When it comes to working with data, many people know how to use spreadsheet applications like Microsoft Excel. In comparison, there are very few people who know SPARQL, the W3C standard language to query Linked Data. The CODE Query Wizard provides a web-based interface that dramatically simplifies the process of displaying, accessing, filtering, exploring, and navigating the Linked Data that's available through a SPARQL endpoint. The main innovation of the interface is that it turns the graph structure of Linked Data into tabular form and provides easy-to-use interaction possibilities by using metaphors and techniques that the end users are already familiar with.

As application domain, CODE focuses on research data and science. We strive to create the Linked Science Data Cloud, which integrates unstructured research information with semantically represented research data. Through crowdsourcing techniques, data centric tasks like data extraction, data integration and data analysis in combination with sustainable data marketplace concepts we will be able to ensure high data quality and to establish a sustainable, high-impact ecosystem around Linked Science Data.

The CODE Query Wizard offers two entry points: Users can either initiate a keyword search over a Linked Data repository, or they can select any of the already available datasets, represented as RDF Data Cubes. In both cases, the CODE Query Wizard presents a table containing the results. The users can then choose which columns they are interested in, and they can set filters to narrow down the displayed data. Additionally, they can explore the data by “focusing” on an entity, or they can aggregate a dataset to get a summary of the data.

Once the users are happy with their selected data, they can visualize it using the CODE Vis Wizard. This tool enables visual analysis of Linked Data and supports the user by automating the visualization process. This means that after analyzing the structural and semantic characteristics of the provided Linked Data, the CODE Vis Wizard automatically suggests any of the 10 currently available visualizations that are suitable for the provided data. Furthermore, the Vis Wizard automatically maps the data on the available visual channels of the chosen visualization. If the users wish to adjust the mapping, they can do so with a few simple clicks.

Usually more than one visualization is suitable for any given dataset. In that case, all of these visualizations can be displayed side by side. When certain parts of the data are selected in one of the visualizations, they are automatically highlighted in all of the others as well. This can provide quick insights into complicated data, taking advantage of the powerful human visual perception system.

CODE’s vision is to establish the foundation for a web-based, commercially oriented ecosystem for Linked Open Data. The projects duration is from 1 May 2012 – 30 April 2014.

The consortium brings together high-potential partners, providing the resources for our vision:

- terabytes of research publications
- millions of light-weight ontologies
- steadily growing user community in the millions
- expertise in unstructured information analysis, distributed databases, semantic technologies, visual analytics and economic success factors in web businesses