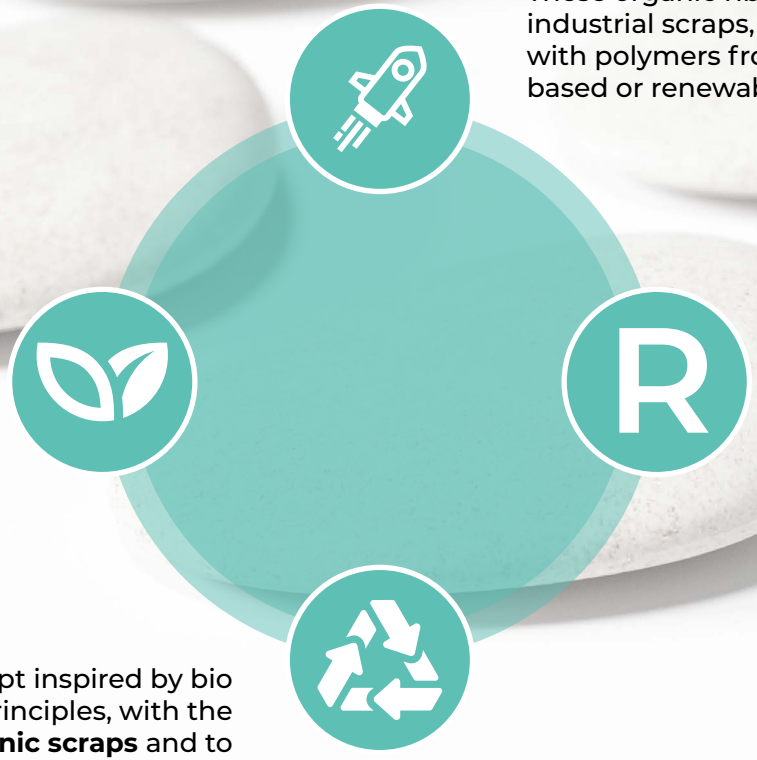

MIXCYCLING®
ORGANIC MATERIAL BLENDS

MIXCYCLING® AT A GLANCE

Mixcycling® is an **innovative start up researching and developing sustainable materials** benefiting from the qualities of plant-based fibers. These organic fibers are derived from industrial scraps, and are then blended with polymers from recycled, fossil-based or renewable organic sources.



Mixcycling® is a scientific project managed according to open innovation concepts, aiming to **develop new biopolymers** with high performances and a low environmental impact.

Mixcycling® is a **registered trademark** representing a group of bio-composite materials conceived by the Research & Development department and created thanks to a patented process and a proprietary technology.

Mixcycling® is a concept inspired by bio & circular economy principles, with the aim to **ennoble organic scraps** and to give plastic waste a second life.

OUR ORIGINS

Mixcycling®'s objective is to give a second life to a residue by recovering organic scraps from industrial processes.

It was born in an industrial environment with more than 50 years of history and with a strong background in cork manufacturing and plastic moulding.

From the need to recover a valuable scrap, like cork, the Mixcycling®'s concept was born.

MIXCYCLING®
ORGANIC MATERIAL BLENDS

OUR MISSION

to guide the material transition from fossil-based to bio-based and to revalue organic waste

OUR VISION

To become a benchmark for the world of sustainable materials by giving back to nature its leading role and by limiting the use of its resources. Thanks to the help of science and research, we aim to be the guide of the transition towards a future where resources are infinitely renewable.

Organizational Values

Reduce

To reduce the plastic component in composite materials by increasing the percentage of natural fibers.

Give Value

Thanks to our process, we transform plantbased scarps into a valuable resource.

Reuse

To reuse plastic waste by substituting polymeric recycled moulds within the compounding.

Substitute

To substitute fossil-based polymers with bio-polymers obtained from biomasses at a low LCA impact.

Networking

To establish a collaborative platform between companies to create meaningful connections to develop a “smart” and co-branding supply chain.

Measure

To precisely measure the carbon footprint of the different formulas, n order to obtain a value allowing an objective comparison.

To Innovate

Research and Development of new biopolymers derived from renewable sources and programmable with the use of biotechnologies. To implement new business models and innovation management principles to achieve a bio-based future.

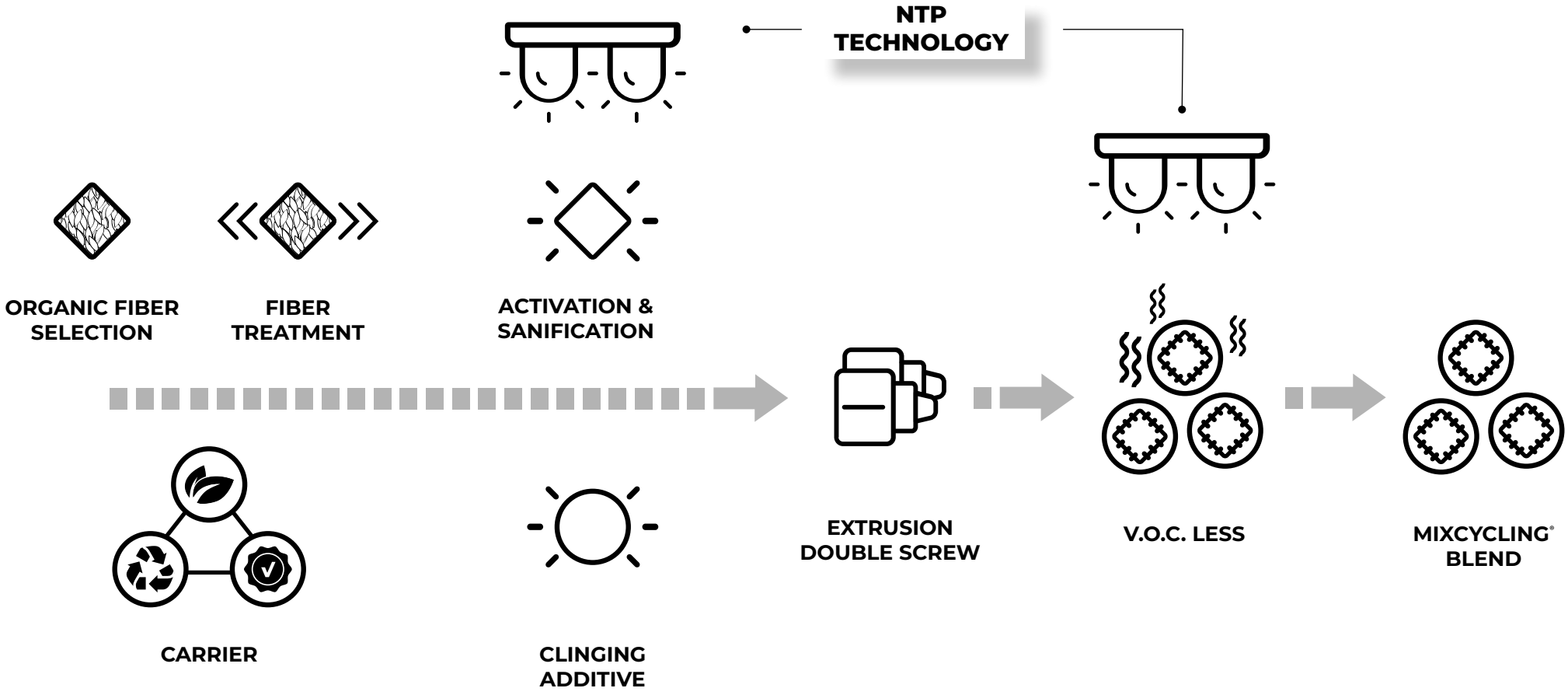
MIXCYCLING is

VIRTUOUS RECYCLING

With Mixcycling® it is possible to re-introduce the scraps generated from the manufacturing processes, to create packaging or secondary components of the product itself.

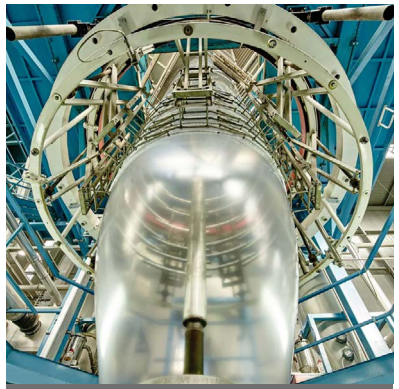
- **Virtuous use of resources**
- **Reuse of waste within the same production cycle**
- **Direct supply chain**
- **Sustainable planning**

THE TECHNOLOGY

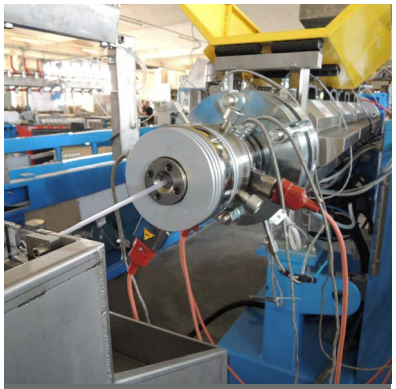


APPLICATION TECHNOLOGIES

MOULDING



FILM MOULDING



EXTRUSION

3D PRINTING

SOME FORMULAS

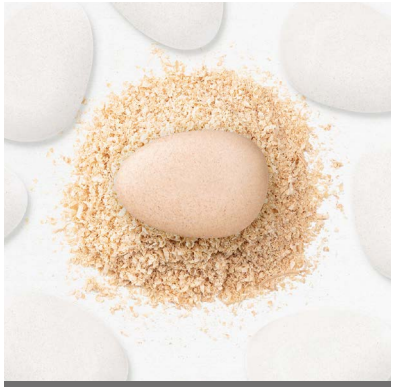
To date, we have created more than 100 functioning formulas.
Please see some examples on the side.

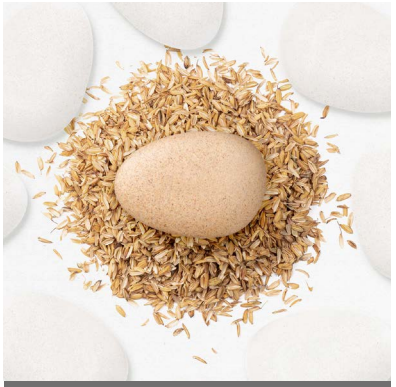
- RECYCLABLE, RECYCLED OR BIODEGRADABLE
“MADE-TO-MEASURE” MATERIALS.
- INCIDENCE OF ORGANIC WASTE UP TO 80%.
- “NATURAL FEELING” AESTHETIC.
- HIGH TECHNICAL PERFORMANCE.

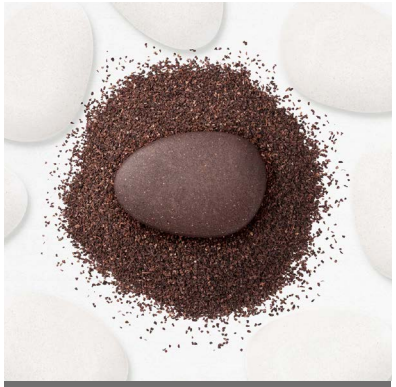

MIXCYCLING® SUGHERA


MIXCYCLING® MISCANTO


MIXCYCLING® COFFEE


MIXCYCLING® LIGNUM


MIXCYCLING® LOLLA


MIXCYCLING® VINUM

SOME APPLICATIONS

FOOD PACKAGING

COSMETIC PACKAGING

HOUSEHOLD PRODUCTS

DISPOSABLE

PET TOYS

FURNITURE

INDUSTRIAL

AUTOMOTIVE

CASE HISTORY

MALUND

corpack

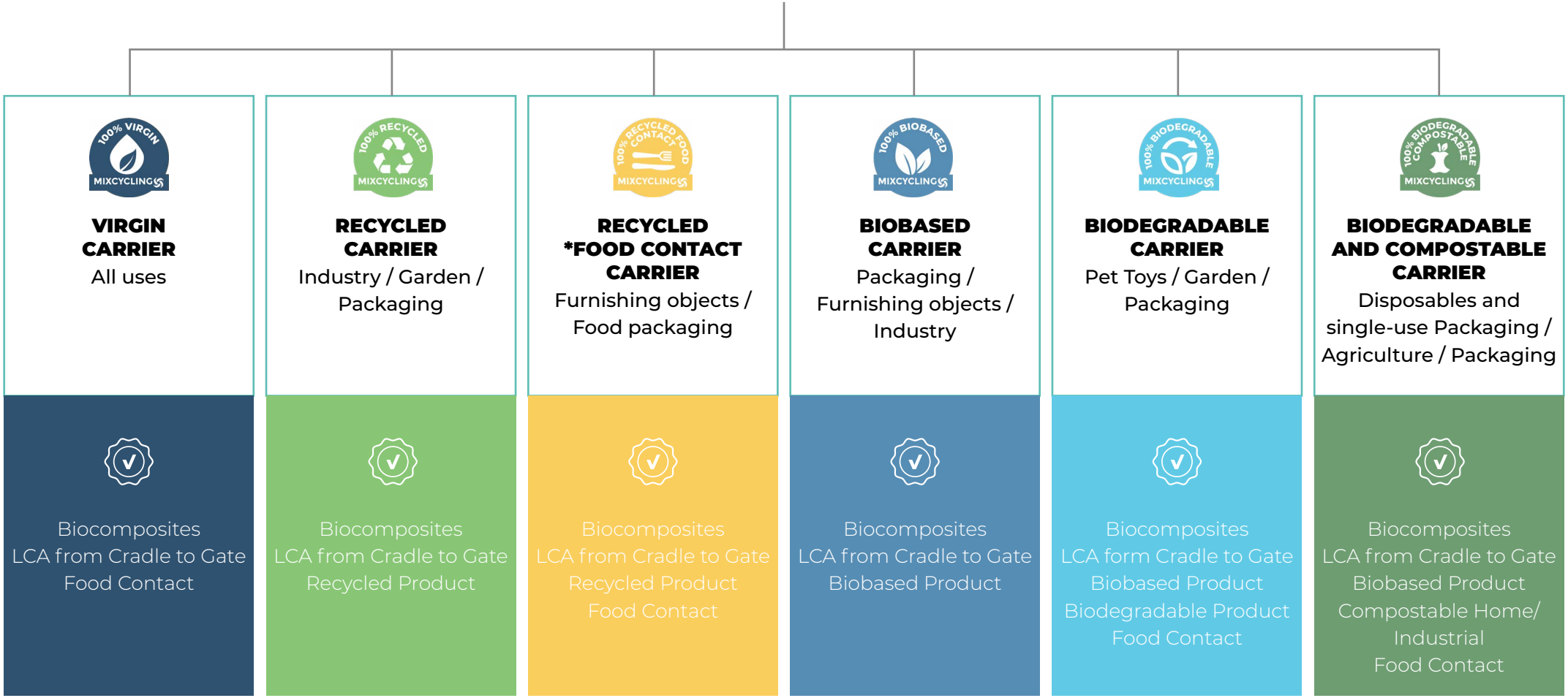
BREVETTI Waf
The Flair For Design

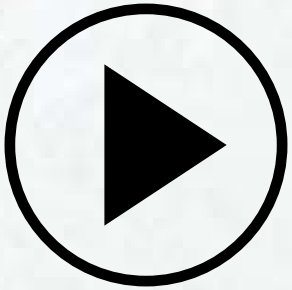
FOOD PACKAGING

COSMETIC PACKAGING

HOUSEHOLD PRODUCTS

BIOCOMPOSITES FAMILY

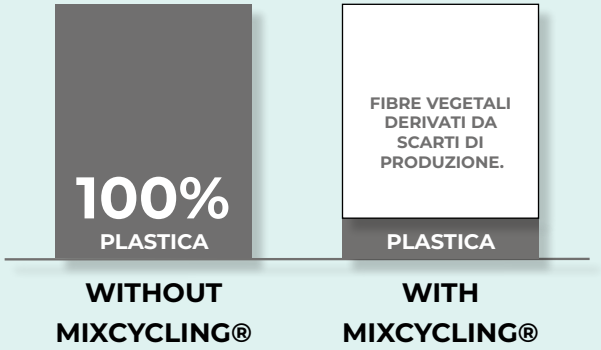




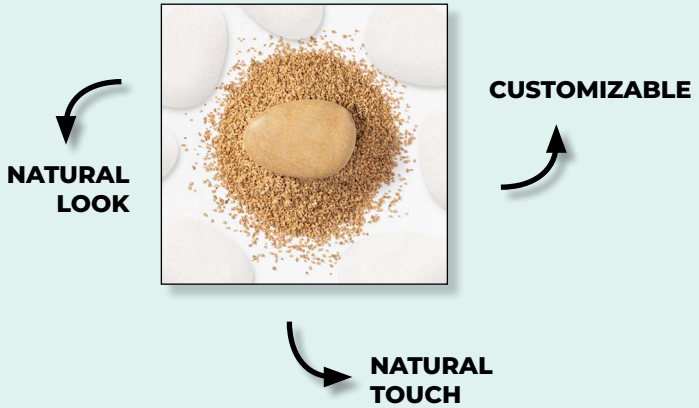
WHY MIXCYCLING®

LESS PLASTIC

- REDUCTION OF THE PLASTIC COMPONENT.
- HIGH PRODUCT PERFORMANCES.



AESTHETICS BENEFITS



TECHNICAL ADVANTAGES

- IMPROVEMENT OF THE MATERIAL'S PROPERTIES THANKS TO THE PRESENCE OF FIBERS.

REDUCTION OF PERMEABILITY TO GASES

COLLISION RESISTANCE

FIRE RESISTANCE

ENVIRONMENTAL BENEFITS

LOW IMPACT:
LCA results, 70% less impact.

RECYCLE:
100% recyclable.

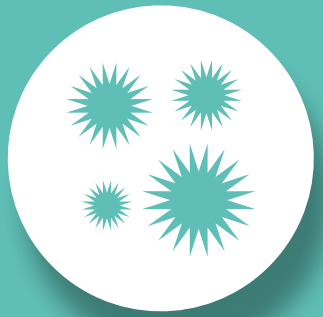
INCINERATION:
Low impact thanks to the use of scraps.

WHY MIXCYCLING®
COMPETITIVE ADVANTAGE

MORE FIBER
We are able to use more fibers thanks to better cohesion of our process.

LESS COSTS
Thanks to the increasing use of fibers and to the innovative manufacturing process, the production costs can be drastically reduced.

SCALABILITY
All the processes have been designed to be easily scalable.



LESS VOC
The material results more pure thanks to two cold plasma treatments.

ECOSYSTEM & NETWORK

UniSMART
Fondazione Università di Padova

An Ecosystem of Open Innovation from Università di Padova to promote the technology transfer, inside which, connections between start-ups, innovative SMEs, multinationals, banks, trade association and organizations are being created. On one hand it fosters scale-up, on the other, it accelerates innovation.

- TECHNOLOGICAL INNOVATION;

- BENEFIT FROM THE KNOW-HOW AND FACILITIES OF THE UNIVERSITY;

- BROADENING OF MIXCYCLING'S NETWORKS THANKS TO EVENTS AND MEETINGS;

- SUPPORT TO THE R&D FINANCING INSTRUMENTS.

MCX
Material ConneXion®

The greatest and most prestigious database of materials, as well as innovative and sustainable manufacturing processes worldwide, on an international scale. It is the connection center between innovators, designers, multinationals and producers. MCI World is currently present in different cities, such as New York, Bankok, Bilbao, Daegu, Milano, SkÖvde e Tokyo.

- DIRECT CONNECTION WITH DESIGNERS, R&D SPECIALISTS, AND ARCHITECTS LOOKING FOR INNOVATIVE MATERIALS;

- PARTICIPATION TO EVENTS, CONFERENCES AND FAIRS (LIKE FUORI SALONE DI MILANO);

- UPDATE ON NEW NEEDS AND MARKET OPPORTUNITIES WITHIN THE INNOVATIVE AND SUSTAINABLE MATERIALS INDUSTRY.

BUSINESS MODEL - PLUS

PARTNERSHIP ESCLUSIVE

We create exclusive product and/or market partnerships.

R&D INTENSIVE

Open & Continuous Innovation. Development of new proprietary formulas.

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CO-BRANDING

To create a community of end-users who, at the same time, can deliver their own organic or plastic scraps and use them as an input within Mixcycling's manufacturing process.

MATERIAL DESIGN

Each material is designed to answer to specific technical and aesthetical characteristics.

ARTICLES AND PUBLICATIONS

ECONOMIA B

BANCA INTESA È una società di Breganze

Mixcycling scelta tra le 9 start up di "BioInItaly"

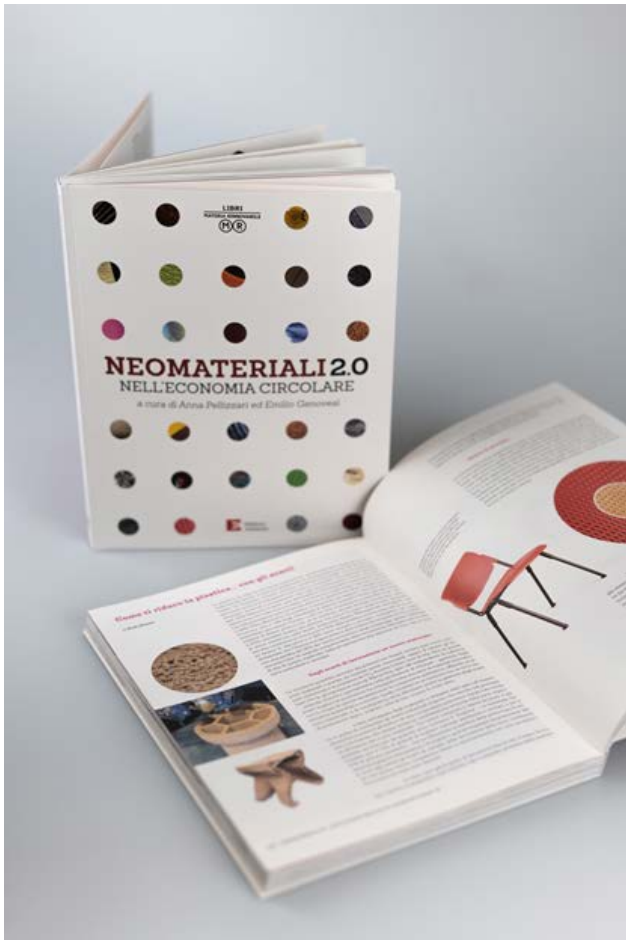
Da scarti vegetali crea un materiale per beni di design: ok ai finanziatori

C'è la vicentina Mixcycling, che produce compenti bio-based a base di scarti di origine vegetale con varie applicazioni dall'imballaggio all'automotive, tra le 9 start-up finaliste di "BioInItaly investment forum & Intesa Sanpaolo StartUp Initiative", il percorso organizzato da Assobiotec - Federchimica, l'Associazione nazionale per lo sviluppo delle biotecnologie, Intesa Sanpaolo Innovation Center e Cluster Spring «che da 14 anni - sottolinea una nota - permette alle startup innovative biotecnologiche e ai progetti di impresa di incontrare investitori finanziari e corporate di tutto il mondo». Come noto Mixcycling, guidata dal ceo Gianni Tagliapietra e con felici esperienze di crowfunding, è una startup "costola" di Labrenta, azienda di Breganze che da 50 anni produce tappi per l'ambito food, e lavora a nobilitare scarti di origine vegetale come legno, canapa, bambù e altro - sanificati e agglomerati a polimeri totalmente biodegradabili, riciclati o bio-based - in modo da ottenere un materiale con il 70% in meno delle normali plastiche per produrre beni di design a ridotto impatto sull'ambiente. Banca Intesa sottolinea appunto che «è un'azienda biochimica che produce materiali bio a basso impatto ambientale e che mira a sostituire la plastica di origine fossile con biocompositi che incorporano fibre organiche che sono scarti dei processi di produzione. Il risultato è un materiale dall'aspetto naturale e morbido al tatto».

Nonostante la pandemia, anche nel 2021 "BioInItaly" ha debuttato con un Virtual national roadshow che ha toccato anche Venezia e Padova e raccogliendo un centinaio di progetti e candidature: sono state selezionate 22 startup «attraverso un percorso formativo curato da Bill Barber, coach e responsabile Valutazione e accelerazione startup di Intesa Sanpaolo Innovation Center. A conclusione del percorso, i protagonisti sono stati chiamati a presentare il proprio progetto al deal line-up di fronte a una platea di selezionatori, composta da investitori finanziari, esperti di settore e manager di impresa».

Si è quindi arrivati alle 9 startup finaliste, tra cui la vicentina Mixcycling, che hanno avuto accesso all'Investment Forum. «Quest'anno - dice Guido de Vecchi, direttore generale Intesa Sanpaolo innovation Center - le startup e le Pmi Italiane da noi selezionate hanno candidato progetti di livello internazionale che, grazie anche alle nostre relazioni sui maggiori mercati di capitali, hanno attratto una platea di grandi aziende e oltre 200 investitori da numerosi Paesi».

Gianni Tagliapietra ceo Mixcycling



On the left, an article about Mixcycling in Il Giornale di Vicenza.
On the right, the section devoted to Mixcycling in Neomateriali 2.0.

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