





ABOUT THE PROJECT

NOUS will develop the architecture of a European Cloud Service that allows computational and data storage resources to be used from edge devices as well as supercomputers, through the HPC network, and Quantum Computers.

MISSION

NOUS will be an Infrastructure-as-a-Service (IaaS)/Platform-as-a-Service (PaaS) cloud provider, harnessing edge computing and decentralisation paradigms to incorporate a wide array of devices and machines in its computational flow to provide leaps in Europe's capability to process vast amounts of data.

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Discover more at
www.nous-project.eu

PROJECT PARTNERS



 **Funded by
the European Union**

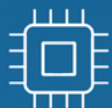
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 **Empowering
Europe's Data
Future**



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THE NOUS COMPONENTS



COMPUTE

NOUS is on a mission to empower users with unparalleled computational capabilities. Dedicated to harnessing Europe's research strength, NOUS will focus on the following:

- Seamless connection with HPC network and quantum computers.
- NOUS Darknet: Ensures encrypted, traceable connections.

NOUS goes beyond by providing a seamless interface to quantum computers. Security is paramount, and NOUS addresses this challenge through the innovative NOUS Darknet, ensuring encrypted and traceable connections for a shield against cyber threats.



EDGE

NOUS, in the field of edge components, employs innovative distributed methodologies by utilizing on-premises (IoT) resources for data analysis. Going beyond global cloud services, the project taps into local resources on operators' and data owners' devices.

In dynamic environments, where devices may be mobile or resource-constrained, NOUS maximizes the utilization of often-underused computation and storage resources.

Unlike conventional reliance on global cloud providers, NOUS optimizes storage and computation distribution, creating a network resembling a local mobile cloud. NOUS introduces a layer for federated learning between Edge nodes, ensuring decentralized, secure, and efficient computing while upholding user privacy.



DATA

NOUS meticulously crafts data components, addressing the entire data life cycle with a focus on:

- Governance
- Accessibility
- Privacy.

Pioneering low-power distributed ledger technologies, like directed acyclic graphs or tangles, enhance data integrity. The NOUS consortium prioritizes citizens' rights by registering only cryptographic summaries or hashes, respecting the right to be forgotten.

The data component acts as a hub, amalgamating data from diverse Data Spaces and platforms using syndication tools. NOUS supports developers and engineers with essential tools, including an auto standardizer for data harmonization in Mobility, Energy, and Green Deal data spaces. Additionally, the project introduces a Virtual Lab.