

GPA Global Privacy and Data Protection Awards 2025

Entry Form

To submit an entry to the GPA Global Privacy and Data Protection Awards, please complete and email this form to <u>secretariat@globalprivacyassembly.org</u> no later than 16 June 2025.

Note: GPA member authorities can submit as many entries as they wish, but a separate form should be used for each different entry, submitted by the deadline above.

Languages: The GPA documentation Rule 6.2¹ applies.

1. CONTACT DETAILS FOR THIS ENTRY		
Privacy/Data Protection	Spanish Data Protection Authority (Agencia Española de	
Authority:	Protección de Datos – AEPD)	
Person completing this form:	Luis Antonio	de Salvador Carrasco
	First name	Last name
Job title:	Director of the Innovation and Technology Division	
Email address:	lsalvadorc@aepd.es	

2. ELIGIBILITY

By submitting this entry, I confirm that (please tick all boxes to confirm):

- The Authority is a member of the Global Privacy Assembly
- The initiative described in this entry was undertaken before 16 June 2025.
- I am aware that the information in the entry (other than the contact details in 1(a) above) will be publicised by the GPA Secretariat.

3. CATEGORIES

Please indicate which category you wish to enter.

Please tick **one;** please use a separate form for each category you wish to enter:

- Education and Public Awareness
- □ Accountability
- Dispute Resolution and Enforcement
- ⊠ Innovation
- People's Choice

¹ <u>GPA Rules and Procedures</u>, Rule 6.2 'Assembly documents':

Without prejudice to section 4.2, Assembly documents, including accreditation and observer applications may be submitted in English or in another language. In the latter case, the documents shall be accompanied by an English version. Members with the ability and the resources to do so are encouraged to translate proposed resolutions and other Assembly documents such as the Assembly Rules and Procedures.

4. DESCRIPTION OF THE INITIATIVE

a. Please provide a brief summary of the initiative (no more than 75 words)

We have developed a pioneering Proof of Concept demonstrating that GDPR compliance, specifically the right to erasure, is technically and organizationally feasible in blockchain infrastructures processing personal data. By analysing widely used components, the project defines governance and technical measures to manage inconsistencies and applies them to a real Ethereum-based network, ensuring personal data regulatory compliance while preserving operational integrity. This PoC removes the alleged GDPR obstacle to the developing of the Blockchain solutions.

b. Please provide a full description of the initiative (no more than 350 words)

The AEPD's initiative addresses a core challenge: ensuring data subjects' rights, particularly the right to erasure, in immutable blockchain infrastructures processing personal data. While blockchain technologies pose unique challenges for data protection, the AEPD has demonstrated that compliance is feasible without undermining operational integrity.

This initiative develops and implements a Proof of Concept (PoC) using the official Ethereum blockchain, it means, a cutting-edge and widely used Blockchain. It is configured with a Proof of Authority (clique) consensus protocol. The PoC shows how a blockchain node's database can be updated through a Hard Fork agreed upon by validator nodes. A simplified version of Bitcoin's BIP-0009 signalling protocol was implemented to orchestrate this consensus. The solution has been developed using open-source tools, custom modifications of the official Ethereum client, and detailed technical documentation to ensure full reproducibility.

The procedure enables a node to overwrite all references to a user's account (an identifier and thus personal data) in transactions, smart contract storage, and transaction logs, ensuring full erasure. These changes are reflected in the node's local database and verified during the resynchronization of new or recovering nodes.

The technical strategy is complemented by a governance framework defining roles, procedures, and traceability measures for executing the right to erasure. This includes organizational procedures for validating requests, generating new software versions, and monitoring implementation.

This approach not only addresses personal data in transactions, like previous theorical proposals, but also in smart contract storage and logs, an aspect often overlooked, and in a practical way. It demonstrates the feasibility of GDPR compliance in blockchain infrastructures through documented, transparent, and reproducible technical and organizational mechanisms.

This initiative stands out not just for its technical implementation, but also for its regulatory foresight and commitment to privacy by design in blockchain infrastructures. It sets a benchmark for supervisory authorities and developers globally and serves as a functional demonstrator that encourages them to integrate data protection by design and by default. It debunks prejudices and misconceptions that pretend to limit the technologies and allows to give legal certainty to personal data processing based on Blockchain.

c. Please explain why you think the initiative deserves to be recognised by an award (no more than 200 words)

This initiative is the first of its kind by a data protection authority to demonstrate, with transparency and reproducibility, that the right to erasure can be implemented in blockchain infrastructures processing personal data. It offers a new perspective by showing that privacy by design is feasible, encouraging innovation aligned with legal obligations.

By using an Ethereum-based infrastructure and adapting widely known blockchain mechanisms, the AEPD provides a solution that is realistic and understandable to developers and regulators. The project offers a valuable reference for any organization building or auditing blockchain infrastructures, fostering dialogue between technology and regulation.

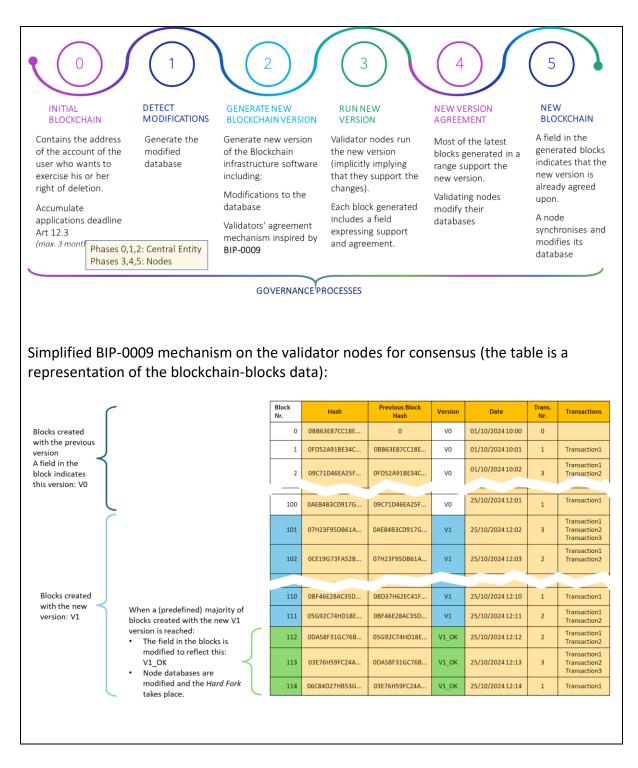
This initiative is referenced throughout the EDPB's Guidelines 02/2025 on blockchain and personal data in relation to GDPR principles and data subject rights. It is also highlighted in the second EU Blockchain Sandbox Best Practices Report as a concrete example of GDPR compliance in blockchain, particularly the right to erasure.

The initiative has inspired interest beyond regulators, for example, the ALASTRIA blockchain consortium expressed intent to build on the AEPD's work and explore its integration into real-world infrastructures.

It contributes to regulatory innovation and shows that blockchain can be fully compliant with GDPR, proving that data protection is not a barrier for innovation.

d. Please include a photograph or image, if you wish (This will be published with your entry on the GPA website. The image can be pasted into the box below, be sent as an attachment or a link may be provided)

Phases of the Proof of Concept:



e. Please provide the most relevant link on the authority's website to the initiative, if applicable (*The website content does not need to be in English*)

Released material about the initiative (English):

- Technical Note: <u>https://www.aepd.es/guias/Tech-note-blockchain.pdf</u>
- Technical Annex: <u>https://www.aepd.es/guias/Annex-blockchain.pdf</u>
- Explanatory Video: <u>https://www.youtube.com/watch?v=H7gnoI3B7SY</u>

Released material about the initiative (Spanish):

- Technical Note: <u>https://www.aepd.es/guias/nota-tecnica-blockchain.pdf</u>
- Technical Annex: <u>https://www.aepd.es/guias/anexo-tecnico-blockchain.pdf</u>
- Explanatory Video: <u>https://www.youtube.com/watch?v=DSRxcKhVdrE</u>

Press Release (Spanish): <u>https://www.aepd.es/prensa-y-comunicacion/notas-de-prensa/la-aepd-publica-una-nota-tecnica-en-relacion-con-blockchain-y</u>

f. Please provide any other relevant links that help explain the initiative or its impact or success (e.g. links to news reports or articles):

The PoC is referenced in the most influent documents regarding Blockchain and privacy:

- EDPB Guidelines 02/2025 on processing of personal data through blockchain technologies: <u>https://www.edpb.europa.eu/system/files/2025-</u>04/edpb_guidelines_202502_blockchain_en.pdf
- EU Blockchain Sandbox second cohort Best Practices Report: <u>https://blockchain-observatory.ec.europa.eu/system/files/2025-</u>05/Best%20practices%20report%20%28updated%2008.05.2025%29.pdf

Some web references and citations (English):

- <u>Spanish AEPD: Harmonising blockchain with the GDPR's right to be forgotten,</u> <u>Ceyhun Pehlivan</u>
- <u>https://techinsights.linklaters.com/post/102jo4a/spanish-aepd-harmonising-blockchain-with-the-gdprs-right-to-be-forgotten</u>
- https://corporate-blog.global.fujitsu.com/fgb/2025-02-06/02/
- <u>https://www.linkedin.com/posts/dmitrii--filatov_aepd-blockchain-and-the-right-to-erasure-activity-7262825609708322816-MvPq/</u>
- <u>https://www.linkedin.com/posts/lauraonyeocha_spanish-aepd-harmonising-blockchain-with-activity-7262497661289742341-KOWT/</u>

Some web references and citations (Spanish):

- <u>https://ejaso.com/conocimiento/blockchain-y-derecho-de-supresion-un-analisis-desde-la-nota-tecnica-de-la-aepd</u>
- <u>https://www.fieldfisher.com/es-es/locations/espana/actualidad/es-posible-garantizar-el-derecho-de-rectificacion-blockchain</u>
- https://bae.atisa.es/actualidad-legislativa/mercantil/prueba-de-conceptoblockchain-y-el-derecho-de-supresion-de-datos/
- <u>https://legitec.com/blockchain-y-el-derecho-de-supresion-analisis-de-la-nota-tecnica-de-la-aepd-y-su-relacion-con-el-rgpd/</u>