



Ca' Foscari University of Venice

PROJECT ACRONYM AND TITLE: MODERATE Marketable Open Data Solutions for Optimized Building-Related Energy Services

FUNDING PROGRAMME: HORIZON EUROPE

CALL: HORIZON-CL5-2021-D4-01

HOST DEPARTMENT: Department of Environmental Sciences, Informatics and Statistics

SCIENTIFIC RESPONSIBLE: Pasut Wilmer

FINANCIAL DATA:

Project total costs	Overall funding assigned to UNIVE
€ 4.998.612,00	€ 111.958,00

ABSTRACT:

The ever-increasing use of building monitoring and control systems has created an opportunity for data-driven approaches in the entire construction sector. At the same time, interaction and interoperability among data platforms remain a challenging issue.

MODERATE will formalize a set of procedures and techniques that enable building owners, policymakers, facility managers, utility companies, etc., to openly share their data, gain insights, and make decisions while complying with regulations such as the General Data Protection Regulation (GDPR). Moreover, MODERATE will enable uniform access to heterogeneous data sources on buildings' performance, usually dispersed in several non-interoperable data silos.

Although several projects have recently emerged to address the problem of defining a modular data architecture, they lack:

- A protocol for data sharing and anonymization, complying with the rules defined by the GDPR while avoiding losing the statistical properties that make them valuable.
- A solution enabling data owners to openly share their datasets while profiting both economically and in terms of knowledge on their data.
- A fully open platform. Commonly, most of the results (data, algorithms, software, etc.) of a project are owned by partners within the consortium, making it very difficult to use them later without their permission. MODERATE will develop an open platform, embracing leading-edge technologies, such as artificial intelligence (AI), machine learning (ML), blockchain/distributed ledger technologies, the internet of things (IoT), and many more. This platform will enable its users to analyze real-time building data from various building systems and provide insight into the many dimensions of a building's performance. The use of synthetic data generation techniques, not yet widely applied in the construction industry, is one of the elements that allow open data sharing, enabling more reliable services and generating business opportunities.

Planned Start date	Planned End date
01/06/2022	31/05/2026

BENEFICIARIES:

1 ACCADEMIA EUROPEA DI BOLZANO	IT	Coordinator
2 UNIVERSITE CATHOLIQUE DE LOUVAIN	BE	Partner

3	UNIVERSITA CA' FOSCARI VENEZIA	IT	Partner
4	FUNDACION CTIC CENTRO TECNOLOGICO PARA EL DESARROLLO EN ASTURIAS DE LAS TECNOLOGIAS DE LA INFORMACION	ES	Partner
5	TECHNISCHE UNIVERSITAET WIEN	AT	Partner
6	ZENTRUM FUR ENERGIEWIRTSCHAFT UND UMWELT (E-THINK)	AT	Partner
7	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE	Partner
8	IOTA STIFTUNG	DE	Partner
9	FEDERATIE VAN VERENIGINGEN VOOR VERWARMING EN LUCHTBEHANDELING IN EUROPA REHVA	BE	Partner
10	Würth Srl	IT	Partner
11	VEOLIA SERVICIOS LECAM SOCIEDAD ANONIMA UNIPERSONAL	ES	Partner
12	INSTITUTO VALENCIANO DE LA EDIFICACION	ES	Partner
13	COOPERATIVA ELECTRICA BENEFICA SAN FRANCISCO DE ASIS SOCIEDAD COOPERATIVA VALENCIANA	ES	Partner
14	HUYGEN INGENIEURS & ADVISEURS B.V	NL	Partner
15	UBIK GEOSPATIAL SOLUTIONS SL	ES	Partner
16	KOHLER & MEINZER GMBH & CO. KG WOHNUNGSUNTERNEHMEN	DE	Partner
17	SYNAVISION GMBH	DE	Partner