Solution for optimising processes and reducing carbon footprint in Industry 4.0.



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TYPE OF RESULT

New technology

New product New service

New knowledge or skill



COMMERCIAL MATURITY LEVEL

Conceptual idea
Proof of concept (design)

Validated in a controlled environment

Validated in a real environment
Successfully implanted



PROTECTION LEVEL

Non- applicable Patent

Software Know - how

Utility model

Technology description

Optimising processes implies restructuring efforts in order to guarantee an increase in productivity, turning them into safer, more efficient and profitable operations.

In this sense, companies are increasingly committed to contribute to the fight against climate change according to the UN's Sustainable Development Goals, which implies reducing the amount of greenhouse gases that are generated over the life-cycle of their processes and activities, as well as in the use of their products and services.

Therefore, data analysis models are required to be used in calculating the carbon footprint in all the productive processes, helping not only to their optimisation, but also to reduce their climate impact.



Thanks to its own developed software, as well as using advanced analysis and data processing techniques, the offered service implies the development of ad-hoc projects, in order to support the decision-making in production, logistics and transport processes, reducing simultaneously their carbon footprint.

• Fields of application

This is a solution especially for SMEs of industrial, transport and logistics fields, that need to improve (optimise) their productive processes, achieving at the same time a reduction in their carbon footprint.

For instance, it may be of interest for the following:

- Industrial SMEs: that need to optimise their production processes to improve their performance, increasing or enhancing their products without increasing emissions.
- Logistics and transport companies: that need to optimise times and reduce costs in distribution and delivery routes, minimising emissions too.
- Passenger transport and vehicle hire companies: that need to enhance their fleet management by meeting efficiently the demand estimation and reducing emissions.

Market opportunity/ needs

EU is working on the revision of its climate, energy and transport-related legislation in order to adapt the current laws with the neutral climate EU goals for 2050.

Although productive sectors are progressing on the reduction of their emissions, there is still a long way to go in order to meet the EU goals proposed for 2030: reducing net greenhouse gas emissions by at least 55% from 2021 to 2030, compared to 1990 levels.

This will force companies to carry out actions related to minimise the environmental impact of their logistics and productive activities.

Competitive advantage and innovative aspects

Nowadays, there is a wide range of solutions that allow to optimise processes under multiple restrictions. Most of them are based on services of big consulting firms, as well as in proprietary software applications that are expensive for most of small and medium sized enterprises.

The main advantage of this service lies in the fact that this is a customised solution with its own methodology, meaning that it can be adapted to the capacities of any SME by developing custom projects according to the requirements of both the market and the consumers.

In addition to this, the solution meets the needs of self-management, productivity increase and intelligent decision-making model which is intended to be implemented.

Resources needed to be implemented

Detailed data about the process to be optimised are necessary.

Related equipment

Own software is available for data processing.

Application references

This solution has been already tested in a logistic optimisation project for a trading and distribution company of hydraulic work supplies in Canary Islands.

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