The Learning Health System in Europe

Moving Europe into interoperable eHealth Cross-Border Services

Henrique Martins

Brussels, 24th September 2015
The Learning Health System in Europe

Moving Europe into interoperable eHealth Cross-Border Services

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President of Board of SPMS
– Shared Services of the Ministry of Health,
PORTUGAL
The Learning Health System in Europe

AIMS FOR HEALTH CARE DELIVERY SYSTEM

- Equitable
- Safe
- Effective
- Patient-Centered
- Timely
- Efficient

Does Europe have a Health System?

What is it “organization”?

How do Organizations Learn?

Systems – About Flux of information → Consciousness

IOM: Crossing the Quality Chasm, 2001
AIM

• ways forward in terms of supporting Member States to prepare for large-scale deployment of eHealth cross-border services

• EXPAND overview of its main mission:
  – how to go from pilot punctual solutions to a broad deployment of eHealth services building a bridge to the CEF making available consolidated and sustainable assets from different EC projects.
AIM...
# LANDSCAPE

## eHealth Policy & Governance

**DIRECTIVE 2011/24/EU**

of the European Parliament and of the Council on the application of patients’ rights in cross-border healthcare

**eHealth Network**

Art. 14, Directive 2011/24/EU on cross-border healthcare

**eHN Support – Joint Action**

(beyond eHGI)

**Sub-Group**

eHealth in CEF (Connecting Europe Facility)

## Cross border eHealth-Sustainable Development Framework

**Guidelines**

**Guidelines on Minimum/Non-exhaustive Patient Summary Dataset for Electronic Exchange** (Adopted by the eHN)

**Guidelines on ePrescriptions Dataset for Electronic Exchange under the Cross-border Directive 2011/24/EU**

(Adopted by the eHN)

### Support from running projects and upcoming H2020 PHC-34 (i-iv)CSAs on eHealth Interoperability

- **eSTANDARDS**
- **OPENMEDICINE (PHC-34 ii)**
- **ASSESS ICT (PHC-34 iii)**
- **Multi Stakeholder Platform (MSP) on ICT standardisation**

### Assets, Standards, Specifications, Profiles

- **EXPAND**
- **ePSOS**
- **Antilope**

### Operation, Maintenance

- **OpenNCP**

### National Level Activities: Generic Services Support

- **eHealth National Contact Points (NCPs)**

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Expanding Health Data Interoperability Services - www.expandproject.eu 24-09-2015
• The need for EXPAND...
  – Building the bridge...

ICT PSP Objective: 3.3.c: Sustainability of EU wide info-structure and collaborative governance

“Bridge to CEF”

<table>
<thead>
<tr>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>eHealth assets from different projects</td>
<td>CEF (available for “mature” domains; with specs which may be used in procurement)</td>
<td></td>
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</tbody>
</table>
• The need for EXPAND
  – Someone to cross it...

support Member States in delivering their local eHealth plans and providing cross-border care.
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epSOS use cases

- Patient Summary
- ePrescription/eDispensation

- PAC – Patient access to Patient Summary
- HCER – Healthcare Encounter Report
- MRO – Medication Related Overview

Parent and other EU projects

eHealth CEF use cases

- Cross-border Patient Summary service
- Cross-border ePrescription/eDispensation service

- eHealth services for European Reference Networks
- Infrastructure services for European patient registries
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VISION

H2020 PHC-34: eStandards – openMedicine ASSESS-CT - VALUeHEALTH
THE EXPAND WORKING APPROACH TO ASSETS

EXPAND will provide the move from the working example of - primarily but not exclusively - epSOS to a proof of concept of generally usable and applicable assets of projects in the shape of an interoperability assets information repository.
EXPANDING...

• Liaison with eHealth Network Sub groups and Joint Actions
• EXPAND, e-SENS and STORK, effort orchestration model
  – Achieve a collaboration model that distribute effort and enhance the focus of each project:
    • EXPAND: working as governance body and technology proxy for epSOS and other eHealth mature projects assets;
    • Stork 2.0: as eID Building Block;
    • e-SENS: as Piloting project for integrating technologies: "Patient Summary/ePrescription" + eID use case

• New comers on board
  – 20 Members (14 countries) → 24 Members (17 countries)
    • partners willing to deploy cross-border services
PRODUCING ADDED VALUE

• Usability
• Maintenance
• Assets remit
  – Eg. MVC 2.0

• EXPAND keywords
  – Survivability
  – Expandability
  – Reusability
  – “Qualifiability”
  – “Engageability”
  – “Assessability”
  – ...

BUILD BRIDGES NOT WALLS
ROLE OF MEMBER STATES

• Commitment to central activities
• Local Implementation
  – Organisational
    • Implementation of the Organisational Framework
    • Establishment of eHealth National Contact Point (NCPeH)
  – Semantic
    • Implementation and maintenance of the MTC
  – Technical
    • Integration of NCP to National eHealth Infrastructure
    • Implementing and operating user interfaces for the end users
    • Dissemination and Training
    • Providing necessary support and training for end users
EXPAND HANDOVER TO CEF

Legal & Organizational Specifications
Semantic Technical
Testing Operations

SG for Legal
SG for Implementation/CEF

eHN

Several initiatives: TLA; Technical Orchestration; Semantic revision; Bilateral opportunities exploration (PT-LUX; FIN-SWEDEN; PT-UK, PT-SP)

Moving Europe into interoperable eHealth Cross-Border Services

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SHOPS ORCHESTRATION

Legal & Organizational

Specifications

Semantic

Technical

Testing

Deployment

Operations

EC Guidelines

Legal/Security Assets

OpenNCP: SW+Specs

Clinical document Implementation Guides

Terminology (MVC / MTC) + procedures

Deployment/Operation/Management Guidelines

Central Services
### SHOPS ORCHESTRATION

<table>
<thead>
<tr>
<th>Legal &amp; Organizational</th>
<th>Specifications</th>
<th>Semantic</th>
</tr>
</thead>
</table>

**e-SENS:** Define infrastructure based on Building Blocks from LSP

**eHealth Domain:** Improve existing epSOS Infrastructure integrating e-SENS Building Blocks to solve issues

<table>
<thead>
<tr>
<th>Relevance</th>
<th>PROBLEM</th>
<th>BB</th>
<th>eID</th>
<th>Non-repudiation</th>
<th>eSignature</th>
<th>Trust Establishment</th>
<th>eInteraction</th>
<th>Configuration Services</th>
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<tbody>
<tr>
<td>*</td>
<td>Missing evidence</td>
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<tr>
<td>***</td>
<td>Patient Electronic Identification</td>
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<td>*</td>
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<td>*</td>
<td>End-2-End Security</td>
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<td>✓</td>
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<td>✓</td>
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<td>***</td>
<td>Patient access to audit trail</td>
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<td>Not signed artefacts</td>
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<td>**</td>
<td>Security Relaxations</td>
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<td>✓</td>
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e-SENS – EXPAND – OpenNCP: Joint implementation
Find solution to cross-charge

Assumptions & Constraints

Engineering framework to delimit 5.2 boundaries:

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<tr>
<td>Logical Perspective</td>
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<tr>
<td>Implementable Perspective</td>
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**SHOPS ORCHESTRATION**

Legal & Organizational Specifications

**Trillium:** Build the **Bridge** between EU / US, in line with MoU

- Adopt epSOS NCP infrastructure to include EU/US Transformer
- Extend epSOS Patient Access for the new paradigm of Patient Mediated
- Analyse gaps (IHE profiles, HL7 CDA, Terminologies) to enhance harmonization and interoperability
SHOPS ORCHESTRATION

Legal & Organizational
Specifications
Semantic
Technical
Testing
Deployment
Operations

OpenMedicine
• Joint assessment on adoptability of EMA Article 57 Database for Pharmacovigilance, to improve the quality of Cross-border eP/eD
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SG4IMPLEMENTATION - ROADMAP OF SOME EXPECTED TOPICS/TASKS

Ago
Prepared cases

Set
Prepared proposals

Oct
Services
Position for eHN: 1) on CEF use cases: PR and ERN
2) CEF Governance
3) other...

Nov
Deadline M State Submission for Call for proposals Generic services

Dec

Mar 2016

TCON Agenda?
eSSENS
Discussions on CEF use cases: Patient Registries (PR) and European Reference Networks (ERN)
eHN
Annual Report of the Subgroup
Position of the SG AOB

Calls
Accepted

Live Services

EXPAND – WP5 – Handover to CEF – support M States proposals

eHN Joint Action: subtask CEF + WP8

eSSENS piloting eHealth PATS+eP/eD?

????? Patient Registries???? European Reference Networks???? --- prepare CEF phase 2
ASSET ID ... CONNECTED PEOPLE...
Invitation for....

Lisbon eHealth week
9 to 11th December 2015

EXPAND FINAL EVENT
L (TLA, Legal Framew.)
O (NCP)
S (MVC 2.0)
T (EXPANDathon)

&

FUND

Fun
Understand
Navigate
Do it...
EXPAND FINAL EVENT – Lisbon eHealth week

• **Aims:**
  
  – To convey the results of EXPAND, creating critical mass among the different Stakeholders in preparation for deployment of CEF cross-border eHealth services.
  
  – To collect testimonials about how the results of the EXPAND have been contributing to the readiness of Stakeholders concerning cross-border eHealth services deployment.
  
  – To give Member States the opportunity to assess their readiness for deployment of cross-border eHealth services.
  
  – To disseminate and engage with a wider group of stakeholders, including patients and health professionals.
  
Contacts: Lília Marques, email: lilia.marques@spms.minsaude.pt; Licínio Mano, email: licinio.mano@spms.minsaude.pt
EXPAND FINAL EVENT - Lisbon eHealth week

• Audience
  – Member States, Competence Centres, EU Projects, European Commission, Patients/Citizens, Health Professionals, ICT Industry

• Objectives
  – 9th Dec - Wednesday
    • High level stakeholders/policy makers engagement, presenting the EXPAND results and highlighting its contributions to the maintenance and handover of assets to CEF.
  – 10th Dec. - Thursday
    • Practical support to Member States to better understand EXPAND assets and guidelines toward CEF call
  – 11th Dec. - Friday
    • To discuss how EXPAND results may impact cross border eHealth services for patients and health professionals
  – 9th to 11th - EXPANDathon
    • To give Member States the opportunity to collect evidence on their readiness for deployment of cross-border eHealth services.
# Lisbon eHealth week
9 to 11 December 2015

## Draft agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Conference</th>
<th>EXPANDathon</th>
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<tbody>
<tr>
<td></td>
<td>Conference</td>
<td>EXPANDathon</td>
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<td></td>
<td>Room: xxx</td>
<td>Room: yyy</td>
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<tr>
<td><strong>Wednesday, 9th Dec</strong></td>
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<td>08:30 - 09:30</td>
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<tr>
<td>12:30 - 13:30</td>
<td>Registration</td>
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<td>13:00 - 14:00</td>
<td>Lunch</td>
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<tr>
<td>14:00 - 18:00</td>
<td>Key outcomes and messages</td>
<td>Testing PS and eP</td>
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<tr>
<td>15:40 - 16:00</td>
<td>Coffee-break</td>
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<td><strong>Thursday, 10th Dec</strong></td>
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<td>08:30 - 09:00</td>
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<tr>
<td>09:00 - 13:00</td>
<td>Support MS to understand assets and guidelines towards CEF call</td>
<td>Testing PS and ePrescription</td>
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<td>10:40 - 11:00</td>
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<td>12:10 - 13:00</td>
<td>Lunch break</td>
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<tr>
<td>13:00 - 16:20</td>
<td>MS retrospective and prospective towards cross-border eHealth services</td>
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<tr>
<td>14:30 - 14:50</td>
<td>Coffee-break</td>
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<tr>
<td>16:20 - 16:40</td>
<td>Break</td>
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<td>17:00 - 18:00</td>
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<td><strong>Friday, 11th Dec</strong></td>
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<td>08:30 - 09:00</td>
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<tr>
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<td>How EXPAND results may impact cross border eHealth services for patients and health professionals</td>
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<tr>
<td>15:30 - 16:00</td>
<td>Workshop wrap up and closure</td>
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</tbody>
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**Contacts:**
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Licínio Mano, email: licinio.mano@spms.minsaude.pt
EXPAND FINAL EVENT - Lisbon eHealth week

• We expect that everyone will attend!

• Free registration [here](#)

• Follow information at [www.expandproject.eu](http://www.expandproject.eu)
Moving Europe into interoperable eHealth Cross-Border Services

MOVING EUROPE IS «MOVING EACH COUNTRY»...

PT... COUNTRY’S PRESPECTIVE INTO EHEALTH INTEROPERABILITY ...

Why is PT here?

- Provision of eHealth services for PT citizens living abroad, as well as for visiting citizens.
- Learn and inspire organisational changes to comply with best practices around EU.
- Innovate in critical eHealth knowledge intensive fields
- Promote convergence with the EU policies and guidelines

... The last American Census (2000) estimated a total of 1.173.691 Portuguese and luso-americans residing in USA.

.... In 1º Semester of 2014, american turism in Portugal was of about 227 million Euros, 47,8MEuros more than in 2013 (26,7% increase in 1 year). 156100 in 6 months individuals, which is about 3548000 hotel nights (21,8% increase)
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• Learning...

• Is Sharing Knowledge...
  – Between friends and Foes
  – For improvement

Expand has been about Sharing Knowledge from past to future, from Wise to Naïve...
Thank you for your attention!

Henrique Martins, MD PhD
henrique.m.martins@spms.min-saude.pt