



# Identity Management in PUBlic SERVICES

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## D2.1 Stakeholder analysis and evaluation criteria

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## Executive summary

Within the overall structure of IMPULSE, WP2 explores the demands for trustworthy eID solutions for public services and the identification of needs from various stakeholder groups, such as citizens, technology vendors, service providers, regulators, and policymakers.

This deliverable (D2.1) constitutes the initial task of WP2. It is aimed at providing essential information about the six IMPULSE cases, their stakeholders, and needs to inform the project consortium partners in subsequent tasks related to the development (WP5) and testing (WP2) of the future IMPULSE solution. D2.1 also sets the baseline for evaluating the maturity of the technological solution that will be developed in WP5.

This deliverable is divided into two parts: (1) The stakeholder analysis, and (2) the evaluation criteria.

- **Part 1** contains the list of stakeholder groups involved in each pilot case and the analysis of their current particular needs for eID when accessing or using online public services.
- **Part 2** contains the list of criteria that will be assessed in upcoming tasks related to the design and piloting of the IMPULSE solution.

**The stakeholder analysis of Part 1** is based on data collected from online questionnaires, semi-structured interviews, and complementary documentation provided by representatives of the public administrations involved in the six study cases from five European countries.

**The assessment model of Part 2** is based on a set of cross-case criteria obtained from prior conducted studies and good practices on the following areas of interest: (1) software quality attributes, (2) secure and trusted access, (3) usability and user experience (UX), and (4) compliance with European eID regulations.

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Summary (for dissemination)	<p>WP2 starts with a stakeholder analysis that feeds to the assessment of the requirements and specification against stakeholder needs. This requires understanding of the eID landscape in each participating country, by analysing the needs and requirements of different stakeholder groups, such as diverse groups of citizens, eID regulators, brokers, service providers, public administrators, etc. In this task, an online survey was created and conducted with each identified stakeholder. The survey was further enhanced by selected interviews of selected stakeholder groups. The data from the survey and interviews was summarised.</p> <p>In addition to conducting the survey and interviews, this task defines the evaluation criteria for assessing both the requirements document and system specification. The evaluation criteria relate to (i) compliance to EU level regulation; (ii) interoperability with national eID landscapes; (iii) software quality metrics; (iv) secure and trusted access; and (v) usability, inclusivity, and user experience. Furthermore, the evaluation criteria developed in this task will follow throughout the co-creative piloting phase to validate the maturity of IMPULSE solutions delivered in WP5.</p>
Keywords	Stakeholder identification, case studies, co-creative design, piloting, software quality, usability, trusted access

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## Abbreviations and acronyms

**AI:** Artificial Intelligence

**ARH:** City of Aarhus

**CNS:** Carta Nazionale dei Servizi (Italian national eID scheme)

**DoA:** Description of Action

**DNIe:** Documento Nacional de Identidad electrónico (Spanish national eID scheme)

**eID:** Electronic Identification

**eIDAS:** Electronic Identification, Authentication, And trust Services Regulation (EU) 910/2014

**EBP:** European Blockchain Partnership

**EBSI:** European Blockchain Services Infrastructure

**EC:** European Commission

**EEA:** European Economic Area

**ERTZ:** Basque Government – Security Department – Ertzaintza

**EU:** European Union

**GDPR:** General Data Protection Regulation (EU) 2016/679

**MOP:** Municipality of Peshtera

**PIC:** Personal Identification Code

**PIN:** Personal Identification Number

**QES:** Qualified Electronic Signature

**RVK:** City of Reykjavik

**SO:** Specific Objective (IMPULSE DoA)

**SPID:** Sistema Pubblico di Identità Digitale (Italian national eID scheme)

**SUS:** System Usability Scale

**UX:** User eXperience

**WP:** Work Package (IMPULSE DoA)

## Definitions

This section provides general definitions about technical terms and key concepts in the scope of electronic identification, to provide background information to the reader. These general definitions shall not be interpreted as a specification of requirements or list of features of the solutions to be piloted in IMPULSE.

### Authentication

An electronic process that enables the electronic identification of a natural or legal person, or the origin and integrity of data in electronic form to be confirmed (European Parliament and the Council, 2014).

### Electronic identification (eID)

The act of making an entity known, through a unique combination of attributes used for the authentication (i.e., assessing the identity) and authorization (i.e., granting permission) to electronic public or private services (Söderström, 2016; Bazarhanova, 2020).

### Interoperability

The ability of one software system to use parts of another software system (Vernadat, 2009) or access the data generated by it (Giachetti, 2004).

### Stakeholder

Any group or individual who can affect or is affected by the achievement of the objectives in a specific organization or project context. Stakeholder relationships are characterized by power, legitimacy, and urgency (Mitchell, Agle and Wood, 1997).

### Strong authentication or strong electronic identification

Authentication systems based on two or more of the following factors, listed in order of the least to most complex to technically implemented:

- Knowledge-based authentication factors: Information only known by the user, e.g., personal ID numbers, passwords, or PIN codes
- Possession-based authentication factors: Objects or tools that users have in their possession, e.g., mobile phones, security tokens, code cards
- Inherent authentication factors: Physical characteristics or biometrics of the person, e.g., fingerprints, face attributes

Authentication systems based on only one of the factors above are not considered strong enough (everis, 2017). Other definitions of strong electronic identification also require a dynamic authentication process in addition to at least two of the factors listed above (NCSC-FI, 2021), e.g.:

- Using cryptography or other techniques to generate a one-time password (OTP) or per-session token
- Creating on demand an electronic proof that the subject is in control or possession of the identification data, e.g., sending a verification link to the email address or an SMS to the mobile phone
- Issuing a challenge every time the user authenticates

**Trust**

The willingness of one entity (A) to be vulnerable to the actions of another entity (B), based on the expectations that the other entity (B) will perform an important action and refrain from opportunistic behavior in a situation of risk or uncertainty, regardless of the first entity's (A's) ability to control or monitor that other entity's (B's) behavior (Mayer, Davis and Schoorman, 1995; Alpár, Hoepman and Siljee, 2011; Hoff and Bashir, 2015). At least three kinds of trust can be identified in the scope of software systems: Security or protection of personal data, being able to trust on other people's actions, and being able to trust what other people say (Preece, 2001).

**Usability**

Qualitative assessment of the extent to which a novice user interacts with software, to accomplish specific goals in a given use context with relative effectiveness, efficiency, satisfaction, and overall ease-of-use as the standard of measurement (Agarwal and Venkatesh, 2002; Baker, 2009; Karkin and Janssen, 2014)

# 1 Introduction

## 1.1 Background

IMPULSE aims at transforming the mainstream discourse on digital identity by drawing up a user-centric and multi-stage method to evaluate the management of eID in public administration services. This method consists of a multidisciplinary impact analysis on the integration of Blockchain and AI on eID in public services, evaluating the benefits, risks, costs, and limitations of these disruptive technologies, from a socio-economic, legal, ethical, and operational perspective.

Within the overall structure of IMPULSE, WP2 aligns with the demands for more robust, secure, and trustworthy eID solutions to access online public services. Our research process begins by identifying the needs from diverse groups of stakeholders, such as citizens, technology vendors, service providers, regulators, and policymakers. In WP2, we analyse these stakeholders' requirements for key qualitative characteristics of software, such as security and usability, which we will be able to test and evaluate in six different pilot case studies.

The user-centric and co-creative research activities of WP2 also constitute a valuable input to help inform the subsequent analysis of the broader societal implications (e.g., legal, ethical, and economical) as well as the future scalability of the IMPULSE eID solution beyond the case studies' context, which will be covered in the scope of other WPs.

## 1.2 Aim of this deliverable

D2.1 is aimed at providing essential information about the six IMPULSE cases, which involves identification of the stakeholders and their needs, to complement the original definitions from the DoA (§1.3.1.2.3). Based on the outcomes of D2.1 the project consortium partners will be informed in the subsequent tasks related to the development (WP5) and testing (WP2) of the future IMPULSE solution. The stakeholder analysis is based on data collected from a series of (online) meetings aimed at analysing the environment of each case study and its constraints, online questionnaires, semi-structured interviews, and complementary documentation provided by representatives of the public administrations involved in the study cases.

D2.1 also sets the baseline for evaluating the maturity of the technological solution that will be developed in WP5. The assessment model is based on a set of cross-case criteria, which were selected from existing studies on the following areas of interest: (1) software quality characteristics, (2) secure and trusted access, (3) usability and user experience (UX), and (4) compliance with European eID regulations. This review of academic literature allows to delimit the scope of the upcoming pilot activities and to focus on the most relevant themes for IMPULSE.

## 1.3 Research questions

The following research questions were covered in the context of IMPULSE T2.1 and D2.1:

- For the stakeholder analysis (Contribution 1)
  - o How to identify the main stakeholders in each local and national eID landscape of the pilot locations?
  - o Who are those stakeholders?
  - o What are their main needs and concerns...?
    - ...due to limitations of the technology itself?

- ...due to non-technical reasons, e.g., organizational, level of skills/expertise, technology knowledge and awareness, socio-cultural, economic, etc.?
- What is the level of involvement of each stakeholder, i.e., consulted (asked for advice), informed/notified, authorized, etc.?
- What are their roles and expertise in the project, e.g., technical, end-user, problem domain, researcher, etc.?
- For the evaluation criteria (Contribution 2)
  - How should the IMPULSE requirements document and high-level system specification be evaluated, in terms of:
    - Compliance to EU-level regulation?
    - Interoperability with national eID landscapes?
    - Software quality metrics?
    - Secure and trusted access?
    - Usability, inclusivity, and user experience?
  - (Related to previous question) What are the key metrics for assessing the usability, accessibility, and user acceptance of the IMPULSE eID solution during the pilots?
  - How to operationalize (i.e., define and put into operations or use) these evaluation criteria in the context of the IMPULSE eID solution?
  - How to prioritize these criteria for the different pilots?
  - How to measure these criteria during the pilots?

## 1.4 Relation to the whole

D2.1 aligns with the following goals and specific objectives defined in the IMPULSE DoA:

- Goal 1: Specify the requirements, acceptance, and impact on the use of eID technology from regulatory, technical, operational, and societal standpoints through the engagement of stakeholders in a co-creative demand-driven research process, including pilots in 5 different countries.
  - SO1.1 Evaluate operational aspects, acceptance, usability and inclusion, security, and privacy protection [...]
  - SO1.2 Co-create a holistic and sustainable blockchain-based eID solution responding to the needs of multidisciplinary stakeholders based on the current status of research and technical standards [...]
- Goal 2: Perform an in-depth multidisciplinary analysis of the legal normative and regulation, existing standards and ethical implications derived from the use of the selected technologies (i.e., blockchain and smart contracts, AI-based biometrics, and document verification techniques) in public services for eID management.
  - SO2.1 Analyse the relevant legal framework and further implementation on privacy concerns (e.g., GDPR, ePrivacy) and electronic identification (e.g., NIS, eIDAS) to clearly identify recommendations and constraints [...]
  - SO2.4 Analyse relevant standards on eID, authentication, blockchain and trust services to ensure compliance, and define pre-conditions for the specification of eID systems towards further standardisation [...]
- Goal 3: Assess the socio-economic and policy impacts, both benefits and risks, for public administrations, public servants, citizens, and other stakeholders, as well as define the mid- and long-

term business models to assure sustainability of the disruptive eID management concepts in public services.

- SO3.1 Identify social and cultural factors driving adoption and acceptance of the eID solution for public services proposed in IMPULSE, including potential barriers to its adoption [...]

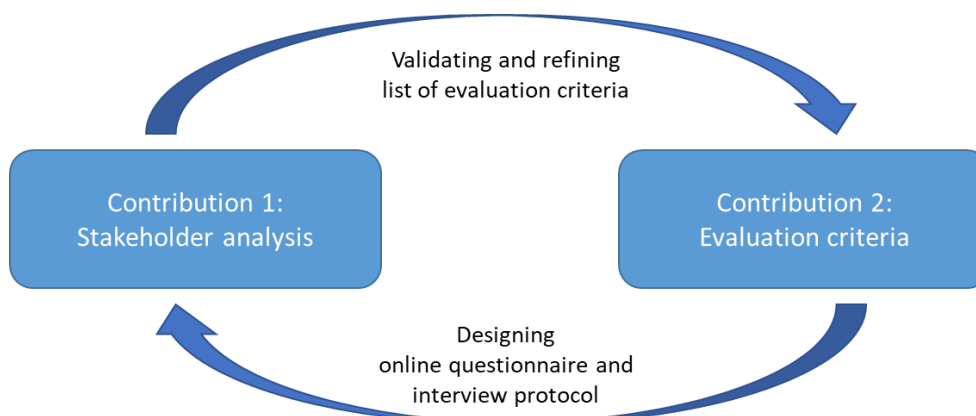
In summary, D2.1 directly contributes to IMPULSE by:

- Identifying the main stakeholders of the eID landscape, for each one of the six pilot case locations
- Starting to build a mutual understanding amongst the stakeholders of the project
- Establishing a shared vocabulary of key terms and converging into a set of common criteria that will be used for the evaluation of subsequent deliverables
- Examining the particular environment of each case study and its specific issues, in order to enable a baseline for comparison between the pilots: What is common to all cases or what is unique to each one

## 1.5 Structure

This deliverable is divided into two parts, each providing a key contribution: (1) The stakeholder analysis and (2) the evaluation criteria.

- Part 1 (Chapters 2 and 3) contains the initial list of stakeholder groups involved in each pilot case and the analysis of their current needs for eID. This part was constructed from various research and intensive communication activities, such as bilateral meetings and calls with the case study owners, online questionnaires, and interviews, which were conducted between February and July 2021 by LUT University with the support of the IMPULSE consortium partners: AEI, ARH, CEL, ERTZ, GIJON, Fh ISI, MOP, RVK, UC/IC.
- Part 2 (Chapter 4) contains the list of criteria that will be assessed in upcoming tasks related to the design and piloting of the IMPULSE solution. This part was primarily authored by LUT, based on the review of existing literature across the following themes defined in the IMPULSE DoA: (a) EU-level regulations on eID, (b) interoperability with national eID landscapes, (c) software quality attributes, (d) secure and trusted access, and (e) usability, inclusivity, and user experience.



**Figure 1: Structure and main contributions of D2.1**

## 1.6 Timeline

The research activities associated to this deliverable were conducted during the first six months of the project (February 2021 – July 2021). First, the evaluation criteria identified from literature review (Part 2) as well as the considerations from the different environments of the case studies were used to design the stakeholder questionnaire and interview protocol (Part 1). These research instruments were initially authored by LUT and shared with the rest of consortium partners, who included their comments and feedback over the course of 1-week review rounds. The stakeholder questionnaire and semi-structured interviews were both conducted online due to the COVID-19 pandemic. To attract the enthusiasm of more participants and overcome language barriers, the questionnaire was translated by each public administration into the respective national language of their use case territory. The results of the survey were analysed and summarized in English.

The questionnaire link was distributed and remained open for two months, between March 22<sup>nd</sup> of 2021, and May 28<sup>th</sup> of 2021. The interviews took place between May 28<sup>th</sup> of 2021, and July 2<sup>nd</sup> of 2021. After collecting and analysing the answers from both the questionnaire and interviews, we obtained the findings of the stakeholder analysis (Part 1). These results were compared again with the original list of evaluation criteria (Part 2), to validate, expand, or amend the list.

## 2 Case study overview

This section summarizes each of the six pilot cases featured in the IMPULSE pilots.

### 2.1 ARH: Municipality of Aarhus (Denmark)

The public service chosen for this case is the retrieval of physical cards, which contain the NemID codes used for authenticating to Danish online services, from lockers installed inside facilities owned by the Municipality of Aarhus. These lockers are already operational and have been used for retrieving passports of Danish citizens who have a NemID card. However, the pilot case focuses on a new application context and target users, since it will be tested by homeless citizens living in shelters. These citizens require a safe storage space for their existing NemID cards because they are likely to lose their documents or lack other official means of identification. This is one of two cases, together with RVK, where participants from a vulnerable segment of the population will be recruited for the pilot activities.



**Figure 2: Lockers used for retrieval of physical ID documents and passports, featured in the ARH case**

### 2.2 ERTZ: Basque Government – Security Department – Ertzaintza (Spain)

The digital public service chosen for this case is the filing of complaints through the website of the Police of the Basque Country. Such complaints refer to a pre-defined group of petty crimes that account for approximately 50% of all the cases received by the Police, such as theft or loss of ID documents and other small items, damages to personal effects, or theft occurring while being inside a vehicle. Currently, this service is done through a hybrid online-physical process, where the complaint is initially registered via internet without the need for authentication. Within 72 hours, the citizen must go to a police station to get her identity verified in person by a police agent and physically sign the complaint documents.



The case owners want to maintain high control over the technical instantiation of the IMPULSE eID app. They have expressed concerns about the risks of opening the pilot testing to users outside the public administration (something which is nevertheless expected, in order to meet the intended goals of the two pilot rounds in WP2). The public administration aims at attaining the following benefits from the possible future implementation of the IMPULSE eID solution:

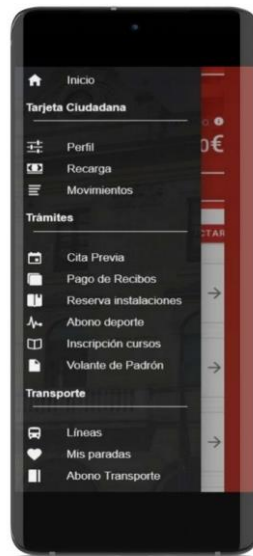
- Avoiding the need for the citizens to go in person to the police station
- Reducing the operational workload of police officers who verify the plaintiffs' identity and contents of the complaint over the counter
- Maintaining the compliance with the current legal requirements for filing complaints

The screenshot shows the ERTZAINZA website interface. At the top, there is a navigation bar with the ERTZAINZA logo, language options (EU, ES, FR, EN), and contact information (112 SOS DEIAK, 900 103 584 NO EMERGENCIA). Below the navigation bar, there is a search bar and a menu with options like '¿Quiénes somos?', '¿Dónde estamos?', 'Colabora', 'Servicios a la ciudadanía', 'Comunicación', and 'Contacto'. The main content area is titled 'Daños' and contains a 'DATOS DE IDENTIFICACIÓN' form. The form includes fields for 'Tipo documento' (DNI/NIF), 'Sexo' (Hombre/Mujer), 'Nombre', 'Primer apellido', 'Segundo apellido', 'Nombre de la madre', 'Nombre del padre', 'Fecha nacimiento' (09/06/2021), and 'Nacionalidad'.

**Figure 3: Screen capture of the online complaints form featured in the ERTZ case**

## 2.3 GIJON: City of Gijón (Spain)

This case study focuses on a web application used to manage various public services offered by the City of Gijón, which are available to people who own a physical, personal, and non-transferrable “Citizen Card”. Issuance of the card is not included within the scope of the pilot, but it is a prerequisite for the target citizens who will participate in the experiments. During the onboarding into the IMPULSE eID app, the user must be linked to an existing card. Some of the menu options available in the production version of the Gijón web app that handle sensitive personal data or payments will be hidden in the test version used for the pilots. The Gijón web app is not yet integrated to the Spanish eID scheme DNIe, which relies on the national identity card. Case representatives consider that the “Citizen Card” has traditionally been the *de facto* identity document for citizens of their municipality. Consequently, they see low value from implementing the authentication via DNIe into their app.



**Figure 4: Web-based app featured in the GIJON case**

## 2.4 MOP: Municipality of Peshtera (Bulgaria)

The public services that the Municipality of Peshtera wants to test in their pilot case are currently available over the counter or through the website of the State eGovernment Agency of the Bulgarian government. MOP presents on their own website a full list of their services related to civil registration (e.g., requesting certificates related to names, property, or address matters). However, when the user chooses any of these services, she is redirected to the portal of the State eGovernment Agency, which requires authentication with a personal qualified electronic signature (QES). From that portal, the user can download an application form in PDF format, which needs to be downloaded, filled in, signed using the same QES, and re-uploaded. The application is then sent to a public officer to review and issue the certificate within 1-7 days, subject to different fees.

The case owner's assumption to be validated during the stakeholder analysis, interviews, and workshops is that the online public services selected for this pilot are not being widely used, because the process for obtaining the QES is too cumbersome. Case representatives consider that the level of adoption of eID methods among the general population in Bulgaria is low.

MOP wants to recreate the entire customer journey experience on a test environment for IMPULSE, which could later serve as a proof-of-concept, to convince the technical staff within the central Bulgarian government of making updates or improvements to the service process workflow.

The case owners expect to attain the following benefits from the possible future implementation of the IMPULSE eID solution:

- Increasing the citizens' confidence in using digital services (and consequently, increasing the total number of citizens who use those digital services)
- Identifying new ways to accessing the services, since currently there is only one eID method



**Figure 5: Screen capture of the list of electronic public services offered on the website of the Municipality of Peshtera**

## 2.5 RVK: City of Reykjavik (Iceland)

The online public service chosen for this case is the participatory democracy portal “Betri Reykjavik” (Better Reykjavik) developed in collaboration with (and managed by) the non-profit organisation citizens.is. Through this digital platform, citizens can initiate discussions on topics of public concern, comment on different proposals to solve urban challenges, and guide in policymaking. Currently, the website is open for exploration to all visitors without the need for registration, but only authenticated users can contribute to forum discussions and project proposals posted on the platform. The platform is already integrated with the following authentication methods available through the island.is (Digital Iceland) gateway:

- a) “Stafræn skilríki”, a smartphone- or card-based eID solution issued by private companies and certified by Íslandsrót (i.e., governmental agency, “Iceland root”); and
- b) IceKey, a combination of the social security number and personal password.

Logins via Facebook and username/email-password combination are also enabled on the current version of the platform.

The main benefit expected from the integration of the IMPULSE eID solution into Better Reykjavik is to provide a new forum for collaboration and participation to citizens with physical/motor impairments as well as their carers, to engage them in public discussion and debate (particularly on issues of e-accessibility and inclusion). The case representatives see more opportunities to gain value from broadening the scope of IMPULSE pilot participants to this target segment, because eID is already widely adopted by the general population in Iceland (including the elderly female users that IMPULSE focuses on, described in the DoA §1.3.1.4.1). The public administration is also planning to involve experts from academia and non-governmental organisations, who can contribute to knowledge exchange about the technologies, purposes, and goals of IMPULSE. This is one of two cases, together with ARH, where participants from a vulnerable segment of the population will be recruited for the pilot activities.

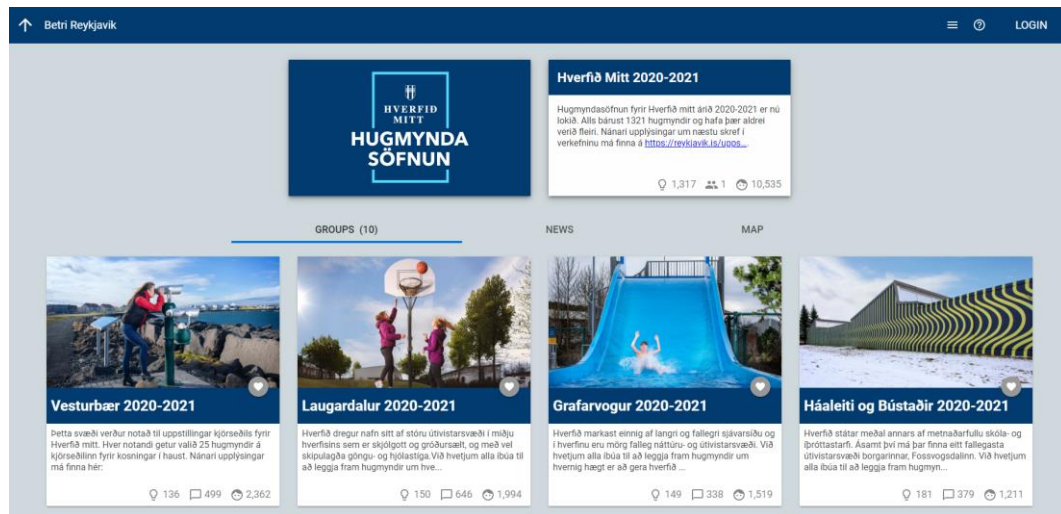


Figure 6: Screen capture of the "Better Reykjavik" website featured in the RVK case

## 2.6 UC/IC: Union of Italian Chambers of Commerce / InfoCamere (Italy)

This case focuses on the “Enterprise Digital Drawer” (“Cassetto Digitale”) portal jointly operated by the Italian Chambers of Commerce (UnionCamere), which is developed and maintained by InfoCamere, a separate legal entity that operates as their IT branch. The website is aimed at entrepreneurs (i.e., legal representatives of small companies) and provides access to various services and documents, which are primarily linked to the database from the Italian Business Register. Furthermore, it already allows authentication with the Italian eID schemes SPID (eIDAS compliant) and CNS.

The case owners expect to attain the following benefits from the possible future implementation of the IMPULSE eID solution:

- Automating and simplifying their service processes
- Reducing the risk of fraud and increasing accounting controls

## 2.7 Cross-case comparison

The table below provides a comparison of the online public services featured in each pilot case, as well as the level of maturity of the existing eID solutions available in the selected services.

**Table 1: Summary of the IMPULSE pilot cases**

Case	Public service(s)	New or existing?	Physical or digital?	Integration to national eID schemes?	Expected value-adding benefit(s) from IMPULSE
ARH (Denmark)	NemID card retrieval from lockers	New (different target segment and use case)	Both physical (accessing locker) and digital (receiving code to open locker)	No: <ul style="list-style-type: none"> <li>To open the lockers, citizens would normally use their NemID codes from a card or mobile app, which are not available in the pilot case context</li> </ul>	Allowing homeless citizens to have a safe storage space for their existing NemID cards
ERTZ (Spain)	Online complaints filing service <a href="#">[Link]</a>	Existing	Both digital (filling in complaint) and physical (proving identity)	No: <ul style="list-style-type: none"> <li>Authentication is not required for filing the complaint</li> <li>Identity must be verified within 72 hours over the counter, by showing a physical ID card or passport at a police station</li> </ul>	Reducing the operational workload of police offers  Ensuring control over the process  Maintaining the compliance with the current legal framework
GIJON (Spain)	Gijón web app to access services of Citizen Card <a href="#">[Link]</a>	Existing	Digital only	No: <ul style="list-style-type: none"> <li>Authentication is done with the number of physical “Citizen Card” and a PIN</li> </ul>	Centralizing the management of various public services offered by the City of Gijón  Incentivizing the use of the Citizen Card as <i>de facto</i> unique identifier
MOP (Bulgaria)	Civil registration and certification: Applying for a certificate of change of permanent address <a href="#">[Link]</a>	Existing (but entire test platform needs to be recreated)	Either digital or physical	Yes (but entire test platform needs to be recreated): <ul style="list-style-type: none"> <li>Free PIC issued by National Tax Administration</li> <li>Paid personal qualified electronic signature (QES) on a USB stick or mobile</li> </ul>	Identifying new ways of accessing public services  Raising awareness about eID and consequently, increasing number of users  Increasing trust and confidence in using digital services

Case	Public service(s)	New or existing?	Physical or digital?	Integration to national eID schemes?	Expected value-adding benefit(s) from IMPULSE
				app, issued by private providers <sup>1</sup> <a href="#">[Link]</a>	
<b>RVK (Iceland)</b>	Better Reykjavik participatory democracy portal <a href="#">[Link]</a>	Existing	Digital only	Yes: <ul style="list-style-type: none"> <li>- Smartphone- or card-based eID ‘Stafræn skilríki’, issued by private providers<sup>2</sup> and certified by Íslandsrót (governmental agency, “Iceland root”) <a href="#">[Link]</a></li> <li>- IceKey, issued by Digital Iceland (island.is) <a href="#">[Link]</a></li> </ul>	Facilitating the access of citizens with physical / motor impairments to discussion forums and contributing to policymaking  Increasing discussion and knowledge exchange in topics of e-accessibility
<b>UC-IC (Italy)</b>	Enterprise Digital Drawer <a href="#">[Link]</a>	Existing	Digital only	Yes: <ul style="list-style-type: none"> <li>- SPID – eIDAS compliant <a href="#">[Link]</a></li> <li>- CIE – smart identity card</li> <li>- CNS/token wireless <a href="#">[Link]</a></li> </ul>	Automating and simplifying service processes  Reducing the risk of fraud and increasing accounting controls

The case comparison shows that the IMPULSE project does not currently feature any cross-border online public services that can be indistinctively tested by stakeholders across all six case studies. Each pilot site has its own particular environment and specific needs, which shall be addressed by the same set of base technologies to be developed in WP5. Additionally, the table shows the existence of different levels of adoption and maturity of national eID solutions across the pilot cases.

Even if the technical configuration and deployment of the IMPULSE eID solution could theoretically allow the reuse of the citizens' verifiable credentials across different pilot cases, no evidence has been found in this stakeholder analysis indicating that the IMPULSE pilots will share cross-border service scenarios. Consequently, it is recommended that the pilots are designed as a multiple case study, aimed at testing the same solution under six different contexts, to discuss the similarities and differences between those scenarios. This would allow to assess how the same IMPULSE solution, relying on a set of blockchain and artificial intelligence technologies, addresses the needs of the stakeholders within and across the six pilots

<sup>1</sup> Currently, B-Trust is one of the private providers of QES with the highest share of the Bulgarian market: <https://www.borica.bg/en/latest/novini/nay-razprostraneni-yat-elektronen-podpis-u-nas-b-trust-navarshi-15-godini>

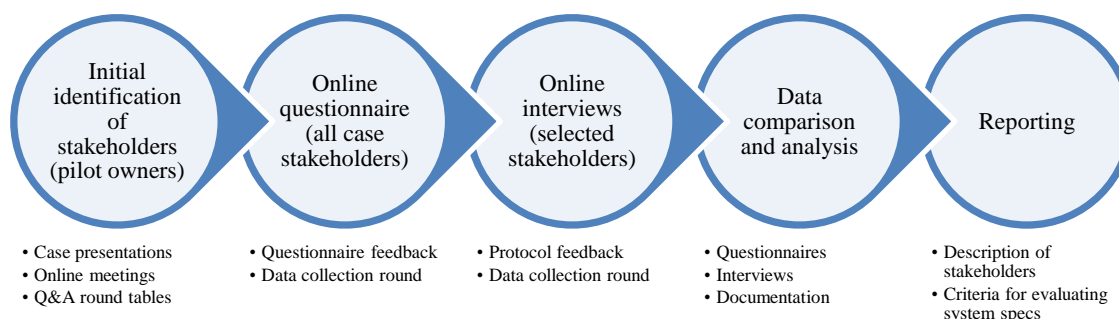
<sup>2</sup> Currently, Auðkenni (<https://www.audkenni.is/en/>) is the dominant provider of e-certificates for mobile phone and personal e-certificate cards in Iceland. The company is owned by banks, but its acquisition by the Icelandic state was announced in July 2021 (changes effective January 1<sup>st</sup>, 2022): <https://www.stjornarradid.is/efst-a-baugi/frettir/stok-frett/2021/07/02/Rikissjodur-egnast-allt-hlutafe-i-Audkenni-ehf.-/>

### 3 Stakeholder analysis

This section provides an overview of the main stakeholder groups involved in each of the six cases where the IMPULSE solution will be piloted (T2.5), as well as their current needs, challenges, expected benefits, or interests concerning the use of eID solutions for public services. We define a stakeholder as any group or individual who can affect or is affected by the achievement of the IMPULSE project objectives (Mitchell, Agle and Wood, 1997).

#### 3.1 Research methodology

This task comprised the use of various data collection methods that complement each other, as shown in the figure below:



**Figure 7: Overview of the research process for the stakeholder analysis**

The preparation of the questionnaire and interview protocols were main responsibility of the LUT research team. All other partners involved in this task commented on these instruments, suggested improvements, or proposed additional questions, before the data collection activities took place.

##### 3.1.1 Stakeholder identification

The identification process started with the refinement of the initial case descriptions from the IMPULSE DoA, which were prepared by the representatives and project managers of the six different public administrations (i.e., case owners) and presented at the Consortium kick-off meeting on February 8<sup>th</sup>, 2021. This goal of this first activity was to summarize the case owners' own understanding of the ecosystem of stakeholders, as well as the current situation of the digital public services (and integrated eID mechanisms) they have chosen for their cases. This information was reviewed by LUT and discussed in individual meetings with each public administration as well as the members the technical team leading the WP5 of IMPULSE.

The next activity was to provide case owners with detailed guidance and a template to identify the most relevant stakeholders of their study cases (see Annex A "Stakeholder identification template"). Case owners were asked to discuss within their organizations and reflect on the different groups of stakeholders involved in the project, both internal and external, including (but not limited to) citizens/end-users, financial or political sponsors, regulators and decision-makers, consultants and experts, software vendors and developers, among others. Based on these categories, the representatives of the public administrations had to identify at least one person per each stakeholder category to invite to fill in the online questionnaire described in the following sub-section. The table below summarizes the main categories, groups, or roles of the IMPULSE case stakeholders, based

upon existing Requirements Engineering literature (Ballejos and Montagna, 2008; Pacheco and Garcia, 2012). These roles are not mutually exclusive. Furthermore, each stakeholder can act in multiple or different roles throughout the project.

**Table 2: Roles of the IMPULSE pilot case stakeholders. Based on (Ballejos and Montagna, 2008).**

Stakeholder Role	Description
Functional (Regular users or citizens)	Those who benefit directly from the functions or tasks performed by the system and its results. Citizens and service providers are likely to fall inside this category, because the implemented functionalities are beneficial to them
Financial	Those who benefit indirectly from the system, by obtaining financial rewards, e.g.: funders, investors, representatives of mixed capital companies or public-private partnerships.
Political	Those who benefit indirectly from the system, by obtaining political gains in terms of power, influence, and/or prestige. Elected members of the local city councils and public administrations may be included here (unlike career civil servants who might not obtain political gains from the project and just oversee its execution).
Sponsors	Those in charge of facilitating and enabling the system development, by collecting funds and/or protecting them (e.g., against political pressures and budget reductions)
Negatives	Those who experience some loss or damage because of the system implementation, or those who could be adversely impacted by its development (e.g., losing their jobs, losing authority or power for decision making, physical damage, financial losses, etc.)
Responsibles (Execution)	Those who oversee the system throughout all lifecycle phases. This role includes career civil servants and other people inside the public administration, who are working with budgets and schedules (e.g., project manager, public procurement and those responsible for selecting suppliers, etc.)
Decision-makers (Management)	Those who control the process and decide if/how a consensus or agreement must be reached throughout the project
Regulators and policymakers	Also called legislators or rule-makers. They are generally appointed by government, industry, or civil society to control the quality, security, costs, or other aspects of the system. They generate guidelines that will affect the system development and/or operation. For example, organisations that develop standards, organisations that defend rights, authorities that establish or implement legal and tax controls, etc.
Operators	Those who interact with the system and use its results (information, services, etc.). An operator uses the system but does not necessarily benefit from it. eIDAS node implementers and identity providers can be included in this category.
Advisors and experts	Those who are familiar with the functionalities and consequences of the system implementation. They have deep knowledge about the project domain and can greatly collaborate in requirements elicitation, due to their expertise. Members of DIHs and Advisory Board can be included in this category.
Hired consultants	Any role who provides occasional support to the system development. They are generally external to the organization and are recruited to provide specialized knowledge on a particular area.
Developers (Technical)	Directly involved in the system development (e.g., requirements engineer, analyst, designer, programmer, tester, security engineer, etc.).



Each pilot case study has a different level of involvement of internal *in-house* development teams or external software vendors, who will be responsible for the integration of the IMPULSE eID solution into the existing online public services, as shown on the table below:

**Table 3: Composition of the technical teams responsible for integrating the IMPULSE eID solution**

Case - Location	Composition of the technical (development) team	3 <sup>rd</sup> party organizations (external to IMPULSE Consortium) to be recurrently involved in pilots
ARH - Denmark	External to the public administration	Biometric Solutions – Software vendor for the lockers’ terminals <a href="#">[Link]</a>
ERTZ - Spain (Basque Country)	Internal to the public administration	None. The integration, instantiation, and testing of the IMPULSE eID app will be directly managed by the case representatives
GIJON - Spain (Asturias)	Internal and external to the public administration	Toools Solutions – Software vendor for the Gijón app <a href="#">[Link]</a>
		W3C Consortium – International organization giving consulting expertise on standards and accessibility <a href="#">[Link]</a>
MOP - Bulgaria	External to the public administration	External software developers to be contracted via public tender, to be defined
RVK - Iceland	External to the public administration	citizens.is – Civic engagement communities <a href="#">[Link]</a>
		Frumbjörg – Innovation centre and start-up incubator <a href="#">[Link]</a>
		The Icelandic Disability Alliance
		Auðkenni ehf – Private vendor of eID solutions <a href="#">[Link]</a>
		Icelandic Startups – A melting pot for innovation <a href="#">[Link]</a>
UC/IC - Italy	Internal and external to the public administration	External software developers to be contracted via public tender, to be defined

Additional risks can be anticipated in pilot cases where the responsibility for the integration of the IMPULSE eID solution into the selected online public service(s) will significantly depend upon external stakeholders, including software vendors or developers who are not directly employed by the public administrations. It is suggested that the case representatives of each pilot administration act as single point of contact between the Consortium (in particular, the WP5 technical team) and any third-parties responsible for their individual pilot instantiation. For instance, the case representatives shall ensure that public tenders (if needed) are launched in a timely manner and that the providers are selected early enough to align with the timeline of the first instantiation and piloting round, as determined on WP2 T2.4 and T2.5. Case owners would also have the additional responsibility of ensuring that any external collaborators, who are not directly bound to the project Grant Agreement or regularly attend the internal meetings of the Consortium, have sufficient information about IMPULSE and carry out their supporting work in alignment with the project’s goals, specific objectives, and deadlines.

### 3.1.2 Online questionnaire (all case stakeholders)

The online survey (see Annex B.2 “Online questionnaire”) contained both open-ended and closed questions about two main aspects: (1) Current needs and past experiences with the eID method(s) used for accessing the online public services of each study case, and (2) opinions and perceived relative importance of the quality attributes for the future IMPULSE eID solution.

Regarding the first aspect, the questions were formulated to understand the participants’ views on how well the eID methods they currently use to access the chosen public services align with one or more of the evaluation criteria from scientific literature listed in Section 3.4., e.g.:

*Where did you find out or hear about [public service]? = Findability*

*How did you learn how to use [public service]? = Learnability*

*Think about your overall experience when trying to access [public service] using the chosen method. On a scale of 1 to 5, how much do you agree with the following statements?*

*(1=Fully disagree, 5=Fully agree)*

- *it helps me save my time = Efficiency / Productivity*
- *it helps me complete the tasks I need to do = Effectiveness / Functionality*
- *it is easy to use and does not require too many steps = Efficiency / Learnability*
- *it works without errors = Reliability*
- *it uses simple language or words that are easy to understand = Learnability / Information design*
- *I can use or access it from anywhere = Flexibility / Scalability*
- *I can ask questions or give feedback about it = Feedback / Dialog*
- *My personal data is safe when I use it = Security and fraud prevention / Awareness and control of personal data*
- *I know other people who use it = Sociability / Community*

Regarding the second aspect, the questions were formulated to understand the participants’ views on how to align IMPULSE with one or more of the evaluation criteria from scientific literature listed in Section 3.4., e.g.:

*Imagine a new eID solution that allows you to prove your identity and access [public service]. On a scale of 1 to 5, how important is for you that the following aspects are considered in that future solution?*

*(1=Not important at all, 5=Very important)*

- *it should simplify or reduce the number of steps = Efficiency / Productivity*
- *it should work without problems or errors = Reliability*
- *it should be easier to find, locate, or access = Findability*
- *it should provide clear use instructions = Transparency / Explainability / Learnability*
- *it should have a simpler user interface or screens = Structure / Content / Information design*
- *it should use simpler language or words that are easier to understand = Transparency / Learnability*

- *it should protect my personal data* = Security and fraud prevention / Awareness and control of personal data
- *it should give options to ask questions or provide feedback* = Feedback / Dialog
- *it should be compatible with different types of devices* = Flexibility / Scalability
- *it should be available in other languages* = Dialog / Accessibility / Sociability / Community

Additional questions about the limitations and benefits of existing eID methods in public services were presented to participants who identified themselves as internal stakeholders of the public administrations or members of the technical support staff.

In total, 94 people opened the online questionnaire invitation link, which was distributed via email to key internal and external stakeholders (people older than 18 years) by the representatives of the public administrations hosting each pilot case. From these invitations, 84 valid responses were collected (89,36% completion rate amongst people who opened the link), while the remaining 10 participants declined the Privacy Notice and Consent Form (see Annex B.1 “Privacy notice and consent form for online questionnaire”). The table below shows the distribution of respondents per each study case:

**Table 4: Number of responses to stakeholder questionnaire per each study case**

Case - Location	Number of respondents
ARH - Denmark	12
ERTZ - Spain (Basque Country)	13
GIJON - Spain (Asturias)	15
MOP - Bulgaria	16
RVK - Iceland	14
UC/IC - Italy	14
<b>Total</b>	<b>84</b>

The questionnaire was available in the respective national languages of the case studies (i.e., English, Bulgarian, Danish, Icelandic, Italian, and Spanish). This approach encouraged more people to participate and offered the opportunity to overcome difficulties in understanding specific terminology. The case owners made several calls to increase participation in the questionnaire. Since this questionnaire was conducted at the beginning of the project and the awareness of the IMPULSE pilot scope was rather reduced at that moment, it was challenging to attract a larger number of participants. Nevertheless, the valuable feedback of the participants still provides important insights to guide the research of IMPULSE.

### 3.1.3 Online interviews (selected stakeholders)

Out of the 84 valid responses to the online questionnaire, 39 respondents accepted to be invited for a follow-up interview (46,43% interview acceptance rate). Additional interviewees were contacted separately (i.e., without having previously answered to the questionnaire) for those cases with low response rate. The interviews were semi-structured and relied on a protocol or guide containing close- and open-ended questions, which were planned in advance but not necessarily asked in the same order (Runeson and Höst, 2009). This method allows to collect spontaneous answers from the participants and at the same time maintain consistency between interviews (Seaman, 1999). All stakeholders were individually interviewed and gave permission to record the conversation for subsequent analysis.

The table below shows the distribution per each study case of the people who were invited and took part in the interviews:

**Table 5: Number of interviewees per each study case**

Case - Location	Number of questionnaire respondents who agreed to be contacted for an interview	Number of conducted interviews (+scheduled separately)
ARH - Denmark	4	1 (+1)
ERTZ - Spain (Basque Country)	5	2
GIJON - Spain (Asturias)	9	2
MOP - Bulgaria	8	3
RVK - Iceland	9	2
UC/IC - Italy	4	1 (+1)
<b>Total</b>	<b>39</b>	<b>13</b>

## 3.2 Findings

This section presents the key findings from the online questionnaire and semi-structured interviews conducted with case stakeholders. From a quantitative point of view, the number of responses collected from these activities is not representative of the entire target population of the countries or cities where the IMPULSE eID solution will be pilot tested. Therefore, rather than making general conclusions about the environment of each case location or extrapolating those findings to other contexts, the aim of this research is to obtain qualitative insights directly from the people that are most involved or affected by the pilot cases, in order to guide future research activities as well as the design of the IMPULSE solution.

### **Different levels of adoption and maturity of national eID solutions to access and use the public services of each pilot case**

Some differences were observed in the stakeholders' level of adoption and the maturity of eID methods to access online public services across the six study cases. On one hand, respondents from RVK generally indicated that they were very familiar with the list of eID options on the Digital Iceland (island.is) gateway, particularly the IceKey method, and used those eID options on a broad variety of services because of convenience. On another hand, respondents from UC/IC, ERTZ, or GIJON often expressed that they rely on their national eID schemes (i.e., SPID, DNIE) simply because its use has become compulsory and is mandated by law. Several participants expressed that they started using eID due to such legal requirements in their respective countries. In general, the perceived social acceptance or level of adoption of eID by close relatives, friends, or acquaintances, did not seem to influence the interviewees' own decision to use eID.

### **Current eID solutions rank well in usability, but lack dialog and feedback mechanisms to inform citizens**

Across all six study cases, most questionnaire respondents agreed that the current eID methods for accessing the chosen pilot services covered usability and other software quality characteristics to a good extent, with efficiency and effectiveness ranked the highest among the list of evaluation criteria identified from literature review (Table 7). On the opposite side of the scale, the technical reliability, as well as the quantity and quality of instructions or feedback provided by these eID systems received the lowest scores. No significant differences were observed between the study cases, in terms of the score given to each criterion.

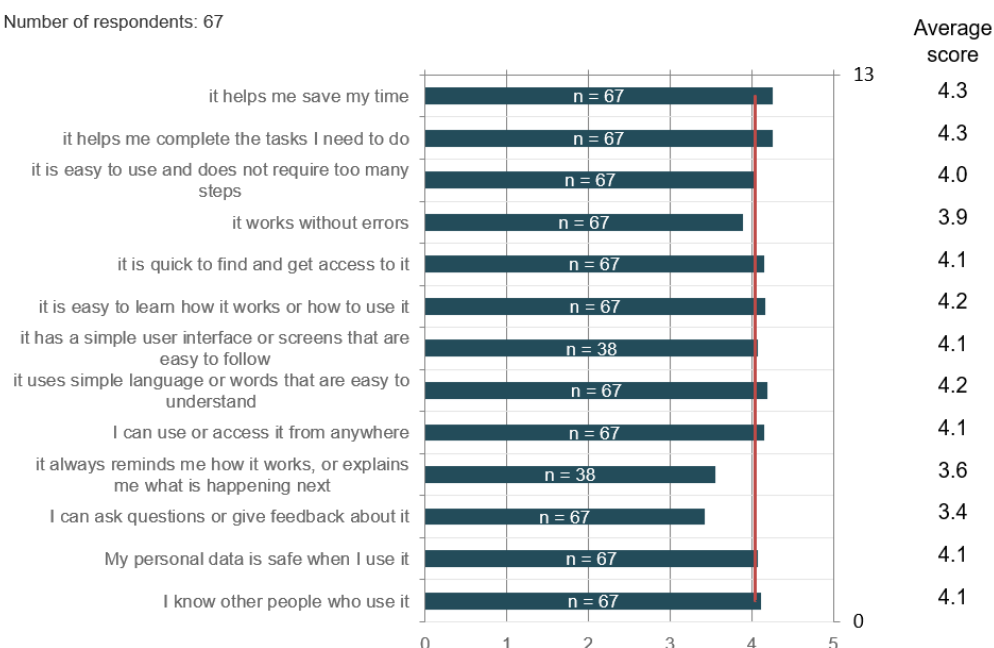
This suggests that the pilots of the future IMPULSE eID solution could address one important challenge and can seize one important opportunity:

- Challenge: If stakeholders already give high scores to the simplicity, learnability, or usability of current eID solutions, what significant differences or added value could the IMPULSE app offer to these stakeholders?
- Opportunity: Stakeholders are not fully informed on how the current eID solutions work and lack feedback mechanisms to comment about these solutions. The IMPULSE app can enhance transparency and enable a meaningful dialog with the citizens, by offering more comprehensive feedback channels and clear instructions about its internal functioning or the eID process workflow.

**10. Think about your overall experience when trying to access [public service] using the chosen method. On a scale of 1 to 5, how much do you agree with the following statements?**

*(1=Fully disagree, 5=Fully agree)*

Number of respondents: 67



**Figure 8: Case stakeholders’ assessment of the usability criteria (identified from literature review) when applied to the context of their existing eID solutions**

**Technical robustness and data protection perceived as important attributes of future eID solutions**

When stakeholders were asked what attributes of the future IMPULSE eID solution were important to them, most questionnaire respondents gave the highest ratings to:

- technical reliability/robustness, and
- data protection.

These findings highlight the importance of conducting internal tests before the pilots, and ensure that users get sufficient reassurances that their personal data will remain safe. The responses also suggest that users are very aware of the potential risks with regard to data security and show their support for technical solutions that can increase the security of their data.

**13. Imagine a new eID solution that allows you to prove your identity and access [public service]. On a scale of 1 to 5, how important is for you that the following aspects are considered in that future solution?**

(1=Not important at all, 5=Very important)

Number of respondents: 84



**Figure 9: Case stakeholders' assessment of usability criteria and other quality attributes of the future IMPULSE eID solution**

**Stakeholders' profile depends on their knowledge and confidence on the IMPULSE technologies**

The qualitative analysis of the semi-structured interviews (and to some extent, of the questionnaire answers) reveal variations in the participants' answers across two variables: (1) the stakeholders' level of technical expertise, prior knowledge, or proficiency ("digital literacy") in the use of the underlying technologies upon which the proposed IMPULSE eID solution will be built; and (2) the stakeholders' level of trust, acceptance, or willingness to use such technologies in their everyday life. Consequently, we can broadly characterize the potential pilot testers and users of the IMPULSE eID solution into the four types of profiles shown in Table 6 below. The specification of requirements for the IMPULSE solution as well as the choice of (pre-)piloting activities and co-creation methods should be adapted according to the dissimilar needs and points of view of novice-hesitant, novice-confident, experienced-hesitant, and experienced-confident users.

**Table 6: Identified target profiles of IMPULSE pilot participants**

Stakeholders' relationship with the IMPULSE eID technologies	Low trust or confidence	High trust or confidence
High expertise or prior knowledge	Experienced hesitant ("sceptic")	Experienced confident ("adopter")
Low expertise or prior knowledge	Novice hesitant ("vulnerable")	Novice confident ("enthusiast")

### **The implications of face recognition and AI are generally better understood than blockchain**

In terms of familiarity with the IMPULSE base technologies, interviewees generally had a better understanding of face recognition using AI and were able to give examples of prior applications where they have observed such technologies. The prior knowledge about face recognition tech was expressed through mixed reactions and emotions: Participants with a deeper technical background or who were working for the public administrations were usually more eager to try out new AI applications, which could recognize a citizen's identity from face images. Other stakeholders external to the public administrations were more hesitant about the ethical implications and legal risks of face recognition.

These findings in IMPULSE might be explained by the fact that the respondents with a technical background profile are usually better informed about AI and blockchain through their professional activities. General groups of citizens, who have little contact with AI and blockchain in their everyday life or in the scope of their professional occupation, might be less aware of the advantages and disadvantages of such technologies.

Across all stakeholder groups, interviewees suggested that they would be more likely to trust the future IMPULSE eID solution if they knew who would manage the data and where those data would be stored. Participants were particularly keen to trusting academic or governmental institutions (national or international) over private companies with the handling of their personal data.

These responses indicate some aspects that the potential users of IMPULSE perceive as value-adding features: More transparent management of their data, privacy settings according to the legal framework and clear ethical guidelines, as well as the involvement of a trustworthy governmental institution that they can easily identify or contact. These answers also highlight the importance for IMPULSE to reduce dependency on digital infrastructures managed by third parties and to avoid “vendor lock-in” scenarios, which could reduce the control and oversight over the handling of personal data, affect the perceived trust and consequently, hinder the future scalability of the IMPULSE solution.

Most stakeholders were enthusiastic and willing to participate in the pilot tests of the IMPULSE eID app in 2022. Regardless of their informational level or expertise on innovative technologies, most interviewees were uncertain about the need for using blockchain, as well as the role it plays within the overall system architecture of IMPULSE. This can also be attributed to the higher learning curve and entry barrier to understand about blockchain (and the underlying distributed ledger technologies in general). These topics require some basic background knowledge of ICT, which is uncommon among the general public.

Our findings from this interview round are an enrichment for IMPULSE insofar as they have highlighted once again the importance for IMPULSE to focus even more on information campaigns and awareness-raising, particularly towards vulnerable or novice groups of users, in order to close the technical knowledge gap. This suggests that public administrations, case owners, and software vendors should use clear and simple terms for communicating to pilot users how the underlying technologies of IMPULSE work.

## 4 Evaluation criteria

This section presents the set of attributes that will guide the elicitation of requirements (T2.2) and specification of the architecture (T2.3) for the future IMPULSE solution. The evaluation criteria listed in Table 7 should be understood as a set of high-level design principles, to help align the IMPULSE base technologies (WP5) with the end users' eID needs and demands for trustworthy digital public services (WP2).

### 4.1 Research methodology

The evaluation criteria were primarily identified from scholarly literature related to key themes defined in the IMPULSE DoA. The list of criteria was revised and discussed with the rest of the members of the LUT research team and with the other Consortium partners involved in WP2. The process for conducting the literature review involved the following steps:

#### Step 1: Translating key themes from the IMPULSE DoA into categories of evaluation criteria

The themes shown on the first level of the list below were directly obtained from the IMPULSE DoA. These high-level categories were used to construct the primary search queries to be run in academic databases.

Additional queries were run using equivalent or alternative terms, shown on the second and third levels of the list below.

1. Compliance to EU level regulations on eID
  - a. "European regulations personal identification"
  - b. "European regulations electronic identification"
  - c. "European regulations eID"
  - d. "EU regulations personal identification"
  - e. "EU regulations electronic identification"
  - f. "EU regulations eID"
2. eID technology and interoperability
  - a. "european interoperability"
  - b. "eID interoperability"
  - c. "electronic identity interoperability"
  - d. "electronic identification interoperability"
  - e. "eID standards"
3. Software quality characteristics
  - a. "software quality metrics"
  - b. "software quality attributes"
  - c. "software quality heuristics"
4. Secure and trusted access
  1. Security
    - a. "software security"
    - b. "secure access software"
  2. Trust



- a. “trusted access software”
5. Usability, inclusivity, and user experience
  1. Usability
    - a. “usability”
    - b. “usability metrics”
    - c. “usability heuristics”
    - d. “usability guidelines”
  2. Inclusivity
    - a. “user inclusivity”
    - b. “user inclusion”
    - c. “inclusive software”
  3. User experience
    - a. “user experience metrics”
    - b. “user experience measurement”
    - c. “user experience heuristics”
    - d. “user experience guidelines”

### **Step 2: Running the search queries in academic publication databases**

The search queries were run in Web of Science, Scopus, IEEE Xplore, and Google Scholar. The following filters were applied:

- Papers published between 2001 and 2021, AND
- Papers related to digital public services OR electronic identification software OR the underlying technologies of AI and blockchain that will be used in the IMPULSE solution (these themes were identified from the title, abstract, or by skimming through the conclusions)

### **Step 3: Identification and clustering of evaluation criteria from academic literature**

After applying the filters from the previous step, the resulting papers were examined to identify relevant criteria to assess the requirements of the future IMPULSE solution. Equivalent terms were grouped under the same evaluation criterion. The results of the literature reviewed are summarized in the following section.

### **Step 4: Revision of EU policy guidelines and legislation proposals**

The last step was to analyse official publications that are not indexed in academic databases and that have been authored by European institutions, such as the Commission, the Parliament, or their affiliated bodies. The review of secondary documents comprised high-level policy guidelines and legislation proposals, which enriched and complemented the findings from scientific publications, especially regarding the high-level category of “compliance to EU-level regulations on eID”.

A non-exhaustive list of relevant documents comprising the EU-level regulatory framework for the IMPULSE eID solution is provided below:

- Approved regulations:
  - o Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC (“eIDAS Regulation”)
  - o Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (Text with EEA relevance)
- Proposed regulations:
  - o Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL LAYING DOWN HARMONISED RULES ON ARTIFICIAL INTELLIGENCE (ARTIFICIAL INTELLIGENCE ACT) AND AMENDING CERTAIN UNION LEGISLATIVE ACTS COM/2021/206 final
  - o Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) No 910/2014 as regards establishing a framework for a European Digital Identity COM/2021/281 final
- Other policies and guidelines authored by the high-level expert group on artificial intelligence (AI HLEG) appointed by the EC:
  - o Ethics guidelines for trustworthy AI
  - o Assessment List for Trustworthy Artificial Intelligence (ALTAI) for self-assessment
- Other policies and guidelines about the European Blockchain Partnership (EBP) and the European Blockchain Services Infrastructure (EBSI)

## 4.2 Findings

This section summarizes the results from the review of scholarly literature on the themes of interest for IMPULSE. The table below lists each evaluation criterion, the categories it belongs to, its intended goal or description, any method(s) that can be employed to test it during the pilots, and the original sources where the criteria were identified from.

Two important points should be noted regarding the evaluation criteria:

1. The list below is non-exhaustive. Other relevant criteria might be identified later from the co-creation activities involving stakeholders in the pre-piloting and piloting phases of the project.
2. The criteria are not mutually exclusive. However, tensions or conflicts might occur if multiple criteria are simultaneously assessed. For instance, prior research has shown that security and usability are quality characteristics of software with trade-offs that must be balanced (AI HLEG, 2019; Naqvi, Seffah and Abran, 2020)

**Table 7: Evaluation criteria for the requirements elicitation and the system specification of the IMPULSE solution**

#	Categories	Criterion	Goal or description	Metric(s) <sup>3</sup>	Supporting references
1	1: Compliance to EU level regulations on eID 2: eID technology and interoperability	Cross-border interoperability / Mutual recognition	To what extent can the artifact be used by citizens of any other EU Member State, according to the eIDAS Regulation (EU) 910/2014		(European Parliament and the Council, 2014; everis, 2017)
2	3: Software quality characteristics	Scalability	New users, institutions, or federations can be added without having performance losses	Automated stress / load tests on pre-production environment (this criterion is unlikely to be measured during pilots, due to limited number of cases and test users, as well as GDPR limitations on automated / bulk data processing)	(Carretero <i>et al.</i> , 2018)
3	3: Software quality characteristics	Maintainability	How much effort is required over time to correct, improve, or adapt the artifact to changes in the environment		(Dobrica and Niemelä, 2002; Gorla and Lin, 2010; everis, 2017)
4	3: Software quality characteristics	Modifiability	How quickly and cost-effectively can the artifact be changed	Measuring story points or effective person-months spent on a) the instantiation of the pilots for each case, and b) the adaptation of the artifact between pilot iterations	(Dobrica and Niemelä, 2002)

<sup>3</sup> The metrics presented in this deliverable are those ones initially identified from literature. Further metrics and evaluation methods will be defined in subsequent deliverables of WP2 (i.e., IMPULSE requirements specification V1-V3 [D2.2-D2.4] and piloting roadmap V1-V2 [D2.5-D2.6]).

5	3: Software quality characteristics	Flexibility	The ease with which the artifact can be adapted to use in different applications or environments than originally planned		(Dobrica and Niemelä, 2002)
6	3: Software quality characteristics	Reliability / Technical robustness	How prone to errors is the artifact	Measuring the number of reported errors (e.g., support tickets) over a period	(Dobrica and Niemelä, 2002; Gorla and Lin, 2010; AI HLEG, 2019)
7	3: Software quality characteristics 4: Secure and trusted access 5: Usability, inclusivity, and user experience	Reproducibility / Predictability	To what extent the artifact consistently exhibits the same behavior or produces similar/predictable outputs when the process is repeated under the same conditions	Replication files or logs describing each step of the artifact development and execution process	(Hoff and Bashir, 2015; AI HLEG, 2019)
8	1: Compliance to EU level regulations on eID 3: Software quality characteristics 4: Secure and trusted access	Traceability / Auditability	To what extent the artifact data sets and processes are thoroughly documented, to revise prior decisions, fix current errors, or prevent future errors	Auditing source code and documentation, Replication files or logs describing each step of the artifact development and execution process	(AI HLEG, 2019)
9	4: Secure and trusted access	Resilience to attack / Security and fraud prevention	How well it is protected against fake, illegitimate, malicious, or unauthorized accounts and users		(everis, 2017; AI HLEG, 2019)
10	1: Compliance to EU level regulations on eID 4: Secure and trusted access 5: Usability, inclusivity, and user experience	Awareness of personal data	To what extent the artifact informs the user about the conditions for data collection and further uses of their data		(TNS Opinion & Social, 2011; European Parliament and the Council, 2016; Carretero <i>et al.</i> , 2018; AI HLEG, 2019;

					Wang and Moulden, 2021)
11	1: Compliance to EU level regulations on eID 4: Secure and trusted access 5: Usability, inclusivity, and user experience	Control / Governance over personal data	To what extent can the user decide or influence the conditions for data collection and further uses of their data		(TNS Opinion & Social, 2011; Jensen, 2012; European Parliament and the Council, 2016; AI HLEG, 2019; Wang and Moulden, 2021)
12	4: Secure and trusted access 5 Usability, inclusivity, and user experience	Dialog	The presence of tools or applications aimed at collecting citizen input to public policy		(Karkin and Janssen, 2014)
13	4: Secure and trusted access 5: Usability, inclusivity, and user experience	Transparency / Understandability / Explainability	To what extent does the user know or understand the internal functioning of the artifact		(Hoff and Bashir, 2015; AI HLEG, 2019; Drobotowicz, Kauppinen and Kujala, 2021; Norkute <i>et al.</i> , 2021; Wang and Moulden, 2021)
14	3: Software quality characteristics 4: Secure and trusted access 5: Usability, inclusivity, and user experience	Effectiveness / Validity / Functionality	Performance-based, how well the artifact achieves the user tasks or requirements that it is supposed to comply with	Unit tests	(Gorla and Lin, 2010; Hoff and Bashir, 2015; Wang and Moulden, 2021)
15	5: Usability, inclusivity, and user experience	Efficiency / Productivity	Time- or resource-based, how long does it take to use the artifact, minimizing redundancy	Measuring the timing or number of steps that it takes the user to perform one or several tasks	(Preece, 2001; Gorla and Lin, 2010; Wang and Moulden, 2021)
16	5: Usability, inclusivity, and user experience	Utility / Usefulness / Perceived benefits	People find the artifact useful or beneficial	Questionnaire based on <a href="#">SUS statements</a>	(Bangor, Kortum and Miller, 2008; Gorla and Lin, 2010; Hoff and Bashir, 2015;

					Norkute <i>et al.</i> , 2021)
17	5: Usability, inclusivity, and user experience	Learnability / Speed of learning	How long does it take to learn how to use the artifact effortlessly	Recording the time that it takes to achieve error-free or almost error-free performance on typical tasks, Questionnaire based on <a href="#">SUS statements</a>	(Preece, 2001; Bangor, Kortum and Miller, 2008)
18	5: Usability, inclusivity, and user experience	Memorability / Retention	How well or how much do users remember about the artifact without need for relearning each time	Asking users to perform the same tasks after several days or weeks, and comparing their measured performance	(Preece, 2001)
19	5: Usability, inclusivity, and user experience	Findability	How easy is to find or discover the artifact		(Kopackova, Michalek and Cejna, 2010)
20	5: Usability, inclusivity, and user experience	Structure / Content / Aesthetics / Information design	How relevant, understandable, organized, and aesthetically pleasing is the information presented		(Preece, 2001; Agarwal and Venkatesh, 2002; Karkin and Janssen, 2014; Hoff and Bashir, 2015)
21	5: Usability, inclusivity, and user experience	Feedback saliency	The extent to which the artifact provides clear and understandable status updates or information about the user's progress		(Agarwal and Venkatesh, 2002; Hoff and Bashir, 2015)
22	5: Usability, inclusivity, and user experience	Emotion / Affect	What kind of affective reactions does the artifact invoke		(Agarwal and Venkatesh, 2002; Hoff and Bashir, 2015)
23	5: Usability, inclusivity, and user experience	Accessibility	People with impairments can equally use the artifact with minimal or no obstacles	Using accessibility evaluation tools, such as <a href="#">WAVE</a> (comprehensive list can be found at <a href="#">w3.org</a> )	(Baker, 2009; Kopackova, Michalek and Cejna, 2010; European Parliament and the Council, 2014; Karkin

					and Janssen, 2014)
24	5: Usability, inclusivity, and user experience	Sociability / Community	Presence of policies and practices supporting how the members of the same community interact with the artifact		(Preece, 2001; Agarwal and Venkatesh, 2002)

## 5 Conclusions

This deliverable presents an overview of the stakeholders involved in the six pilot cases of IMPULSE, and a list of evaluation criteria for guiding the co-creative requirements elicitation and the specification of the high-level system architecture of the IMPULSE eID solution.

The case comparison shows that each pilot site has a distinct environment and specific stakeholder needs, which shall be addressed by the same set of base technologies to be developed in WP5. Even if the infrastructure of the IMPULSE eID solution could theoretically allow the reuse of the citizens' verifiable credentials across different pilot cases, the support for cross-border services is not deemed an essential feature in the scope of IMPULSE. Consequently, a single solution from WP5 shall be evaluated, by comparing the similarities and differences in a multiple case study of six public service scenarios in WP2.

Additional risks can be anticipated in pilot cases where the responsibility for the integration and/or instantiation of the IMPULSE eID solution will significantly depend upon external stakeholders, including software vendors or developers who are not directly employed by the public administrations.

The potential pilot testers and users of the IMPULSE eID solution can be grouped into four types of profiles, according to their technical expertise and trust in the underlying technologies of AI and blockchain:

- Experienced confident (“adopter”)
- Experienced hesitant (“sceptic”)
- Novice confident (“enthusiast”)
- Novice hesitant (“vulnerable”)

The choice of (pre-)piloting activities and co-creation methods should be adapted according to the dissimilar needs and points of view of these stakeholder profiles.

Based on the findings from the online questionnaire and interviews with case stakeholders, we identified the following key points:

- There are different levels of adoption and maturity of national eID solutions across pilot cases
- Current eID solutions rank well in usability but lack dialog and feedback mechanisms to inform citizens. IMPULSE shall set transparency and communication as key areas to improve the success of the pre-piloting and piloting activities.
- Technical robustness and data protection perceived as important attributes of future eID solutions. IMPULSE shall build on these results and focus on these criteria accordingly for the development of its solution.
- The implications of face recognition and AI are generally better understood than blockchain because AI is a technology that people encounter more often than blockchain. In the context of IMPULSE, blockchain mostly acts in the background of the onboarding and authentication processes and therefore, will be rather transparent or remain unnoticed by users.

Besides the stakeholder analysis, this deliverable presented a non-exhaustive list of criteria from scientific literature as well as relevant EU-level regulations and policy guidelines. These evaluation criteria serve as high-level design principles to guide the elicitation of requirements (T2.2) and specification of the architecture (T2.3) for the future IMPULSE solution.



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## Annex A Stakeholder identification template

#	Name	Organization	Email	Webropol link sent?	Main Role	Representative	Responsible	Accountable	Consulted	Informed
1	John Doe		<a href="mailto:john.doe@example.com">john.doe@example.com</a>	Y	Decision-makers	X		X		
2	Juan Pérez		<a href="mailto:juan.perez@ejemplo.com">juan.perez@ejemplo.com</a>	N	Functional (Users)	X			X	X
3										
4										
5										

### When filled in, this spreadsheet will contain personal data

Please download a copy and store in a secure location

Do **not** fill in or save this list on the IMPULSE SharePoint!

### Criteria for identifying case stakeholders

#### 1) The following criterion must **\*always\*** be met

- Representative: Does this person have the knowledge or the ability to speak on behalf of their stakeholder group?

#### 2) RACI evaluation: **\*At least one\*** of the following criteria should be met

- Responsible: Will this person do some tasks that contribute to the project goals?

- Accountable: Has this person the authority to approve, to disapprove, or to answer to others for the project results?

- Consulted: Is the input of this person important, valuable, or necessary for the project?

- Informed: Does this person need to be informed about the project, or is this person interested on the results?

## Annex B Research protocols and templates

### B.1 Privacy notice and consent form for online questionnaire

#### B.1.1 English

### IMPULSE stakeholder questionnaire

Dear participant,

As a part of the work of the IMPULSE project, our research team must conduct certain online activities, such as questionnaires and interviews, to understand the context of electronic identification (eID) services in your local community and your country.

#### About the Project

This research is conducted by the team members of the project “Identity Management in PUBlic Services” (hereinafter “IMPULSE” or “Project”). IMPULSE is a 36-month research project funded by the Horizon 2020 Programme of the European Union. The Project is composed by 16 European partners (hereinafter the “Consortium”) and its goals are:

1. Understanding the landscape of existing eID solutions in different European countries. eID refers to the different ways a person may prove their identity to access and use online services.
2. Evaluating the adoption and impact of eID solutions based on Artificial Intelligence (AI) and Blockchain (BC). AI and BC are two different types of technology proposed to make eID safer and more trustworthy for people.

To achieve these research goals, the Consortium will study 6 pilot cases in the following countries: Bulgaria, Denmark, Iceland, Italy, and Spain. Each case will be designed using the data from questionnaires, interviews, and workshops.

We would like to emphasize that:

- your participation in this study is entirely voluntary,
- you are free to decline answering any question,
- you are free to withdraw at any time.

Please answer all the questions by yourself. The information that you provide will remain anonymous. Questionnaire answers and interview excerpts may become part of one or more publications, but no data that can be personally linked to you, such as real names, will be included without your authorization.

We appreciate your collaboration and effort.

### Privacy Notice for Online Questionnaire

Please read the following instructions and confirm your acceptance by checking the boxes at the end of the page.

It is possible that in the questionnaires or interviews addressed to you, you might be requested to provide Personal Data.

Considering this, LUT University, in its quality of data Controller takes its responsibility regarding the security and privacy of Personal Data very seriously and is going to be transparent about the type of data it collects and how it is being handled. To learn more about LUT University's data protection policy, visit the web page: <https://www.lut.fi/web/en/get-to-know-us/contact-details/data-protection>

Pursuant to article 5 of the General Data Protection Regulation (EU) 2016/679 ("GDPR"), the Processing of the Personal Data carried out for the performance of the research activities indicated in the Information Sheet will be based on the principles of lawfulness, fairness, transparency, purpose limitation, data minimization, accuracy, storage limitation, integrity, and accountability.

To this extent, please read the following Privacy Notice (hereinafter the "Privacy Notice") that explains how it will be processed and protected your personal data by the Controller.

Any term indicated in capital letter shall have the meaning attributed to it within the GDPR, or otherwise provided hereto. However, if you have any doubt, please feel free to address your request of clarifications to the contact point provided here below in section "Contact Details".

### Contact Information

If you have any questions about the questionnaire or the Project itself, feel free to contact:

Data Protection Officer (LUT University)	Ethical Manager (IMPULSE)
Anne Himanka, Legal Counsel	Dr. Antonio Carnevale
dataprotection@lut.fi	a.carnevale@cyberethicslab.com
+358 50564 4623	

### Data Controller

The Data Controller of your Personal Data will be LUT University.

### Personal Data processing and lawful basis

The Controller will only process the Personal Data that you will voluntarily and directly decide to provide and/or disclose to the same Controller in connection and/or related to the questionnaire or interview and that you agreed to answer by granting your consent via the Information Sheet.

The Controller will collect and process Personal Data such as, for example, some of your data concerning your name, contact information, etc.

The lawful basis pursuant to which the Controller will process your Personal Data shall be your freely and informed consent to the data processing itself given by you by ticking the "consent boxes" provided at the end of the present page. Please note that you are free to give your consent as well as to deny it.

### Purpose of the data processing

The Processing of your Personal Data will be limited to the extent necessary to perform the research

activities indicated in the Information Sheet you were presented on the previous page, and for which you gave your freely and voluntary consent.

Any other further processing of your Personal Data will be excluded without your previous consent.

#### **Recipients of Personal Data and Personal Data transfer**

Your Personal Data may be shared, for the purposes referred to section “Personal Data processing and lawful basis” above mentioned, with:

- Subjects, bodies, or authorities to which the Consortium and/or its partners are obliged to communicate their personal data pursuant to any applicable law.
- We may also share your information with the European Commission or with competent legal and/or fiscal authorities for legitimate reasons.
- Your Personal Data will not be shared with countries outside the European Economic Area.

#### **Data Retention and data security**

Those Personal Data processed for the purposes set out in section “Purposes of the data processing” will be kept for the time strictly necessary to achieve the purposes stated therein. In any case, we will delete your Personal Data at the end of the Project. In any case, to ensure the best level of protection of your Personal Data we will apply all the best physical and logical security measures internally, and our servers are subscribed from the most established cloud providers and protected through state-of-the-art security measures.

#### **Data subject rights**

Pursuant to Chapter 3 of the GDPR, you have the following rights concerning your Personal Data:

- **The right to be informed**
- **The right of access to data concerning the data subject (article 15)**
- **The right to rectification of data (article 16)**
- **The right to erasure of data (article 17). The right to erasure shall not apply if the processing is necessary for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes if the right to erasure prevents or significantly hinders the data processing**
- **The right to restrict processing (article 18)**
- **The right to data portability (article 20)**
- **The right to lodge a complaint**
- **The right to withdraw consent**
- **The right to object to processing**

If you wish to exercise any of these rights, or you wish to be provided with more information in this respect, please contact our Data Protection Officer using the contact details set out above.

#### **Changes**

Where appropriate, we will notify you of any changes to this Privacy Policy, by email. This Privacy Notice was last updated on March 1st, 2021.

#### **Informed Consent**

**Do you provide your consent for the Controller to process the Personal Data collected from your responses, in accordance with the terms and conditions mentioned above? \***

- Accept
- Refuse

**Do you agree to the use of anonymized answers or quotes in academic publications? \***

- Accept
- Refuse

By clicking the “Next” button below, you declare that you have read and understood all the above-mentioned information, that you had the possibility to raise doubts or questions, and that you received all the relevant clarifications and answers to your questions.

## B.1.2 Bulgarian

### Въпросник за заинтересовани страни по проект IMPULSE

Уважаеми участници,

Като част от работата по проект IMPULSE, нашият екип трябва да извърши определени онлайн дейности, като например интервюта, за да разберем същността на услугите с електронната идентификация (eID) във вашия регион и държава.

#### За Проекта

Това проучване се провежда от екипа на проект “Управление на идентичността в публичните услуги” (накратко “IMPULSE” или “Проект”). IMPULSE е 36-месечен научен проект, финансиран по Програма Хоризонт 2020 на Европейския Съюз. Проектът включва 16 европейски организации (накратко “Консорциум”) и целите му са:

1. Да се разберат съществуващите методи за eID в различните европейски държави. eID са различните начини, по които човек може да се идентифицира с цел ползване на електронни услуги.
2. Да се направи оценка на възприемането и въздействието на методите за eID, базирани на Изкуствен Интелект (AI) и Блокчейн (BC). AI и BC представляват два различни вида технологии, които могат да направят eID по-сигурна и надеждна за хората.

За да постигне тези научни цели, консорциумът ще проучи 6 пилотни обекта в следните държави: България, Дания, Исландия, Испания и Италия. Пилотните обекти ще бъдат разработени с помощта на данните от въпросниците, интервютата и работните срещи.

Бихме желали да обърнем внимание, че:

- вашето участие в това проучване е напълно доброволно;



- може да не отговаряте на всеки въпрос;
- може да се откажете по всяко време.

Молим ви да отговорите на въпросите според вашите знания. Информацията, която предоставите ще остане анонимна. Отговорите на въпросите и извадки от интервютата може да бъдат ползвани в една или повече публикации, но няма да бъдат ползвани никакви данни свързани с вашата идентификация, без ваше одобрение.

Високо ценим вашето мнение и усилия.

### Известие за поверителност за онлайн въпросник

Моля, прочетете инструкциите и потвърдете най-отдолу на страницата.

Възможно е във въпросниците или интервютата да се изиска предоставяне на лични данни.

Имайки предвид това, Университет ЛУТ, в качеството си на администратор на лични данни поема отговорност по отношение на сигурността и защитата на лични данни изключително сериозно обявявайки предварително вида на данните, които се събират и как се обработват. За да научите повече за политиката за защита на лични данни на Университет ЛУТ, посетете следния сайт: <https://www.lut.fi/web/en/get-to-know-us/contact-details/data-protection>

Съгласно член 5 от Общия регламент за защита на данните (ЕС) 2016/679 (“**GDPR**”), обработката на лични данни, във връзка с научните дейности, посочени в информационния лист, ще се основава на принципите на законност, справедливост, прозрачност, ограничение на целта, минимизиране на данните, точност, ограничение на съхранението, целостта и отчетността.

В този смисъл, моля, прочетете следното Известие за поверителност (по-нататък “**Известие за поверителност**”) което обяснява как ще бъдат обработвани и защитени вашите лични данни от администратора.

Всеки термин, посочен с главна буква, има значението, което му се приписва в рамките на GDPR, или значението му е посочено тук. Въпреки това, ако имате някакви колебания, може да се свържете с лицето за контакт, посочено в секцията "Данни за контакт".

### Информация за контакт

Ако имате някакви въпроси за въпросника или за проекта, свържете се със:

Служителя за защита на данни (Университет ЛУТ)	Мениджър Етика (IMPULSE)
Ан Химанка, юриконсулт	Д-р Антонио Карневале
dataprotection@lut.fi	a.carnevale@cyberethicslab.com
+358 50564 4623	

### Администратор на лични данни

Администратор на лични данни ще бъде Университет ЛУТ.

### Обработка на лични данни и законова основа

Администраторът ще обработва само лични данни, които вие доброволно и пряко решите да

предоставите и/или да разкриете на същия във връзка с въпросниците и интервютата и които вие се съгласявате да дадете чрез съгласие поставено на информационния лист.

Администраторът ще събере и обработи лични данни като например, вашите имена, данни за контакт и т.н.

Законовата основа, съгласно която Администраторът ще обработва Вашите Лични данни, е вашето свободно и информирано съгласие за самата обработка на данни, дадено от Вас чрез отметка на "**полето за съгласие**" намиращо се в края на страницата. Моля, имайте предвид, че имате право да дадете или да не дадете своето съгласие.

#### **Цел на обработката на данни**

Обработването на вашите лични данни ще бъде ограничено до извършваните научни дейности, посочени в информационния лист, който е наличен на предходната страница, и където дадохте вашето свободно и доброволно съгласие.

Няма да извършваме друго обработване на вашите лични данни без допълнително съгласие от ваша страна.

#### **Получатели на лични данни и трансфериране**

Вашите лични данни могат да бъдат споделяни за целите, посочени в раздел "Обработване на лични данни и законова основа" със:

- Субекти, органи или власти, на които Консорциумът и/или неговите партньори са задължени да предават своите лични данни съгласно приложимото законодателство.
- Можем също така да споделим вашата информация с Европейската комисия или с компетентни юридически и/или фискални органи по законни причини.
- Вашите лични данни няма да бъдат споделяни със страни извън Европейското икономическо пространство.

#### **Задържане и сигурност на лични данни**

Личните данни, обработвани за целите, посочени в раздел „Цели на обработката на данните“, ще се съхраняват за времето, строго необходимо за постигане на целите, посочени в тях. Във всеки случай, ще изтрием вашите лични данни в края на Проекта. Във всеки случай, за да осигурим най-доброто ниво на защита на вашите лични данни, ние ще приложим всички възможни физически и логически мерки за вътрешна сигурност, а нашите сървъри са абонирани от най-утвърдените облачни доставчици и защитени чрез най-съвременните мерки за сигурност.

#### **Права на субекта на данни**

Съгласно Раздел 3 от ОРЗД имате следните права по отношение на вашите лични данни:

- **Право да бъдете информирани**
- **Право на достъп до данни относно субекта на данните (член 15)**
- **Право на коригиране на данни (член 16)**
- **Право на изтриване на данни (член 17). Правото на изтриване не се прилага, ако обработването е необходимо за архивиране в обществен интерес, научни или исторически научни цели или статистически цели, ако правото на изтриване възпрепятства или значително възпрепятства обработването на данни**
- **Право на ограничаване на обработването (член 18)**
- **Право на преносимост на данните (член 20)**
- **Право на подаване на жалба**
- **Право на оттегляне на съгласието**

- **Право на възражение срещу обработване**

Ако желаете да упражните някое от тези права или искате да получите повече информация, моля, свържете се с нашия служител по защита на лични данни, използвайки посочените по-горе данни за контакт.

**Промени**

Ако е необходимо, ние ще ви уведомим за всички промени в настоящата Политика за поверителност, по имейл.

Настоящото известие за поверителност е актуализирано последно на 1 март 2021 г.

**Информирано Съгласие**

**Давате ли съгласието си Администраторът да обработва личните данни, събрани от вашите отговори, в съответствие с условията, посочени по-горе? \***

- Приемам  
 Отказвам

**Съгласни ли сте с използването на анонимизирани отговори или цитати в академични публикации? \***

- Приемам  
 Отказвам

С натискането на бутона „По-нататък“ по-долу декларирате, че сте прочели и разбрали цялата гореспомената информация, че сте имали възможност да искате разяснения или да повдигнете въпроси и че сте получили всички съответни разяснения и отговори на вашите въпроси.

**B.1.3****Danish**

## **IMPULSE-spørgeskema til de involverede parter**

Kære deltager

Som en del af arbejdet med IMPULSE-projektet skal vores forskergruppe udføre visse onlineaktiviteter, f.eks. spørgeskemaer og interviews, for at forstå konteksten for elektroniske identifikationstjenester (eID) i dit lokalsamfund og dit land.

**Om projektet**

Disse forskningsaktiviteter udføres af gruppens medlemmer i projektet "Identity Management in Public Services" (i det følgende "IMPULSE" eller "projekt"). IMPULSE er et 36 måneder langt forskningsprojekt, der er finansieret af EU's Horizon 2020-program. Projektet består af 16 europæiske partnere (i det følgende "konsortiet"), og dets mål er at:

1. forstå de eksisterende eID-løsninger i forskellige europæiske lande. eID henviser til de forskellige måder, en person kan bekræfte sin identitet på for at få adgang til og bruge onlinetjenester.
2. evaluere implementeringen og effekten af eID-løsninger baseret på kunstig intelligens (AI) og blokkæde (BC). AI og BC er to forskellige typer teknologi, der kan bruges til at gøre eID mere sikkert og troværdigt for folk.

For at nå disse forskningsmål vil konsortiet undersøge seks pilotprojekter i følgende lande: Bulgarien, Danmark, Island, Italien og Spanien. Hvert enkelt projekt vil blive baseret på oplysninger fra spørgeskemaer, interviews og workshops.

Vi vil gerne understrege, at:

- din deltagelse i undersøgelsen er helt frivillig
- du til enhver tid kan afvise at besvare et spørgsmål
- du til enhver tid kan afslutte din deltagelse.

Du bedes besvare alle spørgsmålene selv. De oplysninger, du giver, forbliver anonyme. Svarene fra spørgeskemaet og uddrag af interviewet kan blive brugt som en del af en eller flere publikationer, men ingen oplysninger, der kan knyttes personligt til dig, f.eks. dit navn, medtages uden din tilladelse.

Vi sætter pris på dit samarbejde og din indsats.

#### **Databeskyttelsesmeddelelse for onlinespørgeskema**

Du bedes læse følgende instrukser og bekræfte din accept ved at sætte kryds i felterne nederst på siden.

Det er muligt, at du i de spørgeskemaer eller interviews, du deltager i, kan blive bedt om at give personoplysninger.

I den betragtning tager LUT University som dataansvarlig sit ansvar for sikkerheden og beskyttelsen af personoplysningerne meget alvorligt og vil være åben omkring, hvilken type oplysninger der indsamles, og hvordan de håndteres. Hvis du vil vide mere om LUT Universitys databeskyttelsespolitik, kan du gå ind på hjemmesiden: <https://www.lut.fi/web/en/get-to-know-us/contact-details/data-protection>

Ifølge artikel 5 i den generelle forordning om databeskyttelse (EU) 2016/679 ("**GDPR**") vil behandling af personoplysninger, der sker med henblik på udførelsen af de forskningsaktiviteter, der er anført i informationsarket, være baseret på principperne om lovlighed, rimelighed, gennemsigtighed, formålsbegrænsning, dataminimering, nøjagtighed, opbevaringsbegrænsning, integritet og ansvarlighed.

I den forbindelse bedes du læse følgende databeskyttelsesmeddelelse (i det følgende "**databeskyttelsesmeddelelse**"), der beskriver, hvordan dine personoplysninger behandles og beskyttes af den dataansvarlige.

De udtryk, der er angivet med stort bogstav, har den betydning, der følger af GDPR, eller som følger på anden vis. Hvis du er i tvivl, er du velkommen til at sende en anmodning om præcisering til det kontaktpunkt, der er anført nedenfor under "Kontaktoplysninger".

### Kontaktoplysninger

Hvis du har spørgsmål til spørgeskemaet eller selve projektet, er du velkommen til at kontakte:

Databeskyttelsesansvarlig (LUT University)	Etisk chef (IMPULSE)
Anne Himanka, virksomhedsjurist	Dr. Antonio Carnevale
dataprotection@lut.fi	a.carnevale@cyberethicslab.com
+358 50564 4623	

### Dataansvarlig

Den dataansvarlige for dine personoplysninger er LUT University.

### Behandling af personoplysninger og lovgrundlag

Den dataansvarlige behandler kun personoplysninger, som du frivilligt og direkte beslutter at give og/eller videregive til den dataansvarlige i forbindelse med og/eller vedrørende spørgeskemaet eller interviewet, og som du har indvilliget i at besvare ved at give dit samtykke via informationsarket. Den dataansvarlige indsamler og behandler personoplysninger, f.eks. visse oplysninger om dit navn, kontaktoplysninger osv.

Det lovgrundlag, som den dataansvarlige behandler dine personoplysninger i henhold til, skal være et frit og informeret samtykke til selve databehandlingen, som du giver ved at sætte kryds i de "samtykkefelter", der er angivet nederst på denne side. Bemærk, at du frit kan give dit samtykke og nægte at give det.

### Formålet med databehandlingen

Behandlingen af dine personoplysninger vil være begrænset til det omfang, der er nødvendigt for at udføre de forskningsaktiviteter, som er angivet i det informationsark, du blev præsenteret for på den foregående side, og som du frit og frivilligt gav dit samtykke til.

Enhver anden yderligere behandling af dine personoplysninger vil ikke ske uden dit forudgående samtykke.

### Modtagere af personoplysninger og overførsel af personoplysninger

Dine personoplysninger kan blive videregivet til de formål, der er nævnt i afsnittet "Behandling af personoplysninger og lovgrundlag" ovenfor, til:

- Registrerede, institutioner eller myndigheder, som konsortiet og/eller dets partnere er forpligtet til at videregive personoplysningerne til i henhold til gældende lovgivning.
- Vi kan også videregive dine oplysninger til Europa-Kommissionen eller til behørig retlige og/eller skattemæssige myndigheder af legitime årsager.
- Dine personoplysninger vil ikke blive videregivet til lande uden for det Europæiske Økonomiske Samarbejdsområde.

### Opbevaring af personoplysninger og datasikkerhed

De personoplysninger, der behandles til de formål, der er anført i afsnittet "Formålet med databehandlingen", opbevares så længe, det er strengt nødvendigt for at opfylde de formål, der er angivet deri. Under alle omstændigheder sletter vi dine personoplysninger, når projektet er slut. For at sikre det mest optimale beskyttelsesniveau for dine personoplysninger anvender vi desuden alle

de bedste fysiske og logiske sikkerhedsforanstaltninger internt, og vores servere er hos de mest anerkendte cloud-udbydere og beskyttes af avancerede sikkerhedsforanstaltninger.

### De registreredes rettigheder

I henhold til kapitel 3 i GDPR har du følgende rettigheder vedrørende dine personoplysninger:

- **Ret til at blive informeret**
- **Indsigtsret til oplysninger om den registrerede (artikel 15)**
- **Ret til berigtigelse af oplysninger (artikel 16)**
- **Ret til sletning af oplysninger (artikel 17). Retten til sletning gælder ikke, hvis behandlingen er nødvendig med henblik på arkivering i offentlighedens interesse, videnskabelige eller historiske forskningsformål eller statistiske formål, hvis retten til sletning forhindrer eller i væsentlig grad vanskeliggør databehandlingen**
- **Ret til begrænsning af behandling (artikel 18)**
- **Ret til dataportabilitet (artikel 20)**
- **Ret til at indgive en klage**
- **Ret til at trække samtykket tilbage**
- **Ret til at gøre indsigelse mod behandling**

Hvis du ønsker at gøre nogen af disse rettigheder gældende, eller hvis du ønsker at få flere oplysninger i denne henseende, bedes du kontakte vores databeskyttelsesansvarlige ved hjælp af kontaktoplysningerne herover.

### Ændringer

Hvor det er relevant, giver vi dig besked om eventuelle ændringer af denne privatlivspolitik via e-mail. Denne databeskyttelsesmeddelelse blev senest opdateret den 1. marts 2021.

### Informed Consent

**Ønsker du at give dit samtykke til, at den dataansvarlige kan behandle de personoplysninger, der indsamles fra dine svar, i overensstemmelse med ovennævnte vilkår og betingelser? \***

- Ja  
 Nej

**Ønsker du at acceptere brugen af anonymiserede svar eller citater i akademiske publikationer? \***

- Ja  
 Nej

Ved at klikke på knappen "Næste" nedenfor erklærer du, at du har læst og forstået alle de ovennævnte oplysninger, at du har haft mulighed for at rejse tvivl eller stille spørgsmål, og at du har fået alle relevante præciseringer og svar på dine spørgsmål.

#### B.1.4 Icelandic

## UPPLÝST SAMÞYKKI – UPPLÝSINGABLAÐ FYRIR ÞÁTTTAKENDUR

Með því að undirrita þetta eyðublað skil ég að ég samþykki að taka þátt í hagaðilagreiningu sem er skipulögð sem hluti af IMPULSE verkefninu (Identity Management in Public Services) sem styrkt er af rannsóknar- og nýsköpunaráætlun Evrópusambandsins (styrksamningur númer 101004459) og stýrt af Gradient á Spáni <https://www.gradient.org/en/>

Verkefnið er alþjóðlegt en tilgangur þess er að hanna, þróa og gera tilraunir með auðkennislausnir knúnar gervigreind og eða bálkatakni. Á Íslandi verða lausnirnar notaðar til að gera hreyfihömluðum kleift að auðkenna sig á samráðsgáttum Reykjavíkurborgar. Verkefnið mun einnig skoða áskoranir og áhættur sem tengjast innleiðingu á gervigreind og bálkatakni hjá hinu opinbera. Upplýsingar um verkefnið má finna á vefsíðu IMPULSE <https://www.impulse-h2020.eu/>.

### Persónuverndartilkynning fyrir spurningalista á netinu (privacy notice for online questionnaire)

Vinsamlegast lestu eftirfarandi og staðfestu samþykki þitt með því að haka í reitina hér að neðan.

**Með því að undirrita þetta eyðublað staðfesti ég að ég skil eftirfarandi:**

- **Markmið hagaðilagreiningar** sem ég samþykki að taka þátt í er að skilja betur stöðu, áskoranir, áhættur, og tækifæri sem tengjast innleiðingu gervigreindar og bálkatakni almennt og IMPULSE auðkennislausnum sérstaklega.
- **Þátttaka mín felur í sér að svara skoðanakönnun og þátttaka í viðtölum.** Ég skil að ég gæti verið beðinn um að koma með persónulegar skoðanir á málefnum og að þátttaka mín í rannsókninni verði bundin trúnaði, nema um annað sé samið.
- **Ég er þátttakandi í þessu af fúsum og frjálsum vilja** og mér er frjálst að hætta þátttöku hvenær sem er. Ég get neitað að svara spurningum.
- **Ég hef rétt til að spyrja spurninga** og fá skýr svör áður en ég ákveð að taka þátt.
- **Framlag mitt kann að vera hljóðritað. Afrit af upptökunum verða geymd af Lappeenranta-Lahti University of Technology (LUT) í Finnlandi sem er einn af samstarfsaðilum verkefnisins <https://www.lut.fi/web/en/> og í fullu samræmi við ákvæði persónuverndarreglugerðar Evrópusambandsins.** Við fjarlægjum allar auðkennandi upplýsingar um þig í umritun umræðunnar (og gerviauðkenni verða notuð til að tryggja nafnleynd). Umrituð gögn verða geymd í IMPULSE verkefnageymslunni við LUT í Finnlandi. Gögnin verða notuð í rannsóknarskygni og sem inntak í verkefnaskýrslur sem berast til framkvæmdastjórnar Evrópusambandsins (European Commission) og í sumum tilvikum verða ónafngreinanleg gögn gerð aðgengileg almenningi á vefsíðu verkefnisins, útgáfum og í opinberri geymslu.
- **Að gefnu mínu samþykki** þá má verkefnið nota ónafngreinanleg gögn í skýrslum, á samfélagsmiðlum og/eða á vefsíðu IMPULSE <https://www.impulse-h2020.eu/>.
- **Ég skil að öllum upprunalegum gögnum verði eytt eftir að verkefni lýkur,** Ég skil að ég get beðið um afrit af þeim gögnum sem ég hef afhent.
- **Lagalegur grundvöllur á vinnslu persónuupplýsinga er mig varða er samþykki mitt.** Ég get afturkallað samþykki mitt hvenær sem er. Ég geri mér grein fyrir rétti mínum til að biðja um aðgang að persónuupplýsingum um mig sem unnin eru af IMPULSE verkefnateyminu, sem og um rétt minn til að óska eftir leiðréttingu á persónuupplýsingum um mig og um eyðingu þeirra. Mér er kunnugt um rétt minn til að óska eftir takmörkun á vinnslu persónuupplýsinga er mig varða og rétt minn til að leggja fram kvörtun til eftirlitsyfirvalda.

- **Persónuupplýsingar sem berast verða geymdar í aðskildum skráum á öruggan hátt** (þ.m.t. lykilorðsvörðum þar sem þess er krafist) af þeim aðilum sem leiða viðkomandi starfsemi. Þegar upplýsingarnar sem ég legg til eru notaðar til að skrifa skýrslu mun nafn mitt verða fjarlægð sem og öll auðkenni þessara upplýsinga svo að auðkenni mitt og reynsla haldist sem trúnaðarmál (nema varðveislan sé nauðsynleg og ég hef samþykkt það). Samkvæmt almennu persónuverndarreglugerð Evrópusambandsins (**General Data Protection Regulation 2016/679 [1]**) ber IMPULSE skylda til að upplýsa mig um tilgang gagnasöfnunarinnar, notkun, geymslu og varðveislu upplýsinganna sem ég hef gefið. Ég skil að verkefnið safni eingöngu upplýsingum sem skipta máli fyrir starfsemi þess. Verkefnið mun ekki flytja persónuupplýsingar um mig til þriðja aðila (þ.e. aðila utan verkefnisins).
- **Svör mín geta haft í för með sér tilfallandi og afleiddar niðurstöður**, þ.e.a.s. einhverjar upplýsingar sem voru ekki þungamiðja eða aðal tilgangur spurninganna. Þegar slík tilvik koma upp þá skil ég að ég hef vald yfir mínu samþykki fyrir notkun IMPULSE á þeim niðurstöðum. Einnig skil ég að IMPULSE muni fara með slíkar niðurstöður á sama hátt og aðal niðurstöður, þ.e.a.s. að upplýsingunum verði eytt eftir að verkefninu lýkur og að öll notkun slíkra upplýsinga verði nafnlaus.
- Ég hef fengið upplýsingar um hvernig ég get haft samband við rannsóknarteymið og mér hefur verið tilkynnt að mér er frjálst að hafa samband:

#### Tengiliður Reykjavíkurborg - Rannsóknarstjóri

- Magnus Yngvi Josefsson (magnus.yngvi.josefsson@reykjavik.is)

#### Tengiliðir IMPULSE

- Persónuverndarfulltrúi: Lappeenranta-Lahti University of Technology (LUT), Anne Himanka, lögfræðiráðgjafi (dataprotection@lut.fi, +358 50564 4623)
- Siðferðisfulltrúi: Dr. Antonio Carnevale (a.carnevale@cyberethicslab.com)
- Ábyrgðar og vinnsluaðili: Ábyrgðaraðili persónuupplýsinga þinna er Lappeenranta-Lahti University of Technology (LUT)

[1] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27th of April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679>

#### Upplýst samþykki

Ég staðfesti að ég hef lesið upplýsingablaðið hér að ofan og að ég samþykki að taka þátt í hagaðilagreiningu IMPULSE verkefnisins. Ég veiti samþykki mitt fyrir því að unnið verði úr persónulegum gögnum sem safnað er úr svörum mínum, í samræmi við skilmála og skilyrði sem nefnd eru hér að ofan? \*

- Samþykki  
 Neita

Ég samþykki hljóðupptökur af viðtölum og að þær upptökur og gögn verði hagnýtt í rannsóknarskyni og sem inntak í verkefnaskýrslur sem berast til framkvæmdastjórnar



Evrópusambandsins (the European Commission) og í sumum tilvikum verða ónafngreinanleg gögn gerð aðgengileg almenningi á vefsíðu verkefnisins, útgáfum og í opinberri geymslu. Ég samþykki líka að ónafngreinanleg gögn mín kunnir að vera notuð á samfélagsmiðlum IMPULSE (t.d. Twitter, Facebook, YouTube og/eða á vefsíðu IMPULSE). Ég samþykki að verkefnahópurinn hafi samband við mig, ef þess er krafist, í framhaldi af úrvinnslu gagnanna. \*

- Samþykki  
 Neita

Með því að smella á „Næsta“ hnappinn hér að neðan lýsir þú því yfir að hafa lesið og skilið ofangreindar upplýsingar og að þú hafir haft möguleika á að viðra efasemdir eða spurningar og að þú hafið fengið viðeigandi við spurningum þínum.

## B.1.5

### Italian

## IMPULSE stakeholder questionnaire

Gentile partecipante,

Nell'ambito del progetto IMPULSE, il nostro team di ricerca deve condurre determinate attività online, come questionari e interviste, per comprendere il contesto dei servizi di identificazione elettronica (eID) nel tuo settore e nel tuo paese.

### Informazioni sul progetto

Questa ricerca è condotta dai membri del team del progetto "Identity Management in PUbLic Services" (di seguito "IMPULSE" o "Progetto"). IMPULSE è un progetto di ricerca di 36 mesi finanziato dal Programma Horizon 2020 dell'Unione Europea. Il progetto è composto da 16 partner europei (di seguito il "Consorzio") e i suoi obiettivi sono:

1. Comprendere il panorama delle soluzioni di eID esistenti in diversi paesi europei. eID si riferisce ai diversi modi in cui una persona può dimostrare la propria identità per accedere e utilizzare i servizi online.
2. Valutare l'adozione e l'impatto delle soluzioni eID basate sull'intelligenza artificiale (AI) e sulla blockchain (BC). AI e BC sono due diversi tipi di tecnologia proposti per rendere l'eID più sicuro e più affidabile per le persone.

Per raggiungere questi obiettivi di ricerca, il consorzio studierà 6 casi pilota nei seguenti paesi: Bulgaria, Danimarca, Islanda, Italia e Spagna. Ogni pilota sarà progettato utilizzando i dati di questionari, interviste e workshop.

Vorremmo sottolineare che:

- la tua partecipazione a questo studio è del tutto volontaria.
- sei libero di rifiutare di rispondere a qualsiasi domanda.

- sei libero di recedere in qualsiasi momento.

Rispondi a tutte le domande da solo. Le informazioni fornite rimarranno anonime. Le risposte al questionario e gli estratti delle interviste possono diventare parte di una o più pubblicazioni, ma nessun dato che può essere collegato personalmente a te, come i nomi reali, sarà incluso senza la tua autorizzazione.

Appreziamo la tua collaborazione e il tuo impegno.

### **Informativa sulla privacy per il questionario in linea**

Leggi le seguenti istruzioni e conferma la tua accettazione selezionando le caselle alla fine della pagina.

E' possibile che nei questionari o nelle interviste a Lei indirizzate, Le venga richiesto di fornire Dati Personali.

In considerazione di ciò, LUT University, nella sua qualità di Titolare del trattamento, si assume la propria responsabilità in materia di sicurezza e privacy dei dati personali molto seriamente e sarà trasparente sul tipo di dati che raccoglie e su come vengono gestiti. Per saperne di più sulla politica di protezione dei dati della LUT University, visita la pagina web: <https://www.lut.fi/web/en/get-to-know-us/contact-details/data-protection>

Ai sensi dell'articolo 5 di il Regolamento generale sulla protezione dei dati (UE) 2016/679 ("GDPR"), il trattamento dei dati personali effettuato per l'esecuzione delle attività di ricerca indicate nel Foglio Informativo saranno improntate ai principi di liceità, correttezza, trasparenza, limitazione delle finalità, minimizzazione dei dati, accuratezza, limitazione della conservazione, integrità e responsabilità.

A tal fine si prega di leggere la seguente Informativa sulla privacy (di seguito "**Informativa sulla privacy**") che spiega come verranno elaborati e protetti i tuoi dati personali dal Titolare.

Qualsiasi termine indicato in maiuscolo ha il significato ad esso attribuito all'interno del GDPR, o altrimenti previsto nel presente documento. Tuttavia, in caso di dubbi, non esitare a rivolgere la richiesta di chiarimenti al punto di contatto fornito di seguito nella sezione "Dettagli di contatto".

### **Informazioni di contatto**

Se hai domande sul questionario o sul progetto stesso, non esitare a contattare:

Data Protection Officer (LUT University)	Ethical Manager (IMPULSE)
Anne Himanka, consulente legale	Dr. Antonio Carnevale
dataprotection@lut.fi	a.carnevale@cyberethicslab.com
+ 358 50564 4623	

### **Titolare del trattamento**

Il Titolare del trattamento dei tuoi dati personali sarà LUT University.

### **Trattamento dei dati personali e base legale**

Il Titolare tratterà solo i Dati Personali che tu deciderai volontariamente e direttamente di fornire e / o divulgare allo stesso Titolare in relazione e / o in relazione al questionario o colloquio e ai quali hai accettato di rispondere concedendo il tuo consenso tramite la Scheda Informativa.

Il Titolare raccoglierà e tratterà Dati Personali quali, ad esempio, alcuni tuoi dati relativi al tuo nome, informazioni di contatto, ecc.

La base giuridica in base alla quale il Titolare tratterà i tuoi Dati Personali sarà il tuo consenso libero e informato al trattamento dei dati stesso da te fornito spuntando le caselle "**consenso**" fornite alla Fine della presente pagina. Tieni presente che sei libero di dare il tuo consenso oltre che di negarlo.

#### **Finalità del trattamento dei dati**

Il Trattamento dei tuoi Dati Personali sarà limitato nella misura necessaria allo svolgimento delle attività di ricerca indicate nell'Informativa che ti è stata presentata nella pagina precedente, e per le quali hai prestato il tuo libero e volontario consenso.

Qualsiasi altro ulteriore trattamento dei tuoi dati personali sarà escluso senza il tuo previo consenso.

#### **Destinatari dei dati personali e trasferimento dei dati personali**

I Suoi Dati Personali potranno essere condivisi, per le finalità di cui alla sezione "Trattamento dei Dati Personali e base giuridica" di cui sopra, con:

- Soggetti, enti o autorità a cui il Consorzio e / o suoi i partner sono obbligati a comunicare i propri dati personali ai sensi di qualsiasi legge applicabile.
- Potremmo anche condividere informazioni su di te con la Commissione Europea o con le autorità legali e/o le autorità fiscali di competenza, per motivi legittimi.
- I tuoi Dati Personali non saranno condivisi con altri paesi al di fuori dello Spazio Economico Europeo.

#### **Conservazione dei Dati e Sicurezza dei Dati**

I Dati Personali trattati per le finalità di cui alla sezione "Finalità del trattamento" saranno conservati per il tempo strettamente necessario al raggiungimento delle finalità ivi indicate. In ogni caso, cancelleremo i tuoi Dati Personali al termine del Progetto. In ogni caso, per garantire il miglior livello di protezione dei tuoi Dati Personali, applicheremo internamente tutte le migliori misure di sicurezza fisiche e logiche, e i nostri server sono attestati presso i più affermati fornitori di cloud e protetti da misure di sicurezza all'avanguardia.

#### **Diritti dell'Interessato**

Ai sensi del Capitolo 3 del GDPR, hai i seguenti diritti in merito ai tuoi Dati Personali:

- **Diritto ad essere informato**
- **Diritto di accesso ai dati che riguardano l'interessato (art. 15)**
- **Diritto alla rettifica dei dati (Art. 16)**
- **Diritto alla cancellazione dei dati (Art. 17). Il diritto alla cancellazione non si applica se il trattamento è necessario per scopi di archiviazione nel pubblico interesse, per scopi di ricerca scientifica o storica o per scopi statistici se il diritto alla cancellazione impedisce o ostacola in modo significativo il trattamento dei dati**
- **Diritto di limitazione di trattamento (Art. 18)**
- **Diritto alla portabilità dei dati (Art. 20)**
- **Diritto a proporre reclamo**
- **Diritto a revocare il consenso**
- **Diritto ad opporsi al trattamento**

Se desideri esercitare uno qualsiasi di questi diritti, o desideri ricevere maggiori informazioni al riguardo, puoi contattare il nostro Responsabile della Protezione dei Dati utilizzando i dettagli di contatto sopra indicati.

#### **Modifiche della presente informativa**

Quando opportuno, ti notificheremo di ogni modifica a questa Informativa sulla Privacy, via e-mail. La presente Informativa sulla Privacy è stata aggiornata l'ultima volta in data 1 Marzo 2021.

#### **Consenso Informato**

**Fornisci il tuo consenso al Titolare del trattamento dei Dati Personali raccolti dalle tue risposte, in conformità con i termini e le condizioni sopra menzionati? \***

- Accetto  
 Rifiuto

**Accetti l'uso di risposte o citazioni anonime nelle pubblicazioni accademiche? \***

- Accetto  
 Rifiuto

Cliccando sul pulsante "Prossimo" di seguito, dichiari di aver letto e compreso tutte le informazioni di cui sopra, che hai avuto la possibilità di sollevare dubbi o domande, e di aver ricevuto tutti i chiarimenti e le risposte pertinenti alle tue domande.

#### **B.1.6**

#### **Spanish**

### **IMPULSE stakeholder questionnaire**

Estimado participante,

como parte del trabajo del proyecto IMPULSE, nuestro equipo de investigación debe realizar ciertas actividades en línea, como cuestionarios y entrevistas, para entender el contexto de los servicios de identificación electrónica (eID) en su comunidad local y en su país.

#### **Acerca del Proyecto**

Esta investigación es llevada a cabo por los miembros del equipo del proyecto "Identity Management in PUbLic Services" (en adelante "IMPULSE" o "Proyecto"). IMPULSE es un proyecto de investigación de 36 meses financiado por el Programa Horizonte 2020 de la Unión Europea. El Proyecto está compuesto por 16 socios europeos (en adelante el "Consorcio") y sus objetivos son:

1. Entender el panorama de las soluciones de eID existentes en los diferentes países europeos. El eID se refiere a las diferentes formas en que una persona puede probar su identidad para acceder y utilizar los servicios en línea.

2. Evaluar la adopción y el impacto de las soluciones de identificación electrónica basadas en la inteligencia artificial (IA) y la cadena de bloques (BC). La IA y la cadena de bloques son dos tipos diferentes de tecnología que se proponen para que la identificación electrónica sea más segura y fiable para las personas.

Para lograr estos objetivos de investigación, el Consorcio estudiará 6 casos piloto en los siguientes países: Bulgaria, Dinamarca, Islandia, Italia y España. Cada caso se diseñará utilizando los datos de los cuestionarios, las entrevistas y los talleres.

Nos gustaría destacar que:

- su participación en este estudio es totalmente voluntaria;
- usted es libre de negarse a responder a cualquier pregunta;
- es libre de retirarse en cualquier momento.

Le rogamos que responda a todas las preguntas por sí mismo. La información que proporcione será anónima. Las respuestas al cuestionario y los extractos de las entrevistas pueden formar parte de una o más publicaciones, pero no se incluirá ningún dato que pueda relacionarse personalmente con usted, como los nombres reales, sin su autorización.

Agradecemos su colaboración y esfuerzo.

#### **Aviso de privacidad para el cuestionario en línea**

Por favor lea las siguientes instrucciones y confirme su aceptación, marcando las casillas de verificación y presionando el botón "Siguiente" al final de esta página.

Es posible que en los cuestionarios o entrevistas que se le dirijan, se le soliciten Datos Personales.

Teniendo en cuenta esto, la Universidad LUT, en su calidad de Controlador de datos, se toma muy en serio su responsabilidad con respecto a la seguridad y privacidad de los Datos Personales y va a ser transparente sobre el tipo de datos que recoge y cómo los trata. Para saber más sobre la política de protección de datos de la Universidad LUT, visite la página web: <https://www.lut.fi/web/en/get-to-know-us/contact-details/data-protection>

De acuerdo con el artículo 5 del Reglamento General de Protección de Datos (UE) 2016/679 ("RGPD") el Tratamiento de los Datos Personales realizado para la realización de las actividades de investigación indicadas en la Ficha Informativa se basará en los principios de licitud, equidad, transparencia, limitación de la finalidad, minimización de datos, exactitud, limitación del almacenamiento, integridad y responsabilidad.

En este sentido, le rogamos que lea el siguiente Aviso de Privacidad (en adelante el "**Aviso de Privacidad**") que explica cómo serán tratados y protegidos sus datos personales por el Responsable del Tratamiento.

Cualquier término indicado en mayúsculas tendrá el significado que se le atribuye en el RGPD, o que se le atribuye en el presente documento. No obstante, si tiene alguna duda, no dude en dirigir su solicitud de aclaraciones al punto de contacto que se proporciona a continuación en la sección "Información de contacto".

**Información de contacto**

Si tiene alguna pregunta sobre el cuestionario o el propio Proyecto, no dude en ponerse en contacto con:

Responsable de Protección de Datos (Universidad LUT)	Responsable de Ética (IMPULSE)
Anne Himanka, Asesora Jurídica	Dr. Antonio Carnevale
dataprotection@lut.fi	a.carnevale@cyberethicslab.com
+358 50564 4623	

**Responsable del tratamiento de datos**

El responsable del tratamiento de sus datos personales será la Universidad LUT.

**Tratamiento de datos personales y base legal**

El Responsable del Tratamiento sólo tratará los Datos Personales que usted decida voluntaria y directamente proporcionar y/o revelar al mismo Responsable del Tratamiento en relación y/o con el cuestionario o la entrevista y que usted aceptó responder otorgando su consentimiento a través de la Hoja de Información.

El Responsable del Tratamiento recogerá y tratará Datos Personales como, por ejemplo, algunos de sus datos relativos a su nombre, información de contacto, etc.

La base legal en virtud de la cual el Responsable del Tratamiento tratará sus Datos Personales será su consentimiento libre e informado para el tratamiento de los mismos, otorgado por usted al marcar las **casillas de consentimiento** previstas al final de la presente página. Tenga en cuenta que usted es libre de dar su consentimiento así como de negarlo.

**Finalidad del tratamiento de datos**

El Tratamiento de sus Datos Personales se limitará a lo necesario para realizar las actividades de investigación indicadas en la Hoja Informativa que se le presentó en la página anterior, y para las que usted dio su consentimiento libre y voluntario.

Cualquier otro tratamiento de sus Datos Personales quedará excluido sin su consentimiento previo.

**Destinatarios de los Datos Personales y cesión de los mismos**

Sus Datos Personales podrán ser compartidos, para las finalidades referidas en el apartado "Tratamiento de Datos Personales y base legal" anteriormente mencionado, con:

- Sujetos, organismos o autoridades a los que el Consorcio y/o sus socios estén obligados a comunicar sus datos personales en virtud de cualquier ley aplicable.
- También podemos compartir su información con la Comisión Europea o con las autoridades legales y/o fiscales competentes por razones legítimas.
- Sus datos personales no se compartirán con países fuera del Espacio Económico Europeo.

**Conservación y seguridad de los datos**

Aquellos Datos Personales tratados para las finalidades expuestas en el apartado "Finalidades del tratamiento de datos" serán conservados durante el tiempo estrictamente necesario para alcanzar los fines allí expuestos. En cualquier caso, eliminaremos sus Datos Personales al finalizar el Proyecto. En cualquier caso, para garantizar el mejor nivel de protección de sus Datos Personales aplicaremos todas las mejores medidas de seguridad física y lógica a nivel interno, y nuestros

servidores están suscritos a los proveedores de nube más consolidados y protegidos mediante medidas de seguridad de última generación.

### **Derechos de la persona interesada**

De conformidad con el capítulo 3 del RGPD, usted tiene los siguientes derechos en relación con sus datos personales:

- **El derecho a ser informado**
- **El derecho a acceder a los datos que le conciernen (artículo 15)**
- **El derecho a la rectificación de los datos (artículo 16)**
- **El derecho a la supresión de los datos (artículo 17). El derecho de supresión no se aplicará si el tratamiento es necesario para fines de archivo en interés público, fines de investigación científica o histórica o fines estadísticos, si el derecho de supresión impide o dificulta considerablemente el tratamiento de los datos**
- **El derecho a restringir el tratamiento (artículo 18)**
- **El derecho a la portabilidad de los datos (artículo 20)**
- **Derecho a presentar una reclamación**
- **Derecho a retirar el consentimiento**
- **El derecho a oponerse al tratamiento**

Si desea ejercer alguno de estos derechos, o si desea recibir más información al respecto, póngase en contacto con nuestro responsable de protección de datos a través de los datos de contacto indicados anteriormente.

### **Cambios**

Cuando proceda, le notificaremos por correo electrónico cualquier cambio en la presente Política de Privacidad. Este Aviso de Privacidad fue actualizado por última vez el 1 de marzo de 2021.

### **Consentimiento Informado**

**¿Da usted su consentimiento para que el Responsable del Tratamiento trate los Datos Personales recogidos a partir de sus respuestas, de acuerdo con los términos y condiciones mencionados anteriormente? \***

- Acepto  
 Deniego

**¿Está de acuerdo con el uso de respuestas o citas anónimas en publicaciones académicas? \***

- Acepto  
 Deniego

Al hacer clic en el botón "Siguiete", declara que ha leído y comprendido toda la información mencionada, que ha tenido la posibilidad de plantear dudas o preguntas y que ha recibido todas las aclaraciones y respuestas pertinentes a sus preguntas.

## B.2 Online questionnaire

**In which country (and community) do you live? \***

- Bulgaria
- Denmark
- Iceland
- Italy
- Spain (Basque Country)
- Spain (Asturias)

Bulgaria: In the following questions, we will use the term **[public service]** to refer to the **application for a certificate of change of permanent address**

A permanent address is the address in the settlement that a person chooses to be entered in the civil register. For a Bulgarian citizen living abroad, the permanent address is always on the territory of the Republic of Bulgaria. Each person can have only one permanent address. This means that if you have lived in Germany for 15 years, for example, but you are still a Bulgarian citizen, your permanent address will be in Bulgaria. A permanent address is required when a Bulgarian citizen applies for an ID card or Passport. A certificate of a permanent address is issued by the respective local administration (municipality), on the territory of which is located the address pointed by the citizen.

For citizens of Peshtera municipality, the service is available in digital format on the following link under the number 22:

[https://www.peshtera.bg/index.php?option=com\\_content&view=article&id=5489&Itemid=208](https://www.peshtera.bg/index.php?option=com_content&view=article&id=5489&Itemid=208)

Danmark: I de følgende spørgsmål bruger vi udtrykket **[borgerservice]** som henvisning til Dokumentskabet.



Borgerservice har en række aflåste skabe. Disse indeholder en række af mindre skuffe. Skufferne kan låses op med en digital nøgle, af borgerne. Borgerne kan få adgang til ad aflåste skuffer ved hjælp af en digitalnøgle. Skufferne indeholder borgernes personlige fysiske dokumenter, i dag bruges skabene til udlevering af fx kørekort, mm

Ísland: Í eftirfarandi spurningum notum við hugtakið **[opinber þjónusta]** um lýðræðisgátt Reykjavíkurborgar, **Betri Reykjavík**.

Sjá <https://betrireykjavik.is/domain/1>

Italy: In the following questions, we will use the term **[public service]** to refer to the **Enterprise Digital Drawer**, provided by InfoCamere and the Union of Italian Chambers of Commerce.

Entrepreneurs can use the “Digital Drawer” to check information about their business, also from their smartphone or tablet. The available information are the following: company profile, financial statements, status about requests to the public administration, digital invoices and others.

This service is available at: <https://impresa.italia.it/>

Spain (Basque Country): In the following questions, we will use the term **[public service]** to refer to **Ertzaintza's online service for collecting complaints**.

This is an interdepartmental service that allows citizens to file a complaint remotely, which is registered in the services of the investigation units of all the police stations throughout the territory. Once it has been filed, and later validated in person within a period of less than 72 hours, in accordance with the law on criminal prosecution, the complaint is transferred to the court for validation and subsequent processing.

This service is available at: <https://www.ertzaintza.eus/lfr/es/web/ertzaintza/denuncias-por-internet>

Spain (Asturias): In the following questions, we will use the term **[public service]** to refer to the **Gijón app**, provided by the Ayuntamiento of Gijón.

Currently, you can pay municipal bills, request appointments, obtain a housing certificate, or check movements through this app. In the short-term, it will also allow you to submit official registrations, book sports facilities, enroll in sports, cultural courses, and more. In the medium-term, we are planning to enable new features for citizen participation through the same app. Today more than 18,000 people are using it.

This app is available at: <https://www.gijon.es/app>

**How familiar are you with [public service]? \***

- Very familiar, I know well what it is and how it works
- Somewhat familiar, I have some idea of what it is or how it works
- Not familiar, I do not know what it is or how it works.

**Where did you find out or hear about [public service]?**

(mark all that apply)

- Directly from the public administration website
- Ads on another website
- News media (TV, radio, newspaper, magazine, etc.)
- Banners or posters
- A friend or family member told me about it
- I am part of the development or management team
- Other (explain which)

**How did you learn how to use [public service]?**

(mark all that apply)

- I followed the instructions from the website or Frequently Asked Questions (FAQs) page
- I found somewhere else a news article about it
- I contacted the public administration directly (via chat, phone, etc.)
- A friend or family member explained me how to use it
- I am part of the development or management team
- I do not know how to use it, or I am not sure how to use it
- Other (explain which)

**What type of device(s) do you use to access [public service]?**

(mark all that apply)

- Personal computer or Laptop (Microsoft Windows)
- Personal computer or Laptop (Mac)
- Personal computer or Laptop (Linux)
- Mobile phone or Tablet (Google Android)
- Mobile phone or Tablet (Apple iOS)
- I do not access the service electronically, it is a face-to-face service directly done at the physical offices (e.g, using paper forms, speaking to a public officer, etc.)
- Other (explain which)

**Customer journey (cont.)**

The following questions help us understand how you verify your identity, in order to access and use [public service]

**Which of the following method(s) do you use to log in, verify your identity, or access [public service]? \***

(mark all that apply)

- eID based on bank credentials
- eID based on mobile phone app or certificate
- eID based on another electronic device or token (e.g., USB stick, code generator, etc.)
- Automatic login with social media account (e.g., Facebook, Google, etc.)
- User name and password only
- Personal identity card (physical ID card)
- I can access without logging in, authenticating, or verifying my identity
- Other (explain which)

**From the methods listed above, which one do you use the most to access [public service]? \***

(choose only one option)

- eID based on bank credentials
- eID based on mobile phone app or certificate
- eID based on another electronic device or token (e.g., USB stick, code generator, etc.)
- Automatic login with social media account (e.g., Facebook, Google, etc.)
- User name and password only

- Personal identity card (Physical ID card)
- I can access without logging in, authenticating, or verifying my identity
- Other (explain which)

**Think about your overall experience when trying to access [public service] using the chosen method. On a scale of 1 to 5, how much do you agree with the following statements?**

(1=Fully disagree, 5=Fully agree)

	1=Fully disagree	2=Disagree	3=Neutral, no opinion	4=Agree	5=Fully agree
it helps me save my time *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it helps me complete the tasks I need to do *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it is easy to use and does not require too many steps *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it works without errors *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it is quick to find and get access to it *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it is easy to learn how it works or how to use it *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it has a simple user interface or screens that are easy to follow *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

it uses simple language or words that are easy to understand *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can use or access it from anywhere *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it always reminds me how it works, or explains me what is happening next *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can ask questions or give feedback about it *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My personal data is safe when I use it *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know other people who use it *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**If you answered '1=Fully disagree' or '2=Disagree' to any of the options above, please explain why**

**Who owns the selected eID solution used for accessing [public service]? If there is no eID solution available or you are unsure about the answer, you can skip this question.**

Public

Private

- Public-Private Partnership
- Other (explain which)

**As a member of the development or management team, on a scale of 1 to 5, how much do you agree with the following statements about the selected eID solution used for accessing [public service]? If there is no eID solution available, you can skip this question.**

(1=Fully disagree, 5=Fully agree)

	1=Fully disagree	2=Disagree	3=Neutral, no opinion	4=Agree	5=Fully agree
it is easy to develop or integrate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it is easy to maintain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it has good response times	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it aligns well with existing standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it works well in different types of devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it can be easily adapted to different use purposes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
its current benefits justify the investments or costs so far	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
it complies with the eIDAS regulation and can be used by citizens from other EEA-/EU-member countries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**Please provide the following information that will help us categorize your answers**

(This question is optional)

Organization / Company

Job Title / Occupation

City

**What is your age?**

(This question is optional. We ask this information because the IMPULSE Project is focused on making eID solutions more inclusive for different segments of society)

- 17 years or younger
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65 years or more
- Prefer not to answer



**With which of the following gender options do you identify?**

(This question is optional. We ask this information because the IMPULSE Project is focused on making eID solutions more inclusive for different segments of society)

- Female
- Male
- Prefer not to answer
- Prefer to self-describe

**In case we would like to know more about your opinions, can we contact you for a follow-up interview? \***

- Yes
- No

**Please provide this additional information, so that we can contact you later in case of a follow-up interview**

First name \*

Last name \*

Email \*

## B.3 Email invitation to interviews

### B.3.1 English

Dear [...],

on behalf of the Horizon 2020 IMPULSE research consortium, thank you for answering to our online questionnaire. I would like to invite you to a short follow-up interview during May or June, in order to understand better your opinions about the use of electronic identification (eID) for accessing digital public services in your country.

The interview would take between 30 and 45 minutes and will be done online via Microsoft Teams, by me or another one of my colleagues at LUT University. The language used will be English (but I can also arrange the interview in Spanish, if you feel more comfortable with it). All your answers will remain anonymous and no personal data like real names will be shared with others without your explicit permission.

If you agree to this invitation, please choose your preferred time slot in this form:

After booking the appointment, you will receive a separate email invitation with the online meeting link.

Best regards,

Dear [...],

on behalf of the Horizon 2020 IMPULSE research consortium, thank you for answering to our online questionnaire. I would like to invite you to a short follow-up interview during May or June, in order to understand better your opinions about the use of electronic identification (eID) for accessing digital public services in your country.

The interview would take between 30 and 45 minutes and will be done face-to-face in the administrative building of Peshtera Municipality at 17 Doyranska Epopeya street, town of Peshtera, or online via Microsoft Teams, by a representative of Peshtera Municipality. The language used will be Bulgarian. All your answers will remain anonymous and no personal data like real names will be shared with others without your explicit permission.

If you agree to this invitation, simply reply to this email by saying "yes" or "I agree" and then Mr. Georgi Simeonov (included in the cc-field, tel.: +359 889 803275) will coordinate directly with you a time slot for this interview in the following 3 weeks.

Best regards,

### B.3.2 Bulgarian

Уважаеми [...],

от името на проектните партньори от научен проект ИМПУЛС по програма Хоризонт 2020, Ви благодаря, че отговорихте на нашия онлайн въпросник. Бих искал да ви поканя на кратко последващо интервю през месец май или юни, за да разберем по-добре вашето мнения относно използването на електронна идентификация (eID) за достъп до електронни обществени услуги във вашата страна.

Интервюто ще отнеме между 30 и 45 минути и ще бъде направено онлайн чрез Microsoft Teams, от мен или от някой от моите колеги от университет Лют. Използваният език ще бъде английски (но

мога да уредя интервюто и на испански, ако се чувствате по-добре с него). Всички ваши отговори ще останат анонимни и никакви лични данни като истински имена няма да бъдат споделяни без ваше изрично разрешение.

Ако се съгласите с тази покана, моля, изберете предпочитания от вас времеви интервал в тази форма: След резервиране на срещата ще получите отделна покана по имейл с връзката за онлайн среща. С най-добри пожелания,

Уважаеми/а [...],

от името на проектните партньори от научен проект ИМПУЛС по програма Хоризонт 2020, Ви благодаря, че отговорихте на нашия онлайн въпросник. Бих искал да ви покана на кратко последващо интервю през месец май или юни, за да разберем по-добре вашето мнение относно използването на електронна идентификация (eID) за достъп до електронни обществени услуги във вашата страна.

Интервюто ще отнеме между 30 и 45 минути и ще бъде направено на живо в административната сграда на Община Пещера на ул. Дойранска Епопея 17, гр. Пещера или онлайн чрез Microsoft Teams, от представител на Община Пещера. Използваният език ще бъде български. Всички ваши отговори ще останат анонимни и никакви лични данни като имена няма да бъдат споделяни без ваше изрично разрешение.

Ако се съгласите с тази покана, моля само да отговорите с „да“ или „съгласявам се“ и г-н Георги Симеонов (в копие на това имейл съобщение, тел.: +359 889 803275), ще се свърже с Вас за да определи подходящо време за интервю в следващите 3 седмици.

С най-добри пожелания,

### B.3.3 Danish

Kære [...],

på vegne af Horizon 2020 IMPULSE-forskningskonsortiet, tak for svaret på vores online spørgeskema. Jeg vil gerne invitere dig til en kort opfølgningssamtale i løbet af maj for bedre at forstå dine erfaringer om brugen af elektronisk identifikation (eID) til at få adgang til digitale offentlige tjenester i dit land.

Interviewet tager mellem 30 og 45 minutter og gennemføres online via Microsoft Teams af mig eller en anden af mine kolleger på LUT University. Det anvendte sprog er engelsk (men jeg kan også arrangere interviewet på spansk, hvis du føler dig mere komfortabel med det). Alle dine svar forbliver anonyme, og ingen personlige data som rigtige navne deles med andre uden din udtrykkelige tilladelse.

Hvis du accepterer denne invitation, skal du vælge den tid der passer dig bedst her:

Efter booking af aftalen modtager du en separat e-mail-invitation med linket til online møde.

Med venlig hilsen

### B.3.4 Icelandic

Fyrir hönd Horizon 2020 IMPULSE rannsóknarteymisins, þökkum við þér fyrir að svara spurningalistanum okkar á netinu. Við viljum bjóða þér í stutt framhaldsviðtal í maí til að skilja betur upplifun þína af notkun stafrænna auðkenna (eID) sem veita þér aðgang að stafrænni opinberri þjónustu í þínu landi.

Viðtalið mun taka á bilinu 30 til 45 mínútur og mun fara fram á netinu í gegnum Microsoft Teams. Ég eða kollegar mínir við LUT háskólann munu taka viðtalið sem verður á ensku. Öll svör þín verða ónafngreinanleg og engum persónulegum gögnum eða raunverulegum nöfnum verður deilt með öðrum án sérstaks samþykkis þíns.

Ef þú samþykkir þetta boð skaltu velja þann tíma sem hentar á þessu formi:

Eftir að við höfum ákveðið tímasetningu, færðu sérstakt tölvupóstboð með tengil á fundinum á netinu.

### B.3.5 Italian

Caro [...],

a nome del consorzio di ricerca Horizon 2020 IMPULSE, ti ringraziamo per aver risposto al nostro questionario online. Vorremmo invitarti ad una breve intervista di approfondimento nel mese di Maggio, al fine di comprendere meglio le tue opinioni sull'utilizzo di sistemi di identificazione elettronica (eID) per l'accesso ai servizi pubblici digitali nel tuo paese.

L'intervista durerà dai 30 ai 45 minuti e verrà svolta online tramite Microsoft Teams, da me o da uno dei miei colleghi della LUT University. L'intervista sarà condotta in inglese (ma possiamo anche organizzare il colloquio in spagnolo, se lo preferisci). Tutte le tue risposte rimarranno anonime e nessun dato personale, come nomi reali, sarà condiviso con altri senza il tuo esplicito consenso.

Se decidi di accettare questo invito, scegli pure la fascia oraria preferita in questo modulo:

Dopo aver prenotato l'appuntamento, riceverai un'e-mail di invito separata con il collegamento alla riunione online.

Cordiali saluti

### B.3.6 Spanish

Estimado/a [...],

a nombre del consorcio de investigación del proyecto Horizon 2020 IMPULSE, muchas gracias por haber respondido a nuestro cuestionario en línea. Por medio de este correo, quisiera extender la invitación a una breve entrevista de seguimiento durante el mes de Mayo o Junio, con el propósito de entender mejor sus opiniones sobre el uso de identificación electrónica (eID) para acceder a los servicios públicos digitales en su país.

La entrevista tiene una duración aproximada de entre 30 y 45 minutos y se llevará a cabo a través de Microsoft Teams. Yo seré el entrevistador, o en caso de no estar disponible, las preguntas las realizará otra de mis colegas de la Universidad LUT. El idioma que utilizaremos durante la entrevista es inglés (pero si prefiere, también podemos mantener la conversación en Español). Todas sus respuestas permanecerán anónimas y ninguna información personal como nombres o apellidos será compartida con otros sin su explícito consentimiento.

Si está de acuerdo con aceptar esta invitación, le agradecería reservar su fecha y hora preferida a través de este formulario:

Después de reservar la cita, recibirá un nuevo correo electrónico con el enlace para acceder a la videollamada.

Saludos,

## B.4 Online interview protocol

### Instructions

1. Greet the interviewee(s) and thank them for their time
2. Explain aim and goals of research project
3. Recap rights of the participant, described in “Privacy Notice and Consent Form”
4. Ask for confirmation before starting to record the interview

### Questions for all stakeholders

*This is a guideline for conducting semi-structured interviews. The questions shown below are only aimed at providing general guidance on the main topics of discussion. Not all the same questions need to be asked to every interviewee and the order in which the questions are presented can vary.*

#### Introduction and ice breaker questions

- How are you today?
- Can you briefly introduce yourself, by telling us your name, age, and current occupation?
- Level of familiarity with IMPULSE project
  - How you find out or learn about IMPULSE project?
  - How familiar are you with the topic and objectives of the project?
- Level of familiarity with eID
  - Are you familiar with electronic identification (eID)? If so, what kind of eID have you already used before?
  - If the answer is no, can you briefly explain why have you not used or tried eID before?
  - How would you rate your prior knowledge and expertise about eID?

#### Current eID needs

*(If the participant is familiar with eID and has used it before. Otherwise move to next section)*

- What is the primary eID method that you use to authenticate to [digital public service related to the study case]?
- Perceived usefulness and overall user experience
  - Have you previously experienced any significant challenges or difficulties to access [digital public service related to the study case] using that eID method? If so, can you explain which challenges or difficulties have you faced?
  - In what other contexts do you use that same eID method, besides when you want to access [digital public service related to the study case]?
  - Is it useful, practical, or convenient for you to rely on that eID method for other purposes? Why yes or why not?

- In your opinion, does this eID method require any changes or improvements from a user perspective (e.g., to make it easier or faster to use)? If so, which improvements should be done and why?
- Level of adoption and social acceptance
  - Overall, how common, or how widely adopted is that eID method in (1) your country or (2) local community?
  - Do you know other people (e.g., family, friends, co-workers, etc.) using eID for [digital public service related to the study case]?
  - Do you think it is generally perceived by others as useful, practical, or convenient? Why yes or not?

#### Acceptance and trust

Our research project focuses on electronic identification solutions based on two technologies: 1) Face recognition using artificial intelligence and 2) blockchain.

- Face recognition based on AI
  - How familiar are you with face recognition based on artificial intelligence?
  - How secure, trustworthy, or reliable do you think that face recognition technologies are?
  - What do you think are the benefits?
  - What do you think are the risks?
  - What do you think about the idea of using face recognition technologies to prove your identity and access public services online?
- Blockchain
  - How familiar are you with blockchain?
  - How secure, trustworthy, or reliable do you think that blockchain technologies are?
  - What do you think are the benefits?
  - What do you think are the risks?
  - What do you think about the idea of using blockchain technologies to prove your identity and access public services online?

#### Interest in IMPULSE solution and future activities of the project

As part of the IMPULSE project, we are planning to test a mobile app that combines face recognition features with blockchain to authenticate into public services. The idea is that you would hold your phone camera in front of your face, the app will recognize your identity, and will allow you to login to [digital public service related to the study case].

- What are your first thoughts or impressions about this idea? Is this something that you would be willing to use and if so, why yes or why not?
- Would you be interested in testing the IMPULSE solution next year?