POSEIDON

THE POSEID-ON PROJECT

"PROTECTION AND CONTROL OF SECURED INFORMATION THROUGH A PRIVACY ENHANCED DASHBOARD"

Workshop on Privacy Challenges in Public and Private Organizations, IFIP Summer School on Privacy and Identity Management, August 19-23, 2019 in Brugg/Windisch, Switzerland

Presenter:
Alessandra Bagnato, Softeam

21ST AUGUST 2019, UNIVERSITY OF APPLIED SCIENCES NORTHWESTERN SWITZERLAND (FHNW)

BRUGG/WINDISCH, SWITZERLAND

Funded by Horizon 2020
Framework Programme of the European Union

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INTRODUCTION

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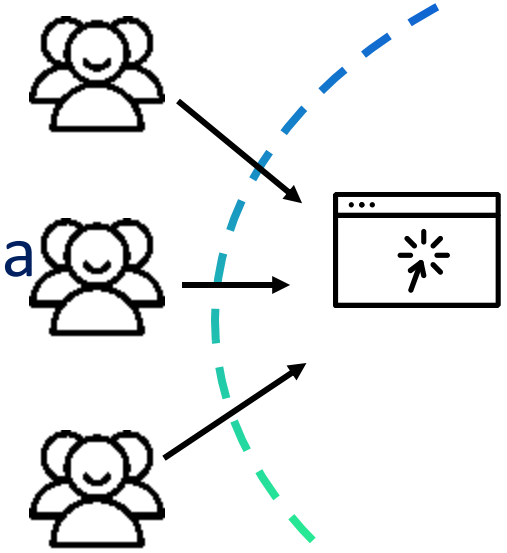
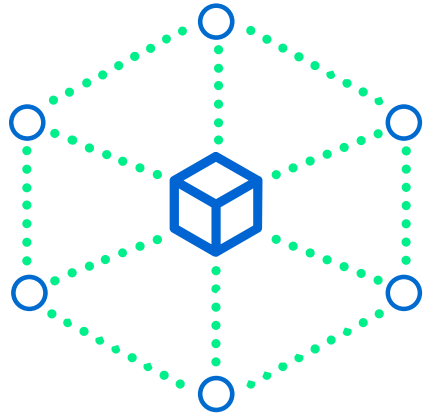
THE POSEID-ON PROJECT

“Protection and control of Secured Information through a privacy enhanced Dashboard”

Users

Personal data monitoring and traceability





Permissioned Blockchain

Private and Public Organizations

Implementation of GDPR Principles

POSEID-ON PROJECT

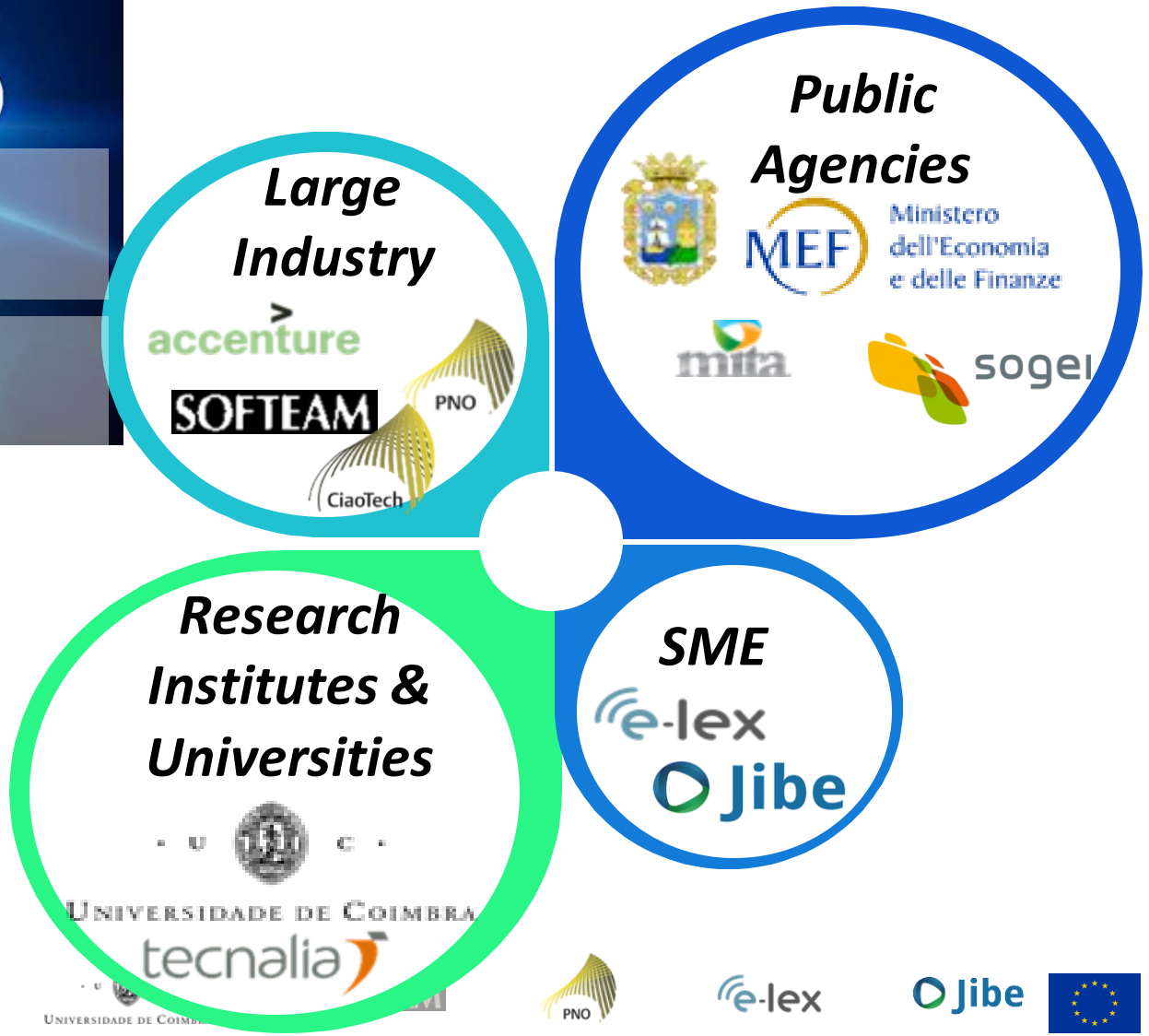
GRANT AGREEMENT NUMBER: 786713
H2020-DS-2016-2017/ DS-08-2017

Protection and control of Secured Information by means of a privacy enhanced Dashboard

- innovative intrinsically scalable platform
- integrated and comprehensive solution aimed to safeguard the rights of data subjects
- exploiting the cutting-edge technologies of Smart Contracts and Blockchain
- support organisations in data management and processing
- ensuring GDPR compliance

POSEID-ON CONSORTIUM

Perfect integration between private and public organizations



POSEID-ON PROJECT PILOTS

Ministero dell'Economia e delle Finanze

SANTANDER CIUDAD

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MALTA INFORMATION TECHNOLOGY AGENCY

SOFTEAM

tecnalia Inspiring Business

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EXCELLENCE & AMBITION

GDPR COMPLIANT

Right to access

Data portability

Rectification

Right to be forgotten

Restriction of processing

SOCIETAL IMPACT

Support for Fundamental Rights

Increased Trust and Confidence

Increased use of privacy-by-design

DATA ETHICS

Data Minimization Principle

Privacy Exposure Alert

Data Access Authorization

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IMPACT & OPPORTUNITIES

IMPACT ON USERS

- ✓ **Increased trust** in the Digital Single Market
- ✓ **Simplified access to an increased number services and procedures**
- ✓ Easier interaction with public entities

BENEFITS FOR PUBLIC ENTITIES

- ✓ Integration of existing IT protocols, practices and technologies
- ✓ **Simplification of bureaucratic procedures**

BUSINESS OPPORTUNITIES FOR PRIVATE ENTITIES

- ✓ **New services, new customers and new professional profiles**
- ✓ Integration with public entities
- ✓ Less responsibility when managing clients' personal data
- ✓ **GDPR compliance**

APPROACH
TACKLING CHALLENGES AND ARCHITECTURE

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THE USER COMES FIRST NO EXCEPTIONS

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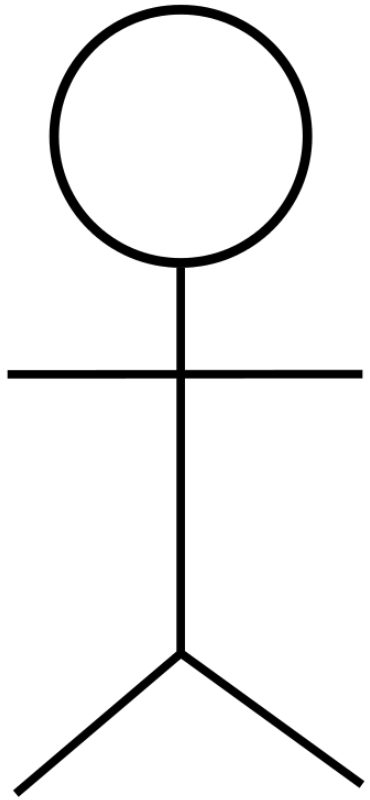
WHO IS THE USER?



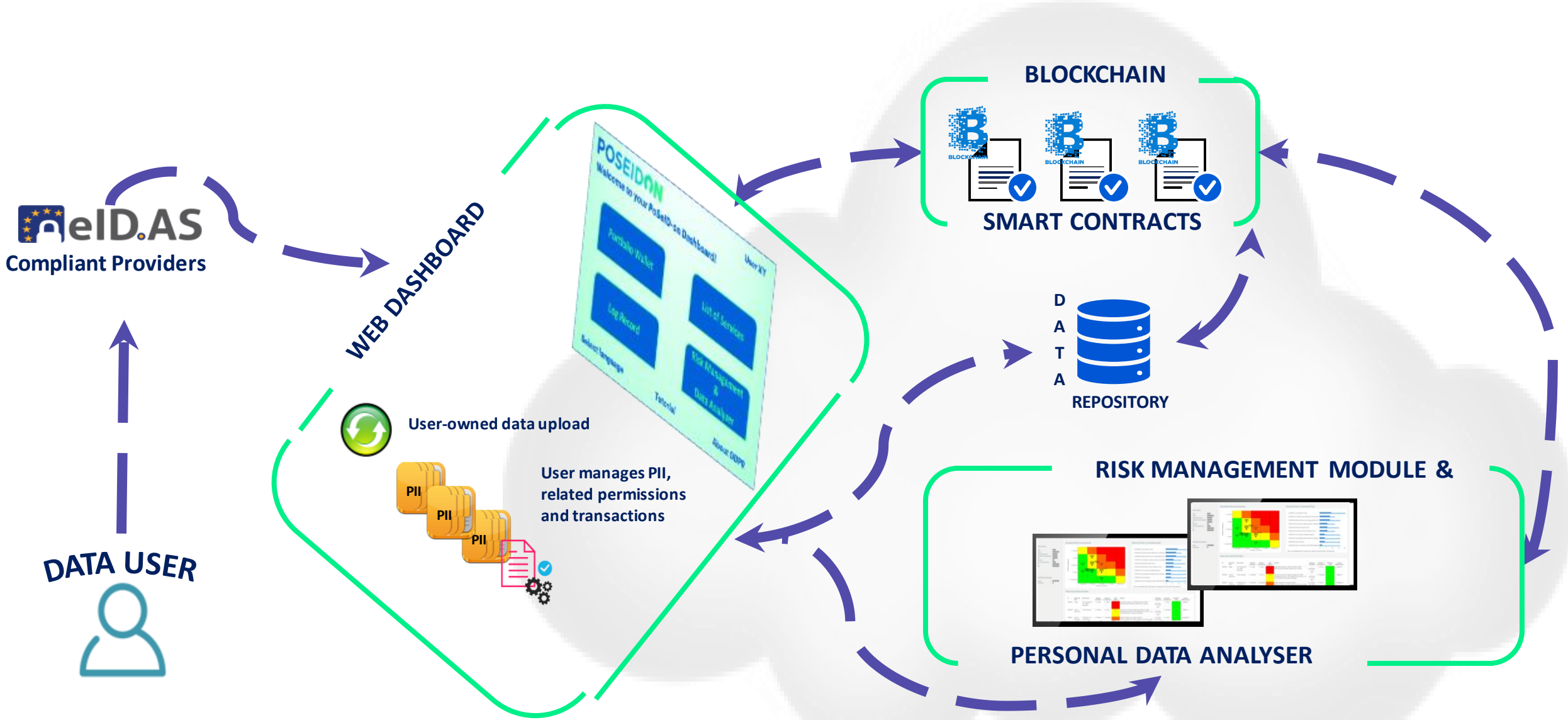
Every European citizen

WEB-BASED

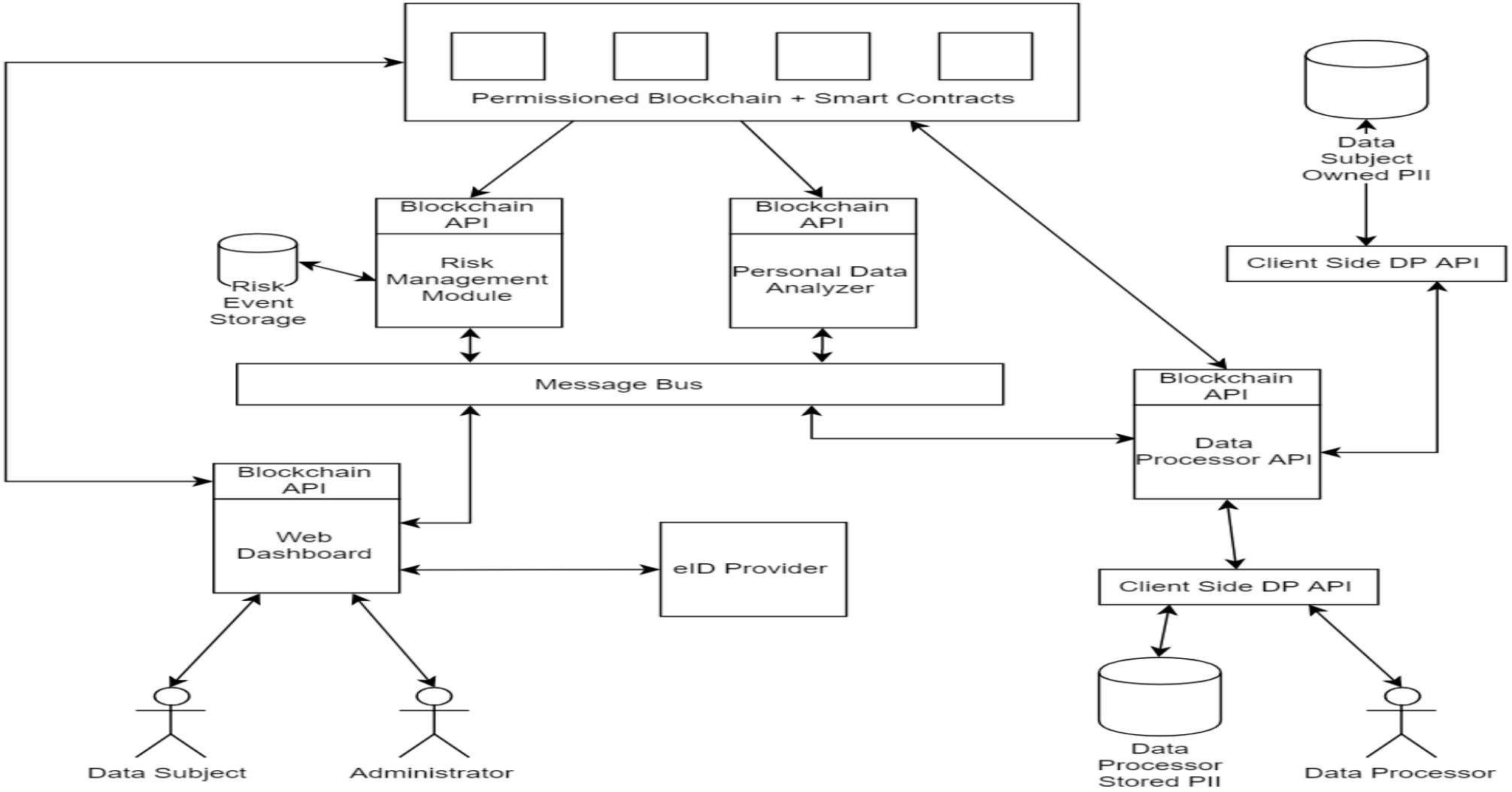
Only a Web Browser is needed

- Targeting the most common application platform in the world
- Reaching the largest group of users
- Open standards

ARCHITECTURE (1/2)



ARCHITECTURE (2/2)



EXAMPLE OF USE CASE: PRIVATE ORGANIZATIONS

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SVE “PRIVACIZ CONSENT” TOOL FROM SOFTEAM

PRIVACIZ CONSENT IS A TOOL DEDICATED TO SOFTEAM’S CUSTOMERS TO ENABLE THEM TO APPLY FOR A CLAIM ABOUT THEIR PERSONAL DATA.

- WITH THE E-CITIZ PLATFORM, SOFTEAM PROPOSES THE SVE (“SAISINE PAR VOIE ELECTRONIQUE” WHICH MEANS SEIZURE BY ELECTRONIC WAY), AN ESERVICE PRODUCT ALLOWING USERS TO APPLY FOR A CLAIM OR ANY SORT OF DEMAND TO THE COMPANY.
- THIS ESERVICE CAN BE CUSTOMIZED FOR VARIOUS APPLICATIONS AND IS FOR NOW CLOSE TO THE MARKET OF EGOVERNMENT DUE TO A REGULATORY CONSTRAINT ON MUNICIPALITIES IN FRANCE.
- SVE CAN BE USED AS WELL BY EGOVERNMENT STRUCTURE AS PRIVATE COMPANIES.
- THE POINT OF INTEREST ON THE SVE SERVICE IS ABOUT PERSONAL INFORMATION BECAUSE FOR EVERY APPLICATION, THE USER (CITIZEN OR CUSTOMER) HAS TO FILL SOME PERSONAL DATA (FIRSTNAME, LASTNAME, POSTAL ADDRESS …) ON EVERY CLAIM.

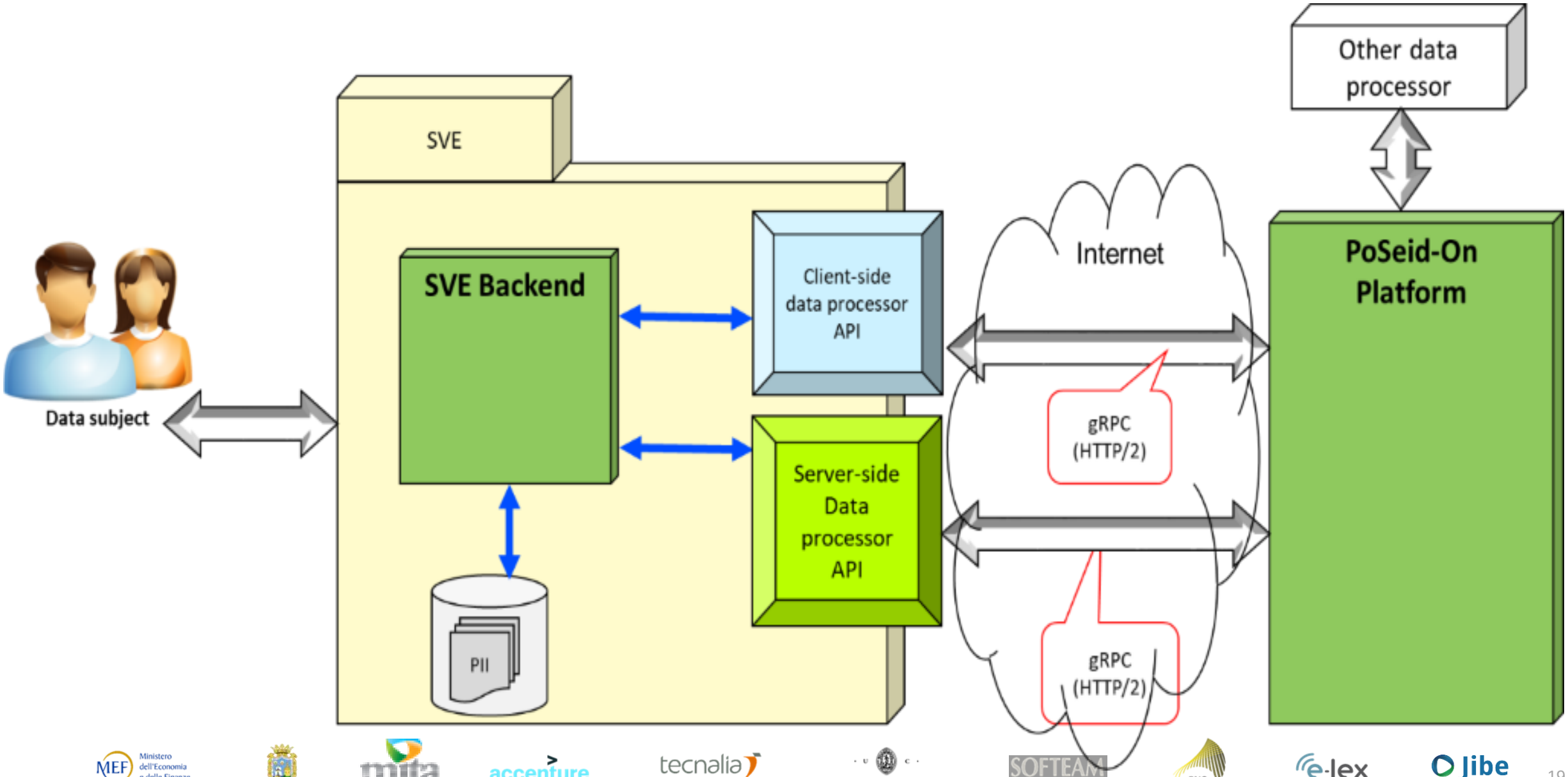
SVE “PRIVACIZ CONSENT” TOOL FROM SOFTEAM

WITH THE GDPR, SOFTEAM’S CUSTOMERS, EMPLOYEES, SUPPLIERS, CONTACTS… CAN ASK SOFTEAM TO ACCESS/MODIFY/DELETE THEIR PERSONAL INFORMATIONS.

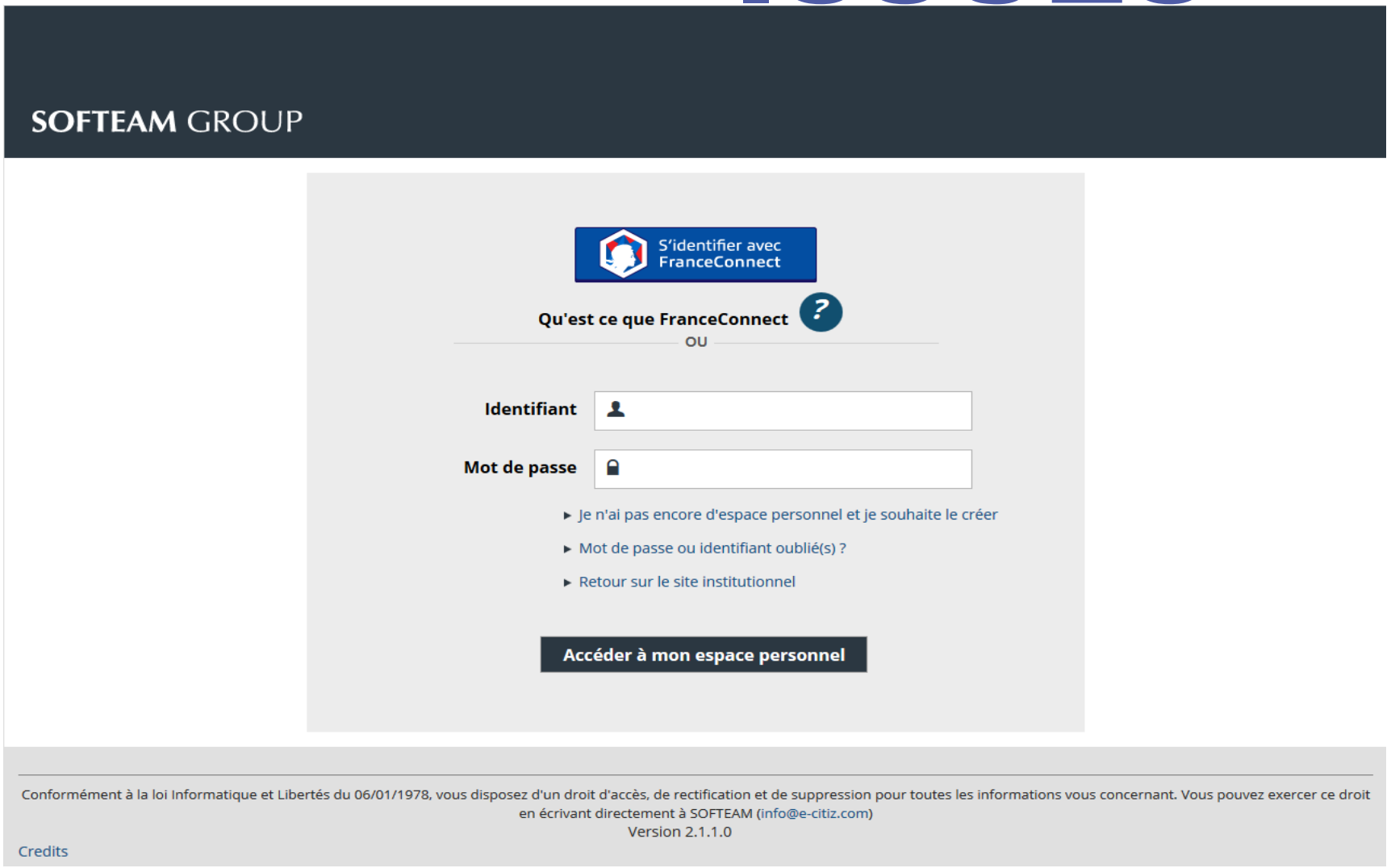
TO APPLY FOR THIS, PHYSICAL PERSONS HAVE TO IDENTIFY THEMSELVES AND GIVE SOME OF THEIR PERSONAL INFORMATION USED TO RECOGNIZE THEM AND VERIFY THEY ARE ALLOWED TO ACCESS PERSONAL INFORMATION THEY CLAIM TO OWN.

THIS IS WHERE POSEIDON WILL BE USED FOR.

TECHNICAL ENVIRONMENT

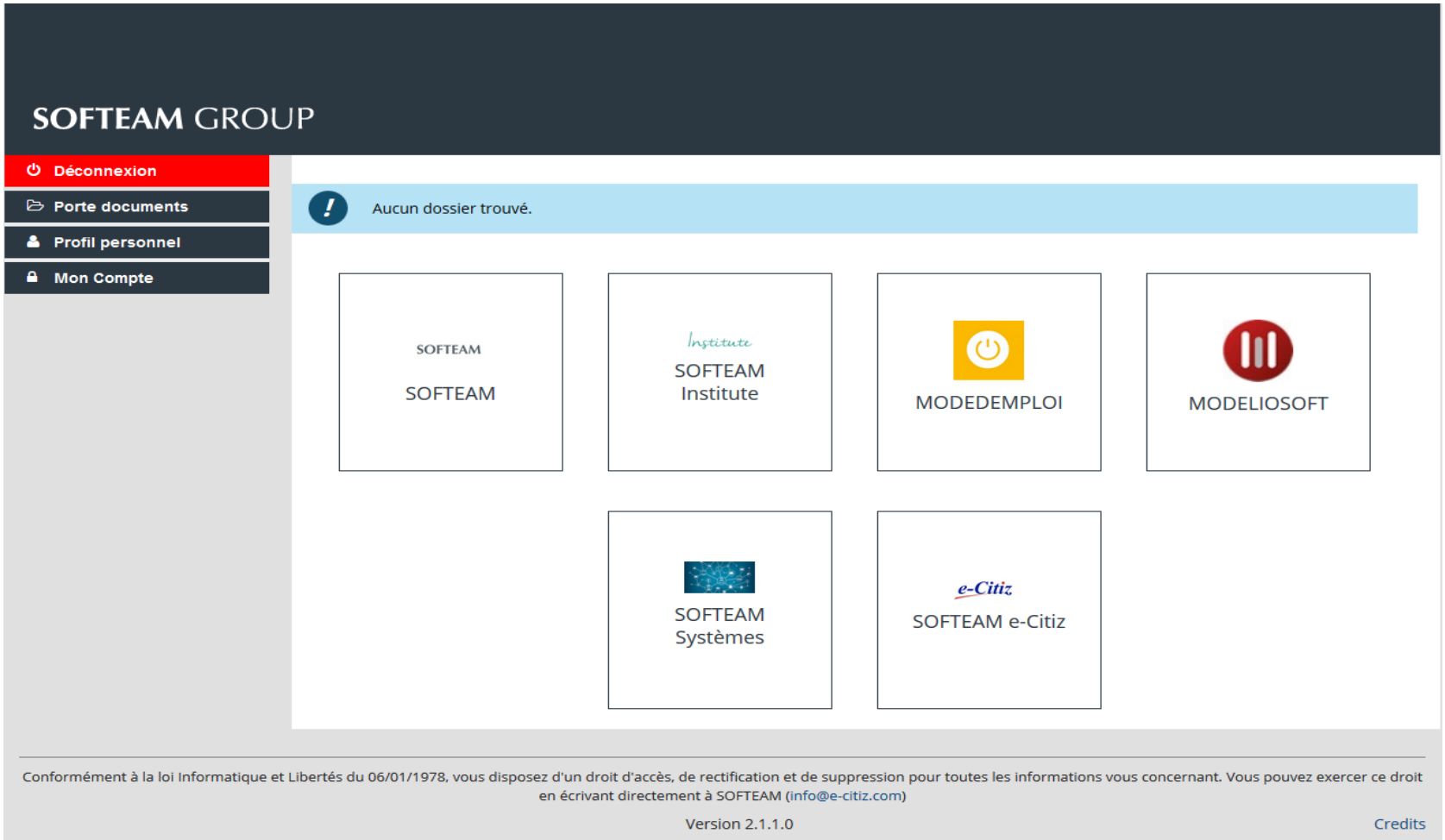


SCENARIOS DESCRIPTION & ISSUES



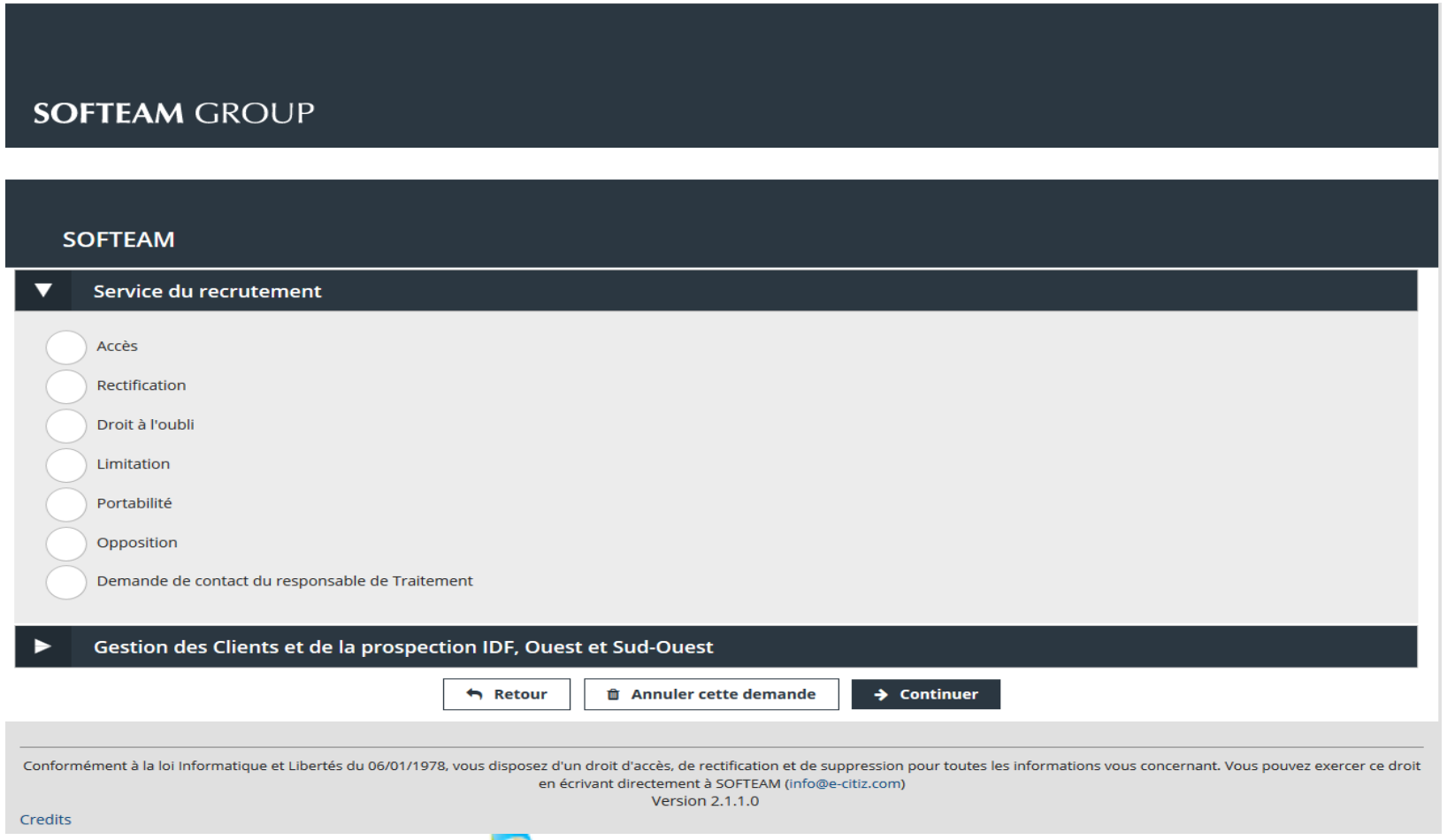
ACCOUNT CREATION ON PRIVACIZ

SCENARIOS DESCRIPTION & ISSUES



SELECT ENTITY TO EXPRESS GDPR RIGHT

SCENARIOS DESCRIPTION & ISSUES

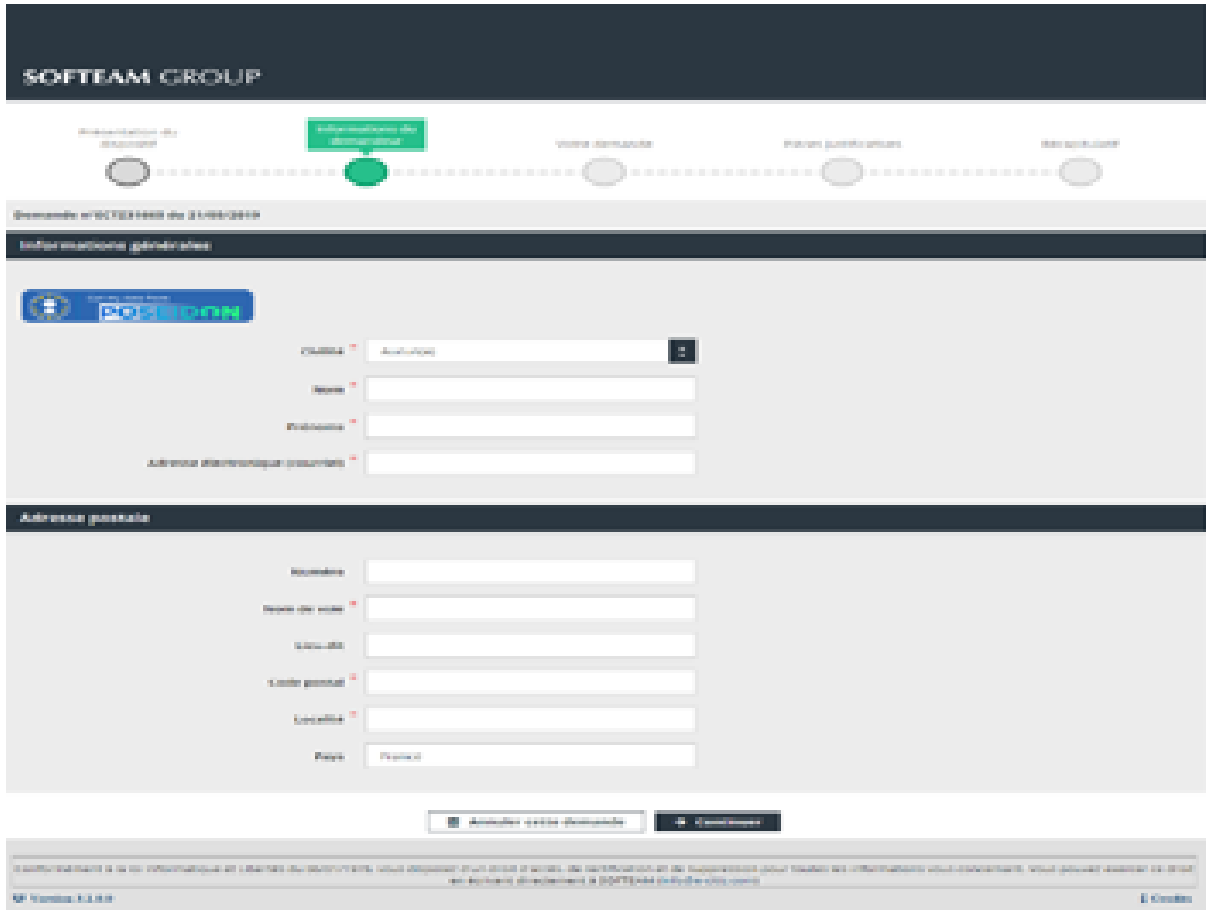


WHICH RIGHT TO EXPRESS ?

SCENARIOS DESCRIPTION & ISSUES

NEEDED INFORMATION TO FULFIL THE PROCESS

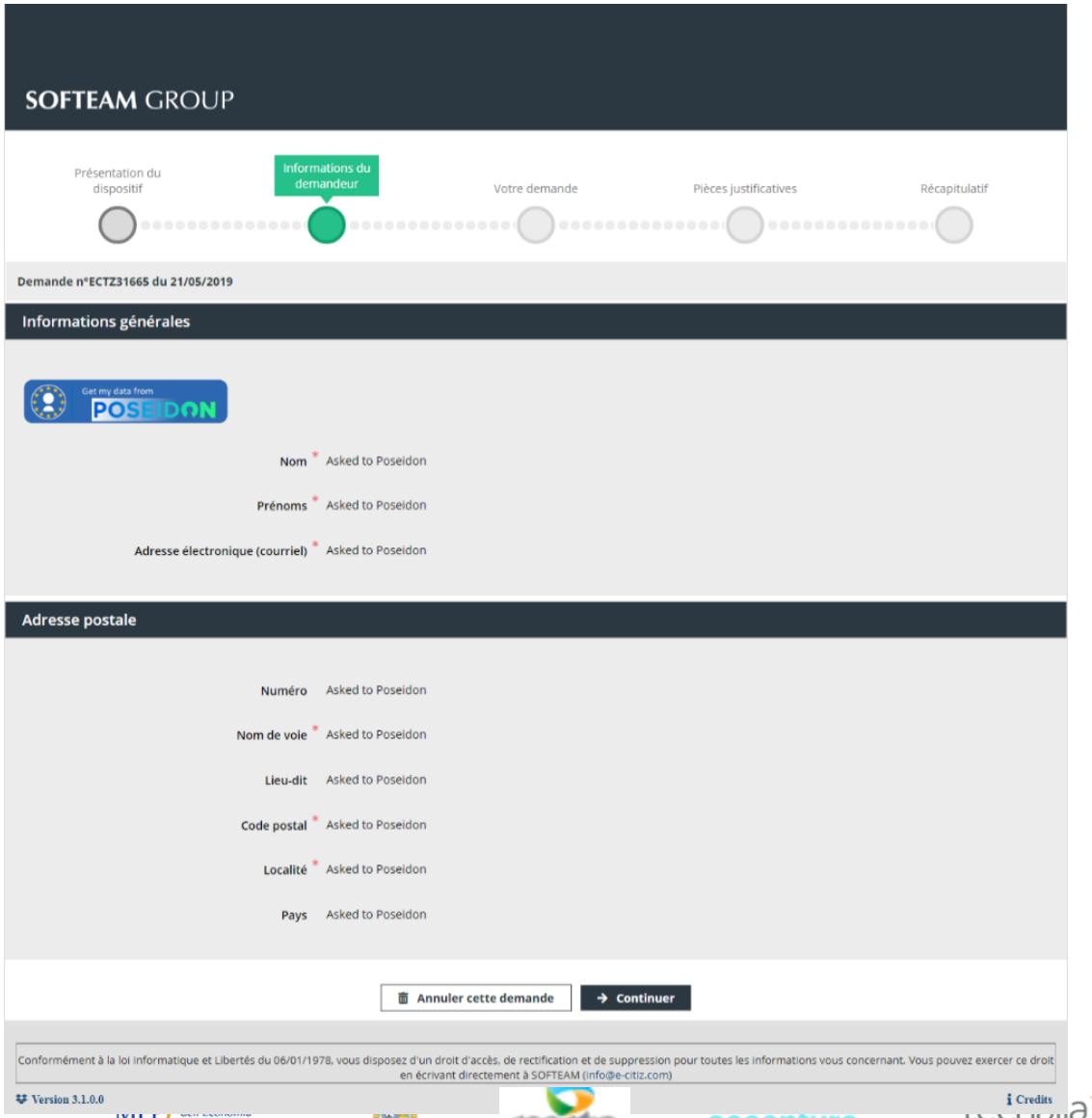
SCENARIOS DESCRIPTION & ISSUES



Get my data from POSEIDON

THE USER CAN LET POSEID-ON FILL THE FIELDS

SCENARIOS DESCRIPTION



AFTER IDENTITY PAIRING (POSEIDON & PRIVACIZ), DATA WILL COME FROM POSEIDON

PATH FOR EVALUATION

- EVOLUTIONS ON THE PRIVACIZ TOOL TO INTEGRATE POSEIDON ACCESS TO THE DASHBOARD
- IMPLEMENT THE DATA PROCESSOR (CLIENT PART)
- IMPLEMENT THE DATA PROCESSOR (SERVER PART)
- FIRST EVALUATIONS TO PROVIDE FEEDBACK

EXAMPLE OF USE CASE PUBLIC ORGANISATION

OVERVIEW

The General Administration, Personnel and Services Department (DAG) of the Italian Ministry of Economy and Finance (MEF) is in charge of the management of payroll functions for approximately 2.1 million Italian public sector employees. This service is provided through a unique payroll function, NoiPA – which annually manages more than €51 billion in payments.

NoiPA is a portal created to manage administrative and economic data of central and peripheral Public Administration employees. Therefore, NoiPA has a big experience in personal data management.

The NoiPA pilot will be based on some of its services. It will imply the customization of these services to integrate PoSeID-on solution to provide the users with a single platform for personal data management, as well as to support NoiPA to be compliant with the GDPR.

BUSINESS APPROACH

PoSeID-on records immutably users' consent to the processing personal data while using/requesting a NoiPA service and inform the user about its own data treatment.

ADDED VALUE FOR THE MEF (and third parties)

- **Increased transparency** in data management **enhances users' trust**
- **Ensured GDPR compliance** (secure registration of consent)
- In the middle run: **possibility to increase the number of services** for NoiPA users

ADDED VALUE FOR THE USER

- **Increased awareness** about what personal data he/she gives the consent to the processing and to which entity
- Consent to the processing of personal data is requested in a **transparent, simple and user-friendly way**
- Consent to the processing of personal data is registered **securely and immutably**
- **Third parties cannot claim the use of other types personal data**

SCENARIOS

Two scenarios for 3 NoiPA services

THREE SERVICES ACCESSIBLE FROM NoiPA

1. **Residence address**
2. **IBAN upload/update via NoiPA based application**

SCENARIO 1

- The use gives the consent to data processing to NoiPA. This is stored in PoSeID-on platform
- The user is aware of data collection and treatment (including eventual personal data transfer to other entities according the law)
- User does not exit from NoiPA in its journey

3. **Insurance policy subscription provided by Reale Mutua Assicurazioni**

SCENARIO 2

- The user gives consent to a third party for data treatment. This is stored in PoSeID-on platform
- User goes to a third party website (Reale Mutua)

DATA MANAGEMENT

Data flows and consents

SCENARIO 1 – RESIDENCE/IBAN

- The personal data is provided to and remains within NoiPA.
- Poseidon stores the change/insertion of the data and the fact that the user has given to NoiPA the consent to its treatment.

THERE IS NO TRANSFER OF PERSONAL DATA BETWEEN NoiPA AND POSEIDON.

The user is informed of the fact that data is eventually transferred from NoiPA to other entities (e.g. INPS) according to the applicable legislation.

SCENARIO 2 – INSURANCE

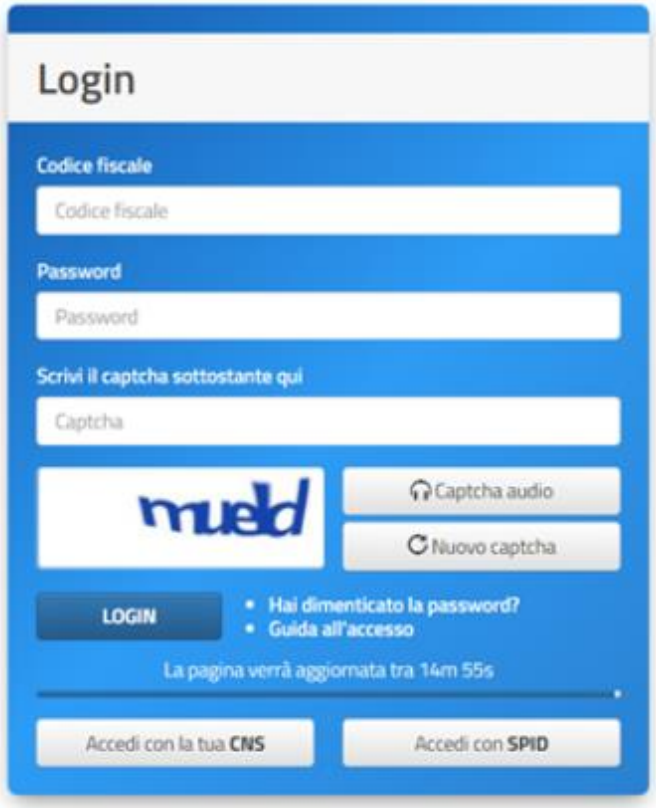
- The personal data is provided to and remains within Reale Mutua.
- Poseidon stores the consent to the processing of data that the user has provided to Reale Mutua.
- To use the service, the user goes through NoiPA.

THERE IS NO TRANSFER OF PERSONAL DATA BETWEEN NoiPA, REALE MUTUA AND POSEIDON.

The user provides the consent of the processing of the data to Reale Mutua for using the service.

SCENARIO 1 AS-IS (1/2)

Residence address / IBAN upload or update via NoiPA based application



SCENARIO 1 AS-IS (2/2)

Residence address / IBAN upload or update via NoiPA based application

SCENARIO 1 TO-BE (1/3)

Residence address / IBAN upload or update via NoiPA based application through PoSeID-on

- **Adding a button "Store my consensus on PoSeID-on"**

An information note on PoSeID-on that the user can open - if interested - will also be inserted in each NoiPA window.

SCENARIO 1 TO-BE (2/3)

Residence address / IBAN upload or update via NoiPA based application through PoSeID-on

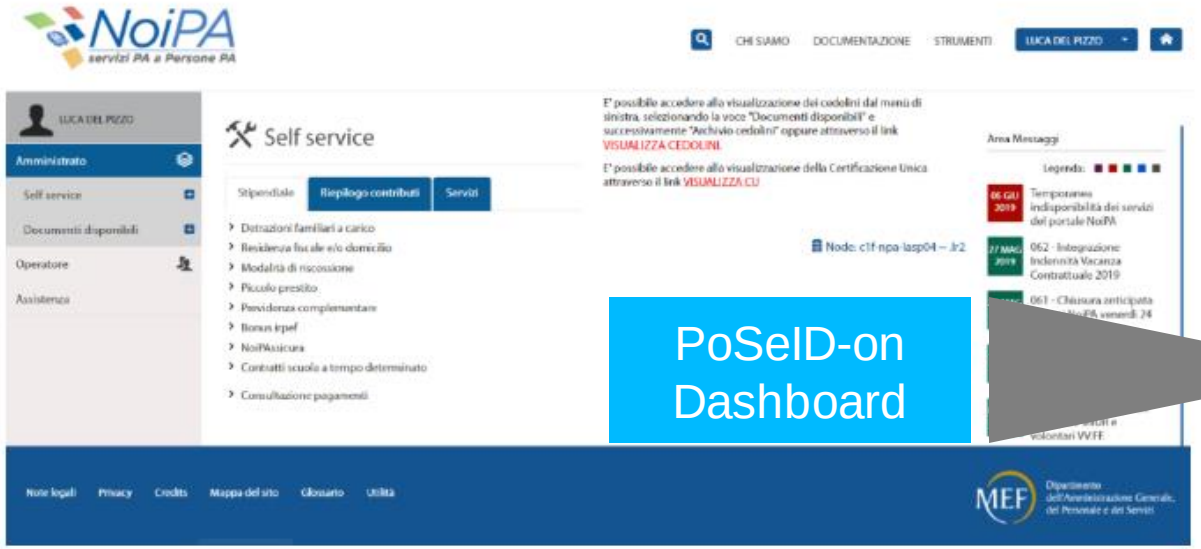
- **Add a button "Store my consensus on PoSeID-on" allows to communicate with the PoSeID-on Platform in order to store the User's consensus in an immutable way.**

A box will be inserted asking the user to:

- **Give the consent to the processing of personal data** entered/modified
- **Take note** of the fact that **personal data is transmitted by NoiPA to other entities** (INPS, etc.) according to the current legislation.

SCENARIO 1 TO-BE (3/3)

Residence address / IBAN upload or update via NoiPA based application through PoSeID-on



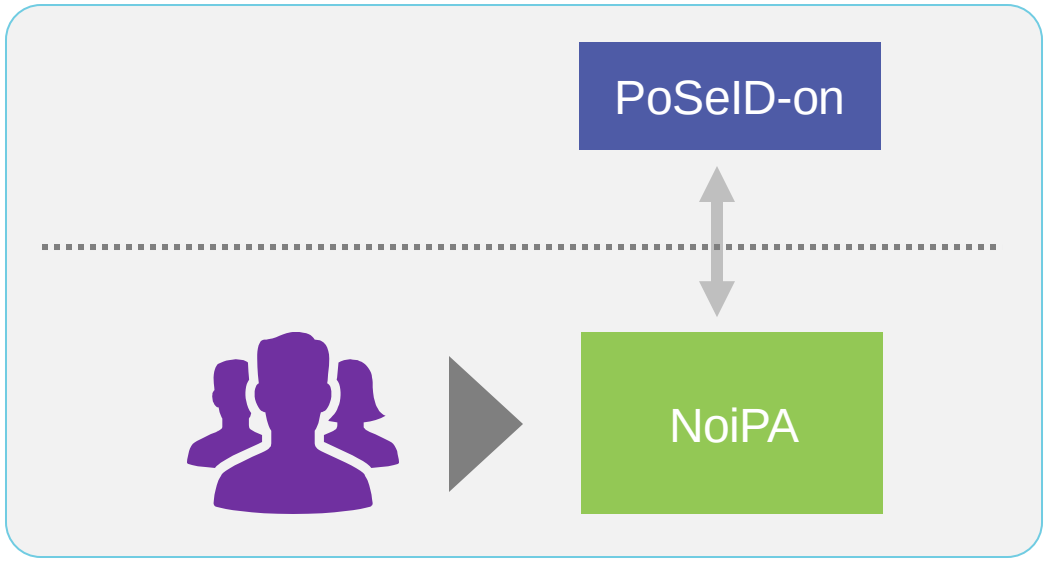
TBD: Dashboard

- A fixed dashboard is added to NoiPA to **inform the user** about which personal data is in possession of the system and eventually to which other (public / private) entities data is transmitted according to the current legislation (e.g. INPS).

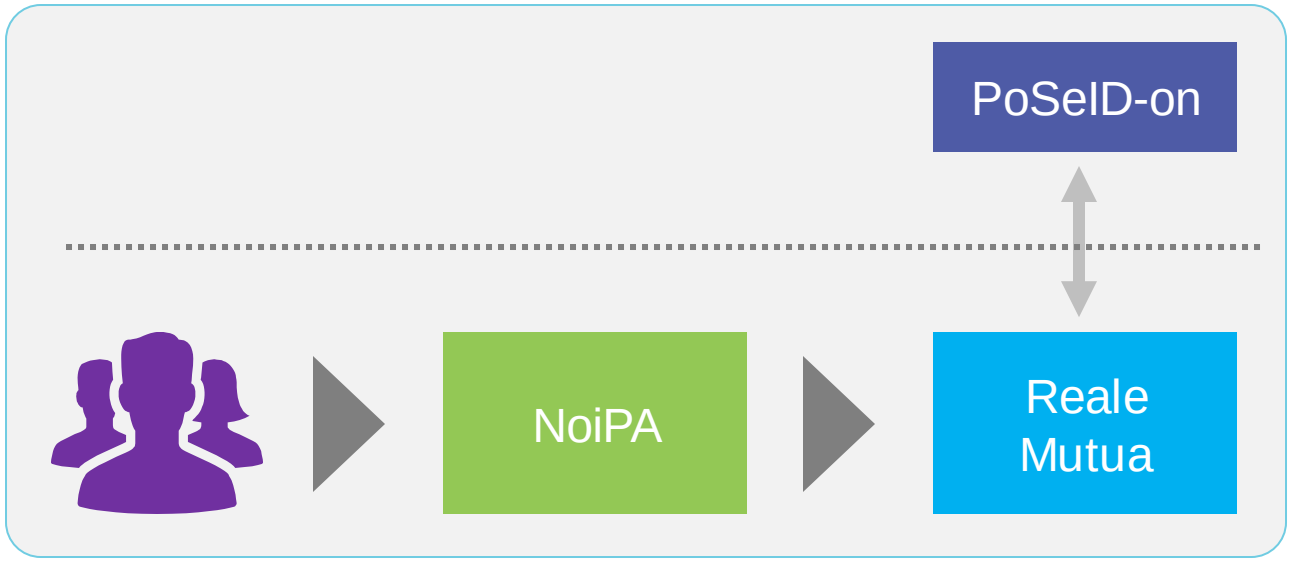
USER JOURNEY & INTEGRATION STRATEGY

It's important to guarantee to the final user **a simple usage experience**, avoiding the "shift" between too many different systems (i.e. the NoiPA environment, the Reale mutua one, the PoSeID-on Platform): the working hypothesis is to **integrate the applications by only using APIs**. The final user will not interact directly with the PoSeID-on platform but only indirectly through NoiPA and Reale Mutua.

SCENARIO 1 – RESIDENCE/IBAN



SCENARIO 2 – INSURANCE



FOCUS: INTEGRATION STRATEGY

How PoSeID-on is integrated

FOR BOTH SCENARIOS

- **PoSeID-on is integrated through APIs**.
- A button opens the request of consent to data processing.
- PoSeID-on memorizes this operation.

APIs

Work in Progress!

OUR INITIATIVE IN THE EU CONTEXT

PoSeID-on in line with latest European Parliament resolution about Blockchain technologies

✓PoSeID-on: Blockchain and GDPR may coexist together

PoSeID-on supports the delivery of Digital Public Services

✓Support the delivery of cross-border **digital public services** through the establishment of a **European Blockchain Services Infrastructure** after the **European Blockchain Partnership**

PoSeID-on has been accepted by the EU Blockchain Observatory and may contribute to accelerate the digitalization of the EU

✓Our initiative was made known to the newly launched **EU Blockchain Observatory and Forum**

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THANK YOU FOR YOUR ATTENTION

and enjoy the *IFIP* Summer School on Privacy and Identity Management!!!!