

A detailed botanical illustration of a plant, likely a legume, featuring several pinnate leaves with small, light-colored flowers. The illustration is rendered in a dark green color against a lighter green background.

Our Journey through Sustainability

Our Journey through Sustainability

Indena.com

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Letter to Stakeholders

Indena has been deeply engaged in a relationship with Nature since 1921. For almost a century we have been learning from plants about their traditional use, respecting and mimicking nature; science and botanical research have always been the instruments we use to create safe and effective botanical extracts, throughout our long history.

We have always been conscious of how important it is to preserve the natural balance of every living source and this is the reason we strictly follow laws, guidelines, procedures and programs with the aim of guaranteeing the safety of employees, safeguarding environment, biodiversity, supply chain, and of course regeneration of the botanical raw material from which we obtain our precious extracts and derivatives.

Moreover, considering the scientific evidence of climate change, pollution, environmental destruction, and the consequences of global social and economic imbalance, we are certain that a stronger commitment to sustainability has become unavoidable; the good news is that sustainability and sustainable development are now widespread concepts that increasingly inspire and define actions, policies and choices of people, institutions and private companies.

Of course, it is also relevant for us as a private company to take the responsibility of leading in a direction that even our own customers and stakeholders are eager to follow with more and more emphasis. In fact, in the past few years our dedication of resources in sustainability programs has become more and more important. Thanks to this engagement and the genuine passion that many people have given and continue to give, we are proud today to present this document. It is a story of passion and inspiration made possible by our faith in this vision, and our belief in the total care, protection and promotion of plants, for their extraordinary properties and for their positive application into health and wellness of human beings.

The story tells of how we created a working group, to research, study, share competences and promote innovative projects. We started collaborations with consultants, ONG's, institutions, local communities and customers: it is fascinating to see how we have been able to learn, decide, and lead a positive change.

We created a path with solid foundations among difficulties, great efforts, satisfactions and happiness, something that we want share.

This document is meant to be a declaration of intention and the narrative of our goals, with the hope of gaining feedback from our stakeholders, who we hope will become our fellow travelers. With this document, we also want to say thank you and pay homage to each plant and each person that was part of the multicolored and complex universe of our core business, and to honor the resources of our planet that nourishes and sustains all of us.

We want to tell you about our love and respect of Nature and human beings, and the commitments towards those values.

Welcome on board for this challenging and wonderful journey!

Biagio Della Beffa,
President





Chapter

1

Indena in numbers
Number of species by Country of origin

1

Introduction

Indena is the leading company dedicated to the identification, development and production of high quality active principles derived from plants, for use in the pharmaceutical, health food and personal care industries.

» Backed up by almost a century of botanical experience, the company holds more than 120 primary patents, has published more than 700 scientific studies and co-operates with the world's most prestigious Universities and private research institutions. Indena employs about 800 staff, investing around 10% of its annual turnover in research, making this activity the key to its success.

Headquartered in Milan, Indena has five production sites and five international branches throughout the world and manages sales in more than 80 countries.

Products portfolio includes numerous plant species. Most of them are cultivated. It has always been an Indena's goal to search for cultivated species instead of wild ones to pursue a sustainable development.

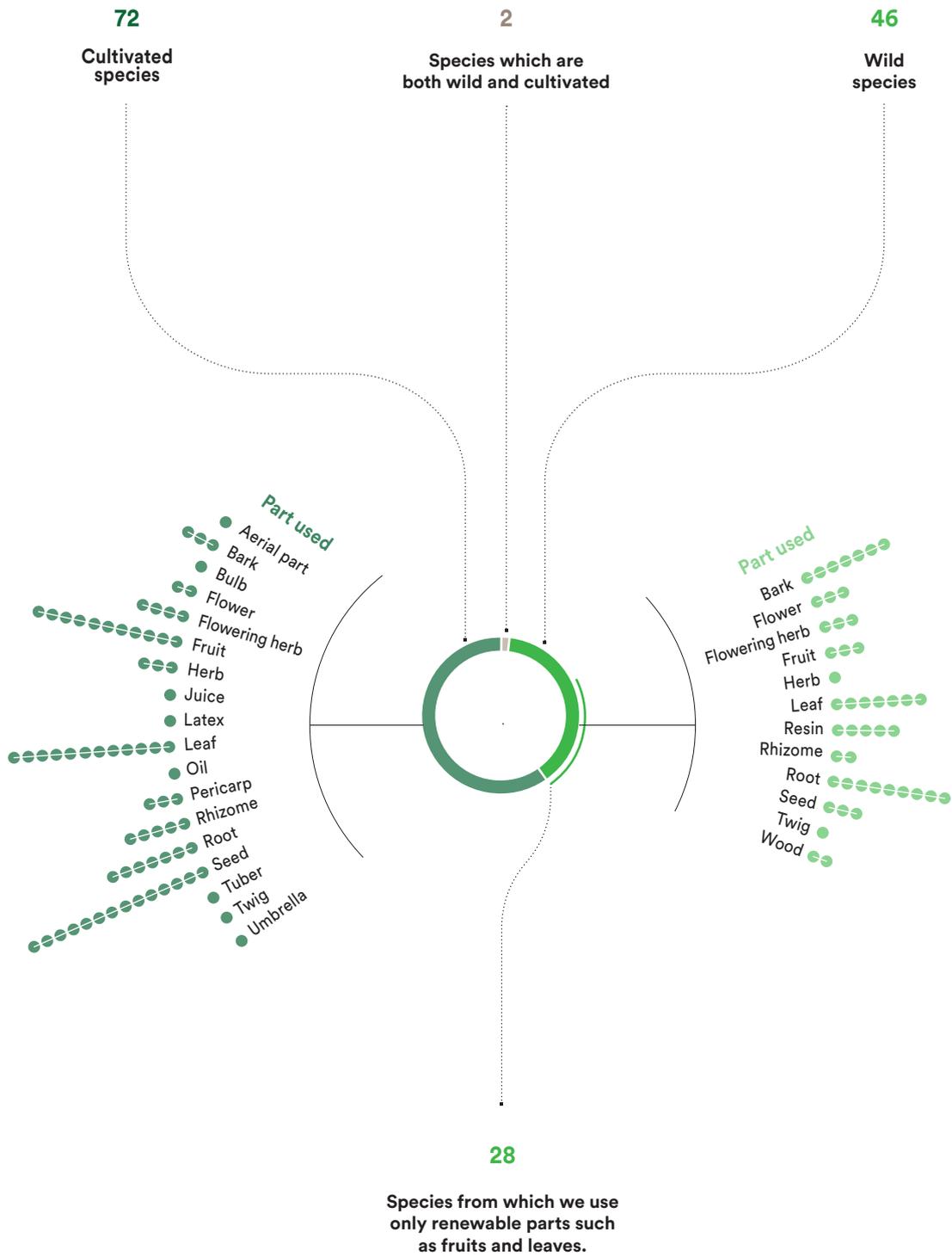
Cultivating medicinal plants requires years of agronomic research, reliable partners and strong commitment.

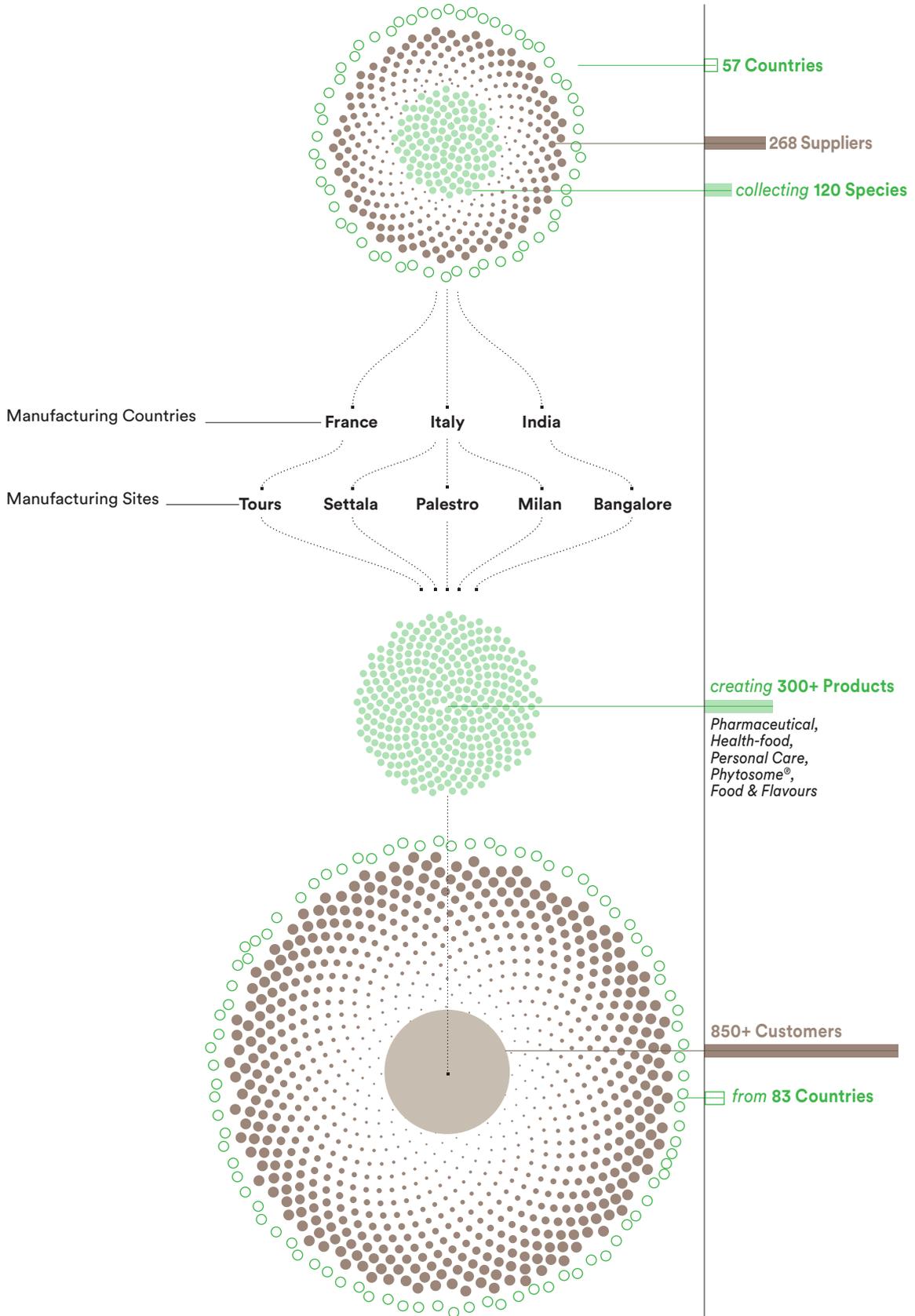
» The active principles marketed by Indena come from cultivated land, owned by the Company or by third parties working under the strict control of Indena's agronomists and botanists.

The suppliers are qualified in accordance to internal procedures and rigorous criteria of sustainability, quality, traceability and reliability. For this purpose, the implementation into the supply chain of the GACP (Good Agricultural and Collection Practices) guidelines is an important requirement and is periodically audited by Indena's QA Group. Moreover, Indena has worked with CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) and ITTO (International Tropical Timber Organisation) on projects for sustainable management.

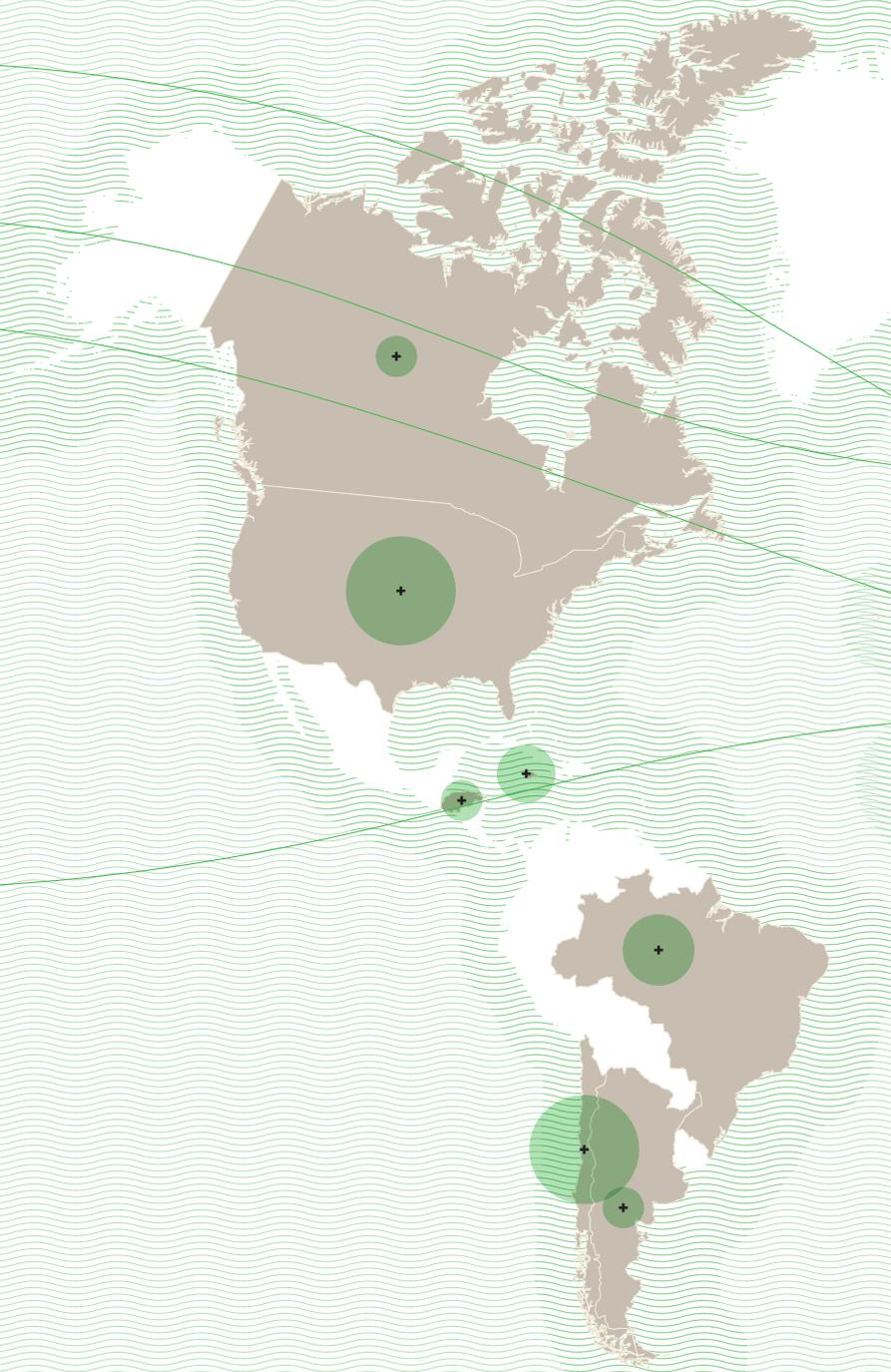
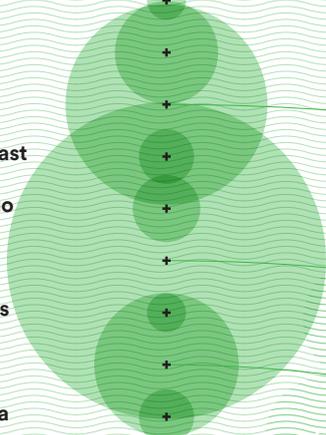
At the same time, Indena has developed an internal standard to reconcile the demand for high-quality raw materials with the principles of biodiversity and sustainability highlighted by the Convention on Biological Diversity (CBD) and other international standards.

Indena in numbers



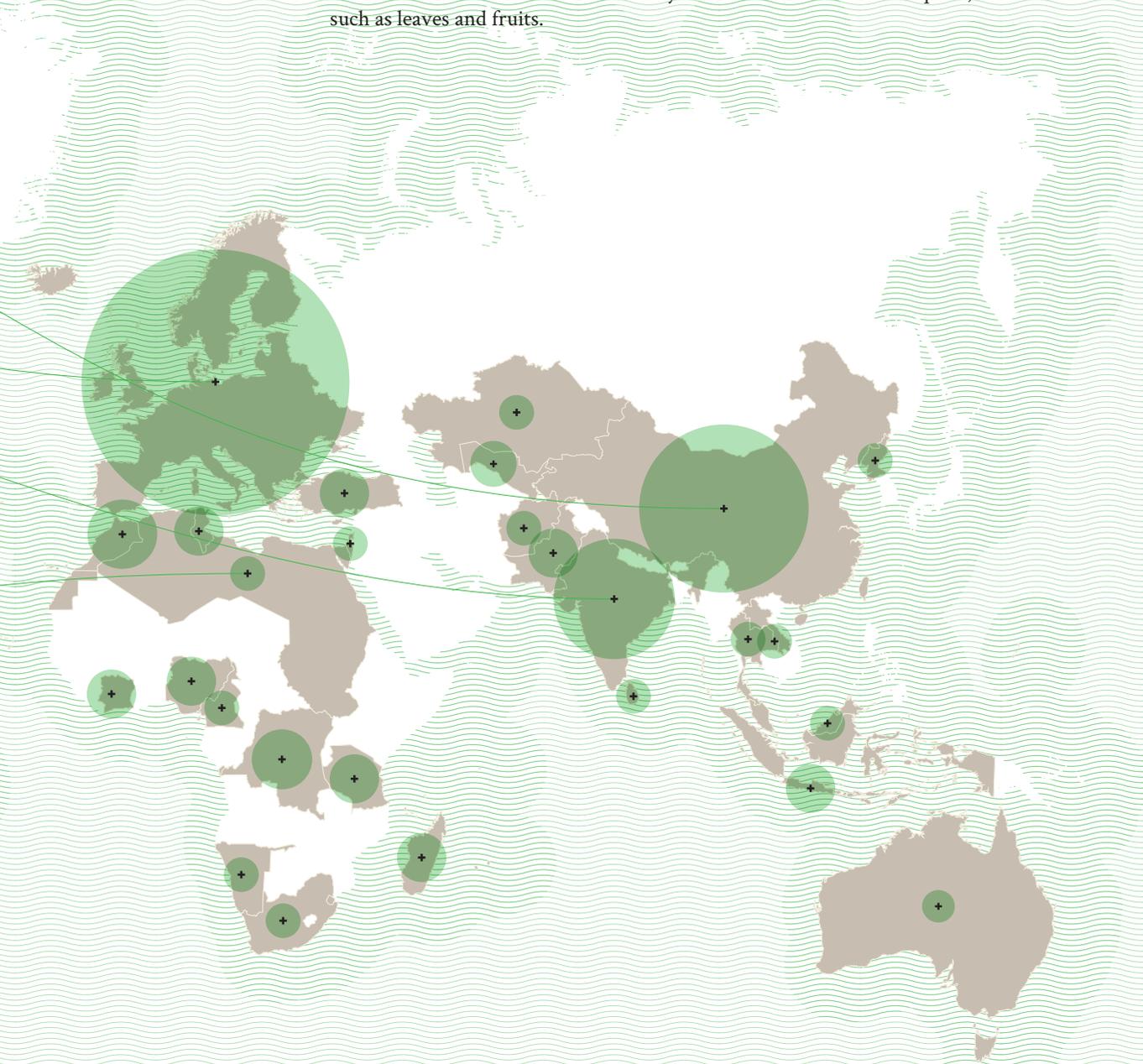


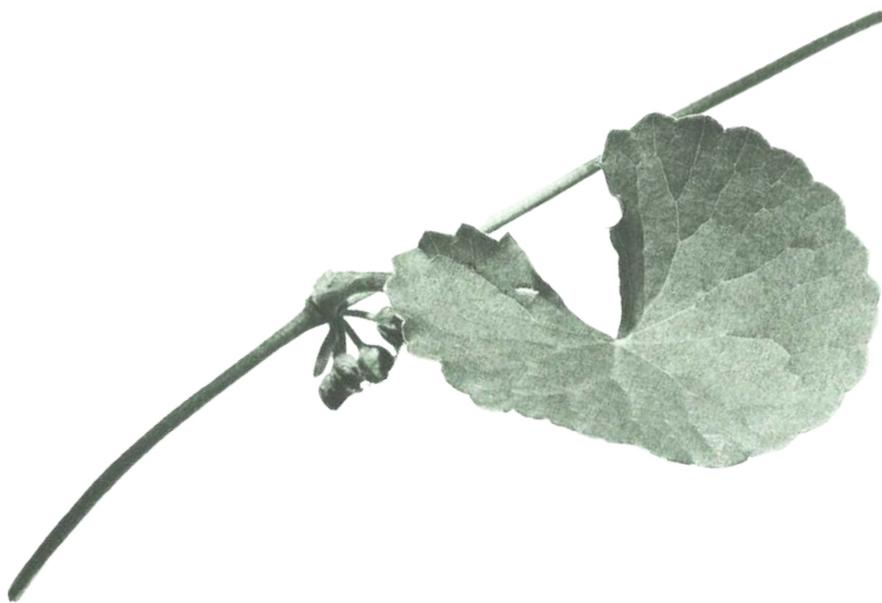
- 1 Afghanistan +
- 1 Argentina +
- 2 Australia +
- 3 Brazil +
- 1 Cameroon +
- 1 Canada +
- 7 Chile +
- 26 China +
- 2 Ivory Coast +
- 3 DR Congo +
- 61 Europe +
- 1 Honduras +
- 12 India +
- 2 Indonesia +
- 1 Israel +
- 2 Jamaica +
- 1 Kazakhstan +
- 1 Laos +
- 2 Madagascar +
- 1 Malaysia +
- 4 Morocco +
- 1 Namibia +
- 2 Nigeria +
- 1 North Africa +
- 1 North Korea +
- 2 Pakistan +
- 1 Sri Lanka +
- 1 South Africa +
- 1 Thailand +
- 2 Tanzania +
- 2 Tunisia +
- 2 Turkey +
- 7 USA +
- 2 Uzbekistan +



Number of species by Country of origin

Indena purchases its raw materials all over the world. Almost **40%** comes from Europe, and the remainder from other countries, significantly from Asia. Cultivations account for more than **62%**. Of the remaining **37%**, almost two thirds area accounted for by the collection of renewable parts, such as leaves and fruits.





Chapter

2

Centella asiatica project
Terminalia sericea project
Boswellia serrata project
Sedex

The Sustainable Sourcing Program

Environmental awareness, sustainability and biodiversity are complex issues that encompass many disciplines and Indena has always endeavoured to address these with traditional dynamics in its everyday business.

» For several years now however, the Company has chosen to undertake a demanding and ambitious journey striving to ensure the full sustainability of supply chains.

It takes great experience in handling the complexity not only of ecosystems but also the socio-economic environments in which Indena works alongside its suppliers to be able to properly and sustainably manage the thousands of tons of vegetal raw materials from 57 different Countries around the world that are processed each year. Sometimes, unstable conditions prevail in the Countries of origin of the plants which can have an adverse impact on sustainability, particularly affecting the local community.

To deal with such complex issues, in 2013 Indena has put together a multidisciplinary team consisting of botanists, communication professionals, managers of quality systems and regulatory experts, alongside cultural and linguistic operators, capable to develop complex projects and create networks with local partners and NGO's.

Moreover, in 2017, Indena decided to become member of SEDEX, an important international organization, whose aim is to promote the sustainable management of supply chains worldwide, monitoring the ethical behaviour of companies throughout a big data collection platform.

» The SuSo program is founded on this kaleidoscope of professionalism integrated with the quality management system; it is in keeping with the philosophy that has always been the hallmark of the Company to make the environment in which we operate a better place to be.



Centella asiatica project

Highlights

Good rates of attendance in every school: more than 90% vs other schools in the country (80%).

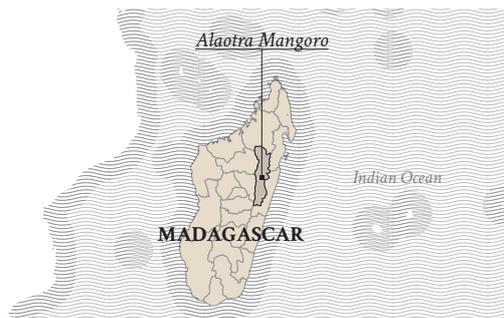
Children's enrolment +10,67% vs previous year (+34% for the 1st class).

Improvement in school literacy rates and examination.

Increased motivation of teachers.

Where

The first project was undertaken in the region of Alaotra Mangoro in Madagascar where *Centella asiatica* (*Centella asiatica* (L.) Urban), a perennial, creeping herbaceous plant belonging to the Apiaceae (Umbelliferae) family grows easily and spontaneously. *Centella* is one of the most important traditional medicinal plants in all Asia and Madagascar and the island represents the main world exporter of this biomass. The presence of Indena in Madagascar dates back decades. We established long lasting relationships with local partners for *Centella* leaves sourcing, for which *Centella* collection is an important complementary income.



Targets

The specific objective of the project "École pour tous" is to improve living conditions and decrease poverty in local communities involved in *Centella* collection, by increasing the quality of education and the school attendance of the children in the Region.

Actions

- 5 primary schools identified and involved;
- 1450 school kits distributed to the students the first year and more than 350 the second year;
- Didactic material for schools and teachers (dictionaries, books, globes etc.);
- Didactic training to 35 teachers on French and Malagasy languages and mathematics;
- Some building renovations in each school (restroom, roof, water wells).

Time

The project started in October 2015 and continues.

Partners

- RTM Volontari nel mondo (an Italian NGO operating in Madagascar since 1973);
- PRONAMA (Indena's local supplier since 20 years).

Award

The initiative won the CPhI Pharma Award "Excellence in Pharma: Corporate Social Responsibility" in October 2016.



Madagascar
School kits distribution

Terminalia sericea project

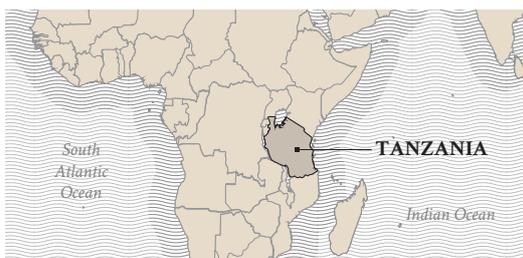
Highlights

The really good results of the implemented activities have been possible thanks to the involvement, motivation and the seriousness of local communities and cooperation with institutions who have donated land to the project.

This is the first time that a project promotes a sustainable approach in the Tanzanian Savannah. It is an important innovation as well as an earning opportunity for local people, while protecting the environment.

Where

This project is being implemented in Tanzania, in the region where the African Silver tree *Terminalia sericea* (*Terminalia sericea* Burch. ex DC) lives and is used locally as a traditional remedy for different conditions and as wood; *sericea*, in ancient Latin, means “silky, smooth as silk”. *Terminalia* is native to *miombo* woodland and is very useful in agro-forestry, as it improves soil quality through maintaining a general balance of the environment. Pressure from the expansion of agriculture and the needs for coal by a growing population represent a challenge for the safety of the *miombo* forest, a particular biome where *Terminalia* grows.



Actions

- Establishment of a Tanzanian National Association for the management and conservation of *miombo* forests in the areas of Dodoma, Tanga and Kibaha (20 persons for each zone = 60 persons);
- Identification of forest models as biodiversity hot spots and centers for good agricultural practices: each area of one hectare has become a best forestry school based on training;
- Training of Association members: forest ecology and basic soil science, Good Agricultural and Collection Practices (GACP), natural products management (sawing and drying of timber, etc.), business planning and cost/benefit analysis;
- Development of sustainable honey production chains in some communities through training on beekeeping and the creation of a revolving fund.

Time

The project, started in March 2016, has been completed in January 2020.

Targets

- To prevent the risk of deforestation;
- To promote biodiversity and conservation of *Terminalia sericea* by developing sustainable use of the species;
- To value the economic potential of *miombo*, while retaining all its ecological functions and environmental services;
- To support the economy of local communities through start-ups and new projects.

Partners

- NGO CAST (Centro per un Appropriato Sviluppo Tecnologico) Italy;
- TFS Tanzania Forest Service;
- TAFORI Tanzania Forestry Research Institute;
- PHUSYS Indena's supplier;
- LUIGI & FELICE CASTELLI Italian distributor of Indena cosmetic products in Italy.



Mali Kumi-Korogawe
A moment in a “forest school”

Boswellia serrata project

Highlights

Improvement of working conditions.

Better quality of raw materials, stocked in a cleaner place.

Supply chain optimization.

Higher revenues for collectors.

Where

This project takes place in India, in the Madhya Pradesh state, where *Boswellia serrata* (*Boswellia serrata* Roxb. ex Colebr.) a tree of the *Burseraceae* family, lives, and from which the gum resin is extracted. The English name of the species is Indian frankincense and the Hindi name is Salai; the product is known in the trade as Salai guggal.



Targets

- To improve working conditions through supply chain optimization;
- To ameliorate harvested material's quality;
- To increase sustainable harvesting practices diffusion.

Actions

Construction of two warehouses in two different villages for proper storage of the *Boswellia* resin and other botanical species collected by the local community.

Time

The project, started in November 2015, has been completed in November 2019.

Partners

Local supplier and selected local NGO - Gwalior Catholic Seva Samaj, Gwalior (M.P.) (active in India since 1999).



Shivpuri district (Madhya Pradesh)

One of the warehouses

Sedex

In 2017 Indena became a member of Sedex, one of the world's largest collaborative platform for buyers, suppliers and auditors with the aim of gathering, sharing and reporting on information around labour rights, health & safety, environment and business ethics.

In a rapidly changing landscape of CSR standards, Sedex' wide approach allows a complete and modern vision. The effective application of ethical standards is verified through SMETA, one of the most adopted ethical audit formats. In particular, Indena aims to support the improvement and application of ethical best practices in the Medicinal Plants context, whether cultivated or wildy collected.

In its first session of suppliers' engagement, Indena has already covered **30%** in weight of the total purchased biomasses. This selection of suppliers covers nearly **60%** in weight of vegetal material coming from countries with intrinsic risks regarding sustainability.

Even though we are at the beginning of this journey, we are making progress with great determination, commitment and dedicated resources. The feedbacks received so far are positive and encouraging, as emerging risks (evaluated through SAQ) was found to be lower as compared to the average Country inherent risk.

» www.sedexglobal.com



Risk Assessment according 4 pillars: Labour, Health and Safety, Business Ethic and Environment





Chapter

3

Environmental impact

Biomass recovery

Asbestos removal

Certifications

Our commitment to *Sustainable Development Goals*

Our journey through sustainability

3

Sustainable factory

Indena has been long devoted to the development of products that improve people's quality of life and is also involved in the areas of Safety, Health and Environment to monitor its performance for continuous improvement.

For this reason, Indena has promoted - within the Group - the implementation of certified Health and Environmental Safety Management Systems in all its production sites.

» **The aim is to contribute to sustainable development by assessing the current and potential impact of the Company's activities on Safety, Health and Environment.**

The processes optimization for the protection of natural resources may be found through, for example, the minimization of waste products, and air pollutant emissions throughout the supply chain.

The rationalization and reduction of energy consumption, the use of clean energy from renewable sources, the saving of water, energy efficiency, and waste recycling are an example of the objectives that Indena has set for its program.

Research is aimed at producing eco-friendly goods through safer processes, reducing environmental impact and respecting the ecological limits of the planet.

Since 2005, Indena has adhered to the Responsible Care® program, a voluntary initiative of the world chemical industry designed to improve the health, safety and environmental performance of Companies in this field.

This is Indena's challenge: the adherence to green economy as opportunity and openness to change for a better and sustainable quality of life.

Environmental impact

Climate change indicator - kg CO₂ eq.

Climate change is one of the biggest problems the world is facing today: it is caused by emissions of the so-called greenhouse gases, linked to the use of fossil fuels. Changes in lifestyle and technology innovation are key to control the climate impact, and must always be taken in consideration. Indena has taken some concrete steps aimed to minimize CO₂ emissions: i.e. reducing vehicle mobility, improving the power generation and the building efficiency.

In accordance to the LCA (Life Cycle Assessment) approach, all energy sources have been evaluated:

- the extraction of natural gas and its transport to the plant, including any losses along pipelines¹;
- the combustion of natural gas²;
- the production of electricity and its transmission to the plant³.

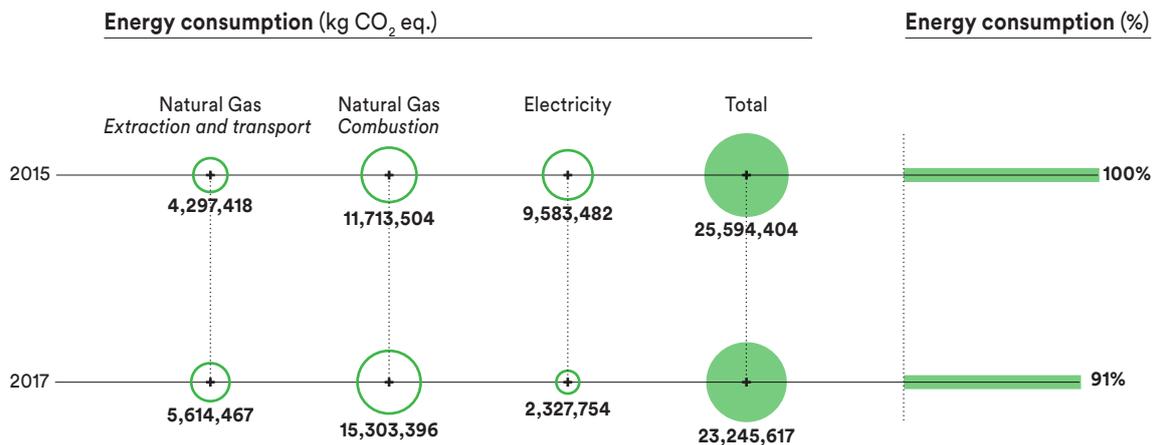
The method used for the quantification of the impacts for each phase is the IPCC 1.0.3 (Intergovernmental Panel on Climate Change) through the SimaPro Software v 8.3.

» **The analysis shows a reduction of about 10% of CO₂ equivalent.**

Cogeneration Plant Project

The results obtained in terms of improved energy consumption were evaluated before (2015) and after (2017) the installation of a natural gas Cogeneration Plant at our Indena Settala (MI) site.

Energy consumption (kg CO₂ eq.) before (2015) and after cogeneration plant installation (2017)



¹ The figure refers to the process of extraction and transport in Italy of natural gas reported in the Ecoinvent 3.3 database.

² The emission factors considered for the calculation of CO₂ eq emitted during the combustion of Natural Gas refer to the National Standard Parameters Table (UN-FCCC) valid for the calculation of emissions from 1st January to 31st December.

³ The figure refers to the Italian energy mix for the production of electricity reported in the Ecoinvent 3.3 database.

New building in Tours (France) 2017 vs 2015

Indena Tours has redesigned the energetic efficiency of a new building, achieving a higher performance through the rationalization of the energy flows thus lowering the overall energy consumption.

Savings

Over **60** MWh/year

→ CO₂ eq. **54** t /10 years

Corporate Shuttles in Settala (Italy)

Transportation plays a significant role in achieving reduction in greenhouse gases emissions: by setting up a Corporate Shuttle service - currently used by over 60 employees - Indena has avoided the diffusion of a significant amount of CO₂.

Savings

450,000 km/year

→ CO₂ eq. **70** t/10 years



Settala Site
Cogeneration plant

Environmental impact

Photochemical Ozone Creation Indicator - kg NMVOC eq.

Ozone at the lower levels of the atmosphere, also called troposphere ozone or ground-level ozone, is a pollutant. It is formed through a complicated series of photo-chemical reactions, in which the nitrogen oxides and volatile organic compounds (VOCs) react by producing ozone.

Troposphere ozone can cause damage to human health, such as breathing difficulties for the most sensitive people, and damage to vegetation, as well as accelerating the corrosive processes various materials are exposed to.

The characterization factors for different compounds capable of generating photochemical ozone are determined in relation to their equivalence, expressed in kg, with respect to the effect of 1 kg of NMVOC (Non-Methane Volatile Organic Compounds).

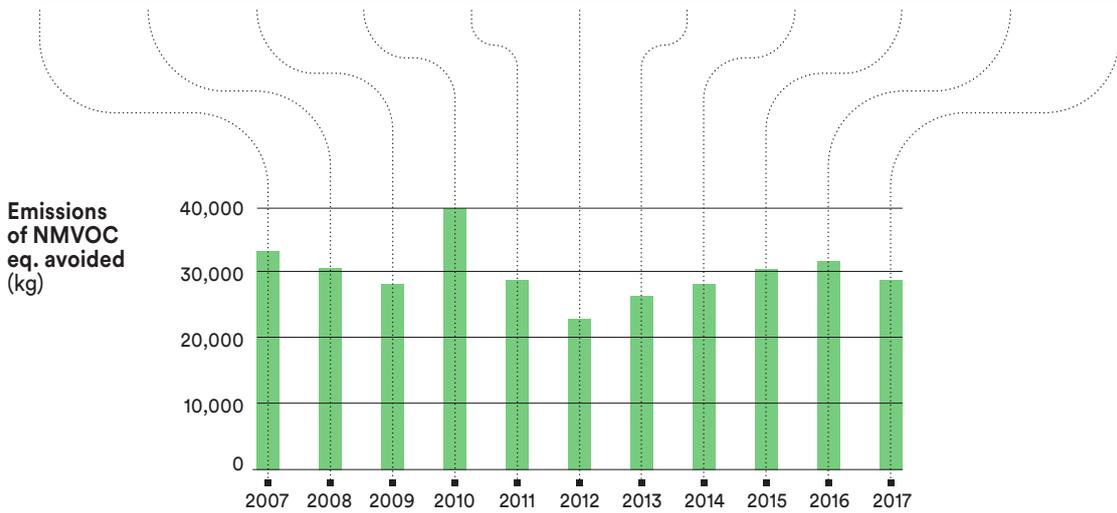
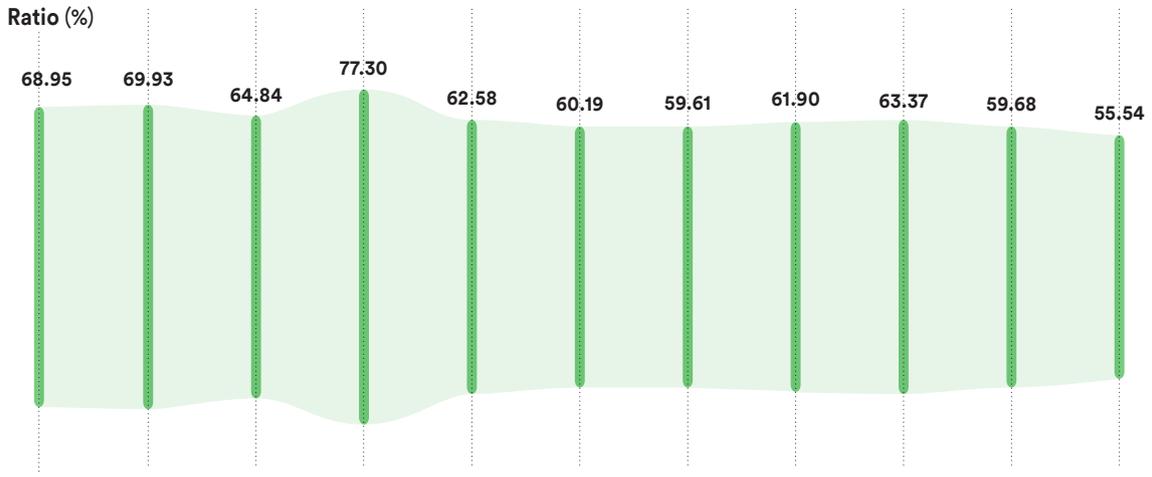
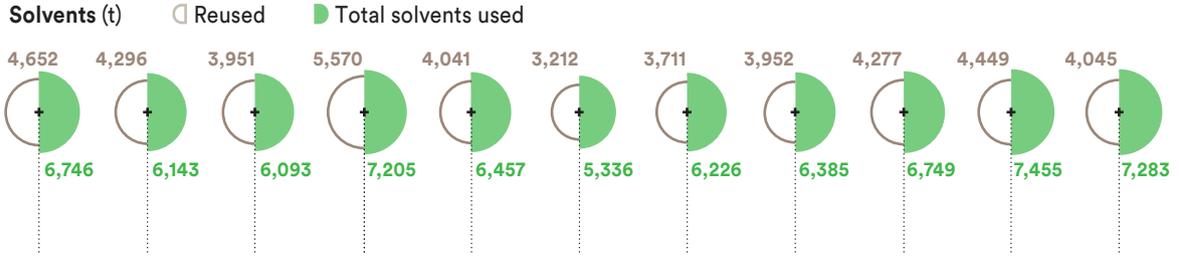
The rectification of organic solvents at the Settala (Italy) production site.

The life cycle of organic solvents used at the Indena Settala plant was evaluated; in fact, since 1970, the plant has had a department dedicated to solvent rectification.

» **The reduction of environmental impacts achieved as POCP (Photochemical Ozone Creation Potential) with the rectification and reuse of solvents in place of the reintegration of fresh ones is calculated and summarized in the following graph.**

The method applied is ILCD 2011 Midpoint + Method v1.09 through SimaPro Software v 8.3. The modeling takes into account the main solvents used, that represent about 90% of the total.

Solvents reused ratio and avoided emissions of kg NMVOC eq.



329,251

Emissions of kg NMVOC eq. avoided in 10 years

Environmental impact

Towards a more sustainable agriculture

According to an article published in Nature Plants (Nat. Plants 3, 17008 (2017)), it is possible to significantly reduce the use of chemicals in agriculture without altering yields or farmers' earnings.

It is our goal to continuously improve the quality of our cultivation systems:

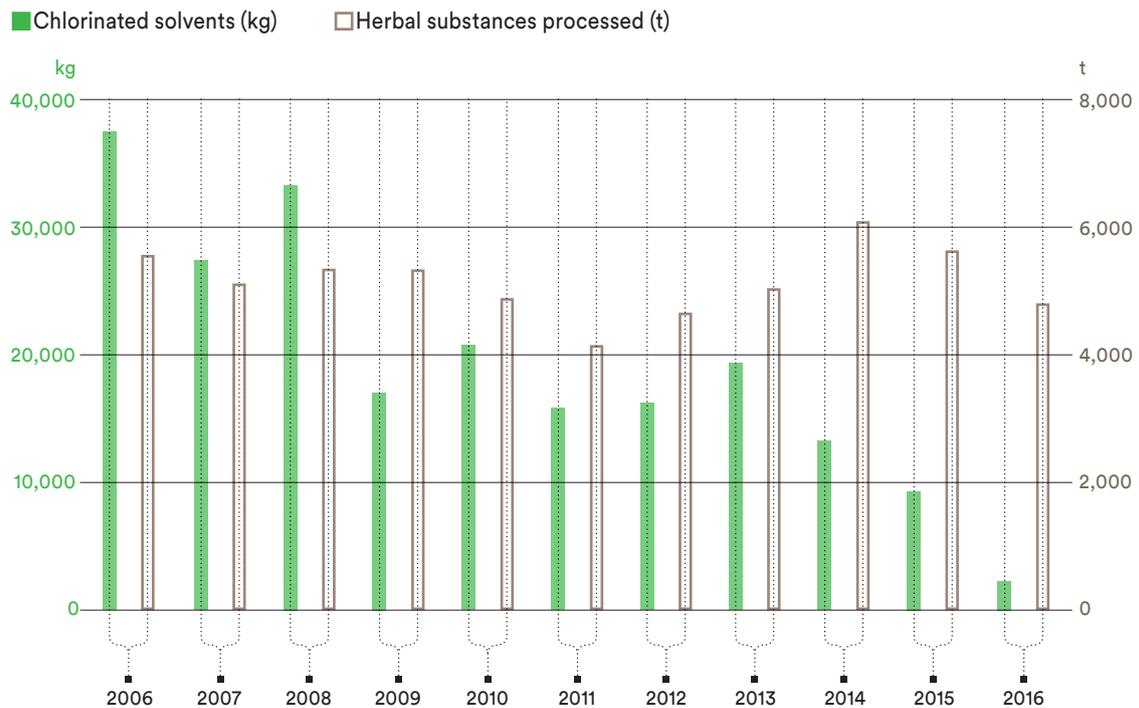
- limiting the use of chemical substances;
- encouraging innovative agricultural practices;
- promoting organic cultivation and a more environmentally conscious management.

To achieve this target it is necessary to go through a careful selection of suppliers, provide training and information on the risks involved in an agriculture that adopts intensive methods, choose the most appropriate cultivation areas, and promote custom projects and collaborations with Universities and research centers.

Fortunately, medicinal plants are well suited to this model: producers are often farmers with a marked sensitivity to sustainability and innovation. The quantities they produce are modest (when compared to those for food crops) where the use of polyculture enables for high diversity and less intensive farming practices.

This attention to cultivation systems has also a tangible positive effect on the industrial production of botanical derivatives, such as the reduction of chlorinated solvents that results in a less impactful process. In this regard we illustrate the strong positive impact that comes from the purchase of organic herbals or those produced in a more sustainable way, combined with the technological advancement in reduction of chlorinated solvents in one of our production sites.

Chlorinated solvents consumption - Indena SA - Tours, France



Biomass recovery

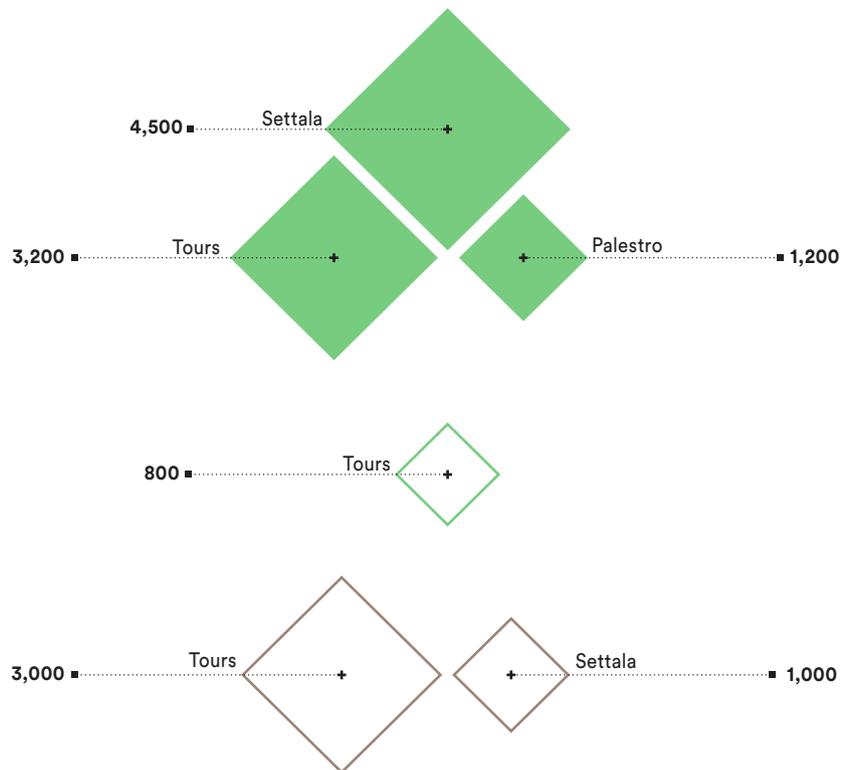
The European soil is losing fertility and structure, becoming more difficult to work with. Greater energy consumption and less rain increase the need for frequent irrigation and augmented consumption of water, a precious commodity. At the end of their internal cycle, biomasses used by Indena for extraction of the constituents and active ingredients become excellent amendment for agriculture that contributes to soil fertility through triple beneficial actions: physical, chemical and biological. In fact, the maintenance of acceptable levels of organic matter in agricultural soils, subjected to continuous mineralization, avoids the use of chemical fertilizers.

The reuse of these biomasses, by external companies, allows the recovery in a rational and environmentally friendly way of a source of energy that otherwise would be dispersed at the expense of the environment. In fact, an exhausted biomass represents a sophisticated form of solar energy accumulation and by decomposition produces a biogas that substitutes the needs for fossil fuels.

In some cases, the biomasses still contain appreciable quantities of useful primary and secondary metabolites, thus becoming an important source of nutrition for animal feeding to supplement their diet with valuable substances such as lipids, fibers, proteins, polyphenols, and flavonolignans.

Biomass recovery processes

■ Composting (t/year) □ Biogas (t/year) □ Food and animal feed production (t/year)



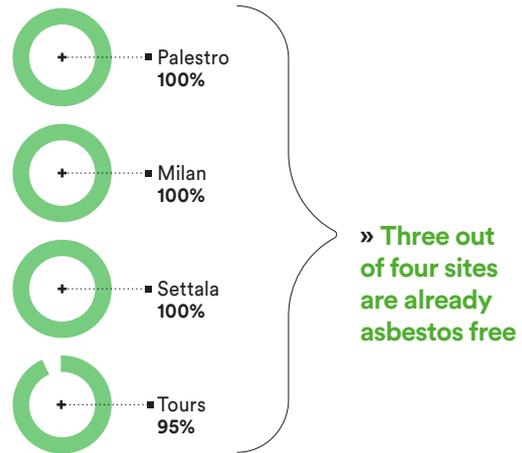
Asbestos removal

Due to its wide range of application, asbestos has historically been part of our daily life, until it was finally recognized as extremely dangerous for human health.

Indeed, its fibers, coming from damaged or overused material, once released in the air and inhaled provoke serious diseases at lungs level, fatal in the worst cases. Mesothelioma is a well-known example: it has been estimated that 80% of this cancer is caused by asbestos exposure.

Although European legislation provides that asbestos must be completely removed by 2028, Indena has already taken action to any risk connected to it. Three of the European Indena sites are already asbestos free, while one has already disposed over 95% of this material.

Asbestos removal (%)



Certifications

With the same philosophy of care and attention for quality that characterized its products, Indena is committed to cover all aspects of work-related actions that have impacts on people and the planet. For this reason, Indena has certified its sites OHSAS 18001 and ISO 14001.

Through the OHSAS 18001 (Occupational Health and Safety Assessment Series 18001) certification, obtained for two of its sites and on going for other two, Indena strengthens its commitment to a responsible management in

terms of health and safety matters. This type of certification is well integrated with ISO 14001, obtained several years ago.

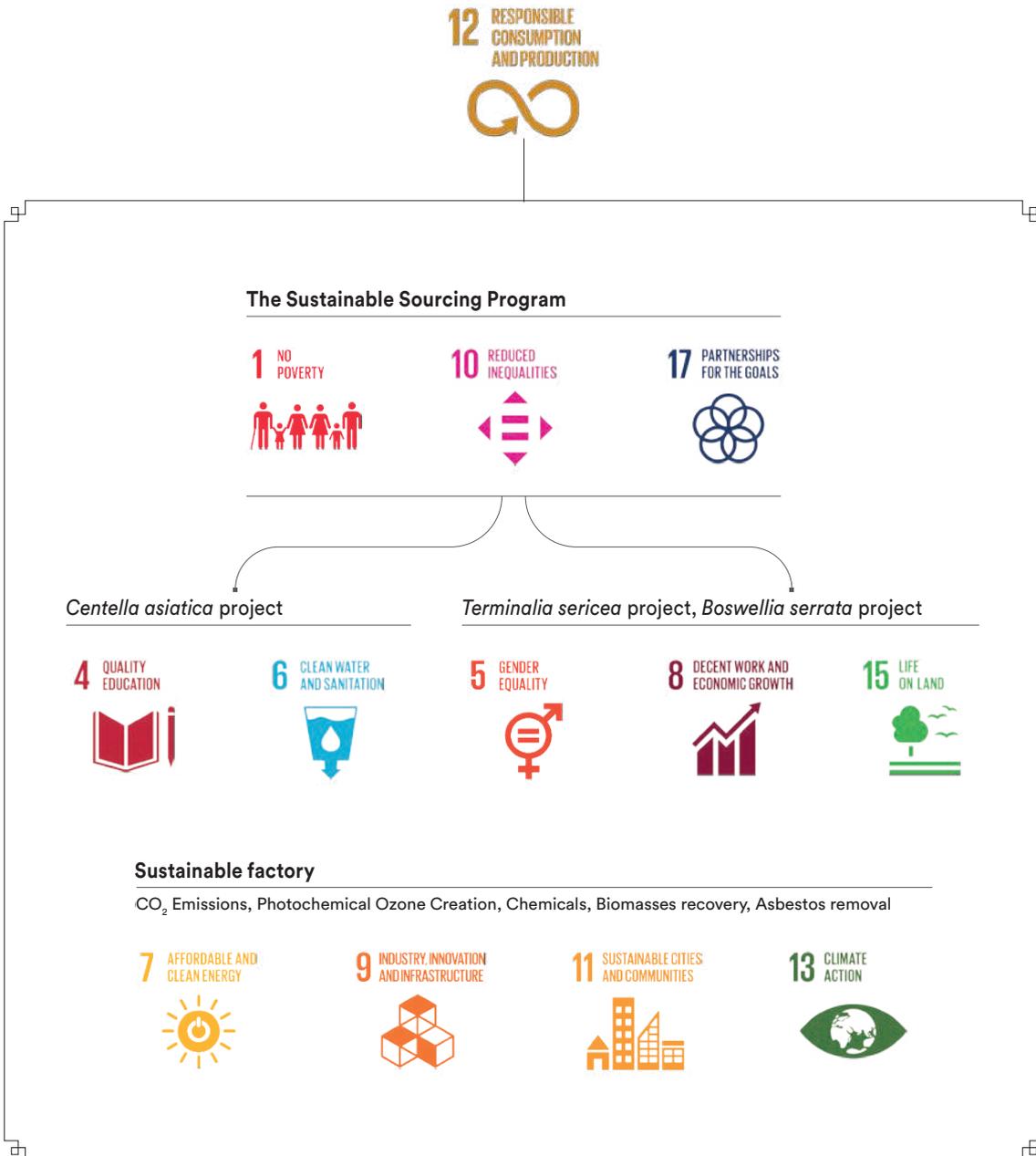
The adoption of the ISO Standard provides a guarantee about the environmental management under a perspective of impacts mitigation and risks elimination.

Sites certifications

Palestro	ISO 14001 + OHSAS 18001 ongoing
Settala	ISO 14001 + OHSAS 18001

Tours	ISO 14001 + OHSAS 18001
Milan	ISO 14001 + OHSAS 18001 ongoing

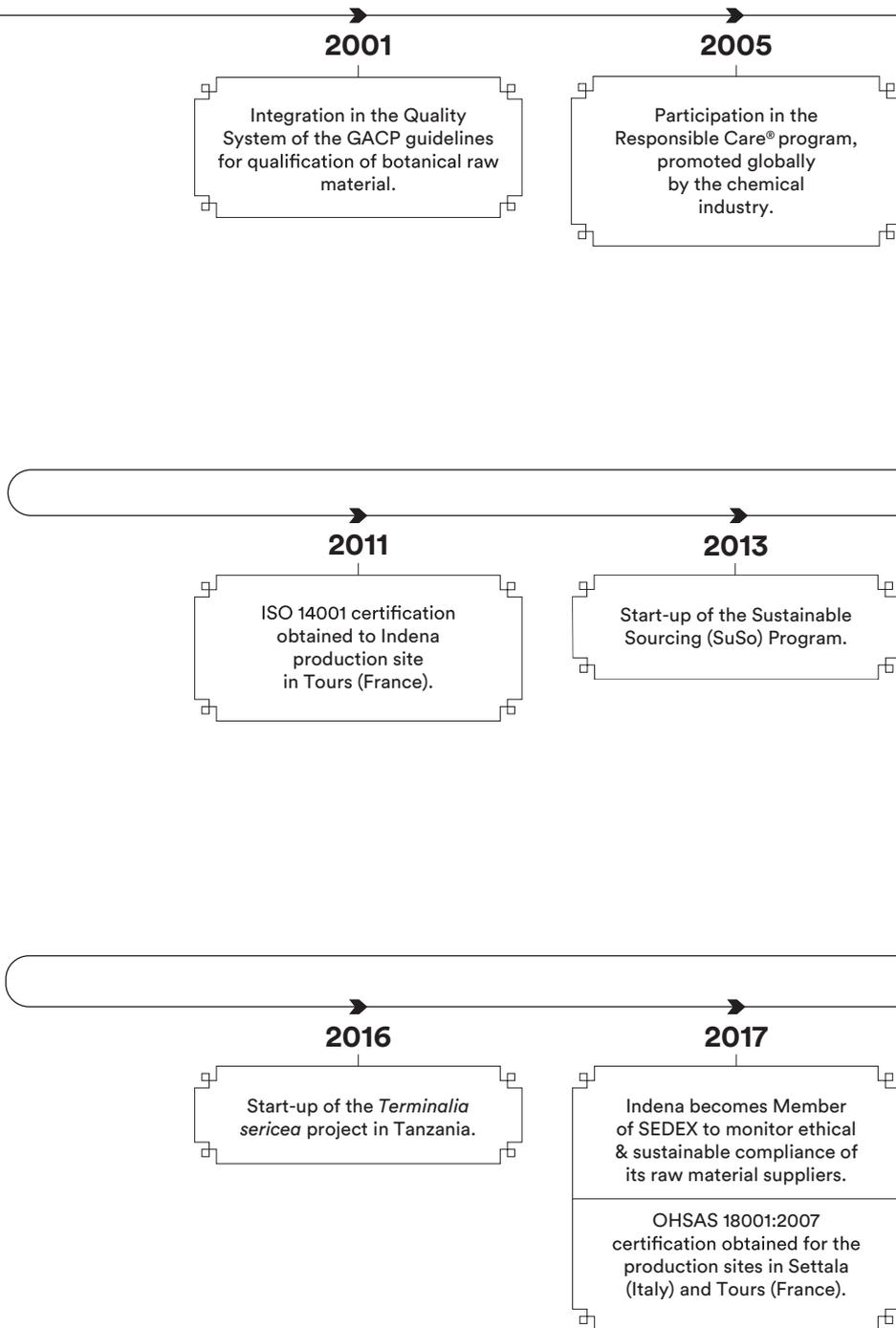
Our commitment to Sustainable Development Goals



2030 Agenda for Sustainable Development, United Nations Sustainable Development Summit 2015 (New York 25 - 27 September 2015)

» www.un.org/sustainabledevelopment/summit/

Our journey through sustainability



2009

Collaboration with CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and ITTO (International Tropical Timber Organisation) in Cameroon and Democratic Republic of Congo for sustainable management and corporate social responsibility program for the *Prunus africana* supply chain.

2010

ISO 14001 certification obtained to the main Indena production site in Settala (Italy).

2014

Risk analysis for the identification of priorities and action plan definition.

2015

Implementation of a SOP for the compliance to the Nagoya Protocol and the EU ABS Regulation (No 511/2014).

Start-up of the *Centella asiatica* project in Madagascar.

Start-up of the *Boswellia serrata* project in India.

2018-2023

The Sustainable Sourcing program will be vigorously implemented through audits, local projects and engaging our suppliers in Labour, Health and Safety, Business Ethic and Environment issues.

Indena will continue to analyze the efficiency of its processes for a constant improvement of its production cycles, distribution and waste management in order to decrease the environmental impact.

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i n d e n a . c o m



