CIRCULAR NAVARRE CATALOGUE

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

October 2020

Developed by ain
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Navarre and the circular economy
Three key strategic axis for circularity

S3N Plan

Navarre includes the Circular Economy as a key opportunity for the region in the S3 strategy.

Promotion of the bioeconomy and circular economy, taking advantage of knowledge in agri-food, energy efficiency and management waste and resources.
Sourcing of renewable and secondary raw materials and energy for sustainable industry and construction sectors.

ECNA2030

The Navarrese Circular Economy Agenda.

Includes 4 key strategies:
(1) Acting in key areas/products more strategic and relevant.
(2) Adopting Circular Economy principles under a broad approach.
(3) Aligning policies and economic resources.
(4) Advancing in an inclusive governance.

Key regulatory and policies framework supporting CE:
- Fiscal instruments Green vouchers-taxation on landfilling goes to CE projects (Waste Law)
- KLINA Climate Change Roadmap and the new Climate Change and Energy Transition Law
- Regional Industry Plan 2020
- Regional Energy Plan 2020
- Science, Technology and Innovation Plan 2030
- Rural development programme
- Social Economy Plan
- Water Strategy in Navarre
- Forestry Plan
- Sustainable Mobility Plan

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.
The Government of Navarre leads and participates in European projects related to the implementation and the enhancing of resources circularity.

Several private and public organisations in Navarre are taking part actively in European projects linked to the implementation of Circular Economy principles through different types of programmes.

Key European projects on Circular Economy of Government of Navarre

- **SCREEN**
  - [https://www.screen-lab.eu](https://www.screen-lab.eu)

- **LIFE NAdapta**
  - [https://lifenadapta.navarra.es](https://lifenadapta.navarra.es)

- **INTERREG EUROPE SME ORGANICS**
  - [https://www.interregeurope.eu/smeorganics/](https://www.interregeurope.eu/smeorganics/)

- **INTERREG EUROPE LCA4REGIONS**
  - [https://www.interregeurope.eu/lca4regions/](https://www.interregeurope.eu/lca4regions/)

- **EUROPEAN EFIDISTRICT PROJECT**
  - [https://www.efidistrict.eu/efidistrict-fwd/](https://www.efidistrict.eu/efidistrict-fwd/)
The aim of this catalogue is to present and offer European collaboration opportunities for R&D and commercialisation of some circular business model from Navarre.

Navarre has

- the 3rd highest GDP per capita in Spain, and an own taxation system.
- a long European tradition, and a socially and territorially cohesive, healthy, sustainable, industrial and competitive culture.
- 20% of the energy consumption and more than 80% of the electricity generated from renewable energies.

Participant companies are looking for:

1. Cooperation with European networks and platforms related to the Green Deal implementation.
2. Consortiums and partners for the Horizon2020 Green Deal call.
3. New private investors.
4. Business collaborations for scaling-up their business models.
5. Opportunities for entering new markets.
02 The circular economy concepts
02. THE CIRCULAR ECONOMY CONCEPT

CIRCULAR ECONOMY

A regenerative economic system

**Principle 1**
Preserve and enhance natural capital

Preserve by controlling finite resource for the technological sphere-with a material stock management. Enhance by balancing renewable resource flows in the biological cycle-Biosphere-by a renewable flow management.

**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 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 to that other user can buy it in the second-hand market.

Reuse can include the replacing or repairing major components that are faulty or close to failure, and making “cosmetic” 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.

Technological cycles

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

Source: Ellen MacArthur Foundation
02. THE CIRCULAR ECONOMY CONCEPT

Cascading of components and materials
Using discarded materials from one value chain as by-products, replacing virgin material inflow in another. The value creation potential is rooted in the fact that the marginal costs of repurposing the cascading material are lower than the cost of virgin material.

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-volumen but high-value chemical products, or low-value high-volumen 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.

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.

Source: Ellen MacArthur Foundation
How this catalogue uses CBMs

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

It enables the recognition of how companies create value and how this value is captured and distributed along the value chain.

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. Main value chain actors and stakeholders affected.

Source: Accenture in SITRA "CIRCULAR ECONOMY BUSINESS MODELS FOR THE MANUFACTURING INDUSTRY 19.9.2019"
Enabling organisation

This catalogue includes other organisations that, though not being considered examples as Circular Business Models as such, offer products and services that enable others to start or to manage their transition to more circular business.

That includes new industrial technologies that allow more efficient processes or those that ease environmental data or controls for the transition monitoring, industrial packaging distributors that offer returnable solutions, educational centers working at sectorial level with circularity approaches and, of course, digitalisation solutions for a better decision making in the path to more circular business models.

Digitalisation

Digitalising the industrial processes enables a more accurate decision making on which type of materials use, how to define the optime 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 quality air, water and soil 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 reintroduces 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
How this catalogue works
Reading guide

The catalogue includes 20 organisations description. It is only an initial selection of companies located in the Navarre region, many others could be also included here or may be included in future editions.

The information gathered shows the key aspects of the organisation’s business model, included the identification of the circular business model where the company works and the cycle where the company is creating value (technical and biological). It also includes descriptions of enabling organisations that offer services or products that help others to become more circular.

A specific description of the interests of the company in the R&D is presented, mainly focused on the Horizon 2020 Green Deal call with the identification of topics of interests and type of partners sought. Other business collaborations are also included.

Additional information about the sustainability profile of the company, including a description of social, environmental and economic positive impacts and how the value is created, capture and distributed amongst the value chain is included.

A slight description of the previous experience in European projects and the international activity of the organisation is also included.
Navarrese organisations in the circular economy
Navarrese organisations in the circular economy

ORGANISATIONS IN THE TECHNOLOGICAL CYCLE
- PLASTIC REPAIR SYSTEM
- LIZARTE
- TRAPEROS DE EMAÚS NAVARRA
- DVELAS LIVING SAILS
- BEEPLANET FACTORY
- SOLTECO MADERA PLÁSTICA

ORGANISATIONS IN THE BIOLOGICAL CYCLE
ENABLING ORGANISATIONS
INDUSTRIAL REPAIR OF RETURNABLE TRANSPORT PLASTIC PACKAGING

PLASTIC CAN BE REPAIRED

SAVING 70% VS. REPLACEMENT

182 times less CO₂ than RECYCLING

≥98% OF THE ORIGINAL RESISTANCE

100% FUNCTIONALITY

PRODUCT LIFE EXTENSION
PLASTIC REPAIR SYSTEM

DESCRIPTION OF BUSINESS MODEL
Plastic Repair System (PRS) offers a repair service of returnable/reusable plastic items made of PE & PP. 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 220 times less CO₂ emissions.

BACKGROUND OF THE COMPANY
Founded in 2011, the business case in repairing plastics was visionary. It was initially focused on waste containers and grew gradually becoming currently a highly demand service by different industrial sectors mainly Pooling, Food and Automotive industry.

LOCATION
Headquarters in Navarra and a network of national and international (Mexico) workshops (rural and urban areas)

FUNDING
100% Private funds

CURRENT MARKET
1,800,000 €

EXPECTING GROWTH
30% yearly

LOCATION CE-VALUE CHAIN
Repairing service for industrial plastic items

INTERESTING #EUGREENDEAL TOPICS:
▪ Area 3: Industry for a clean and circular Economy.
  ➢ LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.

CONTENTS:
▪ Development of new repair processes for special industrial plastic items.
▪ Automatisation processes for repairing services.
▪ Digitalisation and traceability of plastic repairs.

POTENTIAL PARTNERS SOUGHT:
▪ Large companies of different sectors owner of plastic items.
▪ Pooling sector.
▪ RD centers working on plastic traceability.
▪ RD centers working on digitalization and automatization of labor-intensive processes.

#RepairingIsBetterThanRecycling #RepairMeansSaving #CircularEconomy #PlasticRepair

www.plasticrepair.es
PLASTIC REPAIR SYSTEM 2011, S.L

GREEN DEAL COMPLIANCE

Achieving Climate Neutrality 2050
Clean, reliable and affordable energy
Efficiency in the use of energy and renewable energies in buildings
Sustainable Transport
“From Fam to Fork” healthy food and short circuit systems
Preserving Europe’s natural capital
A zero pollution Europe- clean air and water, sustainable use of chemicals

<table>
<thead>
<tr>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Extension of plastic items life cycle</td>
<td>• The repair service offers a cost reduction of approx. 70% avoiding the purchase of new items.</td>
<td>• High labor-intensive process creating local employment.</td>
</tr>
<tr>
<td>• Radically reduction of industrial plastic items waste, enabling the improvement in LCA of companies.</td>
<td>• Growing potential and scaling-up internationally.</td>
<td>• Working and collaborating with special employment centers as members of the workshops Network.</td>
</tr>
<tr>
<td>• Important reduction of new plastic items production needs, reducing the greenhouse gas emissions.</td>
<td>• One designed process and technology for optimization of process.</td>
<td>• Training and building capacities for new employments.</td>
</tr>
<tr>
<td>• Enabling the repair of items by welding and replacing parts, reducing waste generation.</td>
<td>• Growing market even during economical crisis.</td>
<td>• Scaling-up process, creating employment in other locations worldwide.</td>
</tr>
</tbody>
</table>

VALUE OFFERED ALONG THE VALUE CHAIN

CUSTOMERS
- Automotive industry
- Food industry
- Pooling sector
- Other industry sectors
- Municipalities and public entities
- Sport & leisure

PROVIDERS
N/A

RD CENTERS, GOVERNMENT
- Governments And Public Authorities

VALUE OFFERED
- Repairing service for their plastics items:
  - Pallets, crates, boxes, etc, used for packaging or storage, for different industrial sectors.
  - Canoes, sport boats, playgrounds, street furniture, objects of sports facilities, etc. in the field of leisure and sport.
  - Containers used in the collection of Municipal Solid Waste.

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TYPE OF CALLS INTEREST
- EIC Accelerator
- EIC Fast Track to Innovation
- H2020 and Horizon Europe
- Digital Europe

COLLABORATIONS SOUGHT
- Looking for new repair workshops in Europe and other countries.
- R&D Project partners for automation and industry 4.0.

EUROPEAN PROJECT EXPERIENCE
- H2020- SME Instrument Phase I
- H2020- SME Instrument Phase II

REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION
- SME of the year in Navarre-2019.
- Social Responsible SMEs in Navarre 2019 recognition.
- International networking:
  - @Lean&Green international Platform

VALUE OFFERED
- Positive environmental impact
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LIZARTE

Automotive Sector

PRODUCT LIFE EXTENSION
DESCRIPTION OF BUSINESS MODEL
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%). In addition, remanufacturing products enables the revalue of all the innovation, materials and energy embedded in these spare parts and therefore avoids energy and materials consumption in the production of new parts, reducing emissions to air and water.

BACKGROUND OF THE COMPANY
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). The mission of Lizarte is to offer high levels of quality and availability in the automotive aftermarket sector. The vision is to be recognized as reference supplier for the leading distributors of parts for providing high-quality solutions, in terms of product quality, availability and service in our strategic markets.

LOCATION Urban area. Company located in an industrial area in the center of Pamplona (Navarra).

FUNDING Private funds. Second generation family business. 100% of the property in the hands of the founder's son.
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 pieces a second life.

The reutilization of the pieces is also a way to harness the energy already used to manufacture the pieces the first time.

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.

• B2B. Auto Parts Distributors

• Owners of cores from scrapyards

• University of Navarre, Navarrese automotive Cluster (ACAN), Navarrese Industrial engineering association (FIN)

• One of the best product ranges of the market, with great quality and aftersales technical service.

• The remanufacturing process transforms the scrap from cars into new high value-added spare parts for the car repair sector, giving a long-lasting new life to the car components.

• We have our own R&D electronics department who collaborates with various RD centers and Universities with the aim of being updated of the state of the art of the latest technologies that are finally integrated in our reman products.

• Publicize remanufacturing in the automotive aftermarket sector.

• Generation of a reman guarantee seal with EU endorsement.

• Search for financing and tax aid for participating in the Circular Economy

All those companies in the automotive sector that seek to integrate and remanufactured vehicle parts into their value chain:

• Reception and storage of cores

• Dismantling

• Component cleaning

• Component recovery

• Product assembly

• Test bench unit verification

• Painting and boxing

Car manufacturers, automotive clusters and regional authorities boosting remanufacturing.

• Members of the European Remanufacturing Council

https://www.remanncouncil.eu
TRAPEROS DE EMAÚS NAVARRA

Repaired & Reused Distribution

PRODUCT LIFE EXTENSION
TRAPEROS DE EMAÚS NAVARRA

DESCRIPTION
Traperos is a group of more than 250 people who prioritizes taking in people with difficulties and fight for a more fair and supportive world. The organisation’s value creation is based on the prevention, selective collection, preparation for reuse and recycling of products that are sold as second hand in their shops. Traperos is an organisation of the Social and Solidarity Economy with equitatives salaries.

BACKGROUND OF THE COMPANY
With 48 years of history, Traperos was born as a workcamp for volunteers that in 1978 become its first Community in Navarre. In 1981 they participated in the first waste Selective Collection Project and in 1984 a first agreement with Pamplona city council was signed. Nowadays, 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, prioritizing door-to-door home collection systems that enables a greater reuse ratio and more quality of reuse processes.

LOCATION
City area but offering collection service to almost all rural areas of Navarre.

FUNDING
Private founds. Incomes generated through services offered to municipalities and sales in second-hand shops.

PRODUCTS REUSED
11,000 tons/year

NUMBER SHOPS
7 (2nd hand) & 2 (repair shops)

LOCATION CE-VALUE CHAIN
Refurbishing and redistributing

INTERESTING #EUGREENDEAL TOPICS:
▪ Area 3: Industry for a clean and circular Economy
➢ LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.

CONTENTS:
▪ Improving preparation for reuse and recycling processes for products and materials.

POTENTIAL PARTNERS SOUGHT:
▪ Social and solidarity organisations or companies that are dedicated to the prevention and recovery techniques.
▪ Municipalities and regions
▪ Textile and furniture sector’s stakeholders willing to test recovery and repair processes or door-to-door collection systems.
TRAPEROS DE EMAÚS NAVARRA

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Value Offered along the Value Chain

<table>
<thead>
<tr>
<th>TYPE OF CALLS INTEREST</th>
<th>COLLABORATIONS SOUGHT</th>
<th>PARTNERS SOUGHT</th>
<th>REFERENCES IN THE MARKET- INTERNATIONAL RECOGNITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• H2020 Green Deal call</td>
<td>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 that are the refused materials in their process.</td>
<td>Universities, Social and solidarity organisations</td>
<td>• Permanent participation in the international Emaus Network (<a href="http://www.emaus-international.org">www.emaus-international.org</a>) and in REUSE Network (<a href="http://www.reuse.org)%E2%80%93">www.reuse.org)–</a> European SocialSolidarityEconomy Network for reuse and recycling.</td>
</tr>
<tr>
<td>• Circular Economy</td>
<td>Pilot testing of recovery systems and revalorization processes of different types of products (including furniture, books, textiles or electronics)</td>
<td>Companies</td>
<td>• Navarrese Solidarity Award 2019</td>
</tr>
<tr>
<td>• International cooperation</td>
<td></td>
<td>Waste managers and waste management Systems.</td>
<td>• AERESS Special Jury Award 2011 for the Waste Watcher Awareness Campaign.</td>
</tr>
<tr>
<td>• Life programme</td>
<td></td>
<td>Industrial sectorial clusters: electrodomestics, textile, furniture,</td>
<td></td>
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<tr>
<td>• Interreg programme</td>
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<td>• EaSI programme</td>
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<tr>
<td>• ESF programme</td>
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</tbody>
</table>

Value offered

- Selective collection service, prepare for reuse and recycling of waste
- Door-to-door collection service (domestic) that guarantees more than 80% of recovering (including reuse and recycling), avoiding visual impact in public thoroughfare.

Value offered

- User-friendly quality service (domiciliary collection), generating awareness and public engagement and a responsible attitude towards waste management and generation and sharing economy (what is not longer useful for me will be for others).

The repair and second hand centers are recognised as infrastructures in the waste management system in the Navarre Waste Integrated Plan and are references of the circular Economy at regional level.

Key Agents

- Municipalities and municipalities groups
- Waste managers
- SCRAPS
- Citizens-consumers/users

Value Offered

- With the recovery of products, in addition to employment and waste management other social impacts are achieved.
- Creation of 250 employees 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 with the principle of the Social and Solidarity Economy: importance of people, equity, justice, solidarity and environment.
- The initiative of the Center for the preparation for reutilization and recycling located in Berriozar was declared a project of Regional Interest by the Navarre Parliament.

Green Deal Compliance

<table>
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<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
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</thead>
<tbody>
<tr>
<td>• 8,393,929 kg CO2 emission avoided yearly, related to the more than 10,000 tons of products and materials recovered, reused and/or recycled, avoiding landfilling.</td>
<td>• Quality of employment and wealth generation.</td>
<td>With the recovery of products, in addition to employment and waste management other social impacts are achieved.</td>
</tr>
<tr>
<td>• 645,882 kg CO2 emission generated yearly, related principally with the consumption of fossil fuels in vehicles (70.6%) and heating needs (21.1%).</td>
<td>• The 70% of the costs are related to labour costs.</td>
<td>Creation of 250 employees under labour contracts</td>
</tr>
<tr>
<td>• Part of the emission of the process is compensated with renewable energy consumption and own production in sites.</td>
<td>• 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.</td>
<td>Social and solidarity cohesion</td>
</tr>
<tr>
<td>• Plastics and textile materials that can not be revalorised are sent to recycling.</td>
<td>• Wage equity amongst all employers.</td>
<td>Social utility: 2nd hand essential goods are affordable for people and groups with low purchasing power.</td>
</tr>
<tr>
<td>• Active yearly participation in the EWWW European Week of Waste Prevention.</td>
<td>• The company is always financially self-sufficient.</td>
<td>The labour reality is organised and carried out with the principle of the Social and Solidarity Economy: importance of people, equity, justice, solidarity and environment.</td>
</tr>
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With the recovery of products, in addition to employment and waste management other social impacts are achieved.
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Established in the Navarrese local government is the Circular Economy Programme that highlights the importance of supporting the role of social enterprises in the transition to a circular economy. "Social enterprises have great potential, with related activities, with reuse, repair and recycling…" It is estimated that for 1 ton of reused products between 140-300 jobs are generated compared to 6 jobs for 1 ton discharged.

A zero pollution Europe- clean air and water, sustainable use of chemicals

"From Fam to Fork" healthy food and short circuit systems

Preserving Europe’s natural capital

Sustainable Transport

Efficiency in the use of energy and renewable energies in buildings

Clean, reliable and affordable energy

Transition to a circular economy
DESCRIPTION OF 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. Boat sails gradually become deformed and deteriorate reaching a point where they are no longer useful for sailing. However, in many cases the fabric in the sail is still in excellent conditions. Based on the sails, Dvelas merges functionality and aesthetics to create a product that brings together design, comfort, beauty and emotion.

BACKGROUND OF THE COMPANY
DVELAS was founded in 2009 by Enrique Kahle who has an affinity for sailing and saw an opportunity for doing something different and at the same time, giving value to a product like old sails by transforming them into fashionable furniture. The idea came up 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.

LOCATION Pamplona city center (urban area)

FUNDING Private funds.

CURRENT MARKET 200.000 €
EXPECTED GROWTH 20% yearly
LOCATION CE-VALUE CHAIN Reuse of old sails for new uses

INTERESTING #EUGREENDEAL TOPICS:
▪ Area 3: Industry for a clean and circular economy
  ➢ LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.
▪ Area 4: Energy and resource efficient buildings
  ➢ LC-GD-4-1-2020: Building and renovating in an energy and resource efficient way.
▪ Area 5: Sustainable and eco urban.
  ➢ LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility.

CONTENTS:
▪ Innovation in new uses of reused sails (new products design).
▪ Development of new properties of reused sails (decontamination and air regeneration power).

POTENTIAL PARTNERS SOUGHT:
▪ Municipalities and regions.
▪ Urban y rural planning prescriptors, building renovations.
▪ Architects and landscapers.
▪ R&D centers and universities.

#ReuseDesign #CircularFashion #EcoArt #CircularDesign #CircularFurniture
DVELAS

VALUE CHAIN

VALUE OFFERED ALONG THE VALUE CHAIN

CUSTOMERS

• Regional Governments, City Councils
• Coast Departments, Natural Parks, Hotels, Private Clients
• Public Spaces
• Architects, landscapers and Deco Prescriptors

PROVIDERS

• Sailmakers
• Finish Wood Provider

RD CENTERS, GOVERNMENT

• University of Navarre
• Technological Centre Lurederra

KEY AGENTS

• Urban Furniture
• Exterior And Interior Decor
• High Quality Products Based On Long Lasting Materials

VALUE OFFERED

• The remanufacturing process transforms the fabric of the sails into a high value-added product (furniture), giving a long-lasting new life to the rejected fabric.

• Collaboration in the development of nanotechnology treatment will allow the sail to purify surrounding air, similar to plant photosynthesis.

TYPE OF CALLS INTEREST

• Circular Public Procurement
• Ports And Airports Construction And Renovation
• Hospitals, Schools And Universities Constructors
• Buildings Renovating
• Climate Change Mitigation

COLLABORATIONS SOUGHT

• Dvelas is interested in collaborating with architects, companies, governments, city councils and prescriptors that are aware of the importance and need to reuse raw materials and the implementation of a circular economy.
• The company wants their products to help countries that need to reduce hot spots. With dvelas it is possible to shade large public spaces, such as walkways, schools, offices and parking lots, gardens and nursing homes. But also offers solutions for rainy areas.
• Dvelas is an alternative for reducing heat through the design of shaded areas, with lower energy consumption and taking advantage of reused material.
• Dvelas already has experience in shading public spaces in extremely hot cities, like Dubai.

PARTNERS SOUGHT

• Architects And Prescriptors
• Regional and Municipalities and Public Spaces Managers
• Industries with Parking Lots

REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION

• 2020 Honorable Mention For The Smart Awnings System In The European Product Design Award.
• ICFF New York Editor’s Awards 2017- Outdoor Furniture
• A design Award In Textile, Fabric, Textures, Patterns And Cloth Design 2011-2012.

CONTACT DETAILS OF THE COMPANY

Address C/ Padre Calatayud 13 -31003 Pamplona Navarra Spain
General phone number +34 948 237091
Website: http://dvelas.com

CONTACT PERSON
Salvador Puig (sales manager)
+34 692 139562
Email: salvapuig@dvelas.com

Green Deal Compliance

<table>
<thead>
<tr>
<th>Achieving Climate Neutrality 2050</th>
<th>Clean, reliable and affordable energy</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean, reliable and affordable energy</td>
<td>Transition to a circular economy</td>
<td>X</td>
</tr>
<tr>
<td>Efficiency in the use of energy and renewable energies in buildings</td>
<td>Sustainable Transport</td>
<td></td>
</tr>
<tr>
<td>Sustainable Transport</td>
<td>“From Fam to Fork” healthy food and short circuit systems</td>
<td></td>
</tr>
<tr>
<td>Preserving Europe’s natural capital</td>
<td>A zero pollution Europe- clean air and water, sustainable use of chemicals</td>
<td></td>
</tr>
</tbody>
</table>

Positive environmental impact

• Using rejected or non-recyclable fabric, as a raw material, avoiding incineration or landfilling.
• The remanufacturing process transforms the no 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 applicable to some parts of the world because of climate change 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, similar to plant photosynthesis.

Positive economic impact

• Dvelas follows a circular economy business model in which sails that were going to be incinerated or are buried in landfills are transformed into high-quality stylish furniture.
• The material/fabric from which the sail is made is very resistant and waterproof. The excellent quality of the fabric allows the company to create furniture with the reused material, this avoiding the need to manufacture new ones. The process of creating new fabrics or new textile is highly polluting and expensive. Dvelas not only avoids this, but also manages to reduce production costs.
• 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.

Positive social impact

• The company’s workforce is made up of 80% women.
• Dvelas believes in the regional development and the reduction of the waste created by our society. 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.
• Dvelas hires the services of Animet in Tudela, a social company that works on the insertion of disabled people.
BEEPLANET FACTORY

EV-Battery Refurbish

PRODUCT LIFE EXTENSION
BEEPLANET FACTORY

DESCRIPTION OF BUSINESS MODEL

BeePlanet Factory designs and manufactures sustainable second life batteries. At the end of their original application in the EV, 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, analyzes, develops and implements different applications to re-introduce electric vehicle batteries to the market as stationary energy storage. The company’s engineering and logistics team takes care of the entire process: from the battery removal until he has a new life. Later, BeePlanet ensures that all batteries are recycled properly. The company is member of the EBA250, BatteryPlat, ETIP-SNET and Futurred.

BACKGROUND OF THE COMPANY

BeePlanet was founded in 2018 by three engineers with a clear mission: create a sustainable energy model for our planet. The company leads the integral value chain management of 2nd life batteries coming from Electric Vehicles. BeePlanet connect companies in projects that involve strategic collaborations related to energy storage and renewable energies.

LOCATION Pamplona region (City area)

FUNDING 3 private founders, 1 company and EIT Innoenergy. Public co-funding for R&D projects.

CURRENT MARKET 200,000 €

EXPECTING GROWTH 30%/year

LOCATION CE-VALUE CHAIN Reuse of EV batterypack

INTERESTING #EUGREENDEAL TOPICS:
- Area 4: Energy and resource efficient buildings
  - LC-GD-4-1-2020: Building and renovating in an energy and resource efficient way.
- Area 5: Sustainable and eco urban.
  - LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility.

CONTENTS:
- Energy storage Systems (using second life batteries from electric vehicles)
- Smart Cities and positive energy neighbourhoods
- Sustainable and zero-emisión buildings, renewable energy storage
- Low-emission energy use in Green Airports and Ports

POTENTIAL PARTNERS SOUGHT:
- Municipalities and regions
- Urban y rural planning prescriptors, building renovations
- Architects and Landscapers
- Industrial applications of secondlife batteries
- R&D centers and universities

#SecondLifeBatteries #SustainableBatteries #EV Batteries Refurbish #Energy Storage
# BEEPLANET FACTORY

## Collaborations Sought

- **Achieving Climate Neutrality 2050**
  - Clean, reliable and affordable energy
  - Transition to a circular economy
- **Efficiency in the use of energy and renewable energies in buildings**
  - Sustainable Transport
  - Preserving Europe’s natural capital
  - A zero pollution Europe- clean air and water, sustainable use of chemicals

## Positive environmental impact

- Reuse of a potentially polluting residue that includes highly valuable materials which has the capacity to give energy for stationary and mobile applications for longer.
- Avoiding landfilling of a potentially contaminant product.
- Recovery of valuable raw material and the embedded value of the materials of EV Batteries.
- 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 impact

- More affordable and sustainable batteries for the clients.
- Revalorization of a residue avoiding the cost of the e-waste management and extending lifespan.
- Recovering the economic value of Critical Raw Materials- including complex and limited materials such as lithium, nickel, cobalt, copper, aluminum,... Participants of an Extended Producer Responsibility system, monetizing the cost of waste management.
- Manufacturing in Spain with highest standards of safety and quality at a competitive price.
- 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 2500-3000 cycles.

## Positive social impact

- Creating jobs in circular economy sector in Europe.
- Access to electrification solutions for neighborhoods and mobility solutions, avoiding CO2 emissions improving life and health quality.
- Democratizing the renewable energy storage options.
- Enables the storage of energy during the day for being used at night, for home uses, offering value to citizens.
- Energy service Independence, resilience solution and non external dependence of nonrenewable energy sources.
- Reduction of electricity bill, reducing energy poverty in Europe and developing countries.

## Value Offered Along the Value Chain

### CUSTOMERS

- B2B- Accredited installers for Home solutions, and large industrial and renewable sector.

### PROVIDERS

- OEM Automotive sector

### RD CENTERS, GOVERNMENT

- Universities, Regional Government, Innoenergy platform

### Key Agents

- BeeBattery®Home-Sustainable storage solutions based on 2nd life li-ion EV batteries.
- BeeBattery®Pack- Medium-scale storage for commercial and industrial sector, ensuring the power supplyBeeBattery.
- Distributors and Network of installers: qualified personnel and accredited installers.

### References in the market-International recognition

- Supported by EIT Innoenergy https://www.innoenergy.com/
- European Battery Alliance (EBA250) member https://www.eba250.com/
- International events participation: LATAM Mobility Summit 2019, Genera 2019, TBB2019

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**Value Chain**

![Value Chain Diagram](image-url)
SOLTECO MADERA PLÁSTICA, S.L.U.

DESCRIPTION OF BUSINESS MODEL

Solteco creates a 100% useful product using a no valuable residue (plastic waste) as raw material, avoiding burning it in a dump or landfilling, by transforming it into a not contaminating 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 mounting 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 life-cycle. It offers specifically a recycling solution for public authorities that cannot find other ways of plastic waste valorization and offering demonstration of valorization of waste with economic and social value.

BACKGROUND OF THE COMPANY

Solteco is a small company, born in 2001, specialized in the collection and processing of plastics. It has long experience in recycling techniques for achieving plastic wood products. It was founded by José Vicente Sainz and has two plants, in La Rioja and Navarre regions.

LOCATION Cintruénigo (Rural area) in Southern of Navarre region.

FUNDING 100% private founds. Public co-funding for R&D projects.

INTERESTING #EUGREENDEAL TOPICS:
- Area 3: Industry for a clean and circular Economy
  - LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.
- Area 4: Energy and resource efficient buildings
  - LC-GD-4-1-2020: Building and renovating in an energy and resource efficient way.
- Area 5: Sustainable and smart mobility
  - LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility.

CONTENT:
- Innovation in new uses of plastic wood (for agrifood, construction, etc), using different types of non valuable industrial and urban plastic waste

POTENTIAL PARTNERS SOUGHT:
- Municipalities and regions.
- Urban and rural planning prescriptors.
- Furniture designers and carpenters.
- Industries willing closed loop of own plastic flow, creating products from plastics byproducts.
**VALUE OFFERED ALONG THE VALUE CHAIN**

<table>
<thead>
<tr>
<th>KEY AGENTS</th>
<th>VALUE OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CUSTOMERS</strong></td>
<td>Urban furniture and public work, customized solutions offered, new products co-design.</td>
</tr>
<tr>
<td><strong>PROVIDERS</strong></td>
<td>Collection of non-recyclable plastics, avoiding incineration or landfilling.</td>
</tr>
<tr>
<td><strong>RD CENTERS, GOVERNMENT</strong></td>
<td>Collaboration in national and international research projects on recycling and biodegradation of plastics, sustainable plastics, revalorisation of waste into high added value materials.</td>
</tr>
</tbody>
</table>

**VALUE CHAIN**

<table>
<thead>
<tr>
<th>VALUE CHAIN</th>
<th>KEY AGENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CUSTOMERS</strong></td>
<td>Regional Governments, City Councils, Coast Departments, Public Works Departments, Natural Parks Managers, Employment Centers, Campings, Zoos, Horse Riding, Golf, Nautical Managers, Constructions Sector</td>
</tr>
<tr>
<td><strong>PROVIDERS</strong></td>
<td>Landfills managers (Spanish fcc, urbaser, saica, ferrovial, etc.), Industry, Farmers and breeders</td>
</tr>
<tr>
<td><strong>RD CENTERS, GOVERNMENT</strong></td>
<td>Technological Centers for new properties and applications design, Regional Governments for specific plastic waste valorisation, for collection plans strategies and products co-design.</td>
</tr>
</tbody>
</table>

**TYPE OF CALLS OF INTEREST**

<table>
<thead>
<tr>
<th>COLLABORATIONS SOUGHT</th>
<th>PARTNERS SOUGHT</th>
<th>REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIC Fast Track to Innovation</td>
<td>Proposal WOODAPROOF presented to HORIZON 2020.</td>
<td>Solteco is already offering their products to other countries: France, Italy, Malta, Portugal</td>
</tr>
<tr>
<td>Life Program</td>
<td>SME beneficiary of POCTEFA-ORHI support actions.</td>
<td></td>
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<tr>
<td>Horizon Europe</td>
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<tr>
<td>Plastic waste</td>
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<tr>
<td>Recycled plastic</td>
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<td></td>
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<tr>
<td>New materials</td>
<td></td>
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<tr>
<td>Design with plastic material</td>
<td></td>
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</tr>
<tr>
<td>Closing the cycle of plastics at regional level.</td>
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</tr>
<tr>
<td>Interest in scaling-up mainly in Spain but also new European markets.</td>
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</tr>
<tr>
<td>Looking for public administrations, companies or other organizations that are interested in improving their plastic waste management, making from plastic waste new long-lasting products.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public procurements for providing recycled furniture to the cities and make them more sustainable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood manufacturers that are interested in start working with a new and innovative plastic wood material.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New locations of the company in other regions and countries for plastic recycling solutions.</td>
<td></td>
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</tr>
</tbody>
</table>
Navarrese organisations in the circular economy

ORGANISATIONS IN THE TECHNOLOGICAL CYCLE

- ISANATUR- NUTRITION & HEALTH
- OLEOFAT TRADER
- TRASA
- JOSENEA BIO
- ELKARKIDE
- PVT- PAVIMENTOS DE TUDELA

ENABLING ORGANISATIONS
ISANATUR

DESCRIPTION OF BUSINESS MODEL
ISANATUR in-house facilities designs and produce functional ingredients obtained from organic olive milling under a patented (pharma grade) zero-waste process. Facilitate access to novel, natural and healthy ingredients at the best value. The production process is located in Navarre exploiting the full potential of OLIVES under ECOPROLIVE brand. Olive extract and olive phenol rich fibre are the key products (see www.ecoprolive.com) ideally used in dietary supplements and functional foods, providing disease prevention beyond their nutritive value (MICROBIOME)

Besides ISANATUR capacities with high tech processing including Reactors, bioreactors, SFE, PEF, vacuum drying, evaporator concentrator, spary drier pharma grade, besides purification processing can be used by third parties.

BACKGROUND OF THE COMPANY
Founded in 2012, leads since 2018 several developments and as a result launched to market in 2018 novel ingredients and products for nutritional food and feed applications. This development can be applied to several sectors

LOCATION: Puente la Reina (Rural area). Located in Western part of Navarre region.

FUNDING: 100% Private (Founders & Sales). Public cofunding for R&D.

CURRENT MARKET 500.000 €

EXPECTING GROWTH 10%/year

LOCATION CE-VALUE CHAIN
Ingredients for nutrition and health sector

INTERESTING #EUGREENDEAL TOPICS:
▪ Area 6: Farm to Fork (Area 3 & 8 in second place)
➢ LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm-to-Fork Strategy

CONTENTS:
▪ Searching for new uses of olive by-products:
  ▪ Microbiome
  ▪ Poliphenols
  ▪ Nutrition

POTENTIAL PARTNERS SOUGHT:
Any organisations interested in our technology or Ingredients related to:
▪ Pharma Industry
▪ Nutraceutical industry
▪ Cosmetic industry
▪ Food industry

#HealthyFood #ECOPROLIVE #EU_Farm2Fork #Biorefinery #OrganicIngredients #OliveByproducts
**ISANATUR**

**GREEN DEAL COMPLIANCE**
- Positive environmental impact: • Production process that uses no chemical additives or treatments and zero waste production. All byproducts are revalorized.
  • Oil extraction technology CO2supercritical that is very innovative, clean, and environmentally friendly, no fluids or emissions are generated.
- Positive economic impact: • Isanatur’s business model preserves the high value to all byproducts, so that each of them can be valuable valorized, and avoids waste management cost.
  • The products obtained are commercialized under the Ecoprolive brand with a high value projection and positive impact in health proved.
  • The Spanish oil production is the 44% of global production and the 62% of Europe.
- Positive social impact: • 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 also for people with heart or gastrointestinal diseases.
  • Health/cosmetic products addressed to sensitive skins, eczemas.

**VALUE OFFERED ALONG THE VALUE CHAIN**

<table>
<thead>
<tr>
<th>CUSTOMERS</th>
<th>KEY AGENTS</th>
<th>VALUE OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bakeries and other food industries that want to add high valued ingredients</td>
<td>• Offering high value products and high added value coming from an organic product and zero waste process (e.g. vegan hamburgers).</td>
<td></td>
</tr>
<tr>
<td>• Health industries the use oil in cosmetics and massages</td>
<td>• Olive oil obtained of different types, all of them extracted through low pressure processing.</td>
<td></td>
</tr>
<tr>
<td>• Large distributors for food and health/beauty sectors</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PROVIDERS</th>
<th>KEY AGENTS</th>
<th>VALUE OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Regional organic olive producers (short circuit)</td>
<td>• The technology used is CO2 supercritical extraction and looks for new processes and Technologies that enable the extraction of the most valuable products from olive, grapes and others.</td>
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<table>
<thead>
<tr>
<th>RD CENTERS, GOVERNMENT</th>
<th>KEY AGENTS</th>
<th>VALUE OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Research in new nutritional and health uses of olive byproducts for new food and health/beauty products.</td>
<td>• The current process has an European patent and the company is pioneer globally.</td>
<td></td>
</tr>
<tr>
<td>• Research in new extraction processes and technologies.</td>
<td>• The company is a startup incubator of agrifood innovations and has taken part in different European R&amp;D projects and is currently leading a BBI Project.</td>
<td></td>
</tr>
</tbody>
</table>

**TYPE OF CALLS INTEREST**
- EIC – Fast Track to Innovation
- H2020- Green Deal- From Farm to Fork
- Bio-Based Industries

**COLLABORATIONS SOUGHT**
- Investors and industrial partners that are able to offer capabilities and access to new markets or capital. The current growth potential of the company is very high, 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.
- Partners for European projects for new processing, patents registration, industrial development of process and products and high qualified staff.

**EUROPEAN PROJECT EXPERTISE**
- LIGNOXOS (H2020 FTI Pilot 2016), [https://lignoxos.eu/](https://lignoxos.eu/)
- UP4HEALTH (BBI H2020- 2020) [https://bibi-europe.eu/projects/up4health](https://bibi-europe.eu/projects/up4health)

**REFERENCES IN THE MARKET- INTERNATIONAL RECOGNITION**
- Nexxy Award in EXPO EAST 2019- Baltimore-USA (Best New Organic Food-finalist and Best New Condiment – winner)
OLEOFAT TRADER S.L

Energy sector

CIRCULAR SUPPLY CHAIN
OLEOFAT TRADER S.L

DESCRIPTION OF BUSINESS MODEL
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. OLEOFAT during these years has acquired participation in other companies: Ribera Vapor S.L. (Tanks wash) and TNO (TechNaturalOleo) company dedicated to the processing of oils and fats for the manufacture of HVO and the purification of vegetable glycerin. Currently OLEOFAT is developing projects with the aim of extracting active principles (tocopherols, sterols and squalene) from these fatty by-products from the agri-food industry.

BACKGROUND OF THE COMPANY
OLEOFAT is a family business created in 2013 by a group of people with experience in the biodiesel industry. It started its activity with a team of 6 people, currently it has a multidisciplinary team of 35 people. OLEOFAT saw the opportunity in the intermediate treatments of fatty by-products, on the one hand, to provide service to the industry that generates these by-products and, on the other, to facilitate the work of the biodiesel producer that requires a noble product for the generation of biofuel, so it is a very necessary link in the value chain.

LOCATION
Tudela (Rural area). Southern Navarre region.

FUNDING
100% Private funds. Public co-funding for R&D projects.

CURRENT MARKET
Biofuels in Europe

EXPECTING GROWTH
8%/year

LOCATION CE-VALUE CHAIN
Reuse of oil and fat by-products

INTERESTING #EUGREENDEAL TOPICS:

- Area 3: Industry for a clean and circular Economy
  - LC-GD-3-1-2020: Closing the industrial carbon cycle to combat climate change - Industrial feasibility of catalytic routes for sustainable alternatives to fossil resources

- Area 8: Zero-pollution, toxic free environment
  - LC-GD-8-1-2020: Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals

CONTENTS:

- Innovation in new uses of free fatty acids
- Innovation in new uses of tocopherols, sterols and squalene
- Development of new processes to purify of tocopherols, sterols and squalene from oils by-products.
- Development of new methods to water decontamination

POTENTIAL PARTNERS SOUGHT:

- Biodiesel companies
- Cosmetic industry
- Food industry
- Fertilizer industries
- R&D centers and universities

#Reuse #QualityControl #CascadeUse #Biodiesel #Fattyacids #Squalene #Sostenibility #ByproductsIntoEnergy

www.oleofat.es
**Oleofat S.L.**

**Green Deal Compliance**

<table>
<thead>
<tr>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050</td>
<td>Oleofat follows a circular economy business model in which valorizes waste and by-products from other companies.</td>
<td>Oleofat believes in the regional development and the reduction of the waste created by our society.</td>
</tr>
<tr>
<td>Clean, reliable and affordable energy</td>
<td>• Reuse of waste from the agri-food industry (Circular Economy).</td>
<td>What characterizes and differentiates Oleofat is their compromise with society and the environment. The company is constantly looking for ways to improve the industrial processes in order to reduce waste and improve the yield.</td>
</tr>
<tr>
<td>Transition to a circular economy</td>
<td>• Generation of biofuels to replace fossil fuels.</td>
<td>Oleofat is committed to research, collaborate with local research centers, improving the employability of the area and the knowledge.</td>
</tr>
<tr>
<td>Efficiency in the use of energy and</td>
<td>Oleofat's main product, oleins, have many uses and replace petroleum products.</td>
<td></td>
</tr>
</tbody>
</table>
| %
| Renewable Energies in Buildings | The new industrial processes developed by Oleofat are allowing to increase the company’s turnover. | |
| Sustainable Transport | | |
| “From Fam to Fork” healthy food and short circuit systems | | |
| Preserving Europe’s natural capital | | |
| A zero pollution Europe- clean air and water, sustainable use of chemicals | | |

**Value Offered Along the Value Chain**

<table>
<thead>
<tr>
<th>Key Agents</th>
<th>Value Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>- Biodiesel Industries</td>
</tr>
</tbody>
</table>
| Providers | - Agrifood Industries (Oil industry)  
- Biodiesel industry |
| R&D Centers, Government | - Technological Centre AIN – Navarra  
- Technological Centre CARTIF – Valladolid  
- Technological Centre FPCAD – Zaragoza  
- CSIC – Estación experimental Aula Dei e Instituto de la grasa - España |

**Type of Calls Interest**

<table>
<thead>
<tr>
<th>Collaborations Sought</th>
<th>Partners Sought</th>
<th>References in the Market-International Recognition</th>
</tr>
</thead>
</table>
| Oleofat is interested in collaborating 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. | Industries: Cosmetic, food, chemical, fertilizer, biodiesel, oleochemical.  
R&D centers and Universities. | No international projects yet. |

**Contact Details of the Company**

Address Polígono Industrial La Serna, Calle C-Nave 6.19 -31500 Tudela Spain  
General phone number +34 948 415887  
Website: http://oleofat.es  
Laura Sánchez Zamorano  
R&D Manager  
Email: l.sanchez@oleofat.es

**Value Chain**

- High Quality Products to manufacture biodiesel.  
The cascade process transforms oil and fat by-products in a raw material for biofuel production.  
Collaboration in the development of enzymatic processes that replacing chemical processes to reduce waste and to spend fewer chemical compounds aggressive to the environment.  
Looking for new uses for waste from industrial processes.  
Improvement of industrial processes to increase the yield of reactions

**Contact Person**

- Laura Sánchez Zamorano  
R&D Manager  
Email: l.sanchez@oleofat.es

**References in the Market-International Recognition**

- H2020 Green Deal Call: Climate Change Mitigation  
- BBI Bio-based Industries
DESCRIPTION OF BUSINESS MODEL
TRASA has access and manages food industry vegetable by-products, creating value by transforming their organic by-products into new products through different specialized business units (animal feed, energy, functional ingredients, agri-biologicals (biofertilizers, 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, minimization, recycling and valorization of vegetable by-products.

BACKGROUND OF THE COMPANY
Founded in 2007 and invested by 30 agri-food processing industries in Ebro Valley area, it seeks recovery options for the 130-150 K tons/year of vegetable by-products that it manages through different specialized business units. Currently animal feed business unit is operating at full capacity, developing different products for ruminant feeding. In addition, different specialized business units as functional ingredients, insects feeding, and agri-biologicals are in research or develop stages.

LOCATION
Headquarters in Milagro (Rural area), a small rural town and neuralgic center of the agri-food sector of vegetables processing.

FUNDING
100% private funds. Public co-funding for R&D projects.

CURRENT MARKET
1,600,000 €

EXPECTING GROWTH
15 %/ year

LOCATION CE-VALUE CHAIN
Cascade use of vegetable by-products

INTERESTING #EUGREENDEAL TOPICS:
- Area 3: Industry for a clean and circular Economy
  - LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.
- Area 6: Farm to Fork
  - LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm to Fork Strategy.

CONTENTS:
- Obtaining high added value compounds extracted from food processing by-products.
- Use of vegetable by-products as new alternative raw materials for animal feed, with a reduction of environmental footprint.
- Development and implementation of new technologies for obtaining bioenergy.
- Obtaining biofertilizers with a reduced environmental impact enabling natural capital regeneration.

POTENTIAL PARTNERS SOUGHT:
- Entities that provide economic capacity and technological knowledge.
- Innovation and research centers.
- Specialized organizations for the implementation of circular economy policies and tools.
**TRASA**

<table>
<thead>
<tr>
<th>Green Deal Compliance</th>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050</td>
<td>• Recovery, treatment and valorization of vegetable by-products, avoiding landfilling of food processing waste.</td>
<td>• Reducing waste management costs for agri-food industries</td>
<td>• Rural employment resilience.</td>
</tr>
<tr>
<td>Clean, reliable and affordable energy</td>
<td>• Regional resources for animal feeding, reducing greenhouse gases emissions in transport.</td>
<td>• Creating value from waste</td>
<td>• Healthier animals, healthier meat for food, positive impact on health.</td>
</tr>
<tr>
<td>Transition to a circular economy</td>
<td></td>
<td>• Animal feed at lower price and higher quality based on vegetable byproducts (From food processing).</td>
<td></td>
</tr>
<tr>
<td>Efficiency in the use of energy and renewable energies in buildings</td>
<td></td>
<td>• Creating economic value in rural areas.</td>
<td></td>
</tr>
<tr>
<td>Sustainable Transport</td>
<td></td>
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<td></td>
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**VALUE OFFERED ALONG THE VALUE CHAIN**

**CUSTOMERS**

- B2B- Animal feeding, farmers, animal cooperative, ruminant feed distributors.
- B2B- food additives, pharma labs, etc.

**PROVIDERS**

- Agri-food processing industries.
- Specialized nutritionist

**RD CENTERS, GOVERNMENT**

- Research Centers linked to agri-food sector and industrial solutions for the valorization of food by-products.
- Regional Governments looking for valuable solutions of the regional vegetable by-products.

**KEY AGENTS**

- Best quality of vegetable feed for ruminants, guarantee of healthy and equilibrated nutrients and low impacting products and processes (reduction of the environmental footprint of farms).
- Valuable extracts that can be used as food additives or pharma Ingredients.
- Trasa offers a solution to the agrifood companies acting as by-products manager collecting the organic by-products, mixing them and obtaining an animal feed solution by implementing a highly value fermentation process, that enables effective distribution to animal farmers.
- High quality extracts and compounds valuable as food additive or complements.
- Trasa leads and develops new R&D projects creating new companies based on the valorization of by-products with the extraction of high value components included in the food by-products from vegetables (such as broccoli).
- Managing networking between different organizations.

**TYPE OF CALLS INTEREST**

- BBI- Bio-Based Industries
- H2020- Green Deal
- From Farm to Fork
- Circular Economy
- Ecosystems and Biodiversity
- LIFE program
- ERAMUS +

**COLLABORATIONS SOUGHT**

- Economic and technical collaborations that allow the establishment of new Business cases focusing on the valorisation of agri-food by-products.
- Extraction of new valuable products from food processing by-products for nutrional and functional food or pharma/cosmetic sectors.
- Testing of Trasa feeding product and evaluating reduction of environmental footprint and nutrional improvement of animal production.
- Life Cycle Analysis and other circularity assessment tool pilot testing in feed sector.

**PARTNERS SOUGHT**

- Animal farms
- Technological centers willing to test extraction process and methodologies.
- Food industries looking for valuable solutions of by-products.
- Universities evaluating Trasa´s fertilisers natural regeneration impact

**REFERENCES IN THE MARKET-INTERNATIONAL REFERENCES**

- CarBio- CARbohydrate derived BIOpolymers
- ValBio
- ValSost+
- Bisostad
- BY-FEED
- INDUSOLIDFER
JOSENEA BIO

Food sector

CIRCULAR SUPPLY CHAIN
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, and the farm is energy self-sustainable thanks photovoltaic panels and a wind generator connected to a battery storage system. It’s a zero-waste farm with regeneration of soil thanks to own composting process of regional organic waste obtaining organic fertilizers. The farm, composting process and renewable energy facilities can be visited and wants to become 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, where social and natural capital regeneration will be evaluated and measured.

BACKGROUND OF THE COMPANY

Josenea is a non-profit organization with the purpose of working with and for people, in labor market exclusion risk. The activities carried out have a high social and environmental value recognized for the quality of its products, for the dignity of its workers and its economic sustainability. Josenea gives priority to people without forgetting nature, promoting ecological and eco-sustainable values, targeting social and natural regeneration.

LOCATION Lumbier (Rural Area) close to the Natural Reserve of “Foz de Lumbier”.

FUNDING Private funds with cesion for public land use.

INTERESTING #EUGREENDEAL TOPICS:
- Area 6: Farm to Fork
  - LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm to Fork Strategy
- Area 7: Ecosystems and Biodiversity
  - LC-GD-7-1-2020: Restoring biodiversity and ecosystem services

CONTENTS:
- Testing of new type of herbs, plants and treatments based on renewable energy and restoration of soil quality.
- Creation of a Rural Circular Living Lab and participation in an international networks.
- Exchange of practices, experiences and trainees and students.

POTENTIAL PARTNERS SOUGHT:
- Rural Circular Living Labs
- Technological centers
- Universities and training centers
- Municipalities and regional authorities
- Other companies

#EU_Farm2Fork #SocialRegeneration #SoilRegeneration #HealthyFood #RuralCircularLivingLab

www.joseneabio
## JOSENEA BIO

**JOSENEA BIO ASSOCIATION**  
Finca BIO Bordablanca- Camino Bordablanca s/n  
Lumbier Navarra, Spain +34 948 880 696  
Website: [http://josenea.bio](http://josenea.bio)

Mr. JESÚS CÍA  
General Director  
+34 667 431 178  
Email: jesus.cia@josenea.bio

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### Green Deal Compliance

<table>
<thead>
<tr>
<th>Achieving Climate Neutrality 2050</th>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
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</thead>
<tbody>
<tr>
<td>Clean, reliable and affordable energy</td>
<td>• Bordablanca farm is energy self-sufficient thanks to photovoltaics panels and wind generator connected to battery storage system.</td>
<td>• High quality products highly valued in international markets.</td>
<td>• Non-profit organization with the purpose of working with and for people, as a transition for workers who are in the process of labor insertion.</td>
</tr>
<tr>
<td>Transition to a circular economy</td>
<td>• 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.</td>
<td>• Regional rural employment for people under social exclusion risk.</td>
<td>• It works with people in social/labor exclusion risk using the creation of small business projects as a mean for employment creation.</td>
</tr>
<tr>
<td>Efficiency in the use of energy and renewable energies in buildings</td>
<td>• Zero Discharge- closed cycling of organic flows and rainwater.</td>
<td>• Rural organic farming activity and valorization of abandoned soils.</td>
<td>• Employment creation- 80 workers in rural areas.</td>
</tr>
<tr>
<td>Sustainable Transport</td>
<td>• Composting process (testing solutions and learning by doing) for biofertilizers production using organic waste collected from the farm and regional food companies, restaurants and organic fraction from different municipalities.</td>
<td>As a non-profit company configuration, the company reinvest all profits in the development of the social project.</td>
<td>• 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.</td>
</tr>
<tr>
<td>&quot;From Farm to Fork&quot; healthy food and short circuit systems</td>
<td></td>
<td></td>
<td>• People hired are derived from the Social Services and the Navarre Employment Services, in collaboration with the Government of Navarre.</td>
</tr>
<tr>
<td>Preserving Europe’s natural capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A zero pollution Europe- clean air and water, sustainable use of chemicals</td>
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</table>

### VALUE OFFERED ALONG THE VALUE CHAIN

<table>
<thead>
<tr>
<th>CUSTOMERS</th>
<th>PROVIDERS</th>
<th>RD CENTERS, GOVERNMENT</th>
</tr>
</thead>
</table>
| • Distributors of organic food, healthy products  
• Large retailers  
• Restaurants and collective catering services  
• Consumers of organic products | • Packaging providers | • Rural Circular Living Labs (RCLL)  
• Government of Navarre  
• Municipalities of the territory |

### VALUE OFFERED

<table>
<thead>
<tr>
<th>KEY AGENTS</th>
<th>COLLABORATIONS SOUGHT</th>
</tr>
</thead>
</table>
| • Organic certified products with social values.  
• Health prevention and dietary products | Partners for European projects in the development of:  
• a European Network of Rural Circular Living Labs.  
• Training programs linked to experimentation of circular bio-economy processes and eco-systems.  
• New circular products and services and managing transition.  
• Tourism packages and training programmes around rural circular living labs located in farms or parks.  
• Partners for the development of new processes and technologies for the extraction of high value products from organic herbs and fruits. |

### TYPE OF CALLS INTEREST

| • BBi- Bio-Based Industries  
• EIC – Fast Track to Innovation  
• H2020- Green Deal  
- From Farm to Fork  
- Circular Economy  
- Ecosystems and Biodiversity  
- LIFE program  
- ERAMUS + | COLLABORIZATIONS SOUGHT | PARTNERS SOUGHT | REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION |
|----------------|----------------|----------------|--------------------------------|
| | Partners for European projects in the development of:  
• a European Network of Rural Circular Living Labs.  
• Training programs linked to experimentation of circular bio-economy processes and eco-systems.  
• New circular products and services and managing transition.  
• Tourism packages and training programmes around rural circular living labs located in farms or parks.  
• Partners for the development of new processes and technologies for the extraction of high value products from organic herbs and fruits. | | • Cross of Charles III The Noble 2019, granting public recognition to people that contribute in an outstanding way to the progress of Navarre society.  
• Good practice recognition by the European Rural Development Network 2018.  
• Award “Lamio of the Year” 2018, for standing the values of solidarity, defense of the rural culture of Navarre, its inhabitants, workers and small businesses in rural areas. |

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![Image of JOSENEA BIO logo](https://example.com/josenea-bio-logo)
ELKARKIDE

DESCRIPTION OF BUSINESS MODEL

Elkarkide is a social non-profit enterprise that offers products and services related to the green economy, including food seeds production, farming, distribution of organic food product (0km food), garden services for municipalities (edible gardens) or managing urban and school farms, all under organic certifications and ISO 14001. The social and natural regeneration are its mission and collaborates with other private/public organizations 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). Elkarkide offers also services for packaging in the food industries or assembly for manufacturers.

BACKGROUND OF THE COMPANY

Founded in 1991 for the integration of disabled, mental diseases and under social exclusion risk people. The company’s mission is to be social, environmental and economic sustainable while supporting their workers into a better and inclusive life. Their principles are people first, ethic attitude, individualized attention to workers, social responsibility, personal development, always under a positive environmental impact approach.

LOCATION Pamplona (City Area), enabling urban farming.

FUNDING 100% Private funds and collaboration with public authorities (farm leasing).

CURRENT MARKET
4,674,818 €

INSERTION RATIO
around 30 workers/year

LOCATION CE-VALUE CHAIN
Regeneration of social & natural capital

INTERESTING #EUGREENDEAL TOPICS:

- Area 6: Farm to Fork
  - LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm to Fork Strategy.
- Area 7: Ecosystems and Biodiversity
  - LC-GD-7-1-2020: Restoring biodiversity and ecosystem services.

CONTENTS:

- Organic seeds production.
- Organic resources valorisation in urban farming.
- 0km food Systems
- Social and environmental indicators for urban farming.
- Design and manufacturing of composters using recycled plastics and other composting solutions (chicken compost system).

POTENTIAL PARTNERS SOUGHT:

- Municipalities and regional authorities
- Waste managers
- Circular Food System agents
- R&D centers and universities

#PeopleFirst #CSR #OrganicSeeds #0KmFood #RecycledPlastics #NaturalRegeneration #SocialCircularEconomy
### GREEN DEAL COMPLIANCE

<table>
<thead>
<tr>
<th>Description</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Clean, reliable and affordable energy</td>
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<td>Transition to a circular economy</td>
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</table>

### VALUE OFFERED ALONG THE VALUE CHAIN

<table>
<thead>
<tr>
<th>Type of Call</th>
<th>Customers</th>
<th>Providers</th>
<th>RD Centers, Government</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Municipalities</td>
<td>Reduced number of providers</td>
<td>Public University of Navarre</td>
</tr>
<tr>
<td></td>
<td>Citizens</td>
<td></td>
<td>Regional Government and municipalities</td>
</tr>
<tr>
<td></td>
<td>Jarden centers or farmers</td>
<td></td>
<td>CaixaBank</td>
</tr>
<tr>
<td></td>
<td>Industries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### KEY AGENTS

- Green services and furniture/composting solutions with recycled plastic. E-mobility mailing service.
- 0km food shop.
- Organic seeds and fertilisers.
- Subcontracting of industrial processes- packaging or assembly of parts.
- Raw materials are basically self-produced.
- Recycled plastics.
- Indicators and impact evaluation studies.
- New urban farming solutions and products.

### VALUE OFFERED

- Green social employment.
- Commitment with people dignity and respect.
- Individualized attention to workers based on their specific needs and disabilities.
- Social Responsibility criteria and management system implementation.
- Team working.
- Social innovation for new products and services definition.
- Personal and professional development journey.

### TYPE OF CALLS INTEREST

- H2020 Green Deal Call: Fam2Fork
- INTERREG
- LIFE
- EaSI

### COLLABORATIONS SOUGHT

- Green social employment.
- Composting services and systems, new composting solutions, urban farming, educational and training processes, environmental and social commitment.
- Diversification of cultures: medicine and food uses of plants.
- Valorization of food surplus and conservation processes for new food products.
- Local seeds varieties recovery.
- Organic waste and by-products valorization for public authorities and private organisations (e.g. schools, restaurants, HORECA sector).
- Evaluation of social and environmental impacts of products and services developed.

### PARTNERS SOUGHT

- Public authorities (municipalities or regional Governments).
- Universities.
- Smart cities and urban farming networks.

### REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION

- Spagrya Project (Interreg POCTEFA), obtaining cosmetics from medicinal plants.
PVT – PAVIMENTOS DE TUDELA

Construction sector

CIRCULAR SUPPLY CHAIN
DESCRIPTION OF BUSINESS MODEL

PVT has become a leading company in the development of solutions in the area of sustainable construction, draining pavements and slabs with decontaminating photocatalytic effects. For over 10 years PVT has been pioneer in the development of sustainable products through the collaboration with different public institutions, universities, as well as private partners from the region. Our products incorporate recycled materials (up to 15%) from our fabrication process by-products.

BACKGROUND OF THE COMPANY

PVT was created in 1987 dedicated to the production of anti-slip pavements for outdoor applications. Since then, this family business has always had a team that combines the veteran experience of its founders with the vigor of young professionals. We count on a multidisciplinary R&D department that is constantly working on the development better and more sustainable products.

LOCATION

The company has two factories in Navarra (Tudela and Cabanillas). The facilities are in two industrial parks within a natural setting and incorporate solar panels with an electricity generation of 100kWh per day.

FUNDING

PVT is a family holding. 100% private funds and public co-funding for R&D projects.

INTERESTING #EUGREENDEAL TOPICS:

- Area 1: Towards climate-neutral and socially innovative cities
- Area 3: Industry for a clean and circular economy
- Area 4: Energy and resource efficient buildings
- Area 5: Sustainable and Smart mobility
- Area 8: Zero-pollution, toxic-free environment

CONTENTS:

- PVT seeks for European collaborations that can enhance the development of more sustainable products and means of production, as well as to increase the social awareness regarding the importance of maintaining our soils and reducing air pollutants.
- PVT proposes the use of our ecoGranic decontaminating paving in areas subject to atmospheric pollutants as well as our ecoDraining pavements in public areas and parks that will contribute to reduce heat island and will maintain the humidity of the soils.

POTENTIAL PARTNERS SOUGHT:

- Transport/multimodal hubs.
- Public transport.
- Urban mobility, green parkings, public spaces and bike lines with diverse municipalities.
- R&D centres.
### Collaborations Sought

**Nature of Innovation in R&D centers by a circular economy**

- Using a concrete modular pavement with high draining capacity that incorporates a decontamination technology.
- Removal of pollutant from the atmosphere thanks to the technology incorporated in its pavement.
- The company produces permeable pavements for their ability to laminate air purify urban runoff and pursue its most important purpose: the closure of the natural water cycle.
- The use of the ecoDraining technology in the pavements is considered urban green infrastructures with a multifunctional character: mitigators of the urban heat island effect that causes the waterproofing of the cities, sonorreducing, anti-clip and decontaminating pavements.

**Positive environmental impact**

- Thanks to the technology used by PVT it is possible to improve the life quality of the cities and their population.
- The pavements the company manufacture, and its decontaminating technology help the city councils to save money regarding anti-polluant tools. The pavements not only decorate and make prettier the city but also improve the environment and the air quality which at the same time improve the life quality of the city.
- Because of its benefits for health and the environment, the governments get to reduce costs in the public health system.
- The pavements has a recycled content of up to 30%, thus reducing the impacts resulting of the extraction and processing of raw materials. All the raw materials used are from Spain reducing also the ecological footprint.

**Positive economic impact**

- Improvement of the city’s quality of life thanks to the sustainable construction produced by PVT.
- Reducing health problems related to pollution among the population.
- Improvement of the citizen’s life quality by designing exclusively pedestrian streets or spaces with access to disabled vehicles.
- The rapid evacuation of water of its pavements improves safety, due to the loss of grip between pavement and tires, and comfort, due to splashes.

**Positive social impact**

### References in the Market-International Recognition

- **Outside Europe.** PVT slabs have been used in Mexico and Hong Kong. Our products have been broadcasted in international media of Argentina, Mexico, China, Singapore and Hong Kong.
- **AWARDS**
  - Inovation Award (2019), Cadena SER Navarra Radio
  - Innovation in Construction Award - Honorable Mention (2018), Cemex Awards
  - Innovacion y Sustainability Award (2017), Expansion Newspaper
  - ecoGraníc Top 100 Innovative Ideas of the Year (2016), Economic Topicality Magazine.
  - Cemex awards
  - PYME Innovadora (2015), Ministry of Economy and Competitiveness of Spain.

### Collaborations Sought

- **Some of our most important undergoing projects are related to the development of public infrastructures in France, providing pavements for Bourdeaux Métropole, Toulouse Métropole and Métropole du Grand Paris.**
- **In Spain, PVT has provided its materials to renowned projects such as the International Expo of Zaragoza in 2008 or the AZCA business district of Madrid.**

### Partners Sought

- **Some of our most important undergoing projects are related to the development of public infrastructures in France, providing pavements for Bourdeaux Métropole, Toulouse Métropole and Métropole du Grand Paris.**
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Navarrese organisations in the circular economy

ORGANISATIONS IN THE TECHNOLOGICAL CYCLE

ORGANISATIONS IN THE BIOLOGICAL CYCLE

ENABLELING ORGANISATIONS

❖ CONFIGEE!
❖ GREEN KILLER WEEDS
❖ BEE STANDARDS
❖ FUNDACIÓN LABORAL DE LA CONSTRUCCIÓN NAVARRA
❖ VALSAY SISTEMAS DE EMBALAJE
❖ BIELAS EXTENSIBLES
❖ TRACASA
❖ KUNAK TECHNOLOGIES
CONFIGEE

Configgee!

Manufacturing sector

ENABLERS AND FAVOURABLE SYSTEM CONDITIONS
CONFIGEE

DESCRIPTION OF BUSINESS MODEL

Configee is a product configuration software. It automates the design, manufacturing and expenditure of products, digitalizing the use of materials in the entire value chain with software configuration tools. It eases obtaining the product the client wishes while avoiding the waste of resources and materials thanks to the technology developed. The company personalizes the platform for each client so they can create their products foreseeing the exact amount of materials and energy they need for manufacturing them and helping the companies to reduce waste. Working on cloud computing it enables the 3D preview of the final product, and the link to ERPs (Enterprise Resource Planning).

BACKGROUND OF THE COMPANY

The company was founded in 2014 thanks to the experience of its founding partners in the field of home furniture manufacturing. The knowledge acquired thanks to this experience has allowed the company to be specialized in software tools and optimization of the workflow. This specialization allows to improve the efficiency in the entire value chain. The company is mainly focused in the optimization of material resources, the economy of processes and the error reduction to avoid the generation of waste.

LOCATION Pamplona (City area).

FUNDING Private funds and public funding for R&D projects.

INTERESTING #EU GREEN DEAL TOPICS:
- Area 3: Industry for a clean and circular Economy
  - LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.
- Area 4: Energy and resource efficient buildings
  - LC-GD-4-1-2020: Building and renovating in an energy and resource efficient way.
- Area 5: Sustainable and smart mobility
  - LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility.

CONTENTS:
- Resource efficiency in manufacturing.
- Digitalisation and smart manufacturing processes.
- Products customisation.
- 3D modelling.

POTENTIAL PARTNERS SOUGHT:
- Industrial process consultants.
- Software development companies.
- Manufacturers interested in the use of configurators.
### Value Offered Along the Value Chain

<table>
<thead>
<tr>
<th>Customers</th>
<th>Providers</th>
<th>RD Centers, Government</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B2B</strong> (manufacturing)</td>
<td>• Industrial companies from the extractive, intermediaries or processing sectors, with complex products or processes focused to customers (Automotive, Construction Textiles, Furniture, Agriculture, Equipments, etc.).</td>
<td>• Research centers devoted to research and process improvement and companies advisory services.</td>
</tr>
</tbody>
</table>

**Key Agents**

- **Value Offered**
  - Automation in design, manufacturing and marketing processes. Working with product configurators that help optimize the use of resources (material and labor) to obtain environmental, economic and commercial advantages, understanding all the possibilities and optimizing resources to specific needs.
  - A product configurator is a perfect multi-option simulator. The greater number of variables in an analysis allows making more successful decisions without assuming risks and with very low costs (e.g. LCA analysis comparison).

### Type of Calls Interest

- H2020
- Fast Track to Innovation
- EIC Accelerator
- Life programme
- Digital Europe
- Horizon Europe

**Collaborations Sought**

- Companies that want to test in their design or fabrication processes the technology for optimising and automating those processes.
- Technology companies that want to collaborate and combine new solutions definitions, using big data, Systems, cloud computing, augmented reality and virtual reality.
- Research centers that want to incorporate automated configuration systems into their projects or want to define new research topics where our knowledge and experience can be useful.
- Companies that wish to diversify their investments in new technological solutions such as Configee.

**Partners Sought**

- Manufacturers
- Big data, cloud computing, augmented reality and virtual reality companies.
- Research centre

### Value Offered

<table>
<thead>
<tr>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduction of raw materials’ waste thanks to its technology to design the product and predict the exact amount of material needed to manufacture it.</td>
<td>• Reduction of materials’ cost thanks to the software tools the company uses to design the product and foresee all the materials need it for its manufacturing.</td>
<td>• Use of new technologies, new skilled youth employment.</td>
</tr>
<tr>
<td>• Better use of resources thanks to its 3D technology that allow to design and manufacture the product avoiding the creation of extra waste.</td>
<td>• Reduction of labor costs.</td>
<td>• Industry 4.0. and digitalization, linked to VETs professionalization.</td>
</tr>
<tr>
<td>• Energy efficient manufacturing process achieved thanks to the preview of design and manufacturing.</td>
<td>• Reduction of costs causes by manufacturing mistakes. With the technology used to design the products the clients can specify the exact amount of materials they need to produce their products. Thanks to this, the mistakes, made along the whole value chain, are easily reduced.</td>
<td>• Enables be closer to the final customer needs, enabling manufactures products customization.</td>
</tr>
</tbody>
</table>
GREEN KILLER WEEDS, S.L.

TARGETED ELIMINATION (Real Time)
GREEN KILLER WEEDS, S.L.

DESCRIPTION OF BUSINESS MODEL
The Green Killer Weeds’s machine scans and obtains an unprecedented data layer containing from terrestrial climatological, soil morphological and harvest data, geolocalization, presence detection, identification and selective elimination of weeds and pests in the crops. It avoids the use of herbicides and pesticides and no chemicals or oil-based products are used, eluding toxic footprints. Farmers benefit in several ways: reducing cost in herbicides and pesticides, water or fossil fuels, improving crop yields and helping in restoring environmental and people’s health.

BACKGROUND OF THE COMPANY
In 2016 the EU announced new, more restrictive legislation on the use of herbicides and pesticides. Some farmers are concerned about how to solve their fight against weeds and insect pests that cause serious yield losses in their crops (40-70%). In 2017 Mr. Carles Arnabat founded GREEN KILLER WEEDS, S.L. with currently 6 people in the team, highly passionate about sustainability and with expertise in mechanical engineering, electronics, mechatronics, Artificial Intelligence and finance.

LOCATION Rural area in the Southern of Navarre (Tudela)

FUNDING 100% Private investors. Public funding for R&D projects.

CURRENT POTENTIAL MARKET 60B €
EXPECTING GROWTH 5 % yearly
LOCATION CE-VALUE CHAIN Crop and non-crop protection

INTERESTING #EUGREENDEAL TOPICS:
- Area 6: Farm to Fork
  - LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm to Fork Strategy.
- Area 7: Ecosystems and Biodiversity
  - LC-GD-7-1-2020: Restoring biodiversity and ecosystem services.

CONTENTS:
- Crops and non-crop biodiversity protection.
- Weeds & pests elimination and detection.
- Herbicides & Pesticide alternatives.
- New applications of the technology in other sectors.

POTENTIAL PARTNERS SOUGHT:
- Technology partners
- Farmers, food cooperatives
- Biodiversity and natural resources managers

Other partners sought:
- Private investors
**GREEN KILLER WEEDS, S.L.**

**Contact Details of the Company**
C/ Amigos del País, 24, 4º A, E31500 Tudela (Navarra)
General phone number +34 670 440 470
Website: [http://greenkillerweeds.com](http://greenkillerweeds.com)

**Contact Person**
Mr. Carles Arnabat (CEO-Founder)
Phone: +34 670 440 470
Email: carles.arnabat@greenkillerweeds.com

### Green Deal Compliance

<table>
<thead>
<tr>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050 &lt;br&gt;Clean, reliable and affordable energy</td>
<td>• Avoiding the use of toxics and the generation of dangerous chemical residues for human health through in the food chain. &lt;br&gt;• The use of this technology is adequate for the food organic certification. &lt;br&gt;• Avoiding the pollution of water, soil, air and enabling the recovery of threaten species such as bees or other natural pollinators. &lt;br&gt;• No chemical substances or toxics are used &lt;br&gt;• Only in Spain, the use of this technology could avoid the dispersion of 75 trillion tons of toxics and the littering of 1,700 tons of plastics (1 kg plastics/ha).</td>
<td>• 70% of today’s fruit and vegetable products contains residues or traces of dangerous chemicals (potentially carcinogenic) or herbicides and pesticides. Using Green Killer Weed technology this ratios drop to zero.</td>
</tr>
<tr>
<td>Transition to a circular economy</td>
<td>• The savings achieved by farmers are €52,000 in 10 years for an exploitation area of 80 Hectares. &lt;br&gt;Savings related to the cost of recovery of environmental conditions, biodiversity protection and negative impact on health of pesticides and herbicides use.</td>
<td>• Green Killer Weeds offers healthier eco-systems and healthier food and feed production systems.</td>
</tr>
<tr>
<td>Efficiency in the use of energy and renewable energies in buildings</td>
<td></td>
<td>• Healthy agricultural procedures as a direct benefit on farmers health.</td>
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<tr>
<td>Sustainable Transport</td>
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<tr>
<td>“From Fam to Fork” healthy food and short circuit systems</td>
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<tr>
<td>Preserving Europe’s natural capital</td>
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<tr>
<td>A zero pollution Europe- clean air and water, sustainable use of chemicals</td>
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</tbody>
</table>

### Value Offered Along the Value Chain

**Value Offered**
- **CUSTOMERS**
  - B2B (Distributors and producers of agriculture equipment and machinery, multinationals of herbicides production)
  - B2C (Farmers and agricultural cooperatives)
- **PROVIDERS**
  - Robert Bosch, Siemens, IBM, Logitech, Microsoft
- **RD CENTERS, GOVERNMENT**
  - AIN, Eurecat, Leitat, EPIC (Regional and national RD centers)

**Key Agents**
- Manufacturing/Distribution of an equipment/technology with highly disruptive technology and with great competitive advantages over competitors.
- Green Killer Weeds offers the opportunity for changing to a safer, healthier and more sustainable food production model, not only for farmers but also for the food quality, becoming more valuable under quality standards and equivalent to organic food processing.
- R&D collaboration for the development and provision of technology for the AgTech sector.
- R&D collaboration, pilot testing, technology and new products development and transfer.

### Type of Calls Interest
- EIC Accelerator Pilot
- Green Deal call
- Eureka
- LIFE programme
- EIP-Agri
- AgRobofood calls
- H2020-Atlas Project (Agricultural Interoperability and analysis system)

### Collaborations Sought
- Funds for manufacturing pilots, prototypes, Demo Day and the product market launching
- Pilot testing and new implementations in real environment
- Gathering data and managing information for social, environmental and economic benefits impact evaluation.

### Partners Sought
- R&D partners
- Farmers /cooperatives that want to implement and test this technology and evaluate production savings.
- New public/private investors

### References in the Market-International Recognition
- No international activity yet
BEE STANDARDS

Circular Beekeeping sector

ENABLERS AND FAVOURABLE SYSTEM CONDITIONS

DRUMAPIC

Circular Beekeeping
BEE STANDARDS

DESCRIPTION OF BUSINESS MODEL
The death of bees in Europe and the need of their regeneration is a key strategy for the European Biodiversity and a sustainable and resilience Food System. BeeStandards has designed technology for a more sustainable beekeeping. DrumApic is the first honey drums instant cleaner, achieving a food grade standard in less than one minute and preserving their internal coating. This cleaning tech and process is a patented systems that reduces water consumption and work-hours by a 90%, in addition it reduces bee mortality avoiding contagion caused by residual honey. The DrumApic system offers beekeepers the whole cleaning equipment and instructions enabling a longer life of drums and hives, by disinfecting and maintaining. So they can be reused under safety and healthy conditions.

BACKGROUND OF THE COMPANY
A beekeeper and an engineer co-founded the company in 2018. The company has an industrial partner in Spain and is ready to offer the machine to beekeepers and the honey industry.

LOCATION The laboratory and headquarters are located in Tudela (Rural area).

FUNDING Private funds and SODENA Navarre public investor.

CURRENT MARKET 130.000 €
EXPECTING GROWTH 50% yearly
LOCATION CE-VALUE CHAIN Tech enabling circularity in beekeeping

INTERESTING #EUGREENDEAL TOPICS:
▪ Area 3: Industry for a clean and circular Economy.
  ➢ LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.
▪ Area 7: Ecosystems and Biodiversity:
  ➢ LC-GD-7-1-2020: Restoring biodiversity and ecosystem services

CONTENTS:
▪ Waste prevention
▪ New technology enabling reuse and maintainance of beekeepers equipment
▪ Bees survival
▪ Regeneration of Europe’s bee population

POTENTIAL PARTNERS SOUGHT:
▪ Big industrial partners for EU production
▪ International distributors
▪ Industrial honey machinery.
### Green Deal Compliance

<table>
<thead>
<tr>
<th>Compliance</th>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050</td>
<td>• Bees mortality reduction. • Reusing possibility for 21,000 tons per year on honey drums in the EU. • Better management of cleaning process avoiding discharges.</td>
<td>• 3% on profit improvement for small beekeepers per year in honey drums. • 90% savings in water and working hours. • Food safety ensuring by avoiding HMF formation on residual honey.</td>
<td>• Biodiversity improvement through pollinators • Circular Apiculture Systems • Beekeepers economic balance improvement • New jobs creation and avoiding retirement of local beekeepers</td>
</tr>
<tr>
<td>Clean, reliable and affordable energy</td>
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<tr>
<td>Transition to a circular economy</td>
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<tr>
<td>Efficiency in the use of energy and</td>
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<td>renewable energies in buildings</td>
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<tr>
<td>short circuit systems</td>
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<tr>
<td>A zero pollution Europe- clean air</td>
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<tr>
<td>and water, sustainable use of chemicals</td>
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### VALUE OFFERED ALONG THE VALUE CHAIN

<table>
<thead>
<tr>
<th>CUSTOMERS</th>
<th>PROVIDERS</th>
<th>RD CENTERS, GOVERNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• B2B: Honey industry • B2C: Beekeepers</td>
<td>• Stainless steel manufacturers • Hot pressured water pumps distributors</td>
<td>• Biodiversity areas • Agriculture areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KEY AGENTS</th>
<th>VALUE OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2B: Honey industry B2C: Beekeepers</td>
<td>• Internal processes economic savings. • Savings avoiding purchase of new equipments, economic improvement on material use. • A complete system optimized for the cleaning and disinfection process.</td>
</tr>
<tr>
<td>Stainless steel manufacturers Hot pressured water pumps distributors</td>
<td>• Diversification into a new sector. • Market expansion for hot pressured water pumps.</td>
</tr>
<tr>
<td>Biodiversity areas Agriculture areas</td>
<td>• Natural pollination avoiding artificial methods. • Improvement and regeneration of the beekeeping regional industry.</td>
</tr>
</tbody>
</table>

### TYPE OF CALLS INTEREST

<table>
<thead>
<tr>
<th>COLLABORATIONS Sought</th>
<th>EUROPEAN PROJECT EXPERIENCE</th>
<th>REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• EIC Accelerator • EIC Fast Track to Innovation • H2020 and Horizon Europe • LIFE programme</td>
<td>• EU LIFE programme, proposal presented.</td>
<td>• No international experience yet.</td>
</tr>
</tbody>
</table>

### CONTACT DETAILS OF THE COMPANY

Polígono Industrial La Serna
+34 623 196 661
Website: [www.BeeStandards.com](http://www.BeeStandards.com)

Sergio Saez-Guillem
Head of Innovation
Co-Founder +34 623 196 661
Email: sergio@BeeStandards.com

### BEE STANDARDS S.L

VALUE

- Positive environmental impact
- Positive economic impact
- Positive social impact

- BEE STANDARDS S.L
- Green Deal Compliance
- Positive environmental impact
- Positive economic impact
- Positive social impact
- EIC Accelerator
- EIC Fast Track to Innovation
- H2020 and Horizon Europe
- LIFE programme
- Collaborations Sought
- European Project Experience
- References in the Market-International Recognition

- Achieving Climate Neutrality 2050
- Clean, reliable and affordable energy
- Transition to a circular economy
- Efficiency in the use of energy and renewable energies in buildings
- Sustainable Transport
- "From Fam to Fork" healthy food and short circuit systems
- Preserving Europe’s natural capital
- A zero pollution Europe- clean air and water, sustainable use of chemicals

- Internal processes economic savings.
- Savings avoiding purchase of new equipments, economic improvement on material use.
- A complete system optimized for the cleaning and disinfection process.

- Diversification into a new sector.
- Market expansion for hot pressured water pumps.

- Natural pollination avoiding artificial methods.
- Improvement and regeneration of the beekeeping regional industry.
**DESCRIPTION OF BUSINESS MODEL**

Fundación Laboral de la Construcción Navarra provide 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.

**BACKGROUND OF THE COMPANY**

Fundación Laboral de la Construcción is a non-profit organization, created by the National Collective Agreement in 1992. Its board is composed of 2 members on behalf of the employers’, and 2 members on behalf of the trade unions. The sector is facing the challenges of industrialization and the creation of a new sustainable and circular construction environment, where buildings are considered material banks.

**LOCATION** Huarte (city area) and Villafranca (rural area) in Navarre.

**FUNDING** Private funds and public co-fundings for different projects.

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**TRAINING IMPACT**

- 2,283 trainees

**VOCATIONAL EDUCATION & TRAINING**

- Knowledge, skills and competences

**LOCATION CE-VALUE CHAIN**

- Circular construction capabilities

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**INTERESTING #EUGREENDEAL TOPICS:**

- Area 1: increasing climate ambition and Green Deal impact with cross-cutting solutions
- LC-GD-1-2-2020: Towards Climate-Neutral and Socially Innovative Cities
- Area 3: Industry for a clean and circular Economy
- LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.
- Area 4: Energy and resource efficient buildings
- LC-GD-4-1-2020: Building and renovating in an energy and resource efficient way.
- Area 5: Sustainable and eco urban.
- LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility.

**CONTENTS:**

- Innovation in construction processes.
- Tools for reporting on sustainability and circular construction.
- Capacity building in CE principles applied to the sector.

**POTENTIAL PARTNERS SOUGHT:**

- Companies that work on the construction sector and that have experience in the fields of circular economy and energy efficiency.
<table>
<thead>
<tr>
<th>Green Deal Compliance</th>
<th>Positive environmental impact</th>
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<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050</td>
<td>Developing a circular economy strategy to improve the use of the CDW in construction.</td>
<td>Training and capacity building can be used by public administrations and private companies to develop environmental solutions that can generate local employment and help entrepreneurs to improve the future of their territories.</td>
<td>Reduction of contamination and pollution related to local management of CDWs.</td>
</tr>
<tr>
<td>Clean, reliable and affordable energy</td>
<td>Increasing the efficiency by offering a quick decision-making tool regarding circular economy and circular value chain in construction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition to a circular economy</td>
<td>Valorization of construction and demolition waste under sustainable criteria, taking into consideration their life-cycle, and the responsible design of “zero-waste buildings”</td>
<td>Improving the efficiency in the sector and the implementation of sustainable materials.</td>
<td></td>
</tr>
<tr>
<td>Efficiency in the use of energy and renewable energies in buildings</td>
<td>Construction companies have ISO14001 certification that guarantees environmental aspects are addressed, evaluated and improved on a regular basis.</td>
<td>Bio-based solutions for construction, and the revalorization and reuse of materials.</td>
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</tr>
<tr>
<td>Sustainable Transport</td>
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<td></td>
<td></td>
</tr>
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<td>“From Fam to Fork” healthy food and short circuit systems</td>
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**VALUE OFFERED ALONG THE VALUE CHAIN**

<table>
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<tr>
<th>CUSTOMERS</th>
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<th>RD CENTERS, GOVERNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Public Administrations</td>
<td>• Suppliers in the field of training, construction 4.0, buildings consume almost zero, topography</td>
<td>• R&amp;Ds projects</td>
</tr>
</tbody>
</table>

**KEY AGENTS**

- Detection of the opportunities to introduce in the construction sector new solutions related with circular economy and sustainability.
- Reporting and developing new models, materials and construction processes.
- New trends in the industrialisation of the construction sector, related to organisation, techniques and innovation.

**VALUE OFFERED**

**TYPE OF CALLS INTEREST**

- H2020 Green Deal Call
- Horizon Europe
- Erasmus+
- Interreg
- Climate Change Mitigation
- Circular Public Procurement

**COLLABORATIONS SOUGHT**

- Companies that could help us improving or expanding our services, especially companies that work on the new process, new technologies and new material for the construction sector and with experience in the field of analyzing the life cycle.
- Public administrations, private companies and entrepreneurs that have experience in the circular economy and want to develop environmental solutions in their locations (generation of employment and training and capability building).

**EUROPEAN PROJECT EXPERTISE**

- RCDGREEN: Interregional project POCTEFA.
- PROGRESS: Easi.
- LEANCO: Erasmus +.
- NOVACONS: Interregional project POCTEFA.
- INFOMAT: Interregional project POCTEFA.

**REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION**

- High expertise in European projects and in international networks.
- Instruments for the construction sector and its companies to transform innovation into opportunities, and training plans.
**DESCRIPTION OF BUSINESS MODEL**

Valsay offers innovative and environmentally friendly solutions for the packaging sector. The company adds long-term value not only for its customers but also for employees and society. Valsay offers customized solutions for optimizing the packaging needs of different sectors, implementing eco-design methodologies, looking for an effective and efficient use of material. Valsay has a large amount of compostable products (under certification) 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 second hands equipment recovered from clients.

**BACKGROUND OF THE COMPANY**

Valsay is a familiar company funded in 1991, now with 30 employees, committed with a real sustainable development. The company has clients in Northern Spain and in Southern France, while its online shop is open to the whole Spanish market.

**LOCATION** Tafalla (Rural area). Located in Central part of Navarre region.

**FUNDING** Valsay is a 2nd generation familiar company, participated by private funds. Public co-funding R&D projects.

<table>
<thead>
<tr>
<th>CURRENT MARKET</th>
<th>EXPECTING GROWTH</th>
<th>LOCATION CE-VALUE CHAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.800.780 €</td>
<td>10% yearly</td>
<td>Packaging solution providers</td>
</tr>
</tbody>
</table>

**INTERESTING #EUGREENDEAL TOPICS:**
- **Area 3:** Industry for a clean and circular Economy
  - LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy.
- **Area 6:** Farm to Fork
  - LC-GD-6-1-2020-E: Testing and demonstrating systemic innovations in support of the Farm to Fork Strategy.

**CONTENTS:**
- Reusable and returnable packaging solutions.
- Compostable packaging.
- Eco-design of industrial packaging solutions and optimisation of return logistics.
- Deposit systems and reward mechanism for returnable packaging.
- LCA of packaging alternatives.

**POTENTIAL PARTNERS SOUGHT:**
- Industrial partners looking for packaging solutions.
- New providers of innovative packaging materials and services.
- R&D universities and centers.

#ReusablePackaging  #RethinkingPackaging  #CompostablePackaging  #PlasticsStrategy  #PackagingChallenge
<table>
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</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050</td>
<td>Valsay has a specific environmental-friendly portfolio of products, that are certified under biodegradable and compostable standards.</td>
<td>Valsay has carried out a new Circular Economy project aiming to reduce the carbon footprint of one of the best-selling products (protective manual stretch film). A new business model including returnable packaging of the film (reusable plastic instead of cardboard) and reward system has been launched.</td>
<td>Leading the returnable solutions proposals in the industrial packaging needs is creating a mindset change and a new demand of returnable services.</td>
</tr>
<tr>
<td>Clean, reliable and affordable energy</td>
<td>Trying to avoid single use plastics a new line of returnable reusable plastics is offered to industrial clients.</td>
<td>For each unit returned, the customer receives an amount of €0.10, benefiting from good practice.</td>
<td>This new approach to packaging solutions is positively engaging participants and applications in other areas and packaging needs of the companies.</td>
</tr>
<tr>
<td>Transition to a circular economy</td>
<td>Single use plastics offered are compostable, such as cutlery, flexible packaging and retilling materials for packaging, under EN13432 (2002) CEN Standard.</td>
<td>The collection is carried out taking advantage of a new delivery of material, optimizing the transport resource used by Valsay and eliminating waste management costs by the user.</td>
<td>Creating involvement and commitment amongst our workers and of the clients companies of the need of optimising management of packaging and increase participation in returnable packaging solutions.</td>
</tr>
<tr>
<td>Efficiency in the use of energy and renewable energies in buildings</td>
<td>Materials with high percentage of recycled plastic in foam profiles, bags and bubble wrap.</td>
<td>Offering the packaging equipment as a service for industries, including maintenance and repair services. Renting, leasing and pay per use packaging equipment.</td>
<td></td>
</tr>
<tr>
<td>Sustainable Transport</td>
<td>References such as cardboard boxes and document envelopes that are made of paper that has the FSC seal and PEFC certificate.</td>
<td></td>
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<tr>
<td>“From Fam to Fork” healthy food and short circuit systems</td>
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<td>Preserving Europe’s natural capital</td>
<td>A zero pollution Europe- clean air and water, sustainable use of chemicals</td>
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**VALUE OFFERED ALONG THE VALUE CHAIN**

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</tr>
</thead>
<tbody>
<tr>
<td>B2B (all industrial sectors) and B2C.</td>
<td>Providers of plastic materials, and packaging equipment, looking for sustainable solutions including compostable certification.</td>
<td>R&amp;D projects.</td>
</tr>
<tr>
<td>Municipalities.</td>
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<tr>
<td>Public managers.</td>
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</tbody>
</table>

**KEY AGENTS**

- Online shop with a specific sustainable portfolio.
- Eco-designed and tailored packaging solutions consultancy services.
- Collaboration with public authorities in defining new returnable packaging projects, such as deposit-refund system.
- Inclusion of the new solutions and materials in a specific sustainable products portfolio.
- Priority to offer this type of products to our clients, offering alternative solutions to traditional client requests.
- Commitment to the development of new solutions and packaging systems and traceability solutions.

**VALUE OFFERED**

**TYPE OF CALLS INTEREST**

- Horizon 2020 Green Deal call
- Fast Track to Innovation LIFE programme
- Horizon Europe

**COLLABORATIONS SOUGHT**

- Companies, organisations and industrial associations that want to be involved in circularity and sustainability packaging processes and products development projects.
- Sustainable packaging products manufacturers.
- Packaging equipment manufacturers, suitable for compostable materials.
- Industrial packaging processes: agri-food, automotive, textile, chemistry, HORECA and services sectors.
- Public authorities.

**PARTNERS SOUGHT**

- Collaborating as a key stakeholder in European projects where Navarre Government is leader or partner: ENECO 2 (Interreg POCTEFA), LCA4Regions (Interreg Europe), LCA to go (7th FP).
- Key stakeholder at regional level in LifeCycleAnalysis, returnable packaging projects, in compostable material usage and Social Corporate Responsibility.

**REFERENCES IN THE MARKET INTERNATIONAL RECOGNITION**

- Collaborating as a key stakeholder in European projects where Navarre Government is leader or partner: ENECO 2 (Interreg POCTEFA), LCA4Regions (Interreg Europe), LCA to go (7th FP).
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BIELAS EXTENSIBLES

Sustainable Mobility

SEAL OF EXCELLENCE
BIELAS EXTENSIBLES

DESCRIPTION OF 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.

BACKGROUND OF THE COMPANY

Fernando Irujo, 74 years old self-made man, won in June 2016 the Mobility Contest of the Government of Navarra (managed by CEIN). After that, he associated with Javier Arellano to form Bike Innovations to industrially manufacture this invention. In 2019 the company was awarded by the European Commission with the SME Instrument Phase 1.

LOCATION Pamplona (City area).

FUNDING Private funds and public co-funding for R&D projects.

CURRENT MARKET 200.000 €

EXPECTING GROWTH 10% yearly

LOCATION CE-VALUE CHAIN

Enable all kinds of people to cycle

INTERESTING #EUGREENDEAL TOPICS:

- Area 1: Increasing Climate Ambition: Cross sectoral challenges.
- Area 5: Sustainable and smart mobility.
  - LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility.
- Area 10: Empowering citizens for the transition towards a climate neutral, sustainable Europe.
  - LC-GD-10-2-2020: Behavioural, social and cultural change for the Green Deal.

CONTENTS:

- New urban mobility policies. with the corresponding healthy, mobility and environmental benefits.

POTENTIAL PARTNERS SOUGHT:

- Public administration: Municipalities and regions
- Bike Brands
- Bike components manufacturers
- Bike associations

#URBANMOBILITY #SUSTAINABILITY #HEALTH #CLIMATECHANGE #EUGREENDEAL
**BIELAS EXTENSIBLES**

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**Green Deal Compliance**
- Achieving Climate Neutrality 2050
- Clean, reliable and affordable energy
- Transition to a circular economy
- Efficiency in the use of energy and renewable energies in buildings
- Sustainable Transport
- Preserving Europe's natural capital
- A zero pollution Europe- clean air and water, sustainable use of chemicals

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**Value Chain**

<table>
<thead>
<tr>
<th>Key Agents</th>
<th>Value Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>Public administration: Municipalities and regions, Bike Brands, Bike components manufacturers, Bicycle Retailer, Bike associations</td>
</tr>
<tr>
<td>Providers</td>
<td>Bike components manufacturers</td>
</tr>
<tr>
<td>RD Centers, Government</td>
<td>Public administration: Municipalities and regions</td>
</tr>
</tbody>
</table>

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**Reference in the Market-International Recognition**
- European Patent.
- Aquarius Grant 2018 (Coca-cola Iberia Group).
- Navarre Goverment Mobility Prize 2016.

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**Value Offered Along the Value Chain**

<table>
<thead>
<tr>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 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 &quot;Towards a new culture for urban mobility&quot; 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.</td>
<td>• The massive manufacturing of this new extension cranks could: • boost the activity of existing manufacturers • enable the creation of new manufacturers • From administration point of view, it could: • reduce traffic problems • reduce the costs of pollutions • improve the health of its citizens, with the corresponding savings in public budgets</td>
<td>• Healthier people become happier people. • People with disabilities or reduced mobility, elderly will find easier to cycle reducing sedentary habits. • Applicable to disabled bikes. • Raylap proposal complies with the following European Union and United Nations Sustainable Development Goals (SDGs): • Goal 9: Industry, Innovation and Infrastructure. • Goal 12: Responsible consumption and Production. • Goal 13: Climate Action.</td>
</tr>
</tbody>
</table>

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**Contact Details of the Company**

Poligono Industrial Mutilva Baja, Calle V, nº 26, 31192 Mutilva Baja, Navarra (SPAIN)
Tel: +34 948 07 91 91
Website: [https://www.bielasextensibles.com/](https://www.bielasextensibles.com/)

**Contact Person**

Juan GAZPIO
Sales manager
juan@bielasextensibles.com
DESCRIPTION OF BUSINESS MODEL
Tracasa works in a 4 years contract with the European Environment Agency (EEA), in order to collect, design and disseminate environmental data from 38 European states. The company provides services in cartography, land management and territorial information systems, and offers solutions for the modernization of the public administrations and private companies. One of the products Tracasa works on is the European Air Quality Index; that enhances the system that manages the ‘up to date’ (UTD) data in the context of Air Quality forecasts that CAMS (Copernicus Atmosphere Monitoring Service) provides.

BACKGROUND OF THE COMPANY
The company was founded in 1982, and it is a public company of the Government of Navarre. Tracasa is currently a benchmark in the information technology sector. For years Tracasa has been developing major projects in Cadastre, Cartography and Territorial Information Systems in the national market. Its experience acquired throughout this period has enabled the company to take a firm step into the Latin American market. The company’s expansion across Europe becomes clearer each day.

LOCATION Pamplona (city area).
FUNDING Public Organisation (Government of Navarre).

INTERESTING #EUGREENDEAL TOPICS:
▪ Area 1: increasing climate ambition and Green Deal impact with cross-cutting solutions
  ➢ LC-GD-1-2-2020: Towards Climate-Neutral and Socially Innovative Cities
▪ Area 8: a zero-pollution ambition for a toxic-free environment
  ➢ LC-GD-8-1-2020: Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals.
▪ Area 10: empowering citizens for the transition towards a climate neutral, sustainable Europe
  ➢ LC-GD-10-1-2020: European capacities for citizen deliberation and participation for the Green Deal.

CONTENTS:
▪ Using technologies such as cloud-based data warehouse, parallelizing technologies and big data best practices.
▪ Detect errors and improve data quality.
▪ Visualization tools for feedback to reporting members and dissemination of air quality information.

POTENTIAL PARTNERS SOUGHT:
▪ Companies that work on the information technology sector and that have experience in the fields of big data, AI and visualization tools.
**TRACASA**

**VALUE OFFERED ALONG THE VALUE CHAIN**

<table>
<thead>
<tr>
<th>KEY AGENTS</th>
<th>VALUE OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CUSTOMERS</strong></td>
<td>European agencies: European Environment Agency (EEA); ECMWF</td>
</tr>
<tr>
<td>PROVIDERS</td>
<td>EU Member States; EEA countries</td>
</tr>
<tr>
<td>RD CENTERS, GOVERNMENT</td>
<td>Public Administrations; Local Governments; Research and Development Centers</td>
</tr>
</tbody>
</table>

**VALUE OFFERED**

- The gathered experience, issues and improvements detected and the possibilities that new technology provides to enhance the system that manages the ‘up to date’ (UTD) data are the seed of this project, funded by Copernicus and managed by ECMWF.
- Monitoring and reporting air quality data under several EU legal instruments.
- Researching and development in the fields of artificial intelligent, data and images, time series, point clouds, multispectral imaging, imaging radar, computation.

**TYPE OF CALLS INTEREST**

- H2020 Green Deal Call
- Horizon Europe
- Climate Change Mitigation
- Circular Public Procurement

**COLLABORATIONS SOUGHT**

- Companies that could help us improving or expanding our services, especially companies that work on the information technology sector and that have experience in the fields of big data, AI and visualization tools.
- Public administrations, private companies and entrepreneurs that can use the air quality data to develop environmental solutions in their locations (generation of employment).

**EUROPEAN PROJECT EXPERTISE**

- PyrenEOS. Interregional project POCTEFA.
- Geosmartcity: European Commission, ICT Policy Support Program

**REFERENCES IN THE MARKET- INTERNATIONAL RECOGNITION**

- Improving the provision of up-to-date European air quality information to CAMS - European Centre for Medium-Range Weather Forecasts - ECMWF
- IT Consultancy Services - Tabular and Geospatial Data Processing and related support - European Environment Agency – EEA
- Copernicus Emergency Management Service Mapping Validation - European Commission,
- Services supporting the evolution of the Copernicus Service in Support to EU External Action (SEA) - European Union Satellite Centre – SATCEN.

**Green Deal Compliance**

<table>
<thead>
<tr>
<th>Positive environmental impact</th>
<th>Positive economic impact</th>
<th>Positive social impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving Climate Neutrality 2050</td>
<td>Increase general public awareness on environmental matters</td>
<td>Improvement of the local air quality.</td>
</tr>
<tr>
<td>Circular</td>
<td>Taking decisions easily regarding 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.</td>
<td>Improving, in the long term, the health condition of the population.</td>
</tr>
<tr>
<td>“From Fam to Fork” healthy food and short circuit systems</td>
<td>The company has the ISO14001 certification that guarantees that the environmental aspects that affects the company are addressed, evaluated and improved in a permanent way.</td>
<td>Rethinking city design by increasing the number of green areas, intensifying the use of public transport and the use of bicycles.</td>
</tr>
<tr>
<td>Preserving Europe’s natural capital</td>
<td>TRACASA has been working since 1998 in soil studies which allows to identify the soil's production capacity and the risk of losing it.</td>
<td>Boosting local employment.</td>
</tr>
<tr>
<td>A zero pollution Europe- clean air and water, sustainable use of chemicals</td>
<td>--------</td>
<td></td>
</tr>
</tbody>
</table>
KUNAK TECHNOLOGIES

Environmental Control & Monitoring

SEN SING A N Y W H E R E
DESCRIPTION OF BUSINESS MODEL
Kunak helps businesses and organizations to monitor and control critical environmental data from water, air quality and the operation of infrastructures with IoT monitoring and control systems, instrumentation, sensor networks and operational intelligence. Kunak designs and manufactures the wireless monitoring and control system that guarantee the proper transmission and exploitation of information and allows their integration into other systems (sensing, transmission, storage and visualization) in Smart Cities, Water&Utilities, Industry 4.0 and Smart Products sectors.

BACKGROUND OF THE COMPANY
With clients in more than 20 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. Awarded by the US EPA (United States Environmental Protection Agency) and the European Commission, with SME Instrument Phase 1 and 2.

Kunak is partner with WorlAthletics reviewing air quality in cities with athletics events and with many other municipalities for air quality control in cities, key aspect of SmartCities.

LOCATION Pamplona (city area).

FUNDING Private funds. Public co-funding in R&D projects.

INVESTMENT IN R&D $3,5m
EXPECTING GROWTH 15 % yearly
LOCATION CE-VALUE CHAIN
Enabler of change management

INTERESTING #EUGREENDEAL TOPICS:
- Area 3: Industry for a clean and circular economy
  - LC-GD–3-1-2020: Closing the industrial carbon cycle to combat climate change Industrial feasibility of catalytic routes for sustainable alternatives to fossil resources.
- Area 4: Energy and resource efficient buildings
  - LC-GD-4-1-2020: Building and renovating in an energy and resource efficient way.
- Area 5: Sustainable and smart mobility
  - LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart mobility.
- Area 8: Zero-pollution, toxic free environment
  - LC-GD-8-1-2020: Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals.

CONTENTS:
- Prevention, mitigation and intelligent monitoring solutions to reduce air-pollutant emissions in industrial activities, infrastructures (ports, airports).
- Air quality and emissions

POTENTIAL PARTNERS SOUGHT:
- Environmental engineering companies
- Infrastructures (ports, airports, etc)
- Industries, waste and water treatment plants: deployment of monitoring sensor networks
- Smart cities
- Research centers

#AIRQUALITY #GreenTech #Greencities #SmartCities #Io #AirMonitoring
## KUNAK TECHNOLOGIES

**Positive environmental impact**

- Deployment of innovative means for preventing, predicting, monitoring and fighting wildfires
- Impact on air quality and citizen health through the filtering of fine gas emissions from large industrial plants
- Energy and resource efficiency, seamless industrial construction/renovation workflows demonstrating socio-environmental performance (air quality)
- Air quality (indoor, outdoor, including decontamination from microbiological pathogens) and noise trade-off in green ports
- Enhancing observations for air quality in urban areas monitoring networks and other relevant observing infrastructures in measuring air pollutants such as particles and their precursors.

**Positive economic impact**

- Support the integration of socioeconomic and environmental information on wildfire causes and impacts into existing EU databases
- Address financial, regulatory, environmental, land and raw material constraints, as well as public acceptance issues and socio-economic impact related to the proposed technological pathways
- 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 (SOx, NOx and particulates), as well as water pollution and noise
- Support Europe leadership in clean energy storage technologies through a better understanding of socio-economic issues underpinning a paradigm change and of how to foster climate-neutral social practices

**Positive social impact**

- Build a common culture on risk prevention and preparedness across Europe to encourage self-protection, safety and environmental protection
- Building commitment at local, national and European level and promote long-term sustainability
- Enhancing ability to assess the impact at city scale of policy implementations initiated at city, national and European levels with respect to air quality, citizens' health and progress towards the greenhouse gas reduction targets of the Paris Agreement as well as the impact of the EU Bioeconomy Strategy.

### VALUE OFFERED ALONG THE VALUE CHAIN

<table>
<thead>
<tr>
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<th>RD CENTERS, GOVERNMENT</th>
<th>VALUE OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Environmental engineering companies, Environmental and IT system integrators, R+D Centers, Cities and green infrastructures (ports &amp; airports), Oil &amp; Gas.</td>
<td>- Electronics and sensors manufacturers.</td>
<td>- CSIC IDAEA</td>
<td>- The Kunak AIR optimizes resources by circulating sensor cartridges, avoiding waste generation and facilitating massive deployments of networks at the fraction of the cost of traditional technologies – to monitor, in real time, with more spatial and temporal resolution</td>
</tr>
<tr>
<td>- Cloud service providers</td>
<td></td>
<td>- IS Global</td>
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<td></td>
<td></td>
<td>- UNAV</td>
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</tbody>
</table>

**KEY AGENTS**

- The Kunak AIR optimizes resources by circulating sensor cartridges, avoiding waste generation and facilitating massive deployments of networks at the fraction of the cost of traditional technologies – to monitor, in real time, with more spatial and temporal resolution
- Kunak can integrate any sensor technology in its IoT vertical solution, taking the data from the environment, to the sensor, to the Cloud, and to any other third-party system – with the highest accuracy and traceability.
- Research centers need companies that invest in new ways to monitor the environment with accuracy. Too many IoT startups fail in delivering data with enough accuracy and traceability for research to be conducted.

**TYPE OF CALLS INTEREST**

- LIFE programme
- EIC- Fast Track To Innovation
- H2020
- HORIZON EUROPE
- UIA

**COLLABORATIONS SOUGHT**

- Alliances to be part of consortiums and to be suppliers/subcontractors of IoT technological solutions for the monitoring of environmental parameters (air, meteoro, noise and water)

**PARTNERS SOUGHT**

- Environmental engineering companies
- Infrastructures (ports, airports, etc)
- Industries, waste and water treatment plants: deployment of monitoring sensor networks
- Smart cities
- Research centers

**REFERENCES IN THE MARKET-INTERNATIONAL RECOGNITION**

- Suppliers of UNEP and WHO for projects in Haiti, Ethiopie, Kenya
- Suppliers of World Athletics for projects in Monaco, Australia, Mexico, Japan, Ethiopia, Kenya, EEUU.
- Awarded by US EPA for the Wildland Fire Challenge.
This catalogue has been developed by AIN (Navarrese Industrial Association) for the Government of Navarre. Know more about our Circular Economy projects and services in www.ain.es

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