

Italian engineering company specialised in the sustainable transition offers its technology-based decarbonisation services to industries using electricity and heat in their processes.

Summary

Profile type	Company's country	POD reference
Business Offer	Italy	BOIT20220727009
Profile status	Type of partnership	Targeted countries
PUBLISHED	Commercial agreement	• World
Contact Person	Term of validity	Last update
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General Information

Short summary

An Italian engineering company specialised in sustainability and energy transition services has developed a structured approach to translate decarbonisation policies into practical actions. The methodology allows the creation of optimal transition scenarios, leading to business plans and design of interventions, contextualised in a decarbonisation roadmap. The proven approach, offered as commercial agreement, is targeted to industries employing electricity and heat consuming processes.

Full description

An Italian engineering company focused on the development of industrial decarbonization and sustainable transition projects, has developed a structured approach aimed at finding the best technologies to decarbonize processes and meet the CO2 reduction goals effectively and on time.

The tailor-made service is broken down into a three-step approach adaptable to different levels of detail, from general group strategy right through to the implementation on a single production line. Starting from an "as-is" assessment, the company creates decarbonisation scenarios site-by-site, discusses them with the client and prepares a decarbonisation plan to move from paper to real-world implementation, optionally supported by a network of technology partners for the realisation of interventions.

The working method includes the scouting of innovative technologies, the creation of digital twin models for the simulation of the optimal sustainability scenarios (economic, technical and environmental) converging in a roadmap

of actions supported by business models.

The process is driven by a “Divergent/Convergent” path:

In a first phase (DIVERGENT), all the available technological alternatives are mapped and evaluated, by means of a set of KPIs that allow a comparative evaluation (e.g. efficiency, power density, range of commercially available products, maturity, but also CAPEX costs and operating costs, reliability and compatibility with other parts of the system).

This careful examination according to a rigid set of parameters allows to obtain two important results:

1. Be sure to have taken into consideration all the possible technologies, being aware of the reason why certain solutions have not been taken into consideration;
2. Concentrate development efforts on the optimal solution. And it is precisely in the CONVERGENT phase that the most promising concepts are developed and engineered through analysis, digital-twin simulations, and finally the identification of the best partners necessary for the implementation of the project.

The pillars on which the service is based are:

- The engineering and technological approach to the problem, with a strong component of data analysis and modelling;
- A vast network of “Solvers”, i.e. companies, start-ups, research centres, holders of a specific technology or know-how;
- A structured and tailor-made method of evaluating solutions that flows into a decision support tool capable of transforming the complexity of multi-faceted problems into a clear and rigorous decision-making process.

The approach, offered as services agreement and already successfully deployed for major multinationals, has proven particularly beneficial to industries employing electricity and heat consuming processes.

Advantages and innovations

The multitude of technologies on the field of sustainable transition, combined with a fast-evolving environment makes it hard for industries to know how to start a decarbonisation journey or how to translate objectives into actions in the optimal way.

Backed by expertise in the industry innovation field, the approach offers a clear mapping of the most sustainable (economically, environmentally, technically) options tailored on the specific industry site and objectives, thus avoiding the risk of blindly picking solutions with low inter-compatibility or not optimal for the specific context.

Depending on the need, the service can either stop at the planning and preliminary design stage or get to the implementation stage thanks to a network of partners.

Stage of development

Already on the market

Sustainable Development goals

- **Goal 12: Responsible Consumption and Production**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 13: Climate Action**
- **Goal 7: Affordable and Clean Energy**

IPR Status

No IPR applied

Partner Sought

Expected role of the partner

The potential partners are companies in the industry sector that use electricity and heat in their processes, willing to start a decarbonization journey or to put into practice their sustainability claims.

The cooperation will be in the form of commercial agreement

Type of partnership

Commercial agreement

Type and size of the partner

- **Big company**
- **SME 50 - 249**
- **SME 11-49**

Dissemination

Technology keywords

- **004006001 - Energy management**
- **10002013 - Clean Production / Green Technologies**
- **004006003 - Process optimisation, waste heat utilisation**
- **10002015 - Life Cycle Assessment**
- **10002004 - Climate Change mitigation**

Targeted countries

- **World**

Market keywords

- **02006004 - Data processing, analysis and input services**
- **09003005 - Consulting services**
- **06003006 - Combined heat and power (co-generation)**
- **08006001 - Process control and logistics**
- **09003001 - Engineering services**

Sector groups involved

Media

Images



[Decarbonization Toolkit Cover.png](#)

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Videos

[DECARBONISATION TOOLKIT_presentation](#)