

Certified



Corporation

# 2021 SUSTAINABILITY REPORT

*in a nutshell*



NOVAMONT





# This is Novamont: Innovation

It all started from a research lab and a group of ambitious researchers committed to develop ideas and products for a new everyday life.

Now we are ready for a new leap: we want to offer a new systemic vision that integrates progress and prosperity with the right amount of care required by our planet.

In 2020 we became a B Corp certified Benefit Company, one of the first Italian companies to formalise the commitment to promote a development model that goes beyond profit alone.

This is Novamont: a company that creates innovation not only in the products but also in what it represents for the entire society.

1989: the first research team of the former Montedison Group, led by Catia Bastioli.



*“For us, being a Benefit Corporation and a B Corp means seeing business as a force for regeneration, rethinking the role of companies in society and looking beyond short-term profit-seeking, being transparent and delivering value to the local community.”*

*Catia Bastioli*

# For the planet, for the people, for the future

We are the Novamont Group, world leader in the production of **bioplastics** and in the development of **biochemicals** and **bioproducts** integrating chemistry, environment and agriculture.

Our commitment is not visible only in the benefits brought by our products, but also in the concrete actions on the territory: we bring to new life disused industrial plants, transforming

them into innovative biorefineries integrated in the local area; we study solutions to build agricultural value chains with low environmental impact, which can be grown in marginal land; we also work to raise awareness and to educate the community on the topic of sustainable development, for a more conscious and responsible future society.



**We want to facilitate the transition from a product-based economy to a system-based economy. This cultural leap towards economic, environmental and social sustainability involves the whole of society. It starts with the development of each region and collaboration with various partners.**



# Towards a new economic model

We are pioneers of an innovative business paradigm, thanks to the choice that we made to become a Benefit Corporation and to the achievement of the B Corp certification, which corroborates our willingness to operate in a responsible, transparent and sustainable way.

We received the **B Corp certification** in 2020, with a score of 104 verified by B-Lab: an excellent result that shows our concrete commitment in generating value beyond profit alone.

We did not stop here though, we developed an improvement plan to better our sustainability profile.

Our B Impact Assessment provides an evaluation in the following five fields:



Governance



Workers



Community



Environment



Customers

The term Benefit Corporation refers to a new legal form that was introduced in the United States in 2010 and adopted by Italy in 2015. It is a guarantee of the commitment that more and more businesses are choosing for their company, the local area and the environment.

**Certified**



**Corporation**

In order to become B Corp we went through a strict process of evaluation of the impacts generated by our business on the environment and the society. Only companies who score more than 80 points out of 200 can get a B Corp certification.



# From a research lab



1990

NOVAMONT foundation



1996

Acquisition of Novamont  
by associated investors  
and Banca Commerciale Italiana



2001

Novamont reaches turnover  
break-even point



2011

MATRICA is founded



2016

Launch of MATER-BIOTECH  
created out of a disused  
production plant in Bottrighe



2015

Agreement with Coldiretti,  
production of the first  
intermediate chemicals from  
renewable sources in Matrica



2014

MATER-BIOPOLYMER  
is founded



2012

Acquisition of the biotechnology  
and R&D centre in Piana di Monte Verna



2019

Start of the Mater-Bi production in the  
MATER-BIOPOLYMER plant in Patrica



2020

Novamont becomes a Benefit Company  
and achieves the B Corp Certification



2021

Acquisition of BIOBAG INTERNATIONAL  
and foundation of MATER-AGRO

# Outstandingly made in Italy...

**NOVAMONT SPA**

HEADQUARTER  
AND RESEARCH  
CENTRE

Novara - Piedmont

**MATER-AGRO**

DISTRIBUTION OF  
BIOPRODUCTS FOR  
AGRICULTURAL USE

Novara - Piedmont

**MATRìCA**

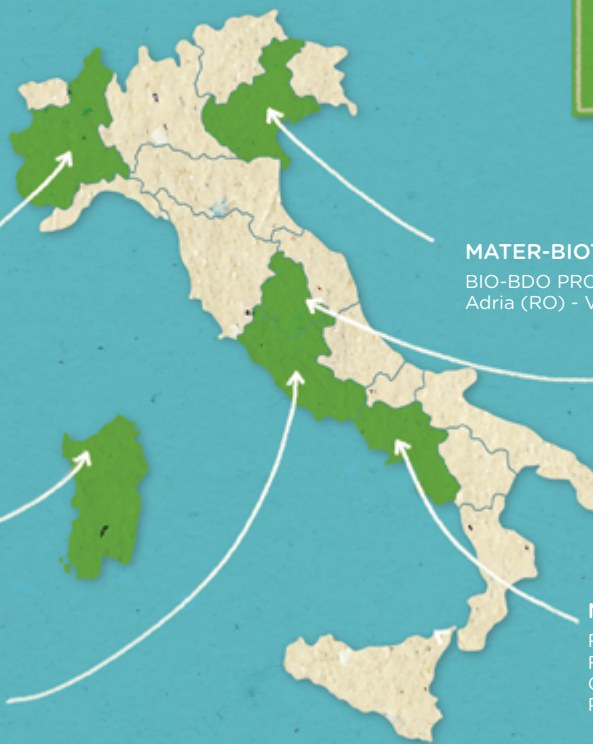
PRODUCTION OF  
INTERMEDIATE  
CHEMICALS FROM  
RENEWABLE  
SOURCES

Porto Torres (SS) -  
Sardinia

**MATER-BIOPOLYMER**

PRODUCTION OF  
ORIGO-BI BIOPOLYESTERS,  
MATER-BI, THF

Patrica (FR) - Lazio

**MATER-BIOTECH**

BIO-BDO PRODUCTION

Adria (RO) - Veneto

**NOVAMONT SPA**

PRODUCTION OF MATER-  
BI, ORIGO-BI, MATROL-BI  
AND NEW MONOMERS

Terni - Umbria

**NOVAMONT SPA**

RESEARCH CENTRE  
FOR THE DEVELOPMENT  
OF INDUSTRIAL BIOTECHNOLOGIES

Piana di Monte Verna (CE) - Campania



We have production plants and research centres in Italy. We operate in foreign markets through our European and North American subsidiaries.



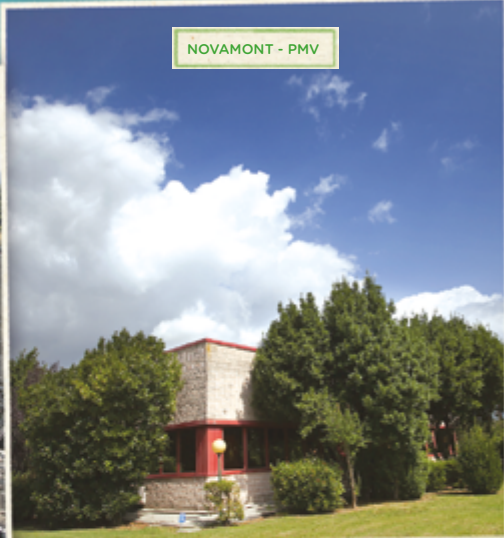
MATER-BIOTECH



MATER-BIOPOLYMER



NOVAMONT - PMV



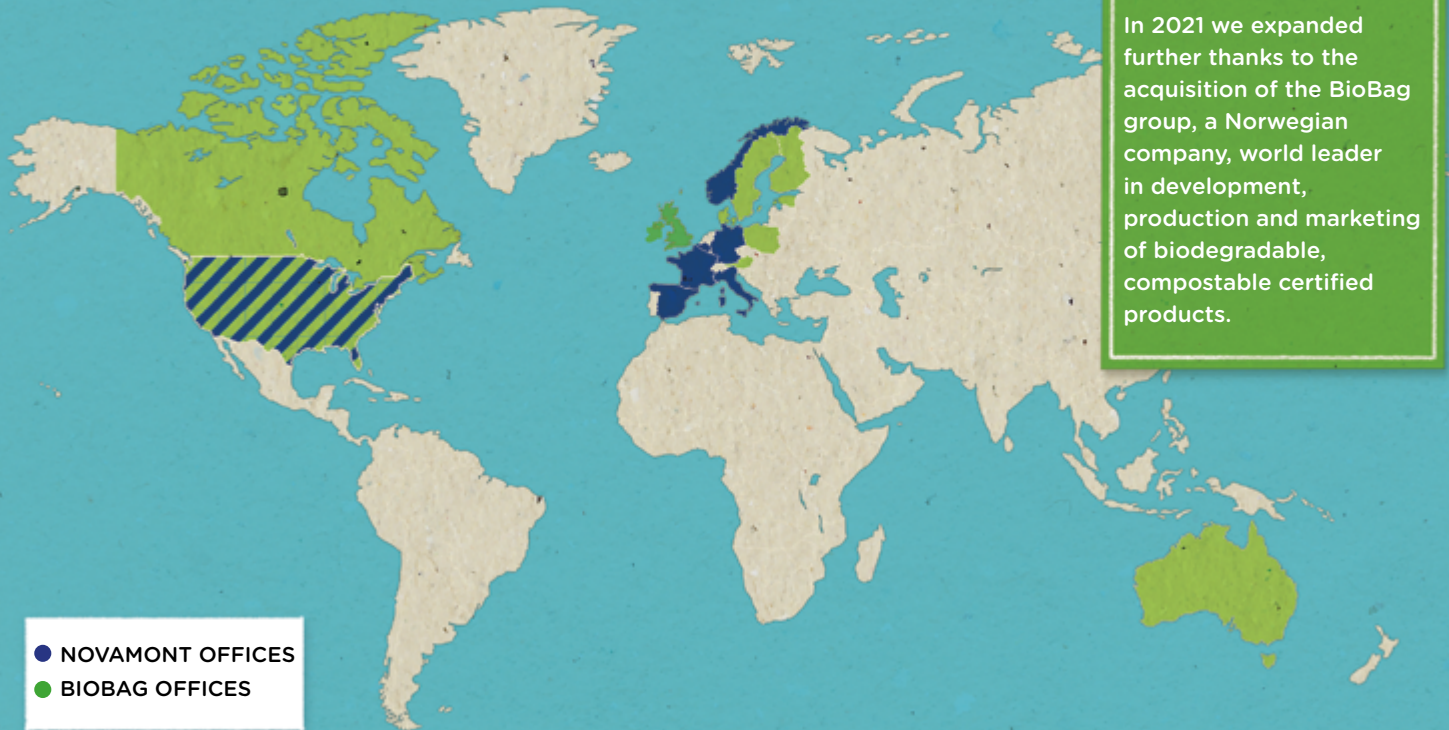
NOVAMONT - NOVARA



NOVAMONT - TERNI



# ...with an outlook on the world





# Stakeholders, at the heart of our commitment

We listen to all the stakeholders involved in our circular bioeconomy model to become more aware of their expectations and to build together a sustainable and inclusive business strategy.



## CAPITAL PROVIDERS

Anyone who provides the Novamont Group with capital



## COLLABORATORS

Anyone who works for or on behalf of Novamont, including their representatives



## SUPPLIERS

Anyone who supplies the Novamont Group with raw materials, materials or services



## DIRECT CUSTOMERS

Anyone who purchases Novamont products



## INDIRECT CUSTOMERS

Anyone who purchases products made from Novamont products



## ASSOCIATIONS AND NGOS

Private, non-profit associations and organisations



## MEDIA AND THE PRESS

International, national and local media



## NATIONAL AND INTERNATIONAL GOVERNMENTS AND BODIES

The group of national and international institutions and agencies



## FARMING WORLD

National and international farming bodies, associations and organisations



## FUTURE GENERATIONS

The world of schools, universities and young people



## WASTE MANAGEMENT SECTOR

The bodies, associations and organisations that deal with waste management



## COMMUNITIES AND SOCIETY

The social context of the territories in which Novamont operates, together with the wider community

# Our products

Our products are conceived and developed to offer solutions to environmental problems.

## MATER-BI

our innovative family of biodegradable, compostable and highly renewable bioplastics. It was developed to offer solutions to specific environmental issues, integrating the products' quality and performance with the efficiency of use of the resources. Mater-Bi is sold in granule form, and is processed using the most common conversion technologies for traditional plastics to create an array of final every-day products, mainly used for recycling, large-scale distribution, food service, packaging and agriculture.

## CELUS-BI

Our family of ingredients for the cosmetic and personal care sector, developed from renewable and completely biodegradable raw materials.

## MATROL-BI

Rapidly biodegradable biolubricants. They have been formulated with special oils made of vegetable or synthetic origin, and are used as hydraulic fluids for machinery or as insulating fluids used in distribution and power transformers, minimizing the risk of pollution in case of accidental spillages or fires.

## AGER-BI

Pelargonic acid-based (of vegetable origin) phytosanitary products (plant growth regulators, desiccant agents), that ensure optimal harvest quality.





# Copy nature, to integrate with it

## BIODEGRADABILITY

This is the ability of an organic substance, of plant or animal origin, to decompose into simpler substances by means of the enzymatic activity of bacteria and other microorganisms. Once the biological process is complete, the original organic substance will have been fully converted into simple, inorganic molecules: water, carbon dioxide, methane and new biomass.

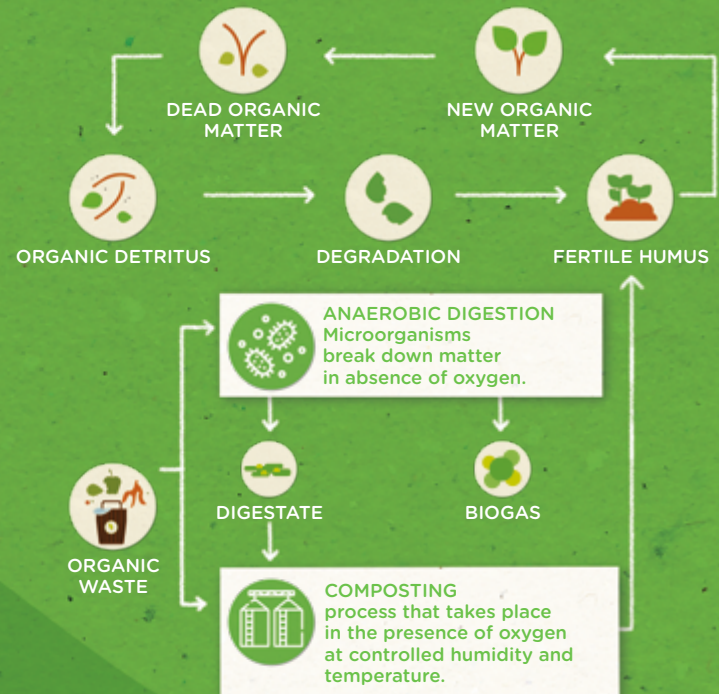
## COMPOSTABILITY

This is the ability of biodegradable, organic matter (i.e. plant cuttings, kitchen scraps, gardening waste, some types of bioplastics, etc.) to be turned into compost in composting plants.

## RENEWABILITY

Sources of energy or material that can be regenerated in a relatively short period of time.

The characteristics of our products are very similar to those of any other organic matters, they generate from earth to return to earth at the end of their life cycle.



## The applications



### PHEROMONE DISPENSERS

They allow to reduce the use of insecticide and avoid the disposal of dispensers at the end of the season.



### CLIPS

Used in agriculture to support crops such as tomatoes and cucumbers, and are compostable together with vegetable waste.



### BIOLUBRICANTS

Biodegradable biolubricants, created from renewable sources for agricultural machineries, are equivalent to traditional lubricants but with a lower footprint.



### PHYTOSANITARY PRODUCTS

Pelargonic acid-based products, are rapidly biodegradable in soil and do not dissolve easily in water.



### MULCHING FILMS

Films that are biodegradable in soil and ensure excellent agronomic performances without releasing long-lasting microplastics in the ground.







### FOOD PACKAGING

Biodegradable and compostable packaging can be disposed together with organic waste, reducing the production of waste generated with non-recyclable packaging.



### BAGS FOR FRUIT AND VEGETABLES

A practical and sustainable solution to pack loose food in supermarkets, that can be reused for organic waste disposal.



### CLING FILM

They allow better preservation of fruit and vegetables, and the complete biological recycling of food waste and packaging, which are both compostable.



### BAGS FOR ORGANIC WASTE

Contribute to improve organic waste recycling and to facilitate the production of high quality compost.





### COFFEE CAPSULES

It is possible to dispose of our capsules with the organic waste, offering a real recycling option.



### CARRIER BAGS

After their first use they can be reused for the separate collection of organic waste.



### CUPS, PLATES AND CUTLERY

Wherever it isn't possible or practical to use washable and reusable tableware, the use of Mater-Bi compostable tableware makes waste management easier.





# Our company's economic impact

In 2021 we generated an economic value of €414 million, from the €287 million of the previous year. Of these, €368 million were divided between operating costs, backers, public administration, to manage our workforce and as funding for organizations and sponsoring.

We have also benefited from an important and substantial funding of €100 millions from SACE, as a “green guarantee”, to reward our commitment to a sustainable production chain, integrated with local areas. Thanks to this funding we will be able to make a plan to strengthen our presence in the world and to expand the production capacity of bioplastics.

We are aware that an innovation-focused company requires solid financial foundations, which can support the internal structure, the operating costs and the investment plans.



# Our motto: do more with less

Our commitment is not limited to creating sustainable products: we are on the front line in the promotion of a new vision for the industry, towards a manufacturing industry with lower consumption rates and emissions.

We are adopting more and more efficient solutions to make our products sustainable in their life cycle.

For example, in our plant in Bottrighe, dedicated to production of bio-butanediol from sugars, we have installed a cogeneration plant for self-generation of heat and electricity and a biodigester for biomethane production; a combustor which transforms liquid and gaseous refluents into thermal energy used for production and space heating is in op-

eration at the Terni plant.

In all our plants we are carrying out works to improve energy efficiency, aimed at getting rid of inefficiencies and transforming waste and emissions in potential resources; for example in the the Patrica site, we are shortly going to activate a tri-generation plant that uses the methane combustion process for the production of electricity, steam and heat.



 - 24%  
Decrease of the energy  
intensity indicator  
recorded since 2017





# 55,619

TONNES OF CO<sub>2</sub> AVOIDED IN 2021  
THANKS TO:



**99.8%**  
ELECTRICITY  
GENERATED WITH  
RENEWABLE SOURCES



THE COGENERATION  
PLANT



THE BIOMETHANE  
PRODUCTION

## Regenerative turnover

At Novamont, we developed a metric that would allow us to measure our contribution to the circular bioeconomy: the regenerative turnover.

This indicator is calculated by multiplying the actual turnover by the Circular Flow Index, which is the amount of flows of green material and energy, that are generated by renewable sources, recycling, or using regenerative solutions.

Thanks to this indicator we can calculate our ability in generating revenue not only from our products, but also from circular activities.



# Responsible in the whole value chain

The first year of the project ended successfully, and the result was a collaborative supply chain

with sustainability performance above the standards of the companies evaluated by EcoVadis, especially in relation to environmental issues.

This system gives us a better knowledge of our production chain, even when it is not under our direct control, and gives us the chance to promptly answer to any possible risk related to it.



## WE ARE THE “BEST FOR THE WORLD”

For the second year in a row, our group received from B Lab, the global network that certifies B Corporations, the B Corp Best for the World award in the Environment category, falling within the top 5% of the highest scores achieved by B Corps all over the world.

We are careful to purchase from reliable suppliers, who focus on sustainability as much as we do, and for this reason we started a three-years project to evaluate and monitor our main raw material suppliers' sustainability performance, with EcoVadis support.

> 2,000   
TOTAL SUPPLIERS

€ 394 M  
TOTAL ANNUAL  
EXPENDITURE

67%



RAW MATERIALS  
AND PACKAGING

22%



GOODS AND  
SERVICES

11%



INVESTMENTS



# Soil protection

Soil is a non-renewable resource that is of vital importance for all living beings. It ensures food production and conservation of biodiversity and it represents a fundamental contribution for the fight against climate change.

Non-sustainable farming practices, pollution and the accumulation of non-biodegradable substances and products have led to a progressive impoverishment of the soil.

We must respond to this risk with sustainable solutions such as an efficient collection of organic fraction, the use of compostable solutions for the production of high-quality compost and the use of products that does not persist in the

environment.

We aim at using native crops, that can be grown on marginal land that need little water such as the cardoon.

# 60%

RENEWABILITY RATE  
ACHIEVED BY OUR  
MATER-BI MULCHING  
FILMS.



**RE SOIL  
FOUNDATION**  
Regeneration for a clean and healthy soil

## Re Soil Foundation

Since 2020, together with Coldiretti and the Universities of Bologna and Turin, we have been promoting the Re Soil Foundation, to boost a change in favour of soil protection and territorial regeneration. With the Foundation we want to promote scientific research, spread information about the health of the soil and create case studies that can be replicated in as many contexts as possible.

## Mater-Agro

The collaboration between Novamont and Coldiretti led to the establishment of Mater-Agro, the new company dedicated to farmers, to promote a model of virtuous participation between agriculture and industry. Thanks to Mater-Agro we are going to promote new sustainable agronomic solutions for farmers.

# Naturally reliable for our customers

Mater-Bi, Matrol-Bi, Celus-Bi and Ager-Bi products have been created using certified processes with the highest industry standards in terms of quality, environment and safety.

Moreover, they have all the compostability requirements recognised by international legislations.

Conscious that standards are not enough to evaluate the quality of our products, we use a customer satisfaction measurement system which takes into consideration the level of satisfaction for our products, any complaints and brand fidelization.

The outcome was that in 2021 80% of the customers interviewed said they were satisfied or very satisfied with the Novamont Group, thanks to its high safety, environmental and innovation standards, and to our ability to be reliable business partners, not just suppliers.

Our products' conformity to European regulations and laws is only the first essential step towards achieving our true goal: our customers' trust and satisfaction.

## Compostability criteria:



Biodegradability



Ability to disintegrate



Absence of negative effects on the composting process



Absence of ecotoxic effects



# 80%

Satisfied or very satisfied customers

LOOK FOR THESE LABELS ON OUR CERTIFIED PRODUCTS!





# Our team

Skills, talent and passion: are distinctive features of Novamont collaborators, and their contribution will be fundamental to achieve the goals that we have set. For this reason we commit to build stable and long lasting relationships with them, offering them opportunities to develop professionally and guaranteeing the highest standard in terms of health and safety, equal opportunities and non-discrimination.

At Novamont we work in a dynamic and international environment: our team is made up of **632 employees** spread out over the different branches in Europe, US and Australia.



**632**  
EMPLOYEES




**22%**  
FEMALE  
EMPLOYEES



**97%**  
PERMANENT CONTRACT  
AND FULL-TIME



**0.7%**  
RATE of non-severe  
WORK-RELATED INJURIES



We commit to offer a wide range of possibilities to develop their skills in different fields, to develop a business culture that is more and more focused on innovation and excellence.

**> 9,000**  
hours of training



Health and  
safety



Quality and  
Environment



Technical  
specialization



Italian  
legislative  
decree 231/01  
and privacy



Soft skills



Cross-job

# Covid-19: our commitment to protect our workers

During Covid-19 epidemiological emergency we were at the forefront trying to bring back in the group a good level of safety and health for all the staff members.

In 2021 we activated a free physiologic support to help our workers overcoming difficulties arisen during the Covid-19 crisis, with individual meetings, to discuss sensitive issues, such as anxieties and health concerns, couple and family relationships, work/life balance, overcoming illnesses or low self-esteem.



**Changes in the production system, suspending non-essential activities**



**Antigen/PCR testing for workers at risk of infection**



**Measures to limit contacts within and outside the company (i.e. remote meetings)**



**Regular general disinfection and intensified cleaning activities in the most sensitive areas**



**Renewal of Covid-19 insurance for all the staff**



**Smart working**

Thanks to Coronavirus Emergency Unit and the crisis units set up for each site, we adopted a number of innovative protocols, precautionary measures and organizational solutions, to ensure that activities can be carried out in complete safety.



# The first steps towards sustainability: education according to Novamont

## DISCOVERING MATER-BI

Discovering Mater-Bi is an edutainment project aimed at raising awareness about bioplastics amongst children and parents.

We created a guide character called Bia de Compostabilis, with whom we carry out a fun and educational communication campaign, that involves science and creative labs, exhibitions, games and on-line activities.



The value of sustainability can and must be promoted in the education world; It is the most efficient way to plant the seeds in our society for a new awareness of a renewed care towards the environment and the territory.



## BIOCIRCE MASTER

We are at the fourth edition of the *Bioeconomy in Circular Economy Master* (BIOCIRCE), the program that trains professionals specialized in circular bioeconomy and responsible use of resources.

## SCUOLA@NOVAMONT

We continue our educational project to spread knowledge on bioeconomy issues in secondary schools and universities. With Scuola@Novamont we offer on-line lessons, workshops and meetings, with the aim of sharing our values with young people who are going to lead the future of our country towards a new prosperity with higher awareness.





# Best practices starting from the connection with the territory

We believe that interaction with the community and the surrounding areas is essential for a paradigm shift, as part of a vision that not only looks at products but also at promoting sustainability and best practices locally.

We believe that cultural and local organizations are the life and soul of the local area to which they are connected: art, culture and circular bioeconomy plans are fundamental to create a solid community based on mutual respect and attention towards the surrounding environment.

We work together with several national cultural events (Festival Scarabocchi, organised by the Circolo dei lettori Foundation), and musical events (Novara Jazz Festival, Time in Jazz), research projects (Re-food) and Educational projects ("L'Atlante delle Buone Pratiche")





## PANTELLERIA TO PROTECT BIODIVERSITY

Thanks to an agreement signed by Novamont, the National Parks Organisation on the Island and the Department of Agricultural, Food and Forest Sciences at the University of Palermo, we are going to start a project to promote preservation of agricultural landscape and biodiversity, with low environmental impact solutions to reduce water and energy consumption and waste production, for example by using our pelargonic acid-based phytosanitary products and biodegradable mulching films.

## ORGANIC WASTE MANAGEMENT IN THE MUNICIPALITY OF TURIN

We have continued to support the Municipality of Turin creating an efficient organic waste collection system for fruit and vegetables that can be reused at the Porta Palazzo food market (RePoPP), in the collection of coffee dregs from cafés and restaurants to reuse them in sustainable mushroom farms (Fungiculture at the central market) and raising awareness within food sector workers and consumers about issues in relation to waste reduction and best practices to recycle correctly (bag TO Nature).





# Research is our engine

By now our business has established a consolidated presence all over the world, but we are well aware of our origins: as a scientific hub, we have pioneered ideas and solutions that are now integrated in the daily life of million of people. The foundation of this success is the research, which we have always been carrying out in our labs.

**3.5%**

Of the turnover  
invested in Research  
and Development

**~20%**

Of employees  
dedicated to Research &  
Development activities

**€35 M**

Of investments in the  
industry and in Research  
and Development

**3**

R&D centres and  
3 Technology  
Innovation hubs

**~1,400**

Patents  
and patent requests

**7,500 m<sup>2</sup>**

Of areas dedicated  
to our labs

# The future is already present







### CIRCULAR BIOCARBON

To recover the organic fraction of municipal solid waste and sewage sludge in final products for the industrial sector and final consumers

[www.circularbiocarbon.eu](http://www.circularbiocarbon.eu)



### FRONTSHIP

To contribute to the transition from a linear to a circular economy model, through the development of circular systemic solutions for multiple sectors

[www.frontsh1p.eu](http://www.frontsh1p.eu)



### EFFECTIVE

To demonstrate sustainability of the production of polyamides and polyesters from renewable raw materials to obtain fibres and films

[www.effective-project.eu](http://www.effective-project.eu)



### COMETA

To study and validate non-food low impact cropping systems in order to produce bioproducts for the industrial and agricultural sectors

[www.novamont.com/cometa](http://www.novamont.com/cometa)



### B-FERST

To develop innovative bio-based fertilisers obtained by using organic waste from agriculture

[www.bferst.eu](http://www.bferst.eu)



### EMBRACED

To develop processes to recover and exploit the cellulose fraction of AHP waste (such as nappies and sanitary towels)

[www.embraced.eu](http://www.embraced.eu)



### CIRCPACK

To transform all packaging waste into new resources

[www.circpack.eu](http://www.circpack.eu)



### VEHICLE

To develop processes to obtain second-generation sugars to use in the manufacture of bio-based products from lignocellulose biomass

[www.vehicle-project.com](http://www.vehicle-project.com)



### BIOMOTIVE

To develop monomers and low-impact processes for the production of TPU (thermoplastic polyurethane) used in the automotive sector

[www.biomotive.info](http://www.biomotive.info)

The complete  
Novamont Group  
2021 Sustainability Report  
is available in the web version on:

[www.novamont.com/eng/sustainability-3](http://www.novamont.com/eng/sustainability-3)

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