BEEODIVERSITY
regenerating value

We create value for companies and public bodies by providing data, measurement solutions, actions and strategic advice to help them become leaders in biodiversity.

www.beeodiversity.com

BeeOdiversity in a nutshell

WHY	WHAT	HOW	OUR COMMITMENT
Biodiversity is both **vital** and **valuable** to society, companies and public entities	**Strategic support and on-site monitoring** for companies and public entities	• Expertise and science • Nature-based and monitoring solutions • Technology & innovation • Involvement of local players	Enable you to be a **leader in biodiversity** and gain **economic, environmental and social value** out of it

+35 FTE:
Bioengineers, IT developers, Data scientists, Nature strategists, Business development, Beekeepers

+25 countries
with activities on all continents

+100 clients
in diverse sectors incl. food and beverage, nature restoration, industries, water, real estate, energy, public authorities

+10 awards
for our platforms and work

Our services

FROM

Strategic

- Biodiversity knowledge and training
- Materiality assessment (e.g. TNFD)
- Biodiversity / pollution measuring strategy
- Biodiversity business model and financial case
- Strategy, standards and action plan
- Data & reporting (e.g. CSRD)

TO

On-site

- Remote sensing: impact, risk and opportunity assessment at low cost with satellite data, databases, AI
- Ground-truth assessment: biodiversity / agricultural and industrial pollution on-site metrics
- Advise: actions to enhance biodiversity and reduce pressure effects (e.g. pollution)
- Act & implement: Design biodiversity projects, improve management of green spaces, stakeholder engagement, …

Main sectors and specific needs addressed

Agribusiness and water production

Sustainable agriculture (biodiversity, soil, etc) & resilience of crops

Evidence the positive impact of strategies & actions (e.g. regen ag)

Pressure effect reduction (e.g. pesticides) & protection of resources

Monitoring biodiversity and agricultural pollution above-ground at site and landscape level (e.g. pesticides, PFAS, nitrates, heavy metals)

Stakeholders' engagement (e.g. training of farmers)

Real estate, industrial, energy, logistics

Assessing impacts and dependencies at low cost, defining priority sites and reducing pressure effects (e.g. pollution)

Nature-based solutions for quality & attractiveness of the site/ building

Actions and metrics for biodiversity net gain, permits, labels (BREEAM) and financing (non-financial KPIs)

Mitigating the risks (e.g. oppositions, liability, etc)

Biodiversity and industrial pollution indicators

Stakeholders' engagement (e.g. sharing data to local communities)

Restoration projects and smart cities

Remote and ground-truth monitoring solutions that can cover site and territorial level at low-cost

Identifying "biodiversity gaps" and pressure effects (e.g. agricultural and industrial pollutants) with ground-truth data

Easily understandable and actionable data and insights

Local biodiversity restoration and efficient management with KPIs

Positive territorial impact and inclusion of local communities (e.g. livelihood)

ESG and investors

Consistent biodiversity and ESG strategy

Differentiation, awareness and innovative marketing

Impact indicators and reporting (e.g. Taxonomy, CSRD reporting)

Labels and certifications

Employee well-being and attractiveness

Partnership with nature for mutual benefit

Examples of cases

Our uniqueness

Scientific expertise

The BeeOdiversity team is composed of scientific experts in biodiversity regeneration. It also has partnerships with universities and is a member of committees. You will find the expertise you are looking for.

Entrepreneurial experience

Your needs and constraints as a company will be understood and taken into account because BeeOdiversity is also based on a 100% entrepreneurial model. We speak the same language.

Benefit from the agility, passion and innovative spirit of an ambitious enterprise.

Single partner

You can count on a single partner capable of advising, implementing and coordinating every step of the project.

Achieving your international ambitions can be made easier thanks to our presence in different countries and our global network.

ESG impact

The search for positive societal impact and systemic change is part of BeeOdiversity's DNA, which is Ashoka Fellow. Your projects and organization will be entirely associated to this societal impact.

- > 150.000ha monitored and impacted per year
- > 100 projets per year
- Thousands of stakeholders made aware each year

Trends Impact Awards (2024), European Innovation Council award, Ashoka Fellow, Solar Impulse (2022), EIB Social Innovation Tournament (2020), Smart Belgium Award (2018), Chivas Venture Award (2017), Belgian Energy and Environment Award (2017), Systemic Economy Award (2016), Brussels Entrepreneurship Laureate (2015), Social Innovation Accelerators Network Award – EU (2014)

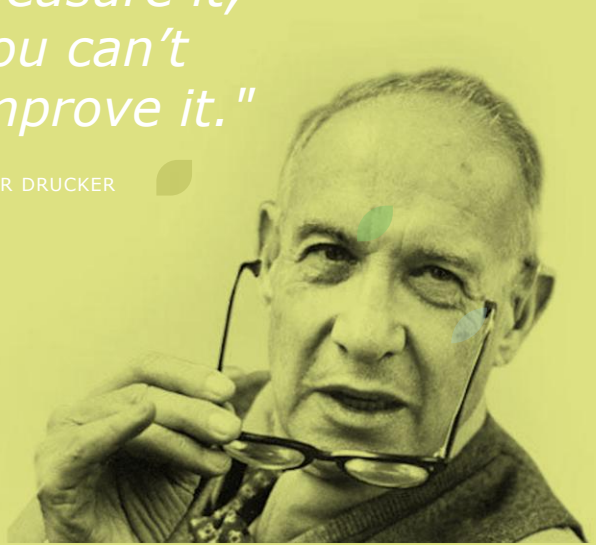
On-site data, metrics and intelligence

BIODIVERSITY

AGRICULTURAL &
INDUSTRIAL POLLUTANTS

" If you can't measure it, you can't improve it."

PETER DRUCKER



MRV approach: From prioritisation to targeted action

Multi-site analysis

site prioritisation

BeeOimpact
Platform for remote assessment of an unlimited number of sites in terms of positive or negative impact on biodiversity and of pressure effects such as the use of pesticides

Site & surrounding analysis

#prioritisation of sites & local actions
#indicators T0 and impact

BeeOaudit
Ecological surveys and a platform to record and centralise all data relating to ecological surveys carried-out at site level

BeeOmonitoring
Nature-based solution that monitors plant diversity and agricultural/industrial pollutants (e.g. pesticides, heavy metals, etc) over 700ha by analyzing pollen collected on-site by bees acting as natural drones

BeeOtel
Nature-based solution that monitors plant diversity, pollinators and pollutants at a parcel level (40ha) via the monitoring of wild bees and the analyses of pollen collected on-site

Soil eDNA
Soil health and functionality monitoring via the analyses of samples collected on-site

Plant eDNA
Plant biodiversity monitoring via the analyses of plant samples collected on-site

Advice

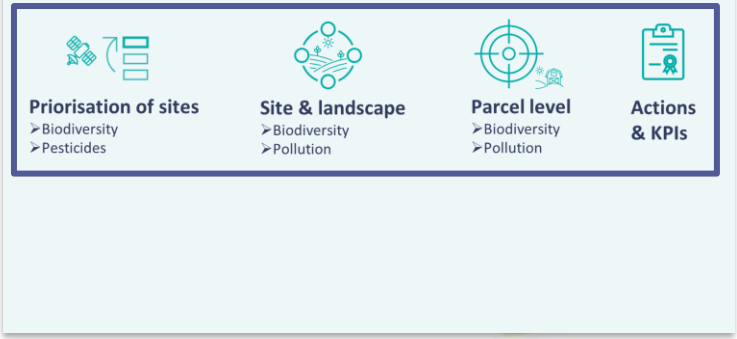
#biodiversity
#pollution

BeeOinitiative
Platform to fix objectives in terms of actions to be taken on-site to enhance biodiversity or lower pollution and to identify, manage and report such actions at a group level

BeeOexpertise
Agronomists and bioengineers

Actions

#on-site
#stakeholders



MRV approach example: biodiversity, pollution, pollinators

BeeOmonitoring (video)

Innovative and low cost solution to monitor multiple standardized parameters (biodiversity and pollution) using bees as natural drones

1. Domestic bees collect 8 billion samples per year on a daily and continuous basis across an average area of 700ha (1,5km radius) for domestic bees
2. We organize the samples collection process
3. We analyze the samples to monitor:
   - BIODIVERSITY: plant species, taxonomies, and ecosystem conditions
   - POLLINATORS: species, relative abundance, ecosystem
   - POLLUTION: +520 pesticides, heavy metals, nitrates, phosphates, GMOs, dioxins, furans, PCBs, PFAS, PAH, etc
4. We provide reports with interpretation and recommendations

Advantages

- Scientifically validated & standardized
- One solution to continuously monitor many parameters
- Collects data in a non-intrusive way
- On-site KPIs for decision-making, impact & risk assessments, nature positive measurement
- Powerful information about your site and/or surrounding areas
- Metrics for ESG: TNFD, SBTn, CSRD & regulatory reporting, requirements of investors and clients
- Easily scalable and cost-efficient
- Friendly & innovative solution for stakeholder engagement & communication, marketing

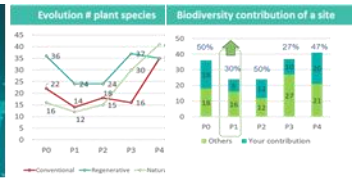
When to use

- Biodiversity and/or pollution
- Site & landscape monitoring (700ha): take actions on your site in accordance with landscape data
- Will to act on plant biodiversity and related species (pollinators, birds, etc)
- Your impact: assess the positive impact of actions at territorial level and evidence the absence of negative impact
- Engage with local communities (farmers, municipalities, etc)

Compatible with frameworks like TNFD, SBTN & CSRD





MRV approach example: BeeOtel

BeeOtel

Parcel-level monitoring solution to assess the ecosystem with wild bees as bioindicators

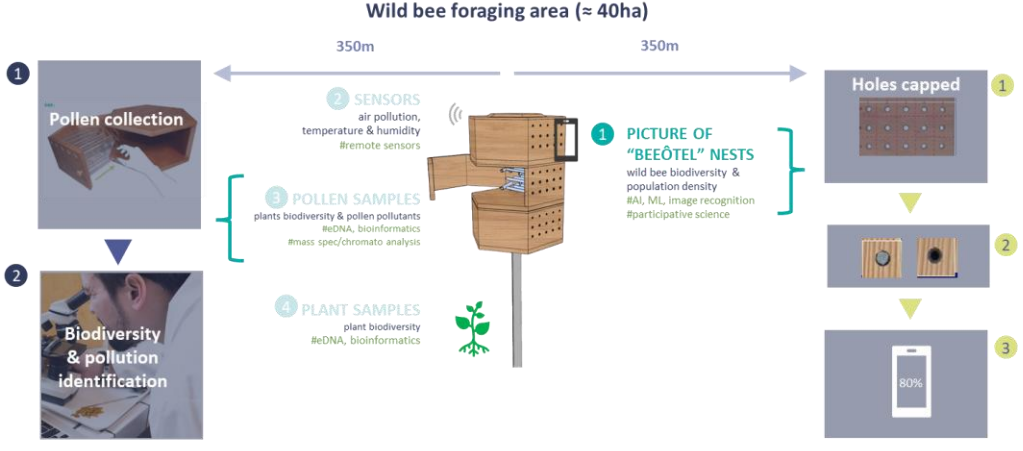
1. The BeeOtel is designed to host specific families of wild bees within a radius of 350m (40ha surface).
2. Based on an image recognition model developed by BeeOdiversity, the presence of wild bees is calculated (occupancy rate, kind of families, etc) and constitutes an environmental indicator (state of plant biodiversity, presence of pesticides, etc).
3. To carry-out a more exhaustive assessment (e.g. if the occupancy rate is low), pollen can be collected to analyse biodiversity (plant species, habitats, invasives, etc) and/or pollution.
4. We issue a report with interpretation and recommendations.

Advantages

- Bees are recognized as a bioindicator of ecosystems
- Low-cost solution to prioritize sites (e.g. based on occupancy rate)
- No or limited intervention on-site
- Replicable on all your sites
- Involvement of stakeholders in data collection
- Possibility of targeting specific locations

When to use

- Biodiversity and/or pollution
- Parcel-level monitoring (40ha)
- Act on plant biodiversity and related species (e.g. pollinators)
- Analyse multiple sites to highlight priorities for further analysis or actions



MRV approach example: soil health

Soil health

Localised solution to assess the state of soil biodiversity and health with a scientifically validated methodology

1. We co-define your needs in terms of functionality of soil health (e.g. water retention, carbon sequestration, nutrients availability for plants, diseases, etc).
2. We define the bioindicators according to such needs, crops, locations, etc & a protocol
3. We analyse soil samples via eDNA to monitor:
   - Soil biodiversity (fungi, arthropods, annelides, bacteria): richness, relative abundance, etc
   - Soil functionality based on bioindicators
4. We issue a report with interpretation, recommendations and agronomic expertise

Advantages

- The functionality approach combines biodiversity, resilience and productivity
- Low cost
- Replicable on all your sites
- Method recognized by regulations and guidelines
- Involvement of stakeholders in data collection
- Possibility of targeting specific locations

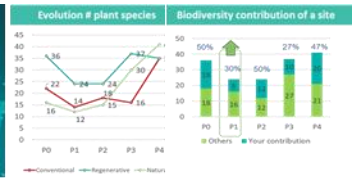
When to use

- Soil biodiversity / functionality
- Your activity impacts or is dependent on soil health
- Regenerative agriculture performance
- Impact of restoration practices

Compatible with frameworks like TNFD, SBTN & CSRD





MRV approach example: DNA plant diversity survey

Plant ecosystem

Localised solution to identify plant species with a scientifically validated methodology

1. We define the proper sampling protocol according to your needs
2. We analyse the samples via eDNA to provide exhaustive data regarding: plant species (richness, etc), habitats, and ecosystem conditions
3. We issue a report with interpretation, recommendations and ecological expertise

Advantages

- Lower cost than traditional audit
- Replicable on all your sites
- Method recognized by regulations and guidelines
- Involvement of stakeholders in data collection
- Possibility of targeting specific locations

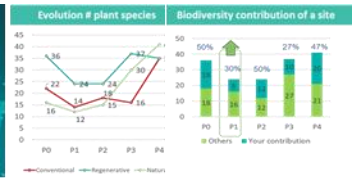
When to use

- Plant biodiversity
- Monitor a specific area (e.g. a parcel of land or part of a parcel)
- Monitor the impact of localised actions (e.g. planting of a flower meadow)
- Obtain exhausitve data on all plant species present

Compatible with frameworks like TNFD, SBTN & CSRD





With all the data accessible in one platform BeeOapps

Secure platform with dashboard & reporting: baseline, benchmarks and regulatory thresholds, risk analysis, impact metrics and changes over time; priority and actions

BeeOimpact

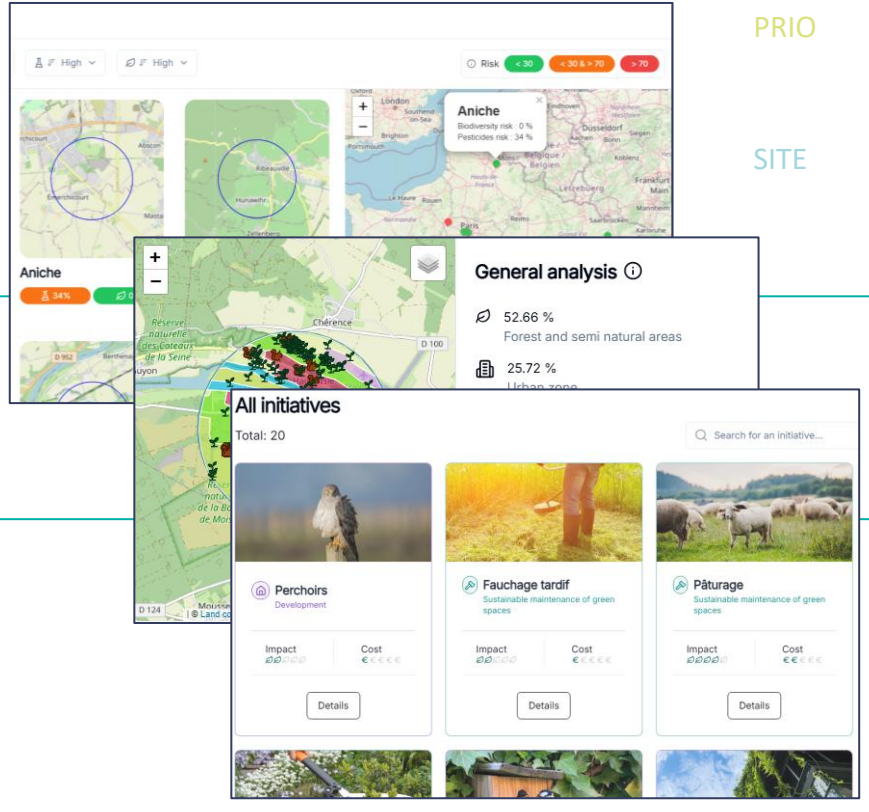
- Dashboard
- Sites
- Methodology

BeeOmonitoring

- Sites

BeeOinitiative

- Dashboard
- Sites



PRIO — Prioritize your sites based on their potential impact on sensitive areas

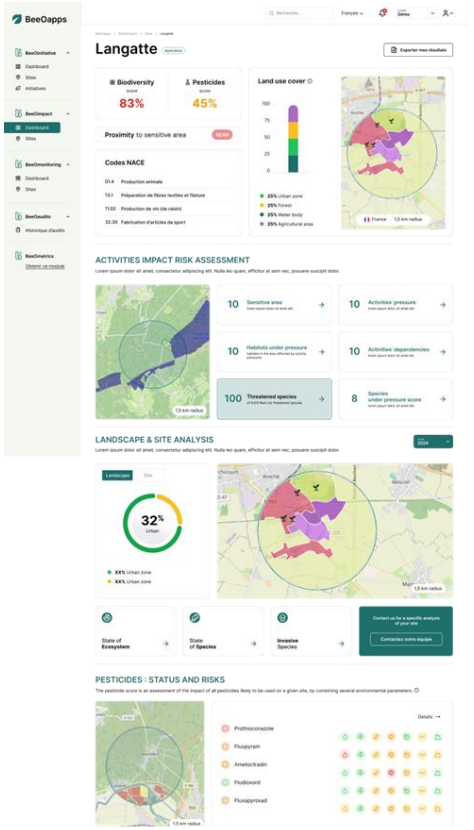
SITE — Assess your sites / activities based on remote data and AI

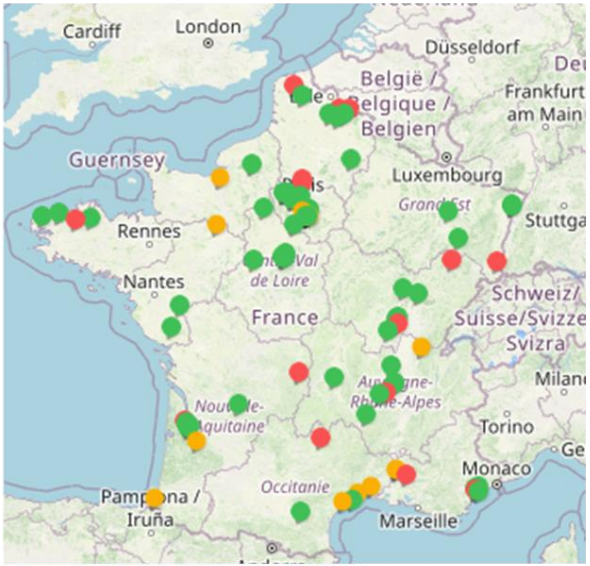
Assess your sites based on on-site sampling and measurement

Manage on-site improvement actions and predict impact of actions on your sites indicators

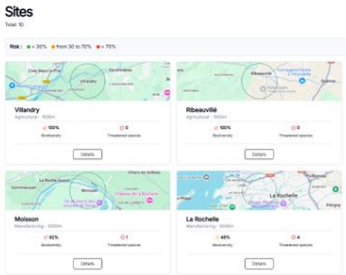
Use case : Prioritisation of a global industrial group's sites

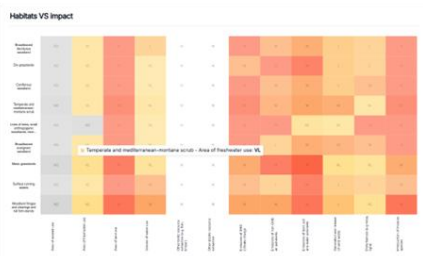
+6.000 sites analysed and prioritised with BeeOimpact platform



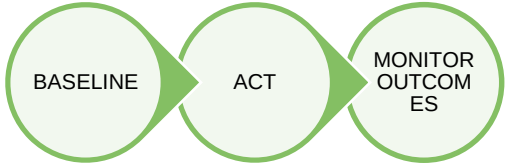


ESRS
European Sustainability Reporting Standards

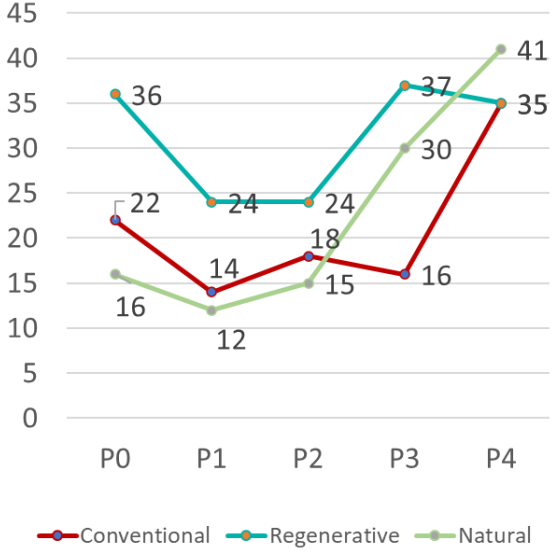




Case study: Monitoring outcomes of landscaping / restoration projects and regenerative agriculture



Evolution # plant species



Shows the positive impact of regenerative practices in terms of species richness

Comparison plant diversity & quality

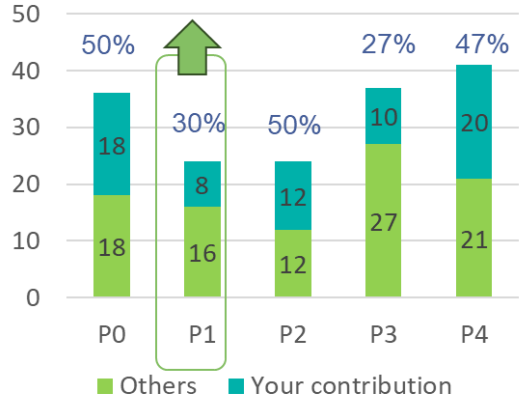
	CONVENTIONAL	REGENERATIVE	NATURAL
PLANT DIVERSITY	88%	138%	100%
PLANT QUALITY	50%	92%	100%

Comparison pollutants

PESTICIDES	12	3	0
HEAVY METALS	9	2	0

Shows the quantitative and qualitative impact of regenerative practices compared to other sites

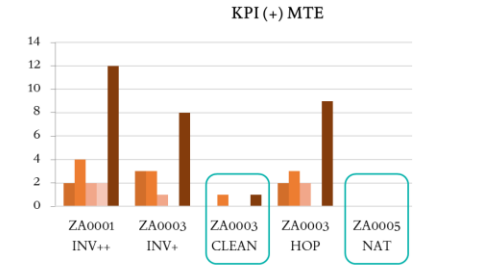
Biodiversity contribution of a site



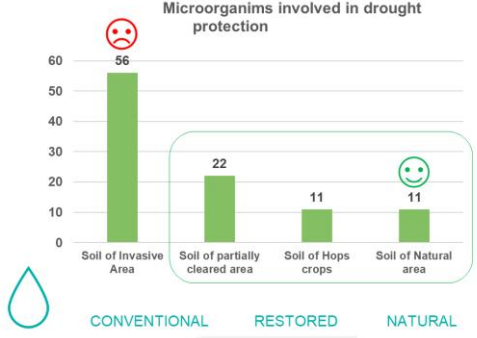
Shows the contribution of regenerative practices at a landscape level, so X% contribution on 700ha

Case study: Soil health and functionality

Baseline and comparison between:
- Natural area
- Site with conventional agriculture
- Site with regenerative agriculture and restoration projects

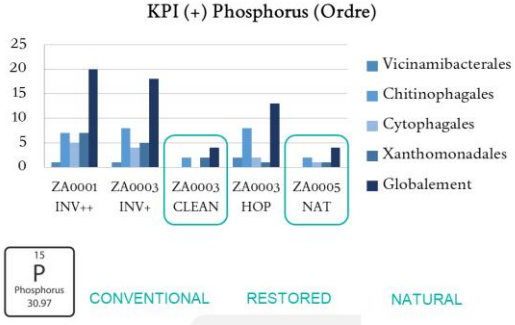


MTE SOIL HEALTH 0% 96,67% 100%



H_2O SOIL HEALTH 0% 75% 100%

Soil capacity to make phosphorus available
=> less fertilizers

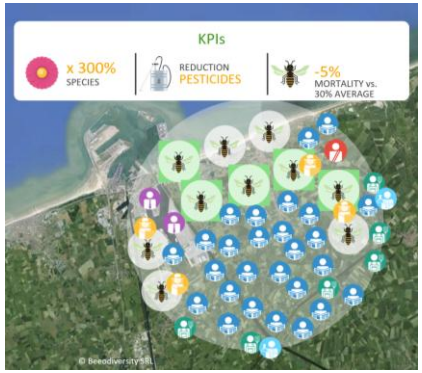


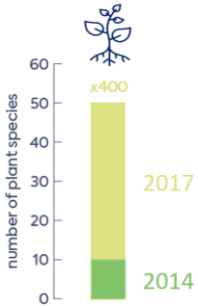
P SOIL HEALTH 0% 100% 100%

Identifying various key indicators enabled us to demonstrate the positive impact of regenerative practices on soil functions (e.g. water retention) and of sustainable agriculture (e.g. less use of fertilizers, better infiltration, better fertility, less disease, etc)

Case studies: BeeOimpact & BeeOmonitoring

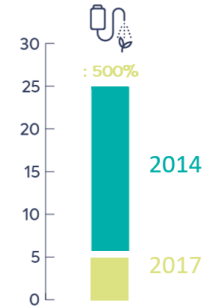
Territorial actors





- Restoration & management: decisions based on metrics, cost reductions, increased impact & impact metrics
- Communities: « Friendly » data to involve stakeholders and leverage the impact
- Pollution & quality of life: change of industrial process (e.g. port, etc), agriculture
- Image
- Political benefit

Industries that have to protect their resources



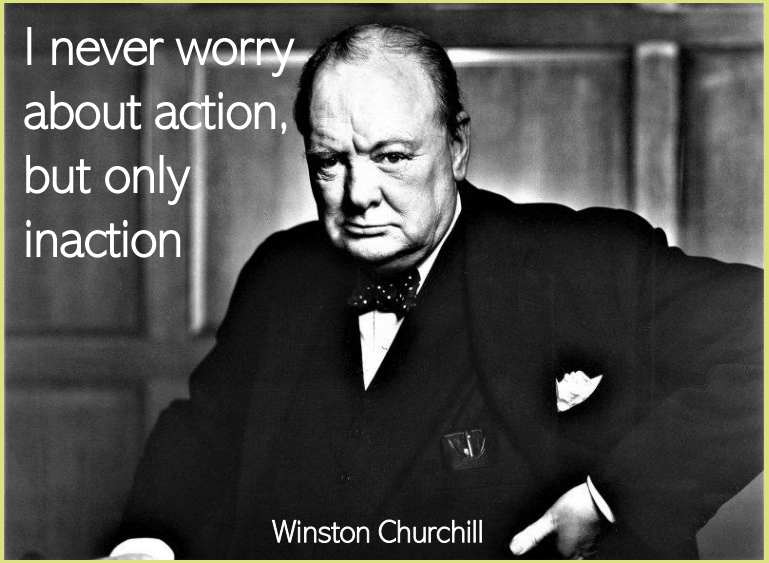
- Low-cost site and parcel assessments and prioritisation (impact on biodiversity and pesticides risks)
- Crop resilience & yield with increased soil health, pollination, biodiversity
- Water catchment protection by monitoring & reducing the use of pesticides, nitrates, etc
- Metrics for regenerative agriculture
- Collaboration with local actors

Industries that aim for neutral or positive impact

- Low-cost site impact assessments and prioritisation (impact on biodiversity)
- Nature restoration projects designed based on metrics
- Metrics to evidence the positive impact of actions (pollution filtration, nature restoration, etc)
- Facilitation of permit process
- Strengthen relationships with local communities
- Positioning

Advise & actions

BIODIVERSITY REGENERATION PROJECTS
SUSTAINABLE AGRICULTURE
THEMATIC BIODIVERSITY DESIGN



Advise on specific actions to be taken

site management

Audit, design, site management & planting strategies, ecosystem services, KPIs, stakeholder facilitation

Value creation for the site / building

- Facilitate permit process and certifications (BREEAM, etc.)
- Optimise management costs
- Energy, thermal management, water management
- Showcase for a sustainable building and positive image
- Compliance with investors' non-financial KPIs
- Aesthetics, attractiveness and loyalty

Value creation for tenants

- Well-being
- Efficiency at work
- Team building and social bonds
- Environmentally responsible site
- Image
- Staff retention

sustainable agriculture

Audit, site management & planting strategies, sustainable practices, ecosystem services, KPIs, training

Value creation for the producer

- Product quality and practice monitoring with KPIs
- Differentiation and labelling
- Limitation of invasive plants and weeds
- Restricting the use of pesticides
- Respect for the land and production over the long term
- Better pollination

Value creation for brands

- Raising producer awareness
- Practice Audit
- Improvement and standardisation of practices
- Product quality
- Environmentally and socially responsible brand
- Staff perception

Let us create value with biodiversity, together.

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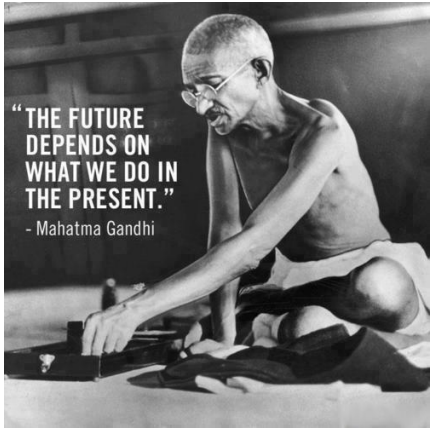

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