Results

Project Information

TRAPEZE

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Secure societies - Protecting freedom and security of Europe and its citizens

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€ 6 017 950,00

EU contribution
€ 4 995 812,50

Coordinated by
TENFORCE
Belgium

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4 May 2020

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1 September 2020

End date
31 August 2023

Deliverables

Documents, reports (31)

Policy Language - First version
Syntax and semantics of the extended policy language taking into account the feedback of use cases, plus a complexity analysis pointing out the possible intractability of some reasoning tasks.
Citizen-centric use case scenarios - First version
Document detailing the use cases and data sharing scenarios provided by TRAPEZE partners.

Integrated platform testing - Second version
The results of the integrated platform testing will be documented and used to inform future releases of the platform.

Security & Privacy Awareness and Competence Testing - First version
A report on the results of security and privacy awareness and competence testing with the different participant groups.

TRAPEZE clustering and networking - Second version
Report on the TRAPEZE clustering and networking activities with a short assessment of the impact.

Sticky Policies - First version
Tamper-proof encoding and storage of the links between data and policies.

Roadmap for dissemination and communication
List of planned activities, their description, place, date and specific target audiences as well as the partners responsible.

Usability and accessibility testing report - Second version
A report on the results of usability and accessibility testing with the different participant groups.

Use case evaluation, user feedback, and lessons learnt - First version
Report on the pilot evaluations and user feedback along with methodological guidelines for future implementations.

Report on IPR/Exploitation activities and plan
Report summarizing the results of the IPExploitation workshops.

Usability and accessibility testing report - First version
A report on the results of usability and accessibility testing with the different participant groups.

Security & Privacy Awareness and Competence Testing - Second version
A report on the results of security and privacy awareness and competence testing with the different participant groups.

Privacy preferences and sociological aspects analysis - Second version
A report on the results of the survey on privacy preferences and sociological considerations in privacy-enhancing solution design

Privacy preferences and sociological aspects analysis - First version

A report on the results of the survey on privacy preferences and sociological considerations in privacy-enhancing solution design

Citizen-centric use case scenarios - Second version

Document detailing the use cases and data sharing scenarios provided by TRAPEZE partners.

Security and Privacy Resilience Framework and Guidelines - Second version

This document will include the requirements for and subsequent definition of the TRAPEZE security and privacy resilience framework as well as the guidelines for its application in relevant environments.

Standardization activities

Report on W3C standardization activities in terms of security and privacy vocabularies and taxonomies

Data Protection Requirements - Second version

The Report includes a depiction of legal and technical data protection fundamentals and the derived requirements for the project and its use cases.

Integrated platform testing - First version

The results of the integrated platform testing will be documented and used to inform future releases of the platform

Platform specification and design - Second version

Report on technical requirements and challenges T14 that arise in extending the SPECIAL concepts to cope with TRAPEZE requirements while ensuring scalability and security

Policy Language - Second version

Syntax and semantics of the extended policy language taking into account the feedback of use cases plus a complexity analysis pointing out the possible intractability of some reasoning tasks

Public penetration/hacking challenges - First version

Definition of the activities to perform during the public penetration and hacking challenges and of the expected results Reporting of the results

TRAPEZE clustering and networking - First version
Report on the TRAPEZE clustering and networking activities with a short assessment of the impact

**Collaboration with DPAs, CERTs, CSIRTs**

The report provides information on input provided lessons learned and core outcomes of the meetings with DPAs and CERTsCSIRTs. Depending on the requests of the collaboration partners, the report may be supplemented by a confidential section.

**Engine scalability properties - First version**

A report on the scalability tests applied to the compliance engines released in D24 and D29.

**Security and Privacy Resilience Framework and Guidelines - First version**

This document will include the requirements for and subsequent definition of the TRAPEZE security and privacy resilience framework, as well as the guidelines for its application in relevant environments.

**Engine scalability properties - Second version**

A report on the scalability tests applied to the compliance engines released in D24 and D29.

**Public penetration/hacking challenges - Second version**

Definition of the activities to perform during the public penetration and hacking challenges and of the expected results. Reporting of the results.

**Platform specification and design - First version**

Report on technical requirements and challenges (T1.4) that arise in extending the SPECIAL concepts to cope with TRAPEZE requirements while ensuring scalability and security.

**Data Protection Requirements - First version**

The Report includes a depiction of legal and technical data protection fundamentals and the derived requirements for the project and its use cases.

**Transparency and compliance checking algorithms - Second version**

Efficient algorithms for compliance checking and explanations supporting the extended policy language described in D21.

**Websites, patent fillings, videos etc. (4)**

**Project identity kit and web presence - Second version**
Project logo colours, poster, presentation and deliverable templates, and guidelines on the usage for dissemination and communication, along with a project website. The poster will be updated in M24 with relevant developments and results.

**Project communication material - Second version**

TRAPEZE project brochures, leaflets and posters. To be updated in M24 with relevant developments and results.

**Project communication material - First version**

TRAPEZE project brochures, leaflets and posters. To be updated in M24 with relevant developments and results.

**Project identity kit and web presence - First version**

Project logo, colours, poster, presentation and deliverable templates, and guidelines on the usage for dissemination and communication, along with a project website. The poster will be updated in M24 with relevant developments and results.

**Other (7)**

**Dynamic consent mechanisms - First version**

This deliverable will provide an overview and implementations of different approaches to dynamic consent acquisition.

**Compliance and explanation engines - First version**

SW release of the compliance engine with the features of the policy language (D2.1 and D2.6) and implementing the algorithms (D2.3 and D2.8).

**TRAPEZE Security and Data Protection knowledge base - First version**

Multilingual knowledge base content RDF vocabularies and accompanying report.

**TRAPEZE platform - First version**

Integrated platform releases with the initial one delivering early integration of the semantic blockchain layer and privacy dashboards and allowing an early evaluation of the developments in WPs 2, 3 and 4. The final release will deliver authentication and authorization risk management and incident reporting more mature components and the first integration with the PDI.

**Securing citizens smart terminals and online communication - First version**

Definition of the citizen’s interactions with the platform via smart terminals, as well as identification and implementation of the protection mechanisms through KMS.
SDK. The reports will also clearly outline the features unique to TRAPEZE or common with the other projects (GEIGER and CitySCAPE)

**Privacy dashboards - First version**
The first release of the privacy dashboards will deliver early policy control and transparency and compliance interfaces. This will be followed by risk management and incident reporting interfaces and overall more robust solutions based on the citizens feedback.

**Transparency and compliance checking - First version**
Efficient algorithms for compliance checking and explanations, supporting the extended policy language described in D2.1.

### Demonstrators, pilots, prototypes (1)

**Use case implementation - First version**
Document detailing the implementation plans, integration activities, difficulties, and final results.

## Publications

### Conference proceedings (6)

**Tractable Compliance Checking with Negation**

**Author(s):** Piero A. Bonatti, Luigi Sauro  
**Published in:** Proceedings of the 34th International Workshop on Description Logics DL2021, 2021, ISSN 1613-0073  
**Publisher:** CEUR-WS.org

**Can We Effectively Use Smart Contracts to Stipulate Time Constraints?**

**Author(s):** T. Eichinger and M. Ebermann  
**Published in:** IEEE International Conference on Decentralized Applications and Infrastructures (DAPPS), 2022  
**Publisher:** IEEE  
**DOI:** 10.1109/dapps55202.2022.00010

**Representing Consent and Policies for Compliance**

**Author(s):** Piero A. Bonatti, Luigi Sauro, Jonathan Langens  
**Published in:** {IEEE} European Symposium on Security and Privacy Workshops,
Distributed Data Minimization for Decentralized Collaborative Filtering Systems

Author(s): Tobias Eichinger and Axel Küpper
Published in: Proceedings of the 24th International Conference on Distributed Computing and Networking (ICDCN ’23), 2023, Page(s) 140-149, ISBN 9781450397964
Publisher: Association for Computing Machinery
DOI: 10.1145/3571306.3571400

Sticky Policies in OWL2: Extending PL with Fixpoints and Transitive Closure

Author(s): Piero A. Bonatti, Luigi Sauro
Published in: Proceedings of the 19th International Conference on Principles of Knowledge Representation and Reasoning, 2022, Page(s) 73-80, ISBN 978-1-956792-01-0
Publisher: IJCAI Organization
DOI: 10.24963/kr.2022/8

t.ex-Graph: Automated Web Tracker Detection Using Centrality Metrics and Data Flow Characteristics

Author(s): Raschke, P.; Herbke, P. and Schwerdtner, H.
Publisher: SciTePress
DOI: 10.5220/0011787300003405

Other (1)

Using DPVCG's outcome in TRAPEZE's compliance framework

Author(s): Bonatti, Piero A.; Sauro, Luigi; Langens, Jonathan
Published in: Issue 1, 2021
Publisher: Author
DOI: 10.5281/zenodo.6461390

Peer reviewed articles (1)

Real-time reasoning in OWL2 for GDPR compliance