

# HEALTHeID

eIDAS – OpenNCP  
Connector for eHealth

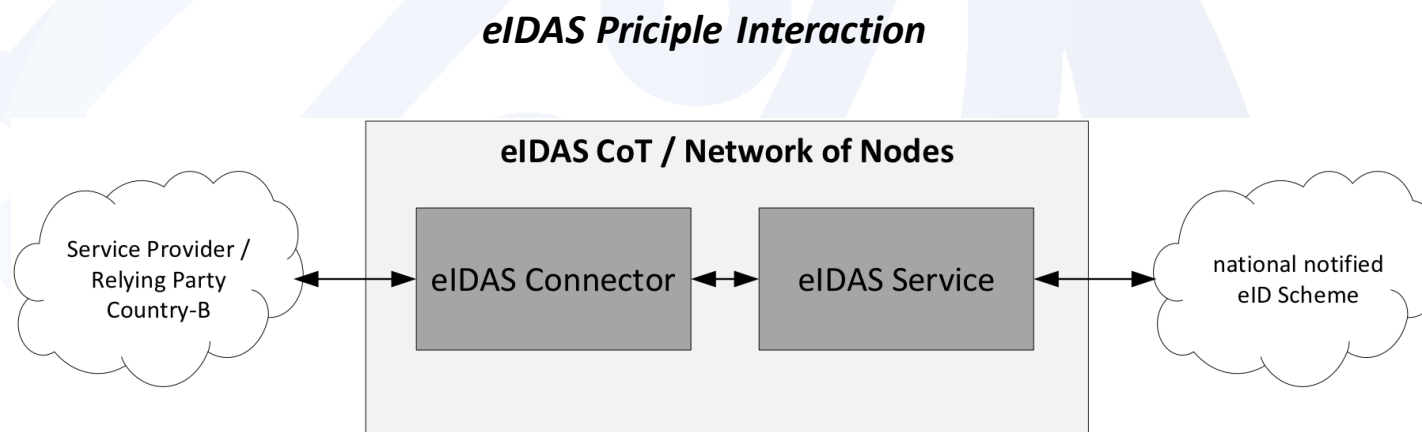
## Overview and Introduction

Diogo Martins

### Background information (1/2)

- Patient eID post 2018 only possible through eIDAS conformant means
  - Either stay with a no-eID approach for patients OR
  - Migrate to eIDAS patient eID
- eSENS pilot eIDAS demonstrated the feasibility and the capacity to support a high level of security, improve usability and allow extension to other use cases
- The analysis work in eSENS is well esteemed within DG DIGIT and the proposal if set up properly is likely to get their support

## Background information (2/2)



- The eIDAS Connector is accepting authentication requests from legitimate entities in Country-B, conditions the requests to meet the eIDAS standards,
- provides an implementation of the “Where are you from” (WAYF) service, and relays the requests to the respective eIDAS Proxy.
- The latter are provided and operated by Country-A and translate between eIDAS and the national notified eID Scheme that verifies the electronic identity and obtains the required attributes.
- The eIDAS Proxy is then encoding said attributes into an eIDAS SAML Assertion, encrypts the latter, and relays the assertion to Country-B for immediate consumption.

## Scope

The project aims at developing, testing and delivering to the European Commission and the Member States (MSs) a reference implementation of an eID connector, linking the national OpenNCP-based National Contact Point for eHealth (NCPeH) to the eIDAS node and the relevant attribute providers. Such reference implementation will be transferable to all national scenarios

- Implementation of eID Connector between NCPeH and eIDAS node
- Deliver a reference implementation
- Handover technical specifications and a reference implementation
- Test transferability to interested MS/C

# Why is this needed?

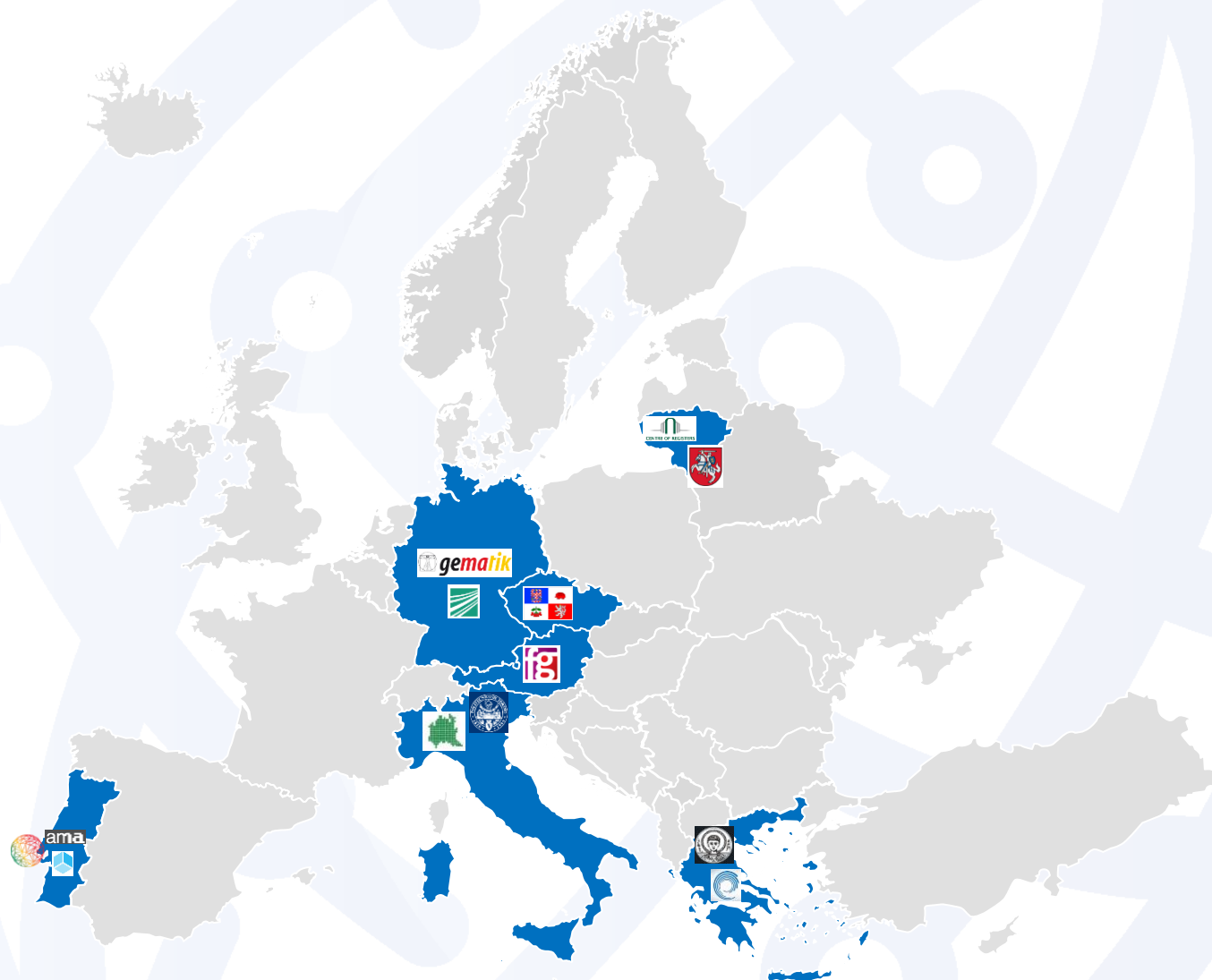
- eID will be an increasingly used means of identification
- in cross-border situations it can greatly simplify transactions because the active party (like a doctor in country B) does not need to know how patients from a particular country are identified  
<idea for an illustration, if needed: the country specific ID process shown on the OpenNCP portal>
- there are domain specific or universal eID schemes deploying different media and technology
- disadvantage of universal eID such as citizen card: the cross-usage for specific domains may be very limited

# Why is this needed?

- disadvantage of domain specific eID schemes: It may take a long time before schemes are notified, expensive, cumbersome
- health domain cannot use non-domain specific, universal eID schemes from and for all countries
- the health domain has identified this early on and is now in the situation of pioneering x-border applications with eID
- as pioneers we have many healthcare but primarily non-health parties questioning what we are doing and why we are doing it
- yet we need to do it. In order to identify a patient we require an additional health specific attribute

# Why is this needed?

- build on existing implementations as much as we can, will only implement newly what is required
- the team comprises the necessary technical and EU project background and know-how required
- with a targeted, short term project will provide results which can be reused by other MS
- work at the intersection of CEF CBeHIS and the DGs CNECT, DIGIT and SANTE, all having stakes in the matter
- Focus-on nurturing the CEF implementation from the wave 3 onwards



## 7 Countries

- 6 Active: PT, IT, GR, CZ, DE\*, LT
- 1 Collaborative AT;

## 13 Entities

- National authorities, Competence Centres, Academia, Enterprise
- Entities responsible for eIDAS node & for NCPeH

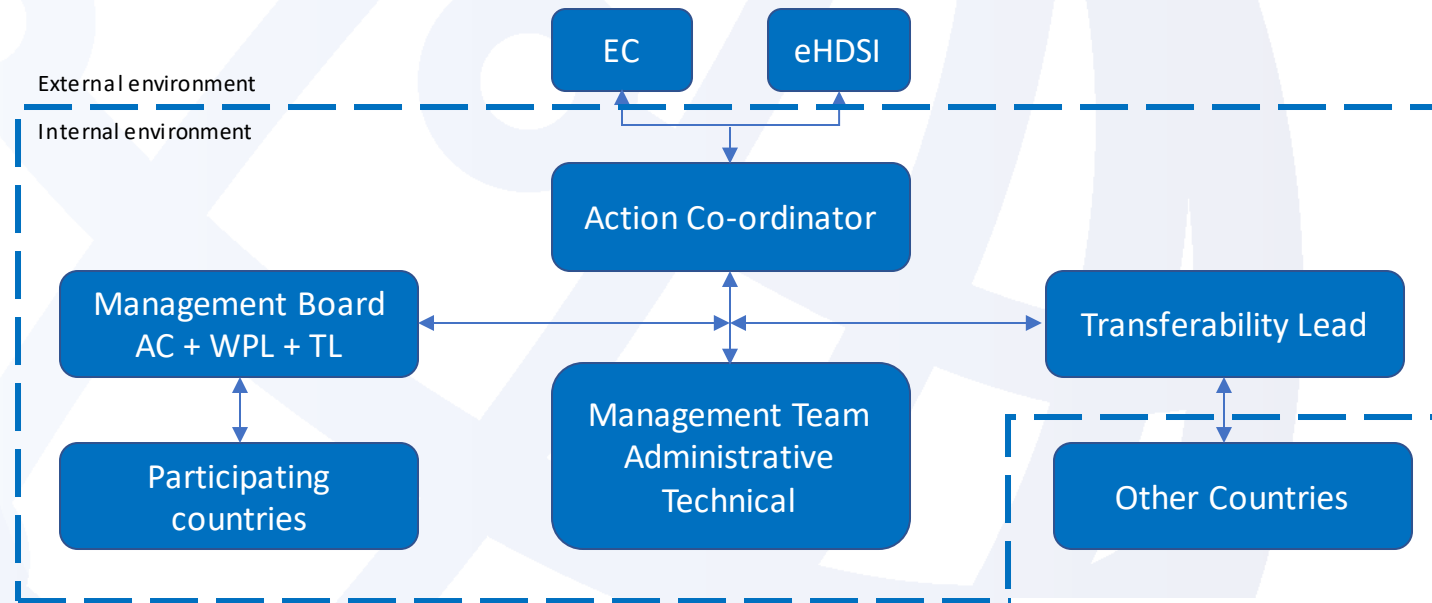
Coordinator:



**SPMS**  
EPE  
Serviços Partilhados do  
Ministério da Saúde



# HEALTHeID – Governance structure



# HEALTHeID in Numbers

- 20 months project
- 4 Activities
- 10 Tasks
- 9 Deliverables
- 8 Milestones
- 7 Countries
- 13 Entities


 **999.978**



INNOVATION AND NETWORKS EXECUTIVE AGENCY  
**INEA**

**EC funded Project (75%)**

# Project Timeline

	2018										2019									
	Mar 1	Apr 2	May 3	Jun 4	Jul 5	August 6	Sep 7	Oct 8	Nov 9	Dec 10	Jan 11	Feb 12	Mar 13	Apr 14	May 15	Jun 16	Jul 17	Ago 18	Set 19	Out 20
<b>Activity 1 Identification of non-functional requirements</b>						MS1/MS2														
Task 1.1 Non-functional requirements								D1.1												
Task 1.2 Usability requirements								D1.2												
<b>Activity 2 Development and testing of the reference implementation</b>																				
Task 2.1 Functional Requirements and Design											MS3	D2.1								
Task 2.2 Implementation of the eHealth eIDAS Connector-B																MS4/D2.2				
Task 2.3 Localization and testing of the connector in the core group of MS																	MS5/D2.3			
<b>Activity 3 Preparation for transfer of activities</b>																				
Task 3.1 Briefings to the eHMSEG																				D3.1
Task 3.2 Transfer-a-thon																		MS6		D3.2
Task 3.3 Handover																			MS7	
<b>Activity 4 Action co-ordination</b>					MS8								D4.1							D4.2/D4.3
Task 4.1 Administrative Management																				
Task 4.2 Technical Coordination																				

- **Activity 1 Identification of Non Functional Requirements (Leader: Auth/LISPA)**
  - This activity aims to identify non-functional requirements, covering policy, organizational and legal aspects, as well as usability guidelines for the eID solution components resulting from the Action.
- **Tasks**
  - T1.1 Non Functional Requirements (Leader: AUTH) | Status: **Finished**;
  - T1.2 Usability requirements (Leader: LISPA) | Status: **Finished**;
- **Milestones**
  - M1: Proposals for policy alignment have been proposed to the eHN (M7)
  - M2: Proposals for Patient identification process and interfaces has been put forward(M7)

\*under review, due changes in the sequence diagram about Patient Consent and Storage (Review content, accordingly to the product life cycle and ecosystem)

- Activity 2 Development and Testing of the Reference Implementation (Leader: POLITO/SPMS)
  - establish the functional requirements eID Component
  - design and develop a reference implementation of the connector between the openNCP and the national eIDAS node;
  - implement and test in the core group of MS;
- Tasks
  - T2.1 Functional Requirements and Design (Leader: POLITO) | Status: **finished** ;\*
  - T2.2 Implementation of the eHealth eIDAS Connector-B (Leader: POLITO/SPMS) | Status: **in progress**;
  - T2.3 Localization and testing of the Connector in the core group of MS (Leaders: SPMS, LISPA) | Status: **in progress**;
- Milestones
  - M3 Functional Requirements and design of the reference implementation of the eHealth eIDAS Connector-B has been presented to the eHMSEG (M11)
  - M4 eIDAS Connector has been successfully implemented (M16)
  - M5 Core MS and the eHDSI owner have successfully localized and tested the eIDAS Connector (M17)

\*under review, due changes in the sequence diagram about Patient Consent and Storage (Review content, accordingly to the product life cycle and ecosystem)

# Technical Implementation - Test Environments

- eIDAS environments

Country	Contact person	Version	Status
Italy	Cesare Cameroni - cesare.cameroni@polito.it	1.4.3	Ready
Portugal	Carlos Coutinho - carlos.coutinho@caixamagica.pt	1.4.3	Ready
Greece	Irini Kaloteraki - i.kaloteraki@ydmed.gov.gr	1.4.3	Ready

- It was already performed a test connection between Portugal and Italy. We should perform also tests between Portugal and Greece, and Italy and Greece.

# Technical Implementation - eHDSI/OpenNCP environments

- NCPeH environments

Country	Contact person	Version	Status
Italy	Marcello Melgara - Marcello.Melgara@cnt.lispa.it	3.0.0RC3	Ready
Portugal	João Cunha – joao.cunha@spms.min-saude.pt	3.0.0RC3	Ready
Greece	Alexandros Staridas - staridas@idika.gr	3.0.0RC3	In progress

- Environments Specifications

NCPeH environment with 3.0.0RC3,  
No TESTA Connection,  
No eDelivery certificate: Ask for eHDSI Gazelle Certificates,  
Network connectivity,  
Use the Training Central Service environment, not connected to TESTA.

- Branch and GIT was created specifically for HEALTHeID

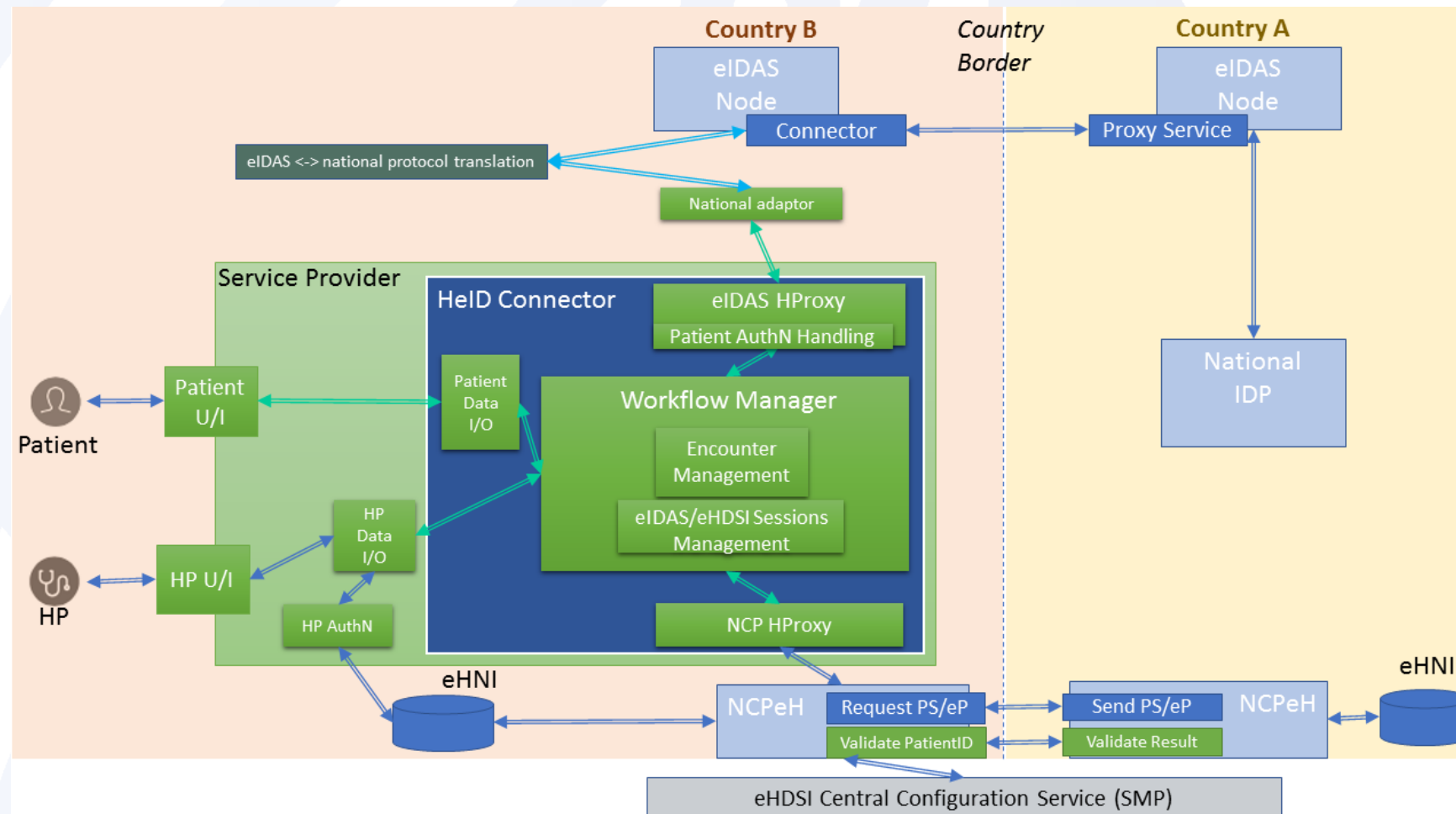
# Technical Implementation – eHDSI/OpenNCP environments

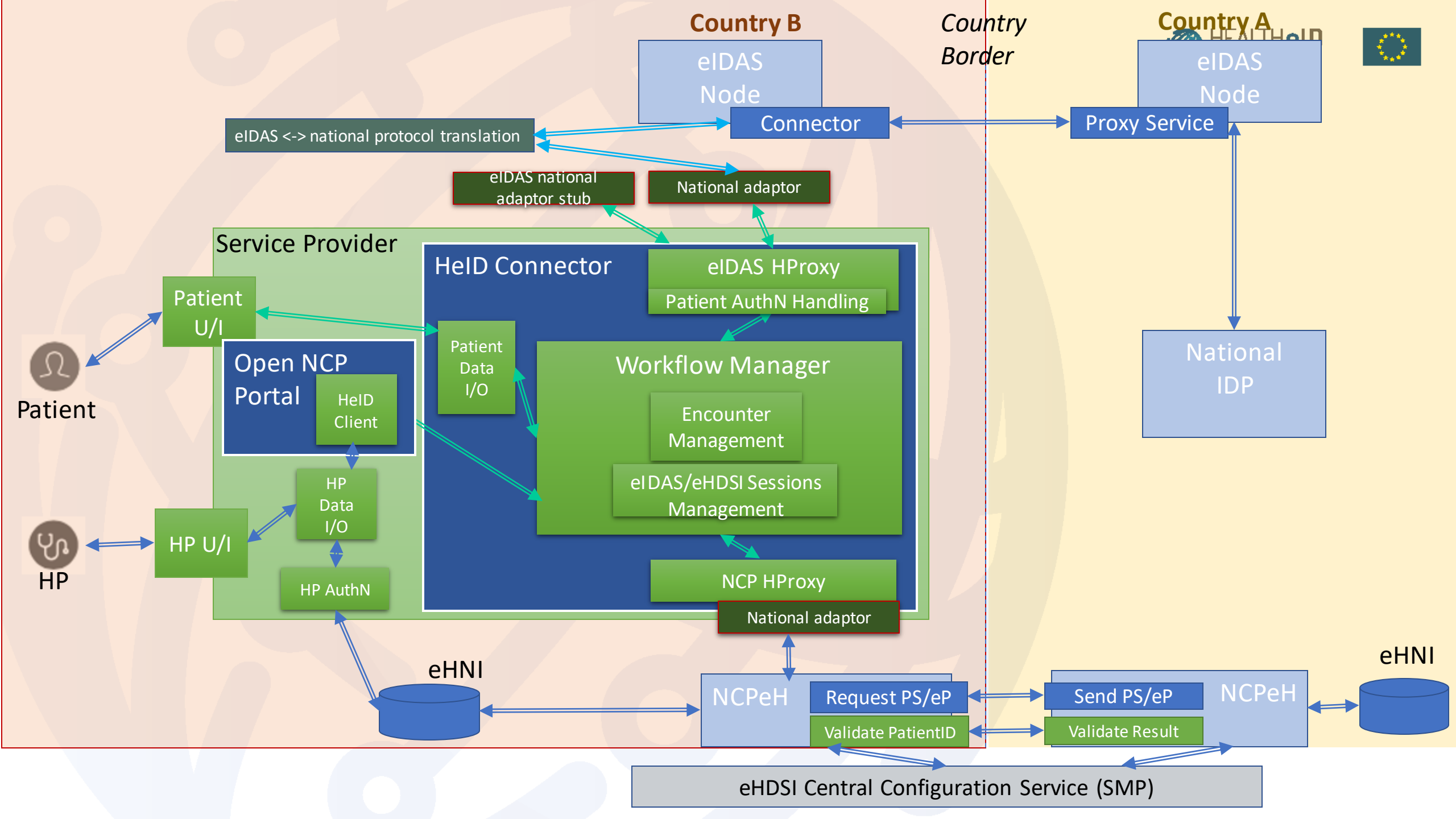
- Ensure access by technical group to the eHDSI confluence page (EU-Login account and/or never logged into CEF eHDSI Confluence)
- All of these users have a read/write access on your dedicated GIT repo:  
<https://ec.europa.eu/cefdigital/code/projects/EHNCP/repos/health-eid>
- All members of technical group also have access to the main repo eHDSI in read/write with our security policy (using feature branches and pull request):  
<https://ec.europa.eu/cefdigital/code/projects/EHNCP/repos/ehealth/>



# New workflow diagram

# Technical Implementation - Definition of components to develop

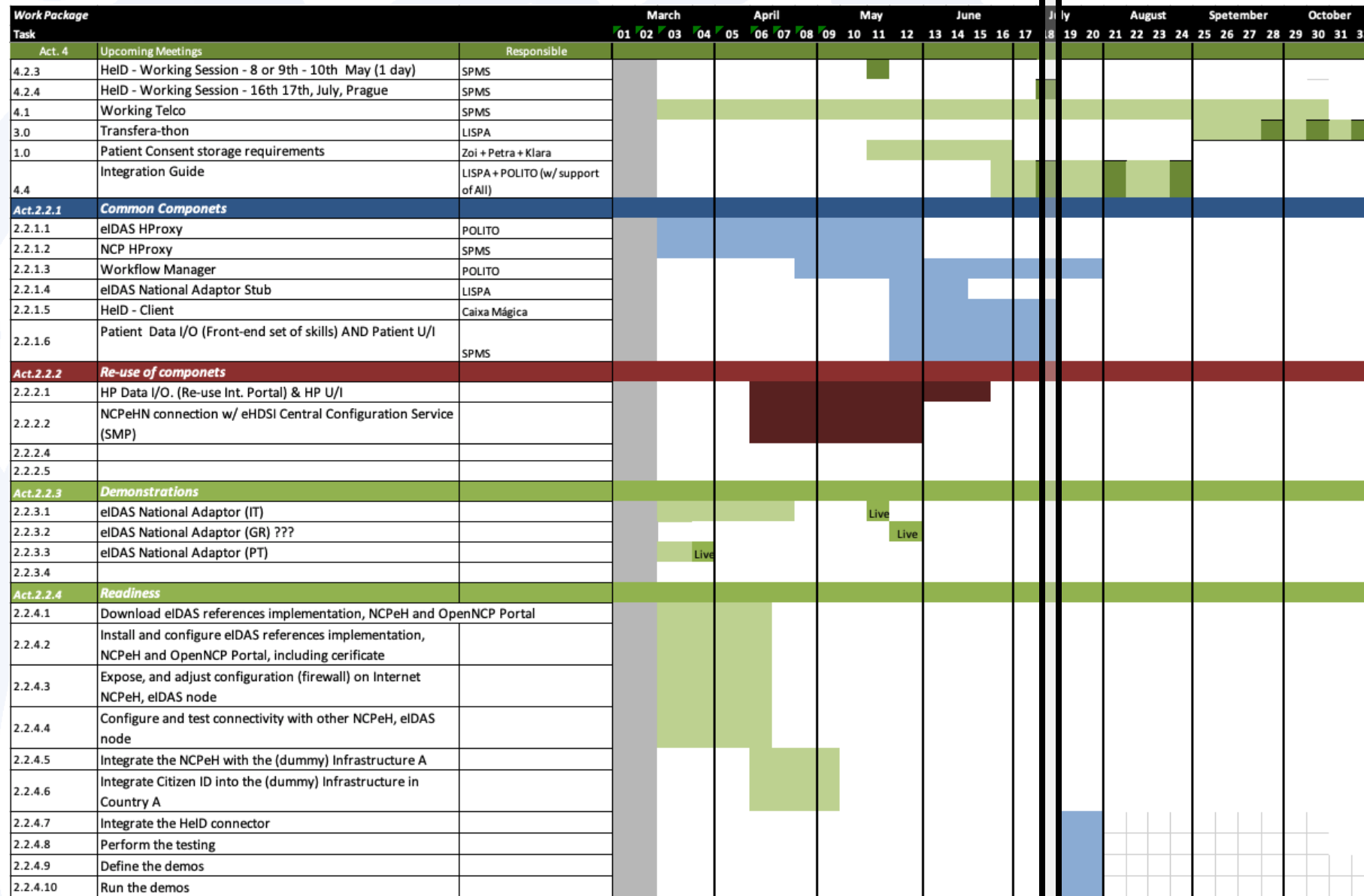




# Technical Implementation - development progress

Component	Status	Assigned Partner
eIDAS HProxy	Done – 100%	<b>POLITO</b> (Responsible) + AUTH+CAIXA Magica
eIDAS National Adaptor (IT)	Done – 100%	<b>LISPA</b> (Responsible) + POLITO
eIDAS National Adaptor (GR) ???	GR don't need an adaptor, only extend the existing one for PId	<b>HMAR</b>
eIDAS National Adaptor (PT)	PT don't need an adaptor, only extend the existing one for PId	CAIXA Magica (Responsible)
NCP HProxy	Done – 100%	<b>SPMS</b> (Responsible) + POLITO
Workflow Manager	In progress - 60%-70%	<b>POLITO</b> (Responsible)+ SPMS + AUTH
Patient Data I/O (Front-end set of skills) AND Patient U/I	In progress - 70%-80%	<b>SPMS</b> + POLITO + LISPA
HP Data I/O. (Re-use Int. Portal) & HP U/I	In progress - 70%-80%	<b>SPMS</b> (Responsible) Re-use Int. Portal for DEMO
NCPeHN connection w/ eHDSI Central Configuration Service (SMP)	Done – 100%	-
eIDAS National Adaptor Stub (NEW)	Done – 100%	<b>LISPA</b> (Responsible) + POLITO
HeID Client (NEW)	In progress - 90%-100%	<b>Caixa Mágica</b> (Responsible) + SPMS

# Technical Implementation - Timeline



- Activity 3 Preparation for transfer of activities (Leader: VYSOCINA)
  - Ensure transferability of the reference implementation to MS
- Tasks
  - T3.1 Briefings to the eHMSEG (Leader: VYSOCINA)
  - T3.2 Transfer-a-thon (Leader: LISPA)
  - T3.3 Handover (Leader: LISPA)
- Milestones
  - M6 participation of MS in the Transfer-a-thon (M18)
  - M7 Preparation of the handover to a potential future owner of the solution (M19)

- Given the timelines for implementation of the eIDAS Regulation in cross border eHealth, it is expected that there will be project updates and discussion on the proposed eID implementation in all eHMSEG meetings over the lifetime of the project.
  - ✓ It is also anticipated that there will be close co-operation with the eHealth DSI Solution provider, in order to ensure alignment of the project outcomes with eHDSI.
  - ✓ The task involves the preparation of briefings and collection of feedback from eHMSEG members.
  - ✍ The task will also explore the need for and support joint workshops/webinars for in depth explanations of the project activities and discussions.

# Interaction with eHMSEG (info from Klara)

- Briefly updated on the progress of the project at the meetings of:
  - October 2018, December 2018, March 2019, May 2019.
- Proposals for patient identification process, as well as the proposed workflow and architecture were presented at the last May 15/16 meeting.
- HEALTHeID Vision and Usability Requirements were provided to MS and to eHDSI Owner and Solution Provider.
- MS reacted very positively to the possibility to participate in the Transferathon.
- A webinar is proposed for August/September, before the Transferathon (no eHMSEG meeting until Oct 16). It should include demonstration of the workflow and provide more info about the Transferathon.



# Transfer-a-thon

- Is it feasible?
  - in the deadline proposed
  - To the extended promised
- What does it look like?

## Task 3.2 Transfer-a-thon

- This task concerns the organization of a project specific event, a “Transfer-a-thon”.
- The activity is similar to the testing activity, but will involve MS that are ready with their NCPeHN (re-use of STUB)
- Collaboration with the EC (e.g. DG DIGIT, DG SANTE owners of the relevant core services)

## Task 3.2 Transfer-a-thon

### Dream:

- Practical demonstration of NCPeH – eIDAS integration for the HEALTHeID Piloting Countries + other eIDAS / eHDSI ready MSs:
  - Looking for Candidates!

### Reality:

- Demo among PT, GR, IT & CZ
- Others?
- Which are the other eIDAS/eHDSI ready MSs?

## Task 3.2 Transfer-a-thon

### Proposal for Transfer-a-ton:

- Workshop/Presentation to DG SANTE (Solution Owner), DG Connect, DG DIGIT, Solution Provider and eHMSEG Chairs in September (1 or 2<sup>nd</sup> of September):
  - Functional requirements, scenarios, end-2-end workflow
  - Dates and scope of Technical Workshop on the proposed architecture, eIDAS Connector, modifications of the NCPeH and Portal
- Presentation to eHMSEG in 16<sup>th</sup> October
  - Dates and scope of Technical Workshop on the proposed architecture, eIDAS Connector, modifications of the NCPeH and Portal
  - Practical demonstrations of NCPeH – eIDAS integration for the HEALTHeID

# Proposal for Transfer-a-ton

- Workshop (2days):
  - Functional requirements, scenarios, end-2-end workflow
  - Technical Workshop on the proposed architecture, eIDAS Connector, modifications of the NCPeH and Portal
- Practical demonstrations of NCPeH – eIDAS integration for the HEALTHeID Piloting Countries + eHDSI ready MSs, if any
  - Location: SPMS – Porto or Maia, Portugal | **18-19-20 of October** or 1st week of November
- Presentation of other MS realities
- Discussion on applicability and collection of suggestions for “changes”

## Task 3.3 Handover

- HEALTHeID will submit a change proposal to the eHDSI Solution Provider (DG SANTE), which will take into consideration the formal integration of the operational results into the reference implementation of the NCPeH (OpenNCP).

# Activity 3: Preparation for transfer of activities: PLANNING -

## Involvement Action Plan\_HeID (1/2)



- Task 3.2 Transfer-a-thon.
- Task 3.3 Handover.

Nº	Task	Date, local, duration	Players
3.1	Complete HEALTHeID Connector without “formal” tests	Until the end of July	HeID Technical Working Group
3.2	Schedule 2x webinar (in two different dates) to explain HeID: <ul style="list-style-type: none"> <li>•what is HeID?</li> <li>•What we want to achieve?</li> <li>•Why you should use our component?</li> <li>•How to test/use it in the near future</li> </ul>	we should do it late in June early July  <b>dates:</b>	Each Act. Leader should present HeID Technical Working Group eHMSEG & PS/eP Cluster members
3.3	Be present at eHMSEG meetings and PS/eP Clusters meeting to present our work	Sync with eHMSEG meetings and PS/eP Clusters meetings	Each Act. Leader should present HeID Technical Working Group eHMSEG & PS/eP Cluster members
3.4	Schedule monthly HeID teclo to MS and EC (if they want to come) to explain HeID (Act.1.1, Act. 1.2 and Act.2.1 and way forward)	Sync with eHMSEG meetings and PS/eP Clusters meetings   1x Month	Each Act. Leader should present HeID Technical Working Group eHMSEG & PS/eP Cluster members
3.5	4th face-to-face technical meeting, for development status, preparation to transferathon and final tests	16 e 17 de July, Prague, 1,5 dias	HeID Technical Working Group
3.6	Formal/Strategic meeting with DG SANTE, DG Connect, DG Digit and Solution Provider   HeID debriefing (after CSS meeting)	2 of September, Brussels, 1-2h	Diogo Martins e Henrique Martins & Klara(if its needed) DG SANTE, DG Connect, DG Digit & SP

# Activity 3: Preparation for transfer of activities:

## PLANNING - Involvement Action Plan\_HeID (2/2):

Nº	Task	Date, local, duration	Players
7	Submission of technical documentation by the end of September + Webinar 2-3h on HeIDtechnical implementation & implementation guide;	end of September	HeID Technical Working Group DG SANTE, DG Connect, DG Digit e Solution Provider – technical
8	Beginning of eHAction WP.6 Alignment (Depend on June eHN Discussion)	Begin of September	Diogo Martins & Marcello Melgara
9	Submission of documentation and presentation of HeID at the eHMSEG meeting - consideration for attendance at the "Transferathon" event;	October eHMSEG meeting	Klara or Arlete Monteiro (HeID Portuguese representative)
10	"Transferathon" or "HeID Bootcamp"	Possible dates: mid of October [18-19-20]; Porto, 2 days	SPMS & Other MS HeID Technical Working Group Other MS / C that have intension to test the connector
11	Submission of final documentation to the entity that will be responsible for the project in the future (maintenance of the technical component, etc.	2 weeks after the event, line up late in sending the documentation, once the project officially ends in October	HeID Technical Working Group
12	Presentation of the project at the November eHN.	28 e 29 de November, Brussels, 1st day (preliminar)	Henrique Martins or PT Representative e HMSEG Co-Chair- Klara



- **Activity 4: Action Co-ordination (Leader: SPMS)**
  - Co-ordination, technical and management support for the Action
  - Main contact point with EC and partners
- **Tasks**
  - T4.1 Administrative Management (Leader: SPMS)
  - T4.2 Technical co-ordination (Leader: SPMS)
- **Milestones**
  - M8 Project plan has been draft-(M6)

# Challenges

- Find alternatives inside the Consortium - eID
- Preparation on technical background
- Commitment from partners
- Prepare a detailed technical roadmap as annex to the project plan



# HEALTHeID

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Connector for eHealth

Thanks!

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# Support slides

# What we have been working on

## Activity 1 – Identification of non-functional requirements

- Identify non-functional requirements, covering policy, organizational and legal aspects, as well as usability guidelines for the eID solution components resulting from the action
  - **Deliverable 1.1 – HEALTHeID Vision**
    - This document presents the HEALTHeID vision, for citizen identification and authentication in crossborder eHealth situations.
  - **Deliverable 1.2 – Usability Requirements**
    - This document aims to provide recommendations to Member States regarding the usability of their eIDAS eID schemes in order to allow patients to execute their identification process from abroad.

# What we have been working on

## Activity 2 – Development and testing of the reference implementation

- **Deliverable 2.1** – Functional Specification – In progress

# Milestones

Mile #	Milestone description	Indicative due date	Means of verification	Status
1	Proposals for policy alignment have been proposed to the eHealth Network	30/09/2018	Information Note submitted to eHMSEG	Done. To be submitted
2	Proposals for Patient identification process and interfaces has been put forward	30/09/2018	Opinion of eHMSEG reflected in Meeting Minutes	Brief info in March; more details in May meeting
3	Functional Requirements and design of the reference implementation of the eHealth eIDAS Connector-B has been presented to the eHMSEG	31/01/2019	Opinion of eHMSEG reflected in Meeting Minutes	May meeting
4	eIDAS Connector has been successfully implemented	30/06/2019	Delivery of a stable implementation to core MS for localization	
5	Core MS and the eHDSI owner have successfully localized and tested the eIDAS	31/07/2019	Test Report and demonstration to the EC of cross-border authentication by potential end-users	
6	Participation of MS in the Transfer-a-thon	31/08/2019	Information Note: eHN update on technical implementation and MS participation in the Transfer-a-thon Transfer-a-thon Report	
7	Preparation of the handover to a potential future owner of the solution	30/09/2019	Submission of Change Proposal to eHDSI Solution Provider; Packaging of the solution for handover (source code, documentation, etc.)	
8	Project plan has been drafted	01/08/2018	Project plan	✓

## HEALTHeID – Issues raised by INEA

- How will the transfer of the solution happen in practice?
- What are your expectations with respect to the involvement of SANTE/DIGIT?
- What are the overlaps with the eHealth Joint Action?
- How the testing will take place?



# HEALTHeID – Issues from INEA

- General comments:
  - This is a technical project aiming to develop, test and deliver a reference implementation of an eID connector linking the national Open-NCP-based National Contact Point for eHealth to the eIDAS node.
  - The project is about countries eID
    - As Deloitte study approved by eHN shows, there are:
      - Different status on eID among different countries and
      - Specificities on eID related to eHealth
  - Focus is on transferability of the reference implementation to other MS/C
  - Handover of the technical specifications document, as a reference implementation, to EC under CEF eHDSI

# HEALTHeID – Issues from INEA

- How will the transfer of the solution happen in practice?
  - Need to differentiate between:
    - Transfer of the specification and reference implementation for further action (distribution, maintenance) by DG DIGIT and DG SANTE,
    - Transfer of knowledge, early preparation of the organizational/policy aspects and capability to localize the connector within a short deadline to MS not participating in the project
      - pursued primarily through engagement of the eHMSEG in the consultation.

# HEALTHeID – Issues from INEA

- What are your expectations with respect to the involvement of SANTE/DIGIT?
  - Identified the need to approach DG SANTÉ and DG DIGIT in order to get input from them to clarify:
    - How they see their involvement/position on/about the project and
    - How does the project fit the future of eHDSI as a general solution concerning interoperability
  - These have now been explained under Activity 2 and 3

# HEALTHeID – Issues from INEA

- What are the overlaps with the eHealth Joint Action?
  - MWP 2018-2021 was approved by the eHN and the eHAction (3<sup>rd</sup> JA to support the eHN) was written in compliance with it
  - eHAction evaluation was well graded
  - A fair degree of synergies between the policy activities regarding eID with JAseHN and eHAction is anticipated.
  - This will be pursued, following a successful practice in e-SENS, through one or more joint technical workshops particularly with the eHAction WP6 and WP7.
    - WP6 Enhancing continuity of care
    - WP7 Overcoming implementation challenges

# HEALTHeID – Issues from INEA

- What are the overlaps with the eHealth Joint Action?
  - WP6 Enhancing continuity of care
    - Objective:
      - Addressing countries' and their health fitness for the eHDSI uptake.
    - Task 6.1: Support of eHDSI uptake
    - Task 6.2: Support of legal eHDSI matters
    - Task 6.3: eSkills for Professionals
  - WP7 Overcoming implementation challenges
    - Objective:
      - Addressing transversal enabler issues that cross all previous categories.
    - Task 7.1: Recommendations on how to implement interoperability guidelines in large health-care organisations
    - Task 7.2: Data protection
    - Task 7.3: Data and systems security

# HEALTHeID – Issues from INEA

- How the testing will take place?
  - The reference implementation will be tested with the Minder best bed against the specification;
  - All the the member state implementations will also be conformance test with the Minder test bed;
  - Minder test bed was developed in the eSENS project to provide a powerful test bed to be applied to most architectures. Fitting the needs of the technical architecture specified on the proposal;
  - Minder was used as the test bed for the testing the interoperability between Stork 2.0 and eIDAS node.

# HEALTHeID – Issues from INEA

- What are the overlaps with the eHealth Joint Action?
  - MWP 2018-2021 was approved by the eHN and the eHAction (3<sup>rd</sup> JA to support the eHN) was written in compliance with it
  - eHAction evaluation was well graded
  - No overlaps between HEALTHeID and both Joint Actions to support the eHN (JAseHN and the new one, eHAction).
  - But rather mutual benefit from the exchange of synergies, namely through technical joint workshops (following the successful practice in eSENS):
    - HEALTHeID expects the JA(s) to promote critical issues/proposals for adoption at the right level, namely from eHAction WP6 – Enhancing continuity of care,
    - Joint Actions expect that HEALTHeID will help them enlarge the evidence base of their policy proposals to the eHN



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Thanks!

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