

Cognitive AVL – Smart Development

Integrated Product Lifecycle Knowledge in Complex Industrial Processes



Katarina Milenković¹, Konrad Diwold¹, Simon Mayer^{2,3}, Josef Zehetner⁴

Pro2Future GmbH¹, University of St. Gallen², ETH Zürich³, AVL List GmbH⁴

¹ Inffeldgasse 25F, 8010 Graz, Austria

² Dufourstrasse 50, CH-9000 St.Gallen, Switzerland

³ Rämistrasse 101, 8092 Zurich, Switzerland

⁴ Hans-List-Platz 1, 8020 Graz, Austria



MOTIVATION & GOALS

Each of the wide variety of **processes**, that are performed along the **product lifecycle** yield **information**. In the future this information can be utilized to **extract valuable insights** about the **product and the production process**, as:

- Data enriched with **context information** (relevant metadata) enables **efficient interpretation** thereof,
- Well-interpreted information is relevant for **process optimization**,
- A model-driven approach enables the **extraction of useful knowledge** from data,
- Analysis and good interpretation of **hidden knowledge** can turn it into **accessible, monetizable knowledge**.

Project FactBox

Project Name Cognitive AVL
Project ID MFP 4.1.1-1
Duration 36 Months

Area 4.1
Cognitive Products

Project Lead
Dr. Konrad Diwold

APPROACH

Store information:

- contextual information about product and processes,
- processes generated information.



Process data

using data analysis, context-specific reasoning and AI planning algorithms.

Develop the framework



which enables access to knowledge to domain experts/different third parties.

CONTRIBUTION

Scientific contribution

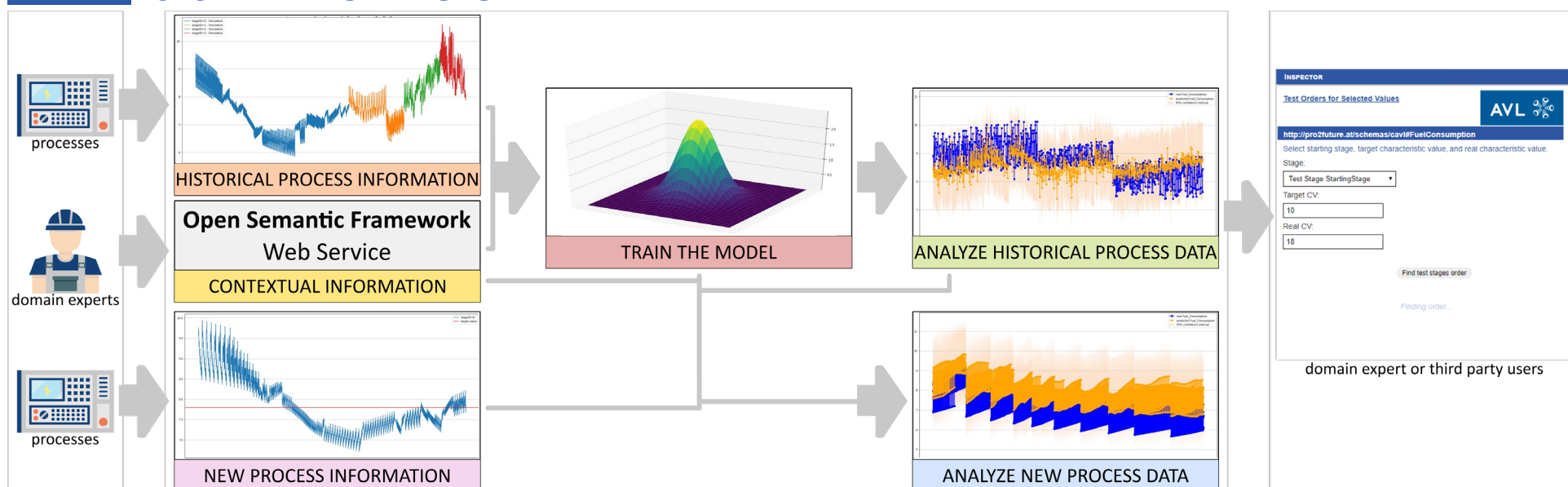
This project will result in novel approaches to extract knowledge over the product lifecycle.

A paper *Enabling Knowledge Management in Complex Industrial Processes Using Semantic Web Technology* is published at TAKE 2019.

Economic contribution

Our work will enable turning hidden knowledge into accessible knowledge that will help optimising industrial production processes. It will combine contextual information (domain constraints) with process knowledge.

SYSTEM ARCHITECTURE



Contact: DI Katarina Milenković, MSc, Pro2Future GmbH, katarina.milenkovic@pro2future.at, +43 316 873 9164

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