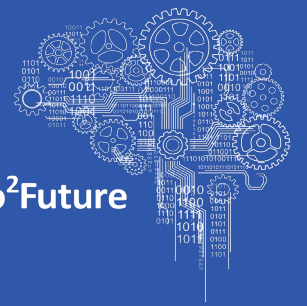


# Cognitive Products in Railways

RTEAS

## Cognitive Rail Track Error Analysis Support



Pro²Future

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## MOTIVATION & GOALS

The aim of this project is to develop a pipeline to support operators in rail track error assessment

- by **sensor data processing** and **feature extraction**,
- unsupervised clustering** to find local outliers,
- visualization Techniques** supporting decision finding and
- creating **persuasive reports**, which measures to takes e.g.
  - Increase maintenance interval
  - Replace ballast bed
  - Redo Tamping
  - Keep as it is

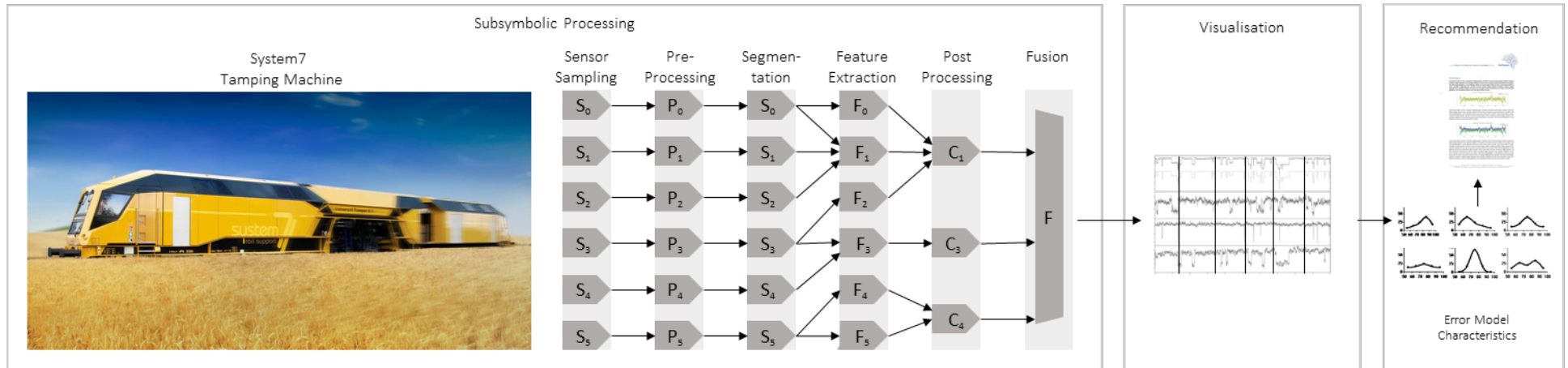
### Project FactBox

**Project Name** RTEAS  
**Project ID** DP1.2-3  
**Duration** 12 Months

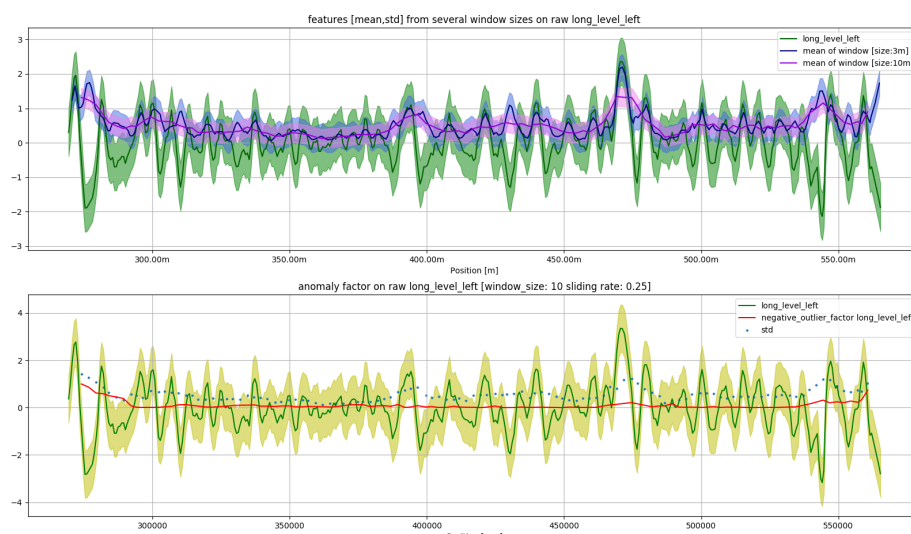
**Area 1**  
Perception and Aware Systems

**Project Lead**  
DI Michael Haslgrübler

## APPROACH



## VISUALISATION



## CONTRIBUTION

### Scientific contribution

Unsupervised Clustering for Error Spotting  
Multi-Stage Filtering and Sensor Fusion  
Data-Driven Error Spotting and Action Recommendation Engine

### Economic contribution

Rail Road Maintenance Cost Reduction  
Customer Binding and Support  
New Business Model with  
After Sales Support

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