CIRCULAR NAVARRE CATALOGUE

BUSINESSES IN THE GREEN DEAL
A booklet of companies located in Navarre region that are based on circular business models looking for international cooperation

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Developed by Gobierno de Navarra Nafarroako Gobernua
With the technical assistance of a]
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01 Navarre and the circular economy

#NavarreInEurope
Three key strategic axis for circularity

**Axis 1:** Circular culture and cross-cutting impulse of the Circular Economy

**Axis 2:** Resources, Design and Production

**Axis 3:** Transport, Use/Consumption and Waste Management

6 OBJECTIVES:
- Sustainable and efficient natural resources management.
- Substitution of fossil energy by renewable energy sources.
- Reduction of waste generation and increase of valorisation.
- Increase of responsible consumption by public and private sectors.
- Extending sustainability culture and enhancing capabilities.
- Contributing to a social sustainability and cohesion.

**FOCUS AREAS OF THE GREEN TRANSITION IN NAVARRE:**
- Implementation of the circular economy along the different industrial value chains.
- Neutral emission production processes.

**KEY WORK PROGRAMMES:**
**VALUE CHAIN**
- Industrial symbiosis and circularity and collaboration along the value chain.
- New Business models based on servitisation linked to digitalisation for circularity.

**PRODUCT AND PROCESS,**
- Design of products, components, equipment, packaging and distribution systems considering the product life cycle and impact mitigation on health and the environment.
- Decarbonisation and minimisation of environmental impact of industrial processes.
- Remanufacturing, use of circular supplies (renewable, reusable, recyclable, recycled, biodegradable) and substitution of critical raw materials.
- Promoting sustainable construction.

**WASTE**
- Recovery of waste and valorisation of by-products from the production and distribution process.

**S4** is the agenda of the regional economic transformation to become a reference region in Europe, in a sustainable and digital economy committed with people and territory.

In the period 2021-2027 Navarre has decided to opt for sustainability as the key to economic transformation, orienting its technological and industrial capabilities towards the search of environmentally and human-responsible solutions.

Within the S4 Green Transition implementation public incentives for the acceleration of the transition to a circular economy in key regional economic activities have been defined:
- Remanufacturing and recycling of wind and solar energy equipment.
- Valorisation and cascaded uses of organic waste from agri-food industries.
- Valorisation of industrial inert waste and construction and demolition waste.
Navarra Nafarroa **GREEN** strategy

### Components

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<td>C6</td>
<td>Innovative and sustainable mobility</td>
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</table>

#### Circular economy

- A1. Circular city design
- A2. Industrial facilities based on the Circular Economy
- A3. Waste management
- A4. Access to finance for innovative circular initiatives

**A green transition strategy for the recovery**

**Navarra Nafarroa GREEN** builds sustainable alternatives to the current production model and aims to stimulate social changes answering to climate emergency and the sanitary and energy crisis. It is a transformation plan that includes 74 projects following economic, environmental and social sustainable principles, aligned with the European Green Deal strategy.

- 761.5 M€ EU Next Generation Grant
- 3,760 M€ Investment promotion
- 74 Projects included
**CEIN- GREEN programme**

**CEIN** is the regional CEEI (European Entrepreneurial and Innovation Centre) that was established by the Government of Navarre with the main mission to diversify the industrial and economic activities in the region and contributes to the stimulation of entrepreneurship, helping in the creation and consolidation of new businesses and promoting innovation in small and medium companies. The centre helps entrepreneurs in turning their ideas into viable, consolidated and innovative businesses, trains entrepreneurs to be effective, committed to innovation and ready to adopt change, new niches and solve sustainability challenges in a digital, green and circular economy.

**Green Entrepreneurship “Pamplona Emprende”**

The programme, offered in collaboration with Pamplona city council, supports 20 ideas creating new circular business models in a green economy.

4 months train on how to build a Circular Business Model and to develop business ideas supported by other successful entrepreneurs under mentoring programmes.

Virtual masterclass on entrepreneurship for a circular economy in the European Green Deal framework.

**Green Accelerator**

A specialised capacity building programme, funded by REACT-EU, is offered for the acceleration of 10 entrepreneurial innovations in the green economy.

Learning strategies for the market launch of new products and services and validate and evolve current business models ideas into a circular and regenerative economy.

It includes 11 weeks of acceleration group sessions, and individual tutoring for risk and opportunities identification, specialised mentoring and advisory services with the regional entrepreneurial ecosystem.

**Green Scale Up**

Building a new regional startup ecosystem for the creation of niches in the circular economy and green transition.

Open to innovative startups that work on the Green Deal topics willing to become larger companies.

It includes specialised training modules about sustainability and the circular economy and market and legislation trends; personalised and individualised mentoring and participation in national and international forums support services.
European projects on the Circular Economy in Navarre

The Government of Navarre and its public companies are leading and participating in European projects related to the implementation of circular economy principles at different levels and in different sectors. Innovative policies and new technologies and methodological developments are tested in the territory. Here 9 examples are shown.

Private regional organisations are also active and highly experienced in European projects from different types of EU programmes.

More information about European projects with Navarrese partners can be found in https://www.navarraeneuropa.eu/
The aim of this catalogue is to present circular business models located in Navarre region and support them in building international business collaboration opportunities.

Participant companies are looking for:

2. Consortia and partners involved in European programmes for circular economy strategies and processes deployment.
4. Business collaborations for scaling-up their business models and industrial processes.
5. Opportunities for entering new markets.

Navarra has:
- the 3rd highest GDP per capita in Spain, and its own fiscal taxation system.
- a long European tradition, and a socially and territorially cohesive, healthy, sustainable, industrial and competitive culture.
- In 2021 23.7% of the energy consumed and 47% of the electricity generated were produced from renewable energy sources.
The circular economy concept
CIRCULAR ECONOMY
A regenerative economic system

A circular economy enables decoupling economic activity from the consumption of finite resources. It is a resilient system that is good for business, people and the environment. Building an economy that is restorative and regenerative by design.

**Principle 1**
Preserve and enhance natural capital

**Principle 2**
Optimize resources by circulating products, components and materials in use at the highest utility at all time in both technical and biological cycles.

**Principle 3**
Foster system effectiveness by revealing and designing out negative externalities.

With pure, healthy and simple materials that can flow forever in the loops with economic value.

Source: Ellen MacArthur Foundation
Share, repair, maintain & prolong goods

Sharing of products between peers or B2B enables the intensive usage of products by different users.

Repair and maintain are services that enable to prolong the lifespan of a certain produced good for the same user.

These cycles perpetuate the original purpose of the product and are the highest cost savings in terms of material, labor, energy and capital embedded in the product and on the associated rucksack of externalities (emissions, water, toxicity).

Product reuse and redistribution

A process of returning a product to good working condition so that other user can buy it in the second-hand market.

Reuse can include the replacing or repairing of major components that are faulty or close to failure and making superficial changes to update the appearance of a product, such as cleaning, changing fabric, painting or refinishing. Any subsequent warranty is generally less than issued for a new or a remanufactured product, but the warranty is likely to cover the whole product (unlike repair). Accordingly, the performance may be less than as-new.

Components refurbish or remanufacturing

A process of disassembly and recovery at component level. Functioning, reusable parts are taken out of a used product and rebuilt into a new one. This process includes quality assurance and potential enhancements to the components.

Material recycling

Functional recycling. A process of recovering materials for the original purpose or for other purposes, excluding energy recovery.

Downcycling. A process of converting materials into new materials of less quality and reduced functionality.

Upcycling. A process of converting materials into new materials of higher quality and increased functionality.

Technical cycles

- Share
- Repair/Maintain/Prolong
- Reuse/Redistribute
- Refurbish/Remanufacture
- Recycle

Source: Ellen MacArthur Foundation
Cascading of components and materials
Using discarded materials from one value chain as by-products, replacing virgin material inflow in another. It refers to the process of putting used materials and components into different uses and extracting, over time, stored energy and material or nutrients order.

Composting
A biological process during which naturally occurring microorganisms (e.g. bacteria and fungi), insects, snails, and earthworms break down organic materials (such as leaves, grass clippings, garden debris, and certain food wastes) into a soil-like material called compost. Composting is a form of recycling, a natural way of returning biological nutrients to the soil.

Biochemical extraction
Applying biomass conversion processes and equipment to produce low-volume but high-value chemical products, or low-value high-volume liquid transport fuel— and thereby generating electricity and process heat fuels, power, and chemicals from biomass. In a biorefinery such processes are combined to produce more than one product or type of energy.

Anaerobic digestion
A process in which microorganisms break down organic materials, such as food scraps, manure, and sewage sludge, in the absence of oxygen. Anaerobic digestion produces biogas and a solid residual.

Biogas
Biogas, made primarily of methane and carbon dioxide, can be used as a source of energy similar to natural gas. The soil residual can be applied on the land or composted and used as a soil amendment as a form of recycling, and a natural way of returning biological nutrients to the soil.

Biosphere regeneration
Preserving and rebuilding the long-term resilience of the agricultural system and the “systems services” provided by the larger biological system, in which agriculture (farming and collection- hunting and fishing) is anchored, are the foundation for creating value from these assets in the future. A final aim of the Circular Economy is the regeneration of natural capital.
5 circular business models (CBMs): native circular companies

How this catalogue uses CBMs

The circular business model where the company works is identified for each organisation.

Value creation: generating economic, social and customer value following the circular economy principles.

Value capture: turning the circular and social value created into profits or competitive advantage. Making a profitable business case.

Value distribution: how the value created is distributed amongst the value chain. The traditional linear value chain actors can be disturbed.

Source: Sitra “Circular economy business models for the manufacturing industry”
Organisations acting as circular economy enablers

Digitalisation
Digitalising the industrial processes enables a more accurate decision-making on which type of materials to be used, how to define the optimum layout or design products for zero-waste in the manufacturing.

Digitalisation also provides the information needed to create the "life-story" of materials, components and products that will allow their reintegration back into the economic system.

Environmental data, control & monitoring
In order to guarantee the natural capital regeneration and the restoration of natural eco-systems it becomes crucial to identify the indicators to control and monitor the improvements achieved by more circular business models. Environmental data become indicators of a healthy, pure and high air, water and soil quality and drive our transition to a Circular Economy.

Education
Professional education is a necessary step to boost the implementation of new technologies, design and material selection criteria and the integration of circular concepts within all sectors and at any professional qualification level.

Reverse Logistics
Collection and reverse logistics, are an important part of any system aiming to increase material productivity by ensuring that end of life products can be reintroduced into the business system. Reverse logistics in the packaging sector enables the return and reuse of materials, improving the Life Cycle Analysis results of goods.

New industrial technologies
It may be considered one of the most important enablers applying to any sector and at any part of the value chain. The use of new processing technologies combined with digital solutions can contribute to the expected European Industrial Renaissance.

Source: Ellen MacArthur Foundation
The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.

At its heart are the 17 Sustainable Development Goals (SDGs), associated to 169 targets, which are an urgent call for action by all countries in a global partnership. The monitoring of the regional SDGs evolution can be checked on ODS 2030 en Navarra.

**People**
- End poverty and hunger in all their sizes and dimensions, and ensure that all human beings can perform their potential with dignity and equality and in a healthy environment.
- SDG1: No poverty
- SDG2: Zero hunger
- SDG3: Good health and well-being
- SDG4: Quality education
- SDG5: Gender equality
- SDG6: Clean water and sanitation

**Planet**
- Protect the planet against degradation, including through sustainable consumption and production, sustainable management of its natural resources and urgent measures to cope with climate change, in a way that can meet the needs of present and future generations.
- SDG12: Responsible consumption and production
- SDG13: Climate action
- SDG14: Life below water
- SDG15: Life on land

**Prosperity**
- Ensuring that all human beings can enjoy a full and prosperous life, and that economic, social and technological progress is in harmony with the nature.
- SDG7: Affordable and clean energy
- SDG8: Decent work and economic growth
- SDG9: Industry, innovation and infrastructure
- SDG10: Reduced inequalities
- SDG11: Sustainable cities and communities

**Peace**
- Promote peaceful, fair and inclusive societies that are free from fear and violence. There can be no sustainable development without peace.
- SDG16: Peace, justice and strong institutions

**Partnerships**
- Align the necessary resources for the implementation of the 2030 Agenda, based on a global solidarity spirit and focusing on the needs of the poorest and most vulnerable, in collaboration of all countries, stakeholders and people.
- SDG17: Partnerships for the goals

Source: United Nations [THE 17 GOALS | Sustainable Development (un.org)]
The Circular Economy and the SDGs

The Circular Economy aims the regeneration of natural and social capital by offering products and services to a restorative production system. Therefore, working on the circular economy means working on SDGs, finding business opportunities and creating value and profit from SDGs compliance.

The circular economy supports the achievement of SDGs while creating economy value, some examples are:
- Repair, remanufacturing and recycling processes create new industries, infrastructures and new job opportunities that can be developed by people in risk of exclusion, supporting SDG1, SDG8, SDG9.
- Circular economy business models are based on offering services instead of selling products creating new habits and responsible consumption patterns, from consumers to users, supporting SDG12.
- The sharing economy as a key aspect of the circular economy creates new ways of responsible consumption and sustainable cities and communities, supporting SDG12 and SDG11.
- Circular food systems are based in local and renewable use of resources for healthy diet, increasing regional resilience, supporting SDG2, SDG6, SDG12, SDG15.
- The nutrients recovered in waste water treatments can be valorised as fertilisers for natural regeneration of soils, supporting SDG2, SDG6, SDG12, SDG15.
- Using new renewable and bio-based materials guarantee no toxic, healthy and innovative products, supporting SDG3, SDG9 and SDG12.

How this catalogue works on the SDGs:
Each company and its activities are focusing on the improvement of specific SDGs. The catalogue describes for each company the contribution to key SDGs, gathering the commitment of the participant organisations with the sustainable development.
Looking for funding opportunities in the sustainable finance

The new EU Taxonomy regulation encourages access to finance for those economic activities that can be classified as **environmentally sustainable** when contributing to one or more of the 6 environmental objectives.

### 6 ENVIRONMENTAL OBJECTIVES:
1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. **The transition to a circular economy**
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems

**Objective 4. The transition to a circular economy**

An economic activity shall qualify as **contributing substantially to the transition to a circular economy**, including waste prevention, re-use and recycling, where that activity:

- (a) uses natural resources, including sustainably sourced bio-based and other raw materials, in production more efficiently, including by:
  - (i) reducing the use of primary raw materials or increasing the use of by-products and secondary raw materials; or
  - (ii) resource and energy efficiency measures;
- (b) increases the durability, reparability, upgradability or reusability of products, in particular in designing and manufacturing activities;
- (c) increases the recyclability of products, including the recyclability of individual materials contained in those products, inter alia, by substitution or reduced use of products and materials that are not recyclable, in particular in designing and manufacturing activities;
- (d) substantially reduces the content of hazardous substances and substitutes substances of very high concern in materials and products throughout their life cycle, in line with the objectives set out in Union law, including by replacing such substances with safer alternatives and ensuring traceability;
- (e) prolongs the use of products, including through reuse, design for longevity, repurposing, disassembly, remanufacturing, upgrades and repair, and sharing products;
- (f) increases the use of secondary raw materials and their quality, including by high-quality recycling of waste;
- (g) prevents or reduces waste generation, including the generation of waste from the extraction of minerals and waste from the construction and demolition of buildings;
- (h) increases preparing for the re-use and recycling of waste;
- (i) increases the development of the waste management infrastructure needed for prevention, for preparing for re-use and for recycling, while ensuring that the recovered materials are recycled as high-quality secondary raw material input in production, thereby avoiding downcycling;
- (j) minimises the incineration of waste and avoids the disposal of waste, including landfilling, in accordance with the principles of the waste hierarchy;
- (k) avoids and reduces litter; or
- (l) enables any of the previous activities.

All companies included in the catalogue are contributing or enabling contribution to Objective 4.

Source: [EU Taxonomy regulation](https://url.de/...)
Looking for funding opportunities in the sustainable finance

Economic activities should guarantee that they *Do Not Significant Harm* (DNSH) to the 6 environmental objectives. The DNSH principles for each of the objectives are described in Art. 17 of the EU Taxonomy regulation.

### 6 ENVIRONMENTAL OBJECTIVES:
1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems

All economic activities that want to apply for European Funds, either through project proposals or to financial contributions, should be able to demonstrate that the financial support will guarantee the DNSH Do Not Significant Harm criteria (Art. 17 of the Taxonomy Regulation) for the 6 environmental objectives.

In the case of the application of DNHS for the Objective 4, *Transition to a circular economy*, a certain economic activity should be considered to significantly harm the transition to a circular economy, including waste prevention and recycling; when:

i. that activity leads to significant inefficiencies in the use of materials or in the direct or indirect use of natural resources such as non-renewable energy sources, raw materials, water and land at one or more stages of the life cycle of products, including in terms of durability, reparability, upgradability, reusability or recyclability of products;

ii. that activity leads to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or

iii. the long-term disposal of waste may cause significant and long-term harm to the environment;

The DNSH evaluation should take into account the life cycle of the products and services provided by an economic activity, including evidence from existing life-cycle assessments, that economic activity shall be considered to significantly harm.

When assessing an economic activity against the DNSH criteria, both the environmental impact of the activity itself and the environmental impact of the products and services provided by that activity throughout their life cycle shall be taken into account, in particular by considering the production, use and end of life of those products and services.

The DNSH criteria compliance for a certain economic activity should be demonstrated for the 6 environmental objectives. The description of the DNSH for the other 5 environmental objectives can be found in the Taxonomy Regulation.

An economic activity can be considered as sustainable when it demonstrates the compliance with the DNSH principles to all the 6 environmental objectives, including to the transition to a circular economy.

Source: EU Taxonomy regulation
How this catalogue works
Reading guide

This is the third edition of the catalogue that includes the description of 50 organisations evaluated under a circular economy approach. The initial selection of companies located in Navarre region that can be identified as circular economy business models or enablers for circularity has been growing in the last years. Many are here included but they are not all of the existing. Other examples could be included here in following editions. Interested companies in joining the catalogue can request participation by mailing to accionexterior@navarra.es.

The information shown here presents only key aspects of the organisations, including the type of circular business model implemented, how the company works and the cycle where the company is creating value (technical or biological). It also includes a description of the enabling organisations that offer services or products that help others in the transition to a circular economy.

Most of the participant organisations can be classified as native circular, being mainly SMEs or new creation startups. In this edition, multinational companies are also included in order to show the opportunities of large corporation in a more circular value chain.

Here readers will be able to find information about the sustainability profile of the companies, including a description of their key social, environmental and economic positive impacts. In addition, participant companies inform about their interests in international business collaborations, in order to improve their supply and demand networks and to enable more circular value chains at European level.
Navarrese organisations in the circular economy
Navarrese organisations in the circular economy

ORGANISATIONS IN THE TECHNICAL CYCLE

❖ KUDEA GO
❖ PLASTIC REPAIR SYSTEM
❖ SKF RECONDOIL
❖ BAKU BARRIKUPEL
❖ COSTURA PODEROSA
❖ DVELAS LIVING SAILS
❖ ENNEGES
❖ TRAPEROS DE EMAÚS NAVARRA
❖ BEEPLANET FACTORY
❖ EQUIPOS DIESEL REMANED
❖ GKN AUTOMOTIVE
❖ GRUPO BORG AUTOMOTIVE
❖ LIZARTE
❖ ECOINTEGRA
❖ SOLTECO MADERA PLÁSTICA
❖ ENVAPLASTER
❖ MAVINSA

ORGANISATIONS IN THE BIOLOGICAL CYCLE

ENABLING ORGANISATIONS
Companies in the technical cycle

5 CIRCULAR BUSINESS MODELS (CBMs)

- SHARING PLATFORM
- PRODUCT LIFE EXTENSION
- RECOVERY & RECYCLING
- CIRCULAR SUPPLY CHAIN
- PRODUCT AS SERVICE

CYCLES OF VALUE CREATION

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<td>baku</td>
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<td>PRA</td>
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Movilidad positiva para el medio rural
**Background and business model**

KUDEA | Servicios is a social entrepreneurship company founded in 2020. Its main objective is to generate positive impact building creating solutions to social, environmental and cultural problems in rural areas. Its main activity is the development and management of the digital platform of positive mobility for the rural environment KUDEA >Go. The app allows to share the day-to-day movements with the people of the same town and region without any type of economic transaction between them. Users can also see and contact all the existing mobility offer in the area: bus, local taxi, train, car rental, bicycle rental, etc. The fee of the services is paid by municipalities.

**Positive environmental impact**

- Thanks to the service offered by Kudea it is possible to make a reduction of CO₂ emissions and other greenhouse gases
- Addressed to municipalities, the app collects different data that helps to count and write the Action Plans for Climate and Sustainable Energy (PACES): CO₂ emissions to the atmosphere avoided in shared trips, kilometres traveled with the app, use by gender, age of the users, language of use, number of searches of transport services of the region, etc.
- Positive, integral, fun and ecological mobility tool.
- Thanks to the sharing of transport between inhabitants of rural areas, Kudea prevents the damage created in the roads that are not frequently maintained. This also allows local governments to save money in the improvement of the roads and invest it in other social priorities.

**Positive economic & social impact**

- Application designed to be used in rural areas, where the need for transport solutions is necessarily urgent.
- This application will allow greater connectivity between the municipalities and the people who live in, thus promoting positive and sustainable mobility throughout the region, and increasing resilience in rural area.
- Free service for the inhabitants of the rural areas, with no monetary exchange.
- The app works on all the mobility options, including public transport and information about their timetables.
- Kudea also informs its users about possible incidents in their area due to the inclement weather of rural areas.
- The app provides local governments with data for impact monitoring and the maintenance of the service and to evaluate their sustainable mobility strategies.

**Business collaboration sought**

- Municipal and regional authorities that are implementing sustainable mobility plans, with greater interest in rural area.
- Application developers specialised in mobility services for collaborative new technological developments.
- European partnerships interested in the adaptation of the service to their regional features and pilot testing area.
- Organisations responsible for definition of mobility plans that wants to guarantee the sharing options within a global plan.

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**Key SDGs**

- @kudeaservicios
- www.kudeaservicios.com
- #share #sustentablemobility #Bauhaus #ruralmobility #ruraldevelopment

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info@kudeaservicios.com

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**Agenda 2030**

Como acción te proponemos dotar a la población, de la solución de movilidad positiva para el medio rural

KUDEA >Go!
PLASTIC REPAIR SYSTEM

INDUSTRIAL REPAIR OF RETURNABLE TRANSPORT PLASTIC PACKAGING

PLASTIC CAN BE REPAIRED

SAVING 70% vs. REPLACEMENT

311 times less CO₂ than RECYCLING

≥98% OF THE ORIGINAL RESISTANCE

100% FUNCTIONALITY
Plastic Repair System (PRS) offers a repair service of returnable/reusable plastic items made of PE & PP. Founded in 2011, the business case in repairing plastics was visionary. PRS has developed and patented an innovative technology that allows to repair plastic returnable transport packaging (RTP) such as pallets, crates, boxes, etc. PRS’s repair system recovers at least 98% of the original strength and 100% of the functionality with a 70% cost reduction compared to replacing a new one and 311 times less CO₂ emissions.

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<th>Background and business model</th>
<th>Positive environmental impact</th>
<th>Positive economic &amp; social impact</th>
<th>Business collaboration sought</th>
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<td>Plastic Repair System (PRS) offers a repair service of returnable/reusable plastic items made of PE &amp; PP. Founded in 2011, the business case in repairing plastics was visionary. PRS has developed and patented an innovative technology that allows to repair plastic returnable transport packaging (RTP) such as pallets, crates, boxes, etc. PRS’s repair system recovers at least 98% of the original strength and 100% of the functionality with a 70% cost reduction compared to replacing a new one and 311 times less CO₂ emissions.</td>
<td>• Extension of plastic items life cycle. • Radical reduction of industrial plastic items waste, enabling the improvement in Life Cycle Analysis of companies. • Important reduction of new plastic items production needs, reducing the greenhouse gas emissions. • Enabling the repair of items by welding and replacing parts, reducing waste generation.</td>
<td>• The repair service offers a cost reduction of approx. 70% avoiding the purchase of new items. • Growing potential and scaling-up internationally. • A designed process and technology for process optimization. • Growing market even during economical crisis. • 14 workshops working as a network in the offer of the patented and standardized repair service. • High labor-intensive process creating local employment. • Working and collaborating with special employment centres as members of the workshops Network. • Training and building capacities for new employments. • Scaling-up process, creating employment in other locations worldwide.</td>
<td>• R&amp;D project partners for automation and industry 4.0. • Interested in automotive industry, food industry, pooling sector, municipalities and public entities that want to reduce the plastic waste generated and to reduce costs by reducing the purchase of new plastic items.</td>
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### Background and Business model

SKF is a multinational manufacturing plant for automotive bearings located in Tudela since 1973. SKF’s activity has always been focused on manufacturing ball and roller bearing for the global market.

This plant has developed RecondOil, a new technology for the regeneration of industrial oils based on the Double Separation Technology (DST), which is a complement to conventional filters that can be used in any sector. Specifically, oil is cleaned by removing even the smallest contaminants, allowing to use the same oil over and over and avoiding oil waste. That is, it allows to convert an expensive consumable to a totally circular asset.

### Positive environmental impact

- **In 2019, this plant reached CO₂-neutrality, being the first plant in the group to achieve this goal.**
- **Electricity consumption has reduced from 35 GWH in 2011 to 16 GWH in 2021.**
- **The m³ of water consumption/unit of added value has improved a 79.5% comparing data from the last 6 years.**
- **The launch of the RecondOil technology has had an unprecedented environmental improvement:**
  - Avoid wasting used oil.
  - Significant reduction in carbon footprint.
  - Longer useful life for machines, which prevents waste generation.

### Positive economic & social impact

- **SKF Tudela plant has entailed more than 4 million euros in Circular Economy investments which have materialised in actions carried out by local companies with the positive impact on employment.**
- **Regarding RecondOil, the reuse of oil, reducing the purchase of new oil and eliminating the costs of managing it as a waste, results in economic savings.**
- **RecondOil activity was presented to the European Community and was the subject of a circular economy recognition financially supported by a grant of 1.62 million euros, based on the project called SKFOAAS.** Those companies that wish to take a leap in the elimination of CO₂ will be able to do so by the regeneration of their oils under unlimited uses.

### Business collaboration sought

- **Currently, RecondOil works with close located enterprises and facilities enabling the industrial oil users to use again the regenerated industrial oil in their equipment.**
- **RecondOil Box is a smaller version of SKF’s industrial scale DST systems, suitable for a broader range of industries and applications (general manufacturing pulp and paper production; metal production; metal processing and energy production).**

### Key SDGs:

- @SKFgroup
- @SKF

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**CONTACT PERSON:**

Victoria Rueda

Tudela Plant Manager Assistant

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www.skf.es

#SKF #SKFrecondoil #SKFreliablerotation #sustainablesolutions
Background and business model

Baku Barrikupel is a project for the reuse of materials that have ended their useful life. Decorative and functional elements are designed and manufactured applying eco-design throughout the process. Products are made one by one in a small craft workshop located in a rural environment. The company was created in 2020 by Amaia and Jesus Prieto (Designer and Cabinetmaker) and since then their main objective has been to reuse oak from wine barrels, due to its quality and nobility. However, little by little they have been introducing more materials into the products, and today they can proudly say that their products contain 85% reused material.

Positive environmental impact

The three fundamental pillars of the project contribute to a positive environmental impact:
- **Reuse**, to promote the use of materials that have completed their useful life, and thus value the waste generated in different industries.
- **Ecodesign**, the methodology applied throughout the production process, use and end of life of the products. Baku products are designed for sustainable manufacturing, long-life use, and sustainable end-of-life in terms of material recycling.
- **Craft**, for contributing to non-mass and responsible consumption that revalues artisan work, which has gradually been lost in recent decades.

Positive economic & social impact

- **Baku Barrikupel** provides a positive social impact, above all due to the environmental awareness it generates in users, both with the sale of its products and with its activities.
- **Baku** not only manufactures and sells products, but also offers guided visits to the workshop and carries out eco-design workshops. They also promote culture through musical concerts in their facilities. In all the activities they try to make people learn more about economic, social and environmental sustainability.
- **Regarding the economic aspect**, they contribute above all to the rural environment. They work with suppliers in the area and try to get raw materials from nearby companies' waste.
- **They bring business diversity** to the area and try to foster collaboration with other craftsmen. In addition, the reuse of materials allows the supplier companies to decrease their environmental impact and save on waste management costs.

Business collaboration sought

- **Interested in contacting distributors, stores, architects, interior designers, wineries and companies with interest in revaluing their waste.**
- **Although their products are mainly for sustainable lighting and for the hospitality industry, they offer any custom product design service, as long as the product is made with 70% reused material.**
- **Opened to innovate with new recovered materials.**

**Key SDGs:**

- #ReuseDesign
- #CircularFashion
- #EcoArt
- #CircularDesign
- #CircularFurniture

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**https://barrikupel.com/**
COSTURA PODEROSA

TEXTILE ECOSYSTEM

Cooperativa de Productores de Ovino y Pecuario (COPE)

PRODUCT LIFE EXTENSION
Costura Poderosa is a professional sewing workshop created by a group of women entrepreneurs in 2022 and qualified as social and labour insertion company. They offer design and cut clothing products, sewing for brands and personalise orders with stamping for business gifts, therefore, they offer a wide range of products under COPO brand: Toilet bags, purses, boc’r’s roll, turbans and so on.

Sustainability is key in their way of working; used materials and fabrics are acquired under the zero-kilometre philosophy, and many of them are reused from discarded garments. Nowadays, their products can be purchased online or in their physical store.

Costura Poderosa gives work to 5 people, 3 of them at risk of exclusion, allowing the social improvement and employability of all of them.

They work for labour dignity in a feminised sector as sewing, offering job opportunities and decent conditions to women.

They also raise awareness through talks and communication activities, even they subcontract other local social enterprises for tasks that they do not perform in their sewing workshop, such as printing.

They have promoted the professional sewing workshop, encouraging entrepreneurship among women.

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www.costurapoderosa.com
#socialsewing #decentjob #femaleempowerment #slowfashion
**Background and business model**

DVELAS reuses discarded sails from the sailing industry and creates new and high fashioned products and offers a unique solution to this refuse. Based on the sails, Dvelas merges functionality and aesthetics to create a product that brings together design, comfort, beauty and emotion. DVELAS was founded in 2009 as a creative reaction to find a new use for discarded boat sails. The company is founded and managed by a multi-disciplinary team of professionals that combines architecture graphics and product design.

**Positive environmental impact**

- Using rejected or non-recyclable fabric, as a raw material, avoiding incineration or landfilling.
- The remanufacturing process transforms the non-recyclable fabric of the sails into a high value-added product (furniture), giving a long-lasting new life for the rejected fabric.
- Offering solutions for high temperatures by creating shades with the sails, as well as for rain protection.
- Reducing the waste produced by the sailing industry.
- Development of nanotechnology that allows the sail to purify the air, like plant photosynthesis.

**Positive economic & social impact**

- Creating furniture with reused material.
- Sails are made of non-recyclable material. Dvelas reuses this material, city councils of maritime regions and waste managers can reduce costs since there is no need for incineration or landfilling.
- The company’s workforce is made up of 80% women.
- Dvelas works with local craftsmen boosting the local employment and also improving their product quality.
- The company is constantly looking for ways to improve the life of the world’s population and that’s why they have developed their shade sails to protect users from harmful sun exposure.

**Business collaboration sought**

- Interest in collaborating with architects, companies, governments, city councils and prescribers that are aware of the importance and need to reuse raw materials and the implementation of a circular economy.
- Organisations that need to shade large public spaces or rainy areas with lower energy consumption and taking advantage of reused material.

**Key SDGs**

- #ReuseDesign
- #CircularFashion
- #EcoArt
- #CircularDesign
- #CircularFurniture
ENNEGES

TEXTILE ECOSYSTEM

PRODUCT LIFE EXTENSION
Enneges was born in 2013 as a fashion firm with an evident influence of the plastic arts and genderless philosophy. In 2018 it embraced upcycling and thus, consolidated itself as a firm with a conscience that goes beyond aesthetics or creativity. It is committed to investigate other ways of making and producing fashion, using recycled materials, surplus clothing and fabrics that come from second-hand stores, fashion house deadstocks, textile factories or leftovers from the industry. Everything with which the traditional system can no longer work, the excluded, the useless and the forgotten, is reborn in Enneges workshop thanks to the power of transformation and art into daring, exclusive and desirable fashion pieces.

- In a global context of continuous growth and exaggerated consumption, the generation of waste and garbage is increasing. Initiatives such as upcycling represent great benefits for the preservation of the environment.
- It is not necessary to produce new materials and parts that had been discarded are reused.
- Each piece is handcrafted one by one, generating the least possible amount of fabric waste, both in the design of its patterns or using the remains of cuts to create new garments, even the labels are printed in leftover fabrics.
- Work is done only on demand, avoiding stock and reducing uncontrolled waste production materials.

- Strengthening of Navarre cultural sector by promoting innovation and the artistic transformation of objects into clothing, as well as raising awareness towards more sustainable and socially committed lifestyles.
- Working conditions and decent wages, and a fair exchange, in which the people who participate and support the project have respect and visibility, are prioritised.
- Quality local product, responsible consumption and well-done craftsmanship.
- Sewing is a predominantly female field and surely for this reason, traditionally undervalued. Enneges is offering a dignified job to local women who have learned the trade from their ancestors, and the great bond they have developed between them.

- Learn from other professionals in the field.
- Collaborate and cooperate on different projects.
- Achieve a greater reach to spread our work and meet suppliers aligned with Enneges values outside Spain, both for materials and services such as sewing workshops, artistic direction, etc...

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Background and business model

With 50 years of history, Traperos was born as a workcamp for volunteers, building its first social community in Navarre in 1978. Traperos collects and manages more than 11,000 tons of products under agreement with 16 Grouping of Municipalities in Navarre region and with scraps dealers. Traperos is a group that prioritises taking in people with difficulties and fighting for a fairer and more supportive world. The organisation’s value creation is based on the prevention, selective collection and preparation for reuse and recycling of products that are sold as second hand in their shops.

Positive environmental impact

- 11,313,180 kg CO₂ emission avoided yearly, related to the more than 11,000 tons of products and materials recovered, reused and/or recycled, avoiding landfilling.
- 590,796 kg CO₂ emission generated yearly, related principally with the consumption of fossil fuels in vehicles (79,1%) and heating needs (20,7%).
- Part of the emission of the process is compensated with renewable energy consumption and own production in sites.
- Plastics and textile materials that cannot be revalorised are sent to recycling.
- Active yearly participation in the EWWR European Week of Waste Prevention.

Positive economic & social impact

- Quality of employment and wealth generation.
- The 70,4% of the costs are related to labour costs.
- Committed to a fair and equilibrated distribution of work, the working hours are generally reduced (32.5 hours/week), tasks are shared enabling reduced time shifts and warranting a greater number of jobs.
- Wage equity amongst all employees.
- The company is always financially self-sufficient.
- With the recovery of products, in addition to employment and waste management other social impacts are achieved:
  - Creation of 290 employment under labour contracts.
  - Social and solidarity cohesion.
  - Social utility: 2nd hand essential goods are affordable for people and groups with low purchasing power.
  - The labour reality is organised and carried out under the principle of the Social and Solidarity Economy: importance of people, equity, justice, solidarity and environment.

Business collaboration sought

- Collaboration for the improvement of collection, preparing for repairing, refurbishing and reuse of products processes, as well as processes related to recycling of materials, mainly plastics and textiles.
- Pilot testing of recovery systems and revalorisation processes of different types of products.
- Interested in collaborating with municipalities, waste managers, universities, social organizations and citizens-consumers-users.

Key SDGs

@traperosemausnavarra
@Traperos_Emaus
@Traperosemausnafarroa

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#SocialSolidarityEconomy #Reuse #Reduce #Repair #2ndLife #ResponsibleConsumption #WastePrevention
### Background and business model

BeePlanet Factory designs and manufactures sustainable second life batteries (2nd Life EV-Battery). At the end of their original application in the Electric Vehicle, they keep intact a large storage capacity (70%-80%) and still offer high performance, which makes them perfectly functional for other uses, such as stationary energy storage. BeePlanet Factory researches, analyses, develops and implements different applications to re-introduce electric vehicle batteries to the market as stationary energy storage. BeePlanet ensures that all batteries are recycled properly. The company is member of the EBA250, BatteryPiat, ETIP-SNET and Futurred. The products are designed for different types of energy consumers: industries, large retailers and home consumption, among others.

### Positive environmental impact

- **Reuse of a potentially polluting industrial waste.**
- **Avoiding landfilling of a potentially contaminant product.**
- **Recovery of valuable raw material and the embedded value of the materials of EVBatteries.**
- **Virtual zero CO₂ emission impact for the battery when reused from the vehicle.**
- **After they finish their activity, all batteries are completely recycled.**
- **Renewable energy storage solution enabling electrification and reduction of greenhouse gas emission of fuel oils (4200 kg CO₂ compared to a new e-battery).**

### Positive economic & social impact

- **Revalorisation of a residue avoiding the cost of the e-waste management and extending its lifespan.**
- **Recovering the economic value of Critical Raw Materials.**
- **Best value for money of a lithium-ion battery for residential storage.**
- **Maintenance-free and ready to connect and start working, monitoring battery operation offering online data and preventing failures and misfunction in advance.** Keeping high performance for over 5500 cycles.
- **Electrification solutions for neighborhoods and mobility solutions, avoiding consumption of liquid fuel and enabling the storage of renewable energy like solar for consumption at night.**
- **Democratising the renewable energy storage options.**
- **Energy service: Independence, resilience solution and non external dependence of nonrenewable energy sources.**
- **Reduction of energy poverty and exclusion social risk.**

### Business collaboration sought

- **Innovation in new storage solutions and new products development.**
- **Commercial projects adapting the current technology to new applications (e.g. stationary systems, light vehicle, lighting and industrial cooling) and new sectors.**
- **Development of new predictive maintenance solutions for battery performance.**
- **Traceability and recycling management projects.**

### Key SDGs

- [https://www.beeplanetfactory.com](https://www.beeplanetfactory.com)
<table>
<thead>
<tr>
<th>Background and business model</th>
<th>Positive environmental impact</th>
<th>Positive economic &amp; social impact</th>
<th>Business collaboration sought</th>
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<tr>
<td>Equipos Diesel Remaned, founded in 2007, is a multinational company dedicated to high-tech remanufacturing. Since 2016, through the iconic Lucas brand and thanks to the establishment of agreements with authorised official distributors, Remaned is manufacturer and distributor of Lucas brand’s diesel division worldwide. With this brand as the main one, and other additional ones such as DIESELTech, Remaned remanufactures diesel injection (pumps and injectors) and engines. In addition, they export automotive parts (components and turbos) and multi-brand testing equipment for diesel components. Their range of top-quality products for diesel injection includes more than 2,500 references, only for remanufactured products.</td>
<td>• The business model implies commitment to the environment from the beginning of their trajectory. • Participation in a sustainable way in an increasingly less polluting market. • The meticulous production process and the precise adjustment of these products, which allows a perfect performance, reduce notably the emission of polluting exhaust gases when they are mounted on the engine. • The generation of waste and the disposal of components of various materials that are in perfect conditions of use are avoided. • During the manufacturing process of a conventional engine, 111kg of CO₂ are emitted into the atmosphere. In contrast, in the remanufacturing process of the same equipment, only 4kg of CO₂ are produced.</td>
<td>• With remanufacturing Remaned offers a level of performance and quality equal to or greater than new OEM products. • Customers have access to reman products, which are more profitable, economical and sustainable compared to newly manufactured products. • Quality standards are equal to or even higher than those of a new OEM product, therefore, consumers have access to highest quality products at the most competitive prices. • Remaned has developed its own production system, which is applied in all its factories around the world. In this way, they can guarantee the same levels of quality and reliability in all their products, regardless of where they have been manufactured.</td>
<td>• Currently, their greatest interest in relation to remanufacturing is focused on the European and North American market (US and Canada). They are carrying out intense commercial and new product development/reverse engineering work for these radius of action. For both objectives they consider optimal all possible contact, association and networking. • Interested in approaching the European market too.</td>
</tr>
</tbody>
</table>

**Key SDGs**

9. Industry innovation and infrastructure
12. Responsible Consumption and production

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www.remaned.es + www.lucasdiesel.com
#lucasdiesel #lucasdieselsystems #diesel #remanufacturing #reman #dieselinjection #pumps #injectors

@remaned_
@lucas-diesel-system
Remaned Diesel
System Innovation
GKN Automotive, specialist for drive components, is a multinational enterprise which includes sustainability in its business strategy: environment friendly, customer satisfaction and financial profitability.

GKN Ayra Servicio is the company’s plant located in Carcastillo, Navarra. This plant, in addition to being the central production centre, it is also, since 2021, the logistic centre of the company from which all aftermarket customers are being supplied. GKN Ayra Servicio was set up in 1987, an although manufactures original equipment for premium brands, the main activity is remanufactured spare components: Driveshafts for independent aftermarket.

- Around 240,000 driveshafts are remanufactured every year in Carcastillo’s plant.
- Remanufacturing allows energy savings of 63%, water savings of 29% and CO₂ reduction of 64% compared to new components’ manufacturing.
- Steel consumption is reduced, avoiding the extraction and use of raw materials, what is a substantial reduction of CO₂ emission.
- Know-how and capacities for the sustainable remanufacturing process are located in Navarra.
- The process uses high advanced engineering and equipment under efficient and digitalised processes avoiding losses and waste generation.
- Remanufacturing is sometimes the only way to obtain certain parts and fulfil clients’ demands.
- Restored products have high quality levels, same as new manufactured components, since they pass extensive inspections at the Carcastillo plant.
- It employs about 250 people from the area and surrounding, so it generates employment and local economic activity.
- No new materials are needed, therefore reducing steel use, specially in the current market situation, which allows to decrease costs and save money.
- Looking for becoming a major supplier in the US.
- Special interest in customers looking for OE quality products at competitive prices.
- Synergies with driveline manufacturers to minimise costs.
- Drivelines out-of-use that can be remanufactured of large and small providers.

www.gknautomotive.com
@gkn_automotive
@gkn_automotive
Key SDGs:
BORG Automotive is Europe's leading independent automotive remanufacturer, with more than 40 years of experience in remanufacturing automotive parts. The company remanufactures starters, alternators, AC compressors, EGR valves, brake calipers, steering pumps, steering racks and turbos. It works exclusively with original cores, which are remanufactured in our European production facilities. BORG Automotive is specialist in sales, production, and distribution in the automotive aftermarket, and offer remanufactured products under the brands of Elstock, Lucas, DRI, TMI, etc. The company employs approximately 1,900 employees across Europe.

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#Reman #Remanufacturing #Transparency #Competence #Continuousimprovement #Responsibility #Interdependency
Background and business model
Lizarte is a manufacturer of car spare parts since 1973, turning to be the first European company to remanufacture car steering racks, power steering racks, air conditioning compressors and diesel injection components (injectors and diesel pumps). Lizarte creates value from wrecked cars by returning valuable parts to at least its original performance with a warranty that is equivalent or better than the newly manufactured products. From a customer viewpoint, the remanufactured products can be considered the same as a new product but with a reduced price (around 60-80%).

Positive environmental impact
• Using a used product as a raw material, avoiding the process of producing a new one.
• The remanufacturing process transforms the not longer useful and broken pieces of cars into a new ones with a 2-year warranty and with a quality equivalent to or even better than the one of the newly manufactured products.
• Reduction of the waste produced for the automotive industry by giving the component a second life.
• The reutilisation of the component is also a way to harness the energy already used to manufacture the pieces the first time.

Positive economic & social impact
• Important savings for the customers of reman products instead of original products.
• Recovery of embedded value of previous manufactured parts, including materials and innovation value.
• Possibility for society to acquire an environmental commitment with the purchase of this type of product.
• Creation of employment related to remanufacturing, that is more labor intensive than other manufacturing processes.

Business collaboration sought
• All those companies in the automotive sector that seek to integrate and remanufactured vehicle parts into their value chain.
• Generation of a reman guarantee seal with EU endorsement.

Key SDGs
#CarSpareParts #CircularEconomy #SustainableMobility #Remanufacturing
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<tr>
<td>ECOINTEGRA is a Waste Electrical and Electronic Equipment (WEEE) treatment plant belonging to Aspace Navarra, a social integration organisation that works for the creation of stable jobs for people with disabilities. The plant is located in a rural area and recovers mainly household electrical appliances and some type of industrial WEEEs. Its activity started in 2007 and consists of extracting the potentially harmful substances included in these products (gases, cells, batteries, capacitors, etc.) and recover them for the recycling of materials ready for being offered in the secondary material markets.</td>
<td>Rejected or non-valorisable EEEs is recycled obtaining new secondary raw materials such as copper, iron, plastics or aluminum, scarce and limited materials in Europe.</td>
<td>The company valorised materials included in different type of appliances (cold, CRT monitors, large and small electrical appliances).</td>
<td>R&amp;D partnerships that work on the improvement of WEEE recycling processes and a higher quality of secondary raw material obtained.</td>
</tr>
<tr>
<td>The separation process for each type part of the equipment is managed in order to obtain the most value of each material, obtaining a high value recycling process and products.</td>
<td>The separation process is managed in order to obtain the most value of each material, obtaining a high value recycling process and products.</td>
<td>The company offers employment to 60 people, 90% of them with disabilities under a transparent management of WEEE flows. It’s main objective is to offer a labor itinerary for social integration of people with disabilities, achieving personal self-autonomy of workers.</td>
<td>Partners willing to increase secondary raw material markets and shorten distribution steps in the value chain.</td>
</tr>
<tr>
<td>The recycling rates achieve the recovery of 85% of the materials embedded in the EEEs.</td>
<td>The recycling rates achieve the recovery of 85% of the materials embedded in the EEEs.</td>
<td>The plant is managed under ISO 9001 and 14001 management system, and the WEEE-LABEX of Excellence for WEEE recycling plants.</td>
<td>Social organisations working in the integration of disabled people in the recovery and recycling industries.</td>
</tr>
<tr>
<td>The products that are recycled avoid the landfill of toxic parts as batteries, capacitors or contaminated oils.</td>
<td>The products that are recycled avoid the landfill of toxic parts as batteries, capacitors or contaminated oils.</td>
<td>The activity is located in a rural area avoiding depopulation and creates industrial jobs in a disadvantaged territory.</td>
<td></td>
</tr>
<tr>
<td>The process includes the capture of gases included in refrigeration/cold appliances that are harmful to the ozone layer and the green house effect.</td>
<td>The process includes the capture of gases included in refrigeration/cold appliances that are harmful to the ozone layer and the green house effect.</td>
<td>ECOINTEGRA organises specific educational and awareness activities offering visits to the plant and sessions for schools and companies in its training venue.</td>
<td></td>
</tr>
</tbody>
</table>

Key SDGs

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www.aspacenavarra.org

#Ecoinetra #AspaceNavarra #RecyclingWEEEs #RecycledMaterials #RecoveredMaterials
S科尔® creates a 100% useful product using a non-valuable residue (plastic waste) as raw material, avoiding burning it in a dump or landfilling, by transforming it into a non-polluting plastic wood. This new plastic material can be used for production of valuable products like furniture, fences or even construction materials. This creates green rural jobs, in the moulding of plastic and assembly of final products, which offer much longer life than wood, does not need maintenance and can be repaired and continuously recycled in a non-ending lifecycle. S科尔® has large experience in creating different type of final products addressed to different final users.

• Rejected or non-recyclable plastics as raw material, avoiding incineration or landfilling.
• Transforming the rejected plastics into a high value-added product (Plastic Wood), giving a long-lasting new life products that can be repaired and recycled again, closing the plastic flow loop.
• Addressing a climate emergency problem (obsolescence of single use plastic and generation of waste and pollution in traditional waste management solutions - incineration and landfilling).
• Avoiding littering plastics into the environment and producing valuable products for each sector.
• Reduced energy consumption process and standardised final products for modular design and avoiding process losses.

Key SDGs

www.solteco.org

#AvoidingLandfilling #PlasticWood #RecycledPlastic #WasteIntoValue #CircularEconomy

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Envalplaster manufactures thermoformed recycled plastic trays for the food sector that, under strict quality and food safety criteria, contribute to the reduction of food losses and waste, guaranteeing the circularity of its packaging via a recycling process.

The social commitment is based on developing containers that contribute to the preservation of food in complete safety, with the certification of the European Food Safety Authority (EFSA).

Envalplaster is a pioneers in building, for more than 20 years, a sustainable model of Circular Economy, using up to 100% recycled and recyclable materials. Envalplaster makes customised packaging based on customer demand, manufacturing packaging for fresh, processed, precooked foods and so on.

• The Circular Economy at Envalplaster consists of extracting the maximum value of the containers during their useful life, in order to subsequently recover and regenerate them, converting them into new containers.
• Envalplaster can produce containers without generating more waste than currently exists on the planet.
• First Spanish packaging company to obtain the RETRAY certification that guarantees the reuse of recycled packaging in new packaging.
• rPET has been demonstrated as one of the most sustainable single use packaging for food products.

• Obsessed with caring for the planet and people, Envalplaster works on the development of a Social Responsibility policy with several strategic actions focused on achieving the objectives and goals of sustainable development, framed within the 2030 Agenda for Sustainable Development.
• For that purpose, in 2021 Envalplaster implemented its CSR plan, according to the InnovaRSE methodology of the Government of Navarre, which also serves as a roadmap for continuous improvement.
• Unlike other materials, such as cardboard, Envalplaster’s manufacturing process does not require the addition of water, avoiding any possible contamination of water flows and water consumption.

• Looking for projects that allow to continue the plastics reuse project, improve international recycling, scientific dissemination of the carbon footprint of materials, inform about the low environmental impact and ultimately fight against the self-serving defamation that has been generated in public opinion.
• Looking for commercial opportunities to spread the business idea in other countries as well as to forge a distribution network that will help to extend the product market outside Spain.

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#rPET #plasticpackaging #recycledpackaging #recyclablepackaging #foodsecurity

Key SDGs:
Manufacturas Vinilicas (Mavinsa), founded in 1962, is a company dedicated to the transformation plastics, specifically to the manufacture of industrial work and safety footwear. Mavinsa is characterized by the manufacture of high-quality PVC footwear for specific industries: agri-food, construction, industry, leisure and so on. In accordance with Mavinsa’s values over the last 15 years they have carried out an innovation and development strategy in order to improve product’s characteristics as much as possible and to adapt to the continuous modifications of the legal framework that are defined in the industry sector. Mavinsa is based in 3 pillars: Competitiveness, innovation and sustainability.

**Positive environmental impact**
- Use of discarded or non-recyclable plastics as raw materials, avoiding incineration or landfill.
- Promote product’s life cycle process and generate intersectoral circular economy.
- Transformation of plastics discarded in the production process into materials that can be reintroduced in the same process, closing the cycle.
- Climate emergency problem (plastic obsolescence, waste generation and traditional waste management processes pollution) is addressed.
- Plastics thrown is avoided, in contrast valuable products are manufactured.

**Positive economic & social impact**
- Reuse of surplus raw material, with low saleability, for manufacturing value-added products that are 100% recyclable.
- Mavinsa enables companies from different sectors to close plastic’s cycle and to reuse it.
- Foca boots do not need maintenance.
- Mavinsa has created a circular business model for their clients: factories where plastic waste is generated are able to reuse it again.
- Value generation and inclusive employment, as well as incentivize local economy.
- Cooperation and collaboration with different types of social agents: public administration and companies working in social innovation projects whose objective is the reuse of discarded plastic, as well as facilitation access to their articles as a donation.

**Business collaboration sought**
- Looking for organisations interested in making durable products from plastic waste
- Distributors interested in starting to work with an innovative new manufacturer of PVC boots
- Looking for organisations that wish to have a personalized product with high quality materials.
- Looking for suppliers of plastic materials and new markets worldwide.
- Looking for partners in R+D+I.

**Key SDGs:**
- #CircularEconomy
- #RecicledPlastic
- #WasteIntoValue

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www.mavinsa.es
Navarrese organisations in the circular economy

ORGANISATIONS IN THE TECHNICAL CYCLE

- FOODY’S BROITALIA
- NUTRINSECT
- PENTABIOL
- TRASA
- AISLANAT
- ALIMENTOS SANYGRAN
- ALMOTech
- ENVIRONMENTAL
- MOA FOODTECH
- MORLACO
- NAVARPLUMA
- SALINAS DE NAVARRA

ORGANISATIONS IN THE BIOLOGICAL CYCLE

- TENERIAS OMEGA
- UNICE TOYS
- ZUCAMI POULTRY EQUIPMENT
- INGREDALIA
- ISANATUR
- OLEOFAT TRADER
- ELKARKIDE
- BIOINSECTIS
- DRY PAVING SYSTEM
- JOSENEA BIO
- PAVIMENTOS DE TUDELA

ENABLING ORGANISATIONS
Companies in the biological cycle

5 CIRCULAR BUSINESS MODELS (CBMs)

CIRCULAR SUPPLY CHAIN

FARMING COLLECTION  CASCADE USE  EXTRACTION OF BIOCHEMICAL  ANAEROBIC DIGESTION COMPOSTING  BIOGAS GENERATION  BIOSPHERE REGENERATION

Companies in the biological cycle include:

- Foodly's
- NUTRINSECT
- PentaBiot
- almotech
- envirn hemp
- MOA Foodtech
- foma
- SALINAS DE NAVARRA
- UNICE
- LINEARIS OMEGA
- zucami
- MORLASQ
- INGREDIA
- ISANUTRIS
- oleofat
- ELKARKIDE
- BIOINSECTIS
- DPS
- josenea
- pvt
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<td>Foody’s is one of six companies that make up the ENHOL Group. Foody’s is a product of business diversification aimed at responding to the new challenges presented by the constantly changing human nutrition from the point of view of health and sustainability. Foody’s has two business units, one dedicated to the hydroponic cultivation of high-value vegetables and the other to the development and manufacture of plant-based Foods, building the AGRO (germinated and aromatics) and PLANT-BASED business lines. Foody’s represents, the so-called, next generation food or future farming, with plant-based products of high nutritional value as a substitution of meat.</td>
<td>• <strong>AGRO:</strong> Using 85% less water than similar greenhouses. • Avoiding the use of phytosanitary products. • Avoiding the use of chemicals. • Minimising the use of plastics in packaging. • Working to transfer the model geographically to minimise logistical impacts. • Reducing the use of land to a more efficient plant systems. • <strong>PLANT BASED:</strong> Generating less greenhouse gas emissions and consuming less water and land than traditional beef and pork products. • Using pea protein as well as their own sprouts. • Working on finding new sources of vegetable protein.</td>
<td>• <strong>AGRO:</strong> Foody’s proposes the commercialisation of our plants live with root, improving their organoleptic properties, their shelf life and the maintenance of their nutritional values for a longer time. In addition, the innovative way of cultivation allows growing vegetables in Spain that until now were imported from other parts of the world, reducing the footprint impact and increase regional and rural jobs while creating an economic profitable activity. • <strong>PLANT-BASED:</strong> Foody’s contributes to solving one of the great challenges facing European Food System by proposing a new source of sustainable protein that allows the decentralization of the excessive and unsustainable model of meat production and consumption.</td>
<td>• Investors interested in implementing de AGRO line in other regions. • Sprouts processors looking for new suppliers. • Providers of other types of biobased protein willing to define food products. • Providers of sustainable packaging solutions for meat products. • International distributors of vegan food and plant-based protein food. • Organisations or companies (R&amp;D) that are researching and developing new &quot;animal free&quot; alternative protein sources.</td>
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**AGRI-FOOD ECOSYSTEM**

CIRCULAR SUPPLY CHAIN

**Key SDGs**

#plantbased #hidrophonics #nextgenerationfood #sustainability

**www.somosfoodys.com**
Background and business model

Nutrinsect is a company based on the idea of feeding the planet in a sustainable way by insect farming as a new source of protein. The insects are fed with organic waste/byproducts from the agri-food industry. The purpose of the breed of insects is to use them as nutritive additives in the production of flours. Depending on the type of feeding of the insects the flour would have different properties. So far, pasta and energy bars have been created including this flour. The new plant of the Italian Nutrinsect is located in a rural area in Navarre becoming a great business opportunity to offer high protein solutions with increasing acceptance of the society. The company has experience and knowledge in managing European projects.

Positive environmental impact

- Reutilization of organic waste avoiding landfill, without competition with food land uses, and zero waste process.
- The breeding of insects needs less water and less feeding than livestock and generates a healthy substitutive protein.
- Insect feeding reduces the intensive agricultural activity that harms the land, the ecosystems and the environment.
- Cattle farming is responsible of the waste of high amounts of water per day and of the total 9% of greenhouse gases emitted each year. The insect breeding avoids the use of such amounts of water and reduces the GHG emissions.
- Because of the feeding of the insects with organic biowaste the intensive agriculture needed for the cattle farming is reduced.
- Using insect species that are well known and with high knowledge of their properties that creates no invasive species risk.

Positive economic & social impact

- Insects have up to 70% of protein meanwhile the cows have only a 15-20%. Consuming food with insect protein has a lot of benefits for the human health. It ensures the good functioning of the gut microbiota and seems to be favorable to control the levels of cholesterol, ensuring and fostering a healthy lifestyle and a balanced diet. Being rich in calcium, iron and vitamins B12, insects are a real panacea for bone growth, for the prevention of iron deficiency anemia and of megaloblastic anemia.
- Insects are more sustainable economically than livestock, since all process by-products (wastecricket droppings and their shedding of fur) are highly valorised as organic fertiliser with potential bio-stimulant properties.
- The vertical production process is economically sustainable and creates job opportunities in rural areas, close to local agri-food eco-systems.
- Currently, participating in a research project, financed by the Government of Navarre, in which the functionalities of cricket flour for metabolic diseases are studied.

Business collaboration sought

- R&D projects partnerships willing to test new valorisation routes for specific agri-food by-products or biowaste flows.
- Feed producers that want to evaluate the protein profile and the nutrients contribution of insect protein in their recipes.
- Other insect produces that are willing to cooperate in the mix of insect flours to achieve new markets and new type of clients.
- Agri-food associations interested in collaborations.

Key SDGs

- #cricketfarm #cricketforfood #insectfood #futurefood #foodsecurity

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HEALTHY ANIMALS FEED HEALTHY PEOPLE
Background and business model

Pentabiol is a young biotech company pioneering about the development of nutrition and health applications that ensure the sustainability of production processes in the livestock sector as part of the food chain. Specialised in microbiology, the company develops its work in the creation of a new concept of products known as POSTBIOTICS, based mainly on the isolation of lactic bacteria. But it not only researches and designs its own innovations but also manufactures and markets them directly on the market, which allows the company to be totally self-sufficient.

Positive environmental impact

• The biochemical profiles created as postbiotics allow collaborative applications with the animal's own intestinal microbiota, optimising the functions of the digestive system according to its own natural capacity. Thanks to this better use of nutrients, the animal is stronger, and therefore more productive, but always respecting its own nature.
• Animal's health is also decisively improved, due to the fact that a significant contribution is made to the modulation of the animal's immune system, preventing any type of pathological condition. This reduces the preventive application of antibiotics/drugs, the reduction of methane emissions into the atmosphere thanks to better energy efficiency in production, and the deposit, among others, of zinc oxide and ammonia in faeces as pollutants in water and agricultural soils.
• Pentabiol has the first ECO certified postbiotics on the animal health market.

Positive economic & social impact

• Our main objective is to defend the foundations of the Green Deal.
• Working against the problems of acquired immunodeficiency in human health as a consequence of the indiscriminate use of feed additives, antibiotics and other drugs in livestock farms.
• The economic objectives that the application of postbiotics allows to obtain are measurable and fully coincide with the objectives of the livestock farmers.
• Improvement in the farmer's profit and loss account, linked to respect for the environment, allowing farmers to optimise their business and defend their establishments as an essential and beneficial element of the rural environment, protecting it from depopulation.

Business collaboration sought

• Open to collaboration proposals, both scientific, for the execution of different research projects, and commercial, which in any case generate market synergy in the international sphere.
• Able to develop tailor-made solutions, which gives an important added value.

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www.pentabiol.es
#Pentabiol#AnimalHealth #Postbiotics #Microbiology #Biotech

Key SDGs
Background and business model

TRASA has access and manages food industry vegetable losses, creating value by transforming their organic by-products into new products through different specialised business units (animal feed, energy, functional ingredients, agri-biologicals (biofertilisers, biostimulants, others)). The company aims to guarantee a stable Circular Economy model in the agri-food sector in the Spanish Ebro Valley.

The business model, following the criteria of sustainability and social objectives is to recover value added products from vegetable by-products; to research, develop and start-up new technologies related to these materials; to promote industrial activities aimed at prevention, research, technological development, minimisation, recycling and valorisation of vegetable by-products. The circular economy is the key pillar of the business model for multiple valuable roadmaps.

Positive environmental impact

- Recovery, treatment and valorisation of vegetable by-products, avoiding landfilling of food processing waste.
- Regional resources for animal feeding, reducing greenhouse gases emissions in transport.
- High investment in R&D looking for new ways of valorisation.
- Own technologies development for transforming food waste and food losses in new raw materials, increasing the lifespan of resources and improving the Life Cycle Analysis of products.

Positive economic & social impact

- Reducing waste management costs for agri-food industries.
- Creating value from waste.
- Animal feed at lower price and higher quality based on vegetable byproducts (From food processing).
- Creating economic value in rural areas.
- Rural employment resilience.
- Healthier animals, healthier meat for food, positive impact on health.
- Increasing synergies between farmers, cattle breeders and food processors.
- In close collaboration with companies and RD centres for building knowledge in the sector.
- Internal technical-economic evaluation for each new business model.
- Industrialisation of the production processes for achieving real scale project.

Business collaboration sought

- B2B: Animal feeding, farmers, animal cooperative, ruminant feed distributors.
- Collaboration with agri-food processing industries and specialised nutritionists.
- Animal farms for testing of Trasa feeding product and evaluating reduction of environmental footprint and nutritional improvement of animal production.
- Life Cycle Analysis and other circularity assessment tool pilot testing in feed sector.

Key SDGs

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www.trasa.es

#ValuableFoodWaste #Bio-byproducts #CascadeUse #HealthyAnimalFeed #FromFarm2Feed
Background and business model

Aislantes AISLANAT is the first and, so far, the unique manufacturer of cellulose insulation in Spain. AISLANAT has been in the ecological insulation sector for more than 15 years, offering an ecological and efficient alternative for construction. 100% of the raw materials come from recycled newsprint from the region (Navarre), thanks to the collaboration agreements signed with the main newspapers of Navarre. AISLANAT collaborates with universities and research centres in the search for new applications of cellulose, injected and blown. AISLANAT cellulose is a zero-KM product. This fact affects the costs, allowing to offer a product equal in quality to other cellulose insulators manufactured in Europe but at a much more competitive price.

Positive environmental impact

• It highlights the unparalleled storage capacity of CO₂ of cellulose insulation. Thanks to its paper-based raw material, which in turn comes from wood, cellulose stores CO₂ throughout its life. Therefore, one kilo of paper corresponds to the storage of 1.52 kg of CO₂.
• To insulate a house of 100 m², 1 ton of cellulose (1,000 kilos of paper) is used, which would be the equivalent of 1,520 kilos of stored CO₂ and therefore is not emitted into the atmosphere.
• AISLANAT has available its Environmental Product Declaration

Positive economic & social impact

• Cellulose is currently the most efficient insulator on the market for several reasons: it has a thermal lag of between 8 and 12 hours depending on the thickness (this is the time it takes to transmit the temperature from one side of its thickness to the other); save up to 50% on the electricity or gas bill; increases the thermal and acoustic comfort of the house; its useful life is the same as that of the house and does not need maintenance.
• In addition, by solving problems of humidity and condensation, it improves the quality of life of the people who live in it, specifically those who have respiratory problems. It is a breathable material and regulates humidity improving the feeling of comfort inside the house.

Business collaboration sought

• R&D projects related to the implementation of cellulose insulation in different types of construction solutions.
• R&D and testing the implementation of cellulose insulation in other type of final uses (e.g. industrial technical equipment, renewable energy equipment, etc.), studying the possibility of the use of cellulose in substitution of other non-renewable isolation materials (e.g. polyurethane).

Key SDGs

#bioconstruction #cellulose #isolation #sustainability #EUstrategies #circulareconomy #passivhaus

www.aislantesaislanat.es
### Background and business model

Alimentos Sanygran produces meat substitutes based on vegetables and legumes. Sanygran’s mission is to develop plant-based foods to improve the health of people and the sustainability of the Planet.

All the actions developed by the company are based on the development and distribution of more sustainable products not only in terms of crops and processing, but also in the packaging used. They are immersed in the process of different sustainability certificates, in addition to having developed a range of products with which we promote upcycling (e.g. the new range of Sany’s Picadillo products has been developed by using by-products from other industries). Key products are LeguMeat, FlexiMeat and Buenggie.

### Positive environmental impact

- Using vegetables that cannot be marketed fresh or preserved due to their size, shape, etc., normally considered as food losses, which helps to promote sustainability and food waste reduction, thus promoting a circular economy.
- Substitution of animal protein with vegetable protein, reducing CO₂ emissions/ kg protein.
- In process of changing 100% recyclable materials for the commercialisation of products.
- The key actions developed:
  - Sustainable and efficient use of natural resources
  - Environmentally responsible packaging
  - Energy efficiency of processes
  - Minimisation of the environmental impact of distribution activities.

### Positive economic & social impact

- High quality products highly valued in international markets and immersed in a trend growth process.
- Innovation and continuous product development.
- Local employment and gender equality. We have a registered equality plan.
- Company that encourages team and collaborative work.
- Encourage job training so that all workers can continue to develop each and every one of the skills required for the performance of the different jobs.
- Strengthening the sustainability of jobs through continuous training of the workforce.
- Products are vegan and gluten-free answering the needs of specific diets.
- Some products are addressed to flexitarian diets, where animal and vegetable protein are mixed, creating new line of innovative healthy food products.

### Business collaboration sought

- R&D projects searching for new sources of plant-based protein.
- Evaluation of the positive environmental and social impact of the plant-based protein substitution.
- Dieticians and health trainers that want to include new food into their offer.
- Cities and regional sustainable food strategies that are looking for plant-based protein sources in substitution to animal breeding.

### Key SDGs

- [SDG 12: Responsible Consumption and Production](https://www.un.org/sustainabledevelopment/sustainable-development-goals/)
- [SDG 13: Climate Action](https://www.un.org/sustainabledevelopment/sustainable-development-goals/)
- [SDG 14: Life Below Water](https://www.un.org/sustainabledevelopment/sustainable-development-goals/)
- [SDG 15: Life on Land](https://www.un.org/sustainabledevelopment/sustainable-development-goals/)
- [SDG 17: Partnerships for the Goals](https://www.un.org/sustainabledevelopment/sustainable-development-goals/)

[www.sanygran.com](http://www.sanygran.com)  
#bio-basedprotein #by-products #newingredients #futurefood #vegetalmeat

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Almotech is dedicated to the development, manufacture and marketing of products to recover oil at source through a patented system and formula. Almotech transforms used cooking oil into soaps of different uses and varieties: home or cosmetic use.

In the last quarter of the year 2022, YENXA is expected to achieve the market, the small household appliance for oil transformation. The produced soap can be liquid or in bars, depending on the user’s needs. The equipment has been completely designed by Almotech company and has collaborated with different organisations searching for the most optimised and sustainable processes.

**Background and business model**

**Positive environmental impact**

- In each process that a user carries out a soap production cycle, as well as obtaining 750ml of natural soap of the highest quality, it will prevent 150L of water from being contaminated by the dumping of oil.
- This new technology allows to recycle used oil, reducing environmental impact.
- The home recycling process avoids transport emissions and energy consumption of large facilities and industrial processes developed by oil recyclers.
- The final product obtain is completely natural and biodegradable thanks to the complete chemical reaction that takes place in the YENXA equipment.
- YENXA can be easily disassembled for disposal.

**Positive economic & social impact**

- New technology developed to facilitate ecological habits at home and to avoid risks in the transport and higher energy consumption of traditional industrial recycling processes.
- 100% natural soap, conformable and safe.
- The first LCA analysis implemented in the product shows a clear advantage towards industrial treatments.
- All consumables are sustainably sourced, all metals and almost all plastics used in the YENXA are sourced from secondary raw materials.
- YENXA is a modular design that enables repair and future update options.
- Using household waste to produce a basic need product allows customers to save money.
- When YENXA goes on sale in 2023, 5 new jobs are expected to be created.

**Business collaboration sought**

- Almotech’s interest is to find collaborators to internationalise the marketing of the product. The expected distributors are large retailers and technology providers specialised in the home appliance sector.
- Another interest is to find European providers of recycled materials (plastics, inox, etc) and electronic equipments.

**Key SDGs:**

- Circular economy
- Foodtech for circularity

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https://yenxa.eco//
#naturalsoap #recyclingoil #expresssoap #foodtechforcircularity
### Background and business model

Envirohemp (ENV) focuses on the development of technology for Activated Carbon (AC), from production of specialty carbons obtained from biomass to the regeneration of used AC.

Portable MT, a modular plant for water treatment’s spent Activated Carbon is a novel technology that substitutes the currently used thermal regeneration solution. Our portable technology for the electrochemical regeneration of AC, enables Water Treatment Plants (WTP) to reuse the AC without transferring it to another treatment plant for regeneration. 85,000 tons of spent AC are generated every year leading to >1 MILL tons of CO₂. The ENV portable solution, currently under development, offers a highly automated solution to WTP plants.

### Positive environmental impact
- Envirohemp has the capacity to valorise hundreds to thousands of tons of biomass residues, that would typically only be used as low-grade fuel for "heating" purposes.
- Envirohemp has capacity to produce two-in-one valorisation and sterilisation of complex feedstock such as manure and sewage sludge, by applying high-pressure treatment.
- The new Portable MT solution offers a GHG reduction of 45% vs. thermal regeneration, and 95% single score improvement vs. landfilling.

### Positive economic & social impact
- Production of high added-value materials that typically produce a 2 order of magnitude increase with respect to the feedstock employed.
- Cutting-edge solutions that enable other disrupting technologies such as the ultra-fast energy storage in ultracapacitors.
- Rural areas development and creation of jobs directly (location of facilities on rural area) and indirectly by establishing new revenue streams for the primary sector through the valorisation of agri-food residues.
- Development of 100% EU-based specialty materials and chemicals derived from regional biomass.
- The new Portable MT solution: Regeneration savings 0.85 €/kg vs. 1.05 €/kg and fast investment pay-off from 1,000 AC tons/year.

### Business collaboration sought
- Companies in the agri-food sector that need to improve valorisation routes for the biobased waste flows.
- R&D partnership that are looking for Greentech developers focused on the development of bioproducts and high-tech applications under a global sustainability approach.
- Water Treatment Plants (WTP) managers that want to increase efficiency of the activated carbon (AC) using on-site regeneration.
- Distributors of WTP technology.

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**Key SDGs**

- #BiocharCarbon
- #BiomassValorisation
- #ActivatedCarbon
- #Hydrochar

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**www.environhemp.com**
80% of deforestation is due to the expansion of farmland, 79% of which is used for animal feed. Food industry is responsible for the 24% of GHG emissions and the growing demand for protein, whose growth is estimated at 70% by 2050 against a possible 10% increase in resource extraction.

To face this MOA is founded, a B2B platform to produce natural and sustainable ingredients obtained by food by-products valorisation through fermentative processes.

Currently, the company is dedicated to the design of food by-products valorisation processes in R&D projects, but it is expected to start selling its product at the beginning of 2023.

**Background and business model**

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**Positive environmental impact**

- Transformation of agri-food industry’s by-products into healthy, high nutritional value and 100% sustainable single cell protein.
- By substituting meat for MOA ingredients, intensive land use can be reduced by 99%, intensive use of water by 98% and GHG emissions by 80%.
- Production process independent of weather conditions.
- The use of by-products as raw material reduces the environmental impact of food industries, due to the reduction of waste generation and feedstock extraction.

**Positive economic & social impact**

- MOA FoodTech offers a healthy, sustainable and cheap source of protein in a short period.
- The food industry can offer a more varied catalogue of healthy and sustainable products with less impact on the region’s ecosystems.
- Improvement of the competitiveness of the food sector and creation of highly qualified jobs, especially those related to the biotechnological and food areas of the process.
- Development and implementation of high-tech processes able to obtain valuable ingredients of economic and nutritional value from by-products that won’t need to be managed as waste.
- Enables the transition from low protein food to new higher protein food for healthy vegan diets, with a reduction of animal feeding and processing costs and impacts.

**Business collaboration sought**

- Collaboration with companies and institutions is the keystone of MOA FoodTech.
- Open to collaborate with companies from any geographical location.
- MOA’s interest in the collaboration is: valorisation of partner’s by-product, collaboration in product performance testing and access to fermentation and drying facilities at an industrial level.

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#foodtech #fermentation #circularbioeconomy #byproductsintofood

**Key SDGs:**

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Water and Sanitation
6. Affordable Credit
7. Environmental Protection
8. Renewable Energy
9. Industry, Innovation and Infrastructure
10. Reduced Inequality
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals
MORLACO BEER

AGRI-FOOD ECOSYSTEM

CIRCULAR SUPPLY CHAIN
### Background and business model

Morlaco Beer is a small and independent brewery founded in 2013 by civil engineers and homebrewers. The company produces small batches of beer, but more than 12 different beers including the ones brewed with wasted bread. They develop their own recipes, get the ingredients and brew, bottling, and distribute them in their local area. They have found in the big amount of bread that are considered waste daily an opportunity to craft a beer. Besides, the waste generated by the crafting of both the normal beer and the bread one is used as animal food. In 2022, they have opened *LA GROWLERIA*, the first brewery at the national level specialized in growler sale. Growler is a 2L reusable glass bottle refilled using a back pressure filling system in any of the 15 beer taps they have, offering returnable bottles.

### Positive environmental impact

- Bottles are made from up to 100% recycled glass avoiding the waste of raw materials to make new bottles. Besides, growers are designed and offered to be reused avoiding single-use containers.
- All the waste generated is managed as a by-product of the brewing process. This waste is based on protein and fibers-rich leftovers that are excellent feed for animals.
- The company reuses the dry bread that bakeries are going to throw away because it has not been sold and use them as raw material for crafting beer (used in two different recipes).
- The waste produced from the bread beer is also used as animal feed.
- As a future project, the company is researching and experimenting how to produce bread from the waste generated by the crafting of the bread beer. By doing that Morlaco beer will close the circle: using dry bread to produce beer, using the waste to produce bread, using the dry bread again to produce beer. The company is also in the way of changing their equipment into electric in order to reduce GHG emissions and of installing solar panels in their rooftop for becoming energy self-sufficient.

### Positive economic & social impact

- Morlaco helps reducing the organic waste produced by using the dry bread as raw material. By reusing the bread, they avoid the economic impact caused by the need of the treatment of the organic residue and captures more value in the bread value chain.
- The renewable energy production will reduce fossil fuel dependency and will enable economic resilience to the process.
- The company is now moving to use local ingredients like hops and barley malt from their region.
- Pioneers in the region by creating the first point of sale based in growler service, offering citizens to enjoy beer in their homes and avoiding packaging waste, creating social awareness of the role of consumers.

### Business collaboration sought

- Collaboration in transferring the brand and producing process to other European markets.
- Partner for R&D projects working in closing the cycle of organic flows in the brewing/breading value chain.
- Life Cycle Analysis methodologies applicable to brewing products and processes and smart labeling of brewing products and by-products.
- Taking part in European networks of brewery for a circular economy.

### Key SDGs:

- @morlacobeer
- @Morlacobeer
- @morlacobeerweb
TEXTILE ECOSYSTEM

CIRCULAR SUPPLY CHAIN
Navarpluma, S.L. was founded in 2002 by Olivier Martin and began supplying feather and down for bedding (duvets and pillows) and home industry (cushions). Later on, Navarpluma expanded into the Outdoor and Fashion industries. Navarpluma’s business consists of revaluing a waste of the food industry into a technical product through an extremely low environmental impact process. Final natural products provide one of the best insulation filling for Humans & healthiest for the Planet. Navarpluma has also been a pioneer in developing recycling of down. Recycled down is obtained from end-of-life bedding/apparel products, being eco-friendly, biodegradable and recyclable too.

**Background and business model**

- Navarpluma works with the goal of providing truly durable filling materials.
- Its latest developed brands, Natural Neokdun® and Recycled Neokdun® are promoting sustainable alternative natural insulation fillings, ecofriendly, completely traceable, recyclable and biodegradable.
- Neokdun® causes 18 times less impact on climate change than polyester fill (cf. Life Cycle Assessment (LCA) IDFB).
- Neokdun® is fully controlled thanks to Duntrack® traceability system based on documentary traceability from the origin sources as well as ethical commitment both certified by third party and unique molecular labeling.

**Positive environmental impact**

- Navarpluma reuses the 73% of the water consumption. All the consumed and recirculated water goes through our integrated treatment plant before being returned to the supply network.
- Our facilities have an energy efficient LED lighting system. We have a control system, presence detectors, natural light quantity detectors for maximum use, photoelectric cells, timer switches, and different regulators that optimize the use of lighting.
- In August 2022 a system of photovoltaic panels was installed in order to harness solar energy and reduce CO2 emissions.
- Our commitment for 2023 is to save 20% of our needs of gas.
- Recycled insulation fillings create economic value form end-of-life products by giving them a second sustainable life.
- Our ethical sourcing and producing commitment is online with the 10 Global compact principles by United Nations.

**Positive economic & social impact**

- European and worldwide, looking for Retail and Outdoor garments producers.
- European suppliers of raw material from secondary sources: other industrial by-products (e.g. agri-food or textile by-products).

**Business collaboration sought**

**Key SDGs:**

www.navarpluma.com / www.neokdun.com

#NatureMatters #FromNatureToNature #CareForPeopleAndPlanet #NaturalWarmth

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Gobierno de Navarra  |  Nafarroako Goberrua
Background and business model
Salinas de Navarra with more than 40 years of experience is the largest producer of vacuum salt in Spain. Every year, 160,000 tons of salt come out of its factory for water treatment (swimming pools, dishwashers, deacidification, etc.), food industry (sausages, preserves, broths, etc.), industry (electrochemistry, electrolysis, dyes, perfumes, etc.) and even human consumption (table salt). The company recovers the potassium waste generated from the former mining operation in Navarre. This potassium is purified and transformed into sodium chloride for food and industrial uses, creating valuable new products from former industrial residues.

Positive environmental impact
• With its activities Salinas helps to the consumption for a complete disappearance of the mountains of potassium by-product linked to the previous mining activity.
• Salinas’ consumption of the potassium helps the reduction of the saline leachate generated by rainwater.
• The company helps with the recovery of the exploited areas.
• The company not only revalorises a by-product originated in the past because of the mining activity but also valorises all the sub-mineral products obtained through its process to produce the salt.
• By its waste revalorisation and creation of a new product, the company avoids the need of start new mining activities.

Positive economic & social impact
• After the closure of the mining industry in 1996, Salinas has achieved to reactivate the local industrial activity with the production of a sustainable product.
• Thanks to this industrial reactivation Salinas has helped to the generation of quality employment with 100 direct employees and 50 indirect employees linked exclusively to its activity.
• Its product is used for different sectors such as water treatment, food industry, etc. Thanks to this, the company is introducing into several industries a new product made of waste, creating an industrial secondary raw material, that is as good as one made by new primary sources.
• Reconciliation of positive economic results and environmental regeneration in intensively exploited areas aligning with two of the pillars of sustainability (economical and environmental).
• Salinas has achieved to be one of the leaders in Southern Europe of salt tablet production and for the water treatment industry.

Business collaboration sought
• All type of industries that consume salts as ingredient (sodium chloride) and are willing to ensure their supply from sustainable sources, and to demonstrate and trace the use of secondary raw materials in their process.
• Public or private owners of potassium waste that want to exchange experiences in the optimisation of the valorisation routes into new salted secondary raw materials.
• Large distributors of Sodium Chloride.
• R&D partnerships working in the energy transition for energy intensive industries.

www.salinasdenavarra.es/
#vacuumsalt #potassium #circularreconomy #watertreatment #industrialenvironment #miningrestoration
### Background and business model

Tenerias Omega S.A. is dedicated to designing and developing natural leather for: Aircraft leather seats, automotive, bus and train leather interiors, residential and hospitality leather interiors and leather material for saddlery. Leather is the final product, and it is processed from the beginning in Navarre with total care and following the highest sustainability standards. Tenerias Omega, S.A. strives to maintain the highest possible production standards, fully committed to the environment. Tenerias Omega constantly invests in research and development to improve product’s performance to be able to provide their customers with the latest performing products. Focused on sustainability, Tenerias Omega launches a new tannage technology: WET GREEN, which is made from olive leaves and avoid any toxic substance, so it is completely biodegradable.

### Positive environmental impact

- Not only do they source their raw hides as locally as possible, but also they are committed to transparency and traceability in their supply chain.
- Leather is beautiful, versatile, durable and sustainable.
- Hides & Skins are a by-product of the meat & dairy industry and transformation into leather is the best use for those hides.
- Leather manufacturers up cycle hides into beautiful, versatile & sustainable products.
- Improvement of solid waste and wastewater.
- Policy to minimise the use of water.
- Recycle the bath and soaking fluids.
- Non-aggressive chemical products for tanning process.

### Positive economic & social impact

- Traditionally, olive leaves are typically burned but now are collected in the Mediterranean region which creates a sustainable wage for many adults.
- •These collected olive leaves are brewed like a tea to create a natural tanning agent. This non-toxic olive leaf extract is 100% organic & mineral free. Selected hides are then soaked in the tanning agent to create a natural leather product in a broad spectrum of colors and styles.
- •Olive Tanned Leather uses 100 percent natural wet-green® technology in the tanning process to achieve mineral-free tanning. Wet-green® tanning extract is made from fallen olive leaves, much like making tea. These olive leaves are a byproduct of olive production.

### Business collaboration sought

- R&I partnerships involved in the collection of olive leaves and olive based products.
- Industrial sectors investing in the substitution of plastic and artificial textiles, with natural leather solutions (e.g. furniture, construction, etc.).

### Key SDGs:

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**www.teneriasomega.com**  
#teneriasomega #leather #wetgreen #oliveleaves
UNICE TOYS is a company established in 1968 and located in Villatuerta, Navarra. The enterprise has been dedicated to the manufacture and sale of balls and soccer balls for more than 40 years. However, in the last years it has broaden its product catalogue including beach buckets and sets, inflatables or scooters.

UNICE TOYS has always considered relevant products’ technological development. The evidence of that is the S.T.P. “Total Sphere Pad Printing System” they have patented or the elastic varnish they have created for maintaining balloons’ brightness after reinflation. After joining the Italian group Mondo, UNICE TOYS has developed a bio-based formula for the manufacture of a more sustainable PVC.

Since 2021, the production of PVC for game balls has been carried out with a bio-based formula, which replaces a 50% fossil origin substances with a derived vegetable of renewable origin, creating Bioball product. The Bioball is characterised by a lower emission of greenhouse gases: 20.3% less emissions than standards procedures. Substitution of synthetic compounds using plant-based plasticiser is in the path to achieve new renewable raw materials for toys. Minimise plastic waste and reuse it as raw material.

Hard plastic products are manufactured with a new formula, which includes standard material and recycled material from the food industry. Since food-grade plastics cannot contain dyes or other additives considered harmful to humans, the chemical safety of UNICE’s toys, often used by young children, will increase. Respect and commitment to the growth and education of the new generations.

Collaboration with companies and institutions for the development of new technologies applicable to the production process. Collaboration with companies and institutions for the development of new materials. Revaluation of the generated by-product that can serve as raw material for other plastic products.

Key SDGs: #Unicetoys #Bioball #renewtoys
### Background and business model

ZUCAMI, founded over 35 years ago, is dedicated to the design and manufacture of innovative solutions in housing equipment for the poultry industry. In their eagerness to offer clients integral solutions which cover all their needs, ZUCAMI developed SECONOV, a drying system that, using the heat energy of the birds, allows to obtain a percentage of dry matter of 80/85% in only 24 hours. Final product can be pelleted. Furthermore, this system eliminates odors, insects and gases derived from ammonia. Manure removal from the barns takes place automatically using belts and is extended creating a thin layer. Now, taking advantage of the ventilation system of the barn, the heat produced by the birds is conducted through the poultry manure being dried. The drying process takes place continuously preventing fresh manure to stay into the facilities. Final pelleted product could be used as an organic fertiliser or alternatively for Heating Systems.

### Positive environmental impact

- **Conversion of polluting waste into by-product**, offering a sustainable solution for the manure of up to 300.000 layers per SECONOV system.
- **Substitution of the burning of the poultry manure by manufacture of new products used as organic fertilizers that improve soil quality**.
- **Improvement of the environment by the reduction of gases emissions to the atmosphere, such as ammonia**.
- **Use of the residual heat generated by the poultry to dry the manure, avoiding electricity consumption**.
- **Reduction and elimination of odors and insects compared to fresh manure handling**.
- **In dry climates the system can capture hot external air in order to increase the efficiency of the drying system**.

### Positive economic & social impact

- **Reduction of waste management costs and the possibility to sell pellets allows clients to earn money; creating a valuable fertiliser product that can improve soil quality**.
- **Fully automated process that avoids the involvement of people in manure management, which implies better working conditions and improves employees’ health, since they do not have to breathe toxic gases**.
- **The fertiliser obtained has between 80-85 dry matter, which makes it very manageable and convenient for farmers**.
- **They put on the market a product (pellets) that in the current market situation has suffered a considerable price increase, and of which there is also shortage and high demand**.
- **Decrease in the emission balance of the whole production process, reducing meats carbon footprint, what contributes to a more sustainable chicken meat or egg production under a value chain approach**.

### Business collaboration sought

- **Looking for poultry farmers who are interested in acquiring SECONOV System to manage manure**.
- **Interested in expanding SECONOV’s use, so they would also be willing to work for pellet manufacturers**.
- **SECONOV can also work in an autonomous way, so it can be installed far away from the barns**.
- **ZUCAMI has presence all around the world, so they are open to international collaboration.**

### Key SDGs:

- SDG 7
- SDG 9
- SDG 12

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**AGRI-FOOD ECOSYSTEM**

**CIRCULAR SUPPLY CHAIN**
**Background and Business model**

Ingredalia is a company owned by large and medium size food processing companies and a technology centre, focused on the valorisation of by-products generated in the processing of vegetables. Ingredalia has been able to industrialise the process under a patent for the valorisation of the broccoli processing by-products, that enables the extraction of sulforaphane and glucosinolates. These compounds have been reported as very beneficial for its health promoting effects, among others for the immune system in humans and other animals in many published clinical studies and research papers. Today the commercialised products are Sulforaphan-Smart (natural phytochemical with immuno-stimulating activity) and Brasphenol (vegetal extract rich in polyphenols with antioxidant activity).

**Positive environmental impact**

- Valorisation of organic resources, collecting industrial food losses generated during the process (crumbs) avoiding food waste and reducing industrial costs of waste management and environmental impact since most is ending in landfill.
- The company will be able to valorise many other compounds of vegetable food losses in process offering, distributing and commercialising natural, healthy and functional ingredients.
- The extraction and the high-tech production process needs a reduced consumption of energy and resources.
- The use of process by-products does not compete with the land use for human food.

**Positive economic & social impact**

- Creating new ingredients, with high economic value from by-products. Around 30% of the collected vegetable become by-product during the transformation processes, what is a large leakage that becomes a huge business potential.
- The industrial process have been demonstrated as economically sustainable thanks to the extraction of high value and very effective compounds addressed to different markets (human and pet food, pharma or cosmetics).
- Reducing the waste management cost of agri-food sector.
- Ingredalia participates in R&D projects for the valorisation of the compounds extracted as bio-additive for new applications (e.g. paints, packaging), including studies with other vegetables.
- Healthy new smart ingredients that have been demonstrated can prevent cancer and other diseases.
- The company is based on industrial alliance with large companies enabling the access to new markets.

**Business collaboration sought**

- Organisations in need of evaluating the business opportunity for the vegetable by-products valorisation routes.
- R&D projects that need to evaluate different types of compounds and ingredients extraction processes for different types of vegetable industrial by-products.
- Commercial partners and distributors interested in the commercialisation of the Sulforaphan-Smart and Brasphenol products already in the market.
- Partnerships for the development and production of natural functional ingredients using agrifood by-products.

**Key SDGs**

- SDG 1: No poverty
- SDG 2: Zero hunger
- SDG 3: Good health and well-being
- SDG 4: Quality education
- SDG 5: Gender equality
- SDG 6: Clean water and sanitation
- SDG 7: Affordable and clean energy
- SDG 8: Decent work and economic growth
- SDG 9: Industry, innovation and infrastructure
- SDG 10: Reduced inequality
- SDG 11: Sustainable cities and communities
- SDG 12: Responsible consumption and production
- SDG 13: Climate action
- SDG 14: Life below water
- SDG 15: Life on land
- SDG 16: Peace, justice and strong institutions
- SDG 17: Partnerships for the goals

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#broccoli #Healthy #by-products #futurefood #naturalfunctionalingredients
ISANATUR

NUTRITION & HEALTH

AGRI-FOOD ECOSYSTEM
CIRCULAR SUPPLY CHAIN
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| **ISANATUR** in-house facilities designs and produces functional ingredients obtained from organic olive under a patented (pharma grade) zero-waste process, facilitating access to novel, natural and healthy ingredients at the best value. The production process is located in Navarre. Olive extract and olive phenol rich fiber are the key products ideally used in dietary supplements and functional foods, providing disease prevention beyond their nutritive value (MICROBIOME) (see www.ecoprolive.com). Business Model is based on revenues from R&D activity and market incomes from ECOPROLIVE brand. | • Production process that uses no chemical additives or treatments and zero waste production, based on upcycling methods.  
• The company uses Hight Tech that enables reduction of environmental impact.  
• The key technologies used are the evaporator concentrator- spry dryer and the extraction technology CO₂ supercritical: innovative, clean, and environmentally friendly, no fluids or emissions are generated.  
• Pilot and production facilities available. Including reactors, fermentation, spray-dryer, CO₂ extraction and more  
• Using LCA and LCC studies to foster sustainable decision making useful in cosmetics, nutraceutical, Pharma and food industries. | • Preservation of the high value to all olive byproducts, so that each of them can be valuable valorized, and avoids waste management cost.  
• The products obtained are commercialised under the ECOPROLIVE brand with a high value projection and positive impact in health proved.  
• Rural areas development for olive organic production processes and rural employment for the production process.  
• Improvement of health conditions for consumers of their products, for food or health/beauty consumption.  
• Food products specially addressed to gluten-intolerants and diabetics and for people with heart or gastrointestinal diseases.  
• Health/cosmetic products addressed to sensitive skins e.g. eczemas.  
• In collaboration with many partners for RD projects and new commercial products development. For example, the development of XOS product as a high-quality prebiotic. This production can be either in isolation or in combination with other products to enhance the protective and modulating capacity of the gut microbiota. | • Investors and industrial partners that are able to offer capabilities and access to new markets or capital.  
• Willing to implement technology and products in the main olive producers’ countries in Europe (Spain, Italy, Portugal and Greece)  
• Partners for the development of new processes and technologies for the extraction of high value products.  
• ISANATUR has participated in various European projects. The last one, CIRCFOOD, and Up4health which consists of investigate and develop ways to valorise vegetal waste and by-products generated in Navarre to upcycle them into added value products. |

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**Key SDGs**  

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#HealthyFood #ECOPROLIVE #EU_Farm2Fork #Biorefinery #OrganicIngredients #OliveByproducts  

**AGRI-FOOD ECOSYSTEM**  
**CIRCULAR SUPPLY CHAIN**
Oleofat Trader, S.L. is a company located in Tudela (Navarra) dedicated to the management and treatment of oil by-products and wastes and their subsequent recovery in the chemical industry, mainly aimed at the production of sustainable biodiesel. Currently, Oleofat is developing several projects with the aim of extracting active principles (tocopherols, sterols and squalene) from these fatty by-products from the agri-food industry. The company has participated in a project that combines nanotechnology with biotechnology to manufacture, in a more sustainable way, new high-quality fatty products from oleic waste for later use in the chemical, cosmetic, pharmaceutical and food industries. Oleofat has obtained a high-quality final product using an enzymatic technology, much less aggressive with the raw material, with the final product and the environment, where the generation of waste is minimised.

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**•** Generation of biofuels to replace fossil fuels.  
**•** Manufacture of compounds of vegetal origin that replace chemical compounds or fossil origin in other industries (paints, varnishes, cosmetics, etc.).  
**•** Development of sustainable solutions (enzymatic processes) that replace conventional chemical processes, being processes more sustainable with the environment.  
**•** Reuse of other types of waste from industrial processes. | **•** Valorizes waste and by-products from other companies, creating economic value and new products for the cosmetic, pharma and food sectors.  
**•** Oleins have many uses and replace petroleum products, reducing the social impact of fuel oil extraction and creating wealth in rural areas.  
**•** The new industrial processes that allow the company to increase the company's turnover.  
**•** Regional development and the reduction of the waste created by our society.  
**•** The company is constantly looking for ways to improve the industrial processes in order to reduce waste and improve the yield.  
**•** Collaboration with local research centers, improving the employability of the area and the knowledge. | **•** Collaboration with industries or R&D Centers or universities that are aware about the importance and the need of the reuse of raw materials and the implementation of a circular economy.  
**•** Looking for biodiesel industry clients. |
Elkarkide is a social non-profit enterprise that offers products and services related to the green economy, including farming, distribution of organic food product (0km food), garden services for municipalities (edible gardens), collaboration with urban and school farms in the supply of different materials or maintenance services for community composting areas.

The social and natural regeneration are its mission and collaborates with other private/public organisations for the offering of innovative products and services, such as the e-mobility in mailing services, the collaboration in the collection of food surplus for the regional food bank or carpentry services for composters (chicken compost system) and other furniture manufacturing with recycled plastic (wood plastic carpentry services).

**Background and Business model**

Elkarkide is a social non-profit enterprise that offers products and services related to the green economy, including farming, distribution of organic food product (0km food), garden services for municipalities (edible gardens), collaboration with urban and school farms in the supply of different materials or maintenance services for community composting areas.

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**Positive environmental impact**

- Working under the principles of agroecology and rural development with organic certification.
- Recovery of local variety of seeds, vegetables and aromatics.
- Reduction of phytosanitary products even those that are allowed for the organic certification.
- Culture medicine obtaining solutions based on local plants.
- Zero waste and valorisation of organic waste into fertilisers to be used in their patches or donated after composting.
- 0km food production and commercialisation in urban location.
- Green fertilisers and moon calendar application.
- Enhancing biodiversity by rotational crops and auxiliary flora and fauna protection.

**Positive economic & social impact**

- Offering products and services for public and private organisations: composters, compost, e-mobility, ecological vegetables, aromatic plants and flowers, manufacturing and garden services.
- 0km food shop.
- Agri-ecology consultancy and training services.
- Green social employment.
- Commitment with people dignity and respect.
- Individualized attention to workers based on their specific needs and disabilities.
- Social Responsibility criteria and CSR management system implementation.
- Employment creation: 120 workers in the Special Employment Center, 43 in the Occupational Center and 225 places in the occupational regime.
- Team working.
- Social innovation for new products and services definition.
- Personal and professional development journey.

**Business collaboration sought**

- Composting services and systems, new composting solutions, urban farming, educational and training processes, environmental and social commitment.
- Collaboration projects for valorisation of food surplus and conservation processes for new products.
- Organic waste and by-products valorization for private organisations, municipalities or regional Governments.
- Mainly, collaboration located in Navarre.

**Key SDGs**

- #PeopleFirst
- #CSR
- #OrganicSeeds
- #0KmFood
- #RecycledPlastics
- #NaturalRegeneration
- #SocialCircularEconomy
Bacillus thuringiensis

Baculovirus

BIOINSECTIS

AGRI-FOOD ECOSYSTEM

CIRCULAR SUPPLY CHAIN
### Background and business model

- Bioinsectis is a spin-off from the Public University of Navarra that was founded in 2016.
- The company designs, develops and produces microbial solutions for the control of insect pests.
- Bioinsectis follows a Licensing business model in which it transfers its patented solutions and technology to large companies of the sector.

### Positive environmental impact

- By developing biological alternatives to chemicals, Bioinsectis helps protecting our crops while minimizing the adverse effects on human health and the environment.
- It is Bioinsectis’ policy to prevent pollution, minimize waste and promote recycling through its activities.
- Bioinsectis’ solutions are highly specific, designed to only target the pests of interest. This helps preserve non-target beneficial insects, like bees.
- All the offered solutions fall within the new European requirements.
- Bioinsectis products are in line with the European achievement of the Farm to Fork strategy target, 50% reduction in the use of chemical pesticides and the 50% reduction in the use of more hazardous pesticides.

### Positive economic & social impact

- Bioinsectis replaces the current chemical and harmful pesticides by new and sustainable products that benefit the productivity and well being of agricultural lands.
- The company has gender equity and offers a good balance between personal and professional life, promoting local talent.
- Bioinsectis was founded by researchers from the Public University of Navarre, with the aim of creating job opportunities for young people in the region.
- The development of new products needs of long-term agreements between companies to address the problematic associated to different crops and territories.

### Business collaboration sought

- New partners from the crop protection sector to register and commercialize Bioinsectis’ product developments.
- R&D partners involved in European projects that look for new biological solutions targeted towards crop pests in developing countries.
- Research centres interested in evaluating the positive impact at a biodiversity level in the use of Bioinsectis’ products and in their contribution to the Farm to Fork strategy.

### Key SDGs

- #agroecology #biopesticides #biocontrol #ecology #cropprotection #biosolutions

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www.bioinsectis.com
DPS- DRY PAVING SYSTEM

CONSTRUCTION ECOSYSTEM

CIRCULAR SUPPLY CHAIN
The Dry Paving System (DPS) is a Sustainable Urban Drainage System (SUDS) that offers an excellent solution for efficient rainwater management. DPS integrates a permeable pavement and an underground structure formed by polymeric geocells with a high capacity of infiltration and retention of rainwater under its surface. Sustainable Urban Drainage Systems enable water infiltration near the origin and prevents the formation of surface runoff, constituting an advanced technical solution for the correct management of rainwater.

### Background and business model

The Dry Paving System (DPS) is a Sustainable Urban Drainage System (SUDS) that offers an excellent solution for efficient rainwater management. DPS integrates a permeable pavement and an underground structure formed by polymeric geocells with a high capacity of infiltration and retention of rainwater under its surface. Sustainable Urban Drainage Systems enable water infiltration near the origin and prevents the formation of surface runoff, constituting an advanced technical solution for the correct management of rainwater.

### Positive environmental impact

- DPS is specially designed to evacuate water flows that are hundreds of times higher than those collected during episodes of torrential rain, since filtration occurs through the mass of the concrete pavement, and through the joints between the pieces responding simultaneously to the vertical flow of rain and the horizontal flow of runoff.
- The void volume provided by the Hidrocell polymer cell network gives DPS a water retention capacity under its surface of 50 l/m², which can be multiplied by the superposition of additional cells.
- ecoDraining also has the capacity to eliminate atmospheric pollutants such as nitrogen oxides (NOₓ), volatile organic compounds (VOCs) and particulate matter (PM), being class 3 according to UNE 127197-1 2013, certified by APPLUS.
- The use of DPS favours the oxygenation of the soil and the reduction of the air temperature, providing a sensation of freshness similar to that of areas with vegetation.
- DPS needs hardly any care since weather’s inclemencies, such as rain and wind, act directly. The absence of ponding prevents the accumulation of dirt and the development of microorganisms.
- Both the concrete parts and the polymer geocells that make up DPS are made of sustainable materials.

### Positive economic & social impact

- The use of DPS is an investment as it is highly reusable. Thus, if new networks or ducts need to be laid under the pavement, the DPS system can be dismantled and re-assembled to allow the introduction of new infrastructures.
- DPS design makes installation quick and easy, without the need for any civil work or the use of mortar. The reduction of materials, energy and waste makes DPS more sustainable than any other type of paving.
- Both the concrete parts and the polymer geocells that make up DPS are made of sustainable materials.

### Business collaboration sought

- Local and regional governments and municipalities willing to implement decontamination constructive solutions in the transition to a smart city.
- Architectural prescribers: designers, engineering and construction solutions implementers.
- Spanish and French market priority.

### Key SDGs

- #GreenCity
- #SUDS
- #SustainableConstruction
- #DecontaminationMaterials

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Visit our website: [www.dps-system.com/](http://www.dps-system.com/)

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pvt-ecogranic
JOSENEA BIO

AGRI-FOOD ECOSYSTEM

CIRCULAR SUPPLY CHAIN

Chamomile cultivation
### Background and business model

Josenea produces aromatics and medicinal plants for infusions and essential oil extraction and apple snacks under a solar drying process. All products have organic certification, as well as the compost obtained that is commercialised. The complete farm, production site, composting process and renewable energy facilities can be visited and builds the first **Rural Circular Living Lab** in Navarre, where circular economy principles and business models can be touched, tested and implemented, under co-design methodologies and stakeholder’s engagement and participation, including the evaluation and monitoring of the social and natural capital regeneration. Josenea is willing to participate in European networks of rural circular living labs.

### Positive environmental impact

- **Bordablancas farm** is energy self-sufficient thanks to photovoltaics panels and wind generator connected to battery storage system.
- The fruit drying process happens in the solar greenhouse building combined with biomass pellet boiler, being more than 90% efficient, with a steam recovery system used for heating greenhouses.
- Zero discharge systems- closed cycling of organic flows and rainwater, with regeneration of soil thanks to own composting facilities.
- Composting process (testing solutions and learning by doing) for biofertilizers production using organic waste collected from the farm and regional resources.
- Awarded with the Rural Inspiration 2021- Resilient Future.

### Positive economic & social impact

- High quality products highly valued in international markets.
- New products development, continuous innovation on products and services.
- Regional rural employment for people under social exclusion risk.
- Rural organic farming activity and valorisation of abandoned soils.
- As a non-profit company configuration, the company reinvest all profits in the development of the social project.
- Non-profit organisation with the purpose of working with and for people, as a transition for workers who are in the process of labor insertion. Employment creation- 80 workers in rural areas.
- Job training and the acquisition of work habits make people achieve sufficient autonomy and guarantee their incorporation into the labor market with full guarantees of success.
- People hired are derived from the Social Services and the Navarre Employment Services, in collaboration with the Government of Navarre.

### Business collaboration sought

- Looking for partners in order to develop a European Network of Rural Circular Living Labs.
- Training programs linked to experimentation of circular bio-economy processes and eco-system.
- Tourism packages and training programmes around circular living labs located in farms or parks.
- Collaboration with distributor of organic food, healthy products, large retailers, restaurants and consumer of organic products.

### Key SDGs

[Key SDGs icon with icons]

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#EU_Farm2Fork #SocialRegeneration #SoilRegeneration #HealthyFood #RuralCircularLivingLab
### Background and business model

PVT was born in 1987 dedicated to the manufacture of non-slip concrete flooring for exteriors. PVT has participated in strategic projects in Spain and France providing a wide variety of finishes and designs, becoming a leading company in the construction sector with a special emphasis on sustainable construction.

PVT Research and development team is constantly working on the creation of innovative products, always in line with sustainability such as ecoGranic and ecoDraining (see Dry Paving System description), with decontaminating and draining properties.

### Positive environmental impact

- **ecoGranic®** is implemented in a high-strength precast concrete that actively contributes to the removal of pollutants from the atmosphere through a natural oxidation process.
- Highly ecological and sustainable product, which is manufactured using up to 30% of recycled materials from PVT’s own production process and recovered solid urban waste.
- Very effective technology in removing nitrogen oxides (NOx), volatile organic compounds (VOCs) and particulate matter (PM), avoiding atmospheric pollution. PVT’s two factories incorporate solar panels with a 100kWh electricity generation.
- PVT is a co-developer of Dry Paving System (DPS), an urban sustainable drainage system for an efficient rainwater management.
- Improvement of cities’ life quality through decontaminating pavements and the provision of designing safe pedestrian areas.
- Thanks to its environmental qualities, governments get to reduce costs in their public health system as well as in infrastructural investment.
- This technology converts harmful gases into compounds that are harmless to health through a natural oxidation process free of chemical agents and with an inexhaustible effect over time.

### Positive economic & social impact

- Local and regional governments and municipalities willing to implement decontamination constructive solutions in the transition to a smart city.
- Architectural prescribers: designers, engineering and construction solutions implementers.
- Spanish and French market priority.

### Business collaboration sought

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**Key SDGs**

- #GreenCity
- #SmartCity
- #SustainableConstruction
- #DecontaminationMaterials

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Navarrese organisations in the circular economy

ORGANISATIONS IN THE TECHNICAL CYCLE

ORGANISATIONS IN THE BIOLOGICAL CYCLE

ENABLING ORGANISATIONS

❖ BIELAS EXTENSIBLES
❖ CO2 REVOLUTION
❖ FUNDACIÓN LABORAL DE LA CONSTRUCCIÓN
❖ GREENDUR
❖ GREENTECH
❖ INBIOT
❖ KUNAK
❖ NUCAPS
❖ TRACASA GLOBAL
❖ VALSAY
Enabling organisations

ENABLERS AND FAVOURABLE SYSTEM CONDITIONS
### Background and business model

BIKE INNOVATIONS S.L. has developed RAYLAP innovative springy cranks for bikes to foster sustainable urban mobility. RAYLAP patented "extendable cranks" increase the human force produced by 30-35% compared to traditional cranks. This improvement could encourage all kinds of people to cycle with the corresponding healthy, mobility and environmental benefits, also addressed to people with disabilities or reduced mobility promoting a sustainable transport model. RAYLAP can be implemented in any type of bike, so it is also useful for any company that uses bikes in urban transport or logistic services.

### Positive environmental impact

- **BIKE INNOVATIONS** aims to promote cycling in cities, facilitating the use of bikes by decreasing the effort of the pedaling. The Commission's Green Paper "Towards a new culture for urban mobility" helped to raise political awareness regarding urban mobility and initiated a dialogue at European level. The paper also suggested that cycling should become an integral part of urban mobility policies.
- **EU** funds also support the development of new approaches to safe cycling in cities through CIVITAS, an EU initiative that helps cities to achieve a more sustainable, clean and energy-efficient urban transport system. More recently, the Horizon 2020 program is also supporting this strategy through the Smart, Green and Integrated Transport EU Challenge.

### Positive economic & social impact

- The massive manufacturing of this new extension cranks could:
  - boost the activity of existing manufacturers
  - enable the creation of new manufacturers
  - Reducing traffic problems.
  - Reducing pollution costs of pollutions for cities.
  - Improve the health of its citizens, with the corresponding savings in public budgets.
  - People with disabilities or reduced mobility, elderly will find easier to cycle reducing sedentary habits.
  - Applicable to bikes for disabled people.

### Business collaboration sought

- Bike producers that want to increase performance of their bike models.
- R&D project partnerships that want to test new Technologies for bikes.
- Cities and regions involved in the smart cities and sustainable mobility ecosystems boosting biking new solutions and local services.

### Key SDGs:

- #URBANMOBILITY
- #CITYCYCLING
- #CYCLING
- #CLIMATECHANGE
- #EUGREENDEAL

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CO2 Revolution is a company created from the idea of reforesting in a massive and sustainable way through a low-cost and Artificial Intelligent (AI) based system. The selected territories are reforested in two ways: (1) by using drones and pre-germinated seeds (iSeed); or (2) by traditional means. The purpose of our reforestation is to prevent the climate change and create a better world. After reforesting, CO2 Revolution sells its carbon rights to enterprises that want to reduce their carbon footprint, becoming an enabler of emission compensation. Moreover, CO2 Revolution calculates its clients’ carbon footprint. 

CO2 Revolution is among the 100 best startups in the world selected by South Summit and it was awarded in the third edition with the prize to the Revelation Company by Vocento.

Background and business model

Positive environmental impact

- Creating complete ecosystems promoting biodiversity.
- Biodiversity: (1) creates ecosystems that increasingly approximate those found in nature; (2) stabilizes ecological systems; (3) avoids irreversible collapse in the event of drought or fire; (4) restores ecosystems after a natural fire; (5) protects and fixes the soil against erosion; (6) regulates the water cycle; and (7) reduces extreme temperature changes.
- The growth of forest stands is responsible for the highest percentage of atmospheric CO2 absorption.
- CO2 Revolution prevents global warming and the greenhouse effect, creating a healthier world for future generations.
- CO2 Revolution creates complete ecosystems, including trees, grasses, shrubs, bushes and flowers.

Positive economic & social impact

- CO2 emissions pollute the air, harming people's health, comfort and mental performance.
- Forests are sources of biodiversity as they are home to about 80% of the world's terrestrial biodiversity, cover one third of the earth's land surface and play a fundamental role in the life of the planet. Forests and other wooded areas are composed of more than 60,000 tree species. In addition, more than one billion people depend directly on forests for food, shelter, energy and income.
- Moreover, CO2 Revolution hires people at risk of social exclusion in collaboration with Red Cross and other non-profit organizations.
- About 20% of the world's carbon emissions are produced by changes in land use, most of which are due to deforestation.

Business collaboration sought

- CO2 Revolution seeks companies that want to improve their ESG strategy and develop a strong Climate Change Mitigation policy.
- National as well as international corporations interested in reducing their carbon footprint, offsetting CO2 emissions or willing to contribute to the development of reforestation projects around the world.
- Collaboration is open to small businesses as well as big firms as CO2 Revolution adapts its projects and line of work in order to achieve all kinds of environmental goals.

Key SDGs

www.co2revolution.es

#environment #reforestation #carbonfootprint #climatechange #iSeed
Background and Business model

Fundación Laboral de la Construcción Navarra provides companies and employees alike the resources to be more professional, secure, qualified and with a more successful future ahead. The sector is increasingly more united and connected and works closer with society and the rest of sectors than ever before, to face the challenges of new times. The company guarantees services to workers and companies within the National Collective Agreement of the Construction Industry: vocational education and training, occupational health and safety and employment. The main goal of the company is to boost an innovative and sustainable construction industry, leading its transformation in the fields of employment, professional qualification, health and safety.

Positive environmental impact

• Developing a circular economy strategy to improve the use of construction and demolition waste CDW in construction.
• Increasing the efficiency by offering a quick decision-making tool regarding circular economy and circular value chain in construction.
• Valorisation of CDW under sustainable criteria, taking into consideration their life-cycle, and the responsible design of ‘zero-waste buildings’.
• Construction companies have ISO14001 certification that guarantees environmental aspects are addressed, evaluated and improved on a regular basis.

Positive economic & social impact

• Training and capacity building to develop environmental solutions that can generate local employment and help entrepreneurs to improve the future of their territories.
• Working in more than twenty projects all over Europe in order to improve the capacity building in the construction industry, creating a more efficient and productive sector.
• Improvement the efficiency in the sector and the implementation of sustainable materials.
• Bio-based solutions for construction, and the revalorisation and reuse of materials.
• Reduction of contamination and pollution related to local management of CDWs.
• Healthier and more sustainable buildings and living areas.
• Dissemination and training the construction industry members in new building processes, new materials, new sustainable solutions and new technologies.

Business collaboration sought

• Collaboration for improving and expanding services, especially with private companies that work on the new process, new technologies and new materials for the construction sector and that have experience in the analysing the life cycle.
• Public administrations and entrepreneurs with experience in circular economy and interest in developing environmental solutions in their locations: generation of employment and training and capability building.
• Participation in diverse European interregional projects.

Key SDGs

www.fundacionlaboral.org

#FLCNAVARRA #ManagingTransition #CDWs #Energyefficiency #CircularConstruction
Greendur offers a turnkey technological solution, based on its own patented technology, which allows renewable energy to be combined with industrial processes. Greendur offers the construction of facilities that store thermal energy and return it, at a later time, in the form of thermal energy or other energy vectors. It allows to store surplus energy from renewable sources for times when there is no production, but consumption. The solution and service provided by Greendur allows industries to make greater use of renewable sources and reduce dependence on and the use of fossil fuels, by implementing the technology and offering services on maintenance and energy digital management digital tool.

<table>
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<th>Background and business model</th>
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<td>• Greendur offers an energy storage solution based on the use of non toxic thermal salts, with a use life of more than 20 years, for a one daily complete charge cycle of deep discharge (from 350°C to 20°C).</td>
<td>• Industries can reduce their non-renewable energy consumption, being able to use the storage renewable energy produced in their facilities.</td>
<td>• Looking for clients with food industry production processes, that want to reduce their non-renewable energy consumption through renewable energy self-production.</td>
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<td>• The salts can be re-used in other sectors when their energy storage power is exhausted.</td>
<td>• That offers a more resilient energy system in the industries, that based on the increasing price of external sourced energy makes a profitable investment in short period of ROI.</td>
<td>• Energy intensive industries that uses residual thermal or electricity for heating in industrial processes.</td>
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<td>• Greendur offers preventive maintenance services and updating and repair services to industrial clients. The equipment has been designed to be repaired and with modular components that enable repair and maintenance optimisation.</td>
<td>• The digitalized management services create additional reduction of energy consumption through efficiency in processing through artificial intelligence solutions.</td>
<td>• R&amp;D for evaluation of adaptation of Greendur solution to different industrial processes, renewable energy sourcing and thermal gradient needs.</td>
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<td>• Greendur has developed a management software, and end-users obtain a service that allows optimised energy management, based on the use of artificial intelligence, contributing to industries decarbonisation.</td>
<td>• The creation of local jobs for the implementation and adaptation of the technology to different industrial sectors.</td>
<td>• New technical profiles based on the storage solutions for renewable energy production.</td>
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Key SDGs:

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#energystorage #long-life products #renewableenergystorage #decarbonisation
Greentech is a start up that was born in 2020 with a great environmental vocation, especially in the correct management of the water needs of today’s society. Its main objective is the treatment and disinfection of all types of water, both industrial and for consumption.

Greentech eliminates the need to use chemical products and promotes the management and reuse of water, thus reducing consumption and the ecological footprint of clients. The innovative solutions, in addition to being sustainable, allow reducing the environmental impact. Proof of this is the recognition of the United Nations as SMEs by the SDGs of the 2030 Agenda.

• Elimination of water disinfection treatments with chemical products, especially biocides, which generate many harmful by-products for the environment and human beings, both in the manufacturing process and during use.
• Greentech system eliminates all use of chemical products, which eliminates environmental damage.
• In each project, an environmental impact study is carried out, in order to reduce the impact generated by the client’s technology.
• Positive environmental impacts can be measured by the m³ water per year that the client does not consume (both use and discharge) and the kg of CO₂ that he stops emitting into the atmosphere.
• Great water savings achieved: up to 90% in food industry processes and 70% in refrigeration processes.
• The requirements of the applied technology can be satisfied with green energy, achieving a zero emission’s impact of the treatment.
• Occupational risks are reduced, due to avoiding handling of chemical products, what drives to an elimination of chemical by-products dumped into rivers and seas.
• The Greentech technology enables a more efficient management of water through control and digitalisation of the circuit and processes.
• Greentech advocates for Km 0 products, they seek in local and regional companies the technology and knowledge necessary for our continuous expansion and training.

Looking for clients with food industry production processes, who want to take advantage of Greentech’s technology and thus achieve a notable improvement in their processes: greater productive efficiency, lower water consumption and elimination of the chemical products in the water treatment processes.

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#greentech #waterwithoutchem #watertreatment #agrofood #foodtech
Background and business model

inBiot has been housed in the CEIN Innovation Incubator facilities since its foundation in 2018. inBiot’s activity is focused on the design, development and manufacture of smart solutions for monitoring and improving indoor air quality, developing internally all phases of design, development and manufacturing, both hardware and software. inBiot has two clear objectives:
- Wellness: to improve well-being conditions and promote people’s health and performance
- Control: decision-making and proactive actions are encouraged thanks to real-time data monitoring and management, with proprietary technology that allows automated analysis of the indoor air quality evolution with an IoT communication structure.

Positive environmental impact

- Real-time monitoring of air quality and CO₂ allows significant energy and cost savings:
- Facilitate the control and implementation of demand-controlled ventilation systems.
- Set a standard for health leadership in indoor air and indoor environmental quality monitoring.
- Development of innovative technology to monitor indoors – any kind of occupied indoor space, such as schools, hospitals, office buildings, dwellings or theatres
- Comply with health and Sustainability certification requirements, such as WELL, LEED, BREAM, RESET...
- Improve energy efficiency in buildings and HVAC systems by real-time monitoring any indoor environmental.
- Comply with legislative requirements, promoting high efficiency ventilation system

Positive economic & social impact

- inBiot’s solutions add value, security and peace of mind to company’s clients, workers and staff by showing the healthiness of the space, which has a direct impact on: encourage return-to-work, attract and retain talent or reduce complaints and sick days
- The offered solution provides at-a-glance control of the air quality of multiple spaces through a IoT platform you can view and manage historical and real-time air quality data to manage all the spaces and identify areas for improvement.
- Ensuring adequate air quality helps mitigate the effect of respiratory diseases, reducing absenteeism and promoting the well-being and comfort of staff.
- Indoor air quality control helps reduce the risk of virus transmission and prevent respiratory and allergic diseases

Business collaboration sought

- National and international partners for implementing and commercialising indoor air quality monitoring solutions, controlling HVAC systems or manufacturing purification solutions worldwide.
- Research and innovation centres looking for R+D Projects: health, Sustainability and energy efficiency topics and calls.
- SMEs and big companies looking for 360 solution for promoting health and energy efficiency indoors (buildings or transport)
- Building and Facility managers looking for IoT solution for IAQ monitoring and data visualisation.

Key SDGs:

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#IAQ #IEQ #IndoorAirQuality #IndoorEnvironmentalQuality #health #monitoring
Background and Business model
With clients in more than 30 countries and devices operating continuously in the 5 continents, Kunak is today a benchmark in technological development and innovation for environmental monitoring with an investment exceeding $3.5M in R&D and constant growth. We help businesses and organisations that need to monitor and control critical parameters in real-time, reduce costs, measure environmental impact and improve processes by providing accuracy, efficiency and economic benefits. We design and manufacture wireless monitoring and control systems, environmental instrumentation, sensor networks and operational intelligence that guarantee the proper transmission and exploitation of information and allow their integration into other systems.

Positive environmental impact
• Deployment of innovative technology to monitor air quality in urban applications, industrial perimeters & odours, ports & airports, works & demolitions, health, sports & open spaces, as well as research & consulting.
• Obtain actionable insights into city sustainable development by monitoring your city’s air quality.
• Comply with requirements by keeping track of the emissions and the ambient in works and demolitions.
• Control your processes with real time monitoring of diffuse and perimetral industrial emissions.
• Improve your operations with real-time intelligence by monitoring your environmental impact.
• Protect your health by monitoring with good accuracy and in real-time the air quality in public spaces.
• Carry out useful and accurate measurements for your studies with the best available technology.

Positive economic & social impact
• Provide with healthy and sustainable Urban Ecosystems based on the deployment of innovative technologies.
• Support in the operation of Low Emission Zones (LEZ) by means of monitoring the effectiveness of measures implemented and integration of Air Quality data into Intelligent Transport Systems (ITS).
• Deliver a Master Plan for the future Green Port with solutions with the highest potential for emission reduction at ports, focusing on CO₂ and noxious pollutant emissions (SO₂, NOx and particulates).
• Build a common culture of risk prevention and preparedness across Europe to encourage self-protection, safety and environmental protection.
• Building commitment at local, national and European levels and promote long-term sustainability.

Business collaboration sought
• Distributors of air quality sensing solutions worldwide.
• Municipalities working in smart and neutral emission cities.
• Research centres looking for new application and data visualization and software analysis for air quality control.
• Large infrastructures managers (e.g.,ports and airports) interested in monitoring air quality caused by their activities.
• Industries, waste and water treatment plants, responsible for outdoor air pollution measures.

Key SDGs:
Kunak Technologies belongs to the value chain of Sustainable Industry, Innovation and Infrastructure Development, a group of companies that promote the achievement of the Sustainable Development Goals (SDGs). In this document, contribute to other SDGs.

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#AirQuality #GreenTech #SmartCities #AirMonitoring #sensor #pollution
Background and Business model

Nucaps is an international biotechnology company that designs and manufactures Health Inside functional ingredients: microencapsulated bioactives and probiotics with natural proteins. Nucaps improves people’s nutrition and health by producing better foods, supplements and pharmaceuticals by making bioactive ingredients stable, easily absorbed, healthful and natural. Microencapsulation will contribute to the nutrition of the future, as a natural solution to increase the stability of nutritional products, mask unpleasant tastes and odours, and achieve a greater effect on the quality of diet and human health.

Positive environmental impact

- Solutions to challenges in the agri-food sector:
  - Crop Improvements: Reduce the use of chemical fertilisers and pesticides, increasing natural products: encapsulated in biodegradable and eco-friendly proteins.
  - Sustainability: Valorisation of biocomposites obtained from plant by-products generated in the production process, such as polyphenols, antioxidants, fibers, proteins, plant extracts and oils, nutrients, etc. and convert them into food ingredients and nutraceuticals with high added value.
  - Reduction of emissions with a clean, efficient and low-impact production technology
  - Reduction of the use of chemicals and drugs in livestock intended for human consumption.

Positive economic & social impact

- Improvements in health and sustainability
- The social impact generated by Nucaps is as a technological and scientific enabler to improve people's access to nutrients and increase the efficiency of their production.
- How are these ingredients manufactured is also consistent with the social mission, due to the fact that Nucaps capsules do not include additives, preservatives or synthetic substances. They are organic, biodegradable and sustainable. No sugars, lipids, plastics, or synthetic materials are used, only natural proteins.
- The indicators of social impact identified by Nucaps are impact proxies, which try to quantify health improvement in people that have used products that contain these ingredients.

Business collaboration sought

- Collaboration can be:
  - At a commercial level
  - Search for suppliers of certain materials or services
  - Partners for European or international R&D&I
  - Search for specific technology linked to the improvement of circularity in industrial processes.

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http://www.nucapsnanotechnology.com
#agritech #circularbioeconomy #smartfood #microencapsulation
Tracasa Global, strongly committed to the development of innovative solutions for the sustainability and security of our society, provides services in cartography, data management and territorial information systems for public administrations and private companies. Two examples of this activity are the works with the European Environment Agency (EEA) and DG Environment to collect, design and disseminate environmental data from 38 countries, and the project "European Air Quality Index", which enhances the system that manages up-to-date data in the context of AQ forecasts provided by the Copernicus Atmosphere Monitoring Service (CAMS).

Background and business model

Tracasa Global

Positive environmental impact

- Increase general public awareness on environmental matters.
- Provision of technical support to be used as basis for decision making in the frame of air pollution effects on European population wellbeing. According to EEA reports, air pollution (PM2.5) caused the premature death of an estimated 400,000 Europeans in 2014.
- Our company has the ISO14001 certification that guarantees that the environmental aspects that affect the company are addressed, evaluated and improved permanently.
- We offer consultancy services in key areas for sustainability, e.g. agricultural engineering, hydrology, soil science, urban planning, environmental risk models (floods, fires, etc).

Positive economic & social impact

- Improvement of the local air quality.
- Development of environmental solutions can lead, over time, to significant savings in domains such as health (air pollution effects on European population), fuel consumption (mobility, transportation) and others.
- Rethinking city design by increasing the number of green areas, intensifying the use of public transport and the use of bicycles.
- Contribution to the long term improvement of the population’s health condition.
- Design, evolution, development and maintenance of advanced solutions and corporate information systems for the public administration.
- Local employment generation and talent attraction.
- Support to entrepreneurs to improve the future of their territories.

Business collaboration sought

- Collaboration with companies that work on the Information Technology sector and that have experience in the fields of Big Data, AI and visualisation tools.
- Organisations interested in using air quality data to develop environmental solutions in their locations.
- Projects regarding climate change mitigation and circular public procurement.

Key SDGs

- #TracasaGlobal
- #GeospatialData
- #Sustainability
- #AirQualityIndex
- #ManagingTransition

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www.tracasa.es
Valsay offers innovative and environmentally friendly solutions in the packaging sector. The company adds long-term value not only for its customers but also for employees and society. Valsay offers customised solutions for optimising the packaging needs of different sectors, implementing eco-design methodologies, always looking for an effective and efficient use of material. Valsay’s catalogue offers large number of compostable products (that are certified by external parties) and is implementing reverse logistics services for reusable and returnable packaging, avoiding single use materials as much as possible. Valsay also offers packaging technologies as a service and used equipment recovered from clients for secondary use under redistribution services.

- Environmental-friendly portfolio of products, that are certified under biodegradable and compostable standards.
- Line of returnable reusable plastics is offered to industrial clients.
- Materials with high percentage of recycled plastic in foam profiles, bags and bubble wrap.
- Products made of paper has the FSC seal and PECF certificate.
- Customised studies for the industrial clients in order to reduce their carbon footprint associated to the packaging solution.

- Offering the packaging equipment as a service for industries, including maintenance and repair services. Renting, leasing and pay per use packaging equipment.
- Creating value from reuse and redistribution.
- Leading the returnable solutions proposals in the industrial packaging needs is creating a mindset change and a new demand of returnable services.
- This new approach to packaging solutions is positively engaging participants and applications in other areas and packaging needs of the companies.
- Creating involvement and commitment amongst our workers and of the clients’ companies of the need of optimizing management of packaging and increase participation in returnable packaging solutions.

- Companies, organizations and industrial associations that want to be involved in circularity and sustainability packaging processes and products development projects.
- Interested in B2B and B2C agreements for the identification of the most appropriate sustainable solutions in packaging processes, including primary, secondary and tertiary packaging needs for all types of industrial sectors.
- R&D partnership working in the digitalization for circularity at packaging services and products.

**Key SDGs**

- #ReusablePackaging
- #RethinkingPackaging
- #CompostablePackaging
- #PlasticsStrategy
- #PackagingChallenge

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