

eSanté-LABO_WP1-2

Questionnaire for Laboratory Information System provider

01/03/2011 - Version 1.0

IMPORTANT:

Please complete one questionnaire for each of your Laboratory Information System implemented in Luxembourg.

Please, send back the questionnaire duly filled until 8 **April 2011** to:
esante_lab@ms.etat.lu

For any question, please contact François Wisniewski by e-mail:
francois.wisniewski@tudor.lu or by phone: +352 42 59 91 – 341.

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Current phase of the project	Réalisation (Rea)	

CR SANTEC

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Goal of the document

The goal of the document is to provide a state of practice (baseline) for laboratory information systems (LIS) in Luxembourg. This questionnaire will identify the current possibility of exchange to interact with the future eSanté platform: data types for patient identification, lab reports and associated metadata.

The results of this survey will provide with the current level of interoperability in LIS in Luxembourg. The eSanté Team will compare these results with the technical specifications (data set and standards) of the future eSanté platform (Gap analysis). The ultimate goal is to gain an overview on the workload that each laboratory would have to commit to in order to interact with the future eSanté platform.

Change History

Version	Date	Author	Modification
0.01	22/11/2010	FWI	
0.3	29/11/2010	FWI	
0.5	07/02/2011	FWi	Integration of IHE question
0.6	08/02/2011	HZi	Review, new questions added and minor changes
0.7	10/02/2010	FWi	Version for first review
0.8	25/02/2011	Fwi	Integration of RK and JCD comment
1.0	01/03/2011	Fwi	Public Version

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1. Introduction

In the framework of the eSanté program in Luxembourg, the Ministry of Health's plan to build on the eSanté platform, a service to exchange and share Laboratory results, called eSanté-LABO. This platform will be implemented and managed by the national eHealth Agency "Agence nationale des informations partagées dans le domaine de la santé", currently under creation.

The platform provides at the beginning two basic services:

- **Sharing of health data through the shared health record (DSP - Dossier de Soins Partagé)**

The DSP pursues an objective of optimizing the coordination and continuity of care by providing health professionals and patients a record containing the most relevant health information about the patient and value added services throughout a consistent platform. The DSP is not a substitute for other existing or foreseen medical records. The nature of the information shared in the DSP, its organization, its granularity, its degree of formalization and standardization should be adapted to the needs of healthcare professionals, patients and to the context of use of the information.

The sharing service covers selected kind of information provided by the data source to an unknown and/or uncertain date recipient, like prescription or referral letter.

- **Data exchange**

The exchange service pursues a goal of rapid, direct and secure exchange, through the eHealth platform, of targeted information from a healthcare provider to another known and identified health care provider. It allows sending of reports of certain exams from the information system of the executing healthcare provider to the information system of the ordering healthcare provider. For the exchange service, the platform is used only to transport the data and to secure the transmission from the source to the recipient.

Before the implementation of this service, the Ministry of Health requested to CR SANTEC to analyze LIS systems and evaluate their capacities to interact with the eSanté platform. The analysis will be implemented in two phases: (1) the LIS providers will be invited to answer a questionnaire; (2) some meetings with the LIS providers will improve the knowledge about some specific topics.

The objectives are to determine the gaps between users requirements for the platform and the functionalities available in the LIS, to plan some actions to reduce/eliminate these gaps, and to promote the utilization of the platform services by the LIS providers.

This set of questions has been organized into five topics:

- Architecture and Environment
- Patient identification
- Laboratory report
- Metadata associated with the lab report
- User authentication
- Signature

2. Standards

It is foreseen that the set of services implemented in the eSanté platform will be built on standards dedicated to the field of healthcare (e.g. HL7), labs (e.g. LOINC) and IHE integration profiles.

The platform's design will largely be based on IHE integration profiles. Particularly XDS (**Cross Enterprise Document Sharing**) for document sharing and its derivation XD-LAB for the sharing of laboratory reports, and utilizing the XDR profile (**Cross-Enterprise Document Reliable Interchange**) to exchange documents.

3. Identification of the participant

Name of the Laboratory Information System company (Vendor):

Person who answers this questionnaire

Family name:

First name:

Function:

Email:

Phone:

Which are the Laboratory Information System (LIS) and Laboratory Result Consultation System (LRCS) that you have implemented in Luxembourg?

#	System name	LIS or LRCS	System version	Description and Locations of implementation
1				
2				
3				

Please complete one questionnaire for each of your Laboratory Information System. In case, you completed 2 rows, we should receive 2 questionnaires. If you consider that, your LRCS (implemented in Luxembourg) owns the same feature to send report to the national platform, please complete another questionnaire for it. Else, do not for the LRCS.

Which LIS or LRCS are you going to describe in this questionnaire?

.....

What is the latest version of the system in production?

.....

4. Questionnaire

As mentioned before, the questionnaire deals with the following topics:

- Architecture and Environment
- Patient identification
- Laboratory report
- Metadata associated with the lab report
- User authentication
- Signature

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francois.wisniewski@tudor.lu or by phone: +352 42 59 91 – 341.

4.1. *Guidelines to answer this questionnaire*

All questions follow the same structure. First the question is raised in a blue frame, then an explanation is provided in pink frame, and finally a white frame offered some potential answer that can be marked or completed. Please put a “X” before the correct answer.

Example:

Q 4.1-x Is your LIS System able to XYZ?	Question x of part 4.1
Aim of the question: - To know XYZ	Explanation
<input type="checkbox"/> First answer <input type="checkbox"/> Second answer <input type="checkbox"/> Other: ...	Answer

Concerning IHE profiles answers, a table is provided for the ease of answer **with only actors and options interesting for the integration with our eHealth platform**. The person who answers this questionnaire has to mark “Yes” or “No”. If “Yes”, he has to fill also the table after. The example below provides further guidances to fill the table.

The column version should enable us to know if the profile is supported with the version implemented in Luxembourg, **or** if systems needs an upgrade **or** if the IHE profile is planned in your development roadmap.

Example of IHE questions:

Q 4.1-XX Does your system support the IHE – XYZ profile and if so, which actors and options?

Aim of the question:
To know if XYZ

No,
 Yes, (please complete the table):

Actor	Integration Profile Option	Since/ Plan for version	Comment
<input type="checkbox"/> Actor 1	<input type="checkbox"/> Option 1	5.3	
	<input type="checkbox"/> Option 2	5.5	
	<input type="checkbox"/> Option 3		
<input type="checkbox"/> Actor 2	<input type="checkbox"/> Option 1	6.0	
	<input type="checkbox"/> Option 4		
	<input type="checkbox"/> Option 5		

Mark the actor and option implemented or planned to be in future version

- If the **actor** is implemented, fill here since which version it has been implemented.
- If you plan to implement it, fill in here the planned version and if possible the month and year it may be released (mm/yy).
- If not implemented and not plan, let blank

- If the **option** is implemented, fill here since which version it has been implemented.
- If you plan to implement it, fill in here the planned version and if possible the month and year it may be released (mm/yy) .
- If not implemented and not plan, let blank

4.2. Architecture and Environment

This sections aims to describe the general context of the LIS proposed, its integration with other system, its communication protocol and the IHE integration profile supported.

Q 4.2-1 Is your LIS System a standalone solution or is it a part of another information system (e.g., HIS)?

Aim of the question:

- To know if the LIS can be integrated with other IS

- Standalone
- Integrated with a HIS (Embedded)
- Can work standalone or integrated with a HIS

Q 4.2-2 Which standard protocols (e.g., HL7) for communication / integration are supported by your applications?

Aim of the question:

- To know how the LIS communicate with other information system.

- HL7, which version:
- ...
-

Q 4.2-3 Have you joined with your software the IHE Connectathon for testing the connectivity with other systems. If yes, could you provide the Integration Statement document for the software version where this questionnaire relates to?

Aim of the question:

- To determine the current capacity of the system to integrate the platform

- No, we don't support the IHE approach -> Go to section 4.2
- No, but we plan to participate -> Go to next question Q 4.2-4
- Yes, we participated and implemented the following integration profile:

IHE Integration Profile implemented	Actor implemented	Integration Profile Option implemented	Since/ Plan for version

Q 4.2-4 Do you plan to implement additional IHE profiles and if so which and when?

Aim of the question:

- To determine the future capacity of the system to integrate the platform (in the short term)

- No,
- Yes (please complete the table):

IHE Integration Profile	Actor	Integration Profile Option	Plan release version (e.g v6.54)	Plan date of the release (dd.mm.yy)

Other comments:

4.3. Patient identification

The eSanté platform must be able to associate the report sent to the platform to the concerned patient. There are several important requirements, which have to be fulfilled for **unique patient identification**. The platform foresees to use a kind of master patient index as a central service enhanced with pseudonymization functionalities defined as a special service called TTP (Trusted-Third-Party).

To be able to federate patient data from different sources, the eSanté platform needs the following information:

- Unique identifier for the institution
- Unique identifier for the patient in the institution (UPID)
- Demographic data of the patient

This section aims to understand how your LIS handles the patient identification.

Q 4.3-1 Does your system support the sharing (sending/receiving) of patient demographic data with other systems (e.g. HIS)?

Aim of the question:

- To know the capacity of ID sharing of the LIS and how

- No,
 Yes, (please complete the table):

Sharing	With the system	And the protocol standard
Sending	<input type="checkbox"/> HIS	<input type="checkbox"/> HL7v2 : ADT – PID segment
	<input type="checkbox"/>	<input type="checkbox"/> HL7v3
	<input type="checkbox"/>	<input type="checkbox"/>
Receiving	<input type="checkbox"/> HIS	<input type="checkbox"/> HL7 v2: ADT – PID segment
	<input type="checkbox"/>	<input type="checkbox"/> HL7 v3
	<input type="checkbox"/>	<input type="checkbox"/>

Q 4.3-2 Does your system support the IHE – Patient Administration Management (PAM) profile and if so, which actors and options?

Aim of the question:

- To know if the LIS supports IHE PAM profile

- No,
 Yes, (please complete the table):

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Patient demographics supplier	<input type="checkbox"/> Merge		
	<input type="checkbox"/> Link		
	<input type="checkbox"/> Unlink		
<input type="checkbox"/> Patient demographics consumer	<input type="checkbox"/> Merge		
	<input type="checkbox"/> Link		
	<input type="checkbox"/> Unlink		

Q 4.3-3 Does your system support the IHE – Patient Demographics Query (PDQ) profile for sharing patient demographic and encounter data and if so, which actors and options?

Aim of the question:

- To know if the LIS supports IHE PDQ profile to share patient demographic data

- No,
 Yes, (please complete the table):

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Patient demographics supplier	<input type="checkbox"/> Patient Demographics and Visit Query		
<input type="checkbox"/> Patient demographics consumer	<input type="checkbox"/> Patient Demographics and Visit Query		

Q 4.3-4 Is your system able to use unique patient identifiers from other systems, e.g., an MPI system of an institution, and if so how?

Aim of the question:

- To know if the LIS is able to use a MPI

- No
- Yes, how:

Q 4.3-5 Does your system support further information features to stronger identify patients, for example biometrical data?

Aim of the question:

To know, if there are additional information which could be used to uniquely identify the patient for the platform, to minimize mismatches.

- No
- Yes, which:

Q 4.3-6

Does your system support the usage of criteria to distinguish real patient id's from temporary/test or non-human patient id's?

Aim of the question:

- To know if the LIS is able to filter data not linked to real patients

- No
- Yes, which:
 - Number range
 - Flag
 - ...

Other comments:

4.4. Laboratory report

Definition of partial result and complete report.

When a Lab receives a prescription, it splits the complete order into individual tests. Depending on the nature of the tests and the lab's internal workflow, the lab can publish (to the prescriber) several results at different moments in time, which we call **partial results**.

After the last test is done, the lab assembles all partial results and sometimes adds an **interpretation** for the whole series of tests. The so-called **complete report** is then sent out to prescriber and patient.

The eSanté platform requires that the laboratories submit only clinically validated reports with the structure defined in the eSanté-LABO project.

This section investigates how your LIS structures and communicates a lab report.

Q 4.4-1 Does your system support the IHE Cross-Enterprise Document Sharing (XDS or XDS.b) profile and which actors?

Aim of the question:

- To know if the LIS supports IHE XDS or XDS.b profile

- No,
- Yes, (please complete the table):
 - XDS
 - XDS.b

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Document Consumer			
<input type="checkbox"/> Document Source	<input type="checkbox"/> Document Addendum		
	<input type="checkbox"/> Document Replacement		
	<input type="checkbox"/> Document Transformation		
	<input type="checkbox"/> Folder Management		
<input type="checkbox"/> Integrated Document Source / Repository	<input type="checkbox"/> Document Addendum		
	<input type="checkbox"/> Document Replacement		
	<input type="checkbox"/> Document Transformation		
	<input type="checkbox"/> Folder Management		
<input type="checkbox"/> Document Repository			
<input type="checkbox"/> Patient Identity Source	<input type="checkbox"/> Patient Identity Feed		
	<input type="checkbox"/> Patient Identity Feed HL7v3		

Q 4.4-2 Does your system support the IHE Sharing Laboratory Reports (XD-LAB) profile and which actors?

Aim of the question:

- To know if the LIS supports IHE XD-LAB profile

- No,
 Yes, (please complete the table):

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Content creator			
<input type="checkbox"/> Content Consumer	<input type="checkbox"/> View		
	<input type="checkbox"/> Document Import		
	<input type="checkbox"/> Section Import		
	<input type="checkbox"/> Discrete Data Import		

Q 4.4-3 Based on which standard(s) are lab reports exchanged between the LIS and other systems (publishing, archiving, administrative...)?

Aim of the question:

- Based on the existing transmission formats we will try to determine if there is currently practice that we can use with the eSanté platform

- HL7 Message: ...
 ▪ V2
 ▪ V3
 Proprietary
 Other:

Q 4.4-4 Which formats for reports does your system support (e.g., CDA, PDF)?

Aim of the question:

To know the format of report supported by the LIS

- CDA r2, until which level? : ...
 PDF
 PDF-A
 Other:

Q 4.4-5 If CDA is supported, how flexible is the software to configure the export of CDA documents based on national templates?

Aim of the question:

- To know the effort of the LIS to use a national template

Q 4.4-6 Is LOINC codification directly supported, or can your internal codification be mapped to a national LOINC codification?

Aim of the question:

- To know if the LIS supports LOINC codification

- LOINC is not supported at all
- LOINC is directly supported
- Codification is proprietary
- The codification used can always be mapped to LOINC
- ...

Q 4.4-7 How does your software manage the update of the codification?

Aim of the question:

- To know the update of the codification mechanism

Q 4.4-8 Does your system support the Laboratory Code Set Distribution (LCSD) integration profile?

Aim of the question:

- To know if the LIS supports the sharing of codification with the IHE LCSD profile

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Code Set Master			
<input type="checkbox"/> Code Set Consumer			

Q 4.4-9 How are partial results and complete reports distinguished?

Aim of the question:

- To know how eSanté can distinguish partial results from summary reports.

Partial results are distinguished by:

- a flag
- a specific field managing the “status” of the report
- a naming convention
- a version
- ...

Q 4.4-10 Are published **partial reports** updated? And if so, how?

Aim of the question:

- To know how eSanté should deal with the update of partial results.

- Addendum, i.e. not removing the original, just adding to it.
- New version replacing the original.
- Modification of the current report, without versioning.
- No update of partial report.
- ...

Q 4.4-11 Are published **complete reports** updated? And if so, how?

Aim of the question:

- To know how eSanté should deal with the update of summary results.

- The already validated report **can** be invalidated. Modifications will be done and then the report will be validated and published again.
- The already validated report **cannot** be invalidated. Modifications are considered as additional information linked or added to the existing report.
- The already validated report **cannot** be invalidated. Modifications are considered as a completely new version of the report, which will replace the existing report. The previous report is archived in the version management.
- ...

Q 4.4-12 Are the LIS able to create cumulative reports with anteriority of different encounters with the patient and if so is the LIS able to transmit it as a document?

Aim of the question:

- To know if the LIS is able to provide cumulative report to the platform

Q 4.4-13 What is the system of codes used today to express the measurement units inside a report?

Aim of the question:

- To determine if laboratories have the possibilities to use a unified system of codes representing measurement units or not in the future.

- ISO 2955
- International System
- UCUM
- Conventiional
- ...

Q 4.4-14 Is your LIS able to convert measurement units?

Aim of the question:

- To determine if the LIS is able to map one unit to another one.

- No
- Yes, how:

Others remarks:

4.5. Metadata associated with the lab report

Issue: Describing the administrative and the medical context

Each lab report is linked to an administrative context (patient identification) and a clinical context (lab test). Data associated with these contexts are called *metadata*. In order to enable the data exchange platform eSanté to process metadata associated with the lab report (= make the information understandable for all the different actors and usable for anonymous statistics) it is necessary to standardize these data to a maximal degree.

In this section, data associated to clinical context (lab test) are examined. Metadata describing the clinical context of the lab report are inserted inside the header of a CDA document.

Q 4.5-1 What are the metadata available in the LIS? (i.e. data that are not patient administrative data or the lab report itself)

Aim of the question:

- To know the metadata capacity of the LIS

Lab test Metadata	Available	Not present
Internal report reference [Uniqueld]		
Document title [title]		
Author of the report [authorPerson]		
Role of the author [authorRole]		
Laboratory identification [authorInstitution]		
Biologist validating the lab report (name) [legalAuthenticator]		
Report validation time (day, hour and minutes)		
Prescriber name [intendedRecipient]		
Prescription ID [OrderId]		
Prescription date		
Other physician in copy [intendedRecipient]		
Copy for the patient [intendedRecipient]		
Partial result OR summary report		
Lab test domains (e.g. Hematology, biochimy...) [typeCode]		
Type of specimen (blood, urine, stools, biopsy ...)		
Test done in emergency		
Abnormal biologic result classification		
Sensitive data classification [confidentialityCode] (consultation d'annonce)		
Language [languageCode]		
Document format (e.g. CDA + xslt, PDF) [formatCode]		
Version number		
Parent document ID (if exist)		
Parent document relationship (addendum, replacement, etc.)		
Specimen taking date (<i>Prélèvement</i>) Or Brought date (<i>Apporté</i>)		
Specimen reception time (day, hour and minutes)		
Quality of the specimen (Insufficient ...)		
Comments of documents [comments]		
Other :		
Other :		
Other :		

Q 4.5-2 If so, based on which standard(s) are metadata exchanged with other systems?

Aim of the question:

- To know if there is standard currently used to send metadata.

- HL7 Message: ...
 - V2
 - V3
- Part of CDA header
- Proprietary
- Other:

Q 4.5-3 Can your system easily add metadata listed in the previous table and currently not present in the LIS.

Aim of the question:

- To know the effort to fit a set of metadata nationally required.

Q 4.5-4 Is the LIS able to add external identifiers for documents (e.g. a global unique document id)?

Aim of the question:

- To know if the system is able to uniquely reference documents outside of the LIS storage system to ease of retrieve document for modification.

- No
- Yes, how: ...

Other remarks:

4.6. *User authentication*

The platform requires that user are strongly identified.

This section aims to understand the user authentication scheme of your system.

Q 4.6-1 Does your system support linking with external systems for authentication and for some kind of Single-Sign-On?

Aim of the question:

- To know if the LIS is able to use external authentication systems

- No
 Yes, which: ...

External authentication system support	Since/Plan for version	Comment
<input type="checkbox"/> Kerberos		
<input type="checkbox"/> Security Token Service		
<input type="checkbox"/> External Database		
<input type="checkbox"/> LDAP		
<input type="checkbox"/> Others:		
<input type="checkbox"/> Others:		

Q 4.6-2 Which kind of user authentication does your system support?

Aim of the question:

- To know security mecanism that the LIS can offer

Authentication mean	Since/Plan for version	Comment
<input type="checkbox"/> Username and Password		
<input type="checkbox"/> Smartcard (using X.509 certificates)		
<input type="checkbox"/> Biometrical (e.g., Fingerprint)		
<input type="checkbox"/> Other cards:		
<input type="checkbox"/> Others:		

Q 4.6-3 Does your system support the IHE – Audit Trail and Node Authentication profile (ATNA) and which actors and options are supported?

Aim of the question:

- To know if the LIS support the ATNA profile for the security

- No
 Yes, which actors:

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Audit Record Repository			
<input type="checkbox"/> Secure Node			
<input type="checkbox"/> Secure Application			

Q 4.6-4 Does your system support the IHE – Enterprise User Authentication (EUA) profile for centralized user authentication management?

Aim of the question:

- To know if the LIS support the EUA profile for centralized user authentication management

- No
 Yes, which actors:

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Client Authentication Agent	<input type="checkbox"/> Authentication for User Context		

Q 4.6-5 Does your system support the IHE – Cross Enterprise User Assertion integration (XUA) profile to communicate claims about authenticated principals for cross enterprise transactions?

Aim of the question:

- To know if the LIS support the XUA profile for user authentication cross domain

- No
- Yes, which actors:

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> X-Service User			
<input type="checkbox"/> X-Service Provider			

Other remarks:

4.7. *Signature*

Each document send to the platform has to be sign by the user.
This section aims to understand the user signature scheme of your system.

Q 4.7-1 Does your system support the **qualified** electronic signature of medical documents, reports, images?

Aim of the question:

- To know if the LIS is able to digitally sign report

- No -> Go to next section 4.8
- Yes

Q 4.7-2 Which kind of certificates are supported for this electronic signature?

Aim of the question:

- To know which certificate are used to digitally sign report

- X.509
- Others: ...

Q 4.7-3 Which kind of medium is supported for the storage of the signature key?

Aim of the question:

- To know which medium are used to store the certificate to digitally sign report

- Smartcard
- Keystore - File
- Stick
- Other:

Q 4.7-4 How is the electronic signature process being integrated in the workflow?

Aim of the question:

- To know if the electronic signature is related to the biologist

- Signature process is done using **biologist** signatures.
- Signature process is done using **institutional** signature

Q 4.7-5 Is the LIS able to support bulk signing process (sign automatically a set of reports)?

Aim of the question:

- To know if the LIS enables the user to sign electronically all validated reports at one time.

- No
- Yes

Q 4.7-6 How is the electronic signature linked to the document?

Aim of the question:

- To know the integration of the signature with the report

- Signature of the document is embedded with the document (attached)
- Signature of the document is stored in a separate file (detached)

Q 4.7-7 Which document format can be electronically signed by the LIS?

Aim of the question:

- To know if the LIS can sign all format of report.

- PDF
- CDA
 - r1
 - r2
- Others:

Q 4.7-8 Does your system support the IHE Document Digital Signature Content profile (DSG) for digital signatures of documents that are shared between organizations?

Aim of the question:

- To know if the LIS support the IHE Document Digital Signature Content profile

- No
- Yes, which actors:

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Content Creator			
<input type="checkbox"/> Content Consumer			

Q 4.7-9 Does your software support the XML Advanced Electronic Signature (XAdES) standard for signature creation?

Aim of the question:

- To know if the LIS support the XadES standard

- No
- Yes

4.8. *Other questions*

Q 4.8-1 Is your system configurable to integrate with an existing Public Key - Infrastructure?

Aim of the question:

- To know the capacity of integration of the LIS to a existing PKI

- No
- Yes, which:

Q 4.8-2 Is inter-laboratory subcontracting supported by the software?

Aim of the question:

- To know how the LIS is able to communicate with other LIS systems in case of subcontracting e.g. for order-entry.

- No,
- Yes, how:

Q 4.8-3 Does your LIS support the Inter-Laboratory Workflow (ILW) profile of IHE for laboratory subcontracting?

Aim of the question:

- To know if the subcontracting part can be managed by the ILW profile

- No
 Yes, which actors:

Actor	Integration Profile Option	Since/Plan for version	Comment
<input type="checkbox"/> Requester	<input type="checkbox"/> Input for Invoicing		
	<input type="checkbox"/> Non-coded orders		
	<input type="checkbox"/> Report Fac-Simile for Order Group		
	<input type="checkbox"/> Test addition approval		
<input type="checkbox"/> Subcontractor	<input type="checkbox"/> Input for Invoicing		
	<input type="checkbox"/> Report Fac-Simile For Order Group		
	<input type="checkbox"/> Non-coded orders		
	<input type="checkbox"/> Test addition approval		

Q 4.8-4 Is your LIS able to integrate results from a partial report from subcontractor in a complete report?

Aim of the question:

- To know if the LIS is able to compile partial result of subcontracting lab into the complete report

- No
 Yes, how:

Q 4.8-5 Could you provide us a list of your reference projects which uses XDS / XD-LAB with contact of the customer? And if possible some outcomes like ROI?

Aim of the question:

- For information only

Other remarks:

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