# AI-Supported Automated Data Lineage for Industry 4.0

Motivation, Problem and Goals

- Waste detection and prediction in Industry 4.0 is essential but challenging due to **insufficient support of data interoperability.**

- **Goal**: Develop of a platform for (semi-)automated data acquisition, understanding and lineage.

- **Challenges**:
  - Automated data understanding through a data catalog, semantic models, ontologies, etc.
  - Predictive monitoring/control of value creation/waste through Artificial Intelligence (AI) methods.

Added Value **Waste**

Approach, Methods and Solution
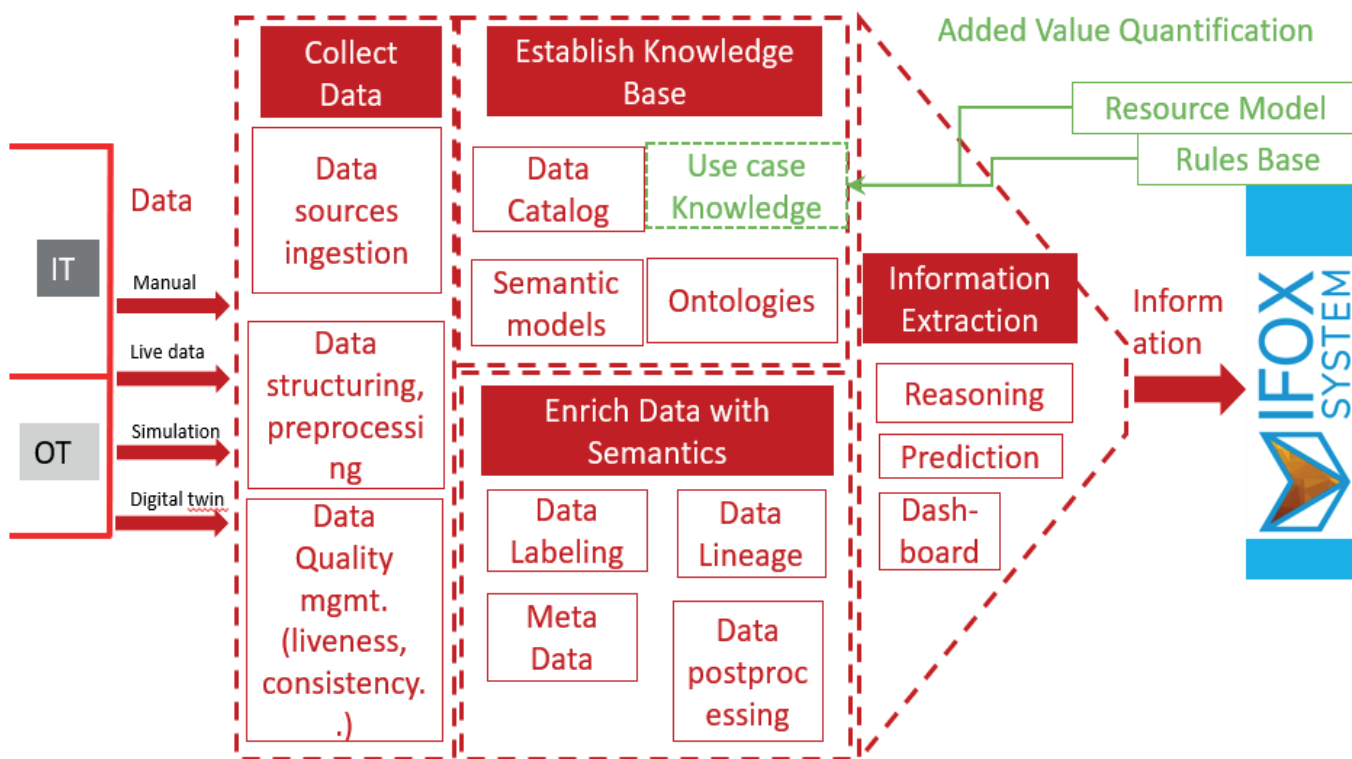
- Data acquisition through **Node-RED**, given its rich library and ease of integration.

- **Waste detection and prediction** using:
  - Ontologies and data catalogs
  - AI models

- Extend the Approach to **other Industry 4.0 applications** beyond waste detection and prediction.

Expected Results

- New techniques for **automated** waste detection and prediction

- New approaches and solutions in Industry 4.0 for **automated**
  - Data acquisition
  - Data understanding
  - Data Lineage

Team and Partner

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