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BOOK OF LECTURES



INTEGRATED COMPETENCIES AND SYSTEMIC APPROACH IN THE ERA OF CIRCULAR ECONOMY

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INTRODUCTION

CHAPTER 1

In the following handbook, you will find real life case studies of furniture companies and associations from different European countries. These case studies can serve you in learning more about integrated competencies and systematic approach in the era of circular economy.

REAL LIFE CASE STUDIES

INTERMONTAGE B.V. - Intermontage is a multi-certified interior finishing and design company based in Terwolde, Gelderland, The Netherlands. With over forty years of experience, the company has built up a good reputation in the regions in which it operates and aims to function reliably on all fronts and strives for customer satisfaction. The company has executed approximately 5,836 projects to date, employs over 100 people, and currently operates from three different locations. The company's areas of focus are sustainable procurement of materials, social cohesion; developing sponsorship policy aimed at local initiatives and the economy, and further investing in innovations and methodologies such as BIM (Revit) and chain collaboration.

BIOSOFA - Nature, tradition, and design are the core of Biosofa: a company founded by Davide Barzaghi, with premises in the Lombardy region of Italy. It is the only manufacturer in Europe to produce 100% natural and plastic-free contemporary sofas. All products are handmade in the local area, close to Milan and each creation is made individually, free of toxins and plastic. Biosofa represents the perfect combination of design, Italian manufacturing tradition and respect for the environment and for our planet.

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REAL LIFE CASE STUDIES

FLA PLUS - "FLA Plus" is a systemic project created by FederlegnoArredo and addressing sustainability in all of its aspects; it is the result of an important process that began in 2019 to pragmatically respond to the needs of member companies that had to face the challenge of the green transition. The initiative involves FederlegnoArredo, its associates, and strategic partners and institutions. Reforestation projects, a library of sustainable materials, green training kits, support in the management of certifications, circularity tools - these are just some of the concrete projects available in the database that will lead FederlegnoArredo to become a leader and facilitator in the green transition of Italian wood and furniture companies.

KNOF - as an institute for creative development, is a community of people from the Posavje region of Slovenia who believe in entrepreneurship with positive environmental, social and health effects, local self-supply on different levels and inclusion of vulnerable target groups. Through various projects, they want to achieve the greatest possible effects in popularising a sustainable way of life. One of the goals of KNOF is to systematise the furniture reuse process. By collecting, restoring, and reselling old furniture, they want to provide a good example of a sustainable way of living as well as educate the public.

INTRODUCTION

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REAL LIFE CASE STUDIES

KOO INTERNATIONAL - KOO International is a seating furniture manufacturer with more than twenty years of experience in the sector, in which pieces based on design, innovation and coherence are created. It was born in 1998 as a global brand with its own character and identity. It focused on a cosmopolitan, international public, with a marked concern for design, but that in no way compromises on quality.

CARPENTRY ORNIK - Carpentry Ornik is a small company specialising in furniture production made of old/used wood and other raw materials. The company was officially established in September 2010 and it is located in the North East of Slovenia. The company is completely under private ownership; it is a family business. Today there are eight employees, working in the production, technology and management of the company. Seasonally, the company cooperates also with subcontractors to help mostly on the installation, transporting and preparation of the old wood for the production phase. In its production process, Ornik is strongly oriented to circularity and zero waste production.

INTRODUCTION

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REAL LIFE CASE STUDIES

COCO MAT - In 1992, the Greek start-up COCO-MAT introduced into the market an innovative view on mattress production based on natural materials. COCO-MAT mattresses are engineered to create and offer a new, customised sleeping experience. The company gradually introduced additional natural materials such as horsehair, cactus fiber, seaweed and lavender to further improve the quality of their mattresses, making the bed even more special for each customer. Their bedding system proposition is complemented by a whole range of house products with the same "natural" proposition, from towels to bed sheets and furniture. Today, thirty years after its birth, COCO-MAT is a mature as well as a dominant player in the mattress market across Europe.

BRACIA ROMANOWSCY STOLARSTWO - The company is guided in its activities by one basic principle: the choice of material from which the furniture is made is of great importance. By choosing furniture made of materials whose composition consists of post-consumer materials, we support recycling, living in accordance with the zero waste idea and we care for natural resources that are running out.
The designers of the company always make sure that the person arranging the apartment tries to think in broader terms. Because the choices we make today affect the world in which future generations will live. Therefore, if you want to have a positive impact on our environment, you should introduce changes in your immediate surroundings - buy less and make thoughtful purchases, choose high-quality products that will serve us for a long time, as well as not throwing things away hastily, but instead, for example, renew them. The most important thing is that it is up to each individual client whether we collectively will allow future generations to enjoy the charms of nature and preserve its resources, which are so necessary for life.

INTERMONTAGE B.V.

The Netherlands

CHAPTER 2



''GROWING UP BY STAYING SMALL''

MAIN TOPICS:

Systematic approaches and competencies to learning and training

INTERMONTAGE B.V.

Intermontage is a multi-certified interior finishing and design company based in Terwolde, Gelderland, The Netherlands. With over forty years of experience, the company has built up a good reputation in the regions in which it operates and aims to function reliably on all fronts and strives for customer satisfaction. The company has executed approximately 5,836 projects to date, employs over 100 people, and currently operates from three different locations. The company's areas of focus are sustainable procurement of materials, social cohesion; developing sponsorship policy aimed at local initiatives and the economy, and further investing in innovations and methodologies such as BIM (Revit) and chain collaboration.

COMPANY OVERVIEW

OUR HISTORY

Intermontage is a family business that provides solutions to carry out complete interior finishing and design for both commercial and residential premises. Intermontage's origins date back to 1977 in Terwolde, when Mr. G. Leurink and Mrs. G. Leurink-Elzinga set up the company that was mainly involved in the assembly of suspended ceilings. Now their sons Tony Leurink and Henry Leurink have been at the helm of Intermontage since the end of 1998.

Intermontage expanded over the years. In 1998, Intercoating, a powder coating company, was founded. In 2010, IBP Interieurbouw (now Intermontage Interieurbouw) was taken over for all custom interiors. At the end of 2015, the production of side slats and side top fire-resistant side slats was taken over. These companies are also located at the Intermontage business park in Terwolde.

Therefore, Intermontage has the knowledge, experience and production lines to professionally tackle all types of projects and to carry them to the full satisfaction of customers. Thanks to integrated collaboration, these companies complement each other seamlessly when it comes to carrying out interior finishing.

Intermontage BV has an active YouTube Channel which is filled with video footage of their work and production. You may access the videos here:

CORPORATE SOCIAL RESPONSIBILITY AND RELEVANT CERTIFICATIONS

as a basis for a competency-based and systematic approach to circular innovation

For Intermontage, corporate social responsibility is an integral part of a professional and sustainable form of entrepreneurship. As a family business, this model of corporate social responsibility fits in with the company's fundamental vision of entrepreneurship which manifests via three core values: social, ecological and economic values. Intermontage wants to treat people and nature with respect.

Intermontage believes that its mission starts with the right employees in the right place, who are challenged to grow and develop in the interest of themselves, the company, the customer, the market, and the environment. Intermontage's ambition for its employees is to create an organisation in which knowledge sharing and development of employees at all levels takes place in a proactive manner. Intermontage offers its employees various training courses in which craftsmanship and safety are central. All of Intermontage's project employees are VCA certified. In addition, as a company, Intermontage is VCA** (two stars) certified, which lays the foundation for working safely and healthily every day.

Intermontage's employees collectively possess a wealth of knowledge and experience. They are driven professionals, with a passion for their work and a keen eye for detail. Intermontage is pleased to pass on the knowledge it has acquired over the past 40 years to the latest generation of craftspeople and professionals. Intermontage is a recognised training company and trains MBO students in practice to become craftspersons or professionals. In addition, Intermontage offers internships and/or graduation assignments for HBO university-educated students. Intermontage has also been offering employment for people outside of the labour force market for many years and is ''PSO'' (Performance Ladder Social Enterprise) certified.

Central to Intermontage is not only the health and safety of Intermontage's own employees, but also the health and safety of the people around it. This is expressed through ergonomic workplaces, clean desk policies, climate control and safety measures in the workplace. Intermontage cares deeply about its environment and wants to treat it with respect and is environmentally conscious. Intermontage considers that the environment consists of the company's immediate neighbours and the environment in which the company's products end up. Intermontage complies with legislation and regulations on health and safety in the workplace and in the environment. In addition to ISO 14001 certification, Intermontage is also FSC®-PEFC™ certified and the company advises its clients on the use of sustainable materials, which can be applied to every project. Intermontage focuses on less energy, fuel and water consumption.





CONSTRUCTION INDUSTRY CHANGES NECESSITATING A MOVE TO SUSTAINABLE AND CIRCULAR METHODS

According to Intermontage, sustainable construction is something that can no longer be ignored in today's construction industry, nor should it be ignored, and that a change in construction operations into a sustainable model is necessary and in line with the ethos of corporate social responsibility of the company. The mission of Intermontage is to make the company's business operations as sustainable as possible. To this end, Intermontage has been at the cutting edge of innovation in this area, in that the company has been providing sustainable interior construction solutions for a number of years. Examples of these sustainable solutions offered by Intermontage include processing sustainable wood with FSC© and PEFC™ quality marks, re-installing existing system walls according to the company's SLIM program (Second Life Intermontage), and the reuse of construction materials through the circular marketplace Insert - every day Intermontage provides sustainable solutions for the completion of finished interiors.

SYSTEMATIC APPROACHES

A systematic approach to training refers to "[a] comprehensive training programme involves the systematic development of various competencies and facilitating the development of the knowledge, skills and attitude required by the employees at work. It includes specific interrelated and interdependent steps which progress systematically for getting the desired outcomes from the training & development efforts.

SUSTAINABLE SOLUTIONS

Introduced by Intermontage which bolster a competency-based and systematic approach to circular innovation

COMPETENCIES

'Competency-based training is developed around the competency standards that have been identified for a specific role. To be assessed as competent, a person must demonstrate the ability to perform a job's specific tasks.''

Intermontage has developed a number of sustainable solutions for interior finishing and design to meet the operational and production changes in the construction industry.

Efficient and Flexible Communication Channels in Customer Service and Project Management

Intermontage has adopted a company mindset or way of thinking that it describes as 'Growing Up By Staying Small''. Despite the wide range of services and products, the company's working method is characterised by short lines of communication and a flexible process approach. The customer always has one point of contact and because of the company's own production lines in its well-equipped workshops, the company is able to 'switch quickly' if necessary. This promotes efficiency in customer service and management. For example, the aluminium workshop takes care of all the profiles. With the subsidiary Intercoating, Intermontage can quickly paint these profiles in the colour that the customer wants. The glass department takes care of the glass walls and in the carpentry workshop prefabricates the doors. The interior department carries out custom interiors in its own production environment. In addition to the large projects that the company can carry out, Intermontage also remains suitable for tackling small projects professionally and quickly.

Biobased Partition Walls

Biobased building is a collective term for building techniques that use materials that are found in nature and can grow back in nature. Biobased materials fit well into sustainable business operations and within corporate social responsibility strategy. Unlike raw, fossil-fuel materials, which develop in the soil over a period of thousands of years, biobased materials grow in a much shorter time. This ensures that biobased materials can hardly ever run out. Intermontage uses Ayous wood for its WoodFrame Biobased products as this type of wood grows faster than the total lifespan of a biobased wall. An example of one of Intermontage's Biobased partition walls as a sustainable solution is at Draisma Bouw in Apeldoorn in combination with the Derako International B.V. Grill ceiling and Saint-Gobain Ecophon Nederland Focus Ds ceiling panels.

Second Life Intermontage (SLIM)

This is Intermontage's extensive program to achieve and promote circularity and sustainability where existing partitions can be reused, e.g. dismantled, replaced and reassembled elsewhere in the building process, thereby giving walls, interiors and material a second life. By using the existing materials in a smart way, optimal use is made of the existing elements. Intermontage can also code system walls that qualify for Second Life and include them in the company's circular database. These second-hand system walls can then be mounted in another project. An example of a project involving SLIM is the Second-Life interior for a multi storey company building in Terwolde (D'Olde Milk Factory, Terwolde).

EXTRA INFORMATION

- In 1977, Intermontage was founded in Terwolde, Gelderland, The Netherlands by Mr. G. Leurink and Mrs. G. Leurink-Elzinga.
- In 1998, their sons Tony Leurink and Henry Leurink took over the business.
- In 2010, IBP Interieurbouw (now Intermontage Interieurbouw) was established to handle all custom interiors.
- At the end of 2015, the production of side slats and side stop fire-resistant side slats commenced.
- The company has executed approximately 5,836 projects to date, employs over 100 people, and currently operates from three different locations.

- **Please see the Intermontage B.V. official website for more information about the company and its services and processes.**
- **Videos of Intermontage's sustainable solution processes are available for viewing on Intermontage B.V.'s official YouTube channel.**
- **Updates about Intermontage B.V. can be found on the official LinkedIn page.**

EXTRA INFORMATION

Intermontage has various certificates that underline the strength of its corporate social responsibility policy:

·Intermontage is ISO 9001:2015 certified, indicating that it operates reliably on all fronts, strives for customer satisfaction, and guarantees the use of an effective quality management system.

·It is also ISO 14001:2015 certified, which is the standard in the field of environmental management and focuses specifically on controlling and improving environmental performance.

·Intermontage has a VCA** (two stars) certificate, guaranteeing a safe and healthy workplace and all its project employees are VCA certified.

·Intermontage carries the FSC® label ensuring that Intermontage's wood products come from responsibly managed forests, with all due care and attention given to the people and animals that depend on the forest.

·It also carries the PEFC label, promoting sustainable forest management, with equal attention to the ecology, economy and social aspects.

·Intermontage is a Recognised Training Company by the Collaborative Organisation for Vocational Education and Industry (SBB).

·Intermontage has Level 2 on the Social Business Performance Ladder (PSO).

·Intermontage endorses the Construction Safety Governance Code (GCVB).

OUR PLANS FOR THE FUTURE

INTERMONTAGE PRIZES ITSELF ON DOING BUSINESS HONESTLY WITH A HEALTHY RETURN. IT WANTS TO MAINTAIN THIS IN THE INTEREST OF THE CONTINUITY OF THE COMPANY. INTERMONTAGE BELIEVES THAT IT IS IMPORTANT TO KEEP UP WITH THE CHANGES IN CONSTRUCTION AND ARCHITECTURE. BIM (BUILDING INFORMATION MODELING) IS AN IMPORTANT INNOVATION THAT INTERMONTAGE IS EAGER TO IMPLEMENT. NOWADAYS, CLIENTS INCREASINGLY USE BIM MODELS BECAUSE IT FACILITATES AND SPEEDS UP COMMUNICATION BETWEEN THE DIFFERENT PARTIES INVOLVED IN A PROJECT. INTERMONTAGE HAS CHOSEN TO IMPLEMENT REVIT, THE MARKET-LEADING SOFTWARE IN THE FIELD OF BIM MODELING. INTERMONTAGE HAS PUBLISHED A WHITE PAPER ABOUT BIM, EXPLAINING THE BENEFITS BIM BRINGS FOR ARCHITECTURAL FIRMS AND THE IMPLEMENTATION OF BIM AT INTERMONTAGE. THE WHITE PAPER ALSO DISCUSSES THE LINK BETWEEN BIM AND THE ERP PACKAGE, WHICH IS VERY INNOVATIVE WITHIN THE INDUSTRY. INTERMONTAGE'S WHITE PAPER ON BIM IS AVAILABLE TO READ HERE.

QUESTIONS FOR DISCUSSION:

1. **Do you implement a systematic and competency-based approach in your workplace? If so, how?**
2. **Have you ever reused wood or other material to make something new in your home or office?**
3. **How sustainable is the furniture in your home or office?**

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BIOSOFA

Italy

CHAPTER 3



"THE BEAUTY OF LIVING
PLASTIC FREE -
100% NATURAL MATERIALS"

MAIN TOPICS:

Sustainable production and consumption, Industrial symbiosis

BIOSOFA

“My husband Davide Barzaghi comes from a family of seven generations of furniture makers. From age fourteen, he worked and learned in the family factories, acquired the craft, and loved the beauty of the designs. He started preparing to one day take over the business. An optional class at university, in a dusty lab late one spring afternoon, changed his path forever.”

Christine Sintermann, Founder & Business Development Biosofa

COMPANY OVERVIEW

OUR HISTORY

Biosofa is the story of a typical Italian family enterprise that drew on its own transgenerational legacy in furniture-making to produce sofas with entirely natural materials in a world with a dire need of sustainable products.

Biosofa's story began in Milan at a university class on life cycle assessment: what if companies could take full responsibility for their products long after they are sold, in the disposal phase? A student Davide Barzaghi gave his answer. It was time for him to join and transform his family furniture enterprise. His mission: create a collection of biodegradable sofas that would cause no environmental harm - a healthy sofa for our home and our planet. Following in the footsteps of seven generations of Italian furniture makers, Davide started to investigate old production techniques and materials with his father Danilo and his grandfather Aimo. At the same time, he met inventors to discuss the newest trends in eco-materials, and pulled a circle of young designers into the mission, eventually creating the first furniture collection in 2012. Highly decorated with designer prices at the time, it took another eight years to perfect the production methods and round off the collection. That’s when Davide's German wife Christine decided to officially join the company in 2019 to lead the business development and give Biosofa the place it deserves on the market.

A short video presentation of the company:

SUSTAINABLE BUSINESS MODEL

Biosofa's sustainable business model is based on three pilars:

- **TRACEABLE SUPPLY CHAIN**
- **CIRCULAR MATERIALS**
- **DESIGN FOR DURABILITY**

Biosofa has a clear goal: creating a sofa that has the lowest impact possible during its product lifecycle, taking into account all three different phases: production, use, and disposal. Selecting high quality raw materials and simple construction methods allow for an extended lifespan and confers an intrinsic value to the company's furniture: a Biosofa is built to last. The craftsmanship, well-rooted in the Italian Brianza-area where Biosofa is located, is handed down in the founder's family guaranteeing best manufacturing techniques and deep understanding of the mechanical properties of the applied materials.

> **"WE USE CERTIFIED BEECH THAT HAS BEEN DRIED IN AUTOCLAVE BEFOREHAND, SO THE WOOD DOESN'T CHANGE ITS SHAPE AND, HAVING A HIGHER DENSITY, GETS MORE RESISTANT…. BUT A FRAME OF THIS TYPE COSTS FOUR TIMES A NORMAL FRAME."**
>
> *DAVIDE BARZAGHI, FOUNDER & PRODUCT DEVELOPMENT BIOSOFA*

In case the components get worn-out over the years, all parts can be adjusted or substituted. Once the furniture has come to the end of its life, the materials are easily separated and recovered for recycling - but even if the sofa doesn't get disposed of in a correct way, you could leave it outside in your garden and it would decompose within five to six years without causing any harm to the environement, as states Davide.

CIRCULAR MATERIALS

Biosofa uses natural, recyclable and certified materials to build its furniture: solid wood, steel springs, fully natural latex, natural fibres such as jute, linen and cotton, and goose down or vegan alternatives for the paddings.

CERTIFIED WOOD

The Biosofas offer a very good durability thanks to their base frame made out of solid beech wood - no plywood, no agglomerates - responsibly grown in nature and renewable. Biosofa uses only timbers of European ash, spruce and beech trees with Forest Stewardship Council (FSC) certification: the lumber only comes from forests where the collection is guaranteed and controlled by that organisation. FSC is actively engaged in promoting a responsible use of the territory and the continuous reforestation of the collecting areas.

100% NATURAL LATEX

Latex is distilled from Hevea plants and possesses extraordinary antibacterial properties. 100% natural, it is the most elastic material known in nature and it can immediately return to its original shape after any kind of stress: a unique feature only paralleled by human skin. Latex possesses higher specific gravity and lift than polyurethane foam, thus providing the advantage of having softness, flexibility and transpiration at the same time. All latex used by Biosofa is certified with the EuroLATEX and Oekotex labels.

CERTIFIED GOOSE DOWN

Biosofa's padded sofas and cushions are made with real goose feathers, offering maximum comfort and easy maintenance. All down paddings are certified with the Responsible Down Standard (RDS) certificate to ensure that animals are treated without cruelty. On request, the down can be replaced by another type of natural padding, to obtain a completely vegan product.

LINEN

fresh and gorgeous luxury linen grown in Europe. The pure linen is a natural textile woven out of the fibres of the flax plant. It is very strong, absorbent, and dries faster than cotton. The use of linen is documented for thousands of years and it gets its own mention in the Bible. Biosofa uses top quality flax grown and spun in Belgium and France.

RECYCLED COTTON FELT

To protect the latex cells from dust and damage, Biosofa applies an extra layer of recycled cotton felt on top of the inner padding. In addition to protection, this layer also provides a firmer feel and keeps the relatively wobbly latex foam compact and in shape. Furthermore, the cotton felt layer supports the final textile cover to run smoothly and not produce any creases or folds.

JUTE

strong and so much better than plastic. Biosofa uses jute belts to support the base padding and provide structure on the wooden frames. It also serves as an interlining fabric, to provide a connecting material between the sofa frame and the latex foam. Jute is a vegetable textile fiber obtained from the bark of plant stems. It is 100% biodegradable and recyclable. It has a high tensile strength and a low extensibility rate, and it provides a high-level transpiration to the product.

STEEL

instead of plastic. Biosofas' metal parts are made of untreated or polished steel. High resistance and complete reusability in case of recycling are its prime features. Steel is used also in details such as the springs that are under the padding and for the zippers. All staples employed throughout the production process are made of steel as well.

TRACEABLE SUPPLY CHAIN

The materials and metal parts used to create Biosofa's furniture are sourced in Europe and mainly Italy, and most of those even within a 10 km radius around Lentate, Biosofa's production site in the Brianza area between Milano and lovely lake Como. This allows for a high level of control of the supply chain, whilea direct interaction with the supplier - demanding 100% natural materials and independent certifications – also contributes to steer other players in the value chain to implement a more sustainable product offer.

> **"THE MOST IMPORTANT THING IS THE TRANSPARENCY OF THE COMPANY."**
> *DAVIDE BARZAGHI, FOUNDER & PRODUCT DEVELOPMENT BIOSOFA*

FSC

The Forest Stewardship Council and the Programme for the Endorsement of Forest Certification ensure that the products contain wood from responsibly harvested and verified forests that meet FSC demanding environmental, social and economical standards. Biosofa uses only timbers of European ash, spruce and beech trees with FSC (Forest Stewardship Council) certification. The lumber only comes from forests where the collection is guaranteed and controlled. FSC is actively engaged in promoting a responsible use of the territory and the continuous reforestation of the collecting areas.

The Oeko-Tex® Standard 100 is a globally uniform testing and certification system for raw textile materials, intermediate and final products thoroughly verified at each production stage. Biosofa uses only 100% natural textiles that are awarded the Oeko-Tex standard and certification and that are 100% plastic free, such as 100% Cotton, Linen, and Silk.

Oeko-Tex®

European E1 Norm

For a healthy indoor climate it is important that products used indoors have very low emissions and comply with the official European E1 norm (EN 717-1). All of Biosofa's wooden compounds meet this standard, while several of them even comply with E0, the strictest (unofficial) emission class available.

EuroLATEX

100% natural latex is distilled from Hevea plants and possesses extraordinary antibacterial properties and also a higher specific gravity and lift than polyurethane foam. It provides the advantage of having softness, flexibility and transpiration at the same time. All latex used by Biosofa is certified with the EuroLATEX label.

Responsible Down Standard

Biosofa's padded sofas and cushions are made with real goose feathers, offering maximum comfort and easy maintenance. All down paddings are certified with the Responsible Down Standard (RDS) certificate to ensure that animals are treated without cruelty. On request, the down can be replaced by another type of natural padding, to obtain a completely vegan product.

TRANSITION FROM LINEAR TO CIRCULAR MINDSET

It is now universally recognised that the frenetic and compulsive use of resources, combined with the accelerated demographic pressure to which the planet is and will be subjected in the years to come, and with an often inefficient use of resources, is no longer sustainable. We are therefore faced not just with single acute phenomena, but with chronic problems that determine a permanent scenario with which the new economy will necessarily be forced to deal. In fact, in recent years, it can be said that the concept of the circular economy has gone from a weak signal to a megatrend. The academic literature on the subject has grown enormously and, along with the literature, companies have realised that they have to adapt their way of generating social, environmental and economic value in the face of urgent resource scarcity and climate challenges. Biosofa, on the other hand, was born with the principles of circular economy and eco-design in mind.

"WE STARTED WITH A CLEAR PURPOSE: WHAT WE WANT TO DO PRIMARILY IS TO CREATE A SOFA THAT, OVER THE LONG LIFE CYCLE, DOES NOT WEIGH ON THE ENVIRONMENT. OUR SOFA MUST ALSO HAVE A LOW ENVIRONMENTAL IMPACT IN THE DISPOSAL PROCESS. A SOFA LIKE OURS, YOU COULD LEAVE IT IN THE GARDEN FOR SIX/SEVEN YEARS AND IT WOULD DECOMPOSE BECAUSE THE MATERIALS ARE ALL NATURAL, AND IF EXPOSED OUTDOORS TO THE WEATHER, AT CERTAIN TEMPERATURES, THEY ARE BIODEGRADABLE."

DAVIDE BARZAGHI, FOUNDER BIOSOFA

MADE TO BE MENDED

The company builds the furniture to last into the next generation, just as our grandparents' furniture used to do. Furniture is valuable, it makes your space special and personal, and it deserves to be loved and repaired over time. Biosofa's furniture is all built in a modular way, so that, should something break, all pieces are easily repairable and parts can be replaced. All pieces also boast removable covers: this allows for easy cleaning, but also replacement should an accident happen. It also just allows for a change of colour.

"IF YOU FEEL LIKE A NEW MOOD, LET US KNOW, AND WE'LL QUOTE A NEW COVER AND SEND IT TO YOU. IF YOU NEED NEW FABRIC SAMPLES, THAT SERVICE IS FREE AS ALWAYS."



INFOGRAM

MAKING OF A BIOSOFA

Design, planning and prototyping

The first step is often a drawing, and then a miniature model. We discuss comfort, usability, look, feel, lines, materials, and general emotion for the new sofa. Eventually we create a 3D model. This digital model is also the calculation base for all materials in order to calculate the costs of the production process. Once everybody involved in the development of the new sustainable sofa gives a green light, the production proper can then start.

Building the wooden frame

TWe make all of our frames out of solid, FSC or PEFC certified wood. We use dried beechwood, because it is extremely hard, ultra robust and will not bend - not even after decades of usage. None of our products contain chipboard or MDF, ever.

Jute and metal springs

Before passing onto the cushioning, we install the base on which all cushioning will be placed. We call it the elastic layer and it's an incredibly important part to ensure the final piece will be flexible and comfortable.

Cotton felt and latex padding

On top of the jute material on the seating area, but also for the armrests and all around, we apply a layer of 100% natural latex. The latex is delivered in large blocks and we cut it down to the needed sizes in the right height and length using our large scale vertical saw. This process takes experience and craftsmanship, as the material is very soft and any push or pull in the wrong direction will result in an uneven cut.

Inside and outer cover

With the 3D model that we have created earlier in the process, we're now able to get the exact cuts for the textiles. Once all textile pieces are cut, our seamstresses clean them and assemble the covers while borders, zippers and threads are matched to the textile colour. Finally, the textile the client chose as the top cover is assembled.

Backrest and cushions

Generally, a backrest is softer than the seat cushion of the sofa. Therefore, we need to produce them in different ways. The backrest is made from pure down and is actually a cushion within a cushion. The technique we use to keep all this soft material in place is to sew it into air compartments, sort of like you would do with a down jacket. There is a vegan alternative available on request.

Quality control

The last step in making a Biosofa is assembling the feet and executing our quality control routine.

EXTRA INFORMATION

- Some of Biosofa's construction techniques are more than 500 years old.
- All of Biosofa's pieces are made in one Italian village and the surrounding 5 km around it.
- Biosofa is an Italian family company, truly: 5 family members work in the enterprise, and one of their suppliers is also an uncle of theirs.

Nature, tradition, and design are the core of Biosofa: a company founded by Davide Barzaghi, with premises in the Lombardy region of Italy. It is the only manufacturer in Europe to produce 100% natural and plastic-free contemporary sofas. All products are handmade in the local area, close to Milan and each creation is made individually, free of toxins and plastic. Biosofa represents the perfect combination of design, Italian manufacturing tradition and respect for the environment and for our planet.

OUR PLANS FOR THE FUTURE

BIOSOFA HAS THREE GOALS FOR THE FUTURE:

- to remain consistent with their idea of sustainability.
- to increase the communication of their values to a wide audience.
- continue the constant search for new and 100% natural materials.

QUESTIONS FOR DISCUSSION:

1. **Have you ever thought about how you dispose of your sofa?**
2. **Do you know what your sofa is made of?**
3. **Have you ever had your sofa fixed?**

FLA PLUS

Italy

CHAPTER 4



"TOGETHER, WE REGENERATE THE FUTURE"

MAIN TOPICS:

Green entrepreneurship and its competences

FLA PLUS

"FLA Plus" is a systemic project created by FederlegnoArredo and addressing sustainability in all of its aspects; it is the result of an important process that began in 2019 to pragmatically respond to the needs of member companies that had to face the challenge of the green transition. The initiative involves FederlegnoArredo, its associates, and strategic partners and institutions. Reforestation projects, a library of sustainable materials, green training kits, support in the management of certifications, circularity tools - these are just some of the concrete projects available in the database that will lead Federlegno Arredo to become a leader and facilitator in the green transition of Italian wood and furniture companies.

COMPANY OVERVIEW

OUR HISTORY

FederlegnoArredo (FLA) (https://www.federlegnoarredo.it/), the Italian wood and furniture federation, was created in 1945 with the aim of supporting wood and furniture companies; creating new business opportunities and helping them to develop the ability to respond to the changing market. FLA-Plus (https://fla-plus.it) is a strategic project launched by FederlegnoArredo and which addresses sustainability in all its aspects. It is a systemic operation, which involves not only the FederlegnoArredo and its members, but also strategic partners and institutions.

a short video presentation of the company:

THE NEED

FLA-Plus was created to respond pragmatically to the needs of wood and furniture companies that had to face the challenge of the ecological transition. Sustainability and green transition are seen as fundamental not only to respond to the emerging environmental challenges but also to enhance competitiveness on the international markets.

THE FURNITURE INDUSTRY AND SUSTAINABILITY

The furniture sector has an advantage in the pact toward sustainability, "wood" being the main raw material which is naturally sustainable. Wood products are important natural containers of carbon dioxide.

Sustainability must be considered not only from the environmental but also from its social point of view and considering also its economic and competitive dimension. It is therefore important that SMEs invest in this sense to respond to market needs as well as to the demands of customers and stakeholders.

"COMPANIES THEMSELVES ARE ALREADY TAKING STEPS TO BECOME MORE SUSTAINABLE AND GREENER; HOWEVER, A SYSTEMIC APPROACH IS NEEDED TO TACKLE THIS CHALLENGE WHOSE IMPORTANCE IS INCREASING DAY BY DAY. IT IS FUNDAMENTAL TO WORK NOT ONLY AT COMPANY LEVEL BUT ON THE WHOLE SUPPLY CHAIN AND FEDERLEGNOARREDO WANTS TO ACT AS A FACILITATOR AND DRIVE THIS PROCESS.

THE SOLUTION

FLA Plus Project

FLA-Plus is a hub of projects designed to support all those companies that want to face the challenge of the green transition. It is a systemic initiative acting in compliance with the the UN Sustainable Development Goals (SDGs) by dealing with environmental, social and financial aspects, paying particular attention to the commitment to enhance human capital and to invest and promote skills, training and culture.

FLA-Plus is inspired by the main principles contained in its own Decalogue; a document containing 10 statements or projects that represent sustainability according to FederlegnoArredo and its associated companies. The document indicates the direction that leads to the future of the entire wood-furniture industry, a future in which sustainability plays the key role that gives solidity and international scope to the entire Italian supply chain.

It is an “open” initiative; that means that additional projects and services will be integrated into the framework in the coming years.

At the moment, FLA-Plus contains 10 projects

The 10 projects:

1. DESIGN FOREST ('BOSCO DEL DESIGN'):

Which has the objective of increasing the commitment to the protection and regeneration of natural habitats. It is a project born in 2019 as a reforestation program of the municipality of Milan. This project foresees the extension of the intervention area in Southern Italy with the aim of giving life to a systematic reforestation campaign.

2. THE ITALIAN WOOD EXCHANGE ('BORSA ITALIANA DEL LEGNO'):

Which has the objectives of increasing the commitment to the protection and regeneration of natural habitats and reducing the dependence on foreign wood imports. The Italian Wood Exchange is a digital platform created to commercialize wood produced in the surrounding areas (KM0 approach).

3. SUSTAINABLE MATERIALS LIBRARY ('LIBRERIA MATERIALI SOSTENIBILI'):

Which has the objective of increasing the use of renewable materials. FLA is developing a digital library with the aim of helping associated companies in their choice of materials, thus improving the environmental profile of the products. The platform is a database presenting different materials through technical data sheets which will describe their main circular aspects and methods of application.

4. CIRCULARITY TOOL ('TOOL DI CIRCULARITA'):

Which has the objectives of making eco-design and circular business models more wide-spread and of improving water, energy and material efficiency of processes. FLA is creating consultancy and support services for companies and a tool for measuring the circularity of company processes. The tool is based on the ISO norm entering into force in 2023.

5. NEW ENERGY SOURCES ('NUOVE FONTI DI ENERGIA'):

Which has the objectives of increasing the use of renewable energy and materials and improving water, energy and material efficiency of processes. FLA, in collaboration with an energy service provider, is planning a campaign aimed at improving the efficiency and production of energy from renewable sources amongst its associated companies. The energy provider will cover part of the SMEs investments.

6. FSC and PEFC CERTIFICATION PLATFORM ('PIATTAFORMA CERTIFICAZIONI FSC-PEFC'):

Which has the objective of increasing certifications to guarantee sustainability, legality and traceability. The project foresees the creation of a certification management and registration system (FSC and PEFC) which will simplify the company application, facilitating the verification work of the certification bodies and at the same time reducing the duplication of specific activities during the verifications themselves.

7. GREEN FINANCE ('FINANZA VERDE'):

Which has the objectives of increasing skills in sustainability and circular economy and communicating the values and results of the actions deriving from the Decalogue to the external audience. Due to the challenges caused by the geopolitical situation (uncertainty, increase in the cost of raw materials, etc.), companies are not willing to invest resources for their environmental and digital transition. This is the reason why a bank has been inserted in the project which provides financial measures and consultancy to mitigate the effects of the crisis and to allow companies to implement their strategic projects towards a sustainable model.

8. GREEN SKILLS AND TRAINING KIT ('KIT COMPETENZE E FORMAZIONE GREEN'):

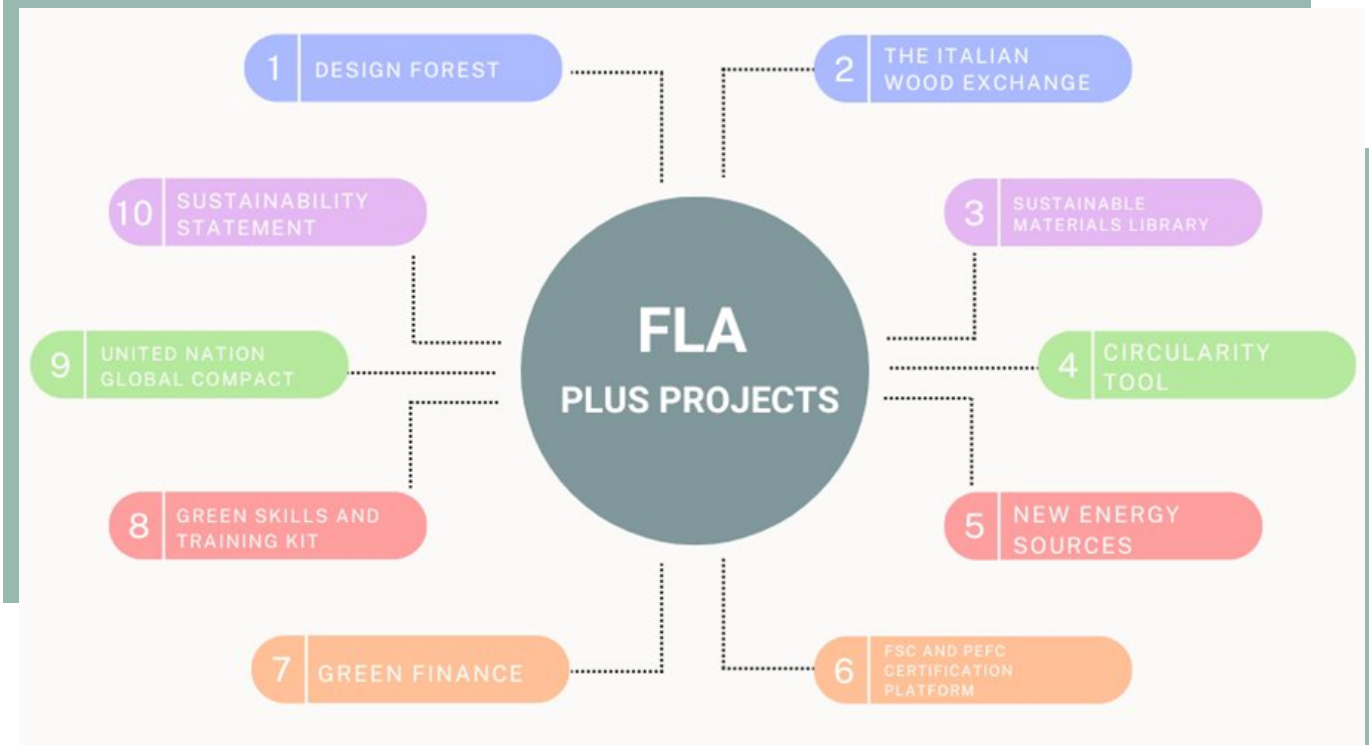
Which has the objective of increasing skills in sustainability and circular economy. It includes the creation of training programs in collaboration with Polytechnic of Milan to increase the culture about sustainability among entrepreneurs active in the whole supply chain. Training contents are designed based on a bottom-up approach and in a very practical way with the aim of impacting the daily operations of furniture companies.

9. UNITED NATIONS GLOBAL COMPACT:

Which has the objective of strengthening collaborations between the sector and international bodies, universities, research centres, and the third sector. FLA joined Global Compact to increase its visibility at worldwide level and to strengthen collaboration with international organizations.

10. SUSTAINABILITY STATEMENT ('BILANCIO DI SOSTENIBILITA'):

Which has the objective of communicating the values and results of the actions deriving from the Decalogue to an external audience. FederlegnoArredo has launched a project that will lead it to publish the first FLA Sustainability Report in 2023, drawn up according to GRI (Global Reporting Initiative) standards.



THE HISTORY AND STEPS

The **FLA-Plus initiative** was officially launched in **2022** however, it is the result of a longer process, which started in **2019** when the **"FLA Sustainability Task Force"** was created due to the rising awareness of the necessity to take steps toward sustainability.

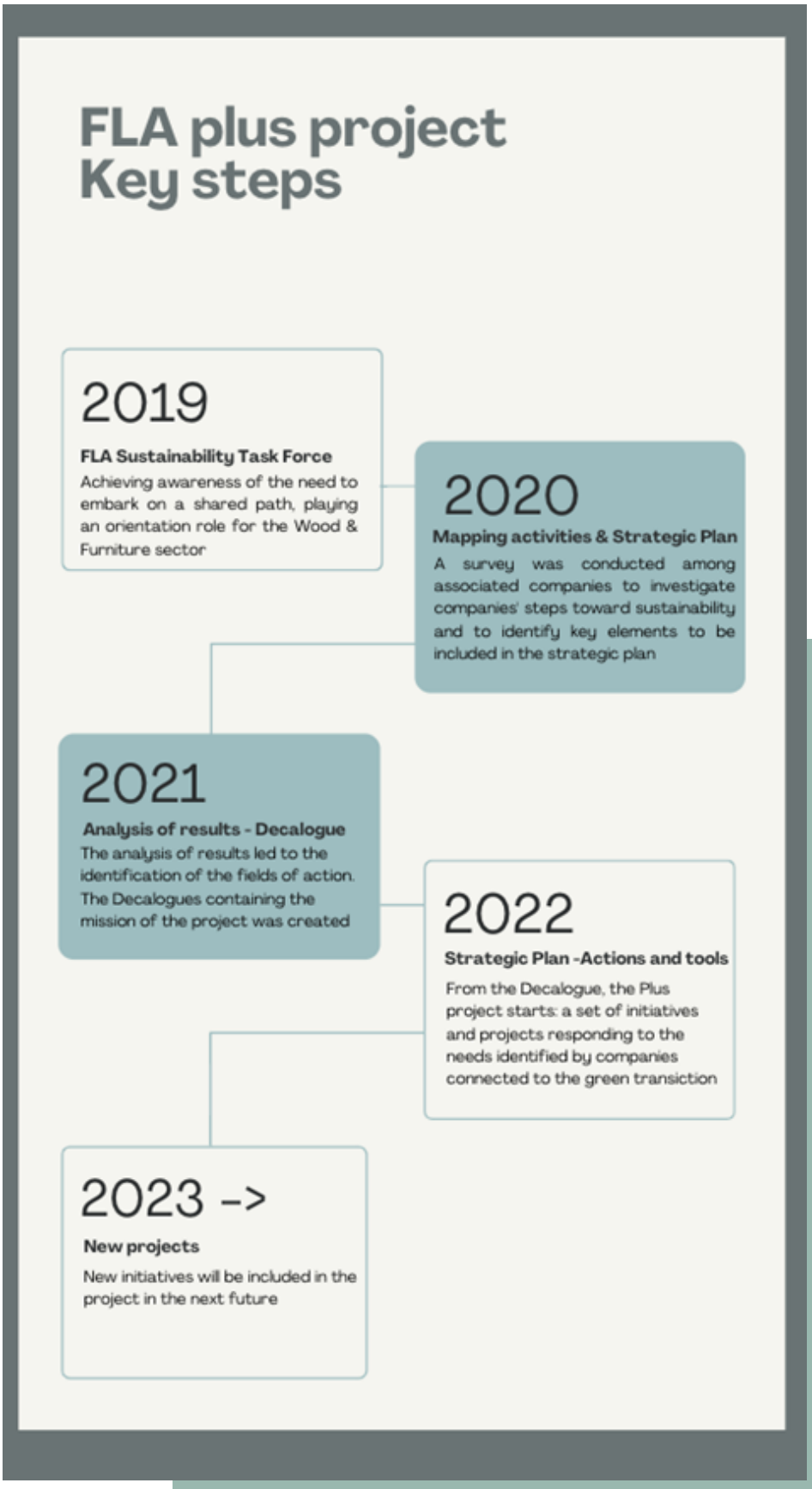
In **2020** a survey was conducted amongst the associated companies, which demonstrated that companies were already moving to optimize all stages of production, with a more sustainability-oriented approach. The survey was extremely useful also to identify areas of intervention to be included in the Strategic Plan.

In **2021** the results of the survey were analyzed. This work led to the identification of "areas of work". The result is the **"Decalogue"**, a manifesto that defines the mission of the project in 10 points.

In **2022**, from the inspiring principles of the Decalogue comes **FLA-Plus,** a large set of projects that pragmatically respond to all the support and coaching needs in the context of the green transition, which the member companies highlighted during the survey.

New projects and initiatives will be integrated within the project in **2023** with the aim of helping members to find a new key to competitiveness in the market, precisely through sustainability.

INFOGRAM


FLA plus project
Key steps
2019
FLA Sustainability Task Force
Achieving awareness of the need to embark on a shared path, playing an orientation role for the Wood & Furniture sector
2020
Mapping activities & Strategic Plan
A survey was conducted among associated companies to investigate companies' steps toward sustainability and to identify key elements to be included in the strategic plan
2021
Analysis of results - Decalogue
The analysis of results led to the identification of the fields of action. The Decalogues containing the mission of the project was created
2022
Strategic Plan -Actions and tools
From the Decalogue, the Plus project starts: a set of initiatives and projects responding to the needs identified by companies connected to the green transiction
2023 ->
New projects
New initiatives will be included in the project in the next future

EXTRA INFORMATION

25% of the interviewed companies do not source local wood

28% of the interviewed companies consider it a priority to create new business models which include both services and products.

23% of the interviewed companies use at least one-quarter raw materials (non-wood) of biological or biodegradable origin

50% of the interviewed companies use less than one-quarter of energy from renewable sources.

56% of the interviewed companies do not implement green communication

56% of the interviewed companies consider it as essential to acquire specific skills on environmental issues.

OTHER MATERIAL

HTTPS://WWW.RETECLIMA.IT/AZIENDE/ASSARREDO/

HTTPS://WWW.MATERIALLY.EU/EN/

HTTPS://WWW.MANIFAKTURA.NET

HTTPS://WWW.UNGLOBALCOMPACT.ORG/WHAT-IS-GC/PARTICIPANTS/152202-FEDERLEGNOARREDO

QUESTIONS FOR DISCUSSION:

1. **What other initiatives/projects do you think that FederlegnoArredo should work on (or include in the platform)?**
2. **In your opinion, what are the main aspects that SMEs should prioritise in their path towards the green transition?**

KNOF

Slovenia

CHAPTER 5

knof®

"WE ARE NOT RICH ENOUGH TO BUY CHEAP"

MAIN TOPICS:

Sustainable design;
Communicating circular image

KNOF

INSTITUTE FOR CREATIVE DEVELOPMENT

KNOF, the Institute for creative development, is a community of people from the Posavje region of Slovenia who believe in entrepreneurship with positive environmental, social and health effects, local self-supply on different levels and inclusion of vulnerable target groups. The vision of KNOF is to become a strong community of individuals, companies, entrepreneurs, public institutions, and other organizations able to solve different problems in the region. KNOF has a goal to provide a self-sufficient, green, and supportive environment for people, create green jobs which also include vulnerable groups of people (disabled, long-term unemployed...).

COMPANY OVERVIEW

OUR HISTORY

In 2007, the youth association ŠMRK K.N.O.F. was established. In the following years, it grew and today it is an association for sport, youth, research, and culture that offers different activities for young people. Over the years, the team noticed that there was interest in more entrepreneurial activities that could also create new jobs. In 2008, KNOF – Institute for creative development was established and its primary focus was activities for socially vulnerable target groups. In 2013, the company KNOF – Razviti posel (Developed Business) was established and in 2015 it was registered as a social enterprise. The main purpose and goal of this is to expand the KNOF business community to the entire Posavje region. In Krško, on 3000 square meters, there is a furniture salon, administration, the clothing reuse store Stara šola, Coworking place, Fablab, a place for a carpentry and sewing workshop, and a warehouse. In addition, they are also developing a circular laboratory there. The first project related to the circular economy was a second-hand store. After that, the KNOF Institute began to develop through various projects and activities.

a short video presentation of the company:

OUR MISSION AND GOALS

The focus of the KNOF Institute, which has thirteen employees, approximately 40% of whom belong to vulnerable groups, is a sustainable way of life. Through various projects, they want to achieve the greatest possible effects in popularizing a sustainable way of life. They raise awareness among the public, companies, municipalities, communities, educate young entrepreneurs and demonstrate their success through the concrete effects of reuse.

Individuals can become a part of the KNOF business community in different ways:

- If they have a business idea, they can have their own center in the community and receive financial support from the KNOF fund and they can do business in the frame of the KNOF social enterprise,
- they can get employed through public work,
- they can work and help as volunteers,
- they can get involved through programs: on-the-job-training, work trials for young people, vocational/occupational rehabilitation for disabled people.

KNOF includes vulnerable groups in its activities: young people less than 30 years old without education or work experience, individuals above 50 years of age and disabled people. Usually, they are also long-term unemployed people and they usually go through a process of introduction to the work before they are ready to work independently.

The KNOF Institute also cooperates with the Ministry, municipalities, utility companies, the local community, and other companies, as they consider it important to integrate the entire system to achieve effects. In this way, they can be encouraged to adopt a new way of working, thereby opening new possibilities for ordering furniture from reuse or rent.

SUSTAINABLE BUISNESS MODEL

There are many problems regarding sustainable ways of living for which not many solutions are being sought. As a social enterprise, the main goal of the KNOF Institute is not revenue, but rather they have decided on the values of environmental protection. In the furniture industry, there is a lot of talk about sustainability and the circular economy, mainly out of concern and respect for the environment, but very little is done. The reason for this is mainly because it is very difficult. As an institution, they have decided which values are most important to them and strive to popularize a sustainable way of life. Environmentalism and the furniture industry are closely related, but above all, it is necessary to be aware of what is happening around us.

SUSTAINABLE DESIGN

Sustainable design seeks to reduce negative impacts on the environment and also the health and comfort of building occupants, thereby improving building performance.

The basic objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments.

Sustainable design also refers to the design process that integrates an environmentally friendly approach and considers natural resources as part of the design. Sustainable design acts as a philosophy that is applied by different companies, governmental entities, and non-governmental organizations to achieve a better future for the human race through the wise and low-volume consumption of Earth's resources. One of the designer's roles by understanding the critical role in the sustainable world is to solve problems and provide innovative solutions through products or services.

We can already feel the consequences of climate change in nature and people need to be encouraged to act even before they are personally affected.

A sustainable business model primarily strives to find solutions for the operation of the company itself and the goal is also for the company itself to survive, because otherwise the positive effects of the operation cannot be shown. It is necessary to work in different areas and systematically. Bringing a sustainable business model to the furniture industry is a marathon, not a sprint, so the transition itself can be quite challenging.

Tons of scrap furniture end up in landfill every year, although many of these items are still usable, either as parts or as a whole. This waste furniture thus takes up a lot of space in landfills, and it also takes a lot of energy and resources to dispose of the discarded furniture, as new furniture is manufactured and transported to replace it – with associated gas emissions.

"Each piece of furniture has its own character and carries its own story,"
they say at KNOF.

The furniture salon offers a new opportunity to furniture that the owners either got tired of or threw away due to minor damage. Furniture is obtained from various sources, mainly through donations from all over Slovenia and from bulky waste. Depending on the condition of the individual piece, it is either restored or completely processed, upcycled. Upcycling means that from different pieces that are destroyed or worn out, something completely new is assembled. This way, the furniture is creatively upgraded into new pieces. Some of the iconic pieces bought from collectors remain the same. However, they say that people go out of their way to donate very nice pieces. At KNOF, they also offer the option of restoring your own furniture.

Also, in addition to renovation and upcycling, they are taking pioneering steps in the field of creating a system for separating useful items from bulky waste, up to categorization, renovation and, of course, sales. Selling is a key element, because without selling there is no reuse. In the waste hierarchy itself, reuse is a very important element for protection against waste generation.

TRANSITION FROM LINEAR TO CIRCULAR

COMMUNICATING CIRCULAR IMAGE

In a circular economy, communication, branding and marketing can be used as a tool to explore circularity opportunities among the target audiences, and to understand what circular opportunities are. A circular image is one that does not contribute to global waste and keeps products and services in a continuous cycle of recycling, repurposing and use. Information and communication technology (ICT) systems have influenced every aspect of modern life and the circular economy is no exception. In order to accelerate the transition to a circular economy, it is vital we speak with a common voice, using a common language and definitions that can be easily understood by all. If we can achieve these diverse motivations, we have the potential to mainstream these behaviors.

A good example of the transition from a linear business model to a circular one is basic loops. First and foremost, every company will go into this transition primarily for the sake of savings. If you optimize work processes, logistics, transport, water and electricity consumption, the company can save a lot in this way. At KNOF, this was optimized in such a way that the entire floor of the building where they are located is interconnected.

You can easily move from the salon to offices, boutique or workshops. Every company can primarily start saving on the resources it already has, as this is the first step towards moving from a linear to a circular business model. With a circular business model, it is necessary to think long-term already when designing products. It is necessary to make such concepts that will determine how much each product will have as a residue, how much will be wasted and what will happen to this waste afterwards.

In what way will the product be used in what capacity after the product is no longer in use? It can be disassembled, recycled, or possibly even composted. It is also necessary to predict what we can do with the damaged product. The circular business model is also helped by using raw materials from the local environment, from certain renewable sources or recycled materials. After the end of the object's life cycle, the aim is also to obtain a solution that would foresee the reuse of the product and send it back into circulation in some other way.

In so far as new materials are used, it is necessary to clearly define and warn customers about the recycling, labeling, and sorting of products after their useful life. The KNOF Institute was originally designed in a circular business model. For them, it was important for such a method of operation that the participants connected with the local environment and gained the support of municipalities and other organizations. At KNOF, they also systematized the reuse of furniture when setting up the business model.

In 2020, they established a partnership with the company Kostak and, as part of a small project, developed a system for collecting bulky waste, its categorization, restoration, and resale. Categorizing furniture is key in determining suitable pieces for re-use, restoration required, marketing and selling. In addition, they also work a lot on the development of new products as the quality of furniture is deteriorating. At the same time, they are looking for solutions to reuse these inferior pieces, be it through the production of semi-finished products or mechanical recycling.



WE ARE NOT RICH ENOUGH TO BUY CHEAP

The KNOF Institute has never operated according to a linear system and the fact is that a circular way of doing business is efficient. All products are significantly more difficult to create compared to some classic companies, but this is known in the long run. Classic larger companies have, for example, between 1,000 and 10,000 pieces of individual furniture, which they photograph and initially sell in the online store. It only takes one photo to sell thousands of pieces of furniture. Companies, like the KNOF Institute, must take the same amount of time for each individual piece, so it is necessary to organize the way of doing business differently and adapt the business model so that they can still generate income.

a long video presentation of KNOF company:

With this way of doing business, it makes sense to include cooperation with municipalities, utility companies, institutions, and other companies in the work process itself, and to look for other opportunities. A classic company competes on the market only with price or quality, or rarely with a special offer. Circular companies have other added values.

The goal of transitioning from a linear to a circular system, which is mainly a marathon, also comes from the fact that we are not rich enough to buy cheap. Cheap things are usually of poorer quality and need to be replaced many times, which in the end means we waste more money on low quality furniture.

The initial transition for a company brings a big change that can be quite difficult. In the short term, the transition is difficult, but in the long term everything pays off, both in terms of quality, savings, and the mentality of the employees. Changing the mentality of employees is one of the main turning points, because if people do not feel this change, the transition process itself will not be successful. A lot of encouragement is needed in time because no instant solution is sustainable.

It is necessary to be creative in the process itself, but in the initial stages it is also necessary to find an external supporting environment, which can be done primarily by municipalities. With good arguments, we can convince the decision-makers to help, because only in this way can an individual company withstand a multi-year transition from a linear to a circular business model, financially demanding at the beginning. The role of the KNOF Institute is also to encourage systems and help in changes in people's mentality about circularity.

EXTRA INFORMATION

TOP POLLUTER

China is the world's top polluter, emitting 10,357 metric tons of carbon dioxide, followed by the United States, India, Russia and Japan.

ENERGY-EFFICIENT LIGHT BULBS

If people worldwide switched to energy-efficient light bulbs, the world would save 105 billion euros annually.

RECYCLING

Recycling one ton of paper saves 17 trees.

RAINFORESTS

Rainforests are being cut down at the rate of 100 acres per minute.

AFORESTATION

The process of aforestation (creating new forests where there were none) creates a carbon sink. This draws in and holds on to carbon and distributes it into the soil.

OUR PLANS FOR THE FUTURE

AT THE KNOF INSTITUTE, THEY DEVELOP VARIOUS SOLUTIONS FOR FURNITURE, ESPECIALLY IN TERMS OF WASTE. THEY ALSO DEVELOP PRODUCTS FOR WHICH THEY WANT TO BE INNOVATIVE AND OF HIGH QUALITY AND ACHIEVE GREATER EFFECTS IN PUBLIC PROCUREMENT.

IN THE LONG TERM, HOWEVER, THEY WANT TO EXPAND THEIR INSTITUTE, TO CONNECT MORE WITH EXTERNAL CONTRACTORS AND TO CARRY OUT A LARGER NUMBER OF WORKSHOPS AT A MORE PROFESSIONAL LEVEL.

QUESTIONS FOR DISCUSSION:

1. **Have you ever brought home old furniture instead of new? Why?**
2. **Which piece of old-restored furniture would you like to have?**
3. **Which pieces of furniture could you donate immediately and which would you renovate?**

KOO INTERNATIONAL

Spain

CHAPTER 6



''CIRCULAR ECONOMY AS A BUSINESS MODEL''

MAIN TOPICS:

Sustainable design; Sustainable production and consumption; Innovative business model

KOO INTERNATIONAL

In KOO International's DNA is the vocation to offer the design-comfort binomial (not only in the product itself, but also in the service). On the other hand, it has become aware of the crucial moment in which we find ourselves. Globally, this decade is going to be decisive for the future of our planet, as it is our last chance to reverse the extreme situation of degradation in which our habitat finds itself.

COMPANY OVERVIEW

OUR HISTORY

KOO International is a seating furniture manufacturer with more than twenty years of experience in the sector, in which pieces based on design, innovation and coherence are created. It was born in 1998 as a global brand with its own character and identity. It focused on a cosmopolitan, international public, with a marked concern for design, but that in no way compromises on quality.

KOO International always work on the basis of identified needs and with a very definite final objective: the comfort and enjoyment of people. Their values act as a driving force and mark how KOO carries out its work, combining technical and human resources, the latter being the protagonists.

a short video presentation of the company:

NEW BUSINESS IN A CHANGING WORLD

KOO has detected a profound change in consumer habits in the furniture sector. While family trends in past decades tended towards stability and traditional family models, with early home purchases and the choice of static and definitive interior designs, nowadays society has shifted towards more changing lives, with later access to housing and a greater tendency to redesign interiors.



Already consolidated as a benchmark in the national market, and starting to have success in the European markets, in 2014 the brand was reborn and faced a strategic change - by shifting its offer towards more exclusive segments with an even greater interest in design and a growing concern for other aspects, such as the circular economy, the social impact of economic activity, the quality and origin of raw materials or the depth and excellence of services.



Later, in 2021, KOO staff gained access through AIDIMME and the INFURI Project to a universe of concepts that were abstract for the organisation: eco-design, industrial ecology, remanufacturing, corporate social responsibility, and so on.

This is why KOO International took the decision to become the first circular sofa brand on the market by embarking on a circular transition process through the CIRKOOLAR project.

But what is CIRKOOLAR?

It is a process initiated by the brand to revise its product formula by researching the best combination of natural, recycled and durable materials and to develop a service programme to extend the life of the product. KOO's care recipe consists of four indispensable ingredients: reupholstering, reconfiguration, repair and recyclability.

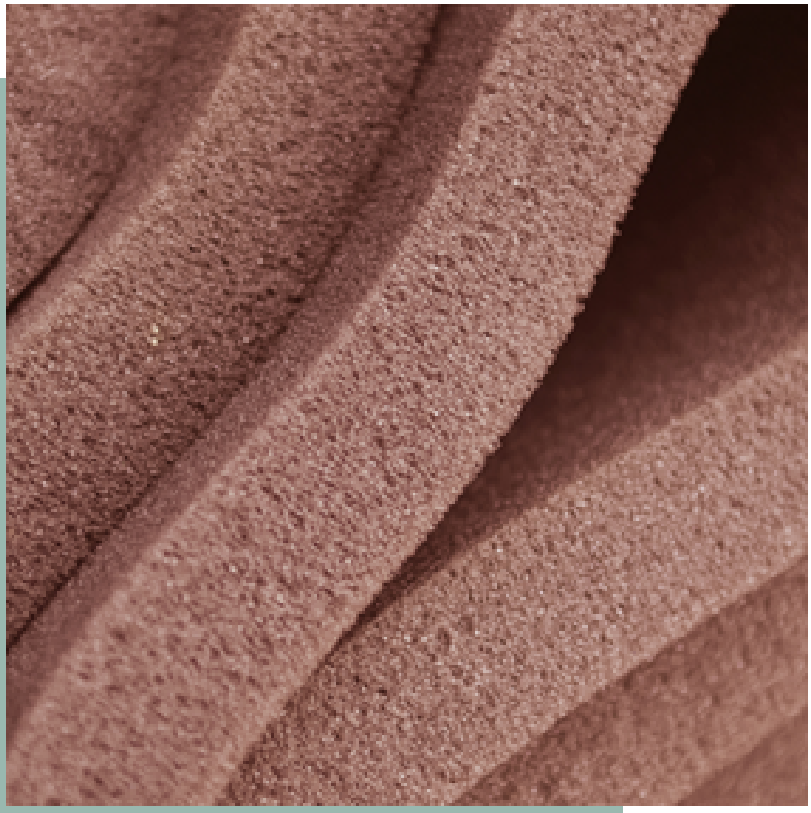
Following the launch of CIRKOOLAR, KOO has started to work on circularity from the very conception of the products. Through eco-design, products that can be upgraded and repaired have been conceived. These products are also largely made from recycled and/or recyclable materials, for example, the use of FSC-certified and locally sourced wood and derivatives (buying exclusively Spanish timber).

In those products that incorporate steel structures, non-chromium-plated metals are used (to greatly reduce their environmental impact) and customers are offered a lifetime guarantee (thus promoting the use of 100% recyclable materials and greater durability).

"RECOMMENDING A KOO PRODUCT MEANS PRESCRIBING A DYNAMIC DESIGN, WITH A LOOK THAT IS FLEXIBLE AND ADAPTABLE TO EVERY MOMENT OF THE CUSTOMER'S LIFE. THE CUSTOMER CAN REDESIGN HIS SPACE WITHOUT DISCARDING THE SOFA, AS ITS BASIC STRUCTURE IS IN PERFECT CONDITION. YOU CAN ADAPT YOUR SOFA ACCORDING TO THE CHANGING SEASONS OR CURRENT TRENDS, ALL WITHOUT HARMING THE PLANET."

~ DIANA CASTELLANOS, KOO INTERNATIONAL'S MARKETING MANAGER

In the case of textiles, on the other hand, different alternatives are offered to consumers: the use of fabrics from textiles made from PET plastic recovered from the sea or from natural linen and cotton fibres stands out. In the case of synthetic fibres of non-recycled origin, the necessary quality mechanisms are established to guarantee, on the other hand, greater durability.



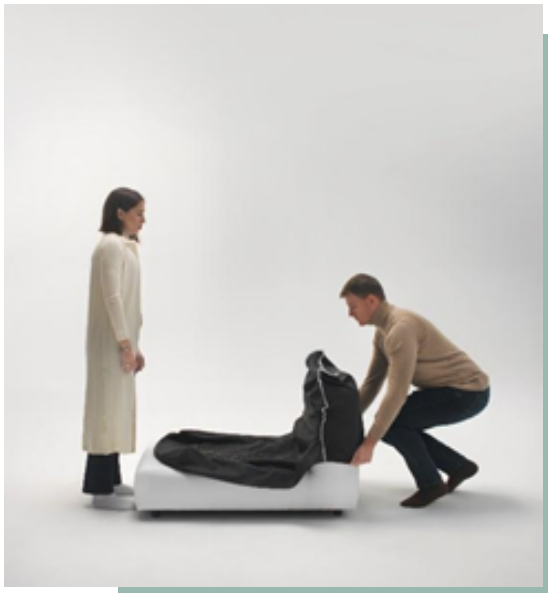
Regarding foams, soy-based foams have been introduced in some products. It should also be considered that, in the case of materials for which a technically viable solution has not yet been found to minimise their environmental impact (as is the case, for example, with foams), KOO maintains a continuous research process in order to obtain ecological and quality alternatives.

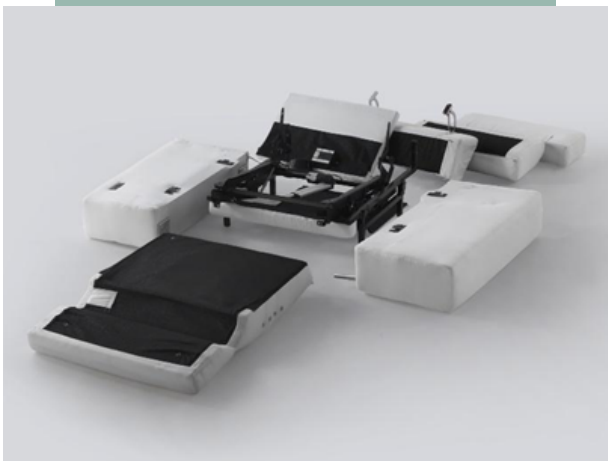
In addition, all KOO products easily exceed the technical requirements for furniture intended for severe public use (such us shopping centres), so that their durability in domestic environments is guaranteed in the long term.

In addition, KOO International has started to offer product-related services to slow down product ageing and ensure optimal maintenance:

Restyling

All KOO customers can request a free restyling service for the entire life of the sofa. Customers only pay for the cost of the fabrics, while the work is carried out free of charge. In addition, KOO undertakes to send the fabrics to the residence indicated by the customer, and to collect the old covers if the customer wishes to cancel them in order to put them back into the circle of our factory.





Reconfiguration

KOO International's sofas are designed in a modular way, so that they can be adapted to the changing needs of customers: extensions, reductions, new modules... everything is feasible thanks to the design of the pieces, which takes into account the circularity of the final product from the outset.

Repair

The products produced by KOO International are easily disassembled, so that their repair is highly possible (even at home, avoiding the carbon footprint and time associated with a factory repair), thus greatly extending their useful life.

In addition, KOO offers an extended warranty of 10 years (which can be extended to the entire useful life of the product in the case of those with a metal structure), thus guaranteeing the repair of any damage or malfunction that the product may suffer.

Take-back

Once a KOO product (or any module that makes it up) has reached the end of its useful life, KOO offers the collection of same at the time when the new model is delivered, in order to guarantee its correct management. In this way, the highest possible degree of segregation and recycling of the materials that made up the discarded product is guaranteed.

AS CAN BE SEEN, THE CIRKOOLAR PROJECT HAS BEEN A HUGE COMMITMENT ON THE PART OF KOO, WHICH HAS INVOLVED A STRUCTURAL CHANGE IN THE BUSINESS MODEL, FOCUSING ON ECO-DESIGN AND CIRCULARITY. HOWEVER, THIS CHANGE HAS BEEN THE RESULT OF A MARKET ANALYSIS CAPABLE OF IDENTIFYING AN OPPORTUNITY RESULTING, ON THE ONE HAND, FROM THE NEED FOR BUSINESS ALTERNATIVES AND, ON THE OTHER HAND, FROM A GREATER DEMAND FOR MORE SUSTAINABLE PRODUCTS.

OUR PLANS FOR THE FUTURE

CIRKOOLAR MEANS MORE THAN JUST PRODUCT-RELATED STRATEGIES. IT HAS SPREAD ALL OVER THE COMPANY'S MANAGEMENT.

IN THE SHORT TERM, KOO PLANS TO INSTALL PHOTOVOLTAIC PANELS FOR ENERGY GENERATION IN ORDER TO INCREASE ITS DEGREE OF ELECTRICITY SELF-CONSUMPTION AND REDUCE ITS CARBON FOOTPRINT. ON THE OTHER HAND, IT ALSO HAS IN MIND THE IMPLEMENTATION OF A PRODUCT LINE THAT ALLOWS THE REUSE OF THE OFFCUTS GENERATED IN THE PRODUCTION PROCESS (FABRICS, LEATHER, ETC.), MAKING IT POSSIBLE TO MANUFACTURE ACCESSORIES (SUCH AS CUSHIONS OR SMALL LEATHER ITEMS) THAT, IN ADDITION TO GIVING ADDED VALUE TO THE BRAND, WILL REDUCE THE VOLUME OF WASTE GENERATED.

AS SAID, KOO'S BUSINESS STRATEGY ALREADY INCLUDES CIRCULARITY IN A TRANSVERSAL WAY, SO IT WILL CONTINUE TO IMPLEMENT NEW ECO-DESIGN PROJECTS OR REUSE OF RESOURCES (SUCH AS, FOR EXAMPLE, AN OUTLET SHOP THROUGH AN E-COMMERCE SYSTEM, WHICH CAN GIVE A SECOND LIFE TO PRODUCTS ON DISPLAY) THANKS TO WHICH IT CAN INCREASE THE CIRCULARITY AND SUSTAINABILITY OF THE ORGANISATION.

CARPENTRY ORNIK

Slovenia

CHAPTER 7



MAIN TOPICS:

Zero waste production, Servitization

CARPENTRY ORNIK

THE MAIN "PRODUCTION" PHILOSOPHY

In the production process, the company uses wood that is 100 years old or older (some pieces are even older than 500 years). The company demolishes old wooden barns and uses the old material for new products. In its production, Ornik is oriented to circularity and zero waste production. Each piece of the wood is used as much as possible. The best preserved materials are used for visible parts of the furniture, the "second class" wood is for invisible parts, under construction, back sides or upholstered furniture construction.

COMPANY OVERVIEW

OUR HISTORY

Mizarstvo Ornik is a small company specialising in furniture production made of old/used wood and other raw materials. The company was officially established in September 2010 and it is located in the North East of Slovenia. The company is completely under private ownership; it is a family business. Today there are eight employees, working in the production, technology and management of the company. Seasonally, the company cooperates also with subcontractors to help mostly on the installation, transporting and preparation of the old wood for the production phase. In its production process, Ornik is strongly oriented to circularity and zero waste production.

a short video presentation of the company:

PRODUCTION PROCESS BASED ON CIRCULAR ECONOMY

In the last decade, the company invested a lot in the production of machinery, tools and infrastructure – new machineries and/or upgrading of the existing ones allowed the company to improve and maximise the use of the wood and wooden materials.

- Learning and practices: a new logic in the production process as well as the application of design thinking was needed in the company team.
- The company is now also searching for new suppliers of old wood and new material locations – Supply chains are constantly changing so the company should keep itself updated.
- Making an experience: employees education (practical, theoretical, learning new skills) is relevant for the company.
- Products are unique and can be changed: their elements can be reused.
- Reorganisation of the production processes is needed: the incoming material needs at first to be checked and prepared to be used for working processes.

TRANSITION FROM LINEAR TO CIRCULAR

For the wooden products, elements or interiors with an old look and a natural design, Ornik is using different parts of the already used wood; old barns, rafters and ceiling joists from roof construction.

The wooden waste materials used as raw materials are completely used for energy production: heating in the industry and at home (new products such as pellets, briquettes, etc.). A part of the raw materials is processed into new different products (paper, packaging material, etc.).

Insulation alternatives: wood fibre natural insulations, wood mix with recycled insulation material (as Blow-in Cellulose insulation).

Wood "Chips": for different outside uses such as paths, gardening, decoration, flooring.



PRODUCTION PROCESS BASED ON CIRCULAR ECONOMY AND PROCESSES

The transformation of ORNIK was gradual and based on the growth of the business. Client by client, project by project, growth occurred due to new challenges and bigger interior equipment from client to client.

Ornik received different EU grants and implemented investments in new technologies. The old wooden materials are not necessarily expensive materials; most of them can be acquired cheaper, especially if the wood is taken by demolishing the old buildings and collecting wooden parts.

High production efficiency results in a big turnover. Each piece of wood can be reused resulting in less coating and surface treatment processes (which have a cost, time and environmental impact). The furniture stays as natural as possible, without special surface treatments.

Ornik incurs almost no costs for waste – using the logic "money also lies in the waste". Each piece of wood can be used in small oriented wooden production. Wooden materials of different dimensions, both small and bigger pieces, which are cut out from the production process, can be reused and reproduced in smaller product parts. If the waste materials from the production are too small for reproducing, they can be milled and pressed for heating/energy usage.

COCO-MAT

Greece

CHAPTER 8

COCO-MAT
sleep on nature

SLEEP ON NATURE

MAIN TOPICS:

Corporate Social Responsibility and Circular Economy; Sustainable material innovation

COCO-MAT

COCO-MAT S.A.'s policy is based on sustainable development and focuses on four main areas:

- **ECOLOGICAL QUALITY PRODUCTS,**
- **CUSTOMER SATISFACTION,**
- **EMPLOYEE SATISFACTION AND**
- **SOCIAL CONTRIBUTION (COCO-MAT, 2009).**

COMPANY OVERVIEW

OUR HISTORY

COCO-MAT S.A. is a Greek-Dutch company with franchise stores all around the world. It was founded in Athens in 1989 operating in the production of mattresses made of natural materials. Its name combines the word COCO, as coconut is the main raw material used in the production of the company's mattresses and the word MAT comes from mattress.

Even since it was launched, COCO-MAT went through a progressive refining of its customer proposition and brand values, developed a global retail network and expanded into hotels and wood bikes, among other areas. Paul and Mike Efmorfidis, in 1989 started a wild journey to develop an original, Greecebased sleeping system company. In 2015, Coco-Mat had stores in 14 countries, employed at least 250 people, the majority of them in Greece. And although they underwent one of the worst economic crises ever seen by a country, they are now discussing further international expansion.



COCO-MAT : CORPORATE SOCIAL RESPONSIBILITY (CSR) AND CIRCULAR ECONOMY (CE)

From the very beginning, the work practices of COCO-MAT included some social responsibility, aiming at focusing more on environmental protection, the promotion of equality at the workplace, and social care (C. Pantazidou, 2009).
There is a separate sector of Corporate Social Responsibility (CSR) in the company, but the person responsible for the systematic practice of CSR since 2001 is also the Head of Total Quality Management (TQM). The company has clearly specified to its employees and customers the values and rules of conduct related to Corporate Social Responsibility through presentations in order to develop a common vision.

The company's participation in conferences or other collective initiatives (local, national, sectoral, etc.) relevant to the promotion of CSR is continuous, since it tries to remain informed and active in CSR practices. A very important element showcasing the company's awareness of social and environmental issues is that COCO-MAT is an active member of the Greek Network for CSR and its activities are referred to the 'List of Best Practices for SMEs" Network for CSR.

In the literature, circular economy (CE) and CSR are increasingly supplementary concepts. Circular economy is considered as the guidelines for designing and developing good CSR strategies.
In particular, the most updated corporate management philosophy frames circular economy objectives by identifying and communicating actions to achieve sustainable development goals.

The European Commission, in 2001, defined CSR "as a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (European Commission, 2001). In recent times, most economists link CSR to improvements in economic performance, operational efficiency, higher quality, innovation, and competitiveness, making businesses capable of being socially and environmentally responsible whilst pursuing their profit-making activities.

In this way, CSR has ended up including sustainability and environmental issues, which bring it closer to the Circular Economy (CE) approach.

Circular economy as a concept means many different things to different people. Circular economy is mainly referred to as a combination of reduce, reuse and recycle activities, whereas CSR necessitates a transition from a linear economy to a CE, which is able to reduce the demand for virgin raw materials and leave room for models of reuse and recycling of products.

In order to emphasise the relationships between CSR and sustainability models, it is essential to take into account circularity as a growth factor impacting companies' business models. The attention paid to CE has so far focused on the use of secondary raw materials, reuse, recycling and extension of products' life cycle, the minimalisation of waste, industrial symbiosis and renewal of materials – in order to fully commit to the principles of "reduce, reuse and recycle" and to develop corporate social responsibility, a business must reexamine its current systems.

THIS MEANS CONDUCTING AN APPRAISAL AND DETERMINING AREAS OF WASTE, TO DETERMINE WHERE AND WHEN THIS WASTE IS HAPPENING, AND TO MAKE AN EFFORT TO STOP ANY "LEAKAGE." BY REDESIGNING AND REIMAGINING CERTAIN BUSINESS PROCESSES, ENTREPRENEURS CAN WORK TOWARDS OPTIMAL SUSTAINABILITY AND EFFICIENCY, POSITIONING BUSINESSES FOR LONG-TERM SUSTAINABILITY.

SUSTAINABLE MATERIALS

Concerning environmental awareness, COCO-MAT implements various policies to reduce environmental effects. One basic approach is not to use chemicals, therefore the raw materials used are natural ones, and their use for the production of both environment- and human-friendly products is one basic principle

THE RAW MATERIALS USED ARE :

- coconut (fibers that surround the coconut after suitable treatment are combined with natural rubber to create a resilient coconut),
- natural rubber (from the sap of the tree, called HEVEA, after processing forms into a foamy layer of natural rubber),
- wool and cotton (coming from Thrace, Greece and considered to be the best in terms of quality due to the unique climatic conditions and the composition of the subsoil),
- seaweed (used in order to offer additional iodine to people with asthma and respiratory problems),
- horsehair,
- linen,
- feather, and more recently
- activated carbon.

The ecological balance is also being maintained, by the fact that the purity percentage of the natural rubber produced in the company reaches 96%, something which is COCO-MAT's exclusive feature in the sector. Even packaging materials used for the company's products are recyclable (transport of mattresses in cotton pouches) and are collected by the company upon delivery of products to the customer in order to recycle them.

COCO-MAT'S LATEST CIRCULAR ECONOMY PRACTICE:

WOODEN BIKES

(WWW.COCOMAT.GR)

The **COCO-MAT Bike Team** are shapers of the world's most highly engineered wood and sustainable bicycles. Made entirely out of oak wood, these bicycles emphasise the company's vision for the future of products engineered by their brand ethos and natural evolution and contribution.

All that the company does is centred around their pure green and human philosophy, about returning back to the path initially intended by nature and harnessing this in our products and everyday lives; getting outside, doing and seeing more.

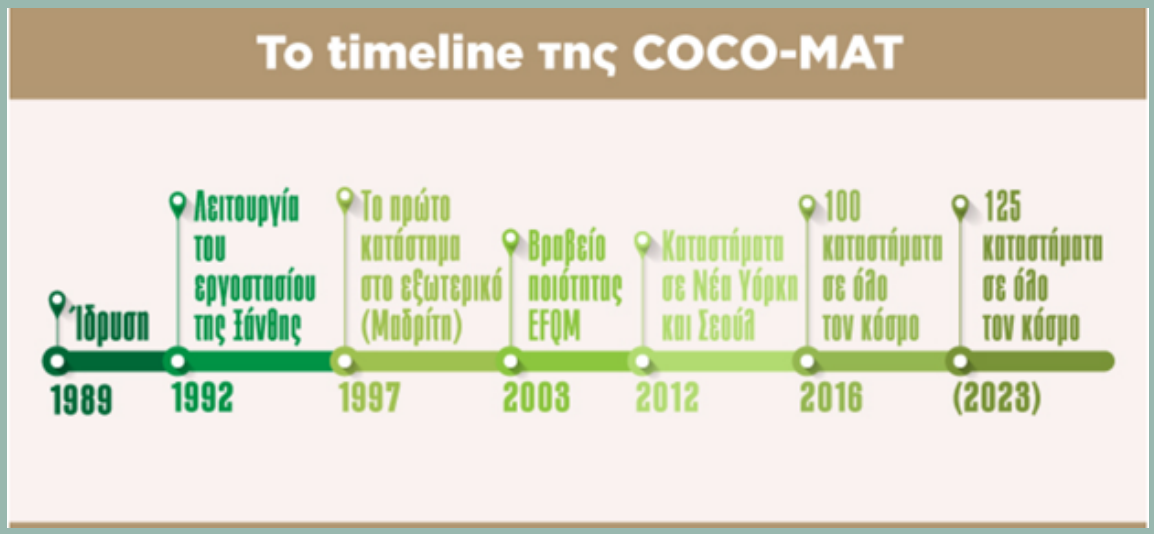
The company likes to give back to nature, and to give back to the communities and societies by doing more with less. The company's factories have no chimneys.

All leftover materials are re-used for the production of slippers, eye-masks, and cotton bags - A complete circular economy.

Focused on bringing a refreshing approach to their products, the company hopes that this approach can be reflected back into your lifestyle.

COCO-MAT are always aiming to inspire and innovate; to be conscious with its impact on the environment and balance performance with sustainability. Let's join this sweet revolution!

INFOGRAM



COCO'-MAT's TIMELINE

1989 : FOUNDED

1992 : FIRST MANUFACTURING UNIT STARTS OPERATING

1997 : FIRST STORE ABROAD, IN MADRID, SPAIN

2003 : EFQM QUALITY AWARD

2012 : FIRST TWO STORES IN THE USA

2016 : 100 STORES WORLD WIDE

2023 : 125 STORES WORLD WIDE

OUR PLANS FOR THE FUTURE

COCO-MAT LOOKS TO THE FUTURE IN THE LIGHT OF SUSTAINABLE DEVELOPMENT. IT CONTINUES TO EMPHASISE THE INDIVIDUAL CUSTOMERS WHO VISIT ITS STORES IN GREECE AND ABROAD TO GET TO KNOW THE EXPERIENCE OFFERED BY ITS HOSPITALITY AND OF COURSE ITS ENTIRELY NATURALLY-MADE SLEEP PRODUCTS. AT THE SAME TIME, THE COMPANY IS DEVELOPING THE EQUIPMENT SECTOR OF LARGE HOTELS IN EVERY CORNER OF THE EARTH, INCLUDING HOTELS OF THE HILTON, RITZ, SOFITEL, MARRIOT, AMAN CHAINS, WHILE AMONG THEM NOW INCLUDES THE EQUINOX HOTELS HOTEL, IN HUDSON YARDS, NEW YORK, ONE OF THE MOST POPULAR IN THE WORLD.

In 1992, the Greek start-up COCO-MAT introduced into the market an innovative view on mattress production based on natural materials. COCO-MAT mattresses are engineered to create and offer a new, customised sleeping experience.
The company gradually introduced additional natural materials such as horsehair, cactus fiber, seaweed and lavender to further improve the quality of their mattresses, making the bed even more special for each customer. Their bedding system proposition is complemented by a whole range of house products with the same "natural" proposition, from towels to bed sheets and furniture. Today, thirty years after its birth, COCO-MAT is a mature as well as a dominant player in the mattress market across Europe.

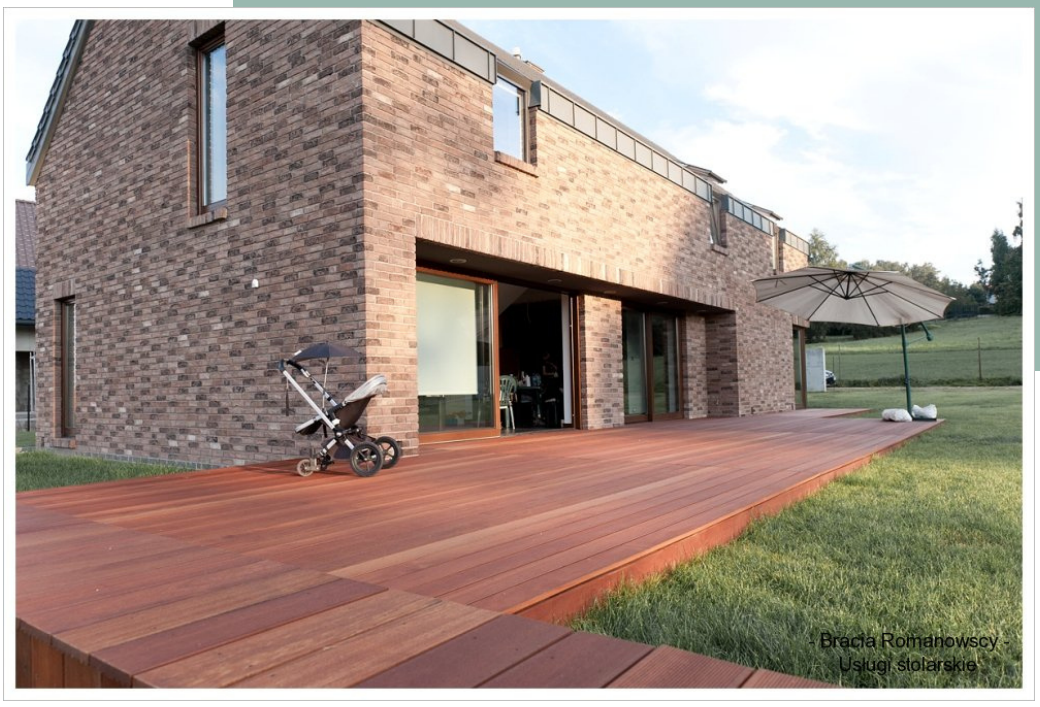
QUESTIONS FOR DISCUSSION:

1. **How does Social Corporate Responsibility relate to Circular Economy?**

BRACIA ROMANOWSCY STOLARSTWO

Poland

CHAPTER 9



MAIN TOPICS:

Zero waste production,
Sustainable design

BRACIA ROMANOWSCY STOLARSTVO

The company Bracia Romanowscy Stolarstwo deals with comprehensive interior finishing. They combine wood with stone, steel and glass, in production. The company knows that working with wood is a big challenge and requires a unique approach. Over the years of working with this material, they try to understand how wood behaves and changes its properties, so that the company's actions are consistent with the natural properties of wood. The knowledge gained in the area of Wood Technology at the Warsaw University of Life Sciences helps the management to understand wood in-depth. Thanks to the University's scientific background, it has the opportunity to conduct various experiments on wood. They use their results in everyday crafts with wood.

COMPANY OVERVIEW

OUR HISTORY

Stolarstwo Bracia Romanowscy was founded 15 years ago by three brothers: Mirosław, Valerjan and Leszek - from the Vilnius region. They got their passion for wood from Father Marek Podyma, who was their first teacher. Over the years of the company's existence, the Romanowski Brothers created a well-coordinated team of employees. Along with personal development, they also expanded the range of services provided by the company.

The company is created mostly by three people:

Valerjan: He has extensive practical experience and theoretical knowledge in the field of domestic and exotic wood and conducts research on the behaviour of wood in living quarters in our climate. He is responsible for relations with customers and suppliers and solves problematic situations with wood.

Mirosław: He is responsible for the production of stairs in the production plant. As the eldest brother, he also supervises the most important aspects of the company's operations.

Leszek: He supervises the assembly works.



PROJECT EXAMPLES









THE COMPANY'S BUSINESS MODEL

Almost 3/4 of the raw material that is used currently by the company comes from recycling and other industries.

As one of the few recyclers of post-consumer wood in Poland, the company is constantly working on increasing the share of recycled raw material in its production process.

The plant currently uses about **20%** of recycled material, of which about **50%** is waste from other branches of the wood industry. The rest is roundwood, but even in this case we are dealing with wood of a quality that does not allow it to be used in the production of large wooden elements used, among others, in construction.

Currently, the development of the use of post-consumer wood in the production of furniture and joinery is blocked by Polish legal standards that prevent the import of post-consumer wood waste, which at the same time comes mainly from Polish furniture exports. The supply situation results in:

- **an increase in product prices,**
- **a loss of competitiveness and**
- **the possibility of selling the manufactured goods.**

CERTIFICATION

The most important part of the company's activity is certification of the wood used in the production. Bracia Romanowscy Stolarstwo possesses the following certificates:

ZKP - Polish certificate for wood construction.
Regulation No. 305/2011 (Construction Products Regulation, or CPR) of the European Parliament and of the Council of the European Union is a regulation of 9 March 2011 that lays down harmonised conditions for the marketing of construction products and replaces Construction Products Directive (89/106/EEC) and entered into force on 1 July 2013.

This regulation defines the conditions for placing construction products on the EU market or making them available on the EU market by establishing harmonised rules:

- **expressing the performance of construction products in relation to their essential characteristics**
- **the use of CE marking on construction products.**

**FSC® (Forest Stewardship Council®) is the most recognisable system of sustainable forest management and traceability of forest products in Poland. This certification allows organisations to use the FSC logo on products, increasing their market attractiveness.
Organisations of all sizes and types can apply for chain of custody certification (CoC). To obtain a chain of custody certification, organisations must meet the requirements of the chain of custody certification standard - FSC-STD-40-004.**

MAIN TOPICS AND PLANS

The ban on the import of wood and chips from Belarus and Russia and the simultaneous push for the burning of wood and chips in Polish power plants result in even greater energy activity on the Polish wood and biomass market, which, given the skyrocketing prices of energy, gas and chemicals, may lead to a reduction in production and a wave of bankruptcies of domestic companies furniture industry in Poland. At the same time, the lack of sanctions on imports of furniture from Russia puts the Polish furniture industry and the recycling market in Poland on the brink of liquidation. And only ashes may remain from the recycling of post-consumer wood in a closed loop. These are the aspects of company's activities, that are always on the minds of all Polish producers.

Most post-consumer wood in Poland, if it is used at all in the production of furniture elements, is intended for the production of chipboards. The company Bracia Romanowscy Stolarstwo produces furniture and construction elements made of solid wood. Therefore, their processing for subsequent use is definitely difficult. Good practice in this area is hard to find. Despite everything, the company manages to find opportunities to use, even old furniture, stairs and other construction elements in the production of new products.

Elements used in construction joinery must be much more durable than furniture elements. In Poland, most of the post-consumer wood is used in the production of chipboards, which are components of furniture. Hence, it is easier to implement post-consumer wood in furniture than in building structures, which the company also deals with.

EXTRA INFORMATION

- All of the owners of the company Bracia Romanowscy Stolartswo are engineers, that finished their studies in the field of Wood Technology.
- One of the owners of the company - Valerjan Romanowski - holds the Guinness World Record in MTB 48h off road.
- Valeran Roanowski has also Guinness Winter Record in MTB 12/24/48h in Jakucja.
- All owners cooperate with research units in order to be able to expand their activities.
- In addition to the use of post-consumer wood, the company is constantly working on the use of metal, glass and recycled plastic.

The company is guided in its activities by one basic principle: the choice of material from which the furniture is made is of great importance. By choosing furniture made of materials whose composition consists of post-consumer materials, we support recycling, living in accordance with the zero waste idea and we care for natural resources that are running out.
The designers of the company always make sure that the person arranging the apartment tries to think in broader terms. Because the choices we make today affect the world in which future generations will live. Therefore, if you want to have a positive impact on our environment, you should introduce changes in your immediate surroundings - buy less and make thoughtful purchases, choose high-quality products that will serve us for a long time, as well as not throwing things away hastily, but instead, for example, renew them. The most important thing is that it is up to each individual client whether we collectively will allow future generations to enjoy the charms of nature and preserve its resources, which are so necessary for life.

OUR PLANS FOR THE FUTURE

CURRENTLY, THE COMPANY IS TRYING TO OBTAIN ANOTHER CERTIFICATE REGARDING THE WOOD OBTAINED FOR PRODUCTION - PEFC IN THE ASPECT OF COC. SUPPLY CHAIN CERTIFICATION (SCC) WILL ALLOW CUSTOMERS TO TRACK THE WOOD FROM THE FOREST TO THE FINAL PRODUCT. SUSTAINABLE FOREST MANAGEMENT, ALTHOUGH IMPORTANT FOR PRESERVING THE FUNCTIONS PERFORMED BY THE FOREST, DOES NOT IN ITSELF CREATE A LINK BETWEEN THE FOREST AND THE MARKET. TO ENSURE THAT WOOD AND WOOD PRODUCTS COME FROM PROPERLY MANAGED FORESTS, PEFC PROMOTES SUPPLY CHAIN CERTIFICATION. BY OBTAINING THIS CERTIFICATE, THE COMPANY CREATES THE BASIS FOR THE DEVELOPMENT OF ITS ACTIVITIES IN THE FIELD OF SHAPING THE CIRCULAR ECONOMY.

QUESTIONS FOR DISCUSSION:

1. **Which of the legal aspects are problematic in expanding the use of post-consumer wood in the company's production?**
2. **Do you try to increase the amount of post-consumer wood used, despite the legal restrictions?**
3. **In which type of production it is easier to reuse wood - in the furniture or in the construction?**

CONCLUSIONS

CHAPTER 10

The importance of circular economy is increasing for individuals, organisations, companies and society as a whole. The main aim of the Erasmus+ co-funded INFURI project is to spread innovative and sustainable circular business models in the furniture industry with the focus on SMEs and to equip furniture employees with relevant skills related to circularity, while promoting synergies and cooperation among businesses, universities, research centres and other relevant stakeholders operating in the furniture sector.

The aim and design of this handbook has hopefully provided helpful teaching material, based on real life case studies, that will enable European furniture SME's, employees, and stakeholders in the field of furniture and circularity as well as VET providers, institutions and associations, to use this material and these tools to learn about the systematic approach in the era of circular economy in the future.

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