

## I GROW IF EVERYTHING GROWS

# WE LOVE WE KNOW WE CREATE















FIRST PART	4
1) THE PRESIDENT'S LETTER	4
2) LANDLAB S.R.L., SOCIETÀ BENEFIT. WHO WE ARE: AN OVERVIEW OF OURSELVES	12
3) ETHICAL ISSUES: FROM THE CODE OF ETHICS TO THE BENEFIT COMPANY	16
3.1) 2019: DRIFTING OUR CODE OF ETHICS	18
3.2) 2021: LANDLAB BECOMES A BENEFIT CORPORATION	19
(LAW 208/2015 OF THE ITALIAN LAW)	
SECOND PART	20
4) REPORT OF IMPACT	20
4.1) ASSESSMENT OF THE OVERALL IMPACT OF LANDLAB S.R.L. SB THROUGH EXTERNAL EVALUATION STANDARD B IMPACT ASSESSMENT	22
5) SPECIFIC COMMON-BENEFIT PURPOSES IN LANDLAB BENEFIT	26
CORPORATION'S CORPORATE PURPOSE	
6) PROJECTS 2022 AND 2023 GOALS	30
6.1) Creating a Welcoming and Sustainable Work Environment	35
6.2) OPTIMIZATION OF ENVIRONMENTAL RESOURCES AND	38
ENHANCEMENT OF PLANT GENETIC HERITAGE	
6.3) PROMOTING PEOPLE'S HEALTH AND WELL-BEING	44
6.4) STAKEHOLDERS	50
7) 2023 GOALS	58
8) CONCLUSIONS	62
A. CODE OF ETHICS OF LANDLAB S.R.L. SB	
B. LEGISLATION 208/2015 (ITALIAN LAW) ESTABLISHING BENEFITS CORPORATIONS	



2022 has been so far the first year entirely spent as Landlab srl Società Benefit: it was a complex year because of the problems determined by critical global factors and some difficulties in acquiring research projects because of the failure to start some of the R&D projects. The global situation has influenced many of our choices. The speed up of M&A operations is reducing decision-making centres and leading to a strong concentration of investment capability in R&D, with capital return targets becoming more and more increasingly short-term and only apparently oriented towards a real innovation on the way to a "fair agriculture": fair for the earth (soil, water, air, biome), the plants, the farmers, the people.

This fact, seen from another perspective, has led us to ponder a lot on the selection of partnerships to work with, refining the evaluation criteria and, moreover, has inspired us to reason on the team's quality, leading us to the choice of further increasing the scientific level of the research group. However, we will also have to start working in the area of evaluating and selecting suppliers of goods and services to us.

These steps are consistent with the path started a few years ago during which we have matured together, given shape and finally substance to a way of being "company" that responded to a specific ethical vision, which is closer to us, of working, of being in the economic and social context, of relating to the physical and human environment.

If our "positioning oneself" in some areas by their nature open to transparency, exchange, cooperation - the non-profit sector -, is easy, proactive and full of opportunities, it is complex for a medium-small R&D company like Landlab, which produces "intangible assets" aimed at innovation in agriculture and food production, to maintain a solid, balanced position, within a context - agriculture in the broad sense-, that is living a constant change in the

industrial structure of goods and services producers for the sector and within the compartment itself (innovation). This sector is also subject to significant pressures and thrusts from the bottom -consumers- towards higher quality and integrity of food and from the top -regulations- towards the methods of production or, finally, towards the farmers and the tools in their possession.

The choice to become a Benefit Corporation confirmed its value under the identity aspect because, precisely in the production of food, in its quality and in its most equitable territorial distribution, one of the most current and relevant global challenges is being played out in respect of critical resources, energy, water and genetic bases in the first place,

The combination of these factors requires Landlab to engage in different areas:

A -Scientific-technical.

B- organizational,

C-Relational network: expansion, consolidation and internal sharing.

In order to maintain and strengthen our position/identity and the technical/scientific level, it is essential to increase the depth and quality of our methods and tools, always investing in people's growth.

In this perspective it is a crucial point to significantly re-invest in "Landlab projects". In doing so, in fact, internal knowledge and skills are being enhanced and given space to, and possibilities to generate "disruptive innovations" are being opened up; as a result, the scientific level and the internal equipment are pushed up too.

The organizational aspect has so far required many reflections to solve dualities: multi-function people or stable work groups; fluid or static structure.

FIRST PART THE PRESIDENT'S LETTER

It is not resolved yet, but significant steps have been taken towards a dynamic balance that has enhanced several internal resources.

As said, it is therefore necessary to widen the network of relationships and interactions and move from a concentration-accumulation approach, inevitable legacy of Landlab's history, to a diffusive-sharing-transparent one; this in turn brings to a better internal communications flow without falling into generating entropy.

Enlargement will follow appropriate evaluations and selections towards the other areas involved in our field: -1- the scientific community, -2- companies operating in the same field (the so-called CRO's) activating "fair networking" projects that will be virtuous for all the subjects involved, -3- the primary sector, to understand the dynamics in place and transfer independent innovation,

A key point on which we reached significant changes in 2022 is that of "communication". The projects that have been activated and completed show us that, in this case too, identifying the right skills within us has been a quality choice.

Therefore, we will give more structure to this area because -1- involves deep reflections on us, what we are and what we can offer; -2- The communication of this passage, the one of the new and manifest substance Benefit, has been charged with positive meanings also for the environment in which Landlab moves, collecting sincere appreciation in the industrial and academic field.

#### Strategic plan 2022 - 2023 - 2024

#### 1) Implementation of sustainable agriculture

PROJECT	RECIPIENTS	DESCRIPTION	PERIOD
ENHANCEMENT OF GENETIC BASES	ENVIRONMENT: FLORA	BREEDING: OPEN POLLINATED VARIETIES (OPV), ECOTYPES & BIODIVE	2022-2023- 2024
RHIZOSPHERE QUALITY IMPROVEMENT	ENVIRONMENT: SOIL	QUALITY IMPROVEMENT RHIZOSPHERE	2022-2023- 2024
NUE -WUE OF CROPS	ENVIRONMENT: CROPS NUTRITION & WATER MANAGEMENT	DEVELOPMENT OF NEW EXTRACTS FUNCTIONAL TO THE PURPOSES.	2022-2023- 2024
BIOCONTROL	ENVIRONMENT: PESTICIDES REMOVAL	SET UP AND DEVELOPMENT OF AN EFFECTIVE AND 0 RESIDUAL PRODUCTS IN CROPS PATHOGEN CONTROL.	2022-2023- 2024-2025
ENERGY: FROM THE SUN	ENVIRONMENT: REDUCTION OF ENERGY CONSUMPTION - SELF- PRODUCTION OF ELECTRICITY	IMPLEMENTATION OF ENERGY CONSUMPTION MONITORING AND CONTROL SYSTEMS; REALIZATION OF PHOTOVOLTAIC SYSTEM IN THE DIRECTION OF SELF- PRODUCTION.	2022-2023
WATER	ENVIRONMENT: CONTROL AND OPTIMIZATION OF THE WATER RESOURCE	IMPLEMENTATION OF MONITORING SYSTEMS 4.0 FOR THE CONTROL OF THE WATER USED IN THE RESEARCH AND DEVELOPMENT PROCESS.	2022-2023- 2024

#### 2) Acknowledgment of the value of people as such

PROJECT	RECIPIENTS	DESCRIPTION	PERIOD
TRAINING	EMPLOYEES	SCIENTIFIC, TECHNICAL, CONFERENCES: TO BE IDENTIFIED YEAR BY YEAR	2022-2023- 2024
TRAINING	EMPLOYEES	INTERNAL COMMUNICATION: INTERNAL MEETINGS ALSO WITH QUALIFIED EXTERNAL PERSONNEL TO IMPROVE COMMUNICATION, TO SUPPORT DAILY ACTIVITIES, TO INCREASE PERSONAL KNOWLEDGE ON ISSUES RELATED TO LIFE IN GENERAL.	2022-2023- 2024
COMMUNICATION- EVENTS	EMPLOYEES	LANDLAB DAYS: DAYS DEDICATED TO TRAINING, DISCUSSION AND PERSONAL GROWTH TOGETHER WITH THE WHOLE LANDLAB TEAM.	2022-2023- 2024

#### 3) Promoting exchange and relationship with different stakeholders

PROJECT	RECIPIENTS	DESCRIPTION	PERIOD
TECHNOLOGY TRANSFER, EXTENSION SERVICE LIKE, FREE SUPPORT	FARMERS, NURSERYMEN	EXPANSION OF THE SUPPORT TO FARMERS- LANDLAB FARM- BUILT FOR THE MANAGEMENT OF CROPS, WITH THE TRANSFER OF INDEPENDENT KNOW-HOW TOWARDS THE OPTIMIZATION OF RESOURCES, ENVIRONMENTAL RESPECT AND THE USE OF EFFECTIVE PRODUCTS FOR EACH CROP.	2022-2023- 2024
TOGETHER WE GROW	LOCAL COMMUNITY	LANDLAB IS ATTENTIVE TO THE COMMUNITY THAT LIVES AROUND IT; WITH SOME LOCAL ASSOCIATIONS HAS ESTABLISHED A RELATIONSHIP OF COMMUNICATION AND EXCHANGE; LANDLAB SUPPORTS THEM THROUGH DONATIONS: BOTH IN CASH AND WITH THE DISTRIBUTION OF VEGETABLES PRODUCED DURING SUMMER.	2022-2023- 2024
	ZENON - R&D ALLIANCE FOR DISRUPTIVE SOLUTIONS FOR HIGH-PERFORMING SUSTAINABLE AGRICULTURE.	ZENON IS AN ALLIANCE AMONG INTERNATIONAL INDUSTRIAL ACTORS WITH STATED AND SHARED OBJECTIVES: IT'S NOT SIMPLE TO ACTIVATE BUT IT'S POTENTIALLY A FERTILE ATTRACTOR OF OTHER PARTIES. IN 2023 BEGAN THE FIRST COMPLEX AND MULTI-YEAR RESEARCH ON SELECTED FARMS.	2022-2023- 2024
NOT-FOR-PROFIT	FROM ASSOCIATIONS TO END USERS.	MANAGING THE SUPPORT ACTIVATED TOWARDS RETE PICTOR AND CONCA D'ORO FOR THE ADMINISTRATION OF FARMS, INCLUDING THE CONSERVATION-IMPROVEMENT OF GENETIC MATERIAL, IN RELATION TO TECHNICAL-CULTURAL EXCHANGES THAT BENEFIT BOTH DIRECTIONS LANDLAB- ASSOCIATIONS, ASSOCIATIONS – LANDLAB.	2022-2023
THE "APPLIED" STUDY	STUDENTS	LANDLAB BELIEVES THAT STUDYING AND TRAINING ARE IMPORTANT, THEREFORE IT WELCOMES STUDENTS FOR INTERNSHIPS AND DISSERTATIONS: IT SUPPORTS THEM, OFFERS RESEARCH TOPICS FOR THEIR THESIS, PROMOTES INVOLVEMENT IN LANDLAB PROJECTS.	2022-2023- 2024

## 4) Implementation of financial, economic and administrative management with particular attention to the re-use of the generated marginalities:

PROJECT	RECIPIENTS	DESCRIPTION	PERIOD
AWARDS TO STAFF	EMPLOYEES	RE-EVALUATION OF EXISTING WELFARE INSTRUMENTS, AND IMPLEMENTATION OF NEW INSTRUMENTS.	2022-2023- 2024
INFRASTRUCTURE INVESTMENTS	ENVIRONMENT LANDLAB	CONSTRUCTION OF NEW SPACES FOR RESEARCH.	2022-2023- 2024
TECHNOLOGICAL INVESTMENTS IN EQUIPMENT AND OPERATING RESOURCES.	ENVIRONMENT LANDLAB	ACQUISITION OF ADDITIONAL SCIENTIFIC INSTRUMENTATION TO STRENGTHEN NEW RESEARCH AREAS AND EQUIPMENT.	2022-2023- 2024

This letter and the following documents are the result of the work done during 2022, spent as a Benefit Corporation: this choice has generated obvious and significant changes. Thanks to this experience we have now gained much more awareness of our project and also tools to increase our "Benefit status": we will work to make it grow in order to fully understand all the consequences that stem from this status, we will address the issues that being Benefit Corporation poses, we will raise our profile again, we will try to face other challenges and issues.

Together we have built Landlab as a Benefit subject that generates "wealth" and growth for us all, projected in the long term with ethical, scientific and relational continuity at the base. From this derives the project "Landlab Next Generation", that is thinking about us as an articulated subject that looks towards the future, strong in established history, with all its intangible and material heritage.

This will be our next challenge.

Adriano Altissimo







#### From the Landlab Code of Ethics:

"Landlab is a cutting-edge research facility because it is a place for pure thought, development and innovation for agriculture: we think, we lead, we pinpoint.

Steadily growing and constantly changing, Landlab knows how to renew and innovate itself by investing its resources and technology. We develop products intended for a sustainable agriculture.

Landlab is a geographically articulated, flexible and multidisciplinary reality: we meet the needs of our clients and build future orientated partnerships. With an internationally acclaimed profile,

Landlab is a place for meeting, sharing and dialogue".

Landlab was founded in 2002 as a legal entity and its roots lie in the 1980s. From the design of parks and gardens, to grass breeding, to the design and management of sport fields, enlarging collaborations and consulting at national and international level, in forty years of history and evolution the initial project has continuously evolved and today, with the help of highly trained personnel with equipment and laboratories of plant biotechnology, it is in fact a research centre for agriculture. In its style have remained important both teamwork, through the collaboration of the different internal areas and the construction of scientific and professional collaboration networks at national and international level.



#### 3.1 2019: DRIFTING OUR CODE OF ETHICS

Landlab has always carried out a reflection on work's ethical issues and work in agriculture that has been formalized through the drafting of an internal code of ethics in 2019. This activity has involved all the staff of the research centre through internal meetings and opening of discussion tables for the collection of ideas and reflections that have then merged into the document in the appendix. This is the basis of Landlab's ethical choices and it is essential for those who choose to work in this reality.

Our values are our vision beyond:

#### From the Code of ethics:

- respect for the environment and sustainable agriculture
- research, constant updating, pursuit of scientific quality, methodological and technical innovation, organization and precision in execution;
- each person is valued as a bearer of knowledge, skills and values and of a specific expertise;
- sincerity in relationships, fairness, transparency, legality, sense of justice
- sense of responsibility towards one's tasks, people, things and environments.
- prudence in financial management
- openness to new ideas, opportunities, solutions.
- innovation:
- willingness to deepening, desire for knowledge, problem solving, ability to adapt to changes.

18

# 3.2 2021: LANDLAB BECOMES SOCIETÀ BENEFIT (BENEFIT CORPORATION, GOVERNED BY ITALIAN LAW N. 208/2015)

Companies are the most important tool for job's creation, wealth's generation and innovation. They traditionally and legally respond to shareholders for the distribution of profits, while the stakeholders such as workers, environment and society, remain in the background. In 2015 Italy introduced into its legislation the figure of the Benefit Company through the paragraphs 376-384 of art. 1 of the budget law, n. 208/2015. The intention of the legislator was to give a form and recognition to all those companies that together with monetary and financial profits commit to generating wealth on other levels, not estimated by economic standards, but equally important to feed that paradigm's shift towards which we are committed to tend, from merely "extractive" production to "regenerative" production of wealth and biodiversity.

At the end of 2020, Landlab's members decided to continue the reflection on ethics and to reach a higher level of formalization, the highest in Italy, by transforming the company into Società Benefit (SB). This journey has also been implemented in a most horizontally way as possible, opening up to staff who wished to participate. A new path was born, which lasted about a year and has led us to the drafting of the new corporate purpose and the transformation into SB, which formally occurred in November 2021.



## 4.1 ASSESSMENT OF THE OVERALL IMPACT OF LANDLAB S.R.L. SB THROUGH THE EXTERNAL EVALUATION STANDARD B IMPACT ASSESSMENT.

Law 208/2015, art. 1 paragraphs 376-384 (the Italian law on benefit companies), establishing the Benefit Corporations, obliges these companies to produce annually a report concerning common benefit's pursuing, including:

a) the specific objectives, modalities and actions implemented by the administrators for the pursuit of the purposes of common benefit and any circumstances that have prevented or delayed it;
b) the assessment of the generated impact by using an external assessment standard (benchmark) covering the following areas: corporate governance, workers, other stakeholders, environment;
c) a section describing the new objectives that the company intends to pursue in the following year.

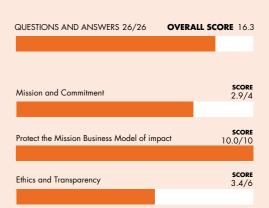
For impact reporting, we chose the B Impact Assessment, an international benchmark developed by B Lab. This tool is filled in on an online platform and is divided into five areas: Governance, Environment, Community, Workers, Customers. The proposed question path adapts to the sector to which the company belongs and to the answers gradually provided. It is a tool with a mainly quantitative vocation, with the possibility of a qualitative deepening. Provides assessment of the social and environmental impact generated by a company.

OVERALL SCORE OF LANDLAB SB IN THE B IMPACT ASSESSMENT	PUNTEGGIO 76.0
SCORE NEEDED TO GET THE BRAND B CORP: 80.0	
national average:	PUNTEGGIO 67.7
industry average	PUNTEGGIO 81.4
	PUNTEGGIO
average in size:	81.7

#### **Governance Area:**

"Evaluates a company's overall mission, engagement around its social/environmental impact, ethics, and transparency. This section also evaluates the ability of a company to protect their mission and formally consider stakeholders in decision making through their corporate structure (e.g. benefit corporation) or corporate governing documents".

Overall score: 16.3 over 20 national average: 6.7 industry average: 7.2 average in size: 7



#### Workers' area:

"Evaluates a company's contributions to its employees' financial security, health & safety, wellness, career development, and engagement & satisfaction".

Overall score: 29.1 over 40 national average: 14.4 industry average: 16.6 average in size: 17.8



OND PART REPORT OF IMPACT

#### Community area:

"Evaluates a company's engagement with and impact on the communities in which it operates, hires from, and sources from. Topics include diversity, equity & inclusion, economic impact, civic engagement, charitable giving, and supply chain management".

Overall score: 13.9 over 40 national average: 10.0

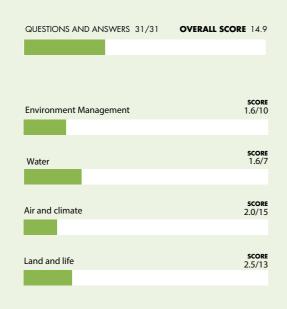
industry average: 11.9 average in size: 11.6

QUESTIONS AND ANSWERS 43/43 OVER	ALL SCORE 1
Diversity, fairness and inclusion	scc 3.4/
Civic commitment and donations	scc 1.4
Civic communicine and donations	1.4
_	sco
Economic impact	5.0/1
	sco
Supply and distribution chain management	3.5/1

#### **Environment area:**

"Evaluates a company's overall environmental management practices as well as its impact on the air, climate, water, land, and biodiversity. This includes the direct impact of a company's operations and, when applicable, its supply chain and distribution channels".

Overall score 14.9 over 45 national average: 9.9 industry average: 8.6 average in size: 10.4



#### **Customer area:**

"Evaluates a company's stewardship of its customers through the quality of its products and services, ethical marketing, data privacy and security, and feedback channels".

Overall score: 1.5 over 5 national average: 1.7 industry average: 1.7 average in size 2.0

QUESTIONS AND ANSWERS 12/12 OVERALL SCORE 1.5

SCORE 1.5/5







The new Landlab's corporate purpose refers, in article 3:

"As a Benefit Corporation, the company's ultimate aim is to pursue one or more commonbenefit purposes and operate in a responsible, sustainable and transparent manner towards people, communities, territories and the environment, cultural and social assets and activities, institutions and associations and other stakeholders".

In particular, Landlab SB has included in its corporate object five specific common-benefit purposes. The company intends to pursue them carrying on its business activity through the performance of actions whose objective is to generate a measurable positive impact on society and the environment, as well as creating the conditions for maintainance of satisfactory economic results.

In particular, we have included the following common-benefit purposes in our corporate purpose:

- 1. Implementation of sustainable agriculture.
- 2. Recognition of the value of every person as such.
- 3. The promotion of exchange and relationship with different stakeholders.
- 4. Financial, economic and administrative management based on principles of sustainability, accountability, transparency, accuracy and prudence.
- 5. Improvement and implementation of the quality of scientific communication within the corporate roles and of scientific-informative communication outside the company.



## 6.1 CREATING A COMFORTABLE AND SUSTAINABLE WORKING ENVIRONMENT

which is powered by renewable energy and uses energy resources optimizing them and reducing waste.

ENVIRONMENT IN LANDLAB	CARE CLEANING ORDER	CARE: RESPECT FOR SPACES, PLACES, PEOPLE	CLEANLINESS AND ORDER
	AQUA	EFFICIENT USE OF RESOURCES FROM RESEARCH	CONTROL AND PRECISION IN WATER USE: AUTOMATION, MAXIMUM EFFICIENCY
	SUN POWER	SELF-SUFFICIENCY ENERGY: FROM THE SUN	PHOTOVOLTAIC SYSTEM

## 6.2 OPTIMIZATION OF ENVIRONMENTAL RESOURCES AND PLANT GENETIC HERITAGE VALORIZATION

through innovation in agriculture.

ENVIRONMENT OUTSIDE	EXPLOITATION OF GENETIC BASES	FLORA: ENHANCEMENT OF GENETIC BASES	BREEDING: OPEN POLLINATED VARIETIES (OPV), ECOTYPES X BIODIVE
	MICROBIOME & RHIZOSPHERE	SOIL: INNOVATION: TECHNIQUES AND PRODUCTS	IMPROVE THE QUALITY OF THE MICROBIOME
	OPEN TO THE NET	COMMUNICATION	THE WEB PAGE, DISSEMINATION OF EDUCATION AND SCIENTIFIC KNOWLEDGE

#### 6.3 PROMOTING PEOPLE'S HEALTH AND WELL-BEING

based on improving the balance between working and family life, also promoting corporate welfare, the circulation of ideas and effective and efficient communication.

PEOPLE IN LANDLAB	FLEXIBILITY SMART	WELL-BEING, USE OF TIME: AGILE WORK, FLEXIBILITY	ENCOURAGE, FACILITATE
	WELL-WELFARE PLANNING-	BENEFIT: CUSTOMIZED TOOLS	PLATFORMS, MEAL VOUCHERS, BENEFITS
	L-LEARN	TRAINING: BEYOND THE OBLIGATION	SCIENTIFIC, TECHNICAL, CONFERENCES, INTERNAL COMMUNICATION
	L-ABOUT	LANDLAB: MOMENTS OF CONFRONTATION AND GROWTH	LL DAYS AND OTHER MEETINGS

## 6.4 THE CREATION OF A COMMUNITY THAT INCLUDES MANY ASPECTS OF THE TERRITORY

STAKEHOLDERS	LANDLAB TECHNOLOGY TRANSFER	FARMERS: LLFARM, ZENON	KNOWLEDGE TRANSFER, INCREASED INDEPENDENT SUPPORT SERVICES
	LANDLAB, NOT-FOR-PROFIT, FOR SOCIETY	UP TO THE END-USERS	LOCAL ASSOCIATIONS: COLLABORATION SUPPORT L'INCONTRO, RETE PICTOR AND CONCA D'ORO: TECHNICAL-CUITURAL EXCHANGES, FIELD DEMO, CONSERVATION - IMPROVEMENT OF GENETIC MATERIAL
	OPEN WORKSHOP	STUDENTS LANDLAB OPEN ENVIRONMENT	INTERNSHIP AND TRAINEESHIP, EXCHANGES, INVOLVEMENT IN INTERNAL PROJECTS

In this section of the Report of Impact, we present the results achieved in the areas in which we have committed ourselves in the year 2022 with reference to the specific common-benefit purposes mentioned above, together with the goals we set for 2023.

Each purpose is presented with the original text of our corporate purpose together with a brief explanation that illustrates the most significant aspects. The individual activities, data, indicators and results are presented in a schematic form. We believe that this way of presentation can add more clarity to our report, a fundamental requirement for a company that wants to return to its stakeholders a real measurement of the achieved results.



## 6.1 CREATING A COMFORTABLE AND SUSTAINABLE WORKING ENVIRONMENT

#### **Purpose:**

Landlab respects the environment and biodiversity of the places where it operates, it is committed to reduce its impact and it is a biodiversity generator.

#### 6.1.1 CARE Cleaning Order – expansion of working spaces-

**Introduction:** the quality of the work is also composed of adequately large, organized, clean spaces; the expansion of the activities and the number of people have determined the need to intervene on the building of Landlab's headquarters.

#### **Activites**

In 2022, the building was enlarged to the west with the construction of a meeting room, an office and a laboratory.

#### **Future goals**

In 2023, the extension will be completed and the premises will be furnished to begin the use.

#### 6.1.2 AQUA (Valuable resource from the research)

**Introduction:** a substantial part of our R&D work is focused on improving the use of water resources, that is to say WUE (Water Use Efficiency) with the aim of substantially reducing the amount of water needed for food production. And this since the research phase.

#### **Activities**

Study of an advanced management system for the control and application of water within the conduct of experimental tests, in relation to all the constraints that will be imposed in terms of application quantity and frequency with the precise feedback of the water used: accurate information that can then be transferred, on a large scale, to farmers who will use the materials developed. Internal meetings were held for the definition of objectives and meetings with designers. All necessary materials and the economy in terms of time, plastics, water were evaluated.

#### Data

150 hours of work for studios, internal meetings of a group of 6 people; meetings with designers.

#### **Achievements**

The preliminary project has been drafted, together with the executive parts, a cost, materials, energy and water needed estimation.

#### **Future goals**

In the first quarter of 2023 preparatory work began and a first implementation of the project was executed.

36

#### 6.1.3 Sun Power

Introduction: the management of offices with air conditioning systems, the laboratories and the conduct of the experimental activity (technologies, irrigation, air-conditioned greenhouses), requires the use of significant amounts of electricity throughout the year. In order to reduce its environmental footprint, Landlab has decided to invest in the setting of a photovoltaic system. At full capacity, the plant will be able to meet Landlab's energy demand in the 6-8 central months of the year and make a significant contribution even during the winter.



#### **Activities**

During 2022, technical and economic feasibility studies were carried out, requests for national calls for energy efficiency and innovation were structured and submitted.

#### Data

150 square meters of photovoltaic panels; 30 KW of power at full capacity.

#### **Achievements**

Completion of the executive project, access to national contributions for efficiency projects and obtaining of municipal permits.

#### **Future goals**

First quarter of 2023: setting of infrastructure, photovoltaic panels, connection to the national grid and activation of the system.

## 6.2 OPTIMIZATION OF ENVIRONMENTAL RESOURCES AND ENHANCEMENT OF PLANT GENETIC HERITAGE

#### Purpose:

Landlab develops know-how, creates products for sustainable agriculture, is a point of reference, training and local and international information in this area, deals with research and development for the change of traditional agricultural models.



#### 6.2.1 Valorization of genetic basis

#### Data and activities

At the moment there are three lines of work: two aimed at enhancing genetic material of species for food usage, which have lost identity over time and show a strong genetic drift; one of species with a high degree of biodiversity for the constitution of meadows in urban areas. The activities required the use of materials for the cultivation of plants, equipment and several working days by Landlab's technicians and operators to perform all the activities of material selection, sowing, plant control, plant selection, collection, laboratory analysis. In particular:

## 1 Selection of corn varieties for direct human use (activities already in place since 2019)

The purpose of the activity is the development of a landrace (breed) of white corn, with vitreous fracture, for human consumption, starting from ancient ecotypes/breeds already present in the Po Valley area, which, over time, have lost in homogeneity and identity, with the aim of making these new breeds available to farmers. From material obtained from a farmer, a recurrent selection was made based on a complex of phenotypic traits to refine and stabilize the quality of the population.

#### Data

10 working days of operator, 5 working days of supervision.



#### 2 Selection of varieties/ecotypes of broccoli from Bassano del Grappa (VI)

Bassano broccoli is a horticultural crop cultivated in a restricted area of Veneto (North-East of Italy) that has particular organoleptic characteristics. Also in this case, along the time many genotypes have separated and now they present significant inhomogeneity and do not fully respond to the different degrees of precocity required. The activity is carried out in cooperation with the non-profit consortium Rete Pictor and the agricultural cooperative farm Conca d'Oro of Bassano del Grappa.

#### Data

15 working days of the agronomist; 2 working days of supervision.



#### 3. Development of biodiverse cenosis for urban/anthropized grassland

Urban grasslands are subject to strong environmental and cultural pressures: flexibility, sustainability are required, and above all biodiversity, of flora and of insects, of birds and of small mammals, and all these values are absent today. Together with other actors, Landlab started this activity which, in 2022, saw the start of a consistent experimentation aimed also at identifying and selecting plant material suitable for this paradigm's change.

#### Data

100 working days for the constitution of experimental tests, multiplication and selection of plant material.

#### Achievements and future goals

## 1 Selection of corn varieties for direct human use (activities already in place since 2019)

We have arrived at the identification of a population homogeneous in height, size of the panicle, seed's weight, colour and shape. This population has been reproduced in isolation and the harvested seed sent to the Ministry of Agriculture for registration in the national/European register of seeds, as landrace, that is free-pollinating varieties.

#### **Future goals**

In 2023 the 2022 population will be reproduced in isolation condition; the plants will be further selected on a phenotypic basis. This material will constitute the pre-basic seed for reproduction in order to have seeds to be distributed to farmers.

#### 2 Selection of varieties/ecotypes of Bassano broccoli

During 2022 genotypes of different origin characterized by different degrees have been reproduced. They were then planted within the structure of Rete Pictor - Villa Angaran San Giuseppe in Bassano del Grappa and began the selection on a phenotypic basis of homogeneous individuals for the traits considered of priority.

#### **Future goals**

We will proceed to the separation of homogeneous individuals for the 3 main traits (precocity, shape of the flower, shape of the leaf); they will be placed in clusters for the separate reproduction in order to maintain the traits. The seed will be harvested, the seedlings will be reproduced and transplanted in 2023 in homogeneous groups for the second selection cycle.

#### 3 Development of biodiverse cenosis for urban/man-made grassland

The first fairly stable cenoses were dismissed and the intra-specific variability of the species considered suitable was highlighted.

#### Future goals

Continuation of the species/ecotype selection process, cenosis study, identification of partners for further development of the sector, preparation of a European project.

41

#### 6.2.2 Microbiome Quality Enhancement

**Introduction:** large extensive crops are subject to strong climatic fluctuations but also price fluctuations, and the welfare of farmers depends on these variables. These crops (cereals, oilseeds) in the great majority non-irrigated, are however essential but, given the low value, are not susceptible to many treatments.

#### **Activities**

Landlab has developed a concept that aims to improve soil conditions at the time of sowing, to provide the microbiome and plants with tools for rapid settlement even in conditions of water shortage. All of this is concentrated in a microgranule applied at sowing time, consisting of materials of plant origin, as by-products of agro-food sector, but above all by tissues of selected species with special biostimulant properties.

#### Data

100 working days of the team consisting of: biotechnologist, agronomist, technicians;

45 days of work with pilot plants for the production of prototypes;

> 20 prototypes made in different ways,

20 experimental tests performed;

6 days operator for prototyping abroad;

1 patent filed.

#### **Achievements**

The substantial workload of 2022 has led to the realization of several prototypes that have been started to experimentation performed in critical conditions for the plants, with remarkable results. This formed the basis for the formulation of the patent and the opening of international conversations for the large-scale dissemination of this concept/product.

#### **Future goals**

- confirmation, at field level and at various European locations, of preliminary results;
- a deep understanding of how the product works;
- industrial scale-up for complete product feasibility;
- conclusion of discussions on product development and distribution.

#### 6.2.3 Open to the net

Data	Titolo	Località	ore formazione
24/02/2022	My plant & Garden	Milano	9
28/02/2022-03/03/2022	16th Serbian Congress of fruits and grapevine producers	Serbia	21
02/03/2022	Fiera agricola di Verona	Verona	12
26-29/04/2022	BioAg world	Valencia	90
16-18/05/2022	ETS field days	Girona	16
18-19/05/2022	Green switch Journey - P4P final conference	Olanda	17
23/06/2022	Convegno FISSSA	Bologna	7
01/07/2022	Convegno biostimolanti	Rosolina	7
11-14/07/2022	Convegno BeCrop	Vienna	25
19/07/2022	Convegno Agripolis	Padova	1,5
20-22/07/2022	International workshop on grapevine downy and powdery mildews	Cremona	21
20-22/09/2022	SABB	Ghent	52
22/09/2022	Open day Mapei Stadium	Cesena	8
24-26/10/2022	ABIM	Basilea	63
11/11/2022	EIMA	Bologna	18
28/11/2022	Giornate fitopatologiche	Bologna	18
		totale	385,5

#### **Activities**

Landlab regularly publishes both internal and external news. In the year 2022 it was decided to make this a routine and timed activity. The news publication refers both to the internal public of Landlab, employees who are informed about weekly organizations and the latest news in the sector, but also to the external public that can get deeper into Landlab's reality and stay updated with the latest news.

#### Data

18 internal newsletters:

53 news in LinkedIn, 450 Followers in 11 months.

Addition of the scientific publications' page to the company website.

#### **Achievements**

The internal newsletter has been very appreciated by the employees who consider it a useful tool to have logistical and informative details about Landlab's activities, especially outside Landlab, such as the meeting with customers.

Landlab's LinkedIn page has kept on growing over time and at the end of 2022 it reached about 450 followers. News include Landlab's activities such as Benefit Society, research projects and outreach, and team's research and conviviality moments.

#### 6.3 PROMOTING PEOPLE'S HEALTH AND WELL-BEING

#### **Purpose:**

Acknowledgment of people as such:

- reconciliation of work-family, equal treatment while respecting differences;
- support for personal planning;
- promotion of people's continuous training and skills development;
- promotion of teamwork and participation of all staff in work's organization and management;
- hosting of students in training and their inclusion in the working groups;
- promoting the exchange of knowledge and experience between internal and external researchers;
- Landlab is committed to work for the continuous improvement of internal communication
   between people, for the circulation of knowledge and information, with transparency and mutual respect;
- Landlab is committed to pursue and improve communication, to increase the level of inclusion
  and quality of work at different levels, inwards and outwards, for the well-being of collaborators
  and employees.



#### 6.3.1. Flexibility Smart

#### **Activities**

In 2022, Landlab formalized an agreement with each employee to use smart working. Initially linked to the pandemic, then became a tool of facilitation in different situations from reconciliation of work-family, to the optimization of the study time, drafting and reporting of projects and reporting and statistics of the work itself. This tool is mainly usable from those who have roles or activities related to computer or intellectual work.

#### Data

During the year 2022, 9 employees used the smart working, especially specialized technicians and managers, for a total number of 200 hours.

#### **Achievements**

Initially it was found difficult to use this tool both because it is new, compared to the common thought of working in the workplace, and because, precisely because the most interested figures concern roles of responsibility, the need to be present in the company prevails even when it could be exploited.

The use of this tool has made more agile and faster the execution of some specific jobs: reports, analysis, reporting, without the work being interrupted by phone calls and other requests. It has given serenity when, for personal reasons, one could not be present at the company, favouring however both the continuation of work and the management of personal and family life.

#### **Future goals**

The agreement for smart working will remain active also for the future, it is intended to make greater use of it especially to reconcile working life with family life, an emerging theme in Landlab due to the fact that many employees have young children.

#### 6.3.2. WELL: Welfare Planning

#### **Activities**

The year 2022 saw the continuation of the three-year welfare agreement in Landlab, which began in 2020 with the total disbursement of  $\in 11.370$  used by 19 beneficiaries. The welfare regulation of Landlab provides for the payment of an equal amount for all except for special and specific cases related to the presence in the company.

Since a few years Landlab has also been providing food vouchers, and during 2022 the value of food vouchers has increased from  $\in$  5.30 to  $\in$  6.20 per day, for a distribution of n 4.500 vouchers with a total value of  $\in$  29.250.

#### Future goals

The goal for 2023 is to continue with these benefits and if possible increase them.

#### 6.3.3. L-Learn: Training Beyond the obligation

#### **Activities**

Our employees are constantly encouraged to attend conferences, trade fairs, and both external and internal training activities. All activities include to identify the people who are most specialized in a given area to be able to keep updated in direct contact with industry experts and potential customers.

#### Data

385.5 hours of training for 8 employees.

Events both in Italy (8) and in Europe (5) and in non-European countries (1)



#### **Achievements**

All the latest news and trends identified in each training event have been shared within the company, in order to facilitate and make more fluid the exchange of information between colleagues. As part of ABIM 2022, Landlab purchased a Booth in order to be able to contact more effectively as many suppliers and customers as possible. In addition, Landlab actively participated in four events, disclosing various internal research activities through speeches and posters.

(Word)ItOut

#### **Future goals**

Implement the training and the number of participants to improve not only the knowledge and professionalism but also the personal growth that flows into the large group. The training plan is being defined and will be mainly linked to participation in external activities such as conferences and courses.

## 6.3.4. L-ABOUT Landlab: moments of confrontation and growth

#### **Activities**

Every year Landlab spends two days to explore topics of collective interest, sometimes related to research and intra moenia projects, other times to general topics such as communication, group dynamics, etc. for several reasons: take up a space of sharing and dialogue, other from everyday life, in which one can get involved using new ways of communicating, different from the strictly scientific ones, and thus enable the work team to deepen mutual knowledge and explore new ways of relationship; focus on ways of communicate and relate underlying everyday life, to improve internal relationships and increase well-being in the workplace; bring to light unconscious dynamics to improve relational quality; enrich one's communicative, relational and emotional skills; find new collaboration strategies; give space to creativity and motivational drive.

#### Data

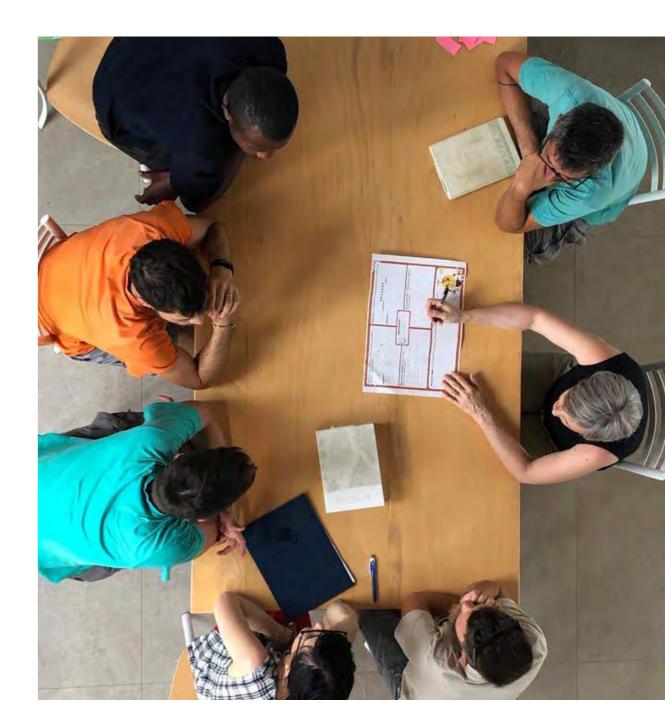
During 2022 we had two moments of dialogue with the facilitation of an external coach for a total of 15 hours, 5 in June and 10 in November. In June, the activity focused on group dynamics related to communication and collaboration. In November, work continued on two other topics: working alone and in a group and achieving the objectives alone or in a group. We also addressed the issue of social inclusion with a visit to the Fattoria Conca d'Oro (Conca d'Oro Farm) in Bassano del Grappa, which ended with a dinner on site.

#### **Achievements**

The activity allowed us to understand the group dynamics and what has emerged is a cohesive group with some good dynamics of consolidated collaboration, accustomed to comparison, with willingness to collaborate and get involved, but also with heated exchanges and dynamics of conflict that find resolution anyway. It was understood that the result is achieved when everyone does the best for him or herself and for the group and that it is important to align in a common strategy functional for all parties.

#### **Future goals**

Consolidate the results achieved with continuous adjustments and checks. Needs and gaps will be analyzed in order to be filled and therefore define the activity of 2023 within the Landlab days or other times distributed throughout the year.



#### 6.4 STAKEHOLDERS



#### **Purpose:**

- Landlab shares knowledge and know-how with farmers, nurseries and end users, accepting their requests and acting as a scientific reference point on issues of agricultural and environmental sustainability;
- Landlab cooperates with public institutions, entities of the non-profit sector and in the educational field on its own initiative or at their request, and proposes solutions for the local community by supporting it with projects and donations;
- Landlab collaborates in the construction of research networks and acts as a hub of them, with other research centres, with universities and with other companies;
- Landlab creates and cares for circular economy and develops know-how for its evolution;
- Landlab is committed to disclose scientific topics to make the language of its field accessible to most people and give them the opportunity to develop critical thinking and increase their judgment on specific issues.

#### 6.4.1. Landlab Technology Transfer

**Introduction:** the agricultural technique is rapidly refining itself both in terms of technological equipment and in terms of materials used to support crops which, given the evident climatic unsteadiness and the significant increase in the frequency of critical events, are subject to various abiotic and biotic stresses. The industry responds with a consistent offer but farmers struggle to have access to independent data and informations that meet their needs, so two initiatives have been launched: Landlab-Farm and Zenon.

#### **Activities**

Landlab Farm: Technology Transfer, Extension Service like, Independent Support

A web platform has been created - Landlab Farm- which connects farmers with the most advanced innovations for crop management with the aim of transferring to farmers themselves accurate and independent information as well as a lot of real-time data on climate trends, on plant water and nutrition balances and on events concerning pathogens. The aim is to increase two central parameters: NUE and WUE (Nutrients Use Efficiency and Water Use Efficiency) in order to optimize the use of two very scarce resources.

#### Data

- establishment of the Landlab agronomist working group
- internal training meetings
- acquisition of basic scientific material, TOT: 20 days/operator
- organisation of Farmer Day on 16/12/2022 with the participation of several farmers.

#### **Achievements**

- development of the platform on the basis of an available system;
- construction of the communication mode;
- identification of the sensors required for environmental monitoring;
- construction of water balance models;
- activation of satellite data acquisition contracts;

PROJECTS 2022 AND 2023 GOALS

- development of automatic data transfer protocols;
- involvement of some farmers and managers of green areas and sports facilities equipping them with weather stations and sensors.

#### **Future goals**

- close the first deals with some farms;
- expand the farmers' platform;
- insert different crop plans with details of operations and strategies to be used;
- implement water and nutrition balances.



**ZENON**: Industrial Alliance for a fair agriculture

Landlab has promoted, together with other foreign industrial partners, the activation of a strategic alliance- ZENON- aimed at the implementation of a combination of techniques and materials that can significantly improve the status, well-being of the rhizosphere, and therefore the NUE and WUE of crops reducing the level of input; develop disruptive technologies aimed at a drastic reduction in the use of synthetic nitrogen.

#### Data

- establishment of the group of companies;
- meetings with partners "in-person": 8 days
- meeting and study activities for the development of protocols: 6 days

#### **Achievements**

Definition of the objectives, the combined products of different companies, the experimental protocols for the activity 2023 and identification of farms in Italy, where the testing will get started.

#### **Future goals**

First quarter of 2023: start of experimental activity on 3 farms in Italy (1 organic).



#### 6.4.2. Landlab, Not-for-Profit, for society

L'Incontro Association (Quinto Vicentino), Rete Pictor Consortium and Conca d'Oro Farm (Bassano del Grappa, Vicenza): demo field for technical-culture exchanges, conservation and improvement of genetic material.

#### **Activities**

In this field Landlab has two main lines of cooperation with not-for-profit associations and organizations: L'incontro Association (Quinto Vicentino), Consorzio Rete Pictor (Bassano del Grappa).

With the first one Landlab manages all the experimental agricultural productions that, at the end of the research, are returned to the association that distributes them to subjects that are living a fragile moment and a difficult one from the economic point of view.

We collaborated for the regularization of a person in seek of asylum of Nigerian origin hired by Landlab and with the support of the Associazione L'Incontro the young man was able to settle in the territory of Quinto Vicentino, he is supported in the knowledge of Italian and in the management of bureaucratic tasks.

Landlab and Rete Pictor have signed a memorandum of understanding for the development of technical-cultural exchanges on the theme of sustainable food production, awareness of citizens at local level, for the dissemination of innovation, to initiate genetic improvement activities of certain relevant horticultural species in the area.

#### Data

Throughout the season, several tons of potatoes, table and canned tomatoes, zucchini, aubergines, peppers, cucumbers, cauliflower, salads were donated to the L'Incontro Association.

#### **Achievements**

Distribution of fresh vegetables, signing of the Landlab-Rete Pictor memorandum of understanding, insertion in Landlab of a person who immigrated to Italy from Nigeria with the support of operators of the municipality of Quinto Vicentino.

#### **Future goals**

Consolidation of relations with the L'Incontro Association, already in place for several years;

- support to Rete Pictor for the development of different thematic menus of the restaurant Todo Modo, based on the reduction of the impact on water, energy, and on the geography of basic foods;
- participation in the GROUND project, organized by Rete Pictor, with a significant public event in September 2023, aimed at raising awareness on food-agricultural-environmental issues



#### 6.4.3. Open Workshop

#### **Activity**

landlab is an environment open to students' training: the research centre is available to offer experiences of work and of applied research approach to high school students (PCTO, projects about pathways for soft skills and guidance), students of higher education courses, University internships, but also to University dissertation research projects. We consider this moments important, as young students can use the experience not only to deepen their studies, but also to understand what their real interests are. They can meet a working reality with different times and rules from school, and interact with different professional figures, enriching their experience.

#### Data

During 2022 we had 11 trainees for a total of 1224 hours divided as follow:

- n.7 PCTO (projects about pathways for soft skills and guidance): 480 hours
- n. 2 schools of higher education (6+6 months)
- n. 2 University internships (total of 45 days)





#### **Achievements**

The students were welcomed enthusiastically by Landlab's team, there has been for the youngest difficulties of communication for some, great interest for others; in general, the different experiences were positive. However, we assessed the one week experiences as too short.

#### **Future goals**

Keep active the availability to schools to activate internships, improve as much as possible the integration of students by involving them in the activity and stimulating their interests, responding to their curiosity while respecting the privacy of customers and partners.



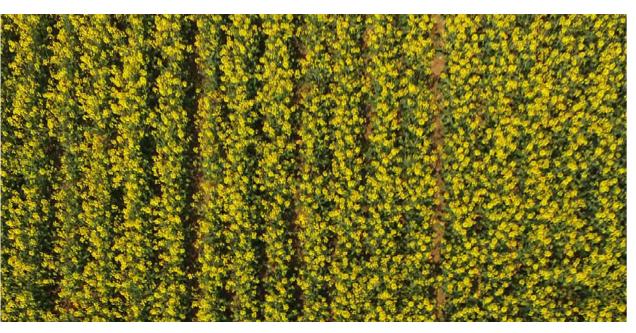




#### In 2023 Landlab plans to:

- Increase the level of internal formalization of some processes to meet the higher quality demands of the B Impact Assessment:
- all supervisors and managers will receive training on how to pass on social and environmental objectives to workers and how to implement performance reporting mechanisms;
- increase employees' satisfaction and involvement;
- activate formal policy systems written in the code of conduct of suppliers that make them explicitly responsible for their social and environmental performance;
- activate clients' satisfaction and monitoring systems;
- activate work quality monitoring systems;
- improve environmental performance by analysing greenhouse gas production, increasing control over water consumption in R&D.
- define other strategic projects within the 5 key directions/benefits;
- identify existing and future project leaders to increase the level of involvement of the Landlab team and monitoring performance;
- improve the communication about our Benefit business.







The first full year of Benefit activities has seen the realization of several projects and the beginning of many others. All this in line with what Landlab already had in place, namely with its own code of ethics and purpose. However, given the size of Landlab (small to medium size company), the commitment, in organizational and economic terms, both of the management and of the formalization of the Benefit activity, that has been added to the ordinary work has proved to be fairly significant.

In other words, Landlab at the moment does not have all the necessary resources to deal more organically with the issues and the Benefit perspective: this will therefore be the next challenge of Landlab that will obviously not be solved in a single year. However, we are confident that in 2023 we will be able to reach the minimum target of 80 points, according to the international benchmark chosen (B Impact Assessment), needed to reach the qualification of B Corp. This will be a constant reference for us. In addition to this, has begun a work about the construction of the scheme of relations of impact: this step will allow us to enter into a greater detail of the projects, their purpose, the effect they generate. But, as said, all this will require a significant organizational effort, data collection and accountability.

To be a Benefit Society is, from our perspective, a process and not a point of arrival, an opportunity to work deeply on our paradigm of "doing business" and then rethink about the relationships with the research centre's internal and external world, as well as with the biosphere in the broadest sense.

All this requires resources and time for the development of projects from the formulation of ideas to their realization and to keep alongside the economic and financial pillar intact and functioning. All this will be a further reason of accurate reflection in the perspective of the "Benefit Corporation" process in which we have proudly chosen to spend ourselves.





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