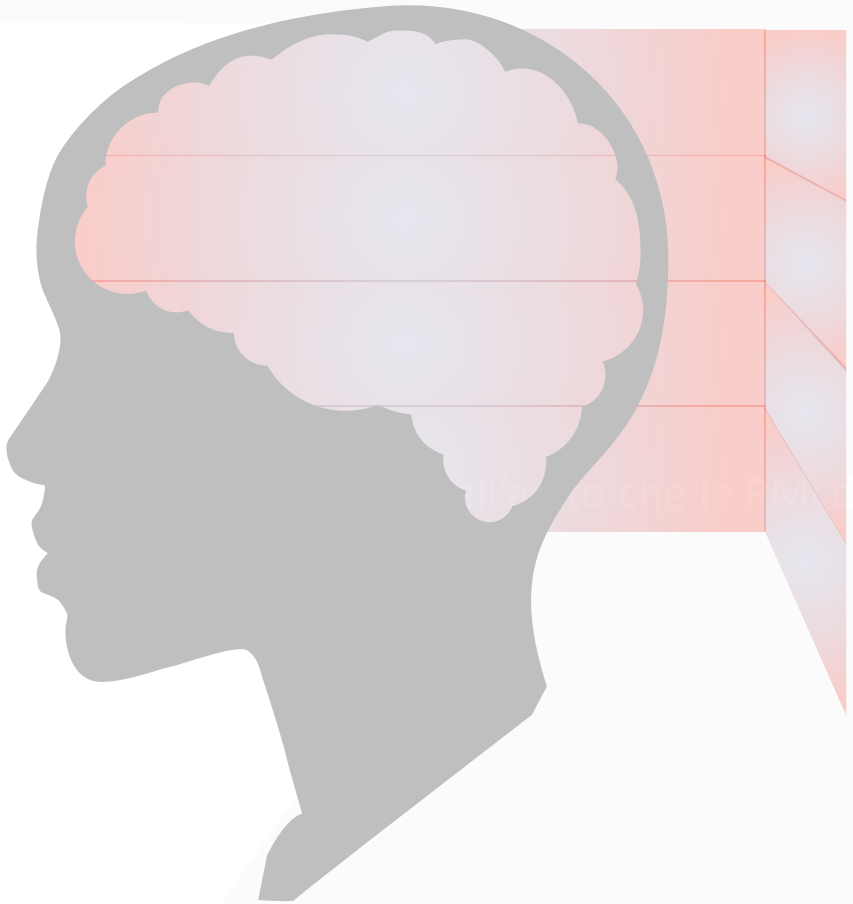


MODELWAY
INTELLIGENCE TECHNOLOGY

Matching Artificial Intelligence and Edge Computing

Data-driven Virtual Sensing technology for edge computing applications

The Company

Technological Transfer from University to Industry

MODELWAY
INTELLIGENCE TECHNOLOGY

Who we are

- Founded as Spinoff of Politecnico di Torino by professors expert in complex systems
- Company developing industrial innovation based on Machine Learning and Big Data
- Proprietary technologies covered by international patents

Awards & Funding

2020

European Commission
Horizon 2020
European Union funding for Research & Innovation
SEAL OF EXCELLENCE

SMEs in HORIZON 2020

Seal of Excellence - SKIDLESS project
Enhancing vehicle's safety through the Virtual Sensor for skidding estimation

2019

TechTour

EU Mobility & Industry Venture Forum 2018
Finalist with Data Driven sw sensors for vehicles On-Board Information improvement

2018

Electrolux

ELECTROLUX Innovation Day
Finalist with Data Driven solution to improve appliance performances

2015

IEEE
Advancing Technology for Humanity

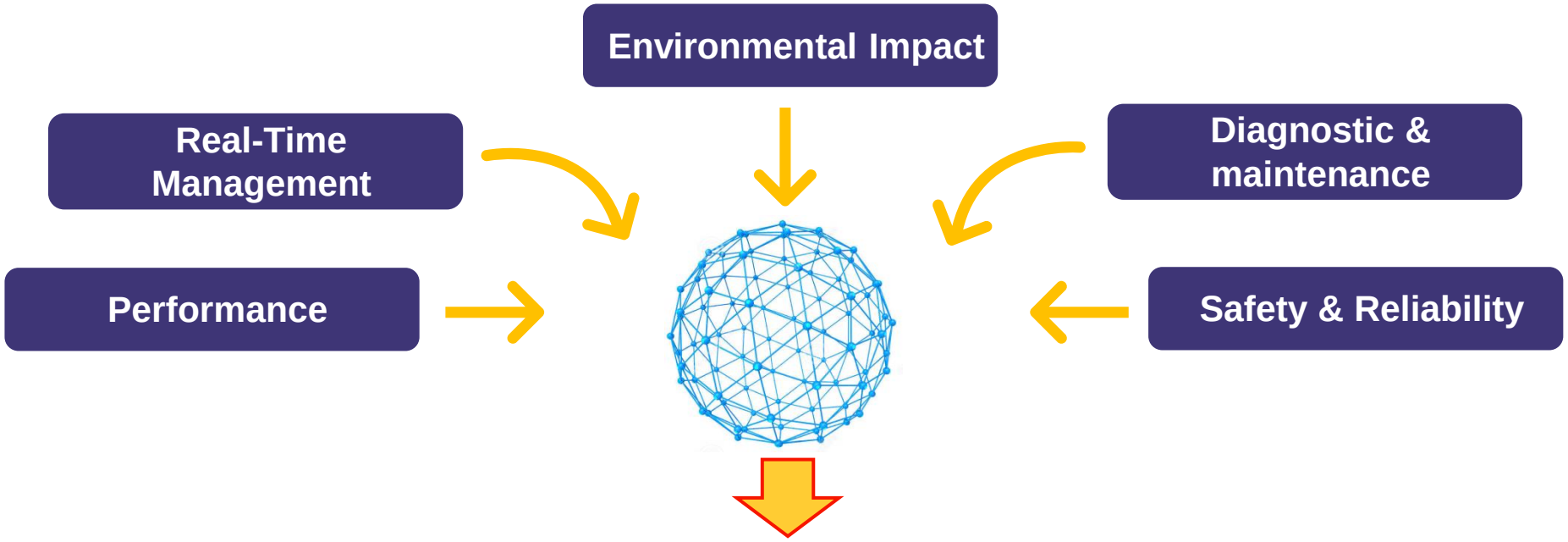
IEEE Control System Society Award
To Prof. Mario Milanese for the contribution in systems identification and control

Innovation Needs Information

Exploit Data to Improve Decision Support Systems

MODELWAY
INTELLIGENCE TECHNOLOGY

Modelway develops Data-Driven technologies to face complex technological challenges in the fields of control, diagnostic and prediction



Data-Driven technologies as enabling factor for:

Control – Diagnostic - Prediction

Modelway's Data Driven Technologies

Solutions for Control, Diagnostic and Prediction

MODELWAY
INTELLIGENCE TECHNOLOGY

Modelway's technologies extracts key information from system data to deliver outstanding performance compared to conventional technologies

Control Systems

STC®

(Self-Tuning Control)

Direct calibration from data

Virtual Sensing

DVS®

(Direct Virtual Sensors)

Estimate info unavailable on-board

Modeling

NOSEM®

(NOnlinear SEt-membership Modeling)

Systematic model identification

Features vs. Conventional Techs

- 4x development time reduction
- 3x accuracy improvement
- Easy integration / tuning
- Low-cost solution

Business Proposition

We provide customized solution and products

Our solutions are integrated in the customer value chain as software applications or hardware devices for edge computing applications

SW SOLUTIONS in Data-Driven Innovation

- Predictive maintenance applications
- Advanced Data-Driven controls
- Advanced real-time diagnostic
- Plant / environment key parameter estimate

HW / SW PRODUCTS for Edge Computing applications

- Software tools / platforms
- Plug / play devices that can be integrated in the customer's product

life.augmented

Technological Partner

Industrial Experience & Customers

Transversal innovation over different industrial sectors

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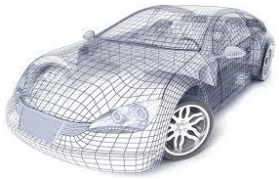
Automotive



- Pwt and Vehicle Dyn. control and diagnostic
- Autonomous Driving
- Predictive Maintenance

Energy

- Energy control and optimization
- Gas emission Estimation
- Environmental variables estimation

Factory 4.0

- In-Line Quality control
- Operator Safety
- Process KPI Estimation

Virtual Sensor Market

Modelway positioning

MW is among the key players in the Virtual Sensor Market growing at a CAGR of 30 %

R&M
RESEARCH AND MARKETS

Global Virtual Sensors Market Analysis

The Global Virtual Sensors market is expected to reach $2,1 bn by 2026 growing at a CAGR of 29.8% during 2019 to 2026. Virtual sensing techniques are also known as soft sensing, proxy sensing, etc., are used to provide possible and cost-effective alternatives to the impractical material measurement device. Some of the factors such as increasing adoption of IoT and cloud platforms are fuelling the market growth. However, the lack of a skilled workforce and technical knowledge are restraining the market growth.

Based on Deployment Mode, The Cloud segment has witnessed significant growth due to increasing data storage capabilities for organizations because it uses cloud-based sensors, as it is easy to deploy, offers agility, and provide more scalability than on-premises software at a reasonable cost.

The key vendors mentioned are TACTILE MOBILITY, Siemens, Schneider Electric, OSIsoft, **Modelway**, LMI Technologies, IntelliDynamics, Honeywell, General Electric, Exputec, Elliptic Labs, Cisco, Aspen Technology, and ANDATA.

Predictive Manteinance Tool

Predictive algorithms for anomaly detection

MODELWAY
INTELLIGENCE TECHNOLOGY

Optimized cloud architecture for railway predictive maintenance

Problem

- Maintenance processes are under pressure to optimize intervention time and costs
- Notable amount of data are typically available but are not translated in useful information for decision-making
- Anomalies impact customer experience and company's reputation

Solution

- Realization of dashboard to monitor the effective maintenance of critical items
- Predictive maintenance tool based on virtual sensing for anomaly detection allowing optimization of operations and reduction of costs of interventions

Technology

DVS®

D²TD- Data Driven Train Diagnostic

Direct Virtual Sensors: Indoor Comfort Estimation

Software sensors for smart buildings

MODELWAY
INTELLIGENCE TECHNOLOGY

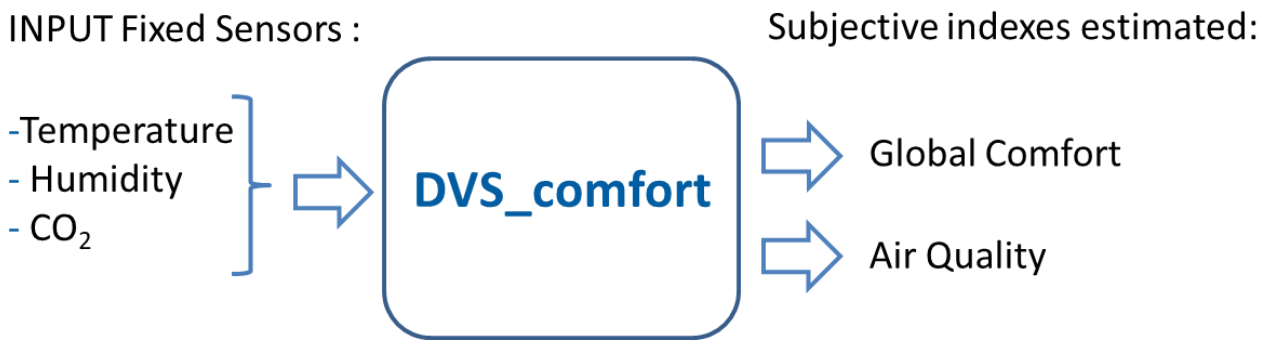
Better trade-off between energy saving and user comfort

Problem

- Present energy management is focused on the temperature control
- Consider the actual personal wellness in energy control

Solution

- Real-Time estimate of the comfort sensations felt by the indoor users



Up to 30% of energy savings per year !

Technology

DVS®

MODELWAY

INTELLIGENCE TECHNOLOGY

ML/AI on the Edge

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