Software platform based on Artificial Intelligence for manufacturing enterprises to support decision making, everyday operations, maintenance – target companies chemical industries, food& beverage, tanneries, paper mills, plastics processing, glassworks

Summary

Profile type	Company's country	POD reference
Technology offer	**Italy**	**TOIT20230612021**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Commercial agreement with technical assistance**	**• World**
Contact Person	**Term of validity**	**Last update**
Rita Elste - Tomsone	**12 Jun 2023** **11 Jun 2024**	**12 Jun 2023**

General Information

Short summary

An Italian company experienced in AI, big data management and process modelling, has developed an innovative software platform based on machine learning techniques that, through an agile and functional dashboard, collects, elaborate and represents all necessary information helping plant manager and business in making fast and effective operational decisions. The company is seeking manufacturing companies interested in commercial agreements.

Full description

Digital evolution is today overwhelming and the advent of Big Data accelerated it as never before.
Despite that, digital transformation is still difficult for organizations and manufactures since the automation of once-manual processes faces several issues such as machinery signals that do not share the same language, coexistence of analogical and digital collection of information, non-interconnected databases, high costs for systems integration and a resulting mistrust in the possibility to obtain concrete benefits from the digital transition.
In this scenario, the company defined a platform aimed at helping manufacturing managers and making them able to deal with the existing information in an efficient way. The tool enables extracting and collecting relevant information from data available throughout the whole production process. It offers a complete analytical and quantitative perspective that would help operators and management make informed decisions to reach the organisation’s objective.

The software platform is based on the company's proprietary Data Science framework, allowing to easily create a unique dashboard that collects, manages and visualises all the organization’s data and statistics: (such as control charts), OEE, KPIs, (both standard and custom) and special indicators such as virtual sensors and predictive insights based on AI techniques.
The data management module of the platform integrates all the client available data (regardless of sources and scales) and makes them readable and easier for operators to be in line with quality control, raw material conformity and other requirements. Other modules allow to control production, downtime and failure in real-time, perform predictive maintenance, prevent process anomalies and identify causes, optimize energy consumption and reduce environmental impact.
The target company of the product could be mid to large manufacturing companies acting in several fields such as food and beverage, paper mills, plastics processing, glassworks, chemical industries, oil and gas, Pharmaceuticals, dye factories and tanneries.
The platform would focus on different key aspects related to client needs and characteristics (ex. If it is equipped with an internal IT department or just some data collecting systems, etc..).

Main services relate to:
Management, overall production performance statistics, ESG and general cost reduction through real-time control and forecasting.

Plant manager, OEE, product quality assessment, predictive maintenance, laboratory data integration in SPC, storage management

Process operators, complete machinery key indicators visualization, raw materials conformity check, anomaly detection, drift prevention

The platform is highly customizable and it is developed for the specific client needs after an in-depth technology assessment of the production process, areas of interest and desired goals. The company also offer an introductory training phase.

Advantages and innovations

The platform is based on a company-proprietary data science framework named Princess. Major benefits and innovative features are :

- Product quality assessment
- Raw materials conformity
- Predictive maintenance
- Anomaly detection
- Energy savings
- Process automatization
- Process control
- Performs any type of required analysis

Technical specification or expertise sought

Stage of development

Already on the market

Sustainable Development goals

• Not relevant

IPR Status

No IPR applied

Partner Sought

Expected role of the partner

Target companies are primarily in the field of food and beverage, paper mills, plastics processing, glassworks, chemical industries, dye factories and tanneries.

Type of partnership

Commercial agreement with technical assistance

Type and size of the partner

- **Big company**
- **University**
- **SME <=10**
- **R&D Institution**
- **SME 11-49**
- **SME 50 - 249**

Dissemination

Technology keywords

- **01003003 - Artificial Intelligence (AI)**
- **01003015 - Knowledge Management, Process Management**
- **01003024 - Cloud Technologies**
- **01004016 - Analysis Risk Management**
- **01004012 - Operation Planning and Scheduler System**

Market keywords

- **02007016 - Artificial intelligence related software**
- **02007011 - Manufacturing/industrial software**
- **02007022 - Software services**
- **02007021 - Other Artificial intelligence related**
- **02007014 - Other industry specific software**

Targeted countries

- **World**

Sector groups involved