



**SMART INDUSTRIES**

Mining sensor data can give companies valuable insights into their assets and activities. But as technology advances, analyzing and visualizing the data becomes increasingly time- and resource-intensive. The DyVerSIFy project aims to develop software components and methodologies in the domains of dynamic visualization, adaptive anomaly detection and scalability to drive dynamic, adaptive and scalable sensor analytics.

## New sensor developments make data analysis suboptimal

With the collected data, it is possible to monitor the states of equipment, environmental conditions, infrastructure and more. This allows companies to detect errors and anomalies to improve the efficacy of maintenance and design. However, state-of-the-art data visualization and analytics systems need to be manually configured when new sensors, visualizations or algorithms are added. Even more, if system configuration is suboptimal, this leads to an inability to process and analyze the ever-growing amount of sensor data.

## Dynamic analytics that keep pace with sensor data

The DyVerSIFy project seeks to enable scalable sensor analytics that respond and adapt to changing needs. To that aim, it will further build the knowledge base in three areas:

1. Dynamic visualization of data, which automatically responds to users' needs to present relevant data;
2. Adaptive anomaly detection (AD) and root cause analysis (RCA), bringing machine learning and semantics together and introducing automated tuning based on implicit user feedback;
3. Scalable services and processing, to enable new sensors or changes to sensor systems to be added dynamically without manual intervention.

## Concrete components and methodologies

The DyVerSIFy consortium consists of industry players and research groups specializing in sensor system design, intuitive visualization and analytics software design, scalable software systems, semantics and machine learning. Partners will develop software components and well-defined methodologies for dynamic, adaptive and scalable visualization and analytics systems. On top of that, they will incorporate these innovations into their next-gen products.

## Harnessing the power of digitization

The end goal of the DyVerSIFy project is to surmount the difficulties and complexities associated with the development of sensor data visualization and analytics systems. In doing so, the project will enable companies to gain even faster business insights, for informed decision-making and improved business processes.

***“The DyVerSIFy project aims to develop software components and methodologies in the domains of visualization, anomaly detection and scalability, enabling companies to gain better and faster business insights through sensor systems.”***

## DyVerSIFy

Dynamic Visualization, adaptive analysis and Scalability for mining Sensor data with Integrated Feedback.

DyVerSIFy is an imec.icon project funded by Agentschap Innoveren & Ondernemen and imec.

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## Project information

### Industry

- Televic Rail
- Renson Ventilation
- Cumul.io

### Research

- IDLab UGent

### Contact

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