Results in Brief

Building a resilient data security ecosystem for the digital economy

EU-funded project aims to equip citizens with security and data management skills and ensure different sectors stay committed to data transparency.

The exchange and use of data are the basis for technological advancements, decision-making and personalised services in the current digital economy. But there are still challenges when it comes to data security, privacy and transparency. Often, citizens are unaware of the rights they have over their own data and distrustful of organisations and authorities.

A consortium of partners has come together in the EU-funded TRAPEZE project to restore trust in the digital economy by equipping citizens with security and data management skills and ensuring compliant data handling.

“TRAPEZE fosters a more secure and transparent data ecosystem, balancing individual privacy with organisational needs,” states Alexander Vasylchenko, TRAPEZE project coordinator.

Giving users control over their data
The consortium has developed a robust, scalable and ethically compliant framework, which includes sticky policies and a privacy dashboard.

The privacy dashboard is a web application that enhances transparency and user control over personal data. “It informs users about their data categories, processing purposes, legal rights, contact details of data protection officers and authorities, and provides GDPR-related definitions and Q&As on consent management,” lists Philip Raschke, who is in charge of the development of the TRAPEZE privacy dashboard.

Through the platform – which is operational and ready to be tested – users can easily manage their consent status for various purposes, as well as express data sensitivity.

Designed for simplicity and efficiency, the project’s architecture integrates different technologies. Blockchain is crucial for managing consent and ensuring data privacy. “It allows users to maintain anonymity while interacting transparently within the system, using approaches like the cryptographic method of zero-knowledge proofs and confidential transactions,” explains Dejan Paunović, responsible for the TRAPEZE system integration.

Linked data is used to help manage and govern data in alignment with GDPR requirements. In addition, the project’s explanation engine produces user-friendly documents using the lightweight data interchange format JSON, that handles compliance logic and directs the focus to the interface.

**Demonstration in the real world**

The project’s architecture was tested in three use cases in the telecom, financial and public sectors.

Digital Flanders, responsible for the digital strategy of the Flemish government, has developed ‘My Citizen Profile’, in which users can have control over their data, providing secure and standardised government data reuse and enhancing citizen-centricity.

In the financial area, CaixaBank is working on a ‘Customer ID Wallet’ to have direct and transparent communication with clients about the usage of their data. The bank’s goal is to streamline data sharing processes – such as verification of the customer’s identity – while improving data privacy and security.

Finally, the tools developed in TRAPEZE will be offered in Deutsche Telekom’s API marketplace. The idea is that the telecom operator includes a consent management tool in its customer centre, so customers can manage their consent and verify how their personal data is being used.
Impact on data security

“For citizens, TRAPEZE offers greater authority over personal data use. Service providers benefit from a streamlined, consent-based data sharing process. Data protection authorities gain a more robust framework for overseeing data use, while regulators receive tools for better compliance enforcement,” states Alexander Vasylchenko. “Additionally, governments can implement more citizen-centric services.”

The project will have its research expanded for broader adoption and integration, standardising transparent data practices across several industries.

Keywords

TRAPEZE, privacy, transparency, data security, digital economy, protection, GDPR, blockchain

Project Information

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Improve cyber security

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