What is innovative about the working environment used for the integration of all the PoSeID-on modules?

The adoption of a blockchain-based paradigm has allowed for the integration of modules facilitating data management. The PoSeID-on distributed platform allows parties to share PII in a safe way and in compliance with European laws and regulations, ensuring personal data integrity, availability and confidentiality and limiting data processing to authorized subjects only. The PoSeID-On platform is innovative and allows for a paradigm shift, focusing on the data subject and its treatments.

Last May POSEIDON has achieved its first year of activity. What’s next?

We have gone from writing the screenplay to recording the movie. It’s time to implement what we have designed and thought out these past twelve months.
And how will data be safely managed by the Platform’s integrated components?

PoSeID-on guarantees security at different levels. Access to components is given in accordance to EIDAS standards. Communications are encrypted with adequate encryption algorithms and data is protected with advanced encryption mechanisms, ensured by the adoption of blockchain technologies. In order to monitor all data on the platform, PoSeID-on has two modules based on AI algorithms that work for data discovery, data classification and risk evaluation purposes.

How will the PoSeID-on Platform enable users to manage their PII?

Through the user-friendly, web-based Privacy Enhanced Dashboard, users will have full control over their personal data and make conscious decisions about who can process them and for which purpose, by giving, restricting or revoking access permissions in accordance to the data minimization principle.
How does the integration of the POSEIDON platform with partners’ systems (NOIPA, etc.) benefit end users?

Poseidon platform integration will, on a first hand, allow end users to have a clear view on what kind of personal information is stored and used by a service, and on a second hand, help end user to share very easily his personal information between services with a fine-grained control and the ability to suspend any sharing.

What is innovative about the 4 use case scenarios developed within WP6? How the participation on the pilots will benefit the involved entities at both technical and business levels?

The innovative part about the 4 pilots consists in exporting all the management of Personal Data in an external service such as Poseidon. It will allow to clearly identify authorizations needed by the services but also ease the end user to share his personal information between services across Europe.

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After the first year, the technical parts specifications are done and the developing work is ongoing. The next year will allow the first demonstration of the Poseidon platform to refine the needs and the integration with the pilots.
What are the innovative aspects of the functionalities of the RMM (Risk Management Module) and the PDA (Personal Data Analyzer) to secure the Data Privacy when applied to PoSeID-on platform?

The Risk Management Module novelty revolves around the identification of privacy exposure risks by using anomaly detection on system logs and operational information, which, as far as we know, is a completely novel area. In addition, we will score data processors based on their interaction with data subjects' PII and interaction with the PoSeID-on system, according to the anomaly detection results. Additionally, the implementation of an open-source module for log anomaly detection, with a complete pipeline ready for production, is also a major contribution to both the log anomaly detection field and the privacy field, with the concrete application of results for the purpose of privacy enhancement.

On the other hand, the Personal Data Analyzer is a fully GDPR-compliant monitoring module for personal data transactions (PII). Its innovation relies on the kind of guarantees it provides, while processing of personal information: it never stores any information and only processes PII with the explicit consent provided by data owners. To achieve this goal, the PDA uses Natural Language Processing and Machine Learning to perform identification and classification of PII. Moreover, it provides privacy analysis and scores based on the types of PII exchanged, their sensitiveness, the reputation of the involved Data Processors, and privacy metrics. Such guarantees are easily verified, since not only is it a fully GDPR-compliant tool, but it is also open source and, therefore, its code can be verified by anyone. Such combination of features results in a very innovative and transparent kind of application, that is capable of processing sensitive data while assuring privacy guarantees.
Last May POSEIDON has achieved its first year of activity. What’s next?

In its first year, the focus of POSEIDON was on the solution design and specification. POSEIDON is now at a crucial point in its work program: the development of interim implementation of key components, such as the permissioned Blockchain, smart contracts, blockchain API, message bus, Web Dashboard, Risk Management Module, and Personal Data Analyzer. These are due on July 31st. Final implementations of all of the POSEIDON components are due on month 24, that is, April 2020. Integration and testing of all components is already under way, and it will continue throughout the project lifetime. Another very important activity that is now starting is piloting and user evaluation. POSEIDON will be evaluated in four different pilots, namely at MEF, Santander, Softeam, and MITA.
We will soon be able to see a pretty structured version of the final dashboard, the main interface for the final User when using PoSeID-on: what is it going to mean really being able to manage our own data in the near future?

The interface provided to data subjects, for accessing the PoSeID-on platform, is a web-based application - named web dashboard - that provides access to the various types of operations performed by data subjects, such as, for instance, granting, modifying and revoking permissions for a specific data processor, checking the history of exchanges of their PII, and receiving alarms due to high privacy exposure risks. This human-oriented dashboard is the primary interface for data subjects, although in some situations other communication channels may be used according to the data subject preferences (e.g., receiving urgent alarms of privacy exposure via email or SMS). Access to the web-based dashboard is based on logging with the data subject’s national eID (or similar credentials, depending on the specific PoSeID-on instance) to reduce identity fraud and protect the privacy of users. The web dashboard also provides an interface for PoSeID-on administrators, although with a different set of functionalities and user interfaces.

PoSeID-on also aims to manage direct transactions of Personal Identifiable Information (PII) between data processors, with the consent of data subjects. In addition to providing tracking of PII exchanges and consent management, it will also provide the data subjects with a risk score or reputation associated with the data processors making use of their PII.