coded List of Surgeries, Medical Devices)	Yes	*See comments*
Other Sections present	Yes	History of Past Illness, Immunizations, Social History, Physical findings
General evaluation of the clinical usefulness of the document	Yes	
Comments		

- Regarding the Header of the document: name and given name of the patient are switched.
- Allergies Section: one of the medical doctors evaluating the PS noted that the severity of the allergic reaction is a relevant characteristic that should be communicated. In this case, the severity is not included in the coded entry, although it is indicated in the original narrative part.

  The suggestion to display the severity, if it is provided, has been taken into account by Solution Provider and will be discussed during the next F2F meeting of the eHMEG Semantic Task Force.
- Medication Summary: data is displayed for the active ingredient, strength, pharmaceutical dose form, units per intake, frequency of administration, and start and end date, but not for the route of administration.
  - The frequency of administration wrongly displays the duration of treatment; this is due to the incorrect construction of the document. The second <effectiveTime> element records the frequency of administration

and, instead, the CDA document contains the duration of the treatment:

```
<effectiveTime xsi:type="IVL_TS">
    <low value="20190213"/>
    <high value="20190227"/>
</effectiveTime>
<effectiveTime xsi:type="PIVL_TS" operator="A" institutionSpecified="false">
    <period value="14.0" unit="d"/>
</effectiveTime>
```

- Additionally, one of the evaluators found confusing how the strength is presented, 100.0mg, with a decimal digit; in fact the strength is incorrect for the medicinal product present, as levothyroxine is marketed, for example, as tablets with 100 microgram or 0.1 milligram (the administered dose can range from 25 microgram up to 200 microgram).
- Overall, it is not clear for the health professional the dose and the frequency of intake.

- List of Past Problems: the description present in the original narrative part is incomplete, it only indicates 'Thyroid and other endocrine glands' instead of the corresponding description for the coded problem 'Carcinoma in situ: Thyroid and other endocrine glands'.
- Immunizations:
  - Comments received from a health professional proposing to change the display label from 'Vaccination' to 'Vaccine', given that what is being displayed is, in fact, the components of the vaccine administered (e.g. Diphteria+tetanus+pertussis-poliomyelitis vaccine).
  - It is also noted that the vaccination date appears detailed to the hour, minutes, and seconds, which is not relevant.
- Social History:
  - No data provided for the observed value of the lifestyle habits (smoking and alcohol intake).
  - Comments received from the health professional about the labels used for the translated part of this Section, which, along with the lack of observed value and the use of the 'Not Applicable' ('NA') null flavor for the end date of the smoking habit, make the missing information/empty cells difficult to understand by the health professional.
- Physical findings: comments received about the question in the Evaluation Form (noted by Solution Provider to improve the questionnaire) and on the way the numerical value of the blood pressure is presented to the health professional, e.g. 120.0 mmHg, when the decimals are never used.

Results after the review of the evaluations submitted as Country B:

- The submission for the HR PS document cannot be taken into account to evaluate the PS service. Documents from HR could not be correctly processed by the Transformation Manager (prefix namespaces not supported), resulting in erroneous documents not fully translated.
- A number of comments in the evaluations received from CY refer to features and labels in the CDA Display Tool Reference Implementation as it is: e.g. the format of the dates not being the usual way dates are presented nationally. As the CDA Display Tool is provided just as a reference implementation, deploying countries may customize it to best fit their users' needs and expectations.
- Also a number of comments were received regarding the wording of the questionnaire; they will certainly be taken into account to improve it, although, given the reasoning of the point above, i.e. that the CDA Display Tool can be customized and that display labels can be translated and adapt to each national usage, it is the meaning of the questions what is relevant and not the actual wording.

4.2 Results of the testing of the ePrescription/eDispensation Service

4.2.1 Cyprus

Deploying eP/eD A and B services

Table 11: Summary evaluations submitted and/or evaluations received for eP/eD documents

Number of evaluations submitted for eP documents	4 – eP documents from EE , EL (2), and PT
Number of evaluations submitted for eD documents retrieved from partners	3 – eD documents from EE, EL, and PT
Number of evaluations submitted for its eP services provided by partners	4 - eP evaluated by EE (2), FI, and PT *(1 duplicate submission where a partner evaluated the same eP twice excluded)*
Number of evaluations submitted for its eD capability provided by partners	3 – eD documents evaluated by EE, EL, and PT

Analysis of the submissions received for eP services of CY acting as Country A (patient id 100000)

Table 12: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 100000)

Item		
Elements in the Header of the document present	Yes	*See comment*
Display of prescriptions and possibility to select the appropriate one	No	*See comment*
Original PDF of the eP provided	Yes	
Dataset in Country B language and elements correctly displayed?	No	*See comments*
Information need to safely dispense provided	Yes	
Dispensation possible	Yes	

Comments

- Regarding the Header of the document:
  - Family name and given name are switched.
- Display of prescriptions and possibility to select the appropriate one:
  - The evaluator suggests the inclusion of the ATC code and description to facilitate selecting the prescription, as well as the name of the product, the strength, and dose form.
- The <name> element of the <manufacturedMaterial> "should contain the brand name of the medication" but in this test data, it contains the active ingredient (teriparatide) and the code, instead of the "Country A Cross-border/regional/national medicinal product code, it contains the EDQM Standard Term code 11201000 for the pharmaceutical dose form 'Solution for injection' (this code is repeated later in its correct place <epsos:formCode>).
- The <epsos:name> element of the <epsos:ingredient> structure contains the brand name of the medicinal product (FORSTEO).

- Although the data about package size and strength are mentioned as not looking correct for the evaluator of the document, they seem so for Solution Provider:

```
<epsos:asContent classCode="CONT">
    <epsos:containerPackagedMedicine classCode="CONT" determinerCode="INSTANCE">
        <epsos:name>FORSTEO</epsos:name>
        <epsos:formCode code="11201000" displayName="Solution for injection" codeSystemVersion="2017-04-14"
        codeSystemName="EDQM" codeSystem="0.4.0.127.0.16.1.1.2.1"/>
        <epsos:capacityQuantity value="28" unit="1"/>
        <epsos:capTypeCode nullFlavor="NA"/>
    </epsos:containerPackagedMedicine>
</epsos:asContent>

<epsos:quantity>
    <epsos:numerator value="20" xsi:type="epsos:PQ" unit="mcg"/>
    <epsos:denominator value="1" xsi:type="epsos:PQ" unit="1"/>
</epsos:quantity>
```

- It was not necessary to perform a substitution to dispense the medicinal product.

Analysis of the submissions received for eP services of CY acting as Country A (patient id 100001)

Table 13: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 100001)

Item		
Elements in the Header of the document present	Yes	*See comments*
Display of prescriptions and possibility to select the appropriate one	No	*See comment*
Original PDF of the eP provided	Yes	
Dataset in Country B language and elements correctly displayed?	No	*See comments*
Information need to safely dispense provided	Yes	*See comment*
Dispensation possible	Yes	*See comment*

Comments

- Regarding the Header of the document:
  - Family name and given name are switched.
  - Gender in the original CDA document is F (‘Female’), although in one of the evaluations it is indicated as ‘Undifferentiated’ because it was not displayed by the Pharmacy system (*finding for Country B*).
- In the Prescription List, it is only indicated as ‘ePrescription (eHDSI Cyprus)’, which in case of more than one prescription for the same patient would make impossible to select the correct one.
- Dosage instructions not present.
- Same situation as for the patient above with Id 100000: the <name> element of the <manufacturedMaterial> “should contain the brand name of the medication”, ‘Lantus’, but it contains the active ingredient (insulin glargine) and the code, instead of the “Country A Cross-border/regional/national medicinal product code, it contains the EDQM Standard Term code 11201000 for the pharmaceutical dose form ‘Solution for injection’ (this code is repeated later in its correct place <epsos:formCode>).
- The <epsos:name> of the element of the <epsos:ingredient> structure contains, instead of the name of the active substance, the brand name of the medicinal product (‘Lantus’).

- Although, it is mentioned, in one of the evaluations, that this eP can be safely dispensed, it is highlighted that in other cases, the missing information on the dosage instructions might impede the dispensation.
- The package size of the medicinal product is unclear for the evaluators: 10mL would be expected instead.

```
<epsos:asContent classCode="CONT">
    <epsos:containerPackagedMedicine classCode="CONT" determinerCode="INSTANCE">
        <epsos:name>LANTUS</epsos:name>
        <epsos:formCode code="11201000" displayName="Solution for injection" codeSystemVersion="2017-04-14" codeSystemName="EDQM" codeSystem="0.4.0.127.0.16.1.1.2.1"/>
        <epsos:capacityQuantity value="50" unit="1"/>
        <epsos:capTypeCode nullFlavor="NA"/>
    </epsos:containerPackagedMedicine>
</epsos:asContent>
```

- It was not necessary to perform a substitution to dispense the medicinal product.

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 01117506038):

Table 14: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 01117506038)

Item		
Administrative data	Yes	
Document received in Country A language	No	
Structure and information in the received document as expected	Yes	
eD Document received for each eP, eP identifier included in the document	Yes	
Information about the dispensed medicine in Country B (including brand name) present	Yes	
Number of packages dispensed present	Yes	
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	Yes	
Did a substitution take place?	No	
Comments		
No comments received.		

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 47301012239):

Table 15: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 47301012239)

Item		
Administrative data	Yes	
Document received in Country A language	Yes	
Structure and information in the received document as expected	Yes	
eD Document received for each eP, eP identifier included in the document	Yes	
Information about the dispensed medicine in Country B (including brand name) present	Yes	
Number of packages dispensed present	Yes	
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	Yes	
Did a substitution take place?	No	
Comments		
No comments received.		

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 294584908):

Table 16: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 294584908)

Item		
Administrative data	Yes	
Document received in Country A language	Yes	
Structure and information in the received document as expected	Yes	
eD Document received for each eP, eP identifier included in the document	Yes	
Information about the dispensed medicine in Country B (including brand name) present	No	*See comment*
Number of packages dispensed present	Yes	
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	No	*See comment*
Did a substitution take place?	No	
Comments		

- Comment received regarding the information about the dispensed medicine in Country B: “The CDA document presented only refers the generic name of the pharmaceutical product that was dispensed. The information contains "Salbutamol, 100 µg/dose, Suspensão pressurizada para inalação, Recipiente pressurizado - 1 unidade(s) - 200 dose(s)" with out a Brand".
- And for the question about the dispensation of the correct amount: “Almost the required fields were present in the CDA document, however the information about the package of the pharmaceutical product that was dispensed is not enough. Is not indicated the specific package (included the Brand name) that was dispensed. In this way, if the patient has some how a adverse reaction later, the doctor that's prescribes the medication don´t has information about the package of pharmaceutical product”.

As Country B evaluating the eP service, the following can be noted:

- One of the evaluations submitted was performed by a medical doctor. Solution Provider considers that the real future users of the system are the ones that should perform the Functional e2e testing, as it is, in fact, an end-user testing whose purpose is to validate the service from the users’ point of view.

  Having a different health professional providing the evaluation will probably reflect a different point of view and not allowing collecting the specific input that a pharmacist will give regarding country’s availability of the specific medicinal product or about any national requirement or specificity.

- It is indicated, in one of the evaluations received from CY for an eP document from a partner, that it was not clear what the frequency of intake is, because it is not understandable what the abbreviation ‘d’ stands for. This might reflect the need to review, from CY point of view, how to present UCUM units to the users: e.g. the current epSOSUnits contains the code ‘d’ (day) and it can be decided to present it as ‘day’ and not as the code ‘d’.

- An Error message was encountered when dispensing an eP from GR (patient Id 01117506038): “Cannot upload Dispense message”.

- Regarding the eP from EE (patient Id 38301105216) and the one from GR (patient Id 01059902062), it is indicated in the evaluations submitted that “only” an acknowledgement message after dispensation was received, and answered ‘No’ to the question whether the information about the medicine dispensed could be send or saved. It should be noted that if a country wishes to further process or manage the information about the medicine dispensed (in addition to the correct generation of the eDispensation message to the Country A originating the eP), that this is outside the functioning of the Portal and CDA Display Tool as they are provided as Reference Implementations and is left to a national decision.

- Regarding the evaluation submitted for the eD document from GR (patient Id 876543), the following has been included in the Section for GR and copied here:

  “It is indicated that the number of packages dispensed is not present and commented that it is only the number of packages prescribed what is present.

  Solution Provider considers that what might be wrong is the information from the dispensation document that is being presented to the pharmacist evaluating the document, given that the quantity dispensed is included as should (as well as the prescribed number of packages in the ‘Related Prescription’ structure).

```
<supply classCode="SPLY" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.1.34"/>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.4.7.3"/>
    <templateId root="1.3.6.1.4.1.12559.11.10.1.3.1.3.3"/>
    <id root="2.16.17.710.811.1000.990.1" extension="medicine.1"/>
    <quantity value="2.0" unit="1"/>
```

  Given the document provided attached to the evaluation, it might be the case that the information from the eD document is, as commented above, not correctly presented to the health professional evaluating the service: this is also commented by the evaluator: “It seems that the dispensation was performed correctly but it is not clear if the information displayed are the actual dispensation information OR just a copy of the prescription information displayed again”.

The same concern regarding the other evaluations for the eD documents from PT (patient Id 100002) and EE (patient Id 100001): based on the replies provided in the questionnaire and the files attached to them, it is not clear whether the information presented to the health professional comes from the 'Related Prescription' structure inside the eD document or from the actually dispensed medicine information.

1.2.3 Wave 2 FORMAL Pre-Production Testing July 2019

DG SANTE

Detailed report from the Functional end-to-end testing - Cyprus

June 2019 Test Session – Wave 2 Re-Testing and Wave 1>2 Upgrade

Document Control Information

SETTINGS	INFO
Document Title:	Detailed report from the Functional end-to-end testing – Cyprus June 2019 Test Session – Wave 2 Re-testing and Wave 1>2 Upgrade
Project Title:	eHealth DSI – ePrescription and Patient Summary
Document Author:	eHDSI Solution Provider
Doc. Version:	1.0
Sensitivity:	eHDSI restricted
Date:	09/08/2019

Document Approver(s) and Reviewer(s):
NOTE: All Approvers are required. Records of each approver must be maintained. All Reviewers in the list are considered required unless explicitly listed as Optional.

NAME/ROLE	ACTION	DATE
eHMSEG / eHN		
eHOMB		
eHDSI Solution Provider	Prepare Report	09/08/2019

Document history:
Changes to this document are summarized in the following table in reverse chronological order (latest version first).

REVISION	DATE	CREATED BY	SHORT DESCRIPTION OF CHANGES
1.0	09/08/2019	eHDSI Solution Provider	Initial version

1 PURPOSE OF THIS DOCUMENT

This document contains **a detailed presentation of the results from the functional end-to-end testing** that took place during the final week of the June 2019 Test Session (Wave 2 Re-Testing and Wave 1>2 Upgrade); results are country specific for **Cyprus**.

2 DETAILED RESULTS OF THE END-TO-END FUNCTIONAL TESTING

2.1 Results of the testing of the Patient Summary Service

2.1.1 Cyprus

Deploying Patient Summary A & B services

All evaluations for the Re-Testing and Upgrade W1>2 were submitted.

Table 15: Summary of test data provided and evaluations submitted

Number of PS test data provided	1 National Representative Test Data
Number of evaluations submitted for PS retrieved from partners	4 - CZ, HR, LU, MT
Number of evaluations submitted for its services provided by partners	4 – CZ, HR, LU, MT

2.1.1.1 Analysis of CY in its role as Country A for PS

Table 2: Analysis of the test data provided for the testing (patient Id 1)

Comments on the Sections/Elements of the CDA document	
Header of the document	– Guardian not present – A comment was received about how most of the address elements are presented and consequently displayed in one string making“ hard or impossible to distinguish street, house number, postal code and city": <addr use="**WP**"> <streetAddressLine>1 Prodromou and Chilonos Street 17, 1448, Nicosia</streetAddressLine> <state>UNK</state> <country>CY</country> </addr>
Original PDF of the PS	Provided

Required Sections (Allergies, Active Problems, Medication Summary, List of Surgeries, Medical Devices)	– Allergies:
	▪ Severity is not displayed to the HP, although it is present in the coded entries. The reason for this is an incorrect position of the entryRelationship element in which the severity is included; it is under the Problem template, while it should be after it at the same level.
	
	`<entryRelationship typeCode="MFST">`
	`<templateId root="1.3.6.1.4.1.19376.1.5.3.1.4.6.1"/>`
	`<observation classCode="OBS" moodCode="EVN">`
	`<templateId root="2.16.840.1.113883.10.20.1.54"/>`
	`<templateId root="2.16.840.1.113883.10.20.1.28"/>`
	`<templateId root="1.3.6.1.4.1.19376.1.5.3.1.4.5"/>`
	`<id root="2.16.620.1.101.10.3.29.54290" extension="allergy.1reactionObs"/>`
	`<code code="404684003" displayName="Clinical finding" codeSystemVersion="2016-07" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>`
	`<text>`
	`<reference value="#allergy.1"/>`
	`</text>`
	`<statusCode code="completed"/>`
	`<effectiveTime>`
	`<low value="20000101"/>`
	`<high nullFlavor="NA"/>`
	`</effectiveTime>`
	`<value code="271759003" displayName="Bullous eruption" codeSystemVersion="2016-07" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96" xsi:type="CD"/>`
	`<entryRelationship typeCode="SUBJ" inversionInd="true">`
	`<observation classCode="OBS" moodCode="EVN">`
	`<templateId root="2.16.840.1.113883.10.20.1.18"/>`
	`<templateId root="1.3.6.1.4.1.19376.1.5.3.1.4.1"/>`
	`<templateId root="2.16.840.1.113883.10.20.1.55"/>`
	`<code code="SEV" displayName="Severity" codeSystemName="ActCode" codeSystem="2.16.840.1.113883.5.4" xsi:type="CE"/>`
	`<text>`
	`<reference value="#allergy.1"/>`
	`</text>`
	`<statusCode code="completed"/>`
	`<value code="24484000" displayName="Severe" codeSystemVersion="2016-07" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96" xsi:type="CD"/>`
	`</observation>`
	`</entryRelationship>`
	`</observation>`
	`</entryRelationship>`
	
	– Medication Summary:
	▪ Not included, not even in the narrative part, which contains only headers for a table; no entries included and consequently no translated coded part displayed to the HP.
	– Active Problems:
	▪ One active problem present (Predominantly allergic asthma)
	– List of Surgeries:
	▪ One surgical procedure present (Femoral-popliteal artery bypass graft)
	– Medical Devices:
	▪ One implant included (Implantable defibrillator)

Other Sections present	– Immunizations: ▪ The vaccination date is provided precise to the hour, minute, second (00:00:00), this is mentioned as not necessary and not user friendly.

	– History of Past Illness: ▪ It is highlighted how in the narrative part, the description of the past problem is not complete, but is so in the coded part: Thyroid and other endocrine glands in the narrative part *vs* Carcinoma in situ, Thyroid and other endocrine glands. This is due to the way the ClaML file of ICD-10 is structured: many rubrics with the rubric kind "preferred" do not adequately represent the meaning of a class (concept) without presenting them in context with the preferred rubric of their parent; for those cases the rubric of type preferredLong should be chosen. It was also mentioned how the duration for that past problem was only of 6 days. – Social History: ▪ Entries present for alcohol intake and tobacco use ▪ The values for both entries contain a repetition of the coded element that represents the type of social history observation; consequently the value of the observation for the lifestyle habit is blank. <entry> <observation classCode="**OBS**" moodCode="**EVN**"> <templateId root="**1.3.6.1.4.1.19376.1.5.3.1.4.13**"/> <templateId root="**2.16.840.1.113883.10.20.1.33**"/> <templateId root="**1.3.6.1.4.1.19376.1.5.3.1.4.13.4**"/> <id root="**2.16.620.1.101.10.3.29.54290**" extension="**social.1**"/> <code code="**160573003**" displayName="**Alcohol intake**" codeSystemVersion="**2016-07**" codeSystemName="**SNOMED CT**" codeSystem="**2.16.840.1.113883.6.96**" xsi:type="**CE**"/> <text> <reference value="**#social.1**"/> </text> <statusCode code="**completed**"/> <effectiveTime> <low value="**20120202**"/> <high value="**20180202**"/> </effectiveTime> <value code="**160573003**" displayName="**Alcohol intake**" codeSystemVersion="**2016-07**" codeSystemName="**SNOMED CT**" codeSystem="**2.16.840.1.113883.6.96**" xsi:type="**CD**"/> </observation> </entry> As indicated in the PS Implementation Guide, for example, the value for the alcohol intake lifestyle should be provided following this pattern: <value xsi:type='**PQ**' value='**1**' unit='**{drink}/d**'/> – Vital signs: ▪ An evaluator made the same comment as for the effective time of the Immunizations being precise to the hour, minute, second.
General evaluation of the clinical usefulness of the document	Considered useful
Additional comments	
The test data provided does not seem to be "realistic": the patient is carrying an implant (implantable defibrillator) and had a surgical procedure performed (Femoral-popliteal artery bypass graft), but the only active and past problems mentioned are allergic asthma and thyroid carcinoma. Additionally, not medication is included in the Medication Summary Section, not even in the narrative part.	

2.1.1.2 Analysis of CY in its role as Country B for PS

Feedback for CY as Country B for PS

- The **version of the CDA Display Tool used during the testing was not the latest one (for this testing event version 3.0.0)**, which impeded HPs to see the severity of the allergic reactions and the administration check for immunizations, along with some improvements in the display of the administrative information present in the header of the document.

  The CDA Display Tool is not an eHDSI normative artefact and consequently only provided as a reference implementation. Nevertheless, Solution Provider recommends updating the OpenNCP Portal to the latest version to benefit of the improvements that are periodically performed on the CDA Display Tool after the feedback from testing events and its discussion by the Semantic Task Force.

- When evaluating the PS service, the HP in Cyprus indicated that clinical manifestations of allergies were not translated from the original Country A language. This is due to **not having updated the coded element list file in the CY NCPeH**; as a consequence of that the transformation manager will not look for a translation for that specific node in the CDA.

- Feedback in the evaluation forms submitted by Cyprus referred to the wording of the question about **patient identifiers** in the questionnaire itself, emphasizing that this comment had already been made in the previous two test events.

  Solution Provider took into account those comments made previously and re-phrased the question so it was generic enough and, at the same time, made it distinct to the one in the evaluation forms for eP and eD documents.

  It needs to be noted that the wording of the question in the evaluation form needs to be generic and not matching exactly what the HP is seeing on the screen, given that this will depend on the country's own implementation of the CDA Display Tool and language use.

  Additionally, if as commented, the label "Patient IDs" in the Display Tool is not clear to the user, the Semantic responsible team can choose the best wording for that label to include it in the epSOSDisplayLabel Value Set of the MVC when creating the CY national MTC (to learn more about the Display label, please check the Semantic Confluence space[1]). As an example, countries like Croatia have decided not to use the abbreviation ID, but to spell in full the word and the label is "*Identifikatori pacijenta*".

- On the same note, the comment regarding the wording of the List of Current Problems/Diagnosis Section not matching the exact wording of the label in the Section as displayed to the user, has the same reasoning: the evaluation form needs to be generic given that the HP filling in the questionnaire are using different implementations in different languages and, even if their using English, the labels of sections and elements can be modified to best fit national specificities. Even more, as mentioned above, the CDA Display Tool is not a normative artefact and a different user interface can be developed by an eHDSI country.

- Regarding the comment received about the format in which the dates are present, this has been addressed in other occasions: the Reference Implementation of the CDA Display Tool uniformly uses the ISO 8601 standard format for dates, nevertheless each country can decide to customize it as best fits their needs.

- In the evaluations received from CY it is also emphasized the different layout between the original part and the translated part: "*Solution provider must make it better (see previous comments, e.g. data format, column presentation, difference from original)*".

  It has to be reminded at this point some key features of the CDA structure along with its use in the eHDSI: the structured body of a CDA includes sections which, in turn, include a human readable part consisting of the title and text (according to the standard those are the parts that have to be presented to a human reader) and entries, which are RIM-bases structures used to convey software-processable information. In the eHDSI services, those machine-processable entries are processed (mapped/translated) and presented to the user in his/her national language (or in English in case English is acceptable to be presented to the users).

  The narrative text in the sections – "original" narrative as it would be in Country A language- may have a different format compared to the coded entries, which follow the pattern agreed for the entries in the eHDSI Implementation Guides (IGs). It is not expected, neither in a CDA nor in the eHDSI IGs, that the narrative part in a section should match *exactly the format of* the entries (see more at http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7 for the CDA R2 Specification and the eHDSI Semantic Services Specification at https://ec.europa.eu/cefdigital/wiki/x/8Q9AAg, along with the eHDSI PS Implementation Guide at https://art-decor.ehdsi.eu/art-decor/decor-templates--epsos-).

  In any case, Solution Provider cannot modify unilaterally the eHDSI PS Implementation Guide, any change has to follow the usual process (see the eHDSI Change Management process at https://ec.europa.eu/cefdigital/wiki/x/GkUZAg).

[1] https://ec.europa.eu/cefdigital/wiki/x/ratUAw

2.2 Results of the testing of the ePrescription/eDispensation Service

2.2.1 Cyprus

Deploying eP/eD A and B services

For the Upgrade W1>2 testing, the evaluation of the test of CY eD documents by HR was missing.

Table 37: Summary evaluations submitted and/or evaluations received for eP/eD documents

Number of evaluations submitted for eP documents	2 – eP documents from FI and HR
Number of evaluations submitted for eD documents retrieved from partners	3 – eD documents from FI, GR and HR
Number of evaluations submitted for its eP services provided by partners	3 – eP evaluated by EL, FI and HR
Number of evaluations submitted for its eD capability provided by partners	1 – eD evaluated by FI

2.2.1.1 Analysis of CY in its role as Country A for eP/eD

Analysis of the submissions received for eP services of HR acting as Country A (patient id 1)

Table 38: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 1)

Item		
Elements in the Header of the document present	Yes	See comments
Display of prescriptions and possibility to select the appropriate one	Yes	See comment
Original PDF of the eP provided	Yes	
Dataset in Country B language and elements correctly displayed?	Yes	See comments
Information need to safely dispense provided	Yes	
Dispensation possible	Yes	
Additional comments		

- The entire address (except from the country) is included in the streetAddressLine element, while dedicated elements are available to structure the data: hl7:postalCode, hl7:city, hl7:state:

```
<addr>
    <country>CY</country>
    <streetAddressLine>21, Dimokritou, 1000, Strovolos, Nicosia</streetAddressLine>
</addr>
```

- Prescriber's organization is "Vasilios Scoutellas" and this is the same as the prescriber's name. On the PDF the prescriber's organization is however indicated as "Ministry of Health" (custodian in XML).
- XML contains unexpected extra elements participant and documentationOf in the header.
- The root "2.16.470.1.100.1.1.1000.990.1" OID is used in identifiers for patient, prescriber, organizations with different extensions
- The patient ID provided ("1") is rather short and probably doesn't represent the way patients are identified in CY.
- For one evaluator: “In some cases we couldn't open the file or/and a message "XDSRegistryError" appeared”. Another one commented that the numerator was missing.
- Comment received about the structured dosage instructions: "Structured dosage instructions are not understandable, because according to them the medicinal product should be used from 13.6.2019 to 13.7.2019 on every third day, with the amount of 3/d on those days. The structured dosage instruction could not be processed by the NCP and sent to the pharmacy system. On the PDF the instruction was however clear (1 tablet 3 times a day for 30 days)"

```
<effectiveTime institutionSpecified="true" operator="A" xsi:type="PIVL">
    <period unit="d" value="3.0" />
</effectiveTime>
```

The frequency of intakes is easily understandable from the PDF ("3 per day"), but wrong in the structured element. As it is, it represents every three days.

The correct way to represent three times a day would be:

```
<effectiveTime institutionSpecified="true" operator="A" xsi:type="PIVL_TS">
    <period unit="h" value="8" />
</effectiveTime>
```

- Comment received about the brand name: "The prescription seems to be brand name based (KRATIUM). Name KRATIUM is not however visible on the PDF".
- Comment received about the package type: "Package type is "Tablet" which seems incorrect. PDF states that the package type is "Blister", this information is not included on the XML version. "Blister" is visible under the asSpecializedKind construct:

```
<epsos:asSpecializedKind classCode="GEN">
    <epsos:generalizedMedicineClass classCode="MMAT">
        <epsos:code code="N05BA01" codeSystem="2.16.840.1.113883.6.73" codeSystemName="Anatomical Therapeutic
        Chemical" codeSystemVersion="2017-01" displayName="Diatsepaami">
            <epsos:translation code="N05BA01" codeSystem="2.16.840.1.113883.6.73" codeSystemName="Anatomical
            Therapeutic Chemical" displayName="diazepam" />
        </epsos:code>
        <epsos:name>diazepam, 5 mg, 30 Tablets , Blister</epsos:name>
    </epsos:generalizedMedicineClass>
</epsos:asSpecializedKind>
```

This information is not however available through the pharmacy system, as the ATC code is available as a code."

- Epsos:containerPackagedMedicine contains a subelement epsos:capTypeCode(nullFlavored) that is defined in the CDA Extended XSD schema, but not defined in the CDA IGs.
- Comment received about the strength: Strength units are not UCUM codes, although it was understood by the pharmacist:

```
<epsos:quantity>
    <epsos:numerator unit="mg" value="5" xsi:type="epsos:PQ" />
    <epsos:denominator unit="Tablet" value="1" xsi:type="epsos:PQ" />
</epsos:quantity>
```

- Comment received about the number of packages: "Number of packages is indicated as:

```
<entryRelationship typeCode="COMP">
    <sequenceNumber value="1" />
    <supply classCode="SPLY" moodCode="RQO">
```

```
            <independentInd value="false" />
            <quantity unit="{packages}" value="1.0" />
        </supply>
    </entryRelationship>
```

We would expect the simple unit "1" here without curly braces." Also the value should be an integer, and not a real number, for example:

```
<quantity unit="1" value="1" />
```

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 020191-901M):

Table 39: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 020191-901M)

Item		
Administrative data	Yes	
Document received in Country A language	Yes	
Structure and information in the received document as expected	No	*See comment*
eD Document received for each eP, eP identifier included in the document	Yes	
Information about the dispensed medicine in Country B (including brand name) present	Yes	
Number of packages dispensed present	Yes	
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	Yes	
Did a substitution take place?	No	

Comments

- The root "2.16.17.710.860.1000.990.1" (assigned to "Country Custodian Name") is used for document identifiers, for pharmacist identifiers, for pharmacy identifiers, and section identifiers in the eDispensation.
- Custodian is "Country Custodian Name". This should be a more specific value:

```
<representedCustodianOrganization classCode="ORG" determinerCode="INSTANCE">
    <id root="2.16.17.710.860.1000.990.1" />
    <name>Country Custodian Name</name>
    <telecom nullFlavor="NI" />
    <addr>
        <country>CY</country>
    </addr>
</representedCustodianOrganization>
```

- Legal Authenticator is "Kansaneläkelaitos", which is the Finnish NCP organization. The evaluator commented that, logically, the Finnish NCP cannot assume legal responsibility for a Cypriot dispensation. The address is in Brussels. Name of the assigned person is

Firstname Organisation.

```
<legalAuthenticator typeCode="LA" contextControlCode="OP">
  <time value="20120927112208" />
  <signatureCode code="S" />
  <assignedEntity classCode="ASSIGNED">
    <id root="2.16.17.710.860.1000.990.1" />
    <addr>
      <streetAddressLine>4, Breydel Street</streetAddressLine>
      <city>Brussels</city>
      <postalCode>B-1000</postalCode>
      <state nullFlavor="UNK" />
      <country>BE</country>
    </addr>
    <telecom nullFlavor="NI" />
    <assignedPerson>
      <name>
        <family>Firstname</family>
        <given>Organisation</given>
      </name>
    </assignedPerson>
    <representedOrganization classCode="ORG" determinerCode="INSTANCE">
      <id root="2.16.17.710.860.1000.990.1" />
      <name>Kansaneläkelaitos</name>
      <telecom nullFlavor="NI" />
      <addr use="PST">
        <streetAddressLine>N/A</streetAddressLine>
        <city>City</city>
        <postalCode>N/A</postalCode>
        <state nullFlavor="UNK" />
        <country>CY</country>
      </addr>
    </representedOrganization>
  </assignedEntity>
</legalAuthenticator>
```

- Comment received about the relatedDocument structure: "The link in the relatedDocument construct refers to the ePrescription. In our opinion, XFRM refers to another version of the same document (PDF or national dispensation document). The link to the ePrescription is provided through the inFulfillmentOf construct, not through the relatedDocument construct."

```
<relatedDocument typeCode="XFRM">
    <parentDocument classCode="DOCCLIN">
    <id extension="4730" root="1.2.246.556.12001.4.93.1.1" />
    </parentDocument>
</relatedDocument>
```

Solution Provider has taken note of this issue, included it in the table of findings from the June 2019 Test Event and brought it already for discussion and fix by the Architecture work group of the eHMSEG Semantic Task Force.

- Name of the dispenser and pharmacy are the same "pharmacist pharmacist".

```
<assignedPerson classCode="PSN" determinerCode="INSTANCE">
    <name>
        <family>pharmacist</family>
        <given>pharmacist</given>
    </name>
 </assignedPerson>
<representedOrganization>
    <id root="2.16.17.710.860.1000.990.1" extension="21229" />
    <name>pharmacist pharmacist</name>
    <telecom value="tel:+2109999999" use="WP" />
    <telecom value="mailto:pharmacist@openncp.com" use="WP" />
    <addr>
        <streetAddressLine>Address</streetAddressLine>
        <city>Nicosia</city>
        <state nullFlavor="NI" />
```

```
            <postalCode>55555</postalCode>
            <country>CY</country>
        </addr>
    </representedOrganization>
```

- The ID of the pharmacist is the same as the ID of the pharmacy: `<id extension="21229" root="2.16.17.710.811.1000.990.1" />`
- The dispensed medicinal product is identified using the Nordic VNR system, which is not used in Cyprus according to our knowledge:

  `<code code="014094" codeSystem="1.2.246.537.6.55" codeSystemName="VNR" codeSystemVersion="2019.012" displayName="FORSTEO" />`

  It seems therefore that the medicinal product name is simply bounced back to Finland. Also the listing of active ingredients is the same as in prescription (in Finnish).

2.2.1.2 Analysis of CY in its role as Country B for eP/eD

Comments
– In the evaluation for the eD retrieved from FI, when asked if the document was received in Country A language, the evaluator from CY indicates the following: “Only on the raw xml file and some of the data are in the dispenser language”. Solution Provider cannot analyze this issue (no access to the tool used in CY to display the eD document), but given that it is stated that the language was correct in the XML file, the problem could have happen in CY. Likewise, for the eD document evaluated by CY, it is mentioned that the number of packages dispensed is not displayed, although this information is present in the CDA document. Both situations refer to the visualization of the eD document to a human; in fact, in the Functional e2e testing it is validated the information returned after the dispensation of an eP in Country B, therefore, the information returned is present in the CDA document for processing in Country A, hence the workflow looks correct.

1.2.4 Wave 3 FORMAL Pre-Production Testing October 2019

DG SANTE

Detailed report from the Functional end-to-end testing - Cyprus

2019-10 eHDSI Wave 3 Preparatory (PPT) Pre-Production-Testing

Document Control Information

SETTINGS	INFO
Document Title:	Detailed report from the Functional end-to-end testing – Cyprus 2019-10 eHDSI Wave 3 Preparatory (PPT) Pre-Production Testing
Project Title:	eHealth DSI – ePrescription and Patient Summary
Document Author:	eHDSI Solution Provider
Doc. Version:	1.0
Sensitivity:	eHDSI restricted
Date:	13/12/2019

Document Approver(s) and Reviewer(s):
NOTE: All Approvers are required. Records of each approver must be maintained. All Reviewers in the list are considered required unless explicitly listed as Optional.

NAME/ROLE	ACTION	DATE
eHMSEG / eHN		
eHOMB		
eHDSI Solution Provider	Prepare Report	13/12/2019

Document history:
Changes to this document are summarized in the following table in reverse chronological order (latest version first).

REVISION	DATE	CREATED BY	SHORT DESCRIPTION OF CHANGES
1.0	13/12/2019	eHDSI Solution Provider	Initial version

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Purpose of this document

This document contains **a detailed presentation of the CY results from its participation in the Functional end-to-end testing** that took place during the final week of the 2019-10 eHDSI Wave 3 Preparatory (PPT) Pre-Production Test Event.

2 FUNCTIONAL END-TO-END TESTING

2.1 Role of the functional end-to-end testing

The functional end-to-end testing aims to validate, from the user point of view, the process and the information presented to health professionals by the eHDSI services.

In fact, this is the final and most relevant test of the services: by evaluating the process and the information provided, in a situation as close as possible to that of operation, the entire service is assessed to be conformant to the specifications and to be finally useful to those who will employ it for providing healthcare or dispensing a medicinal product.

The functional end-to-end testing, as its designation claims, is expected to detect flaws or malfunctioning in any step of the process, i.e. from the processing of the original document to its transferring and subsequent processing and display in the receiver country. Furthermore, health professionals participating in the testing will assess the eventual clinical usefulness of the information provided.

2.2 Methodology of the tests

The evaluation is carried out for all eHDSI services (Patient Summary and ePrescription/eDispensation) in an environment that intends to emulate the normal operation as much as possible: e.g. a pharmacist dispensing a medicinal product or a physician in an emergency department providing care to a citizen from a different country.

The only difference with a real scenario is that solely test patient and test data are used and no real patients are involved.

The complete methodology for the tests as well as a repository for the test data were set up by the eHDSI Solution Provider on the Operations space on Confluence[1] with the aim of facilitating the performance of the tests and its understanding by the participants.

Fulfilment criteria for the testing is that each country participating needs to test their services with at least three participants offering the same services. For example, if a country will participate in the eHDSI as Patient Summary Country B, then it has to test with at least three participating countries acting as Patient Summary Country A and submit the corresponding evaluations for the requested documents. Likewise, a Country A (i.e. a country providing patient summaries of its citizens) needs to be tested by at least three countries that will request such documents, i.e. countries B for the Patient Summary service.

For the ePrescription/eDispensation service, additional tests are executed. The ePrescription Test Framework Extension[2] was designed to fully test the service functionality, given the more complex workflow and particularities of this service.

[1] https://ec.europa.eu/cefdigital/wiki/x/4QYfCQ
[2] https://ec.europa.eu/cefdigital/wiki/x/5hrQAg

2.3 Preparation, operation, and follow-up of the Functional end-to-end testing during the 2019-10 Preparatory (PPT) Pre-Production Test Event

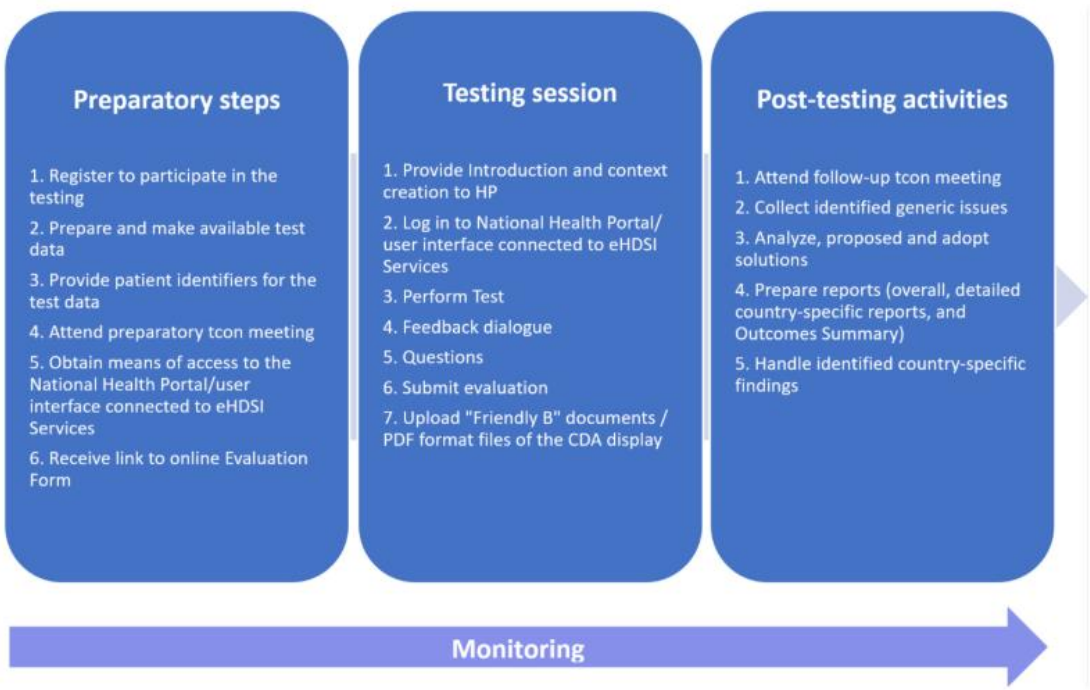
Two preparatory conferences prior to the testing week were scheduled on November 5 and 6 to explain the methodology and present the timeline of the testing. The testing week took place on November 11-15, with two progress report teleconferences on November 12 and 14.

As soon as the testing week began, Solution Provider started analysing each individual submission. A first follow-up teleconference with the participants in the test was scheduled on November 20, to discuss and continue collecting findings and explain the next steps. As part of these next steps, the eHMSEG Semantic Task Force will discuss the identified findings during its regular teleconferences and at a Face-to-Face meeting scheduled to take place in Brussels on January 27-29, 2020.

All the findings identified, either by the participants in the testing or by Solution Provider during the review of the submissions received from the health professionals, are collected on Confluence[3] and assigned a JIRA ticket for issue tracking if required. Solution Provider is now working in close collaboration with the eHMSEG Semantic Task Force on solving the Semantic-related issues as well as the others with relevant groups (e.g. OpenNCP Technical Community).

The diagram below shows a schematic view of the phases of the testing.

Figure 1: Phases of the end-to-end functional testing



[3] https://ec.europa.eu/cefdigital/wiki/x/j4M7C

3 EVALUATIONS SUBMITTED DURING THE FUNCTIONAL END-TO-END TESTING –JUNE 2019 TEST SESSION

3.1 Overall submissions

- Eleven deploying countries registered to participate in the Test Session: Cyprus, Czech Republic, Estonia, Finland, France, Greece, Ireland, Netherlands, Poland, Spain, and Sweden.

Table 1: Participants in the functional e2e testing

Deploying country	2-letter Country Code	eHDSI Services tested
Cyprus	CY	Patient Summary (A & B), ePrescription (A & B)
Czech Republic	CZ	ePrescription (A & B)
Estonia	EE	Patient Summary (A & B)
Finland	FI	ePrescription (A-supportive & B)
France	FR	Patient Summary (B)
Greece	EL	Patient Summary (A & B), ePrescription (A & B)
Ireland	IE	Patient Summary (A), ePrescription (A)
Netherlands	NL	Patient Summary (B)
Poland	PL	ePrescription (A & B)
Spain	ES	Patient Summary (B)
Sweden	SE	ePrescription (A & B)

The total number of evaluations submitted was **50**:

- **17** corresponded to the Patient Summary service
- **20** to ePrescription documents
- and **13** to the associated eDispensation documents

- The table below shows the number of evaluations submitted by each participating country and whether the required tests were performed. A complete list of submissions is included on page 11.

Table 2: Evaluations submitted during the functional e2e testing and fulfillment of testing criteria

Deploying country	Services tested	PS evaluations	eP evaluations	eD evaluations	Fulfilled criteria (A/B)
Cyprus	PS (A & B) eP (A & B)	3	3	3	**Yes / missed being evaluated in eP**
Czech Republic	eP (A & B)	NA	4	0	**Missed eD evaluations/missed being evaluated in eP/eD**
Estonia	PS (A & B)	4	NA	NA	**Yes**
Finland	eP (A & B)	NA	6	-	**Yes (supportive role)**
France	PS (B)	4	NA	NA	**Yes**
Greece	PS (A & B) eP (A & B)	3	3	3	**Yes/being evaluated by CZ in eP/eD**
Ireland	PS (A) eP (A)	NA	NA	2	**Missed 1 eD evaluation**
Netherlands	PS(B)	**0**	NA	NA	**Missed all PS evaluations**
Poland	eP (A & B)	NA	0	2	**Missed eP and 1 eD evaluations/being evaluated in eD**
Spain	PS (B)	3	NA	NA	**Yes**

Sweden	eP (A & B)	NA	4	3	**Yes/being evaluated in eP/eD**
Total (# evaluations: **50**)		**17**	**20**	**13**	

3.2 Submissions for the evaluation of the Patient Summary Service

- The table below shows the **evaluations performed for the Patient Summary service (number of PS documents retrieved and evaluated by health professionals in Country B)**:

Table 3: PS documents evaluated and fulfilment of testing criteria

Deploying country	Services tested	# PS evaluations	PS documents evaluated	Fulfilled criteria: test at least 3 partners PS (A)
Cyprus	PS (A & B)	3	PS from EE, EL, IE	**Yes**
Estonia	PS (A & B)	4	PS from CY (2), EL, IE	**Yes**
France	PS (B)	4	PS from CY, EE, EL, IE	**Yes**
Greece	PS (A & B)	3	PS from CY, EE, IE	**Yes**
Ireland	PS (A)	NA	NA	**NA**
Netherlands	PS (B)	0	-	***Missed all (not participated)***
Spain	PS (B)	3	PS from CY, EL, IE	**Yes**
Total (17)				

- The next table shows the evaluations of each deploying country performed by its partners in the Patient Summary service, i.e. **tested as Country A for PS**:

Table 4: PS documents evaluated by partners and fulfilment of testing criteria

Deploying country	Services tested	# PS evaluations done by partners	Partners in the service that evaluated the service	Fulfilled criteria: being tested by at least 3 partners PS (B)
Cyprus	PS (A & B)	5	EE (2), EL, ES, FR	**Yes**
Estonia	PS (A & B)	3	CY, EL, FR	**Yes**
France	PS (B)	NA	-	**NA**
Greece	PS (A & B)	4	CY, EE, ES, FR	**Yes**
Ireland	PS (A)	5	CY, EE, EL, ES, FR	**Yes**
Netherlands	PS (B)	NA	-	**NA** ***(not participated)***
Spain	PS (B)	NA	-	**NA**
Total (17)				

3.3 Submissions for the evaluation of the ePrescription/eDispensation Service

- The table below shows the **evaluations performed for the ePrescription service**, i.e. dispensations of eP by countries B:

Table 5: eP documents evaluated and fulfilment of testing criteria

Deploying country	Services tested	# eP evaluations	eP documents evaluated	Fulfilled criteria: test at least 3 eP Countries A
Cyprus	eP (A & B)	3	eP from EL, IE, PL	**Yes**
Czech Republic	eP (A & B)	4	eP from EL, FI, IE, PL	**Yes**
Finland	eP (A & B)	6	eP from CY, CZ, EL, IE, PL, SE	**Yes**
Greece	eP (A & B)	3	eP from CY, IE, PL	**Yes**
Ireland	eP (A)	NA	-	**NA**
Poland	eP (A & B)	0	-	**Missed all eP evaluations**
Sweden	eP (A & B)	4	eP from EL, FI, IE, PL	**Yes**
Total (20)				

- The table below shows the **evaluations received for the ePrescription service**, i.e. for each Country A for ePrescription whether at least three partners have evaluated the service:

Table 6: eP service as Country A evaluated and fulfilment of testing criteria

Deploying country	Services tested	# eP evaluations	eP documents evaluated	Fulfilled criteria: tested by at least 3 eP Countries B
Cyprus	eP (A & B)	2	EL, FI	**Missed being evaluated by 1 other eP B**
Czech Republic	eP (A & B)	1	FI	**Missed being evaluated by 2 other eP B**
Finland	eP (A & B)	2	CZ, SE	**NA (supportive role)**
Greece	eP (A & B)	4	CY, CZ, FI, SE	**Yes**
Ireland	eP (A)	5	CY, CZ, EL, FI, SE	**Yes**
Poland	eP (A & B)	5	CY, CZ, EL, FI, SE	**Yes**
Sweden	eP (A & B)	1	FI	**Missed being evaluated by 2 other eP B**
Total (20)				

- The next table shows the **evaluations performed for eDispensation**, i.e. Country A retrieving eDispensation documents after a dispensation has taken place in Country B:

Table 7: eD documents evaluated and fulfilment of testing criteria

Deploying country	Services tested	# eD evaluations	eD documents evaluated by partners in the eP service	Fulfilled criteria* Evaluated eD generated by eP(B)
Cyprus	eP (A & B)	3	EL, FI, PL	**Yes**
Czech Republic	eP (A & B)	0	-	**Missed all eD evaluations**

Finland	eP (A & B)	NA	-	**NA (supportive role)**
Greece	eP (A & B)	3	CY, CZ, FI	**Yes**
Ireland	eP (A)	2	EL, FI	**Missed 1 eD evaluations**
Poland	eP (A & B)	2	CY, EL	**Missed 1 eD evaluations**
Sweden	eP (A & B)	3	CY, EL, FI	**Yes**
Total (13)				

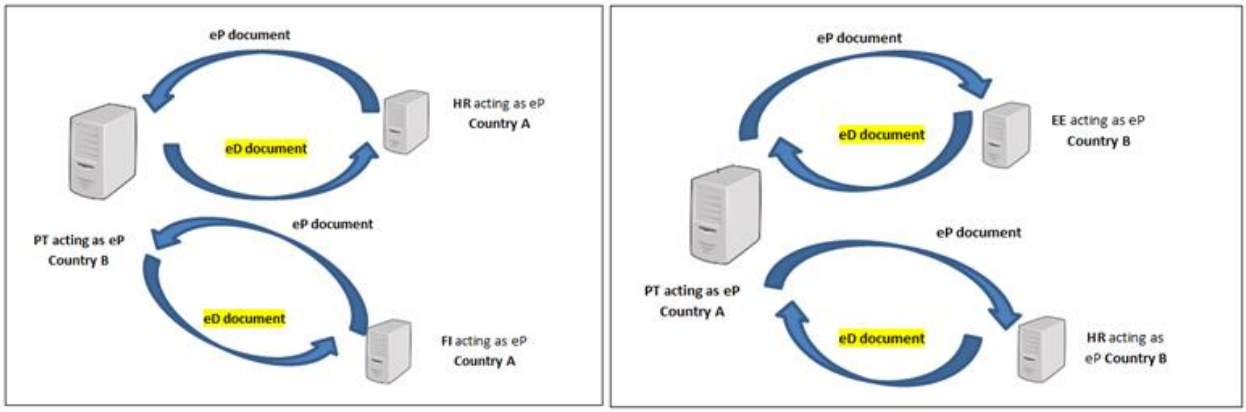
- The next table shows the **evaluations performed for eDispensation from Country B's perspective**, i.e. whether eD dispensation documents have been retrieved and evaluated its capability to generate them:

Table 8: eD documents evaluated and fulfilment of testing criteria

Deploying country	Services tested	# eD evaluations	Retrieved eD documents from partners in the eP service	Fulfilled criteria* Evaluated eD retrieved as eP(A)
Cyprus	eP (A & B)	3	EL, PL, SE	**Yes**
Czech Republic	eP (A & B)	1	EL	**Missed being evaluated by 2 other eP A**
Finland	eP (A & B)	4	CY, EL, IE, SE	**Yes**
Greece	eP (A & B)	4	CY, IE, PL, SE	**Yes**
Ireland	eP (A)	NA	-	**NA**
Poland	eP (A & B)	1	CY	**Missed being evaluated by 2 other eP A**
Sweden	eP (A & B)	0	-	**Missed being evaluated by eP A**
Total (13)				

*To evaluate the eD flow when a deploying country in the eP service – when acting both as Country A and B – and check whether it fulfills the testing criteria, the processes and documents that need to be evaluated are depicted below (using PT as example): not only that deploying country has to evaluate the eD documents from the partners that are dispensing its prescriptions, but also when dispensing prescriptions from partners it has to be able to provide eD documents, which will be evaluated by the partners (see diagrams below, Figure 2).

Figure 2: Diagrams detailing the transactions involved in the eP/eD service for a Country acting as both A & B



3.4 General conclusions from the analysis of the number of submissions received

The Preparatory Pre-Production Testing (Pre-PPT) Session aims at providing NCPeH a learning moment to better understand the test session mechanics and to discover shortcomings on the implemented solutions in advance of the Formal test session. It is an optional session, although highly recommended, since it provides an opportunity to countries to simulate and anticipate the challenges that will be faced during the Formal one.

Therefore, **the general conclusions mentioned below, as well as the detailed report that follows in the next pages, need to be understood in that context, i.e. that the Preparatory PPT session is an optional, learning exercise to help countries participating to prepare for the Formal event.**

- Patient Summary Service

  All countries participating, who intend to deploy services in Wave 3, performed and submitted the required evaluations (i.e. at least with three partners). Only one country, Netherlands (Wave 4), did not participate in the Functional e2e Testing, even though it had registered to take part in the Preparatory PPT Session.

- ePrescription/eDispensation Service

  Not all the required evaluations (i.e. at least with three partners) were submitted. Some technical issues impeded the completion of the workflows and the submission of the corresponding evaluations.

Table 9: Complete list of submissions received during the October 2019 Preparatory PPT

Country	Services tested	PS evaluations	eP evaluations	eD evaluations
Cyprus	PS A & B eP A & B	EE2CY – 50708319990 GR2CY – 01059902062 IE2CY - 539305450000074414	GR2CY – 01059902062 IE2CY – 539305450001604603 PL2CY - 79092303809	FI2CY - 1990-01-01_1 PL2CY - 1990-01-01_1 GR2CY - 1990-01-01_1
Czech Republic	eP A& B	NA	IE2CZ – XXX GR2CZ – XXX FI2CZ - 251094-901h PL2CZ - 44041889204	0
Estonia	PS A & B	CY2EE - 1990-01-01_1 GR2EE – 01059902062 IE2EE – 539305450000074414 CY2EE - 1990-01-01_1	NA	NA
Finland	eP A & B	NA	SE2FI – 199501112388 IE2FI – 539305450001604603 PL2FI – 73111130096 CZ2FI – 222333069 CY2FI - 1990-01-01_1 GR2FI - 01059902062	*Supportive role as eP Country A*
France	PS B	EE2FR - 50708319990 IE2FR – 539305450000074414 CY2FR - 1990-01-01_1 GR2FR - 01059902062	NA	NA
Greece	PS A & B eP A & B	EE2GR – 50708319990 CY2GR - 1990-01-01_1 IE2GR – 539305450000074414	CY2GR - 1990-01-01_1 IE2GR – 539305450001604603 PL2GR - 96050409265	CY2GR – 01059902062 FI2GR – 01059902062 CZ2GR - 01059902062
Ireland	PS A eP A	NA	NA	GR2IE – 539305450001604603 FI2IE – 539305450001604603
Netherlands	PS B	0	NA	NA
Poland	eP A & B	NA	0	GR2PL – 96050409265 CY2PL - 79092303809
Spain	PS B	IE2ES - 539305450000074414 GR2ES – 01059902062 CY2ES – 1990-01-01_1	NA	NA
Sweden	eP A & B	NA	FI2SE - 010143-900K GR2SE – 1059902062 PL2SE – 8108120901 IE2SE - 539305450000917018	GR2SE – 200002282382 FI2SE – 9501112388 CY2SE -200002282382
Total	**(50)**	**17**	**20**	**13**

4 DETAILED RESULTS OF THE END-TO-END FUNCTIONAL TESTING

This section presents a detailed report for CY participation, after the analysis of the evaluations submitted by health professionals and semantic experts.

The analysis has been carried out by Solution Provider, examining carefully all evaluations and issues reported by evaluators, checking whether the cause is a misalignment in the technical/semantic components or in the clinical document provided; if due to the former, the necessary fixes will be proposed to the eHMSEG Semantic Task Force or corresponding body for adoption.

Some errors were encountered during the testing in the ePrescription/eDispensation service.

The perception of the response time, as considered by the users, is presented in the table below. In two occasions the response time was considered '*not acceptable*': during the testing of the PS service between EE (A) and EL (B) and during the eP testing between EL (A) and SE (B).

Table 10: Perception of the response time

Perception of the response time*	**Patient Summary service**		**ePrescription service***	
	# submissions	**percentage**	**# submissions**	**percentage**
Good	7	41.18%	8	50.00%
Acceptable	9	52.94%	7	43.75%
Not acceptable	1	5.88%	1	6.25%
Total	17	100%	16**	100%

*Response time for eDispensation is not taken into account
**4 evaluations for the eP documents were submitted using the eD questionnaire and for that reason lacked the perception of the response time

4.1 Results of the testing of the Patient Summary Service

4.1.1 Cyprus

Deploying Patient Summary A & B services

Table 11: Summary of test data provided and/or evaluations submitted

Number of PS test data provided	1
Number of evaluations submitted for PS retrieved from partners	3 – EE, EL, IE
Number of evaluations submitted for its services provided by partners	4 - EE, EL, FR, ES

4.1.1.1 Analysis of CY in its role as Country A for PS

Table 12: Analysis of the test data provided for the testing (patient Id 1990-01-01_1)

Comments on the Sections/Elements of the CDA document	

Header of the document	– One health professional commented: "Ministry of health custodian of the patient?"
	
	Solution Provider takes note of this comment and will present this point for discussion by the eHMSEG Semantic Task Force: is it useful to display the details about the Custodian of the CDA document to the attending health professional?
	
	One of the fundamental characteristics of a CDA is the stewardship, i.e. the fact that a clinical document is maintained by an organization entrusted with its care. The Custodian is then the organization in charge of maintaining the document, the steward entrusted with the care of the document. This participant in the header of the document is a mandatory element, but is it necessary to present such information to the health professional when he/she is not aware of that role?
	
	In the eP/eD service, the CDA Display Tool (Reference Implementation) only shows the information about the prescriber to the health professional at the Pharmacy.
	
	– On the comment "Other contact without a relationship is not very useful + not present in the original PDF", Solution Provider clarifies that:
	
	The presentation of that relationship is an improvement already identified during the previous Test Session in June 2019 and discussed during the last F2F meeting of the eHMSEG Semantic Task Force; its development is ready and will be available for the next Test Session.
	
	It is correct that the PDF, in contrast to the CDA file, does not contain the patient contact:
	
	`<participant typeCode="IND">`
	`<templateId root="1.3.6.1.4.1.19376.1.5.3.1.2.4"/>`
	`<associatedEntity classCode="NOK">`
	`<addr>`
	`<streetAddressLine>23B, Kosta str, 2310, Limassol</streetAddressLine>`
	`<country>CY</country>`
	`</addr>`

	<telecom value="**tel:+35725000000**"/> <telecom value="**mailto:m.marinou@tesmail.com**"/> <associatedPerson> <name> <family>Marinou</family> <given>Marinos</given> </name> </associatedPerson> </associatedEntity> </participant>
Original PDF of the PS	Provided
Required Sections (Allergies, Active Problems, Medication Summary, List of Surgeries, Medical Devices)	– Allergies ▪ Even though the severity of the allergic reaction was correctly displayed by the CDA Display Tool (Reference Implementation), it was not visible by a partner using a different user interface. It might be due to the entryrelationship in the CDA file containing the severity not following the eHDSI Implementation Guide (a different template id is present along with a different datatype). Solution Provider will investigate this further: <entryRelationship typeCode="**SUBJ**" inversionInd="**true**"> <observation classCode="**OBS**" moodCode="**EVN**"> <templateId root="**2.16.840.1.113883.10.20.1.18**"/> <templateId root="**1.3.6.1.4.1.19376.1.5.3.1.4.1**"/> <templateId root="**2.16.840.1.113883.10.20.1.55**"/> <code code="**SEV**" displayName="**Severity**" codeSystemName="**ActCode**" codeSystem="**2.16.840.1.113883.5.4**" xsi:type="**CE**"/> <text> <reference value="**#allergy.1**"/> </text> <statusCode code="**completed**"/> <value code="**24484000**" displayName="**FR Severe**" codeSystemVersion="**2016-07**" codeSystemName="**SNOMED CT**" codeSystem="**2.16.840.1.113883.6.96**" xsi:type="**CD**"> <translation code="**24484000**" displayName="**Severe**" codeSystemName="**SNOMED CT**" codeSystem="**2.16.840.1.113883.6.96**"/> </value> </observation> </entryRelationship> – Medication Summary ▪ Route of administration not present. ▪ Both in the original PDF and in the CDA document, the strength for the medicinal product is erroneous (levothyroxine 100 milligram instead of 100 microgram). For this medicinal product, between the PDF and the coded entry; there is a loss of information regarding the frequency of administration: “1 before breakfast (from lat. ante cibus matutinus)” vs “Every 1.0 [d]”. ▪ The evaluator commented that “frequency of intakes is displayed as every 1.0 [d] and this is not very understandable”. Solution Provider takes note of this comment, which in fact, was already planned for improvement: removing the square brackets surrounding the units of measure (finding identified during the June Test Session and discussed during the last F2F meeting of the eHMSEG Semantic Task Force).

	▪ Final comment for this Section was: "its unclear if the prescriptions have been dispensed or not and if the patient is actually using them or the doctor has just prescribed them". – Active Problems ▪ The evaluator commented that "its good that the ICD-10 code is present, but would be better if the code is presented first". Solution Provider takes note of the related comment included for the Past Illnesses Section, which indicates that for that Section, the ICD-10 codes, in contrast, are not presented to the health professional. ▪ The Section presents only one problem, for which the only medication included as current treatment (levothyroxine) is not related. – Medical Devices ▪ The implanted medical device was not presented to the health professional, even though it was coded in the CDA. The reason was an incorrect coding in the CDA Display Tool Reference Implementation that Solution Provider has already solved. ▪ One of the evaluator commented: "if looking at the original document, then it is possible to understand that the patient has 'Implantable defibrillator', but its unclear what kind of an defibrillator". – List of Surgeries ▪ One of the evaluators commented on the lack of specificity of the code exchanged for the representation of the procedure – the cause being the inadequate level of granularity of the concepts in the Value Set used for the binding of the surgical procedures (currently under review by the eHMSEG Semantic Task Force).
Other Sections present	– Immunizations: ▪ The brand name of the vaccination products are switched in the narrative as well as in the coded entries (Engerix© corresponds to the vaccine *vs* Hepatitis B and Boostrix© to the vaccine *vs* Diptheria, Tetanus, Pertussis, and Polyomelitis). An additional comment from one of the evaluators was regarding the use of brand names in cross-border exchange: not recommending this practice as the same brand name may be used for different medicinal products in different countries. – History of Past Illness ▪ An evaluator commented that "ICD-10 code should be present in order for the doctors/nurses to understand the diagnoses better". Another evaluator included the same comment: "it would be much better, if the ICD-10 is present". ▪ The problem included in the Section, as past problem, does not correlate with the usual surgical procedure performed as treatment (see final comments). ▪ The coded entry in the CDA file does not contain the resolution circumstance, which is, in contrast, included in the narrative text ("in remission") as well as in the original PDF. That information is considered relevant by one of the evaluators. – Social History:

	▪ Observation values for the lifestyle habits not present. As commented by one of the evaluators, "alcohol intake without the observation value is not very useful". – Coded Results (Physical findings): ▪ It was highlighted by two evaluators the clinical usefulness of only exchanging one blood pressure measurement: ▪ "only one value does not give much information. there could be other elements more useful as the body weigh for example" ▪ "Only one blood pressure measurement is not useful clinically". The usefulness of only one measure of the blood pressure was highlighted in previous tests events. Other coded results for vital signs – not just blood pressure – are considered in the CEN International Patient Summary Standard (height, weight, and BMI).
General evaluation of the clinical usefulness of the document	Useful Comments received: – "Doctor found the service as a whole useful, but would love to see more information overall, eg if the patient has been in the hospital and if the prescriptions have been dispensed or not." – Not medically coherent: "There are multiple issues from the clinical point of view: Vaccinations, Brand Names, Procedures possibly incomplete, Levotyroxin prescription grossly wrong ".
Comments	The test data provided does not seem like truly national representative test data; it does not correspond to the eHDSI Reference Test Data case either, even though some elements coincide. There is a lack of coherence in the case: e.g. the implanted device does not correlate with the surgical procedure or the medication not responding to any current problem (levothyroxine).

4.1.1.2 Analysis of CY in its role as Country B for PS

Comments
– As in previous test events, the feedback received from the CY health professional focus mainly on the **format of the dates presented by the CDA Display Tool Reference Implementation**. Solution Provider takes notes of useful comments, especially the improvement of the presentation of the date along with the time when the time is provided with more precision (right now the time is, in fact, notably close to the day). Nevertheless, regarding the precise way of presenting a date, this can always be customized by the deploying country to best fit their national conventions, practices, or usual way to represent it. The Reference Implementation – a non-normative artifact- follows the ISO 8601 standard for representation of time as decided by the eHMSEG Semantic Task Force. Solution Provider emphasizes that national possibility to customize the display that best serves the expectations of the health professionals in each country; reminding that the CDA Display Tool is not a non-normative artifact and deploying countries have the freedom to use it as it is, modify it, or use a different user interface to display the clinical documents to the health professionals. – Regarding the comments referred to the differences encountered in the layout between the narrative part and the presentation of the coded part, please see the comment included in the report from the June 2019 Test Session.

4.2 Results of the testing of the ePrescription/eDispensation Service

4.2.1 Cyprus

Deploying eP/eD A and B services

Table 13: Summary evaluations submitted and/or evaluations received for eP/eD documents

Number of evaluations submitted by CY for eP documents from partners	3 – EL, IE, PL
Number of evaluations submitted for eD documents retrieved from partners	3 – FI, EL, PL
Number of evaluations submitted for CY eP documents by partners	2 – FI, EL
Number of evaluations submitted for CY eD documents by partners	3 - EL, PL, SE

4.2.1.1 Analysis of CY in its role as Country A for eP/eD

Analysis of the submissions received for eP services of CY acting as Country A (patient id 1990-01-01_1)

Table 14: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 1990-01-01_1)

Comments on the Sections/Elements of the CDA document		
Elements in the Header of the document present	Yes	– The value of the root attribute (OID) for the document id and parentDocument id in the relatedDocument element is **2.16.620**.1.101.10.3.29.54290, which would correspond to an object from PT – the root **2.16.620** is assigned to PT (in ASN.1 notation: {joint-iso-itu-t(2) country(16) pt(620)}. For an object from CY, an OID will have the root: **2.16.196** (in ASN.1 notation: {joint-iso-itu-t(2) country(16) cy(196)}. Other instances in the document that require an II (instance identifier) data type have an OID with a root **2.16.17**, which is not identifying a CY object. In fact, it is not a registered OID root, maybe used for testing purposes only?
Display of prescriptions and possibility to select the appropriate one	Yes	-
Original PDF of the eP provided	Yes	-
Dataset in Country B language and elements correctly displayed?	No	– The same situation commented for the OID in the header of the document is found in the structured body in the case of the Section id and the Entry id: the value of the root attribute is **2.16.620**.1.101.10.3.29.54290. – Different posology in the PDF version and XML document:

		▪ In the PDF it is indicated: frequency of intakes '3 per day' and a duration of treatment of '30 days' (this is also indicated in the narrative text of the CDA). ▪ While the information included in the XML document includes the following (which is not understood by the HP in Country B): <effectiveTime xsi:type="**PIVL_TS**" operator="**A**" institutionSpecified="**true**"> <period value="**3.0**" unit="**d**"/> </effectiveTime> <doseQuantity value="**1.0**" unit="**/d**"/> As commented by the evaluator: "This means that dosage instruction is: 1.0/d every 3.0 day(s)", which is what is displayed to the HP. According to the IG, the second effectiveTime element records the frequency of the administration and the doseQuantity element specifies the dose (e.g. 1-2 tablets or 325-750mg).
Information need to safely dispense provided	Yes	-
Dispensation possible	Yes	Substitution was not necessary

Analysis of the submissions received for eP services of CY acting as Country A (patient id 1990-01-01_1)

Table 15: Analysis of the submissions received referred to the eP services of CY acting as Country A (patient id 1990-01-01_1)

Comments on the Sections/Elements of the CDA document		
Elements in the Header of the document present	Yes	-
Display of prescriptions and possibility to select the appropriate one	Yes	-
Original PDF of the eP provided	Yes	-
Dataset in Country B language and elements correctly displayed?	Yes	No specific comments provided
Information need to safely dispense provided	Yes	-
Dispensation possible	Yes	Substitution was necessary

4.2.1.2 Analysis of CY in its role as Country B for eP/eD

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 01059902062):

Table 16: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 01059902062)

Comments on the Sections/Elements of the CDA document		
Administrative data	Yes	– Root value of the document id is the OID **2.16.17**.710.860.1000.990.1, which is not correct OID. The root {joint-iso-itu-t(2) country(16)} corresponds to a joint ITU-T and ISO/IEC registration within a country, but then, that root -**2.16.17**- is not assigned to any country; in fact, "the primary integer values (and hence the integer-valued Unicode labels) assigned to arcs under this object identifier are the values of the numeric-3-codes of ISO 3166-1 [for a United Nations (UN) Member State], …", therefore, in the case of Cyprus, if an OID from the country registration authority was to be used, that integer would be 196[4]. – The same OID root is used for the root value of the author id, the author's representedOrganizaton id, representedCustodianOrganization id, legal authenticator id and representedOrganization id.
Document received in Country A language	Yes	
Structure and information in the received document as expected	Yes	– As in the header, the OID value for the root of the Section id and entry id shows the same incorrect arc **2.16.17**. – Strength is provided in the free text field, while in structured and coded way it is provided as: <epsos:quantity> <epsos:numerator value="**0**" unit="**0**" xsi:type="**epsos:PQ**"/> <epsos:denominator value="**0**" unit="**0**" xsi:type="**epsos:PQ**"/> </epsos:quantity> This is the same information for the strength in the original prescription.
eD Document received for each eP, eP identifier included in the document	Yes	-
Information about the dispensed medicine in Country B (including brand name) present	Yes	-
Number of packages dispensed present	Yes	-

[4] http://oid-info.com/get/2.16

eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	Yes	-
Did a substitution take place?	Yes	-

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 79092303809):

Table 17: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 79092303809)

Comments on the Sections/Elements of the CDA document		
Administrative data	Yes	– Same issue with the OID used for the root value of the Document id as mentioned in the previous analysis for CY eD (**2.16.17**.710.860.1000.990.1) and then for the author, author's representedOrganization, custodian's representedOrganization, legal authenticator, and legal authenticator's representedOrganization.
Document received in Country A language	**No**	– **No further details provided**
Structure and information in the received document as expected	Yes	
eD Document received for each eP, eP identifier included in the document	Yes	
Information about the dispensed medicine in Country B (including brand name) present	Yes	– As in the header, the OID value for the root of the Section id and entry id shows the same incorrect arc **2.16.17**. – In the manufactured product, the code of the medicine dispensed contains the same values as the original prescription: <manufacturedMaterial classCode="**MMAT**" determinerCode="**KIND**"> <epsos:id root="**1.3.6.1.4.1.12559.11.10.1.3.1.3.3**" extension="**2759453BA0AB439BA16110-1**"/> <code displayName="**HYDROCORTISONE CREAM, 1% W/W, TUBE WITH 15 g**" codeSystemName="**GS1**" codeSystem="**1.3.160**" code="**05909990950317**"> <originalText> <reference value="**#SBADM_1**"/> </originalText> </code> … And in the entryRelationship structure that contains the original prescription: <manufacturedMaterial classCode="**MMAT**" determinerCode="**KIND**"> <code displayName="**Hydrocortisonum AFP 10 mg/g krem**" codeSystemName="**GS1**"

		codeSystem="**1.3.160**" code="**05909990950317**"> <originalText> <reference value="**#SBADM_1**"/> </originalText> </code> … – Strength is provided in the free text field, while in structured and coded way it is provided as: <epsos:quantity> <epsos:numerator nullFlavor="**NI**" xsi:type="**epsos:PQ**"/> <epsos:denominator nullFlavor="**NI**" xsi:type="**epsos:PQ**"/> </epsos:quantity> This was also how the structured and coded strength was provided in the original eP document.
Number of packages dispensed present	Yes	
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	**No**	– The response from the evaluator explained that "As there was a lack of information about which medicine was given to the patient, there is no way of telling if the dispensation was performed correctly".
Did a substitution take place?	No	

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 200002282382):

Table 18: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document (patient id 200002282382)

Comments on the Sections/Elements of the CDA document		
Administrative data	Yes	– Same issue with the OID used as root value. – Gender not provided (probably not provided in the eP in the first place: <administrativeGenderCode nullFlavor="**UNK**"/>
Document received in Country A language	Yes	
Structure and information in the received document as expected	Yes	
eD Document received for each eP, eP identifier included in the document	Yes	
Information about the dispensed medicine in Country B (including brand name) present	Yes	– **Same issue as in the previous eD documents regarding the manufactured material** (i.e. the medicinal product dispensed); as commented by the evaluator: "It contains our national product identifier, which can not be the correct code for the product that was dispensed, as Swedish products Id:s are not used in Cyprus. The manufacturedMaterial/code and /name contains the swedish product, but the name now contains an "Â symbol" before the "(R) symbol" and

		"In the eD, the name of the product is the name of the prescribed Swedish medicinal product. There is no information recorded about the dispensed product." <manufacturedMaterial classCode="**MMAT**" determinerCode="**KIND**"> <epsos:id root="**1.3.6.1.4.1.12559.11.10.1.3.1.3.3**" extension="**4842763111.17.2**"/> <code displayName="**LantusÂ®**" codeSystemName="**NPL pack-id**" codeSystem="**1.2.752.129.2.1.5.2**" code="**10010101126889**"> <originalText> <reference value="**#ORIGNAME**"/> </originalText> </code> …
Number of packages dispensed present	Yes	
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	No	
Did a substitution take place?	No	

Feedback for CY in its role as evaluator of the eP/eD service

Comments
– Regarding the evaluation submitted for the eD from FI (patient id 1990-01-01_1): ○ It was indicated that the number of packages dispensed was not present, when, in fact, that information was included in the eD file: hl7:supply classCode="**SPLY**" moodCode="**EVN**"> <hl7:templateId root="**2.16.840.1.113883.10.20.1.34**"/> <hl7:templateId root="**1.3.6.1.4.1.19376.1.5.3.1.4.7.3**"/> <hl7:templateId root="**1.3.6.1.4.1.12559.11.10.1.3.1.3.3**"/> <hl7:id root="**1.2.246.537.25.1.99991.93.2019.1113.113816.1**"/> <hl7:quantity value="**1**" unit="**1**"/> … ○ It was also indicated that there was "No translation of the Dispensed medicine and other info". Although, the active ingredient and the pharmaceutical dose form are included coded in the document. Only the strength is provided in the dedicated free text file (<epsos:desc>50 mg/ml</epsos:desc>). <hl7:manufacturedProduct> <hl7:templateId root="**1.3.6.1.4.1.12559.11.10.1.3.1.3.1**"/> <hl7:templateId root="**2.16.840.1.113883.10.20.1.53**"/> <hl7:manufacturedMaterial classCode="**MMAT**" determinerCode="**KIND**"> <hl7:code code="**006350**" displayName="**AMORION**" codeSystemName="**VNR**" codeSystem="**1.2.246.537.6.55**" codeSystemVersion="**2019.022**"/> <hl7:name>AMORION</hl7:name> <epsos:desc>50 mg/ml</epsos:desc> <epsos:formCode code="**10111000**" displayName="**Powder for oral suspension**" codeSystemName="**EDQM**" codeSystem="**0.4.0.127.0.16.1.1.2.1**" codeSystemVersion="**2017-04-14**"> <epsos:translation code="**10111000**" displayName="**powder for oral suspension**" codeSystemName="**EDQM**" codeSystem="**0.4.0.127.0.16.1.1.2.1**">

```
                    <epsos:translation code="jauheoraalisuspensiotavarten" displayName="jauhe
                    oraalisuspensiota varten" codeSystemName="Laakemuoto-CEF"
                    codeSystem="laakemuodot-nimet"/>
                </epsos:translation>
            </epsos:formCode>
            <epsos:asContent classCode="CONT">
                <epsos:containerPackagedMedicine classCode="CONT" determinerCode="INSTANCE">
                    <epsos:formCode nullFlavor="NI"/>
                    <epsos:capacityQuantity value="100.00" unit="mL"/>
                </epsos:containerPackagedMedicine>
            </epsos:asContent>
            <epsos:asSpecializedKind classCode="GEN">
                <epsos:generalizedMedicineClass classCode="MMAT">
                    <epsos:code code="J01CA04" displayName="amoxicillin" codeSystemName="Anatomical
                    Therapeutic Chemical" codeSystem="2.16.840.1.113883.6.73" codeSystemVersion="2017-
                    01">
                        <epsos:translation code="J01CA04" displayName="amoksisilliini"
                        codeSystemName="Anatomical Therapeutic Chemical"
                        codeSystem="2.16.840.1.113883.6.73">
                            <epsos:translation code="J01CA04" displayName="amoksisilliini"
                            codeSystemName="Fimea - ATC Luokitus" codeSystem="1.2.246.537.6.32"
                            codeSystemVersion="2019.022"/>
                        </epsos:translation>
                        …
```

1.2.5 Wave 3 Formal & Upgrade (PPT) Pre-Production-Testing February 2020

DG SANTE

Detailed report from the Functional end-to-end Testing - Cyprus

2020-02 eHDSI Wave 3 Formal & Upgrade (PPT) Pre-Production-Testing

Document Control Information

SETTINGS	INFO
Document Title:	Detailed report from the Functional end-to-end Testing – Cyprus 2020-02 eHDSI Wave 3 Formal & Upgrade (PPT) Pre-Production Testing
Project Title:	eHealth DSI – ePrescription and Patient Summary
Document Author:	eHDSI Solution Provider
Doc. Version:	0.1
Sensitivity:	eHDSI restricted
Date:	17/04/2020

Document Approver(s) and Reviewer(s):
NOTE: All Approvers are required. Records of each approver must be maintained. All Reviewers in the list are considered required unless explicitly listed as Optional.

NAME/ROLE	ACTION	DATE
eHMSEG / eHN		
eHOMB		
eHDSI Solution Provider	Prepare Report	17/04/2020

Document history:
Changes to this document are summarized in the following table in reverse chronological order (latest version first).

REVISION	DATE	CREATED BY	SHORT DESCRIPTION OF CHANGES
0.1	17/04/2020	eHDSI Solution Provider	Initial version

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Purpose of this document

This document contains **a detailed presentation of the results from Cyprus participation in the Functional end-to-end Testing** that took place during the final week of the 2020-02 eHDSI Wave 3 Formal & Upgrade (PPT) Pre-Production Test Event.

2 FUNCTIONAL END-TO-END TESTING

2.1 Role of the Functional end-to-end Testing

The Functional end-to-end Testing aims to validate, from the user point of view, the process and the information presented to the health professionals by the eHDSI services.

In fact, this is the final and most relevant test of the services: by evaluating the process and the information provided, in a situation as close as possible to that of operation, the entire service is assessed to be conformant to the specifications and finally being useful for those who will employ it when providing healthcare or dispensing a medicinal product.

The Functional end-to-end Testing, as its designation claims, is expected to detect flaws or malfunctioning in any step of the process, i.e. from the processing of the original document to its transferring and subsequent processing and display in the receiver country. Furthermore, health professionals participating in the testing will assess the eventual clinical usefulness of the information provided.

2.2 Methodology of the tests

The evaluation is carried out for all eHDSI services (Patient Summary and ePrescription/eDispensation) in an environment that intends to emulate the normal operation as much as possible: e.g. a pharmacist dispensing a medicinal product or a physician in an emergency department providing care to a citizen from a different country.

The only difference with a real scenario is that solely test patient and test data are used and no real patients are involved.

The complete methodology for the tests as well as a repository for the test data were set up by the eHDSI Solution Provider on the Operations space on Confluence[1] with the aim of facilitating the performance of the tests and its understanding by the participants.

Fulfilment criteria for the testing is that each deploying country participating needs to test its services with at least three participants offering the same services. For example, if a country will participate in the eHDSI as Patient Summary Country B, then it has to test with at least three participating countries acting as Patient Summary Country A and submit evaluations for the requested documents; likewise a Country A (i.e. a country providing patient summaries of its citizens) needs to be tested by at least three countries that will request such documents, i.e. countries B for the Patient Summary service.

For the ePrescription/eDispensation service, additional tests are executed. The ePrescription Test Framework Extension[2] was designed to fully test the service functionality, given the more complex workflow and particularities of this service.

[1] https://ec.europa.eu/cefdigital/wiki/x/4QYfCQ
[2] https://ec.europa.eu/cefdigital/wiki/x/5hrQAg

2.3 Preparation, operation, and follow-up of the Functional end-to-end Testing during the 2020-02 Formal & Upgrade (PPT) Pre-Production Test Event

Two preparatory conferences prior to the testing week were scheduled on February 14 and March 11 to explain the methodology and present the timeline of the testing, the latter specifically addressed to health professionals. The testing week was scheduled to take place during March 16-20[3], with two progress report teleconferences on March 17 and 19

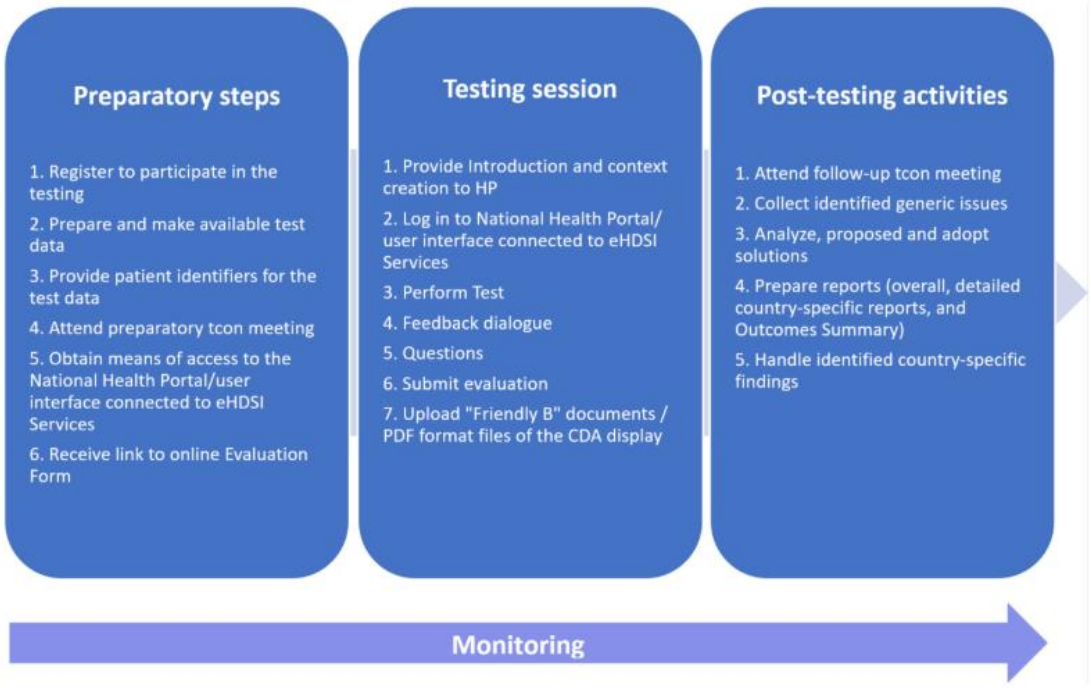
The testing week was ultimately extended to the following week, ending on March 27, given the difficulties faced by some participating countries to have health professionals available to perform the evaluations (their health professionals needed to be engaged in the management of the COVID-19 outbreak).

As soon as the testing week began, Solution Provider started analysing each individual submission received. A first follow-up teleconference with the participants in the test was scheduled on March 25, to discuss and continue collecting findings and explain the next steps. As part of these next steps, the eHMSEG Semantic Task Force will discuss the identified findings during its regular teleconferences and, when possible, during Face-to-Face meetings.

All the findings identified, either by the participants in the testing or by Solution Provider during the review of the submissions received, were collected on Confluence[4] and assigned a JIRA ticket for issue tracking if required. Solution Provider is now working in close collaboration with the eHMSEG Semantic Task Force on solving the Semantic-related issues as well as with other relevant groups (e.g. OpenNCP Technical Community).

The diagram below shows a schematic view of the phases of the testing.

Figure 1: Phases of the end-to-end functional testing



[3] In this occasion, it was decided to open the possibility for participating countries to start the Functional e2e Testing the week before or to prolong it beyond the normal scheduled week, i.e. March 16-20.

[4] https://ec.europa.eu/cefdigital/wiki/x/GgDBCg

3 EVALUATIONS SUBMITTED DURING THE FUNCTIONAL END-TO-END TESTING –2020-02 FORMAL & UPGRADE (PPT) PRE-PRODUCTION TEST EVENT

3.1 Participating countries and overall submissions

- Fourteen countries registered to participate in the event: Croatia, Cyprus, Czech Republic, Estonia, Finland, France, Greece, Ireland, Luxembourg, Malta, Poland, Portugal, Spain, and Sweden.

Table 1: Participants in the functional e2e testing and services tested

Deploying country	2-letter Country Code	eHDSI Services tested
Croatia	HR	Patient Summary (A & B), ePrescription (A & B)
Cyprus	CY	Patient Summary (A & B), ePrescription (A & B)
Czech Republic	CZ	Patient Summary (A & B), ePrescription (A & B)
Estonia	EE	Patient Summary (A & B), ePrescription (A & B)
Finland	FI	ePrescription (A & B)
France	FR	Patient Summary (B)
Greece	GR	Patient Summary (A & B), ePrescription (A & B)
Ireland	IE	Patient Summary (A), ePrescription (A)
Luxembourg	LU	Patient Summary (A & B)
Malta	MT	Patient Summary (A & B)
Poland	PL	ePrescription (A & B)
Portugal	PT	Patient Summary (A & B), ePrescription (A & B)
Spain	ES	Patient Summary (A & B)
Sweden	SE	ePrescription (A & B)

- The table below shows the total number of evaluations submitted by the countries participating in the Test Event, indicating the type of document exchanged the evaluation referred to.

Table 2: Evaluations submitted during the Functional e2e Testing

Evaluation Form type	# submissions
Patient Summary	49
ePrescription	32
eDispensation	34
Total	**115**

3.2 Submissions for the evaluation of the Patient Summary and ePrescription/eDispensation Services - Fulfilment of testing criteria

- The table in the next page presents the number of evaluations submitted by each participating country and whether the required tests were performed. A complete list of submissions is included on page 9.

NOTE: To fully evaluate the ePrescription/eDispensation workflow when a participating country is acting both as Country A and B and to check whether it fulfilled the testing criteria, the processes and documents that need to be evaluated are depicted in the diagram below. Not only that deploying country has to evaluate the ePrescription documents from the partners, acting as Country B, and the eDispensation documents retrieved for the dispensation of its own ePrescription documents, acting then as Country A; but also its partners need to evaluate the eDispensation documents generated for the dispensation it has performed as well as the ePrescription documents.

Figure 2: Diagram detailing the transactions involved in the eP/eD service for a Country acting both as A & B

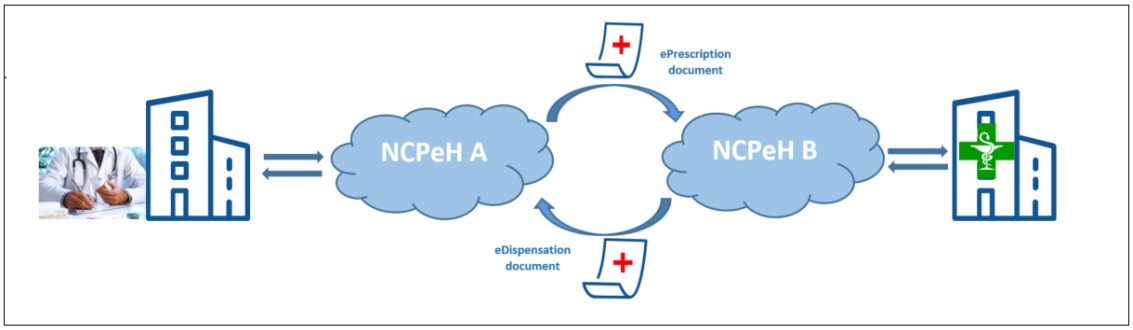


Table 3: Submissions received during the Wave 3 Formal & Upgrade PPT and fulfilment of testing criteria

Deploying country	Services tested	Patient Summary evaluations					ePrescription evaluations					eDispensation evaluations				
		# sub	Tests with partners		Fulfilment of testing criteria		# sub	Tests with partners		Fulfilment of testing criteria		# sub	Tests with partners		Fulfilment of testing criteria	
			as PS A	as PS B	as PS A	as PS B		as eP A	as eP B	as eP A	as eP B		as eP A	as eP B	as eP A	as eP B
Croatia	PS (A & B), eP (A & B)	6	CY, CZ, GR, LU, 2 MT, ES	CY, GR, IE, LU, MT, PT	Yes	Yes	8	CY, FI, GR, PL, SE	GR, 2 FI, 2 IE, PL, 2 SE	Yes	Yes	5	GR, FI, PL, 2 SE	FI, GR, IE, PL, SE	Yes	Yes
Cyprus	PS (A & B), eP (A & B)	4	HR, CZ, ES	HR, GR, LU, ES	Yes	Yes	3	GR, PL	HR, CZ, IE	*Missing one eval.*	Yes	3	GR, EE, PL	CZ, GR, IE, PL	Yes	Yes
Czech Republic	PS (A & B), eP (A & B)	14	GR, LU, ES	HR, CY, GR, IE, 2 LU, 3 MT, 3 PT, 2 ES	Yes	Yes	4	CY, FI, SE	GR, EE, FI, PL	Yes	Yes	4	CY, FI, GR, SE	FI, 2 PL, SE	Yes	Yes
Estonia	PS (A & B), eP (A & B)	0	LU, PT	0	*Missing one eval.*	*Unable to participate*	0	CZ, SE	0	*Missing one eval.*	*Unable to participate*	0	0	CY, PL, SE	*Unable to participate*	Yes
Finland	eP (A & B)	-	-	-	-	-	5	2HR, CZ, PL, SE	HR, CZ, IE, PL, SE	Yes	Yes	4	HR, CZ, PL, SE	HR, CZ, IE, 2 PL, SE	Yes	Yes
France	PS (B)	3	-	IE, LU, PT	-	Yes	-	-	-	-	-	-	-	-	-	-
Greece	PS (A & B), eP (A & B)	3	HR, CY, CZ	HR, CZ, PT	Yes	Yes	3	HR, CZ, PL	HR, CY, PL	Yes	Yes	3	HR, CY, PL	HR, CY, CZ, PL	Yes	Yes
Ireland	PS (A), eP (A)	-	HR, CZ, FR, LU, MT, PT	-	Yes	-	-	2 HR, CY, FI	-	Yes	-	3	HR, CY, FI	-	Yes	-
Luxembourg	PS (A & B)	7	HR, CY, 2 CZ, FR, ES	HR, CZ, EE, IE, PT, 2ES	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Malta	PS (A & B)	4	HR, 3 CZ, PT	2HR, IE, ES	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Poland	eP (A & B)	-	-	-	-	-	4	HR, CZ, FI, GR, SE	HR, CY, GR, FI	Yes	Yes	8	HR, CY, 2 CZ, EE, 2 FI, GR	HR, CY, FI, GR	Yes	Yes
Portugal	PS (A & B), eP (A &	3	HR, 3 CZ, FR, GR, ES	EE, IE, MT	Yes	Yes	0	0	0	*Unable to participate*	*Unable to participate*	0	0	0	*Unable to participate*	*Unable to participate*
Spain	PS (A & B)	5	CY, 2 CZ, 2 LU, MT,	HR, CY, CZ, LU, PT	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Sweden	eP (A & B)	-	-	-	-	-	5	2HR, FI	HR, CZ, EE, FI, PL	*Missing one eval.*	Yes	4	HR, CZ, EE, FI	2 HR, CZ, FI	Yes	Yes

Table 4: Complete list of submissions received during the Wave 3 Formal & Upgrade PPT

Country	Services tested	PS evaluations	eP evaluations	eD evaluations
Croatia	PS A & B eP A & B	CY2HR-1990-01-01_1 GRT2HR-01059902062 MT2HR -9999002M IE2HR-539305450000074414 PT2HR- IE2HR-898765392 LU2HR-3843082788	GR2HR-01059902062 PL2HR-52070874458 FI2HR-080200A901U SE2HR-199411202386 FI2HR-080200A901U IE2HR-1234-512-345-123-45005 SE2HR-199411202386 IE2HR-1234-512-345-123-45016	PL2HR-113058312 SE2HR-119949968 FI2HR-151059290 SE2HR-151059337 GR2HR-115138832
Cyprus	PS A & B eP A & B	HR2CY- 157601853 ES2CY- BBBBBBBBBZ253954 GR2CY-1059902062 LU2CY-8729593390	HR2CY-115138832 CZ2CY-222333069 IE2CY-539305450001604603	GR2CY-1990-01-01 PL2CY-1990-01-01 EE2CY-1990-01-01
Czech Republic	PS A & B eP A & B	HR2CZ- 157601853 CY2CZ-1990-01-01_1 PT2CZ-898765392 PT2CZ-810813305 PT2CZ-898765405 GR2CZ-01059902062 LU2CZ-3843082788 MT2CZ-9999001M MT2CZ-9999002M MT2CZ-9999003M IE2CZ-539305450000074414 ES2CZ-BBBBBBBBBZ253954 LU2CZ-8729593390 ES2CZ- BBBBBBBBBZ152497	FI2CZ-Janita Helga Hilppa PL2CZ-XXX GR2CZ-XXX EE2CZ-37910044216	FI2CZ-20200317101252 GR2CZ-222333069 CY2CZ-222333069 SE2CZ-222333069
Estonia	PS A & B eP A & B			
Finland	eP A & B	NA	PL2FI- 73111130096 SE2FI-199501112388 IE2FI- 1234-512-345-123-45003 CZ2FI- 222333069;PGIIPBONUM6O HR2FI-151059290	PL2FI-030200A900K SE2FI-100200A9014 HR2FI-080200A901U CZ2FI-050200A900V
France	PS B	IE2FR- 539305450000074414 LU2FR-1990010112385 PT2FR-810813305	NA	NA
Greece	PS A & B eP A & B	HR2GR-990000517 CZ2GR-7161264528 PT2GR- 898765392	PL2GR-96050409265 CY2GR-1990-01-01_1 HR2GR-115138832	HR2GR-01059902062 CY2GR-01059902062 PL2GR-01059902062
Ireland	PS A eP A	NA	NA	HR2IE-1234-512-345-123-45005 CY2IE-1234-512-345-123-45011 FI2IE-1234-512-345-123-45003
Luxembourg	PS A & B	IE2LU-539305450000074414 HR2LU-157601853 ES2LU-BBBBBBBBBZ253954 EE2LU-38812130018 CZ2LU-7161264528 PT2LU-898765392 ES2LU-BBBBBBBBBZ152497	NA	NA
Malta	PS A & B	IE2MT-539305450000074414 ES2MT- BBBBBBBBBZ253954 HR2MT-990000517 HR2MT- 157601853	NA	NA
Poland	eP A & B	NA	GR2PL- 01059902062 FI2PL-030200A900K CY2PL1;1990-01-01 HR2PL-113058312	EE2PL-90051330593 GR2PL-96050409265 FI2PL-73111130096 CY2PL-79092303809 HR2PL-52070874458 FI2PL-73111130096 CZ2PL-44041889204 CZ2PL-44041889204
Portugal	PS A & B eP A & B	MT2PT-9999001M EE2PT-49001290014 IE2PT-539305450000074414		
Spain	PS A & B	HR2ES-01059902062 PT2ES-898765392 LU2ES-1968101545978 CZ2ES-7161264528 CY2ES-1990-01-01_1	NA	NA
Sweden	eP A & B	NA	FI2SE-100200A9014 HR2SE-119949968 EE2SE-37910044216 CZ2SE-222333069;PGIEAT67GF8U PL2SE-78031145098	FI2SE- 199501112388 EE2SE-199410122395 CZ2SE-199302112397 HR2SE- 199411202386
Total	**(115)**	**49**	**32**	**34**

3.3 General conclusions from the analysis of the number of submissions received

- Patient Summary Service

  All the necessary evaluations were submitted, except in the case of Estonia, whose health professionals could not participate in the testing due to the COVID-19 outbreak.

- ePrescription/eDispensation Service

  - Health professionals from Estonia and Portugal could not participate due to the reason mentioned above.
  - Cyprus and Sweden missed being evaluated by one more partner regarding their ePrescriptions.

4 DETAILED RESULTS FROM THE END-TO-END FUNCTIONAL TESTING - 2020-02 FORMAL & UPGRADE (PPT) PRE-PRODUCTION TEST EVENT

This section presents a detailed report per deploying country and service after the analysis of the evaluations submitted by health professionals and semantic experts.

The analysis has been carried out by Solution Provider, examining carefully all evaluations and issues reported by evaluators, checking whether the cause is a misalignment in the technical/semantic components or in the clinical document provided; if due to the former, the necessary fixes will be proposed to the eHMSEG Semantic Task Force or corresponding body for adoption.

The perception of the response time as considered by the users is presented in the table below.

Table 5: Perception of the response time

Perception of the response time*	Patient Summary service		ePrescription service	
	# submissions	percentage	# submissions	percentage
Good	40	81.63%	19	59.38%
Acceptable	7	14.29%	13	40.62%
Not acceptable	2	4.08%	0	0%
Total	49	100%	32	100%

*Response time for eDispensation is not taken into account

The response time was perceived as “not acceptable” in the tests of the Patient Summary services between CY (PS B) and HR and LU as (PS A).

4.1 Results of the testing of the Patient Summary Service

4.1.1 Cyprus

Deploying Patient Summary A & B services

Table 6: Summary of test data provided and/or evaluations submitted

Number of PS test data provided	1 PS
Number of evaluations submitted for PS retrieved from partners	4 (HR, GR, LU, ES)
Number of evaluations submitted for its services provided by partners	3 (HR, CZ, ES)

4.1.1.1 Analysis of CY in its role as Country A for PS

Table 7: Analysis of the test data provided for the testing (Patient ID 1990-01-01_1)

Comments on the Sections/Elements of the CDA document	
Header of the document	• OID used for the root value of the ID of the document and for the related document ID is from the arc assigned to PT, **2.16.620** -> {joint-iso-itu-t(2) country(16) pt(620)}. • The OID value for the root of the patient ID is from the arc **2.16.17**; such value is incorrect, because the primary integer values assigned to arcs under 2.16 are only the values of the countries numeric-3 codes of ISO 3166-1[5]. This same arc is used in the OID value for the root of the author's id, author's represented organization ID, represented custodian organization's ID, legal authenticator's ID, legal authenticator represented organization's ID, and for the assigned entity's ID of the performer in the documentationOf element. • Patient address included in one of the components – except for the country: <addr> <country>CY</country> <streetAddressLine>21, Dimokritou, 1000, Strovolos, Nicosia</streetAddressLine> </addr> • Authoring device null flavored

[5] https://www.itu.int/itu-t/recommendations/rec.aspx?rec=X.660

	• The address of the represented organization of the authoring device is included in only one of the components as in the case of the patient's address. • Same situation for the address of the custodian's represented organization. • Telecom details for the legal authenticator null flavored.
Original PDF of the PS	Provided

Required Sections (Allergies, Active Problems, Medication Summary, List of Surgeries, Medical Devices)	• OID used for the root value of the ID of sections, entries, and entry relationships, is from the arc assigned to PT, 2.16.620 -> {joint-iso-itu-t(2) country(16) pt(620)}.
	• Allergies and Intolerances
	  ○ The clinical manifestation of the allergic reaction is not displayed (is left blank), because it is not constructed correctly in the CDA document: it should be included as an entryRelationship that uses the Problem template (ID 1.3.6.1.4.1.12559.11.10.1.3.1.3.7).
	• Current Problems
	• Medication Summary
	  ○ Route of administration not present, although, as commented by one of the evaluators, the medication is familiar to the physician and the dose form is present, tablets.
	  ○ Not correct strength for levothyroxine: 100 milligram when it should be 100 microgram.
	  ○ The medication included is not coherent with the current problem for the patient: Predominantly allergic asthma.
	• Medical Devices
	  ○ The implant device (Implantable defibrillator) in this Section is not coherent with the past problems of the patient and with the procedures included.
	• Surgical Procedures

Other Sections present	• Past Problems
	  ○ The past problem included (Carcinoma in situ: Thyroid and other endocrine glands) would usually require a surgical procedure not included in that Section.
	  ○ There is no past problem that would have required the surgical procedure included (Femoral-popliteal artery bypass graft).
	• Immunizations
	  ○ Brand name of the two vaccines in the Section are shifted.
	• Social History
	  ○ Value of the lifestyle habit (smoking & alcohol intake) not present.
	• Vital Signs
	  ○ The time when the systolic and diastolic blood pressure was taken is included with a different level of precision compared to the organizer that groups that measurements; this circumstance triggers a warning that informs that both times are not equal when they should match.
	  <effectiveTime value="**20190529000000**"/> vs <effectiveTime value="**20190529**"/>

General evaluation of the clinical usefulness of the document	Considered useful by one of the two evaluators

4.1.1.2 Analysis of CY in its role as Country B for PS

Comments
• Regarding the comments in the Evaluation Forms about the format of the dates, please, refer to previous Detailed Reports were it is explained that the CDA Display Tool, as Reference Implementation uses the ISO 8601 standard for representation of time (as agreed by the eHMSEG Semantic Task Force). The presentation to the health professional of the dates or, in general, of the information contained in the Patient Summary document, can be customized by deploying countries to best fit their needs. • Regarding the comment on the number of columns in the narrative vs the columns in the coded translated part not being, again, please refer to previous Detailed Reports explaining the structure of the CDA document and the different parts of a Section (narrative text and coded entries).

4.2 Results of the testing of the ePrescription/eDispensation Service

4.2.1 Cyprus

Deploying eP/eD A and B services

Table 8: Summary evaluations submitted and/or evaluations received for eP/eD documents

Number of evaluations submitted by CY for eP documents from partners	3 (HR, CZ, IE)
Number of evaluations submitted for eD documents retrieved from partners	3 (GR, EE, PL)
Number of evaluations submitted for CY eP documents by partners	2 (GR, PL)
Number of evaluations submitted for CY eD documents by partners	4 (CZ, GR, IE, PL)

4.2.1.1 Analysis of CY in its role as Country A for eP/eD

Analysis of the submissions received for eP services of CY acting as Country A

Table 9: Analysis of the submissions received referred to the eP services of CY acting as Country A

Comments on the Sections/Elements of the CDA document		
ePrescription	patient id 1990-01-01_1	patient id 1990-01-01_1
Elements in the Header of the document	▪ The OID used as value for the root attribute of the id of the document, id of the relatedDocument, id of the Section, and id of the entry comes from the arc **2.16.620**, which corresponds to Portugal: {joint-iso-itu-t(2) country(16) pt(620)}. ▪ Id of the patient, author, author's represented organization, custodian represented organization, legal authenticator, legal authenticator's represented organization, and performer of the relatedDocument use an incorrect OID arc as root value: such value is incorrect, because the primary integer values assigned to arcs under 2.16 are only the values of the countries numeric-3 codes of ISO 3166-1[6]. ▪ Patient's address included in only one line (except for the country code). <addr> <country>CY</country> <streetAddressLine>21, Dimokritou, 1000, Strovolos, Nicosia</streetAddressLine>	

[6] https://www.itu.int/itu-t/recommendations/rec.aspx?rec=X.660

	</addr> Same situation for other addresses.	
Display of prescriptions and possibility to select the appropriate one	Yes	Yes
Original PDF of the eP provided	Yes (English)	Yes (English)
Dataset in Country B language and elements correctly displayed?	▪ As for the prescription on the right, this prescription that refers to Salbutamol (inhaler), contains an incorrect unit in the doseQuantity element (units per intake): 2.0 **per day** o Use of decimals, which is unrealistic given the inhaler device. o According to the frequency of intakes, the administration of the medicine is supposed to be 3 times per day (and again use of decimals when that is not possible: 3.0 per day). The frequency of intakes is correct in the Level 1 PDF '3 per day'.	▪ Strength was included in a structured and coded way, although not entirely correct: the units in the numerator also include that the units of the denominator <epsos:quantity> <epsos:numerator value="**100**" xsi:type="**epsos:PQ**" unit="**[IU]/mL**"/> <epsos:denominator value="**1**" xsi:type="**epsos:PQ**" unit="**mL**"/> </epsos:quantity> ▪ It was at first confusing to the pharmacist how the frequency of intake was presented: **1.0** per day (1 time per day, which is the stated frequency of administration of insulin glargine) <effectiveTime xsi:type="**PIVL_TS**" operator="**A**" institutionSpecified="**true**"> <period value="**1.0**" unit="**d**"/> </effectiveTime> ▪ The units per intake were also not clear to the pharmacist, neither from the Level 1 PDF: <doseQuantity value="**1.0**" unit="**/d**"/> Administering 1 U per day of insulin glargine does not seem very realistic: e.g. the usual starting dose is 10U or 0.2U/kg/day. Here it is repeated the frequency "per day". ▪ Different number of packages for dispensation between the Level 1 PDF and the Level 3 (both including decimals): **1.0 vs 5.0** The Level 3 CDA contains in the supply structure: <supply moodCode="**RQO**" classCode="**SPLY**"> <independentInd value="**false**"/> <quantity value="**5.0**"/> </supply> This conflicting information was highlighted by the evaluator of the service as well as the difficulties to understand what presentation of insulin glargine needed to be dispensed:

		"Lack of 16rescript between original and transformed national prescription regarding to number of packages. In 16rescription transformed to national format there is written: "5 x solution for injection 10 pieces" = (5 x roztwór do wstrzykiwań 10 szt.). It suggests that we shall dispense 5 packages x 10 vials (pharmacist does not know what is the size of each vial). In the original document there was written: 5 x 10 mL, vials , so in the fact there were 1 package containing: 5 x vials, each vial containing 10 ml. Dispensation was possible after reading original prescription." Solution Provider comments: the Level 3 CDA contains a useful description at the level of the generalizedMedicineClass, name element: <epsos:name>insulin glargine, 100 [IU]/mL, 5 x 10 mL , Vial</epsos:name> Such description is not acceptable to be included at that level (see eP IG). It would be very informative for the receiver country if this description was included at the level of the epsos:containerPackagedMedicine, epsos:name element: *"If present, the element SHALL contain a sufficiently detailed description of the prescribed medicinal product/package. The description may contain information on the brand name, dose form, package (including its type or brand name), strength, etc."* The epsos:capacityQuantity element was not correctly valued: <epsos:capacityQuantity value="**10**" unit="**1**"/> This element describes the capacity of the packaging, therefore, in this case, following the description highlighted in yellow above and the information in the Level 1 PDF ("5 x 10 mL ,Vial"), the value should have been "5".
Information need to safely dispense provided	Yes	Only after reading the original prescription (Level 1 PDF provided in English)
Dispensation possible	Yes	Yes

4.2.1.2 Analysis of CY in its role as Country B for eP/eD

Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document:

Table 10: Analysis of the submissions received referred to the eP services of CY acting as Country B providing an eD document

Comments on the Sections/Elements of the CDA document		
eDispensation	patient id 01059902062	patient id 222333069
Administrative data	▪ OID arc used in the value of the root attribute of the document id and throughout the document, **2.16.17**, is not correct; the primary integer values assigned to arcs under 2.16 are only the values of the countries numeric-3 codes of ISO 3166-1[7]. ▪ In the evaluation from IE, the evaluator commented that the OID was accompanying the patient id - this comment refers to the national display in IE of the eDispensation document.	
Document received in Country A language	Answered No, because it was provided in English (included as comment for the receiver country).	Yes
Structure and information in the received document as expected	Yes	Yes
eD Document received for each eP, eP identifier included in the document	Yes	Yes
Information about the dispensed medicine in Country B (including brand name) present	Yes	Yes
Number of packages dispensed present	Yes	Yes
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	No It was explained by the evaluator that "The greek doctor prescribed 30 tabs in blisters while the cypriot pharmacist dispensed 40 tabs in blisters. This is considered not safe by our MoH pharmacist." Solution Provider comment (also included for the receiver country of the document): "the change in package size is admissible in the eHDSI ePrescription services, the reason being that it might be the case that exactly the same package size is not marketed in all EU countries. Please, if dispensing above the package size prescribed is an issue, bring that topic for discussion in the ePrescription Cluster." Regarding package size, Solution Provider sees a discrepancy between the units per package indicated in the name of the medicinal product dispensed and what is included	Yes

[7] https://www.itu.int/itu-t/recommendations/rec.aspx?rec=X.660

in the designated capacityQuantity element, but also the name of the medicinal product at different levels:

```
<product>
   <manufacturedProduct classCode="MANU">
        <templateId root="1.3.6.1.4.1.12559.11.10.1.3.1.3.1"/>
        <templateId root="2.16.840.1.113883.10.20.1.53"/>
        <manufacturedMaterial classCode="MMAT" determinerCode="KIND">
            <epsos:id root="1.3.6.1.4.1.12559.11.10.1.3.1.3.3"
            extension="21982896.1"/>
            <code displayName="ATARVITON TAB 5MG/TAB BT
            X30(BLIST 3X10)" codeSystemName="EOF"
            codeSystem="2.16.17.710.811.1000.990.1"
            code="031360202">
               <originalText>
                  <reference value="#med_barcode_1"/>
               </originalText>
            </code>
            <name>KRATIUM TABLET 5MG, PACK WITH 40 TABS IN
            BLISTER(S)</name>
            <epsos:desc>5MG/TAB</epsos:desc>
            <epsos:formCode displayName="Tablet" codeSystemVersion="2019-10-
            21" codeSystemName="EDQM" codeSystem="0.4.0.127.0.16.1.1.2.1"
            code="10219000">
               <epsos:translation displayName="Δισκίο"
               codeSystemName="EDQM" codeSystem="0.4.0.127.0.16.1.1.2.1"
               code="10219000">
                  <epsos:translation displayName="ΔΙΣΚΙΑ_"/>
               </epsos:translation>
            </epsos:formCode>
            <epsos:asContent classCode="CONT">
               <epsos:containerPackagedMedicine classCode="CONT"
               determinerCode="INSTANCE">
                  <epsos:name>KRATIUM TABLET 5MG, PACK WITH 40 TABS
                  IN BLISTER(S)</epsos:name>
                  <epsos:formCode nullFlavor="NI"/>
                  <epsos:capacityQuantity value="40" unit="1"/>
```

In fact, the information provided for the code element of the manufactured material is exactly the same that was included in the originating ePrescription:

```
<code displayName="ATARVITON TAB 5MG/TAB BT X30(BLIST
3X10)" codeSystemName="EOF"
codeSystem="2.16.17.710.811.1000.990.1" code="031360202">
   <originalText>
      <reference value="#med_barcode_1"/>
   </originalText>
</code>
```

Did a substitution take place?	The reply was 'Yes' and explained "The cypriot pharmacist dispensed a different brand name by changing the package type but he did not checked the dispensation checkbox because we cannot find the appropriate element in dispensation xml." Solution Provider note: change in package size is not considered a substitution.	No

Comments on the Sections/Elements of the CDA document		
eDispensation	patient id 79092303809	patient id 1234-512-345-123-45011
Document received in Country A language	Yes	Yes
Structure and information in the received document as expected	Yes	Yes
eD Document received for each eP, eP identifier included in the document	Yes	Yes

Information about the dispensed medicine in Country B (including brand name) present	Yes
	
	As for the eDispensation above, the information in the code element of the manufactured material is the same as the information for that element in the originating prescription:
	
	`<code displayName="Yasminelle 3 mg + 0,02 mg" codeSystem="2.16.840.1.113883.3.4424.6.1" code="100163242">`
	`  <originalText>`
	`  <reference value="#p1_nazwaLeku"/>`
	`  </originalText>`
	`</code>`
	
	the OID arc for the code system is assigned to the Poland's National Centre for Health Information Systems ("CSIOZ"); the reference to the narrative is in Polish (from the originating ePrescription) and the narrative part of the Section is in Polish (copied from the ePrescription).
		No
		
		The evaluator explained: "Brand name (Ventolin) not displayed".
		
		Brand name is not included in the eDispensation document.

Number of packages dispensed present	Yes	Yes
eD content matching the eP (dispensation was performed correctly: i.e. the right amount of the appropriate medicinal product was dispensed to the patient	Yes	Yes
Did a substitution take place?	No	Yes

		The evaluator commented: “They use different pack sizes and possibly a different brand as generic name only displayed.”

Feedback for CY as eP Country B:

Comments
▪ Regarding the evaluation received for the eDispensation document from GR, Solution Provider believes the issue in the display of administrative information in CY side (information appears as a long line of question mark symbols) might be due by an incorrect handling of the Greek characters by the developed application. Such display is a national decision, therefore countries are free to display or just processed such information. With regards to the Functional e2e Testing, what is being evaluated is the capacity of country origin of the document to generate it and to the country receiving it to semantically processing it.

1.2.6 Extended Test Week Wave 3 Formal & Upgrade (PPT) Pre-Production-Testing June 2020

DG SANTE

Addendum

Detailed report from the Functional e2e Testing

eHDSI Wave 3 Formal & Upgrade (PPT) Pre-Production-Testing
June 2020 Extended Test Week - Cyprus

Document Control Information

SETTINGS	INFO
Document Title:	Addenddum - Detailed report from the Functional e2e Testing 2020-02 eHDSI Wave 3 Formal & Upgrade (PPT) Pre-Production Testing June 2020 Extended Test Week - Cyprus
Project Title:	eHealth DSI – ePrescription and Patient Summary
Document Author:	eHDSI Solution Provider
Doc. Version:	0.1
Sensitivity:	eHDSI restricted
Date:	23/07/2020

Document Approver(s) and Reviewer(s):
NOTE: All Approvers are required. Records of each approver must be maintained. All Reviewers in the list are considered required unless explicitly listed as Optional.

NAME/ROLE	ACTION	DATE
eHMSEG / eHN		
eHOMB		
eHDSI Solution Provider	Prepare Report	23/07/2020

Document history:
Changes to this document are summarized in the following table in reverse chronological order (latest version first).

REVISION	DATE	CREATED BY	SHORT DESCRIPTION OF CHANGES
0.1	23/07/2020	eHDSI Solution Provider	Initial version

TABLE OF CONTENTS

1 PURPOSE OF THIS DOCUMENT

This document contains **a detailed presentation of the results for Cyprus from the Functional end-to-end Testing (Extended Test Week)** that took place from June 22 to July 3. That Extension of the Wave 3 Formal & Upgrade Pre-Production Testing was necessary due to the outbreak of the COVID-19 pandemic that impeded the participation of health professionals in the Testing.

The Extended Test Week, originally planned from June 22 to June 26, was finally prolonged one more week for the sake of all countries being able to upgrade their OpenNCPs and participate.

2 SCOPE OF THE TEST EVENT

The Extended Test Week had a two-fold scope:

- Completion of the Functional end-2-end tests that could not be performed in March
- Provision of verification means of the fixes for Country findings/observations already solved

3 EVALUATIONS SUBMITTED DURING THE FUNCTIONAL END-TO-END TESTING – EXTENDED TEST WEEK

3.1 Participating countries and overall submissions

- Eight countries registered to participate in the event: Croatia, Cyprus, Czech Republic, Estonia, Finland, Ireland, Luxembourg, and Portugal.

Table 1: Participants in the functional e2e testing and services tested

Deploying country	2-letter Country Code	eHDSI Services tested
Croatia	HR	Patient Summary (A & B), ePrescription (A & B)
Cyprus	CY	Patient Summary (A & B), ePrescription (A & B)
Czech Republic	CZ	Patient Summary (A & B), ePrescription (A & B)
Estonia	EE	Patient Summary (A & B), ePrescription (A & B)
Finland	FI	ePrescription (A & B)
Ireland	IE	Patient Summary (A), ePrescription (A)
Luxembourg	LU	Patient Summary (A & B)
Portugal	PT	Patient Summary (A & B), ePrescription (A & B)

- The table below presents the total number of evaluations submitted by the countries participating in the Test Event, indicating the type of document exchanged for the evaluation.

Table 2: Evaluations submitted during the Functional e2e Testing

Evaluation Form type	# submissions
Patient Summary	12
ePrescription	16
eDispensation	12
Total	**40**

3.2 Submissions for the evaluation of the Patient Summary and ePrescription/eDispensation Services - Fulfilment of testing criteria

- The table in the next page presents the number of evaluations submitted by each participating country and whether the required tests were performed (*when applicable*). A complete list of submissions is included on page 7.

NOTE: To fully evaluate the ePrescription/eDispensation workflow when a participating country is acting both as Country A and B and to check whether it fulfilled the testing criteria, the processes and documents that need to be evaluated are depicted in the diagram below. Not only that deploying country has to evaluate the ePrescription documents from the partners, acting as Country B, and the eDispensation documents retrieved for the dispensation of its own ePrescription documents, acting then as Country A; but also its partners need to evaluate the eDispensation documents generated for the dispensation it has performed as well as its ePrescription documents.

Figure 1: Diagram detailing the transactions involved in the eP/eD service for a Country acting both as A & B side

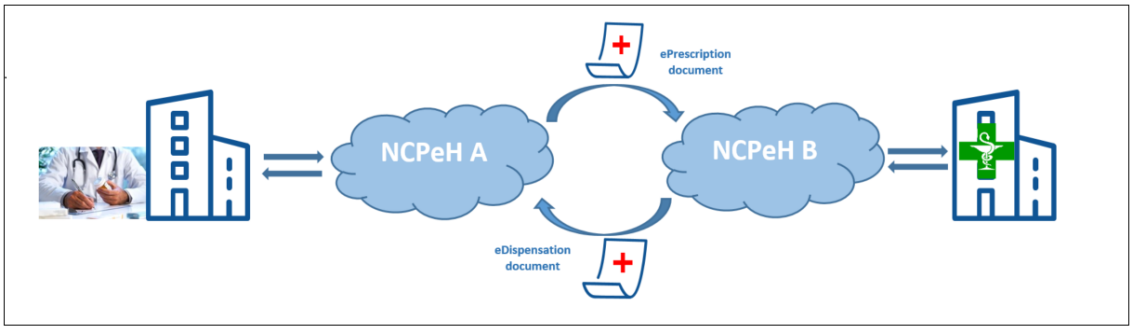


Table 3: Submissions received during the Extended Test Week (Wave 3 Formal & Upgrade PPT) and fulfilment of testing criteria (*when applicable*)

Deploying country	Services tested	Patient Summary evaluations					ePrescription evaluations					eDispensation evaluations				
		# sub	Tests with partners		Fulfilment of testing criteria		# sub	Tests with partners		Fulfilment of testing criteria		# sub	Tests with partners		Fulfilment of testing criteria	
			as PS A	as PS B	as PS A	as PS B		as eP A	as eP B	as eP A	as eP B		as eP A	as eP B	as eP A	as eP B
Croatia	PS (A & B), eP (A & B)	3	CZ, LU	EE, LU, PT	NA	NA	1	EE, FI, 2PT	PT	NA	NA	3	EE, FI, PT	PT	NA	NA
Cyprus	PS (A & B), eP (A & B)	1	EE	PT	NA	NA	-	FI, PT	-	Yes *(Missing one eval. in March)*	NA	1	PT	-	NA	NA
Czech Republic	PS (A & B), eP (A & B)	3	EE, LU	HR, IE, LU	NA	NA	3	PT	EE, FI, PT	NA	NA	-	-	EE, PT	NA	NA
Estonia	PS (A & B), eP (A & B)	3	HR	CY, CZ, IE	Yes *(Missing one eval. in March)*	Yes *(Unable to participate in March)*	3	CZ, FI	HR, FI, PT	Yes *(Missing one eval.in March)*	Yes *(Unable to participate in March)*	3	CZ, FI, PT	HR	Yes *(Unable to participate in March)*	NA
Finland	eP (A & B)	-	-	-	-	-	4	CZ, PT	HR, CY, EE, PT	NA	NA	1	PT	HR, EE, PT	NA	NA
Ireland	PS (A), eP (A)	-	CZ, EE	-	NA	-	-	-	-	NA	-	1	PT	-	NA	-
Luxembourg	PS (A & B)	2	HR, CZ	HR, CZ	NA	NA	-	-	-	-	-	-	-	-	-	-
Portugal	PS (A & B), eP (A & B)	-	HR, CY	-	NA	NA	5	HR, CZ, EE, FI	2HR, CY, CZ, FI	Yes *(Unable to participate in March)*	Yes *(Unable to participate in March)*	3	HR, CZ, FI	HR, CY, EE, FI, IE	Yes *(Unable to participate in March)*	Yes *(Unable to participate in March)*

Table 4: Complete list of submissions received during the Extended Test Week (Wave 3 Formal & Upgrade PPT)

Country	Services tested	PS evaluations	eP evaluations	eD evaluations
Croatia	PS A & B eP A & B	PT2HR_898765405 LU2HR_3843082788 EE2HR_38812130018	PT2HR_294584908	PT2HR_151059290 FI2HR_151059337 EE2HR_119949968
Cyprus	PS A & B eP A & B	PT2CY_810813305	-	PT2CY__1990-01-01_1 2.16.17.710.860.1000.990.1
Czech Republic	PS A & B eP A & B	LU2CZ_3843082788 HR2CZ_990000517 IE2CZ_539305450000074414	PT2CZ_294584908.10110000028997154 09.144510 FI2CZ_021000A900C EE2CZ_37910044216	-
Estonia	PS A & B eP A & B	IE2EE_539305450000074414 CZ2EE_7161264528 CY2EE_1990-01-01_1	HR2EE_119949968 PT2EE_294584908 FI2EE_050191-900J	PT2EE_37910044216 CZ2EE_37910044216 FI2EE_37910044216
Finland	eP A & B	NA	CY2FI_1990-01-01_1 PT2FI_294584908.10110000028996965 00.512151 HR2FI_151059337 EE2FI_37910044216	PT2FI_090200A901F
Ireland	PS A eP A	NA	NA	PT2IE_1234-512-345-123-45001
Luxembourg	PS A & B	CZ2LU_7161264528 HR2LU_990000517	NA	NA
Portugal	PS A & B eP A & B	-	FI2PT_090200A901F HR2PT_113058312 CY2PT_1 CZ2PT_222333069 HR2PT_151059290	FI2PT_294584908 CZ2PT_294584908 HR2PT_294584908
Total	**(40)**	**12**	**16**	**12**

3.3 General conclusions from the analysis of the number of submissions received

- Patient Summary Service

  The pending evaluation for EE as PS A was performed.

- ePrescription/eDispensation Service

  The missing evaluations for PT and EE due to the COVID-19 outbreak and the pending evaluation for CY eP documents were performed.

4 DETAILED RESULTS FROM THE END-TO-END FUNCTIONAL TESTING – EXTENDED TEST WEEK

This section presents a detailed report per service and deploying country after the analysis of the evaluations submitted by health professionals and semantic experts.

The analysis has been carried out by Solution Provider, examining carefully all evaluations and issues reported by evaluators, checking whether the cause is a misalignment in the technical/semantic components or in the clinical document provided; if due to the former, the necessary fixes will be proposed to the eHMSEG Semantic Task Force or corresponding body for adoption.

The perception of the response time as considered by the users is presented in the table below.

Table 5: Perception of the response time*

Perception of the response time*	Patient Summary service		ePrescription service	
	# submissions	percentage	# submissions	percentage
Good	10	83.34 %	14	87.5 %
Acceptable	1**	8.33 %	1+	6.25 %
Not acceptable	1***	8.33 %	1++	6.25 %
Total	12	100%	16	100%

*Response time for eDispensation is not taken into account
**PS from CY evaluated by EE
***PS from PT evaluated by CY
+eP from CY evaluated by FI
++eP from CY evaluated by PT

4.1 Results of the testing of the Patient Summary Service

4.1.1 Cyprus

Deploying Patient Summary A & B services

Table 6: Summary of test data provided and/or evaluations submitted

Number of PS test data evaluated	1 PS
Number of evaluations submitted for PS retrieved from partners	1 (PT)
Number of evaluations submitted for its services provided by partners	1 (EE)

4.1.1.1 Analysis of CY in its role as Country A for PS

Table 7: Analysis of the test data provided for the testing (Patient ID 1990-01-01_1)

Comments on the Sections/Elements of the CDA document
The Test data used during the Extended Test Week is the same as the one from the Feb-March 2020 Test Event, the only difference being that the Medication Summary Section has no content now. The evaluator commented on the identified issues already highlighted in the detailed report from the Feb-March Test Event: there is no mention to the diagnosis for which the implant device and the surgery were required; as a summary, the evaluator commented, “Some diagnoses are missing, which would explain the surgeries etc, but might be just bad test data”.

4.1.1.2 Analysis of CY in its role as Country B for PS

Comments

• Same comments as in previous Test Events:
  ○ Regarding the comments in the Evaluation Forms about the **format of the dates**, please, refer to previous Detailed Reports were it is explained that the CDA Display Tool, as Reference Implementation uses the ISO 8601 standard for representation of time (as agreed by the eHMSEG Semantic Task Force). The presentation to the health professional of the dates or, in general, of the information contained in the Patient Summary document, can be customized by deploying countries to best fit their needs.
  The example provided as comment: Date of Birth 1984-08-18, being wrong and “The right way of presenting it is "Date of Birth (YYYY-MM-DD) 1984-08-18"; it clearly are exactly presented in the same format year-month-day.
  ○ Regarding the comment on the **number of columns in the narrative vs the columns in the coded translated part** not being identical, please refer to previous Detailed Reports where it was explained the structure of the CDA document and the different parts of a Section (the narrative text in original Country A language and the coded entries). The narrative part can contain additional information not currently included in the eHDSI PS content and thus, not include in the coded entries and not translated.
• About the terms used by the Portal (CDA Level 1 or Level 3), the same reasoning as for the CDA Display Tool applies; the Portal is provided as a Reference Implementation and participating countries can customized as they consider best.

4.2 Results of the testing of the ePrescription/eDispensation Service

4.2.1 Cyprus

Deploying eP/eD A and B services

Table 8: Summary evaluations submitted and/or evaluations received for eP/eD documents

Number of evaluations submitted by CY for eP documents from partners	0
Number of evaluations submitted for eD documents retrieved from partners	1 (PT)
Number of evaluations submitted for CY eP documents by partners	2 (FI, PT)
Number of evaluations submitted for CY eD documents by partners	0

4.2.1.1 Analysis of CY in its role as Country A for eP/eD

Analysis of the submissions received for eP services of CY acting as Country A

Table 9: Analysis of the submissions received referred to the eP services of CY acting as Country A

Comments on the Sections/Elements of the CDA document
▪ For one of the two evaluators, there was an issue during the Patient search step. As it was explained, it referred to the receiver of the eP: "Originally it was expected that the patient identifier would be 10 characters long. The international search mask is slightly misleading, as the length is indicated as "-1". <id domain="2.16.17.710.860.1000.990.1" label="patient.data.id.code" max="-1" min="-1"/> <id domain="2.16.17.710.860.1000.990.2" format="NNNN-NN-NN" label="patient.data.birth.date" max="10" min="10"/> We updated our internal configuration to resolve this issue. After the change, the patient search operation was successful." In a second evaluation, the following was indicated: "The patient identification in the original prescription does not match with the patient identification provided by the country for testing." ▪ The same evaluator commented as well on difficulties opening eP from CY: "This prescription was opened successfully. We had problems opening other prescriptions because of the following strength data about active ingredients: <epsos:quantity> <epsos:numerator unit="mg" value="0.02" xsi:type="epsos:PQ"/> <epsos:denominator unit="NI" xsi:type="epsos:PQ"/> </epsos:quantity>

We would expect the denominator data to be populated with unit="1" and value="1" in this case."

The denominator should have been valorized with the integer '1' according to the IG: "The medication strength is represented as the ratio of the active ingredient(s) to a unit of medication. The element contains the numerator and denominator of the strength ratio. The denominator element should contain an amount with its corresponding unit. Only when the numerator comes in a fractional form and cannot be separated into the numerator and denominator form, or is related to a unit of administration, a unit of '1' in the denominator is allowed."

- The units for the strength of the medicinal product, Lantus (insulin glargine) should be U, not IU.

```
<epsos:quantity>
  <epsos:numerator value="100" xsi:type="epsos:PQ" unit="[IU]"/>
  <epsos:denominator value="1" xsi:type="epsos:PQ" unit="mL"/>
</epsos:quantity>
```

- The evaluator commented on the package type present:

"Solution for injection" was both the dose form and the package type. We would expect a different package type. The text indicates that the package type is Vial, but this information was not visible in the pharmacy system, except in PDF."

- The evaluator indicated that the way to communicate the package size is misleading, given that the volume of the vial is 10mL and it includes 5 vials:

```
<epsos:capacityQuantity value="5" unit="1"/>
```

The way to optimally communicate the package size in cases like the one in this eP, is currently being discussed in the Architecture work group in liaison with the eP Cluster and might require to submit a Change Proposal: some countries are including in that element the result of multiplying the volume per unit times the number of units and that was not correctly understood by the receiver either.

- The receiver system did not present the package description, probably because the manufactured product name element contained only the brand name, although this is correct according to the acceptable descriptions in the IG (as decided by the eP Cluster).
- The brand name of the prescribed medicinal product is not present in the PDF, when at the same time, substitution is indicated as not possible.
- The evaluator indicated that they did not have enough information to safely dispense, given that: "Package type and package size were unclear."
- Finally, **the dispensation could not be submitted**:

"We could not submit the dispensation because of the OID mismatch on the prescription (prescription document) compared with the information on the prescription list (XCA List)"

1.3 eHDSI Wave2 Feb. & Jun. 2019 Test Sessions Outcomes Summary for CYPRUS NCPeH

EUROPEAN COMMISSION
SOLUTION PROVIDER
eHDSI

CY NCPeH
26/08/2019
V.3

eHDSI Wave2 Feb. & Jun. 2019 Test Sessions Outcomes Summary for

CYPRUS NCPeH

Scope and Services tested

- Patient Summary A and B
- ePrescription A and B

Conformance Testing

- Partners coverage (based on the Workflow Tests1)

Role		Feb.	Jun.	Feb. & Jun.	Coverage Findings
PS A	Possible partners	BE, EL, LU, PT	PT, BE, CZ, MT, HR, EL, LU	PT, BE, CZ, MT, HR, EL, LU	
OUTCOMES		LU, BE, PT, EL	EL, MT, BE, HR	LU, BE, PT, EL, MT, HR	Missing: CZ
PS B	Possible partners	HR, LU, PT	PT, CZ, MT, HR, LU	PT, CZ, MT, HR, LU	
OUTCOMES		LU, PT	CZ, MT, HR	LU, PT, CZ, MT, HR	-

[1]Extract from eHDSI Test Framework (p.30)

eP A	Possible partners	EE, EL, FI, PT	EE, PT, FI, HR, EL	EE, PT, FI, HR, EL	
OUTCOMES		PT, EE, FI, EL	EL	PT, EE, FI, EL	Missing: HR
eP B	Possible partners	EE, EL, PT	EE, PT, FI, HR, EL	EE, PT, EL, HR, FI	
OUTCOMES		EE, EL, PT	EL, EE	EE, EL, PT	Missing: HR, FI

- Specification Conformance

Role		Feb.	Jun.	Feb. & Jun.	Test Findings
NCP A	Required tests	12	-	12	
TEST OUTCOMES		12 performed, 12 passed, 0 failed	3 performed, 2 passed, 1 failed	12 performed, 12 passed, 0 failed	-
NCP B	Required tests	11	-	11	
TEST OUTCOMES		11 performed, 11 passed, 0 failed	4 performed, 3 passed, 1 failed	11 performed, 11 passed, 0 failed	-

Functional testing

- Functional End-2-End Coverage

Role		Feb.	Jun.	Feb. & Jun.	Coverage Findings
PS A	Possible partners	BE, EL, LU, PT	PT, BE, HR, CZ, EL, LU, MT	BE, PT, HR, CZ, EL, LU, MT	
OUTCOMES		BE, EL, LU, PT	HR, CZ, LU, MT	BE, EL, LU, PT, HR, CZ, MT	-
PS B	Possible partners	HR, LU, PT	PT, CZ, MT, HR, LU	PT, CZ, MT, HR, LU	
OUTCOMES		HR, LU, PT	HR, CZ, LU, MT	HR, LU, PT, CZ, MT	-
eP A	Possible partners	EE, EL, FI, PT	EE, PT, FI, HR, EL	EE, PT, FI, HR, EL	
OUTCOMES		EE, PT	HR, FI, EL	EE, FI, PT, HR, EL	-
eP B	Possible partners	EE, EL, PT	EE, PT, FI, HR, EL	EE, PT, EL, HR, FI	
OUTCOMES		EE, EL, PT	FI	EE, EL, PT, FI	Missing: HR

- Functional End-2-End Conformance

Role		Feb.	Jun.	Feb. & Jun.	Test Findings
PS A	Expected documents	4 (BE, EL, LU, PT)	7 (PT, BE, HR, CZ, EL, LU, MT)	7 (BE, PT, HR, CZ, EL, LU, MT)	
TEST OUTCOMES		4 (BE, EL, LU, PT)	4 (HR, CZ, LU, MT)	7 (BE, EL, LU, PT, HR, CZ, MT)	Findings: f-1 to f-3
PS B	Expected documents	3 (HR, LU, PT)	5 (PT, CZ, MT, HR, LU)	5 (PT, CZ, MT, HR, LU)	
TEST OUTCOMES		3 (HR, LU, PT)	4 (HR, CZ, LU, MT)	5 (HR, LU, PT, CZ, MT)	Findings: f-4 to f-5
eP A	Expected documents	4 ePs – 4 eDs (EE, EL, FI, PT)	5 ePs – 5 eDs (EE, PT, FI, HR, EL)	5 ePs – 5 eDs (EE, PT, FI, HR, EL)	
TEST OUTCOMES		4 ePs – 4 eDs (EE (2), [FI], PT) + (EL eD)	3 ePs – 3 eDs (HR, FI, EL)	5 ePs – 5 eDs (EE, FI, PT, HR, EL)	Findings: f-6 to f-13
eP B	Expected documents	3 ePs – 3 eDs (EE, EL, PT)	5 ePs – 5 eDs (EE, PT, FI, HR, EL)	5 ePs – 5 eDs (EE, PT, EL, HR, FI)	
TEST OUTCOMES		4 ePs – 4 eDs (EE, EL (2), PT)	2 ePs – 2 eDs (FI, [HR]) + (eD EL)	5 ePs – 4 eDs (EE, EL, PT, FI, [HR])	Missing: HR eD Findings: f-14 to f-18

[ ] partially verified: ePrescription evaluation present but eDispensation evaluation missing

Findings Summary

The following table provides you a summary of the findings discovered during the test sessions in scope of this document. For exhaustive details on the tests performed and shortcomings, please consult the detailed reports in annex.

Id	Role	Type	Category	Finding Description
f-1	PS A	Functional	CDA Required Sections	Medication Summary: not included, not even in the narrative part
f-2	PS A	Functional	CDA Other Sections present	History of Past Illness: in the narrative part, the description of one of the past problem is not complete vs the coded entry
f-3	PS A	Functional	CDA Other Sections present	Social History: the values for both entries contain a repetition of the coded element that represents the type of social history observation
f-4	PS B	Functional	-	Severity of the allergic reactions and the

				administration check for immunizations, along with some improvements in the display of the administrative information present in the header of the document, were not visible
f-5	PS B	Functional	-	Clinical manifestations of allergies were not translated from the original Country A language
f-6	eP A	Functional	-	Prescriber's organization is "Vasilios Scoutellas" and this is the same as the prescriber's name.
f-7	eP A	Functional	-	The root "2.16.470.1.100.1.1.1000.990.1" OID is used in identifiers for patient, prescriber, organizations with different extensions
f-8	eP A	Functional	-	In some cases the file could not be opened or/and a message "XDSRegistryError" appeared
f-9	eP A	Functional	-	Structured dosage instructions are not understandable
f-10	eP A	Functional	-	The prescription seems to be brand name based (KRATIUM). Name KRATIUM is not however visible on the PDF
f-11	eP A	Functional	-	"Package type is "Tablet" which seems incorrect. PDF states that the package type is "Blister"
f-12	eP A	Functional	-	Strength units are not UCUM codes
f-13	eP A	Functional	-	Simple unit "1" without curly braces was expected for number of packages
f-14	eD B	Functional		Custodian is "Country Custodian Name". This should be a more specific value
f-15	eD B	Functional	-	Legal Authenticator is "Kansaneläkelaitos", which is the Finnish NCP organization
f-16	eD B	Functional	-	Name of the dispenser and pharmacy are the same "pharmacist pharmacist".
f-17	eD B	Functional	-	The ID of the pharmacist is the same as the ID of the pharmacy
f-18	eD B	Functional	-	The dispensed medicinal product is identified using the Nordic VNR system, which is not used in Cyprus according to our knowledge

Each of the above findings may introduce risks in the NCPeH services routine operations. It is up to NCPeH to perform an assessment of each finding and determine if an action is needed/viable to address/resolve it. **The effectiveness of implemented actions should be verified with eHDSI Solution Provider.**

Observations Summary

The following table provides you a summary of observations as discovered during the test sessions in scope of this document. For exhaustive details on the tests performed and shortcomings, please consult the detailed reports in annex.

Id	Role	Type	Category	Observations
o-1	PS A	Functional	CDA Required Sections	Allergies : severity is not displayed to the HP, although it is present in the coded entries.
o-2	PS A	Functional	CDA Header	Guardian not present
o-3	PS A	Functional	CDA Header	Most of the address elements are present and, consequently, displayed in one string
o-4	PS A	Functional	CDA Other Sections present	Immunizations: the vaccination date is provided precise to the hour, minute, second (00:00:00), this is mentioned as not necessary and not user friendly.
o-5	PS A	Functional	CDA Other Sections present	Vital signs: the effective time of the Immunizations being precise to the hour, minute, second.
o-6	PS A	Functional	-	The test data provided does not seem to be “realistic”
o-7	eP A	Functional	-	The entire address (except from the country) is included in the streetAddressLine element
o-8	eP A	Functional	-	XML contains unexpected extra elements participant and documentationOf in the header
o-9	eP A	Functional	-	The patient ID provided ("1") is rather short and probably doesn't represent the way patients are identified in CY.
o-10	eP A	Functional	-	Epsos:containerPackagedMedicine contains a subelement epsos:capTypeCode(nullFlavored) that is defined in the CDA Extended XSD schema, but not defined in the CDA
o-11	eP B - eD B	Functional	-	Only on the raw xml file and some of the data are in the dispenser language

Annex – Full detailed reports

Document	Type
CY_JUNE-2019_ConformanceTest_Detailed.pdf	Conformance
CY_JUNE-2019_FunctionalTest_Detailed.pdf	Functional

1.4 [CY] Cyprus: Test Findings

There is a page that explains how country-specific test finding discovered during eHDSI Test Events will be processed and how fixes for the findings will be tracked.

The goal of the process is to ensure that:

- Test findings (from conformance and functional end-to-end testing) that require attention by Member State (MS) are collected in a single repository. Information is made available to the Member State, Solution Provider, and eHMSEG co-chairs in order to provide better transparency to the MS implementation readiness.
- Fixes to the test findings are tracked, so that Solution Provider may know which findings have been fixed, and which findings are still outstanding.
- When the MS is applying for Going Live, decision-making bodies (eHMSEG and eHealth Network) will receive up-to-date information about the status of implementation and any outstanding findings. In addition, if test reports submitted along with the Go Live application include test findings, the MS can report fixes to eHMSEG and eHN in a transparent way.

For Cyprus this page is: https://ec.europa.eu/cefdigital/wiki/pages/viewpage.action?pageId=117899456

We fixed the outstanding findings and in the next couple of months we will contact our MS partners to verify the resolution of their findings and observations.