



LIFE CYCLE ENGINEERING

Empowering your positive impact

TOOL FOR ENVIRONMENTAL ANALYSIS

upgradeable with social, safety
and quality assessment options

OUR WEB-BASED AND EXCEL-BASED PLATFORM FOR DEVELOPING CSR/LCA & EPD TOOLS

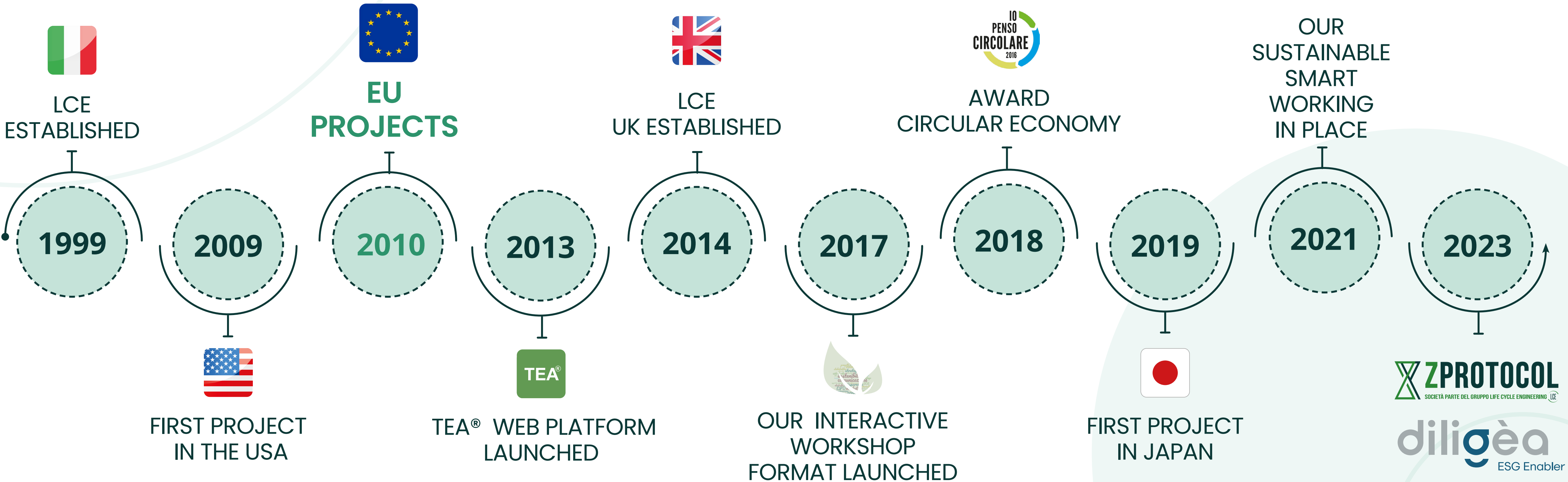
CSR/LCA & EPD

Corporate Social Responsibility
Life Cycle Assessment
& Environmental Product Declarations

LIFE CYCLE ENGINEERING

Our Milestone

Life Cycle Engineering (LCE) is an independent consulting firm, providing **professional solutions and tools** for Life Cycle Assessment (LCA), eco-design, environmental communication and regulatory compliance to private companies and business associations



ZPROTOCOL & DILIGEA

As a **team of experts** from different but complementary realities, **we tackle sustainability issues together** with an integrated, entrepreneurial approach.



ZPROTOCOL is an **IT company** specialized in the development of **customized web or Excel based platforms** to support data collection and sustainability analyses of products and processes.

After about **ten years** of collaboration, ZP joined the LCE Group in 2023 to improve the development of **TEA platforms**.



Established in **2023** with BGR Tax & Legal, a tax consultancy firm with offices in Turin and other Italian cities, **DILIGEA is a boutique consulting firm** that offers integrated support and assistance services on **environmental, social, and governance issues**.

In response to the clear market demand for a single provider of **ESG services**, the existing collaboration between LCE and BGR has now been strengthened and enhanced.

www.diligea.com 

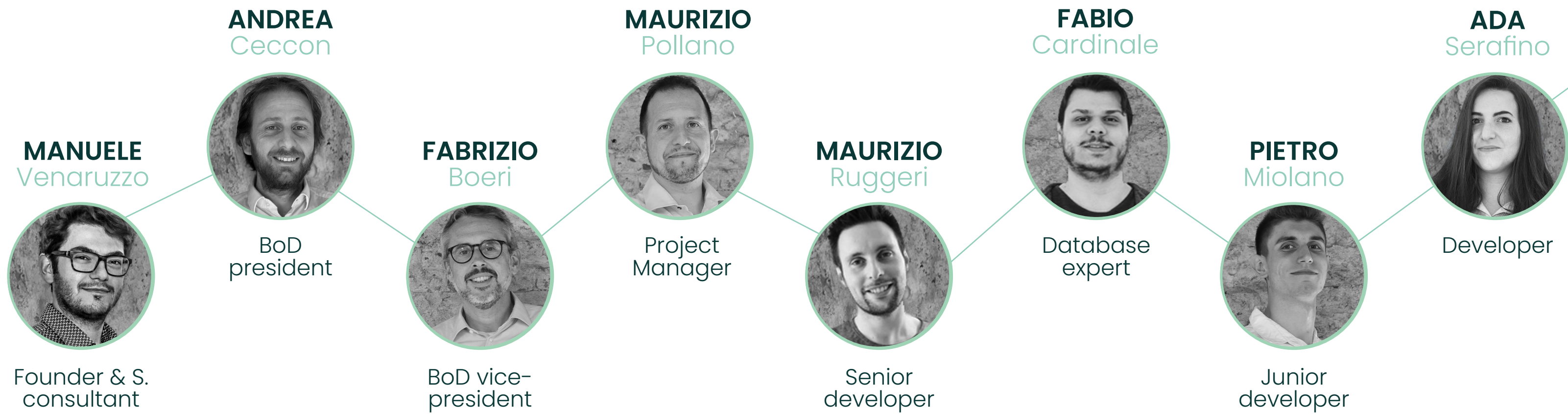
ZPROTOCOL

Our Team

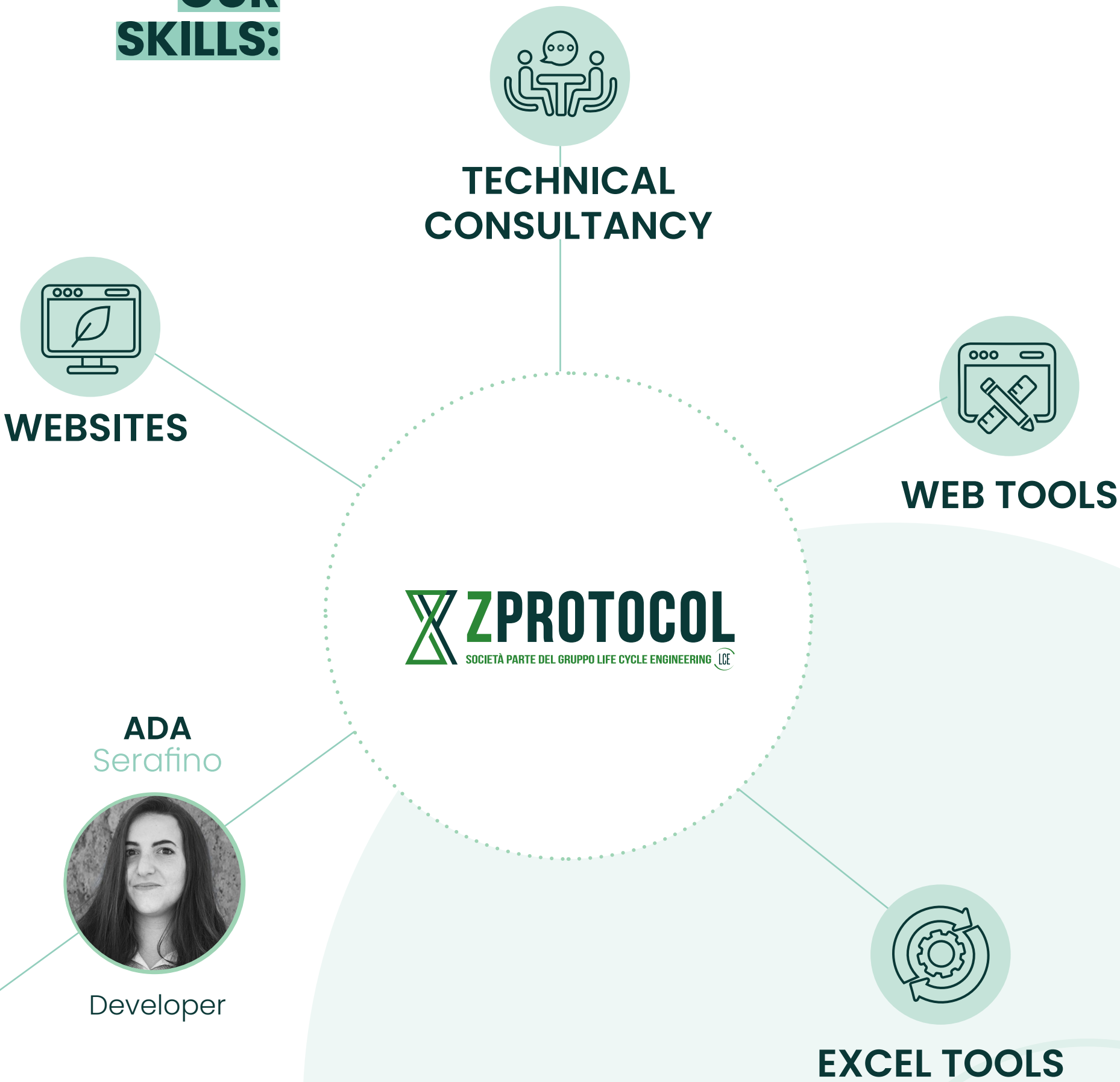
ZProtocol Srl was born on 1 March 2017 from the union of **passions and IT and design skills.**

In order to better follow increasingly large and structured customers and projects, the ZProtocol team has expanded and since **November 2023 has joined the Life Cycle Engineering group**, historic customers and now partners.

MEET OUR TEAM



OUR SKILLS:



LIFE CYCLE ENGINEERING

Our Team

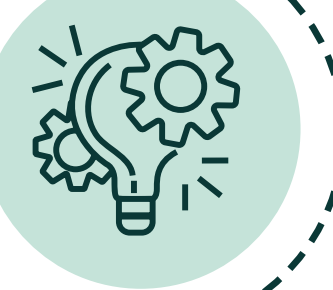
>25
YEARS OF
EXPERIENCE



On specific fields

LCA/EPD/CSR analysys and webtool, eco-design, eco-labelling, carbon footprint, environmental communication, environmental law

>500
PROJECTS



Developed to support
companies sustainable business

>35
CONSULTANTS



Inter-disciplinary
skills



LAURA
Management Engineer



ASSUNTA
Environmental Engineer



GIULIO
Environmental Economist



FABRIZIO
Environmental Engineer



PAOLA
Chemist



SIMONA
Accountant Assistant



BARBARA
Civil Engineer



GIAMMARCO
Environmental Scientist



SARA
Graphic Designer



STEFANO
Mechanical Engineer



ALICE
Materials Engineer



ALESSIA
Graphic Designer



MASSIMO
Graphic Designer



GIAN LUCA
LCA Engineer



RICCARDO
Environmental Engineer



CHIARA
Chemical Engineer



ELISA
Materials Engineer



DAVIDE
Energy Engineer



STEFANIA
Agronomist



SONIA
Environmental Engineer



ANNA
Chemical Engineer



MASSIMO
Energy Engineer



MARTINA
Environmental Scientist



ELISABETTA
Environmental Scientist



MAURIZIO
IT and Web Developer



FRANCESCA
Communication Assistant



ALESSANDRA
Industrial Chemist



LUCA
Energy Engineer



PAOLA
Administration and Human Resources



MYRTA
Communication Assistant



FRANCESCA
Industrial Ecologist



ELENA
Communication Assistant



LORENZO
Environmental Scientist

EUROPEAN PROJECTS

Focus

LCE owns **extensive and relevant experience** in participating in European and International projects (i.e. H2020, LIFE, INCO, CRAFT, INTERREG, and GROWTH) and is currently involved in **several Horizon 2020 as well as LIFE+ projects.**



EUROPEAN PROJECTS

Focus – LIFE

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2010

INTEND

Definition of an EPD system that can be applied at international level and its implementation in two pilot countries (Sweden and Italy)



Conception Optimisée pour la Réduction de l'Impact des Nuisances Environnementales

ECONOMICK

Energy consumption and CO₂ and no emissions minimized in an intermittent ceramic kiln

RAPIDRY

Rapid drying of ceramics reducing energy consumption and CO₂ emissions

2024



Heat it yourself for sustainability: circularity in energy intensive industries



GREAT

Growing resilience agriculture



SANITSER

Sanitary-ware production: use of waste glass for saving energy and resources

2026

EUROPEAN PROJECTS

Focus - HORIZON 2020



2010



Adaptive model-based control for laser-assisted fibre-reinforced tape winding



Model based control framework for site-wide optimization of data-intensive processes



Advanced Eco- designed fibres and films for large consumer products from biobased polyamides and polyesters in a circular economy perspective



CO₂ utilisation focused on market relevant dimethyl ether production, via 3D printed reactor and solid oxide cell based technologies



Conceptual Study of Electrochemical based novel process using Lignosulfonates to produce biobased monomers & polymers



First-of-its-kind, large-scale, lowest-cost, zero-waste biorefinery for the production of proteins for food and feed application from low cost sustainable feedstocks.



Solid-state lithium metal battery with in situ hybrid electrolyte



Sustainable routes for synthetic graphite production for high-performance Lithium-Ion battery anodes



Advanced materials and cells development enabling large-scale production of Gen4 solid-state batteries for mobility applications

2024

2026

INTRODUCING TEA[®]

THE CONTEXT WHERE TEA[®] OPERATES

Tool for a **life cycle-thinking environmental analysis**, upgradeable with social, safety and quality assessment options.



INTRODUCING TEA®

TOOL FOR A LIFE CYCLE-THINKING ENVIRONMENTAL ANALYSIS

TEA® is a web-based platform that support companies in process/product data collection and analysis and give back suitable assessments such as LCA/CSR reports and EPDs for management and communication purposes.

WHY

Tea® provides quick, **easy and reliable answers to the stakeholder's requests** regarding the environmental performance of your products and/or your organisation.

WHO

Tea® is addressed to **multi-site companies, corporations and business associations** that require an easy-to-use solution for data acquisition, cleansing and reporting to communicate their CSR or product environmental performances.

WHAT

Tea® collects data about environmental, economic and social aspects. **A customized database is shaped to collect useful information** and data to elaborate performance Indicators for several purposes: CSR, LCA, EPD, LCC, SLCA and circular economy initiatives.

HOW TEA[®] WAS BORN AND WORKS

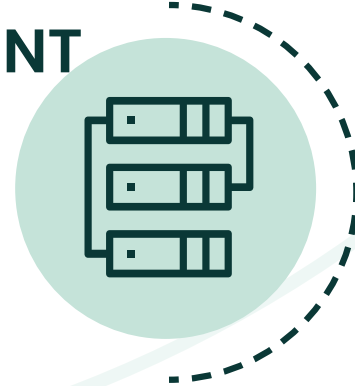
TO DEVELOP A CUSTOMISED VERSION OF TEA ≈ 6 MONTHS

1 DESIGN



THE WEB-TOOL IS DESIGNED IN CLOSE CONTACT WITH YOU IN ORDER TO BE ADAPTED TO YOUR SPECIFIC NEEDS. USERS AND ACCESS RIGHTS, ALGORITHMS, DATABASE AND EXPECTED REPORTS ARE CAREFULLY DEFINED AND DESIGNED AT THE BEGINNING OF THE ACTIVITIES.

2 IT DEVELOPMENT



OUR IT PARTNERS DEVELOP THE WEB-TOOL FOLLOWING THE CHARACTERISTICS DESCRIBED IN THE FUNCTIONAL ANALYSIS.

3 RELEASE AND USE



AFTER SHARING A PRELIMINARY VERSION (βVERSION) AND COMPLETING THE BUG-FIXING, THE WEBTOOL IS READY FOR USE. WE ORGANIZE TRAINING SESSIONS FOR USERS WHO HAVE TO USE THE TOOL.

4 CUSTOMER SERVICE



WE PROVIDE TECHNICAL AND IT SUPPORT BOTH DURING THE LEARNING AND THE USE PHASES



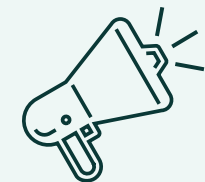
Data collection by
multi-sites companiers
(on-line questionnaires)



Customized environmental
(LCA) data base by sector



Elaboration of indicators
and reports



Communication,
Green marketing, positioning
also by means of suitable
certification

INTRODUCING TEA®

EXCEL-BASED OR WEB-BASED TOOL

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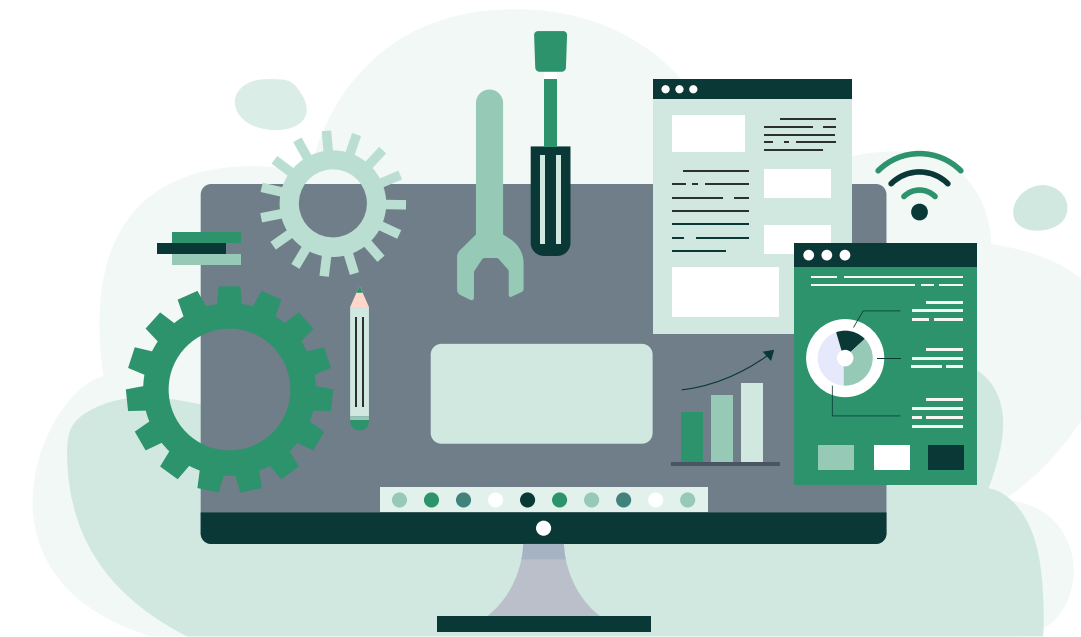
EXCEL-BASED TOOL

Spreadsheet with **optimized interface**
through controls and buttons

LCA Results
in **PDF format**

Manual data entry into the
calculation form for each product

Suitable for an **expert user** who knows
deeply the production process
(e.g. product manager)



USER INTERFACE



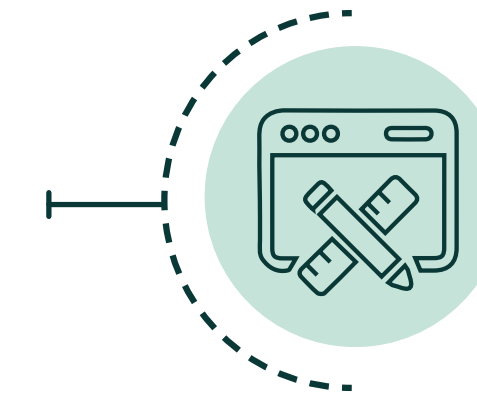
REPORTING



DATA ENTRY



USERS EXPERIENCE



WEB-BASED TOOL

Web page **with login information**,
company's brand identity **customized**

LCA Results on **web page**,
exportable in various formats

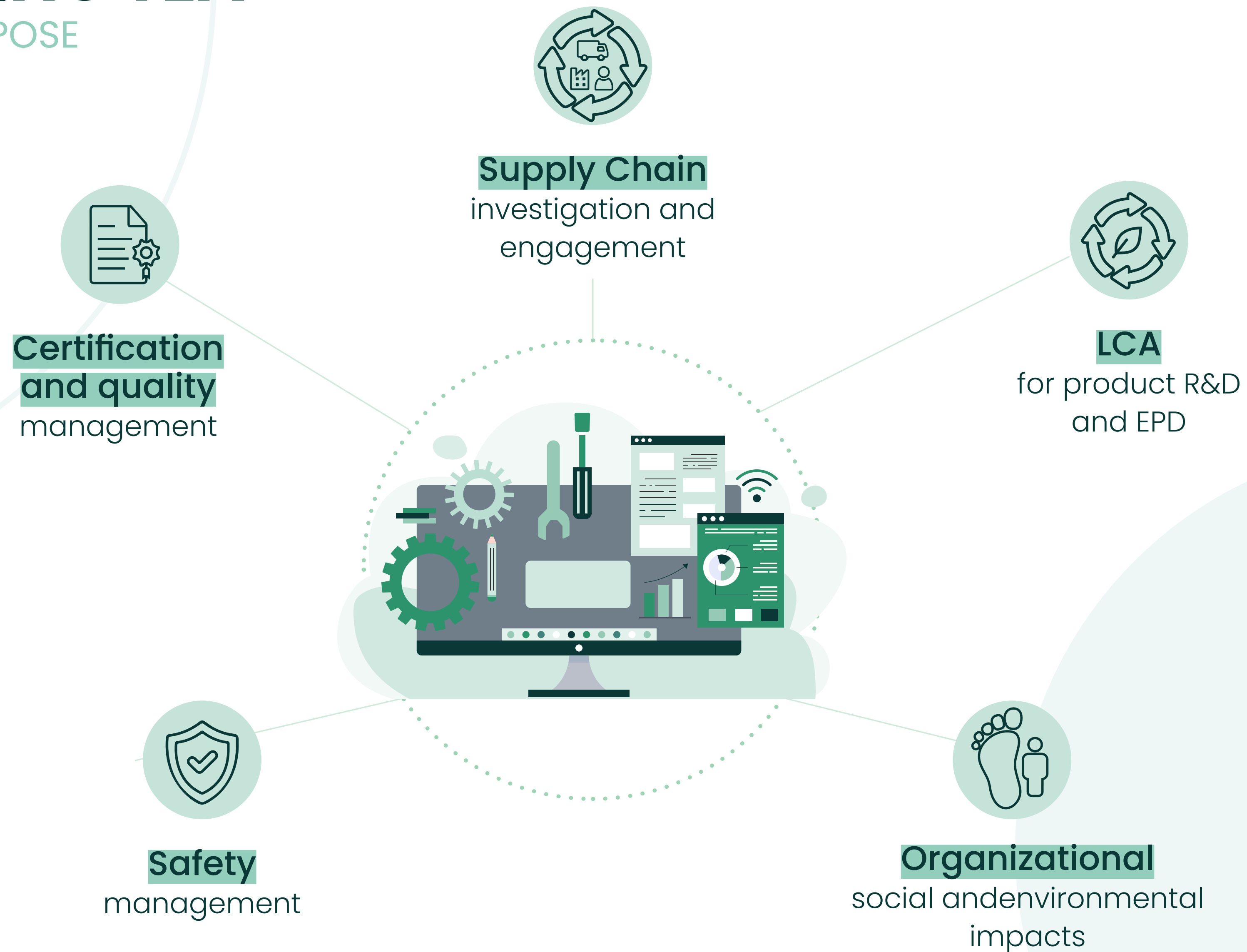
Primary data **automatic update**,
preloaded in the tool with
predefined and verified procedures

Suitable for a **less expert user** with
basic knowledge of processes
and products (e.g. sales)

INTRODUCING TEA®

THE TOOLS WE PROPOSE

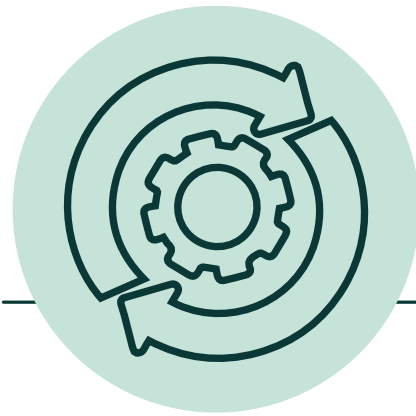
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TEA[®] ADDED VALUE

TEA[®] IS NOT SOMETHING NEW, IT IS SOMETHING EASIER

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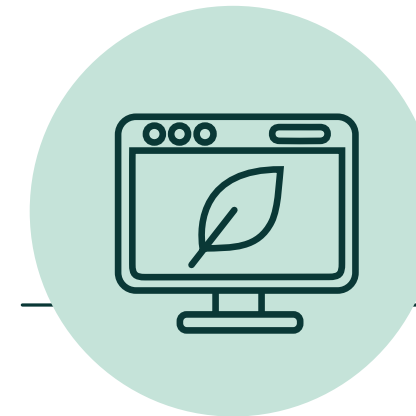
EFFICIENT

TO COLLECT DATA REDUCING
COSTS AND TIME;
TO ACCELERATE THE INVOLVEMENT OF
INTERESTED PARTIES.



RELIABLE

TO SUPPORT A CREDIBLE
COMMUNICATION, PERFORMANCE
TRENDS AND BENCHMARKING
(I.E. AVOID GREENWASHING)



MODERN

USE UNIVERSAL LANGUAGE
THROUGH THE WEB TECHNOLOGY



READ MORE



Tool for Environmental Analysis

IS A REGISTERED TRADEMARK OF

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