

## The use of eID in eHealth

The purpose of this study is to analyse the feasibility of the re-use of the Connecting Europe Facility (CEF) eID building block in the eHealth DSI as part of the Patient Summary and ePrescription use cases in all EU Member States.

The aim of this survey is to identify for each Member States the relevant policies, strategies and system infrastructures in place for the relevant eHealth Use Cases and electronic identification mechanisms at national level.

This survey consists of three parts:

1. National and cross-border experience in eID solutions
2. National and cross-border experience in the delivery of eHealth services
3. Possible scenarios for the implementation of CEF eID as part of cross-border eHealth

Each section consists of a limited set of questions aimed at identifying the current situation in your country concerning the use of electronic identification means and eHealth services both at national and cross-border level. These questions are aimed at identifying/validating our understanding of the current environment to be able to identify possible scenarios for the implementation and use of cross-border eID to identify patients for the cross-border eHealth service for Patient Summary and ePrescription.

In the first phase of this feasibility study an analysis in six Member States (AT, FI, IT, LU, PT, SE) has been carried out to identify their current situation and future plans concerning the use of eID and cross-border eHealth services. From this analysis it was clear that the eIDAS Regulation and CEF eID building block could provide a meaningful way for cross-border patient identification and authentication in the eHealth use cases. Specific scenarios were identified for the implementation and use of eID for cross-border eHealth that align with the situation in these countries. Each of these scenarios is presented in annex at the end of this survey.

The aim of this study is to identify to what extent these scenarios can cover the situation in all EU Member States, or whether additional scenarios should be envisaged. Any relevant drivers, barriers and preconditions relevant to such an implementation should be identified to assess the feasibility.

The following sections contain the questions as part of this survey. Note that in the answer column on the right, some prefilled information is provided for specific questions based on the information we are aware of for your country (please validate the correctness of this information). Please provide your input to these questions in written form. This survey is provided in word format to enable you to share it with relevant colleagues who may be best placed to answer the questions.

Survey – The use of eID in eHealth

1. National and cross-border experience in eID solutions

| Ref.  | Question   | Answer   |
|-------|--|--|
| 1.1   | What are the eID solution(s) implemented in your country?  | <p><b>Current status:</b></p> <ul style="list-style-type: none"> <li>- CZ.NIC z. s. p. o (private sector): mojEID (MyID - <a href="http://www.mojeid.cz">www.mojeid.cz</a>)</li> <li>- eduID.cz – Czech federation of academic identities(<a href="http://www.eduid.cz/en/index">www.eduid.cz/en/index</a> )</li> <li>- National Data Boxes (eDelivery solution) – identity provider functions</li> </ul> <p><b>Planned:</b></p> <ul style="list-style-type: none"> <li>- Elaboration of a comprehensive national system of electronic identification (National Identity Authority - NIA) which will enable identification and authentication by different identity providers for different service providers. Works on project are under supervision of the department of the eGovernment Chief Architect)</li> </ul> |
| 1.1.1 | If yes, what are the conditions to obtain this/these eID(s) (e.g. age, residence permit)   | National system of electronic identification – citizen ID card; personal visit to the national eGov contact point (CzechPoint)   |
| 1.2   | Do you use one of the abovementioned eID solutions to identify patients?   | <p>No, national solution is planned.</p> <p>Regional solution in place – MyID – patient identification for less sensitive procedures (ambulance visit registration system)</p>   |
| 1.3   | Do you use one of the abovementioned eID solutions to identify health professionals?   | No, planned.   |
| 1.4   | <p>Does the information linked to the electronic identity as part of these eID schemes include the following:</p> <ul style="list-style-type: none"> <li>• current family name(s);</li> <li>• current first name(s);</li> <li>• date of birth;</li> <li>• a unique identifier (persistent in time).</li> </ul> | <p>No, it includes the following:</p> <ul style="list-style-type: none"> <li>- current family name (s)</li> <li>- current first name (s)</li> <li>- age</li> </ul> <p>Rest of the personal data (date of birth and patient ID) are linked (through backoffice basic registers) but not a part of eID schema.</p>   |
| 1.5   | What is the unique identifier included in the information associated to the electronic identity under this/these scheme(s)? (e.g. citizen number, social security number, specific patient identification number, etc.)  | The unique identifier - citizen “birth” number - is linked to electronic identity through the basic registers. In the planned scheme, the citizen birth number should be replaced by a meaningless identifier (different for various agendas including eHealth).   |
| 1.6   | Is your country considering to make these eID  | Yes, some of them.   |

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|       | <b>schemes available for cross-border use under eIDAS Regulation provisions<sup>1</sup>?</b>  |   |
|-------|---|---|
| 1.6.1 | If yes, which of the eID schemes would you intend to notify under eIDAS for cross border identification? Please elaborate on the expected timeline. | <p>The notification is planned by September 2018 at the latest.</p> <p>The most probable schemes to be notified under eIDAS for cross-border identification are the eID citizen card and MojeID as IDP and NIA as Czech ID contact point (including CZ.PEPS).</p> <p>Notification of the eID schemes is the responsibility of the Ministry of Interior.</p> |
| 1.7   | <b>Are you currently working on the implementation of an eIDAS node? Please elaborate on the expected timeline.</b>                                 | <p>In progress (CEF Call 2014)<br/>Project CZ.PEPS managed by CZ.NIC.</p>   |
| 1.8   | <b>Would you be able to indicate the assurance level of your scheme(s)<sup>2</sup></b>  | <p>MyID – low/substantial<br/>eID citizen cards – high (after the launching of the national system)</p>   |
| 1.8.1 | If not, are you aware of how the assurance levels are defined?  |   |

<sup>1</sup>For more information about eIDAS regulation and its implementation, please consult the European Commission's dedicated website: <https://ec.europa.eu/digital-single-market/en/trust-services-and-eid>

<sup>2</sup> The assessment criteria can be found in the Commission Implementing Regulation (EU) 2015/1502 of 8 September 2015 on setting out minimum technical specifications and procedures for assurance levels for electronic identification means: [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:JOL\\_2015\\_235\\_R\\_0002](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:JOL_2015_235_R_0002)

| 2. National and cross-border experience in the delivery of eHealth services      |   |  |
|--|---|--|
| Ref.   | Question  | Answer   |
| <b>National electronic Health Records (eHR) and cross-border Patient Summary</b> |   |  |
| 2.1  | <b>Do you have in place electronic Health Record (eHR) systems<sup>3</sup> in your country?</b>   | Yes, but it is distributed, not centralized.   |
| 2.1.1  | If yes, please describe which system is in place to deliver this service.   | Typically HIS of the individual health care providers or their exchange networks.  |
| 2.1.2  | If yes, is it possible to derive Patient Summary minimum data set <sup>4</sup> from this eHR?   | Not yet, planned.  |
| 2.1.3  | If not, do you plan to put in place an eHR system in the future?  | Yes. Planned to be fixed by legislature as outcome of combination of previously used “Emergency card” (dataset currently used by EMS) and PS as defined by eHN Guidelines.   |
| 2.2  | <b>How is the system set up? Is it integrated at national level or fully decentralised (e.g. at regional level or specific healthcare providers)?</b>                         | Fully decentralized, connected to the exchange networks on regional basis or vendor basis. Planned to set up a master patient index/health documentation index on the national level.  |
| 2.3  | <b>How are patients identified by the system? What is the specific patient identification number?</b>   | Yes – unique citizen number (“birth number”). It’s planned to be replaced by meaningless identifier in System to System communications.  |
| 2.4  | <b>Can citizens access (or allow healthcare professionals to access) their eHR by using an eID?</b>   | Currently no – planned.  |
| 2.5  | <b>Do you have any experience in cross-border exchange of PatientSummary and patient identification? (e.g. from previous participation to pilots like STORK 2.0 or eSENS)</b> | Yes - active in cross border exchange of PS (ePSOS - IZIP), but the solution was cancelled by the Ministry of Health and the National Health Insurance Company.  |
| 2.6  | <b>Can you describe any (legal) limitations to the use of specific patient identification numbers when sharing information (nationally/cross-border)?</b>                     | Yes, it is problematic, as it is possible to derivate birth date, sex, and birth location from the unique citizen birth number. It is considered to be sensitive personal data. In eGov services, it is replaced technically by meaningless identifier but this scheme |

<sup>3</sup> The Commission Recommendation of 2 July 2008 on cross-border interoperability of electronic health record systems with reference COM(2008)3282, defines the following:

**"electronic health record"** means a comprehensive medical record or similar documentation of the past and present physical and mental state of health of an individual in electronic form, and providing for ready availability of these data for medical treatment and other closely related purposes;

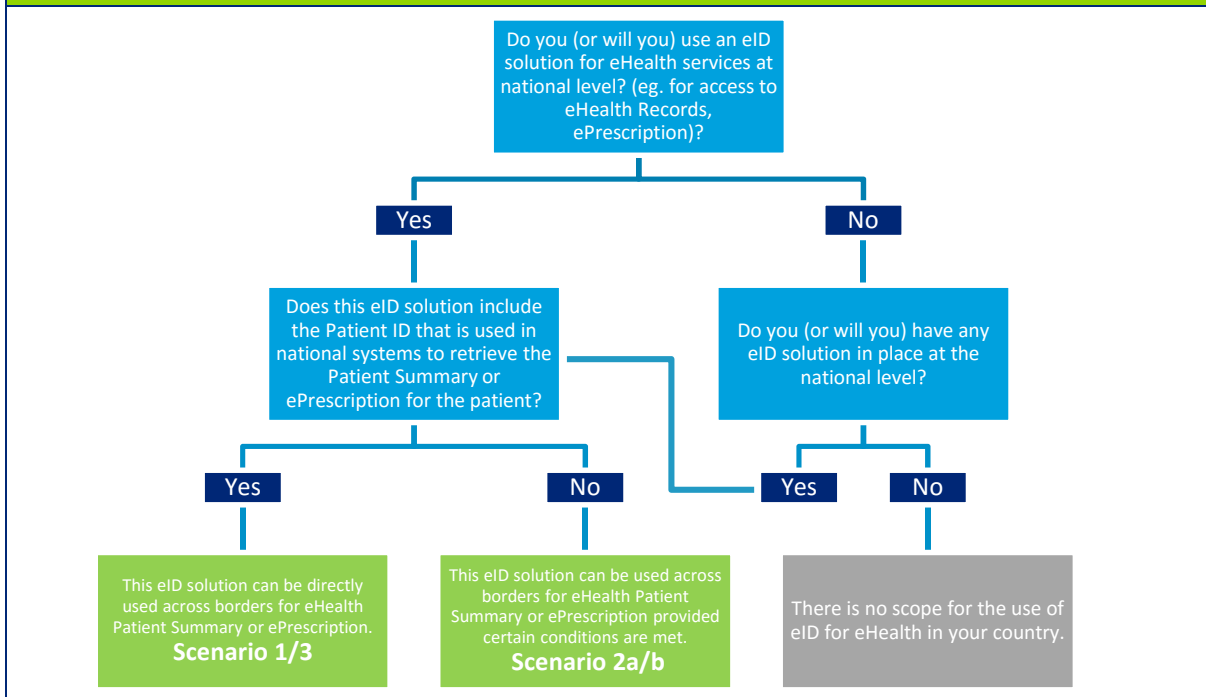
**"electronic health record system"** means a system for recording, retrieving and manipulating information in electronic health records.

Full text available here: [http://ec.europa.eu/information\\_society/newsroom/cf/document.cfm?action=display&doc\\_id=513](http://ec.europa.eu/information_society/newsroom/cf/document.cfm?action=display&doc_id=513)

<sup>4</sup>For more information about the Patient Summary minimum data set, please consult the website of ePSOS : <http://www.epsos.eu/epsos-services/patient-summary.html>

|  |   |   |
|--|---|---|
|  |   | is not yet used in the health sector.   |
| <b>National and cross-border electronic prescription (ePrescription)</b> |   |   |
| 2.7  | <b>Do you have in place ePrescription systems in your country?</b>  | Yes – centralized system of the State Institute for Drug Control.   |
| 2.7.1  | If yes, please describe which system is in place to deliver this service.   | i.e. 2.7  |
| 2.7.2  | If not, do you plan to put in place an ePrescription system in the future?  |   |
| 2.8  | <b>How is the system set up? Is it integrated at national level or fully decentralised (e.g. at regional level or specific healthcare providers)?</b>   | Integrated at national level.   |
| 2.9  | <b>How are patients identified by the system? What is the specific patient identification number?</b>   | Unique citizen number (patient insurance number), planned meaningless identifier as a follow up to state electronic identity                          |
| 2.10   | <b>Can citizens access (or allow healthcare professionals to access) their ePrescription by using an eID?</b>   | No, planned. As soon as the eIDAS scheme will be implemented and the authentication means and processes are in place, this service will be available. |
| 2.11   | <b>Do you have any experience in cross-border exchange of ePrescription/ eDispensation and patient identification? (e.g. from previous participation to pilots like STORK 2.0 or eSENS)</b>   | No.   |
| 2.12   | <b>Can you describe any (legal) limitations to the use of specific patient identification numbers when sharing information (nationally/cross-border)?</b>   | i.e. 2.6.   |
| <b>Implementation of cross-border eHealth</b>                            |   |   |
| 2.13   | <b>Are you implementing (or planning to implement) an NCPeH to enable the cross-border Patient Summary. If yes, please elaborate on the timeline and when you plan on going live. If not, please provide an explanation.</b>              | In progress (CEF Call 2015)   |
| 2.14   | <b>Are you implementing (or planning to implement) an NCPeH to enable the cross-border ePrescription/ eDispensation. If yes, please elaborate on the timeline and when you plan on going live. If not, please provide an explanation.</b> | No.   |
| 2.15   | <b>Which organisation will be responsible for the implementation and operations of the NCPeH in your country?</b>   | Consortium of Vysočina Region and Ministry of Health of the Czech Republic.   |

**3. Possible scenarios for the implementation of CEF eID as part of cross-border eHealth**



| Ref. | Question  | Answer   |
|------|---|--|
| 3.1  | Which of the abovementioned scenarios corresponds to the situation in your country for the implementation and use of cross-border authentication through eID in the provision of cross-border eHealth Patient Summary and/or ePrescription? Please explain why. | Scenario 2a/b.<br>Patient ID is the unique citizen number, which is considered to be sensitive personal data, and therefore it has to be retrieved from the basic registers (backoffice) with the help of a unique meaningless identifier or ID card number. |
| 3.2  | If the above three scenarios do not apply in your view, what are the specific factors that lead to a different implementation scenario?   |  |
| 3.3  | Do you see any barriers related to the future implementation of this scenario in relation to:<br>- The level of security of the eID scheme to exchange sensitive patient identification data?   | No, but it is complicated from the organizational, technical and legislative point of view.  |
| 3.4  | Do you see any barriers related to the future implementation of this scenario in relation to:<br>- Notification of the eID scheme under eIDAS?  | No.  |
| 3.5  | Do you see any barriers related to the future implementation of this scenario in relation to:<br>- Integration of the NCPeH with the eIDAS Node?  | The barrier is in the complexity of the backoffice national infrastructure and the national legislation.   |

|      |   |  |
|------|---|--|
| 3.6  | <p><b>Do you see any barriers related to the future implementation of this scenario in relation to:</b></p> <ul style="list-style-type: none"> <li>- <b>Cross-border exchange of the patient identification number?</b></li> </ul>  | <p>In case of using the patient insurance card, which contains unique citizen ID, PS can be accessed easily but such operation excludes the national backoffice scheme from the procedure and will cause the exchange personal sensitive data.</p> |
| 3.7  | <p><b>Do you see any barriers related to the future implementation of this scenario in relation to:</b></p> <ul style="list-style-type: none"> <li>- <b>Use of the eID at the point of care?</b></li> </ul>   | <p>Currently there is a barrier in the technical equipment (card readers) but it can be improved in terms of the implementation of the national ePrescription system.</p>  |
| 3.8  | <p><b>In the case of Scenario 2:</b><br/><b>Do you see any barriers related to the future implementation of this scenario in relation to:</b></p> <ul style="list-style-type: none"> <li>- <b>The connection of national system containing the patient identification number to the eIDAS Node as an attribute provider?</b></li> </ul> | <p>No, but it is a technically complicated and there is need to change the legislation and use the basic registers backoffice scheme.</p>  |
| 3.9  | <p><b>In the case of Scenario 2:</b><br/><b>Do you see any barriers related to the future implementation of this scenario in relation to:</b></p> <ul style="list-style-type: none"> <li>- <b>The use of the sector-specific dataset under eIDAS?</b></li> </ul>  | <p>As far as we know, the use of sector-specific dataset under eIDAS is not considered in the Czech Republic.</p>  |
| 3.10 | <p><b>In the case of Scenario 2:</b><br/><b>Do you see any barriers related to the future implementation of this scenario in relation to:</b></p> <ul style="list-style-type: none"> <li>- <b>The use of the NCPeH Identification Service based on authenticated information coming from the eIDAS Node?</b></li> </ul>                 | <p>i.e. 3.8</p>  |
| 3.11 | <p><b>What in your view would be the required next steps to fully implement the appropriate scenario?</b><br/>(e.g. in terms of setup and interconnection of systems, legal steps (adaptation of legal context at national level, notification under eIDAS, etc.), putting in place the right conditions at point of care, etc.)</p>    | <p>Necessary legal and backoffice scheme integration.</p>  |

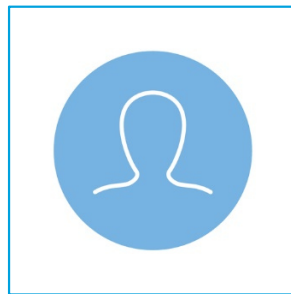
**Annex – Scenarios for the implementation of eID for cross-border eHealth**

- **Scenario 1: Use of the national eID scheme for citizens to uniquely identify patients, including their specific patient identification number used to exchange Patient Summary and ePrescription across borders.**

**National eID scheme**

The eID scheme identified for the use in cross-border eHealth is 'generic' national eID scheme used in general for interactions between citizens and government.

The eID scheme enables the identification of citizens as patients directly given that the unique identifier provided through the cross-border authentication is used to identify patients to retrieve their Patient Summary / ePrescription.

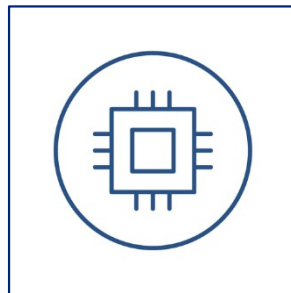


National eID scheme

Unique identifier = patient ID

**eIDAS Node**

The Member State will notify this eID scheme under eIDAS and have in place an eIDAS Node at national level to enable the cross-border use of the eID scheme.



eIDAS Node

eIDAS minimum dataset includes:

- current family name(s);
- current first name(s);
- date of birth;
- a unique identifier (persistent in time) = patient ID.

**NCPeH**

The Member State will have an NCPeH in place for the cross-border exchange of Patient Summary / ePrescription.



NCPeH

The NCPeH can be integrated with the eIDAS Node at national level to enable it to use cross-border authentication of patients using the 'generic' national eID scheme. The NCPeH will receive through the eIDAS Node the authenticated patient identification number to retrieve the Patient Summary / ePrescription in national systems and exchange across borders.



The use of eID in eHealth

A schematic overview of this scenario is presented in the following figure:

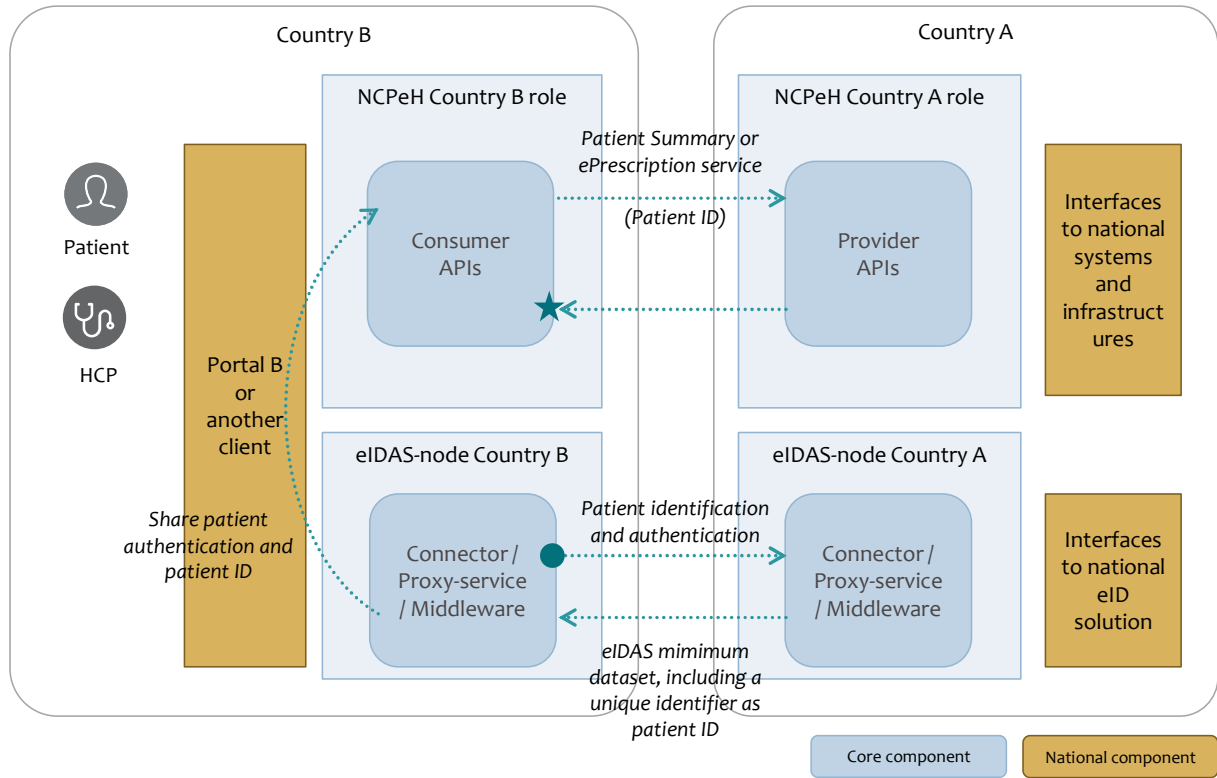


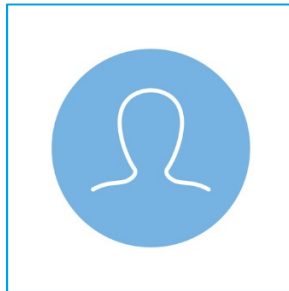
Figure 1 – Overview of scenario 1 for use of eHealth eID

- **Scenario 3: Use of sector specific eID scheme, notified under eIDAS, with sector specific patient identification number for eHealth use cases**

**National eID scheme**

The eID scheme identified for the use in cross-border eHealth is an eHealth specific eID scheme used for eHealth purpose.

The eID scheme enables the identification of patients directly given that the unique identifier provided through the cross-border authentication is used to identify patients to retrieve their Patient Summary / ePrescription.



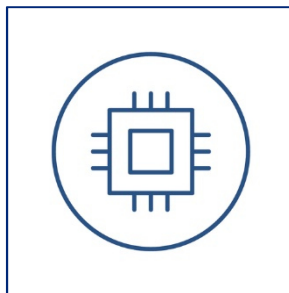
Sector specific eID scheme

Unique identifier = patient ID

**eIDAS Node**

The Member State will notify this eHealth specific eID scheme under eIDAS and have in place an eIDAS Node at national level to enable the cross-border use of the sector specific eID scheme.

There is no need for integrating sector specific attribute providers and adding sector specific attributes in the eIDAS Node as the patient ID is used as the unique identifier in the eIDAS minimum dataset.



eIDAS Node

eIDAS minimum dataset includes:

- current family name(s);
- current first name(s);
- date of birth;
- a unique identifier (persistent in time) = patient ID.

**NCPeH**

The Member State will have an NCPeH in place for the cross-border exchange of Patient Summary / ePrescription.



NCPeH

The NCPeH can be integrated with the eIDAS Node at national level to enable it to use cross-border authentication of patients using the eHealth specific eID scheme. The NCPeH will receive through the eIDAS Node the authenticated patient identification number to retrieve the Patient Summary / ePrescription in national systems and exchange across borders.

The use of eID in eHealth

A schematic overview of this scenario is presented in the following figure:

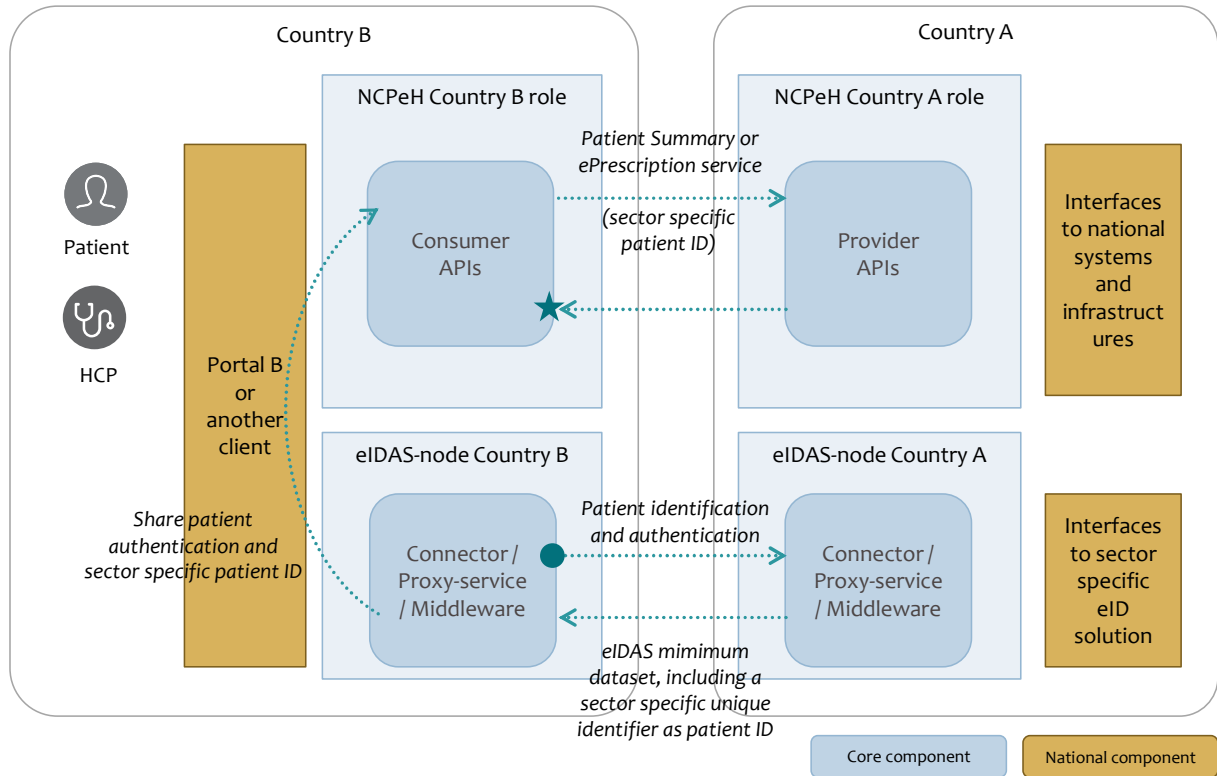


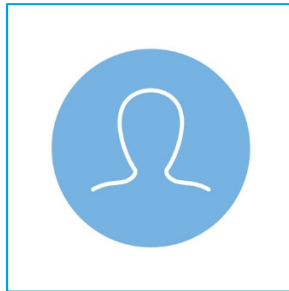
Figure 2 – Overview of scenario 3 for use of eHealth eID

- **Scenario 2a: Use of national eID scheme, notified under eIDAS, with unique identifier as part of the eIDAS minimal dataset that is not used as the patient identification number for eHealth use cases. Sector specific attributes are integrated in the national eIDAS Node.**

**National eID scheme**

The eID scheme identified for the use in cross-border eHealth is 'generic' national eID scheme used in general for interactions between citizens and government.

The eID scheme enables the identification of citizens based on a unique identifier that is different than the patient ID.



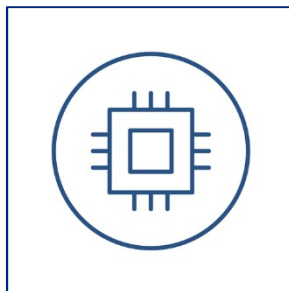
National eID scheme

Unique identifier ≠ patient ID

**eIDAS Node**

The Member State will notify this eID scheme under eIDAS and have in place an eIDAS Node at national level to enable the cross-border use of the eID scheme.

The unique patient ID is integrated into the eIDAS Node by connecting national system(s) that include the unique patient ID, such that the patient ID can be provided through the eIDAS Node as part of the sector specific dataset during the cross-border authentication.



eIDAS Node

eIDAS minimum dataset includes:

- current family name(s);
- current first name(s);
- date of birth;
- a unique identifier (persistent in time)

eIDAS sector specific dataset includes (at minimum):

- patient ID

**NCPeH**

The Member State will have an NCPeH in place for the cross-border exchange of Patient Summary / ePrescription.



NCPeH

The NCPeH can be integrated with the eIDAS Node at national level to enable it to use cross-border authentication of patients using the 'generic' national eID scheme. The NCPeH will receive through the eIDAS Node the authenticated patient identification number as part of the sector specific dataset to retrieve the Patient Summary / ePrescription in national systems and exchange across borders.

The use of eID in eHealth

A schematic overview of this scenario is presented in the following figure:

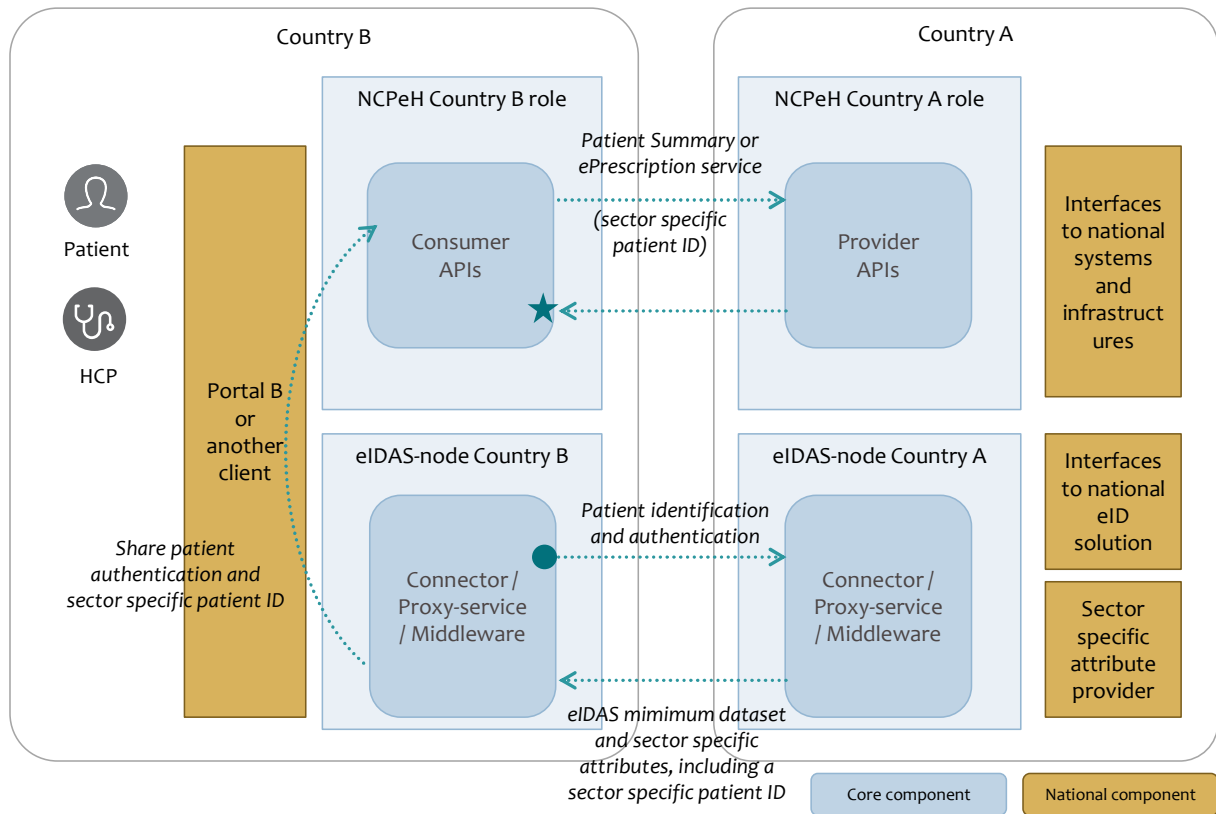


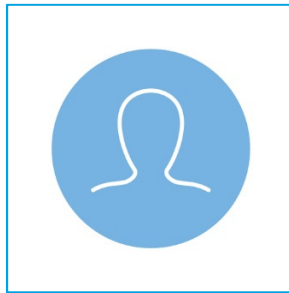
Figure 3- Overview of scenario 2(ideal) for use of eHealth eID

- **Scenario 2b: Use of national eID scheme, notified under eIDAS, with unique identifier as part of the eIDAS minimal dataset that is not used as the patient identification number for eHealth use cases. Sector specific attributes are not provided in the national eIDAS Node.**

**National eID scheme**

The eID scheme identified for the use in cross-border eHealth is a 'generic' national eID scheme used in general for interactions between citizens and government.

The eID scheme enables the identification of citizens based on a unique identifier that is different than the patient ID.



National eID scheme

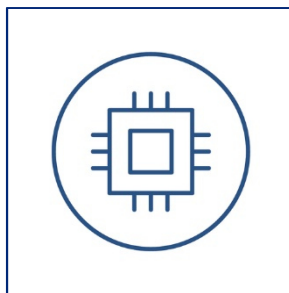
Unique identifier ≠ patient ID

**eIDAS Node**

The Member State will notify this eID scheme under eIDAS and have in place an eIDAS Node at national level to enable the cross-border use of the eID scheme.

The Member State opts not to integrate the unique patient ID in the eIDAS Node by connecting national system(s) that include(s) the unique patient ID. Therefore, the use of the sector specific dataset is not possible.

To identify the patient the NCPeH would receive the patient information provided in the eIDAS minimal dataset and can rely on the national Identification Service integrated with the NCPeH to retrieve a valid patient ID.



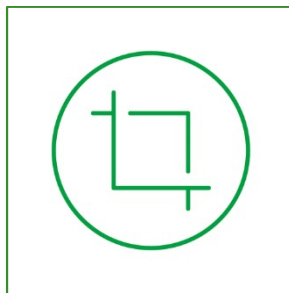
eIDAS Node

eIDAS minimum dataset includes:

- current family name(s);
- current first name(s);
- date of birth;
- a unique identifier (persistent in time).

**NCPeH**

The Member State will have an NCPeH in place for the cross-border exchange of Patient Summary / ePrescription.



NCPeH

The NCPeH can be integrated with the eIDAS Node at national level to enable it to use cross-border authentication of patients using the 'generic' national eID scheme. The NCPeH will receive through the eIDAS Node the citizen details without the unique patient identifier number and use the Identification Service to determine the patient ID to retrieve the Patient Summary / ePrescription in national systems and exchange across borders.

The use of eID in eHealth

A schematic overview of this scenario is presented in the following figure:

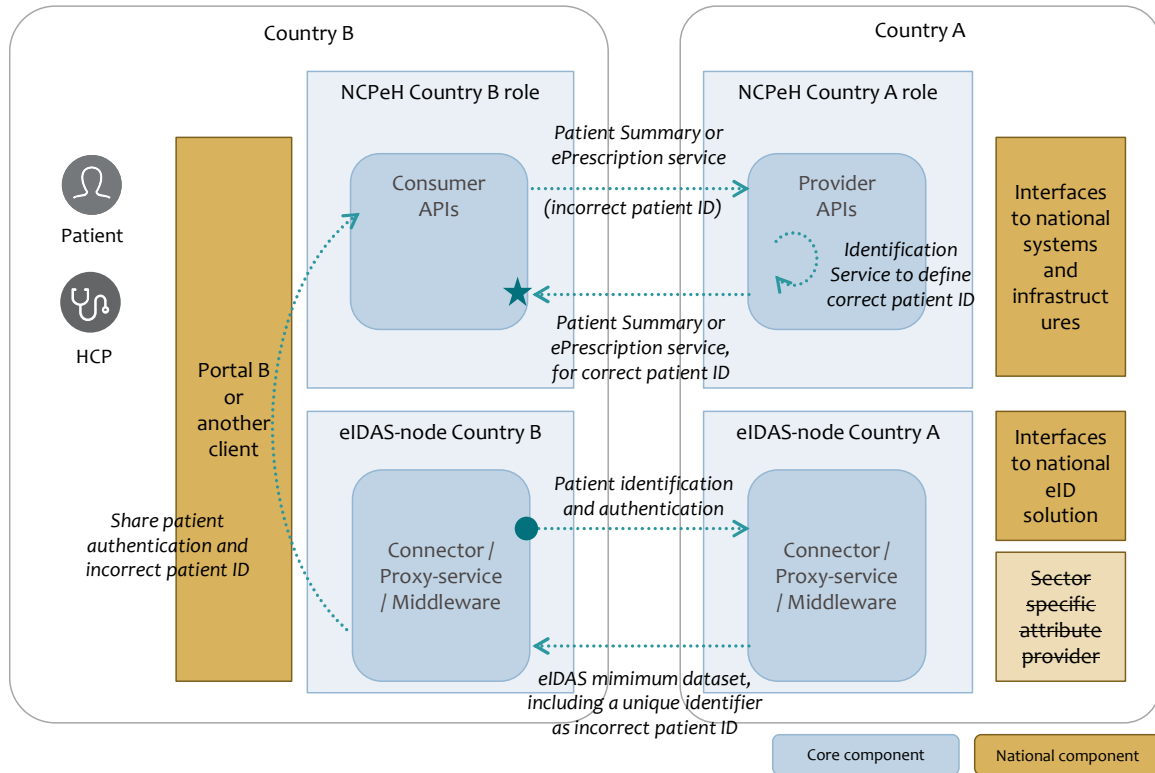


Figure 4 – Overview of scenario 2(exceptional) for use of eHealth eID