



Real time data enhancement

Scenario

Big data are a big opportunity for a water utility, which is willing to adopt a **data-driven paradigm**. The operation of the various business functions in the field of water utilities could gain advantages from the opportunities arising from the use of real time data, such as the struggle against losses of aqueduct pipelines, which could benefit from an improved knowledge of the state of the grid, mainly pressures, to prevent phenomena of breakage and the resulting losses.

However, internal data bases most of the times are not sufficiently developed to describe or forecast future events. This effect is due to an adverse relationship between the size of the areas to be covered and the direct investment needed. That is where the adoption of “Data Enhancement” comes in, to overcome this criticality. **The technology of “Data Enhancement” consist of the use of data sources outside the organization to increase the value of its company data assets with the aim of having a more solid knowledge base.** It also allows to obtain information and knowledge also in real time useful to make business decisions (also known as “Data Enrichment” or “Data Append”). Furthermore, the Data Enhancement process can be used as a tool to improve the consistency of databases, retrieving from external sources the missing information in business records.

Water Alliance’s needs

Water Alliance needs in this area are:

- **Resource savings:** The current method of data collection involves the investments of large amounts of resources by the Water Utilities to expand their databases. **The Data Enhancement process may allow to obtain relevant information for already existing business decisions without the use of several resources** required by the traditional methods of investigation.
- **Support the growth and the innovation of the company:** the process of Data Enhancement could act as enhancer for the growth and the innovation of the Water Utilities. **Through the integration and expansion of databases within organizations, utilities may become aware of information that can facilitate the preliminary study** of the applicability and sustainability of a potentially useful technology before investing resources for testing in the pilot phase.