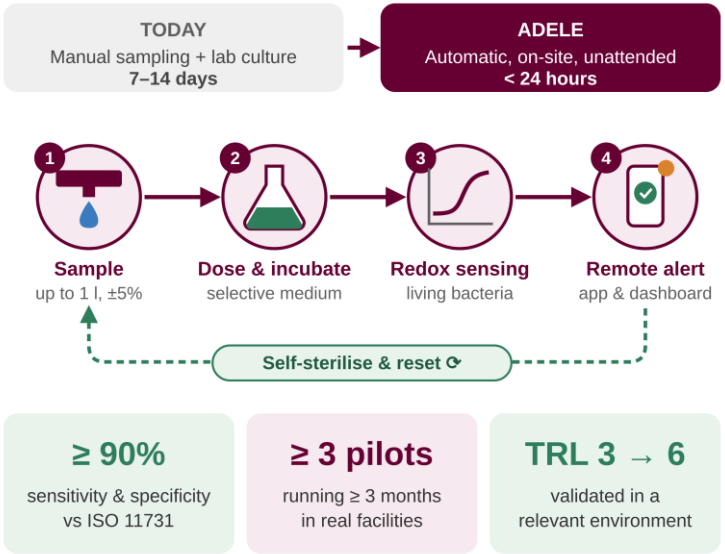
2026	ADELE – AUTOMATIC DETECTION OF LEGIONELLA IN WATER SUPPLY						
Country	**Contract value (€)**	**% by Epsilon**	**Staff # provided**	**Client**	**Origin of funding**	**Date (start/end)**	**Consortium Members**
Malta	**€2.50 M** (EU grant)	**4.4%** (€109,387.50)	10.7 PM	European Innovation Council	Horizon Europe (EIC Transition)	36 months (start TBC)	SJT (ES, Coord.), CIOP-PIB (PL), EPSILON (MT), UVMB (HU, assoc.)

The Project (2026)

Legionella in drinking- and hot-water systems, cooling towers and other water installations causes disease outbreaks across the EU. Regulations require periodic sampling, but samples are taken by trained staff and cultured in an authorised laboratory for 7–14 days, making monitoring slow, labour-intensive and costly.

Objective

EPSILON and the consortium proposed a Mature redox-based method proven at TRL 3 in the Horizon Europe HE-FARM project into an automatic device that detects Legionella and aerobic bacteria in water without human intervention, validated in a relevant environment (TRL 5–6), with results in under 24 hours. It measures redox-potential changes caused by the metabolism of living bacteria in an optimised selective medium.



Approach & technological means

- **Selective culture media:** maximise the redox response to Legionella while inhibiting other bacteria.
- **Automatic sampler & doser:** draws up to 1 l from the pipeline into the redox chamber with 5% accuracy.
- **Self-sterilisation & reset:** heat/chemical inactivation between cycles to prevent cross-contamination.
- **Connected prototype:** redox sensors, electronics and a remote-control app for unattended operation.

Validation & market uptake

Lab validation against ISO 11731:2017 (sensitivity/specificity **≥90%**), then **≥3 pilots for ≥3 months** in real facilities; direct sale, Equipment-as-a-Service and licensing models compared.

Expected impact

Faster, cheaper and more frequent Legionella monitoring for hotels, hospitals, utilities, industry and farms.

Services to be provided by EPSILON

EPSILON is a beneficiary responsible for market exploration and business research. It leads WP11 (M1–M10) with 10.7 person-months of effort, drawing on its offices in Malta, Italy, Germany, Greece and Bulgaria to ground ADELE's business case in real market evidence.

Market potential & stakeholders (T11.1)

Desk research and expert interviews to size the addressable market by segment and country, and to map competing solutions and value-chain stakeholders.

National regulations & target countries (T11.2)

Review of national Legionella-control legislation and sampling-frequency requirements in candidate EU countries, to identify trends and prioritise entry markets.

Value proposition & willingness to pay (T11.3)

Customer-discovery interviews with facility managers and water-safety officers (≥20 interviews, ≥5 letters of intent) to test the value proposition and pricing per sample and per installed unit, feeding the WP12 exploitation model.

Marketing & business planning

Go-to-market recommendations for the Draft Business Plan (T11.4); update of the exploitation model with pilot feedback for the Final Business Plan (T19.2); communication and dissemination strategy (T16.1); risk management (T1.5, T20.5).

Post-project exploitation

Preferential licensing access for Malta, Greece, Italy and Bulgaria, using EPSILON's local presence and technology-transfer record to extend ADELE's reach without the coordinator needing a direct sales presence in each country.