

## Integrated data for asset management

**wml**

Limburgs drinkwater

Client: WML (Waterleiding Maatschappij Limburg)

Country: The Netherlands

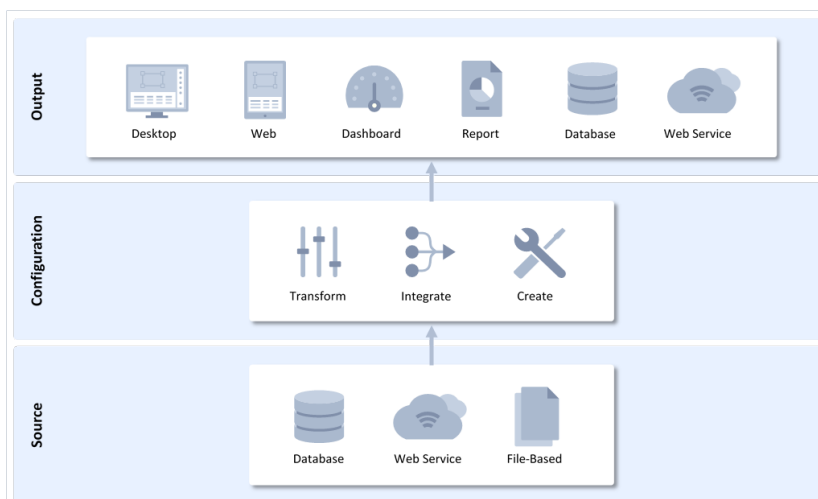
Period: 2020

### Case

To support the asset management process at WML data is used from a variety of sources. In the past this data was processed manually in order to relate the tables to one another and use them in analyses. The result of the manual data-integration is that different colleagues apply different methods and work with different (often dated) versions of files. Furthermore, due to the manual process, it is difficult to repeat analyses and get to the same result. WML has asked Spatial Insight to setup a proof of concept for an automated integration layer for asset data to support analysis and visualisation.

### Approach and solution

To solve this case, we have used our Asset Data Insight (ADI) approach. In this approach data from various registrations are integrated in a data-warehouse. To do this efficiently we use the Spatial Warehouse software delivered by our trusted partner Spatial Eye. During the Extract Transform Load (ETL) process, necessary modifications are made to improve the data quality, enrich the data-model and relate the various tables. An important step in this process is the introduction of "history". Historic results allow tracking of changes over time and -for example- relate a leak to the information version of a main section that was in the database when the leak occurred.



**Figure.** The Asset Data Insight approach



### Contribution to the organisation's strategy

The results of the proof of concept have exceeded both our and WML's expectations. Not only did we manage to load all data including changes over time from the system of registration. The data is updated daily, including data from various other sources. Leakages are joined with mains and source-tables are being refreshed to provide the most complete and integrated dataset for various analyses. Results are being presented on maps and in a broad range of dashboards that give insight in the actual performance of the network.

### Customer review

Richard Peerboom, advisor water supply at WML: "We have sincerely appreciated Spatial Insight's way of working, in particular the staged delivery of results. This allowed us to steer the project and get to optimal results. Both the departments of Production, Distribution and Asset management have qualified the results as very positive, unanimously, especially when taking the short project time and costs of the pilot into account. We consider the results to be the top of the iceberg, we are convinced that many more value can be created with this approach. We will definitely continue this work."

### More information

Arnoud Drevijn (arnoud.drevijn [at] spatial-insight.nl)