YDMS

DATA MANAGEMENT SYSTEM FOR SMART BUILDING ANALYSIS

ABOUT
YDMS, by Yuppies Services, focuses on the creation of the Yuppies Data Management System (YDMS), a data lake-based infrastructure containing building’s technical registry records in order to allow free research and a flexible data organisation to perform smart data analytics. The pilot stems from both the request to innovate the survey services and the need to manage the large amount of data required to set-up a building’s technical registry record. A technical registry record consists in a dataset collection that stores all the components of the facility-building system, through survey information maps and graphic restitutions in CAD, BIM or RCP files.

By generating the software (YoDS) to import the heterogeneous types of facility-building system datasets in a structured scheme, it is possible to provide interested end-users with all available information collected with the purpose of improving the facility management, the energy management and, in general, the restoration of the Italian public heritage.

CHALLENGE
The aim of YDMS is to combine data collected in the past on different public buildings and make them searchable according to different criteria: for instance, by ownership, use, location and other peculiarities. Furthermore, the availability of time-series data on the same assets permits to analyse potential changes in terms of investments, technologies adopted and developments in the different sites.

HOW THEY USED EOSC SERVICES
The pilot used B2Safe by DICE for implementing the YDMS, and it used the EOSC DIH consultancy, training, and proof of concept services.

RESULTS
The technological requirements of the Data Lake based platform have been identified. YDMS Data Management System has been implemented, as well as the Import Data Software YoDS. The system was tested and validated, with the aim to benchmark datasets of buildings to use it in the (Building) health system in their software YoDS.

IMPACT
The TRL was increased from TRL3 to TRL5. To achieve this, the techniques to manage this amount of data, YDMS was benchmark-verified and disseminated.