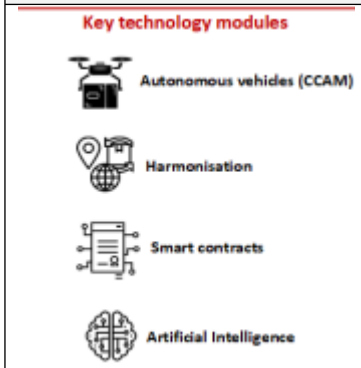
PROPOSAL TITLE:

ELLIS: INTELLIGENT MULTIMODAL LOGISTICS (HORIZON-CL5-2023-D6-01-07)

Country	Contract value (€)	% carried out by Epsilon	No of staff provided	Client	Origin of funding	Date (start/end)	Consortium Members
Malta	4,384,387.50	3.9% 170,000	8	European Commission	EC HORIZON	01/01/2024 01/01/2027	15 Partners

Description of the project



The **ELIS** project (Intelligent Multimodal Logistics) will focus on optimizing the management of multimodal transport and logistics operations using advanced technologies such as Digital Twins (DT), artificial intelligence (AI), and blockchain. The project aims to streamline the movement of goods and passengers across various transportation modes, ensuring efficient load dispatch and synchronized operations at logistics hubs. Central to the project is the creation of a Digital Twin Orchestrator (DTO) that integrates real-time data from logistics nodes and transport corridors, facilitating real-time monitoring, simulations, and decision-making. ELIS also emphasizes sustainability by supporting the EU's Green Deal targets through the promotion of zero-emission logistics and the use of autonomous vehicles. This platform-based approach seeks to create a resilient, scalable, and efficient logistics network that integrates various stakeholders in the supply chain.

ELIS Objectives are:

- Design and implement a secure and intelligent platform for covering gaps and combining open and shared logistics services to enhance transparent collaboration activities.
- Collect, pre-process, integrate and process inter-company operational data in a multimodal logistics ecosystem.
- Design and implement a digital twin of the supply chain and an agent-based simulator for evaluating the existing conditions and future scenarios in the multimodal logistics ecosystem.
- Design and implement the appropriate AI/ML modules for supporting the automated allocation and scheduling in the logistics domain.
- Perform a study on technological and economic gaps, barriers and business opportunities as well as on the variety of operational protocols for realizing the future automated logistics network.
- Perform a study and analysis of the environmental and societal benefits across the EU and Worldwide.
- Study the governance of automated logistics networks and regulations around Europe and Worldwide.
- Implement a set of European demonstrators adopting intelligent logistics operations in real traffic conditions.
- Perform the necessary outreach activities to raise the attractiveness and visibility of the platform while enhancing the collaboration with external actors and stakeholders.

Services provided

Technology Development and Research:

- EPSILON contributes to the development of advanced digital and technological solutions aimed at optimizing synchro modal logistics operations.

Implementation of Digital Twins:

- EPSILON is involved in the creation and use of digital twin technology to simulate and enhance logistics processes across multiple transport modes, contributing to the overall efficiency and flexibility of the supply chain.

Blockchain and Smart Contracts:

- Integrate blockchain-based systems for secure data sharing and resource management among stakeholders, supporting seamless collaboration.

Dissemination and Communication:

- EPSILON is also responsible for ensuring the project's results are communicated effectively to stakeholders and the public, aiding in the wider adoption of sustainable and intelligent logistics solutions.