

Botanical extracts and nutraceutical ingredients

Design development and manufacturing



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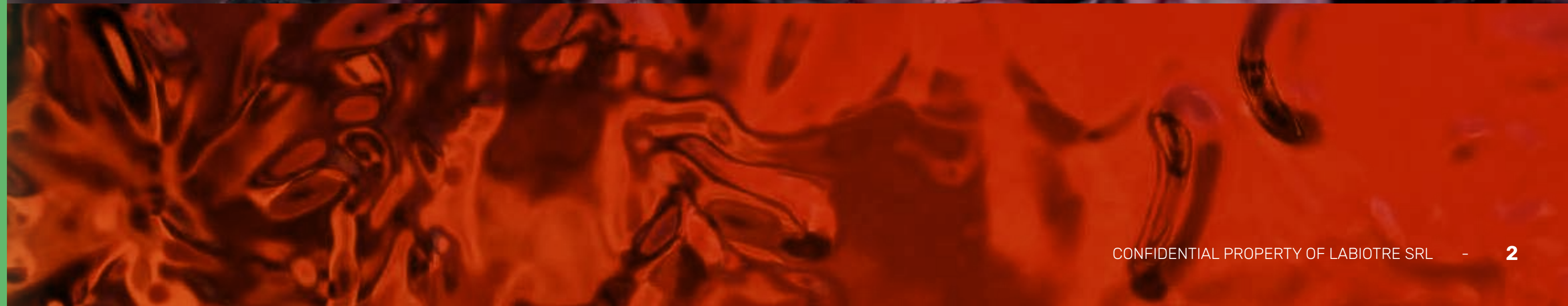
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01

About us & Reason why



About us

An Italian company based in Tavarnelle Val di Pesa, Tuscany, in the heart of Chianti, it has always embodied an Italian tradition of passion for botanics and phytotherapy, specialising in the manufacturing of **botanical extracts**. Thanks to its in-depth botanical knowledge, it develops innovative extraction methods that allow it to extract as much as possible from the plants, preserving their phytocomplex, and offering herbal extracts and nutraceutical ingredients with added value.

High Scientific expertise in botanical extracts design development and manufacturing

Vision

We improve people's wellbeing and quality of life.

Mission

We work together with passion to conceive and manufacture products and services for wellness, respecting the environment.

We innovate with courage, proud to belong to a big family.

Values



Customer orientation



Consistency



Team Spirit



Well-being and Sustainability



Passion for Excellence

Reason why

Passion and experience have always been the hallmarks of Labiotre, enabling to offer the **market superior-quality botanical extracts and nutraceutical ingredients with italian excellence.**

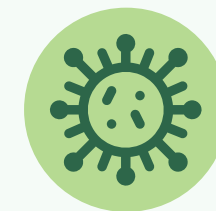
Labiotre ability is to combine **scientific research, technical expertise and the optimal use of natural raw materials** ensures that every product is the result of a rigorous, standardised and controlled process.

An authentic and distinctive approach: the perfect **balance between innovation, knowledge and attention to detail**, designed to offer ingredients of the highest quality, ready to be transformed into distinctive products of real value for the market. Focusing on purity, efficacy and supply chain traceability guarantees reliable solutions for the nutraceutical industry, in compliance with the highest international standards.



Titration and Phytocomplex protection

Internal UV and HPLC analysis, excluding adulteration



Microbiological analysis



Product-specific critical issues

E.g. citrinin, irradiation test



Solvent, Pesticides, Heavy metals and PAHs (Polycyclic Aromatic Hydrocarbons) residues analysis

02

Botanical extracts and nutraceutical ingredients



Botanical extracts and Nutraceutical ingredients

Manufactured using traditional methods, by infusing the plant with a solvent, which may be water, ethanol, glycerine or oil.



Fluid, glycerine and hydroglycerine extracts



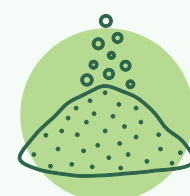
Hydroalcoholic tinctures



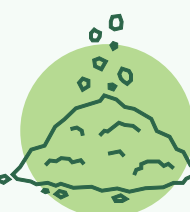
Glycerine macerates



Soft extracts



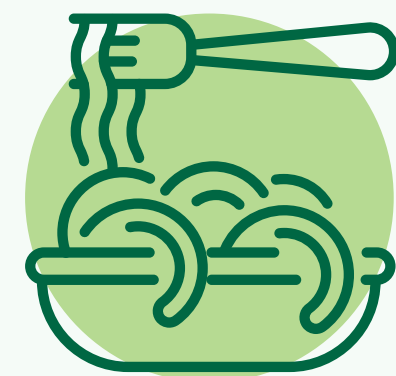
Granular dry extracts



Dry extracts



Nutraceutical application



Food industry

Each Labiotre extract or fraction has characteristics that make it ideal for specific formulations, allowing customers to select the most suitable category from the range of products on offer.

PHYTO-COMPLEX

Every stage of the extraction process is **carefully managed to preserve the integrity of the plants and ensure the product's maximum efficacy.**

We work with sustainable suppliers who are committed to biodiversity to offer authentic products rich in active ingredients, which reflect the essence of nature and meet our customers' needs.



03

Manufacturing process



Manufacturing process

Plant

- Supply chain control
- Incoming inspection of every batch
- Direct line of communication with the manufacturer

Extraction

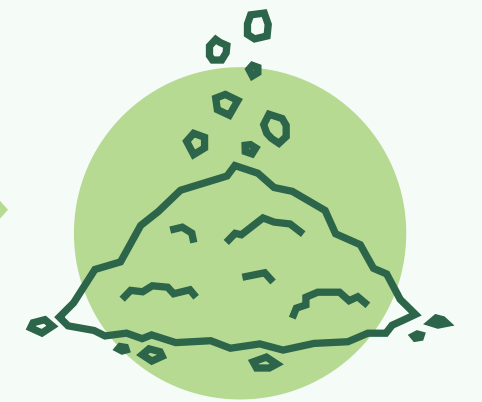
The extraction process used allows the active ingredients of the plant to be extracted in a very short time, whilst leaving the constituents of the phytocomplex originally contained in the plant unaltered and balanced. The extraction solvents used are: water, ethanol, glycerine, and vegetable oils.

Concentration

At every stage of the industrial process, the extracts are kept at low temperatures in order to prevent any deterioration in their organoleptic and functional properties.

Fluid bed technology granulation

Thanks to a unique granulation method, it is possible to produce FFLG (Free Flowing Labiotre Granules): granules of almost uniform size.



Granular dry extracts



Fluid extracts



Soft extracts

At every stage of the industrial process, the extracts are kept at low temperatures in order to prevent any deterioration in their organoleptic and functional properties.

04

Products and Services

Products and Services

READY-TO-SELL

- Market trend collection
- Design and R&D
- Manufacturing process
- Technical documentation
- Sales/Distribution

**Products Portfolio
to go faster
on the market**

TAILOR MADE

- Gathering customer requirements
- Design and R&D
- Industrialisation
- Preparation of technical documentation

**Unique and
Distinctive
Products**



Ready to sell Portfolio



+100

Different botanicals species

+10

Therapeutic applications

+15

Added value nutraceutical ingredients

05

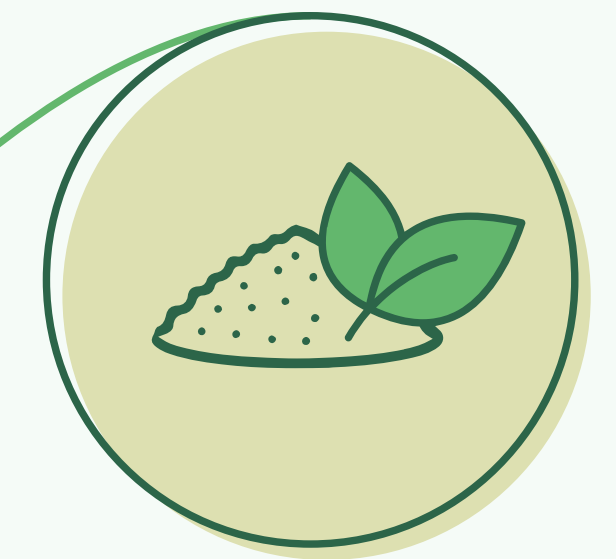
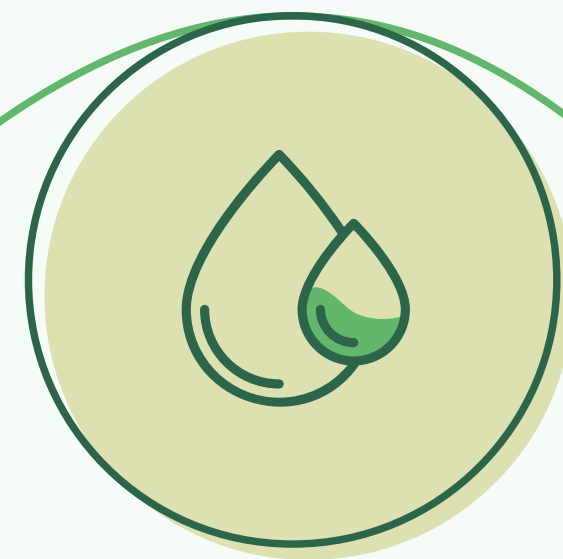
**Cutting edge
solutions
Ready to sell**

Cutting edge solutions Ready to sell

Added value nutraceutical ingredients developed with patented technologies and supported by in vitro and in vivo tests.

**BEST
INGREDIENTS**

**SHORT SUPPLY
CHAIN**



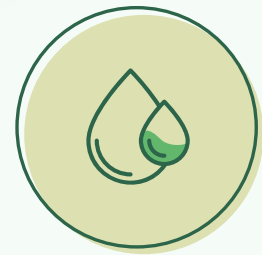
MICRO-ENCAPSULATED

LIPOSOMES

GRANULAR PLUS



Cutting edge solutions Ready to sell



Liposomes

Traditional dietary supplements taken orally and passing through the gastrointestinal tract may have limited efficacy due to low absorption and, consequently, low bioavailability. A liposomal extract, thanks to its liposomal micelles, increases the absorption capacity of the phytocomplex, thereby enhancing its bioavailability and efficacy. The Phytobilayer® production technology has been developed to demonstrate changes in the structure of the raw materials from crystalline to micellar, with beneficial consequences in terms of bioavailability and solubility.

Active molecules

- Glutathione

Minerals & Vitamins

- Iron + Vitamin C

Herbal extracts

- Berberin
- Black Pepper
- Rhodiola



Granular Plus

Granular extracts are characterised by inherent properties of **flowability, ease of dissolution and high compressibility**, making them particularly suitable for solid formulations such as sachets (especially orodispersible ones), capsules and tablets. Labiotre offers the possibility of designing a coating for the extract tailored to the customer's requirements and compatible with the active ingredients it contains, such as resistance to specific pH levels or modified release.

- Berberin
- Serenoa
- Boswellia
- Turmeric



Cutting edge solutions Ready to sell



Short supply chain

From the plant to the finished product, we are committed to sustainability at every stage. Our close and transparent collaboration with Italian suppliers enables us to offer high-quality, locally sourced products, whilst maintaining an ethical and transparent supply chain.

CIRCULAR ECONOMY

We are committed to the efficient use of resources and reduce waste to maximise the value of our products and minimise our environmental impact. Production waste is converted into biogas, thanks to a strategic partnership, thereby reducing our environmental impact and promoting circularity.

- Perilla
- Passionflower
- Echinacea
- Tarassaco
- Grindelia



Best ingredients

Best Ingredients represent a special category of extracts: a cross-sectional selection that brings together products which, whilst varying in nature, are united by a common thread: the passion and expertise that have always defined Labiotre's quality. This category features ingredients that best exemplify Labiotre's ability to combine scientific research, technical expertise and the enhancement of natural raw materials. A range of carefully developed solutions, often backed by specific studies that attest to their efficacy and quality.

Best Ingredients are the truest expression of our approach: a balance of innovation, knowledge and attention to detail, designed to offer our partners ingredients of the highest quality, ready to be transformed into distinctive products of real value for the market.

- Verbascox®
- PTG Natural Protection
- ForUEver Young
- Sambucus



Cutting edge solutions Ready to sell



Micro-encapsulated

Labiotaste® technology: a technological platform developed thanks to Labiotre's extensive expertise in the formulation of innovative botanical extracts, combined with Sphera Encapsulation's know-how in the field of sustainable encapsulation. LabioTaste is capable of improving the organoleptic profile of encapsulated products (e.g. pungent odour and taste), facilitating their processability and stability during storage. It is applicable to various botanical extracts; the potential of this technology is limitless.

The first applications are now available for botanical extracts with specific organoleptic features: *Valeriana officinalis* and *Panax ginseng*.

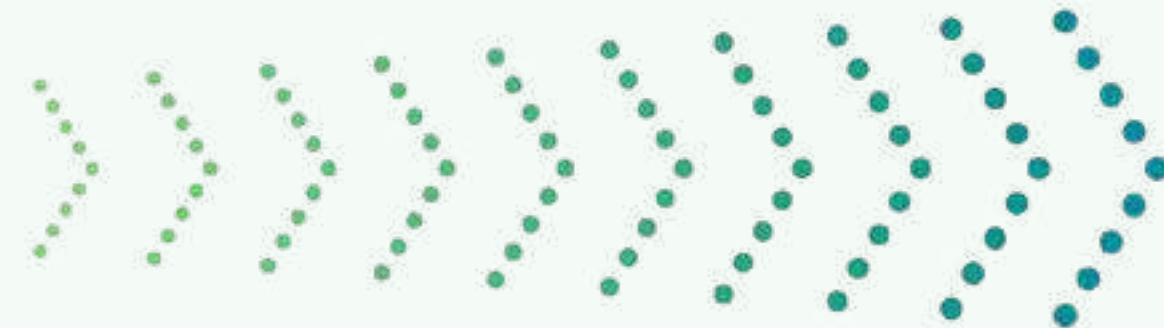


- Taste masking
- Stability improving
- Double plus solubility

RAW EXTRACT



Fluid bed Coating and agglomeration



ENCAPSULATED



Improved flowability and processability



Hide unpleasant taste and flavour



Tailored release



Increased bioavailability



Improved stability and humidity resistance

06

Tailor made Projects

Tailor made Projects

A customised process

Labiotre adopts a tailor-made process to meet the specific needs of each client, ensuring personalised and tailor-made solutions:

Research and Design



Lab development



Industrial Scale-up

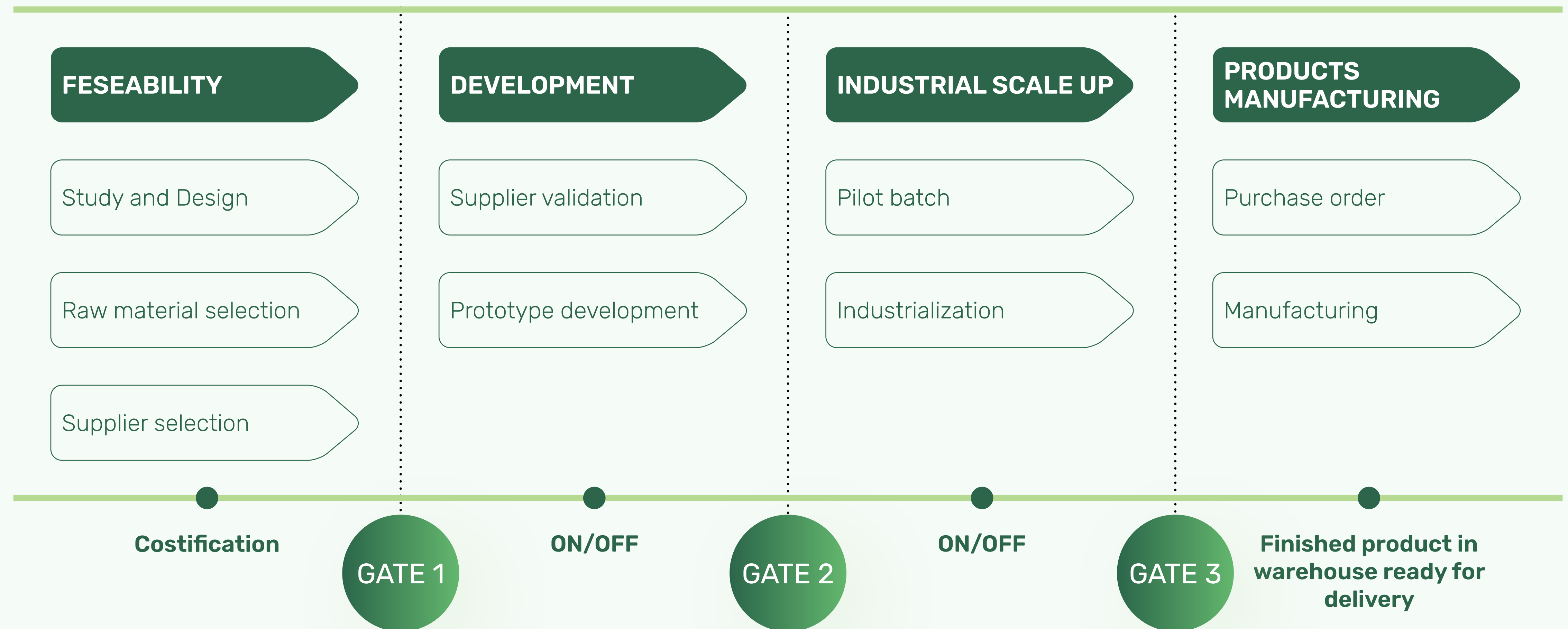


Industrial manufacturing



Tailor made Projects

A customised process



07

Quality and Certifications

Quality and Certifications

Labiotre carries out rigorous checks on raw materials, semi-finished products and finished goods, ensuring batch-by-batch certification regarding:

- ▶ **Titration of active ingredients**
- ▶ **Maximum residue limits specified in the European Pharmacopoeia and in current EU regulations**



Quality and Certifications

Process and Corporate certifications



Coming soon:



2025-ISO22000



LABIOTRE

Scientifically Natural



Labiotre S.r.l. Società Benefit

Via Renato Gattuso, 6, 50028 Sambuca Val di Pesa

P- Iva 06141080488

tel: 055 399 3542

www.labiotre.com