



PackLess Guide

To support SME Sustainable Packaging Transformation



"You cannot get through a single day without having an impact on the world around you. What you do makes a difference and you have to decide what kind of a difference you want to make."

Jane Goodall

Table of contents

1	Introduction	4
2	Sustainable Packaging - Inspirational Examples	6
3	Everything about sustainable Packaging	26
	3.1 Branding and Communication of Packaging	28
	3.2 Legal and Financial Aspects	33
	3.3 Technical Aspects	37
	3.4 Management aspects of the transition towards sustainable packaging	44
	3.5 How to find Inspirational Sustainable Packaging Solutions for SME's	49
4	How to start sustainable Packaging	53
5	Curricula	58
	5.1 Curricula for internal education in the companies	59
	5.2 Curricula for vocational education training (VET)	79
6	Digital Tools and Curricula	90
	6.1 Recyclass	92
	6.2 EcoLable	96
7	References	102

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1. Introduction



Introduction

This guide to the implementation of sustainable packaging solutions is to be seen in the context of a comprehensive orientation towards new goals in the economy that generally address issues of the circular economy and the European Green Deal. While larger companies have always been required to comply with European and national reporting regulations, the efforts of small and medium-sized companies are even more informal.

However, many entrepreneurs regularly ask themselves how they can find packaging solutions that are appropriate to the product and the right equipment. But also because packaging is usually a small cost block in relation to the entire product, attention is more focused on other aspects of the value chain.

This working aid aims to encourage people to deal with the issues of more sustainable product packaging for small and medium-sized enterprises as well. Most companies will discover advantages because, for example, costs can be saved, positive attention on the part of customers can be expected and a contribution is also made to the achievement of the goals of European sustainability policy.

The working group, which consists of five European partners, has had two main target groups in mind:

- Owners and executives of small and medium-sized companies in all industries
- Teachers in vocational education and training

On the following pages, users are introduced to basic aspects of the use of sustainable packaging on the one hand in the presentation of the essential topics of a conversion of companies to sustainable packaging and on the other hand the user gets to know inspiring examples of European companies that have developed successful smaller and larger sustainable packaging solutions. In addition, teachers and trainers of all kinds will find materials and curricula for free use to address the topic of sustainable packaging with their trainees and students. These curricula are also intended for the owners and executives of the companies in order to initiate the necessary change processes with their employees.

2. Sustainable packaging Inspirational Examples



Inspirational Examples: Be inspired by the experience of different companies

Sustainable packaging solutions – what are they anyway? What are the starting points for finding other packaging solutions? During our research into the prevailing packaging practices in the context of small and medium-sized enterprises, we were impressed by the creativity of many companies. In the following section, we have compiled 8 inspiring examples. We present the companies and their packaging solutions. In doing so, we also dealt with the question of what is sustainable about the activities and how these sustainable approaches were also implemented in concrete terms.

There are starting points at different levels. Sometimes it's about customer contact. See, for example, the solution of the company Seidensticker, which does not use plastic sleeves for its shirts. Baba's Soapery uses a lot of compostable materials for the packaging of their cosmetic products.

Seidensticker Group



Company Size: 2.200 employees **Sector:** Textile and garment industry

Country: Germany

Website: www.seidensticker.com

Interview with Nico Kemmler

My name is Nico Kemmler, I am the Head of Logistics, Corporate Responsibility and Supply Chain Services. Seidensticker Group is based in Bielefeld and specializes in the production and worldwide distribution of men's shirts and women's blouses. Making efforts towards the reduction of harmful impacts of our products and their packaging is an important to our company.



What kind of sustainable packaging do you use?

With the Autumn/Winter 2020 collection, we removed all items made from plastics in the product packaging of shirts and blouses of Seidensticker brand. To ensure hygiene and cleanliness during shipping, we wrap the goods in tissue paper and add a cardboard bridge after every 4th item to protect against pressure marks.

What was the change/solution you implemented?

We recognize the responsibility our company and the entire industry has and strive to lower the impact of our products. In this regard, we must also look at the product packaging. In cooperation and consultation with the Research Board of the German Textile and Fashion Industry Association, the Thuringian Institute for Plastics and Packaging Research and the Dual System Germany ("Der Grüne Punkt"), we looked for suitable, more sustainable alternatives. As the primary objective was to reduce the amount of packaging, we decided to stop using plastic packaging material instead of implementing biodegradable polybags. Instead, we now pack our shirts and blouses in tissue paper and use packaging parts made from cardboard, for example on the inside of the shirts collar, to ensure functional and robust packaging. This not only enabled us to save resources required to produce packaging material, but also cut the amount of waste associated with previous shirt packaging.

What benefits/drawbacks did you expect from the change/solutions?

By eliminating non-necessary components and by shifting from plastics to cardboard, we made a conscious contribution to reducing the impact on the environment. Additionally, we were able to slightly reduce packaging costs. Also, we received encouragement and positive feedback from our customers and partners, who prefer to buy a long-lasting quality product in more sustainable packaging.

How was the situation before and after the implementation?

Initiating and implementing changes always takes a lot of effort. We were motivated to develop a plastic-free alternative. However, the decisive factor was a complaint from a consumer who was dissatisfied with the amount of waste resulting from shirt packaging challenging whether there was no other way of packaging high-quality shirts in a more environmentally friendly way. The new packaging was tested, optimized and has now been firmly implemented. The logistics service provider and its order pickers in particular were sensitized and trained with regard to the high demands of the Seidensticker brand. Further possibilities for packaging optimization are reevaluated on a regular basis.

How do you communicate with clients / employees about the solution?

Accepting change is not always easy. Our customers were informed via parcel leaflets to explain and promote the decision to no longer use plastic packaging. However, we received much more encouragement from our retailers and end consumers than doubts. It was a risky decision – however, the proportion of soiled or damaged shirts is very low.



BABA'S SOAPERY

BABA'S SOAPERY

Company Size: 10 employees

Sector: Cosmetics
Country: Bulgaria

Website: www.babas-soapery.com

Interview with Lina Adreas

The Company is producing pure natural handmade cosmetic products (soap bars, shampoo bars, body lotions, lip balms), using traditional Bulgarian artisan methods. They are using carefully selected ingredients, using pure vegetable oils. All of the products are completely vegan, made without palm oil and packaged in a sustainable and environmentally friendly way. When it comes to packaging, they are using sustainable approaches for the packaging of the product itself and also for the packaging, when sending products for delivery.



Lina Andreas, brand creator and cosmetic formulator, is a third generation soap maker. She is found of minimalism and a simple, conscious lifestyle without unnecessary waste of resources.

What kind of sustainable packaging do you use?

The brand's products, in addition to being gentle and effective, are also ethical and have a minimal ecological footprint – their packaging is made of recycled cardboard, printed with non-toxic ink.

The packaging box of the soaps is made from 100% recycled cardboard and is printed with non-toxic ink. It can be recycled with paper waste or put in the composter. The soap can also be ordered without packaging and we are supporting this as we offer 5% discount of the retail price of the product.

The body lotions are offered in various packages, making them suitable for travel or home use. One of the available packages is glass jar, which is fully recyclable with an aluminum lid, without any plastic.

The packaging of the lip balm is biodegradable, made entirely of cardboard. When the product is over, the package shall be recycled or put in the composter.

What was the change/solution you implemented?

Baba's Soapery has been using sustainable packaging from the very beginning of our operations because it aligns with their brand's commitment to being environmentally conscious throughout all aspects of production and logistics. By prioritizing eco-friendly materials, we demonstrate our dedication to reducing environmental impact at every stage of our process.

What benefits/drawbacks did you expect from the change/solutions?

We choose to work with recycled and easily recyclable materials to package and ship our products, from the very beginning of our operations, in order to reduce our carbon footprint and to meet or exceed our clients' expectations for environmentally conscious products from natural origin.

We definitely feel that our package-free solid products and also glass-packaged body lotions stand out amongst our local competitors, because they are packed sustainably.

We find that eco-friendly packaging is not cost-prohibitive, it's fairly easy to source and when used correctly, can ensure that products are stored and transported in a safe manner.

How do you communicate with clients / employees about the solution?

It is noteworthy that we communicate our commitment to sustainable packaging solutions for our products very carefully. On our website, under the description of the ingredients of each product, there is information for its packaging, how the package could be recycled or there is an option to buy the product without packaging, offering a small discount.

When it comes to packing online orders, there is provided information on the website that we pack our shipments only with recyclable materials - in cardboard boxes or cartons, sealed with paper and stuck with paper tape and we do not use courier envelopes.

Our clients and partners appreciate the package-free option that we offer for our solid-state products such as bar soaps and shampoo bars. Most of our return customers choose to shop packaging-free and enjoy a discount from the regular price, and we work closely with our retailers to provide labels for their storage containers in order for them to display package-free products in a customer-appealing and also regulations-compliant way. We often ship retailer orders using reclaimed cardboard boxes and use similarly reclaimed cardboard materials to pad the contents of the boxes.

Although the packaging is simple and eco-friendly, it retains an attractive and its stylish design reflects the brand's philosophy of purity and naturalness.





SWAPP



Company Size: 10 employees **Sector:** Packaging Startup

Country: Poland

Website: www.swapp.zone

Interview with

Swapp is a Polish startup founded in 2020 by Szymon, Sargheve, Andrzej offering two innovative solutions for the packaging industry. The first solution is vending machines for refilling cosmetics into reusable packaging. The second solution is reusable food and beverage packaging with a deposit system via mobile app.



What kind of sustainable packaging do you use?

We were the first on the Polish market to introduce refill machines for cosmetics in markets. The cosmetics are supplied by the Polish brand YOPE, which is committed to caring for the environment. Together with YOPE, we have developed health-safe and durable plastic bottles, which the customer buys once and brings back again to buy only the product itself later.

This is a win-win relationship, where both the customer and the manufacturer save on not putting another pack on the market. The second solution is reusable food and beverage packaging with a deposit system via mobile app.

The packaging can be reused 1,000 times and, thanks to the app, the number of times the packaging is used is tracked.

What was the change/solution you implemented?

Returnable cups are nothing new on the market, although these solutions are still not very popular in Poland.

The innovation of our solution lies in the fact that we have designed an application that allows for a cashless deposit system - renting a cup or food container through an application that blocks the payment for the vessel on a credit card connected to the application. This works in exactly the same way as booking a reservation on bookings or ordering a taxi through popular apps. When purchasing a coffee, the customer scans the QR code on the packaging and must return the cup to a designated point (e.g. a restaurant that has special bins within seven days). Scanning the code locks the deposit in the user's account. When returning the cup, the QR code has to be scanned again on the bin located at the partner restaurant. The deposit is then not charged to the customer.

What benefits/drawbacks did you expect from the change/solutions?

Through our activities we are trying to support the consumer and business in reducing single-use plastic packaging. We respond to the needs of the market because we know that there is already a large community of people who feel uncomfortable throwing more plastic packaging in the bin.

People want change - you just have to provide them with a sensible and convenient solution. It also takes time to popularise these solutions so that they are available on a wider scale, and that is our challenge now.

How do you communicate with clients / employees about the solution?

The company is entering into partnerships with the Carrefour and Rosmann market chains, which have similarly aligned objectives - sustainability in their mission. For the refill machines, we use the advertising slogan 'I choose the product, not the packaging' together with Carrefour. We test our solutions with them and get feedback from the customers.

We are present with our solutions at many startup events, national and international conferences. We also give lectures and webinars to present our solutions and share our experience.

We are a member of the PLANET REUSE networking platform, which brings together companies involved in sustainable packaging. We also cooperate with NGOs. In the case of caution-free packaging, we cooperate with caterors, catering companies, restaurants, food trucks and event companies. Our aim is primarily to establish b2b collaborations.



SIEMENS MOBILITY AUSTRIA GmbH

SIEMENS

Company Size: 3.500 employees

Sector: Rolling Stock
Country: Austria

Website: www.mobility.siemens.com/at/en.html

Interview with Helmut Forchtner

Siemens Mobility is a leader in intelligent transport solutions for more than 175 years. Its core areas include rolling stock, rail automation and electrification and a comprehensive software portfolio to make infrastructure intelligent. Helmut Forchtner is Sustainability Manager for the North East Europe region.



What kind of sustainable packaging do you use?

We believe that the most sustainable packaging is the kind that doesn't end up in the trash, which is why we want to introduce our standard returnable load carrier systems.

On the one hand, we have returnable steel racks that go by the internal project name "Mobility Modular Load Carrier" (MMLC for short). This is a modular system that is designed to create component-specific holders and receptacles for a wide variety of components with as little effort as possible. The aim is always to ensure that as many parts of the load carrier as possible can be reused for subsequent projects once a train manufacturing project has been completed. These MMLC steel load carriers are used for particularly large, heavy and complex components that have to meet additional installation requirements on the production line.

In addition, we are currently expanding our own pool of reusable plastic boxes under the project name "Zero Waste Initiative". These are available in 3 standardized dimensions and are intended to cover the majority of assembly materials that would otherwise be delivered in wooden crates or wooden pallets. These plastic boxes are made of 100% secondary material and have comparable mechanical stability to wooden boxes, but weigh considerably less.

What was the change/solution you implemented?

Together with load carrier manufacturers, we have developed the modular MMLC concept, which fulfils the above-mentioned aspects. Previously, returnable load carriers were only designed specifically for use during a train manufacturing project. In addition, most load carriers can be folded when empty, thus reducing the volume to be transported.

We also designed the plastic boxes with another load carrier manufacturer, as the original packaging was geared towards the automotive sector and therefore did not meet our requirements. The payloads and stacking loads in particular had to be increased. These load carriers can also be folded when empty to reduce the volume by up to 80%.

In order to properly manage these new standard returnable load carriers, load carrier inventory software was also implemented to monitor and control the quantities and delivery locations in real time.

What benefits/drawbacks did you expect from the change/solutions?

We expect less packaging waste, which has often taken up a lot of space for temporary storage due to the dimensions of the wooden crates and pallets. Additionally, we foresee a reduction in the overall costs of packaging procurement as well as a more resilient supply chain. Furthermore, we aim to improve the quality of work for both logistics and production employees.

In the area of load carrier management, we now need to gather and build on our experience and continuously improve the system. In addition, more intensive communication with suppliers and our own employees is necessary as processes and project logistics planning are changing.

How was the situation before and after the implementation?

Before we started using standardized load carrier systems, only a selection of components were intended for use with returnable load carriers. In general, almost exclusively reusable steel racks were used and only rarely wooden ones, as these usually broke after a few cycles. These racks were then designed for the respective components on a project-specific basis and evaluated by means of a comparative profitability calculation. The fact that no standards were used here meant that the full construction, procurement, storage and disposal costs were incurred for each application, which often prevented implementation. The new standards are intended to reduce these costs and implement a wider range of applications. The systems generally enable us to carry out deliveries and transfers of goods in higher quality, reduce the CO2 footprint and the amount of waste generated and meet both corporate targets and customer requirements

How do you communicate with clients / employees about the solution?

We implement internal marketing through newsletters and special theme days such as an environmental week. In addition, there are training courses and sufficient information material, both digital and physical, for employees who are not constantly sitting in front of computers. The respective managers of the individual departments are required to continuously sensitize their employees to these topics and also motivate them to contribute their own ideas. In this way, we create a spirit of cooperation and prevent negative patterns of behaviour towards new solutions, some of which require more effort.

We use transparent communication with our partners and customers regarding the sustainability of our products. The returnable steel racks as well as the reusable plastic boxes complement our comprehensive action plan on the path to sustainable production which we regularly report to our customers.

We will also present the solution to our stakeholders, selected trade media and others as a best practice solution to showcase and accelerate innovation cycles.

MAKAVA



Company Size: 11 employees

Sector: Beverages **Country:** Austria

Website: www.makava.bio

Interview with Klaus Krivacek DI (FH)

My name is Klaus Krivacek, I am a co-inventor, have been responsible for sales and key accounts since the beginning of 2012 and have also been a shareholder since 2017.

Description MAKAvA: MAKAvA delighted ice tea

The organic and fair trade pick-me-up from Graz

Delightfully delicious, refreshingly stimulating, naturally organic, fair, vegan & climate neutral. The Austrian in-drink MAKAvA is not only a lemony delight, but also energizes you. The mate tea from Argentina is caffeinated and is appreciated in its homeland and here for its long-lasting, stimulating effect.

MAKAvA has been produced with fresh spring water by the company APO Fruchtsäfte in Millstatt, Austria, since 2005, and we focus on the highest quality. All ingredients are certified organic and come from the EU or from fair trade sources. Our product and our company are climate neutral. It makes the sun shine!

The Graz-based company has 11 employees and has been committed to a holistically sustainable product and a social-ecological orientation of the company since its inception. For example, MAKAvA is bottled in glass bottles, with both reusable and recycled bottles offered. We have also been a member of the Economy for the Common Good (as the first beverage company) since 2014.

Many small steps, all serving the same vision:

"We dream of a fair & chilled world..." – because MAKAvA excites, not agitates!





Sustainability aspects in the company:

- Ingredients from organic, regional and, if imported, organic-fair agriculture
- Produced in Austria most of the packaging materials are also from Austria, except for the screw cap and the box, which come from Bavaria/Germany
- Advertising material made from renewable resources (FSC-certified paper cardboard and woods)
- Payment of employees above the collective agreement
- Use of eco-labelled printing paper
- Green electricity in the office
- Use of Rail Cargo Austria as far as possible
- Winner of the Trigos Award for corporate social responsibility
- CO2-neutral product and company through compensation

What kind of sustainable packaging do you use?

We use a reusable glass bottle with a reusable crate for the catering industry with a deposit and return system. Unfortunately, we still use a disposable glass bottle in retail, but there will be a change to reusable bottles in the future. Almost all our advertising material is made from renewable resources (cardboard - paper - wood).

What was the change/solution you implemented?

WWe have relied on the reusable glass bottle in the HoReCa (Hotel, Restaurant, and Catering) sector from the very beginning.

The main reason was, of course, the environmental/sustainability aspect, especially in comparison to single-use aluminium and/or plastic.

We believe that a drink from the transparent glass bottle not only tastes "subjectively" better, but also has a higher quality and the customer can see what he/she is consuming.



Initially, we had to expect a lot of resistance because everyone wanted us to use the PET bottle or the aluminium can, so we are all the more pleased that the reusable glass bottle has caught on and is experiencing a general revival.

What benefits/drawbacks did you expect from the change/solutions?

It was also important to us for the sake of the common good to use sustainable and recyclable packaging materials. Unfortunately, the costs of a changeover (as mentioned above, from non-returnable to returnable glass bottles in retail) and the willingness of the market and customers are sometimes still a disadvantage.

The non-returnable bottle is the same bottle as the returnable bottle, only "unfortunately" we have a special bottle shape that is not used by other beverage companies. The additional costs incurred by programming reverse vending machines for a new bottle type are a challenge for small companies like us.

In the future, we hope to see more extensive state funding to support companies like us in making the switch and are watching with great interest "bottle and deposit pool solutions" where we can also join. This may mean a change to our beloved bottle shape to a "normal" deposit bottle, but let's wait and see how the market develops, especially in 2025 (introduction of a deposit on disposable plastic and cans).

We have observed that the attitude and willingness towards reusable solutions has definitely changed for the better in the last 1-2 years and we hope that changes, such as the introduction of the reusable quota in Austria, will mean that not only the usual 'beer' but all drinks can be returned as empties in future.

Switching to more sustainable solutions is associated with a number of challenges, but our history has shown that people have to do it anyway and that the environment will accept it at some point.

How was the situation before and after the implementation?

We are already seeing an increased willingness to buy and support reusable products. This is also the case for beverage retailers and the catering industry.

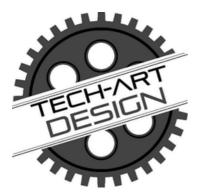
This is certainly due to increased media coverage of sustainability and climate change, which has raised consumer awareness and their willingness to support this. It is also due to legal changes, as already mentioned above, with the introduction of a deposit on disposable cans and plastic bottles and a reusable quota for retailers.

How do you communicate with clients / employees about the solution?

Either personally through our sales force and key account or via social media. Internally, we regularly have meetings where changes/ideas are discussed together.

Our customers are very happy that we offer our MAKAvA in glass bottles. There is a little criticism that they would like to see much larger MAKAvA bottles, because we get drunk up so quickly.

Tech-Art-Design



Company Size: Micro <10 employees

Sector: Automotive; Industry

Country: Poland

Website: www.facebook.com/SimonTechArtist/

Interview with Szymon Tkaczyk

What kind of sustainable packaging do you use?

The company uses recycled boxes, reclaimed pallets and europallets, reclaimed box fillers, eco-friendly tape, and bubble wrap made from recycled materials. Additionally, "cleaning clothes," which are used textiles unsuitable for recycling, are used for cleaning engines and painting. All waste from engine cleaning, maintenance, and furniture production is segregated and sent for proper disposal as hazardous waste. All metal waste is recycled.



What was the change/solution you implemented?

The company transformed its production process by developing techniques to repurpose old car engines into designer furniture. This included selecting specific types of car engines, thoroughly cleaning and refurbishing them, and using them as the basis for unique furniture pieces. Additionally, sustainable packaging materials like recycled boxes, reclaimed pallets, and eco-friendly tape were introduced to reduce environmental impact.

What benefits/drawbacks did you expect from the change/solutions?

Benefits:

- Reduction of waste through upcycling car engines and using sustainable packaging.
- Creation of unique, personalized furniture that preserves the memory of beloved cars.
- Attraction of a broader and more international customer base.
- Enhanced company reputation for sustainability.

Drawbacks:

- Technical challenges in handling and refurbishing heavy, corroded, and gasoline-contaminated engines.
- Significant effort and time required for pre-treatment and painting processes.
- Potential higher costs associated with sustainable packaging materials.

How was the situation before and after the sustainable packaging implementation?

Before Implementation:

- The company likely used conventional materials and methods for furniture production and packaging.
- Limited differentiation in the market with a focus on traditional designs.
- Waste reduction and sustainability were not central to the business model.

After Implementation:

- The company established a unique niche by creating furniture from upcycled car engines, attracting car enthusiasts and eco-conscious clients.
- Increased international interest and notable collaborations, such as with the owner of the Roleski company.
- Improved sustainability practices, including the use of recycled boxes, reclaimed pallets, reclaimed box fillers, eco-friendly tape, and recycled bubble wrap for packaging.

How do you communicate with clients/employees about your sustainable packaging?

The company communicates its sustainable practices through:

Clients:

- Providing detailed information on the website and social media about the upcycling process, environmental benefits, and sustainable packaging materials.
- Transparency about the materials and processes used in creating each furniture piece, including the use of recycled and eco-friendly packaging.
- Offering personalized consultations to explain the sustainable aspects of their custom furniture and packaging.

Employees:

- Conducting regular training sessions and updates on sustainable practices, waste segregation, recycling protocols, and the use of sustainable packaging materials.
- Encouraging employee involvement in suggesting and implementing sustainability improvements.
- Establishing clear guidelines for handling hazardous waste, recycling materials used in production, and utilizing sustainable packaging materials.

Koter Horticultural farm, Berry and Rhododendron nursery



Company Size: Micro <10 employees

Sector: Agriculture Country: Poland

Website: www.koter.com.pl/

Interview with Aneta Koter

What kind of sustainable packaging do you use?

At Koter - Berry Shrub Nursery, we prioritize sustainability in every aspect of our operations, including our packaging. We use recycled boxes, pallets, and eco-friendly packaging materials to minimize our environmental footprint. Our packaging approach includes:

- Recycled Boxes: All our shipping boxes are made from recycled cardboard, reducing the need for new raw materials and contributing to a circular economy.
- Recycled Pallets: We use europallets that have been recycled and reclaimed, ensuring that we minimize waste and support sustainable forestry practices.
- Eco-friendly Wrapping Paper and Tape: Our products are wrapped in recycled paper and secured with biodegradable, eco-friendly tape, which breaks down naturally, unlike traditional plastic-based tapes.
- Minimalist Packaging: We focus on reducing excess packaging, using only what is necessary to
 protect our plants during transport. This approach not only conserves resources but also
 reduces the overall carbon footprint associated with shipping.
- By integrating these practices, we ensure that our packaging aligns with our commitment to environmental stewardship, offering our customers a green alternative without compromising on quality.



We have implemented a variety of green initiatives to enhance our sustainability, with a specific focus on our packaging processes. The key changes include:

Recycled Packaging Systems: We now use recycled europallets, packaging paper, eco-friendly tape, and twine in all our shipments. These materials are chosen for their low environmental impact and effectiveness in protecting our products.



Sustainable Production Practices: In addition to our packaging, we have introduced eco-friendly farming methods such as drip irrigation to conserve water, organic farming techniques to eliminate the need for harmful pesticides, and plant waste recycling to create natural fertilizers. These solutions have transformed our operations, enabling us to lead by example in the horticultural industry.

What benefits/drawbacks did you expect from the changes/solutions?

Benefits:

Cost Savings Over Time: By reducing our reliance on new packaging materials and embracing recycled options, we anticipated long-term cost savings.

Enhanced Reputation: We expected our commitment to sustainability to resonate with customers who value environmentally responsible businesses. This has helped us build a stronger brand image and attract a more environmentally conscious customers.

Market Differentiation: By integrating sustainability into our core business, we have positioned ourselves uniquely in the market, setting us apart from competitors who may not prioritize green practices.



Drawbacks:

Initial Costs and Knowledge Barriers: Implementing these changes required a significant initial investment in both materials and training. Understanding and sourcing eco-friendly packaging options were challenging at first, and required thorough research and trial.

Ongoing Monitoring and Adjustment: Sustainable practices require continuous monitoring to ensure effectiveness. For instance, transitioning to solar power involved regular maintenance and adjustments to maximize efficiency.

Despite these challenges, the long-term benefits of these initiatives have outweighed the drawbacks, allowing us to grow sustainably.

What was the situation before and after the implementation of sustainable packaging?

Before Implementation:

- Conventional Practices: We primarily used traditional packaging materials and farming methods that were more focused on cost-effectiveness than environmental impact. This included standard cardboard boxes, plastic wrap, and chemical-based farming inputs.
- Limited Differentiation: Our approach was more conventional, leading to limited market differentiation. While we provided quality products, our brand did not stand out as a leader in sustainability.

After Implementation:

- Sustainability as a Core Value: Our shift towards sustainable
 packaging and farming practices has made environmental
 responsibility a core aspect of our business. This commitment
 has attracted a new segment of eco-conscious customers
 who prioritize sustainability in their purchasing decisions.
- International Recognition: Our sustainable practices have not only improved our environmental footprint but have also brought us international attention. We have formed collaborations with other environmentally conscious brands, further enhancing our reputation.
- Improved Brand Image: The implementation of green practices has significantly boosted our brand image, positioning us as an innovator in the nursery industry. Our customers now associate our brand with high-quality, sustainably produced products.



Organic Polska



Company Size: Micro <10 employees

Sector: Ecological packaging

Country: Poland

Website: www.organicpolska.com

Interview with Robert Hołowiecki - Owner

What kind of sustainable packaging do you use?

We offer our customers a wide range of corrugated cardboard packaging, which means that the materials used are to a large extent recycled and 100% recyclable (they are mainly single-material packaging, which means that they are easy to segregate, thus guaranteeing recycling).

Virtually our entire range of products fits into the philosophy of closed circulation - or sustainable packaging.



What was the change/solution you implemented?

We have made a number of changes to our range that offer tangible benefits to users of this packaging (including those with a positive impact on the environment). Here are some examples:

- reusable cardboard packaging (financial benefit and lower environmental impact);
- cardboard pallets and crates much lighter than wooden pallets (the weight of an example cardboard pallet is 3kg, while a comparable wooden pallet weighs about 20kg);
- liquid containers lighter and when empty stored and transported flat folded unlike traditional IBCs:
- height-adjustable containers to eliminate carrying air;
- packaging that effectively protects the goods eliminating damage and returns;
- packaging with maximum functionality to make packing and unpacking easier;
- we also corrugated cardbord box inserst in required shapes to eliminate polystyrene or other such materials.

What benefits/drawbacks did you expect from the change/solutions?

The packaging we offer offers a number of benefits:

- easy to use well-designed packaging makes both the packing and unpacking process easy, it also guarantees 100% safety (no damage, no returns, etc.);
- easy segregation and recycling;
- possibility to reuse or give a second life to the packaging once used;
- significantly lower weight smaller carbon footprint;
- at the end of a packaging's life, when recycling is not possible easy incineration process (in incinerators) or short biodegradation period (no landfill, zero toxicity);
- use of user-friendly, environmentally friendly packaging benefits the company's reputation.

How was the situation before and after the sustainable packaging implementation?

One of our customers replaced wooden packaging with specially designed corrugated cardboard packaging which resulted in:

- reduced packaging costs
- reduction of transport costs
- easier packaging process
- greater end-customer satisfaction: easy unpacking process and ease of disposal of unnecessary packaging.

The above-mentioned benefits have a positive impact on the company's image and its business.

How do you communicate with clients/employees about your sustainable packaging?

We promote all aspects of the benefits of our solutions on our website - website, blog, sponsored articles, social media posts.

We also communicate this through presentations of our company at face-to-face meetings with clients and potential clients.

We tell people about these opportunities at meetings or events of associations and organisations with which we work or of which we are members.

Here are some examples: Lublin Business Club, Lublin Industrial Highlands, Responsible Business Club, BNI, etc.

Employees:

Building employee awareness through training and describing work standards.

Our goal is to reduce waste as much as possible. Waste management.

The next step is restrictive segregation, which enables us to resell/or give away our main waste material, cardboard, to a collection point belonging to a paper mill that processes our waste into paper, which in turn is used to produce cardboard.

3. Everything about sustainable packaging



3. Everything about sustainable packaging

In order to tackle the initiative towards sustainable packaging, many aspects must be taken into account. What legal framework conditions are relevant, for example? A wide variety of laws on the EU level and in the different countries may have to be considered here. Questions of hygiene play just as much a role as the problem of transport security and liability issues. Sometimes it is the case that the packaging also plays an important role in the marketing of the products. The following chapter provides answers to these questions. It is about technical aspects in order to find answers to the question of what sustainable packaging actually is. In one section, the legal regulations of the EU are presented. Sustainable packaging must be implemented in the company. Management aspects play an important role in this. It is specifically an aspect of change management that will be discussed here. In addition, customer orientation is required, which is taken up in the marketing process and in the design of a brand. In one section, the use of marketing tools for the communication of the packaging topic is examined. After all these theoretical aspects, however, the question of sources of inspiration for the individual company arises again. What are the ways to get inspired? Where can individual readers find suggestions for implementation in their company?

3.1 Branding and Communication of Packaging

Brands are all around. We often find ourselves surrounded by them, even if we don't consciously acknowledge their presence. Think about the items you consistently repurchase - perhaps it's that reliable pack of pasta you mindlessly toss into your cart every time you visit the grocery store. Or maybe it's those favourite sneakers from a beloved sports brand that you automatically replace once they've seen better days. But have you ever considered what happens when we strip away the packaging and logos? Without these familiar identifiers, do these products not all blend into one indistinguishable mass? Imagine trying to choose a toothpaste without knowing the brand behind it or what the packaging claims. How would you make your selection then? Would it come down to price, texture, or perhaps even a whim? This scenario raises intriguing questions about the power of branding and its influence on our purchasing decisions.

What is a brand?

As consumers, we inherently associate specific values and emotions with brands. You might think, "I don't pay attention to advertisements; I don't care about brands." But let's consider this: how did you select your smartphone? Did you base your decision solely on technical specifications? How did you determine that it was superior to other brands and models available? Are you an expert in electronics who thoroughly understands every detail? Or were you influenced by your intuition, your feelings, and your perception of what is useful and well-designed? In reality, our choices often reflect deeper emotional connections rather than just rational analysis. We gravitate toward brands that resonate with our values and aspirations, shaping our preferences in ways we may not even realize.

Most smartphones today come equipped with comparable features such as camera quality, battery life, and processing power. Studies show that consumers often prioritize brand image over these technical specifications when making purchasing decisions. This suggests that the actual differences in performance may not be significant enough to sway consumer preferences.

Research indicates that consumers are influenced by the symbolic value attached to brands, which can enhance their self-image and social status. For instance, owning an iPhone is often associated with being trendy or technologically savvy, which may not necessarily correlate with superior technical performance.

Finally, once consumers align themselves with a particular brand, they tend to remain loyal, even when alternatives may offer better specifications at similar price points. This loyalty is driven by the perceived quality and reliability associated with the brand name rather than just the product features.

Branding tells a story

Now you see that the brand is an integral part of our economic landscape. I don't know a person in the world who would never hear about McDonalds, Adidas or Coca-Cola. McDonald's tells a story of affordability and convenience, emphasizing its role as a family-friendly dining option that offers quick service and familiar tastes across the globe. This narrative resonates with consumers seeking comfort and familiarity in their food choices.

Coca-Cola, on the other hand, conveys a message of happiness and togetherness, often associating its brand with joyful moments and celebrations through its marketing campaigns. Who doesn't recognize the Coca-Cola's Santa Clause? The emotional appeal fosters a strong connection with consumers, making Coca-Cola not just a beverage but a part of many social experiences.

That's why it is important to convey a message within your brand, so you can differentiate yourself from others. Effective brand differentiation allows companies to establish a unique selling proposition that resonates with their target audience, preventing them from being perceived as interchangeable with competitors. By crafting compelling narratives and emotional connections, brands can cultivate loyalty and enhance their market presence, ensuring they stand out in a crowded marketplace.

If you want to know more about branding impact in packaging, visit the PackLess MOOC Module 1.

Branding is limitless

Now, what if I tell you that branding doesn't only apply to how your product looks like? In today's competitive landscape, the concept of branding extends far beyond the customer. It encompasses every aspect of an organization, including one of its most valuable assets: its employees. During stakeholder analysis, we often overlook a crucial group—our own workforce. While we meticulously craft our brand image to attract customers, we frequently neglect to consider how our internal culture and values resonate with those who embody our brand daily. This is where employer branding comes into play.

What is employer branding?

Employer branding refers to the strategic process of shaping a company's reputation as an employer, which encompasses the entirety of the employment experience. It defines how current and prospective employees perceive the organization and plays a critical role in attracting and retaining talent. At its core, employer branding involves creating a positive image of the company as a desirable place to work, effectively communicating its values, culture, and employee value proposition (EVP) to both internal and external stakeholders. The concept of employer branding emerged in the early 1990s and has since gained traction among HR professionals and business leaders alike. It emphasizes the importance of aligning a company's internal culture with its external messaging to ensure authenticity. A strong employer brand can lead to numerous benefits, including increased job applications, reduced hiring costs, improved employee retention, and a competitive advantage in the talent market.

What is EVP?

The **Employee Value Proposition (EVP)** is a crucial concept in employer branding that defines the unique set of benefits and rewards an organization offers to its employees in exchange for their skills, capabilities, and experiences. It serves as a promise from the employer to the employee, outlining what they can expect in terms of compensation, career development, company culture, and other factors that contribute to their overall work experience. In essence, every organization has an employer brand, whether it actively manages it or not.

A prime example of sustainable employer branding is Patagonia. This outdoor apparel company has built a strong employer brand centred around environmental responsibility and social impact.

Key Elements of Patagonia's Employer Branding:

- Environmental Commitment: Patagonia is well-known for its dedication to sustainability. The company donates 1% of its sales to environmental causes and actively engages in initiatives that promote eco-friendly practices. This commitment resonates deeply with employees who value corporate social responsibility.
- Employee Engagement: Patagonia offers "environmental leave," allowing employees to take paid time off to work on environmental projects or volunteer for humanitarian causes. This not only enhances employee satisfaction but also aligns their personal values with the company's mission. Patagonia has initiatives that encourage employee sustainability action, including their Ride Share Program, Bike to Work Week, and Composting Program. They also introduced carbon footprint challenges, working with teams to embed energy reductions in their departments.
- Onboarding process: "We now run 'Enviro Days' for all new hires and take them to Apricot Lane Farms to learn about the importance of regenerative agriculture as a practice and as a part of Patagonia's mission."
- Community Building: Patagonia fosters a strong sense of community among its employees and customers by creating opportunities for them to engage in environmental activism together. This strengthens loyalty and reinforces the brand's values.
- By integrating sustainability into its core values and employer branding strategy,
 Patagonia not only attracts talent that shares these ideals but also fosters a loyal
 workforce committed to making a positive difference in the world. This approach
 demonstrates that a strong employer brand can be both ethical and effective in
 attracting top talent.

What do you do for your employees?

To effectively evaluate and enhance your employer branding in the context of sustainability, consider using the following reflective exercise. Look at the graph below, representing the employer branding framework.



www.researchgate.net/figure/Employer-Branding-Framework fig1 339956153

Do you remember what EVP means? EVP can be many things:

- Compensation: Salary, bonuses, and other financial incentives.
- Benefits: Health insurance, retirement plans, paid time off, and other perks.
- Career Development: Opportunities for training, advancement, and professional growth.
- Work Environment: Company culture, work-life balance, and the physical workspace.
- Recognition: Programs that acknowledge and reward employee contributions.

You are probably thinking... "Okay, but this is only for the big companies." However, the good news is that effective employer branding is not just the domain of large corporations; small businesses can implement these strategies too! In fact, small businesses often have unique advantages that can make their employer branding efforts even more impactful.

How you can implement employer branding right now

Let's see what you can do based on the Employer Branding Framework.

- Leverage Your Unique Culture: Highlight what makes your small business special—whether it's a close-knit team, flexible work hours, or a fun office environment.
- Personalized Communication: Use personalized emails or messages when reaching out to candidates. Share your enthusiasm about their application and what you love about their background. Communicate well with your employees. Let them know what is happening in the company and how they can be engaged.
- Utilize Local Community Engagement: Get involved in local events, sponsor community activities, or participate in volunteer work. Engage your employees! Share these activities on social media and your website.
- Create a Welcoming Onboarding Experience: Develop a simple yet effective onboarding process that introduces new hires to the team and immerses them in your company culture.
- Be Transparent About Growth Opportunities: Clearly communicate any opportunities for advancement within the company during the hiring process, as well as for your employees.

While large corporations may have more resources to invest in employer branding, small businesses can leverage their unique strengths—such as personalized communication, community engagement, and a distinctive culture—to create a compelling employer brand. By focusing on these strategies, small business owners can effectively attract and retain talent while showcasing what makes their organization a great place to work. Remember, great employer branding is about authenticity and connection, which small businesses often excel at!

Additional Resources:

- [1] https://www.jobteaser.com/en/corporate/gen-z-lab/employer-branding-3-companies-who-stand-out-due-to-their-content
- [2] https://en.glickon.com/posts/employer-branding-5-great-examples-and-1-epic-fail
- [3] https://recruitee.com/articles/sustainable-employer-branding
- [4] https://www.navit.com/blog/building-a-positive-image-the-influence-of-sustainability-in-employer-branding
- [5] https://www.joveo.com/the-ultimate-guide-to-employer-branding/
- [6] https://blog.hubspot.com/marketing/employer-branding
- $\label{thm:companies} \parbox{0.5cm} \parbox{0.5cm/sustainability-and-employee-branding-in-companies/} \parbox{0.5cm/sustainabilit$
- [8] https://www.uncubedstudios.com/reel-talk-blog/13-great-examples-of-employer-branding

3.2 Legal and financial aspects

3.2.1: Overview of EU packaging legislation

The EU's Packaging Directive 94/62/EC, which regulates packaging and waste, is being replaced by the PPWR, transitioning from a directive to a regulation. This change will directly apply across all Member States, leading to greater harmonization. The PPWR covers all types of packaging and waste, regardless of material or origin.

For SMEs, compliance with EU packaging rules is essential for avoiding fines, meeting sustainability goals and boosting brand reputation. This involves reassessing packaging practices, using eco-friendly materials, collaborating in EPR schemes and adopting efficient waste management. Though there may be upfront costs, sustainable packaging can reduce waste, improve brand image, and build customer loyalty.

3.2.2: Who needs to comply with the EU packaging legal framework?

The PPWR applies to all packaging types and waste, regardless of materials or origin. It affects both EU-based companies and those importing packaging and products into the EU.

Which provisions of the PPWR apply in each individual case and which obligations arise therefrom largely depends on the role the company plays within the supply chain. The PPWR primarily differentiates between "supplier", "manufacturer", "distributor", "producer", "importer" and "fulfilment service provider".

"Supplier" is anyone who supplies packaging or packaging material to a manufacturer. The supplier is subject to extensive information and documentation obligations and must provide the "manufacturer" with all information and documentation that is required to provide proof of conformity of the delivered products.

"Manufacturer" means anyone who manufactures packaging or a packaged product and is responsible for the design and labelling of the packaging. To prove that the "manufacturer" complies with the requirements of the PPWR, it must also submit a declaration of conformity.

"**Distributor**" is who makes a packaging or a packaged product, available on the market and is primarily subject to inspection and information obligations.

"**Producer**" can be any manufacturer, importer or distributor who is in addition – depending of its origin – involved in product packaging and packaging services. Producers must ensure that they fulfil all key requirements of the PPWR and, in particular, the new Extended Producer Responsibility (EPR) must be observed, which also relates to special registration obligations.

"Importer" means any natural or legal person established within the EU who places packaging or a packaged product, from a third country on the EU market. Importers shall only place on the market packaging which is in conformity with the key requirements.

A "**fulfilment service provider**" offers at least two services: warehousing, packaging, addressing, or dispatching (excluding postal services). They must ensure packaging conformity and verify producer information aligns with the PPWR. Furthermore:

A "**fulfilment service provider**" offers at least two services: warehousing, packaging, addressing, or dispatching (excluding postal services). They must ensure packaging conformity and verify producer information aligns with the PPWR.

Furthermore:

E-commerce Platforms - online marketplaces and platforms that facilitate the sale of packaged goods also must ensure that the products listed comply with packaging regulations.

Waste Management Operators - entities involved in the collection, sorting, recycling and disposal of packaging waste must comply with regulations related to waste management, reporting and recycling targets.

Packaging Designers and Developers – professionals involved in the design and development of packaging must ensure that their designs are in line with EU regulations on recyclability, material use and environmental impact.

Each entity must ensure that their practices align with the specific requirements of the EU Packaging Legal Framework to contribute to a more sustainable and circular economy.

3.2.3: Key targets of the EU packaging regulations

To create an effective circular economy for packaging, the PPWR sets several specific objectives:

- **Waste regulation:** Based on 2018 levels, EU countries must reduce packaging waste per capita by 5% by 2030, 10% by 2035, and 15% by 2040.
- **Mandatory labeling:** Packaging must include labels for material composition, sorting and reuse instructions. Reusable packaging requires a QR code or standardized digital data carrier.
- **Reuse and refill:** Targets for reuse of different packaging types with specific percentages to be achieved by 2030 and 2040, depending on the type of packaging. NB: The reuse targets for transport packaging do not apply for cardboard boxes.
- **Bans on certain packaging formats:** From 2030, specific plastic packaging, such as shrink wrap and packaging for fresh fruit and vegetables under 1.5 kg, will be banned in most cases.
- **Recyclable packaging:** All packaging placed on the EU market shall be recyclable by 2030 and shall be recycled at scale by 2035.
- Recycled content: By 2030, plastic packaging must include a set percentage of recycled material, with higher targets by 2040, except for medical, infant food and packaging that could pose health risks.
- Packaging minimization: By 2030, grouped, transport, and e-commerce packaging must have a
 maximum 50% empty space ratio. Sales packaging used as e-commerce packaging or in a reuse
 system is exempt.
- **Compostable packaging:** Certain packaging must be compostable within three years of the regulation's entry into force.

- **Design requirements for recyclable packaging:** Specific design requirements are imposed to enhance the recyclability of packaging. This means companies are encouraged to eliminate unnecessary packaging and where possible, use reusable packaging.
- By January 1, 2029, Member States must establish deposit systems to collect 90% of single-use plastic and metal beverage containers up to three liters, with exemptions for wine, spirits, milk products, and small containers.

3.2.4: Non-compliance with eu packaging regulations

The PPWR mandates Member States to adopt sanctions for non-compliance within 24 months. For certain offences, like excessive or non-reusable packaging, the PPWR requires fines for producers who fail to comply.

The potential impacts and penalties associated with non-compliance will be:

Financial Fines

Non-compliant businesses may face significant fines imposed by regulatory authorities. The amount can vary depending on the severity and nature of the violation. Companies that fail to meet reporting obligations or provide inaccurate data may also incur fines.

Operational Restrictions

Regulatory authorities may withdraw non-compliant products, causing financial losses and operational disruption. Businesses could face market bans until compliance is met and may be subject to more frequent audits, increasing regulatory oversight.

Legal Actions

Companies may face legal action from regulators or other stakeholders for failing to comply with regulations. This can result in costly legal proceedings and potential damages.

Public Scrutiny

Non-compliance can lead to negative publicity and damage to a company's reputation, which may affect customer trust and brand value. Businesses may lose customers who prefer products from companies that adhere to environmental and regulatory standards.

How the Implementation of the PPWR will look like in individual Member States?

The countries must designate appropriate authorities responsible for the implementation and enforcement of the obligations.

There will be created Manufacturer Register. The member states shall create a register that monitors compliance with the requirements resulting from the regulation. According to paragraph 2 of the PPWR, manufacturers are obligated to register in this register.

3.2.5 Financial aspects of compliance with EU packaging regulations - Costs vs. Financial benefits

Complying with EU packaging regulations can be costly for businesses in or exporting to the EU, but the financial benefits often outweigh the expenses. Upfront costs include developing eco-friendly packaging, testing for hazardous substances and adjusting operations to meet compliance standards, such as tracking packaging use and reporting to authorities.

However, compliance offers access to the vast EU Single Market, reduces packaging and transportation costs and lowers waste management fees through recyclable packaging. It also boosts brand reputation among eco-conscious consumers and offers a competitive edge. For individuals, better labelling and reduced packaging waste will simplify disposal and minimize household waste.

While the costs of compliance are evident, businesses that comply with EU packaging regulations can unlock various financial benefits, often outweighing the initial expenses in the long term.

- The European Single Market is one of the largest consumer markets in the world. Complying with
 packaging regulations is a prerequisite for accessing this market of over 447 million consumers.
 Compliant packaging ensures that goods move freely within the Single Market, avoiding customs
 delays or rejections at the border.
- Reducing the amount of packaging used (light weighting) can lower material and transportation costs.
- Investing in recyclable or reusable packaging can lower long-term waste management costs, and businesses may pay reduced EPR fees for packaging that aligns with circular economy principles.
- Sustainability is crucial for modern consumers, and complying with EU packaging regulations can boost a company's brand and attract eco-conscious customers.
- Early investment in sustainable packaging gives companies a competitive edge and positions them as innovation leaders.

3. 3 Technical Aspects

What is the circular economy and why do we need it?

In the last 50 years, the world's population has doubled, resulting in a rapid increase in global trade and the resulting production of goods. The increasing demand has led to the rapid consumption of natural resources and the production of large amounts of waste. The amount of raw materials (biomass, fossil fuels, metals and minerals) extracted globally each year has more than tripled from 27.1 billion tonnes in the 1970s to 92.1 billion tonnes in 2017 (IRP 2019). In the EU, packaging waste alone accounted for 189 kg per capita in 2021, an increase of over 20% in the last 10 years (cf. 2012: 155 kg per capita) (European Parliament 2024). In addition, the production and disposal of goods releases enormous amounts of energy and greenhouse gases. The environment suffers from the consequences of the prevailing linear economic model, which functions according to the principle of 'take, make, use, throw away' and still characterises the majority of our consumption habits today.

We are currently facing the challenges of the so-called triple planetary crisis: climate change, loss of biodiversity and environmental pollution (UNEP 2024). In this context, the urgency of finding more resource-efficient alternatives is becoming increasingly clear.

One promising alternative is the circular economy model, which has been gaining popularity in recent years. The basic principles of the circular economy are the prevention of waste and pollution, the recycling of products, materials or consumer goods with the best possible value retention and the regeneration of the environment. In contrast to the linear economic model, the circular economy firmly anchors the consideration of the end of life of a good in the design process (2021). Simplified, the following questions are included in the design process:

- What happens to a product, material or consumable after it has been used?
- How can waste be avoided for as long as possible?

The longer the lifespan of a product, material or consumer good, the less need there is for the production of a new good, which can significantly reduce the consumption of natural resources, the volume of waste and the amount of energy used for production and disposal. Classic examples of the circular economy for consumer goods, i.e. durable products, are sharing models for cars or tools, second-hand clothing or repair services for electronic devices.

However, in the case of consumer goods such as packaging, whose lifespan is limited to the transport of products and only rarely has any further use afterwards, other approaches must be taken to avoid waste or extend the lifespan of the packaging.

How can packaging be designed with the circular economy in mind?

In order to start a packaging redesign process, the current status of the current solution must first be analysed. The following points should be considered:

Table 1 Packaging Re-Design: how to start?

Product:

Which influencing factors have an impact on the quality and shelf life of my product?

What requirements does my product place on the packaging? Which legal aspects are relevant for my product (e.g. food safety, hazardous goods, etc.)?

Examples of influencing factors: Moisture, oxygen, light, mechanical stress, composition of the product (e.g. high oil content in food), etc.

Questions for Re-Design-Process: How to start?

Packaging:

Which packaging is currently used (primary, secondary and tertiary packaging)?

Packaging specification (material, components, composition, weight, dimensions)

Communication:

What is communicated via the packaging (ingredients, barcode, logo, best before date, etc.)?

What happens to the packaging after use (reuse, recycling, landfill)?

What does the current logistics process look like?

What costs are incurred for the packaging?

The analysis of the current situation forms the basis for the redesign process. It is important to include as many stakeholders (internal and external) as possible in the design process, as this allows many different perspectives to flow into the process and reduces the risk of important aspects being overlooked. At the end of this Knowledge Unit, practical tools and further reading are listed to help facilitate the design process for more sustainable packaging solutions (see table 4/1).

Avoiding/preventing packaging

The most obvious method of avoiding waste and thus conserving resources is not to produce any in the first place. Omitting packaging is difficult in most cases, as packaging fulfils important functions such as protecting the product, transportability and marketing aspects. From an ecological point of view too, dispensing with packaging is often not beneficial, as the loss of the product has a far greater ecological impact than the use of packaging. The 'Food Packaging Sustainability' guidelines from the 'STOP waste - SAVE food' research project provide some examples of this based on life cycle assessments (see Table 4/10).

It all depends on the product and its requirements. The more robust the product and the less it reacts to external influences, the more likely it is that packaging can be eliminated.

Manufacturers can use various approaches to reduce packaging and at the same time make their products more environmentally friendly. For example, it is possible to do without packaging for some types of fruit and vegetables, as the natural skin provides protection. Alternatives such as solid soaps or the range in unpackaged shops, mostly dry foods such as cerials, rice or pasta, are also inspiring solutions.

Innovations such as soluble films for dishwasher tabs or edible coatings for fruit offer further opportunities to minimise packaging. Material consumption can also be reduced by adapting packaging sizes and using concentrates. These measures help to conserve resources and position the brand as sustainable - a clear message for environmentally conscious customers (see also: Table X, 1).

Table 2 Packaging Re-Design: avoiding/preventing

Questions for Re-Design-Process: Avoiding/Preventing Packaging Is packaging required for my product?

Are there innovations that can replace my packaging?

Are there packaging components that can be eliminated?

Can I modify my product so that I can eliminate or reduce packaging?

Reuse

The term reusable is used to describe packaging that can be reused several times by reprocessing and testing without changing/destroying the original form. The ecological advantage of this is that resources are conserved and the energy required for the recycling process can be avoided.

As every product has different packaging requirements, there is no one-size-fits-all solution, even for reusable packaging. Increasing environmental awareness among the population and the legal framework for combating the global climate crisis have led to many innovations in the reusable sector in recent years, with the result that a wide variety of reusable solutions and concepts now exist on the market for a wide range of products.

According to a publication by the Ellen MacArthur Foundation (2019), there are four different reuse models in the business-to-consumer sector ('B2C') - 'Refill at home', 'Refill on the go', 'Return from home' and 'Return on the go'. They differ firstly according to the ownership of the packaging (consumer/company) and secondly according to the place where the packaging is refilled/returned (at home/on the go or in the company). The individual models and the general challenges and opportunities for reusable solutions are described in more detail in Module 3, Unit 3 - Reuse.

Further literature and inspiring examples can be found in Table 4.

Table 3 Packaging Re-Design: Reuse

Questions for Re-Design-Process: Reuse Are there established reusable systems for my product category?

Is there an infrastructure (logistics, washing facilities, etc.) for a reusable system in my area?

What challenges and opportunities could reusable solutions bring for my product/company?

How could the logistics process be organised/adapted?

What costs would be incurred for the change?

Recycling

Recycling is the process of reprocessing materials/raw materials that have been used in products or packaging. In contrast to reuse (reusable packaging), recycling involves the products/packaging that have already been disposed of being broken down into their individual parts using various processes and procedures in order to recover the original materials/raw materials. These are then processed into new products/packaging. In this way, the use of new raw materials can be reduced. Nevertheless, resources such as energy, water and raw materials are required for the recycling processes. For this reason, the previous approaches of avoidance and reuse are preferable to recycling from the point of view of resource conservation and waste avoidance.

It is often difficult for laypersons to judge whether packaging is recyclable or not, as there is often a lack of knowledge about the recycling process and the effects of processing methods that can influence the quality of the recyclate. In order to make packaging recyclable, certain technical requirements must be met. When selecting materials, care should be taken to ensure that the country or region in which the packaging is disposed of has appropriate collection structures, i.e. collection and recovery systems. The material resulting from the recycling process should also be able to be used for an equivalent area of application.

According to the requirements and evaluation catalogue of the cyclos-HTP Institute, collection structures for the materials paper, cardboard and carton (PPC), plastic-coated cardboard packaging, glass, tinplate and ferrous metals and PET beverage bottles can be assumed throughout the EU. In Germany and Austria, there are also collection structures for plastic films, polyethylene (PE) and polypropylene (PP) packaging, polystyrene (PS) packaging, dimensionally stable and flexible mixed plastics as well as for aluminium and non-ferrous metals. In Germany, a collection structure for PPK composites can also be assumed without further testing. More detailed information on the requirements and the underlying assessment criteria can be found in the publication Testing and verification of the recyclability of cyclos-HTP (see Table 4/7).

To facilitate recycling, care should generally be taken when designing packaging to use as few different materials and colours or printing inks as possible. It is also advisable to avoid small parts and to design the packaging so that it can be emptied easily. It is also important to clearly inform customers about the correct handling and disposal of the packaging so that it ends up in the correct recycling stream. Material-specific requirements for recyclable packaging are clearly listed in the Circular Packaging Design Guideline of FH Campus Wien (see Table 4/8).

Table 4 Packaging Re-Design: Recycling

Questions for Re-Design-Process:

Recycling

What recycling streams exist in the country where I offer my product?

Are the materials I use for my packaging recyclable and can they be recycled in the country/region where my product is sold?

Can non-recyclable or poorly recyclable parts of the packaging be replaced?

The following should generally be taken into account:

- Material and additives (e.g. composite materials, fillers in plastics)
- · Colour of the packaging
- Printing colours and packaging components (e.g. adhesives, labels)
- Residual emptying
- Closures and small parts
- Communication about correct disposal

Tools and further reading

Switching to a sustainable packaging solution is demanding and requires expertise, time for information research, financial investment and close teamwork. It is often a challenge to identify truly sustainable solutions, as packaging must not only be ecologically beneficial, but above all it must protect the product safely. If product protection is neglected in favour of an apparently sustainable solution, this can lead to the product spoiling more quickly and unnecessary waste being produced. Therefore, the switch to sustainable packaging should be well thought out and carefully scrutinised to ensure that the new solution really makes sense. To support the redesign process, the following table contains useful literature and tools that provide valuable information and assistance.

Table 5 Tools and further reading

Nr.	Topic	Description	Language	Link
1	Reduce, Reuse, Recycling	Inspiring examples and innovations of various packaging solutions that have been ecologically optimised	EN	www.emf.thirdligh t.com
2	Reduce, Reuse, Recycling	Optimising packaging ecologically - a guide for companies	DE	www.ioew.de/publ ikationen /verpackungen oe kologisch optimier en

3. Everything about sustainable packaging

3	Reuse	The video shows different variants of reusable packaging systems and application examples	EN	www.youtube.co m/watch? v=pysBxD3CoGk
4	Reuse	Reuse – Rethinking packaging, Ellen McArthur Foundation: This work provides a framework to understand reuse, identifies six major benefits of reuse, and maps 69 reuse examples.	EN	www.emf.thirdli ght.com/file/24/ A- BkCs aXeX02 A m1z J7vzLt/Reu se%20%E2%80 %93%20rethinki ng%20packagin g.pdf
5	Reuse	This study analysed the results of 32 LCAs that compared the impact of single-use and reusable packaging alternatives	EN	www.zerowaste europe.eu/wp- content/upload s/2020/12/zwe r eloop executive : summary reusa ble-vs-single- use-packaging - a-review-of- environmental- impact en.pdf
6	Reuse	Mehrweg-Pfadfinder – Guide to switching to reusable packaging in Austria	DE	www.ecology.at/ mehrweg_pfadfi nder_2023.htm
7	Recycling	Requirements and evaluation catalogue for the recyclability of materials	EN/DE	www.cycloshtp.d e/publications/r- a-catalogue/
8	Recycling	Guidelines for the design of recyclable packaging	EN/DE	www.fh- campuswien.ac. at/en/research/ kompetenzzentr en-fuer- forschung-und- entwicklung/co mpetence- center-for- sustainable-and- future-oriented- packaging- solutions/circula r-packaging- design- guideline.html

3. Everything about sustainable packaging

9	Sustainability assessment	The management guidelines of the "Round Table for the Eco Design of Plastic Packaging" demonstrate how management processes, strategies, and methods can be implemented to develop environmentally friendly and resource-efficient packaging solutions.	EN/DE	www.ecodesign- packaging.org/en/
10	Packaging innovation	Information about active and intelligent packaging and sustainability issues.	EN	www.actinpak.e u/about/
11	Food waste and packaging	Food Packaging Sustainability – A guide for packaging manufacturers, food processors, retailers, political institutions &NGOs	EN, DE	www.boku.ac.at/ en/wau/abf/sch werpunkttheme n/lebensmittel- im-abfall/stop- waste-save-food

3. 4 Management aspects of the transition towards sustainable packaging

Fascinating Facts About Leading Organizational Change and Transformation

- Change is Inevitable: Organizations face constant change from technological advancements, market shifts, and new regulations. Successful leaders must master the art of managing these changes.
- The Power of the Paradigm: John Kotter's 8-Step Change Model is a gold standard for guiding change, starting with creating urgency and ending with embedding new practices in the company culture.
- Winning Support: Stakeholder buy-in is crucial. Understanding what drives employees, investors, and customers helps in crafting a compelling case for change.
- Opportunity Knocks: Proactive change management involves spotting opportunities through customer feedback and market analysis. But with opportunity comes risk—leaders must mitigate potential downsides like resistance or workflow disruption.
- Behavioral Shifts Matter: The toughest part of change isn't just systems and processes—it's shifting mindsets. Engaging employees through involvement, training, and incentives can make change stick.
- Tools of the Trade: Effective change leaders use a mix of leadership, communication, training, and incentive tools to guide their organizations through transformation smoothly.
- Think Ahead: Preventing problems is key—pilot tests, risk assessments, and contingency plans can save a change initiative from derailing.

These insights provide a roadmap for leaders to successfully steer their organizations through the complex waters of transformation.

Module Content Overview: Organizational Change and Transformation

This module is designed to equip participants with the knowledge and skills required to lead and manage transformation within organizations. It covers critical aspects of change management, including identifying opportunities for change, gaining stakeholder support, managing risks, and influencing behavioral patterns among employees and stakeholders. The content is divided into four key units, each addressing a specific area of organizational change.

1. How to Lead Changes and Manage Transformation in an Organization

External Sources:

Video: <u>www.youtube.com/watch?v=e1VDmj1bFFY</u>

The video discusses John Kotter's 8-Step Process for Leading Change, originally introduced in his 1996 book Leading Change and updated in his 2014 book Accelerate. The video explains each of Kotter's eight steps, which guide organizations through effective change management. These steps include creating urgency, building a guiding coalition, forming a strategic vision, enlisting a volunteer army, enabling action by removing barriers, generating short-term wins, sustaining acceleration, and institutionalizing change. The presenter also refers to Kotter's original and updated labels for these steps and offers additional resources for managing and leading change through a premium course.

Article: www.investopedia.com/terms/c/core competencies.asp

The article from Investopedia provides an in-depth look at core competencies, which are the unique resources and capabilities that give a business a competitive edge. It explains that core competencies are essential for a company's success and can include factors like innovative technology, superior customer service, and strong company culture. The concept was popularized in a 1990 Harvard Business Review article by C.K. Prahalad and Gary Hamel. The article also explores how businesses can identify and develop their core competencies, the advantages and disadvantages of focusing on them, and real-world examples, such as Amazon, that illustrate the concept.

Summary: This unit focuses on the paradigms of change and the process of managing transformation in an organization. Key topics include the sources of organizational changes, Kotter's 8-Step Model for managing change, and the role of corporate competencies in achieving corporate goals.

2. Gaining Support for Changes

External Sources:

Video: www.youtube.com/watch?v=8JPPr6B-vY4

This video provides strategies for effectively communicating organizational changes to stakeholders, emphasizing the importance of understanding stakeholder needs and motivations.

Article: https://positivepsychology.com/motivation-human-behavior/
An insightful article that explores the psychological factors that motivate individuals and organizations to embrace change. It delves into both internal and external motivators and how they can be leveraged to gain support for change initiatives.

Summary: This unit explores the importance of gaining support from stakeholders when implementing changes. Topics include understanding stakeholders and their needs, identifying what motivates change, and the role of communication in securing stakeholder buy-in.

3. Identifying Opportunities for Changes and Reducing the Risk of Change

External Sources:

Video: How to Identify a Business Opportunity? | Sanjeev Bikhchandani | TEDxSRCC www.youtube.com/watch?v=OkNpsVMT84w

This video outlines practical methods for identifying opportunities for change within an organization. It includes examples of how to recognize areas for improvement and innovation.

Video: How to Mitigate Change Management Risk? | Kerry Howard - Trauma Prevention Expert www.youtube.com/watch?v=u25jOa2eOGY

In the video "How to Mitigate Change Management Risk?" Kerry Howard, a trauma prevention expert, discusses the psychological impact of organizational change on employees. She emphasizes the importance of understanding how change can trigger stress and anxiety, leading to resistance. Howard provides practical strategies for mitigating these risks, including transparent communication, fostering a supportive environment, and addressing employees' emotional needs throughout the change process. The video highlights the role of empathy and leadership in ensuring a smoother transition and reducing the potential for negative outcomes during change initiatives.

Summary: This unit covers the process of identifying necessary changes within an organization and strategies for mitigating associated risks. It also addresses the potential positive and negative effects of organizational changes and methods for preventing problems before they arise.

4. How to Change Behavioral Patterns of Employees (and Stakeholders)

External Sources:

Video: Employee Engagement - Who's Sinking Your Boat? www.youtube.com/watch?v=y4nwoZ02AJM The video "Employee Engagement - Who's Sinking Your Boat?" uses a boat analogy to explore the impact of disengaged employees on team performance and overall organizational success. It highlights how even a small number of disengaged individuals can undermine the efforts of the entire team, much like a hole in a boat can cause it to sink. The video emphasizes the importance of identifying and addressing disengagement early on, fostering a culture of collaboration, and ensuring that all team members are actively rowing in the same direction to achieve organizational goals.

Article: Guiding Organizational Transformation Through Behavior Change https://www.linkedin.com/pulse/guiding-organizational-transformation-through-change-ed-burgoyne/
The article "Guiding Organizational Transformation Through Behavior Change" by Ed Burgoyne discusses the critical role of behavior change in successful organizational transformation. Burgoyne emphasizes that while many change initiatives focus on process and workflow adjustments, true transformation requires inspiring individuals within the organization to shift their mindset and adopt new behaviors. He explores how resistance to change is natural and highlights the importance of creating a learning culture that supports openness to change. The article also underscores the role of leadership in modeling desired behaviors, aligning organizational values with change efforts, and empowering employees to take ownership of the change process. By fostering a supportive environment that encourages curiosity and growth, organizations can achieve sustained transformation and align individual actions with broader organizational goals.

Summary: This unit focuses on the challenges of changing behavioral patterns among employees and stakeholders during organizational transformations. It covers tools for encouraging engagement, involvement, and long-term commitment to change initiatives.

Conclusion

This module provides a comprehensive approach to leading and managing change within an organization. By understanding the key concepts, frameworks, and tools presented, participants will be better equipped to navigate the complexities of organizational change, secure stakeholder support, and achieve successful transformation.

Sources and References

Books:

"Leading Change" by John P. Kotter: A seminal book outlining Kotter's 8-Step Change Model.

"Switch: How to Change Things When Change Is Hard" by Chip Heath and Dan Heath: A practical guide on making successful changes in personal and professional contexts.

"The Heart of Change: Real-Life Stories of How People Change Their Organizations" by John P. Kotter and Dan S. Cohen: Provides real-life examples of Kotter's change model in action.

Articles:

"Why Transformation Efforts Fail" by John P. Kotter (Harvard Business Review): Discusses common pitfalls in change initiatives and how to avoid them. https://hbr.org/1995/05/leading-change-why-transformation-efforts-fail-2

"Cracking the Code of Change" by Michael Beer and Nitin Nohria (Harvard Business Review): Explores different approaches to change and how to balance them effectively.

www.hbr.org/2000/05/cracking-the-code-of-change

"The Hard Side of Change Management" by Harold L. Sirkin, Perry Keenan, and Alan Jackson (Harvard Business Review): Focuses on the critical, often overlooked, aspects of managing change. www.hbr.org/2005/10/the-hard-side-of-change-management

Online Courses and Simulations:

Harvard Business School Online: Offers a variety of courses, including change management simulations that allow for interactive learning.

Coursera: Courses like "Organizational Change and Culture for Adapting to Dynamic Environments" by Macquarie University or "Managing Change in Organizations" by the University of London.

Sources and References

Videos:

TED Talks:

"How to Manage for Collective Creativity" by Linda Hill: Discusses how to lead for innovation and creativity, crucial in change initiatives.

www.ted.com/talks/linda hill how to manage for collective creativity?subtitle=en

"The Tribes We Lead" by Seth Godin: Explores how creating and leading tribes can drive change. www.zenith-prod-alt.ted.com/talks/seth_godin_the_tribes_we_lead?referrer=playlist-countdown_session_1_urgency&subtitle=en_

YouTube Channels:

Harvard Business Review: Offers a range of videos on change management topics:

- What Makes a Great Leader? <u>www.youtube.com/watch?v=ME5arjlSTGQ</u>
- What Is Strategy? It's a Lot Simpler Than You Think www.youtube.com/watch?v=o7lk1OB4TaE
- 5 Rules for Communicating Effectively with Executives www.youtube.com/watch?v=Fzi4T94QCjw

Simon Sinek: Focuses on leadership and change, offering insightful discussions and practical advice:

- Why good leaders make you feel safe | Simon Sinek | TED <u>www.youtube.com/watch?</u>
 v=ImyZMtPVodo
- Navigate and Embrace Change/Simon Sinek: <u>www.youtube.com/watch?v=pUmTQ-86-YI</u>
- Simon Sinek: How to start a cultural transformation? www.youtube.com/watch?v=zClAdLw4yRI

Journals:

Journal of Change Management: Covers research and case studies on organizational change, including best practices and theoretical insights.

www.tandfonline.com/journals/rjcm20

Organization Science: Publishes articles on organizational change, innovation, and transformation, providing in-depth academic perspectives.

These tasks and resources should provide a solid foundation for both theoretical understanding and practical application in leading organizational change and transformation.

3. 5 How to find Inspirational Sustainable Packaging Solutions for SME's

How to find Inspirational Sustainable Packaging Solutions for SMEs

Sustainable packaging is rapidly evolving, with new, innovative solutions emerging across Europe. For small and medium-sized enterprises (SMEs), finding the right sustainable packaging is essential, as it can increase market appeal, reduce environmental impact, and even enhance operational efficiencies. Below is an overview of prominent sources, including competitions and awards, where SMEs can discover inspiring packaging innovations.

1. European Packaging Awards and Competitions

European packaging competitions serve as excellent platforms for discovering the latest trends and breakthroughs in sustainable packaging. These awards often feature pioneering solutions that are both eco-friendly and practical for diverse industries.

- German Sustainability Award for Packaging (Deutscher Nachhaltigkeitspreis für Verpackung): This award, one of the most prestigious in Germany, celebrates innovations in sustainable packaging. It emphasizes waste reduction, material efficiency, recyclability, and social impact. Participating companies showcase cutting-edge designs, often incorporating biodegradable or recyclable materials. SMEs can use the nominated products as inspiration for both small-scale packaging needs and comprehensive sustainable redesigns. www.nachhaltigkeitspreis.de/en/
- Austrian State Prize for Smart Packaging (Staatspreis Smart Packaging): Recognized as
 Austria's leading packaging award, the Staatspreis Smart Packaging highlights innovative,
 sustainable packaging solutions. This award emphasizes smart and environmentally friendly
 packaging, with a strong focus on materials that are reusable, recyclable, or biodegradable. The
 award winners and nominees offer valuable ideas for SMEs on how to enhance both functionality
 and sustainability in packaging. www.bmaw.gv.at/Ministerium/Staatspreise/Smart-Packaging.html
- WorldStar Packaging Awards (WPO): This global competition by the World Packaging
 Organisation (WPO) annually honors outstanding packaging innovations, with many European
 projects among the finalists. Categories like "Sustainability" and "Packaging Materials and
 Components" showcase eco-friendly packaging ideas suitable for SMEs looking to make a positive
 environmental impact. www.worldstar.org/
- European Carton Excellence Awards: This award, presented by Pro Carton, celebrates innovative, paper-based packaging solutions. The focus on sustainable, recyclable materials offers creative packaging options specifically designed for brand products, often catering to small and medium-sized businesses seeking sustainable options. www.ecma.org/events-and-promotion/european-carton-excellence-award/

- **Pentawards**: Known for its global reach, this international packaging design competition rewards creative and innovative packaging across various categories, including sustainability. The competition highlights visually compelling, eco-friendly packaging solutions that can inspire SMEs in many industries. www.pentawards.com/live/en/page/home
- Luxe Pack in Green Awards: Held at the Luxe Pack exhibition, which focuses on luxury packaging, this award emphasizes eco-friendly solutions in the premium segment. While targeted at the luxury sector, it provides ideas that can also be adapted by SMEs striving to implement sustainable designs. www.formesdeluxe.com/article/who-are-the-winners-2024-luxe-pack-in-green.64634
- Packaging Innovation Awards by Dow: This competition concentrates on sustainable innovation and technical developments in packaging. Categories specifically dedicated to ecofriendly packaging encourage businesses to pursue functional and sustainable solutions, which can be especially beneficial for SMEs. www.dow.com/en-us/market/mkt-packaging/the-packaging-innovation-awards.html
- **Scanstar Packaging Awards**: A Scandinavian award that celebrates packaging innovations from Nordic countries, with a strong focus on sustainability and material efficiency. Winners of the Scanstar award are also eligible for the WorldStar Packaging Award, often offering innovative sustainable ideas for eco-conscious SMEs. www.scanstar.org/winners-2024/

These competitions provide European SMEs with inspiration and insight into successful, sustainable packaging concepts often tailored to the specific needs and resources of smaller businesses.

2. European Industry Organizations and Sustainibility Hubs

Numerous European organizations and platforms work specifically with sustainability and packaging, offering resources and case studies that are particularly valuable for SMEs looking to transition to sustainable packaging.

- European Packaging Design Association (EPDA): EPDA features a wide array of packaging
 projects, particularly those that incorporate sustainable practices. They regularly spotlight ecofriendly solutions from innovative design studios and material providers, serving as a creative hub
 for SMEs. www.epda-design.com/
- Packaging Europe's Sustainable Packaging Summit: Held annually, this summit focuses on
 eco-friendly packaging innovations and includes presentations on the latest sustainable materials
 and designs. Packaging Europe's website also has a dedicated section for sustainable packaging,
 where SMEs can explore detailed case studies, trends, and supplier profiles to identify what might
 work best for their needs. www.packagingeurope.com/sustainable-packaging-summit-on-demand
- Ellen MacArthur Foundation: Known for advancing the circular economy, the Ellen MacArthur
 Foundation runs the New Plastics Economy Initiative, which provides tools, guidelines, and case
 studies in sustainable packaging. SMEs can find inspiration in the foundation's design guidelines,
 which encourage packaging that supports reuse, recycling, and compostability.
 www.ellenmacarthurfoundation.org

3. Online Databases and Platforms for Sustainable Packaging

Various digital resources provide access to a wealth of sustainable packaging ideas and suppliers. Many of these platforms allow SMEs to explore materials, designs, and suppliers that align with their sustainability goals.

- Pack4Good by Canopy: Pack4Good is an initiative that focuses on reducing the environmental
 impact of packaging by promoting the use of sustainable materials. Canopy partners with a wide
 range of companies to create sustainable packaging solutions that rely on renewable resources
 and avoid materials derived from ancient or endangered forests. SMEs can access resources and
 case studies that outline practical alternatives to traditional packaging materials.
 www.canopyplanet.org/change-together/pack4good
- Sustainable Packaging Coalition (SPC): This coalition provides in-depth resources, including
 webinars, toolkits, and case studies, all focused on sustainable packaging. Their comprehensive
 database includes innovative packaging solutions that meet various environmental standards,
 from recyclability to carbon reduction. www.sustainablepackaging.org/
- **Eco-Innovation Observatory:** Sponsored by the European Union, this resource covers innovations in eco-friendly materials and sustainable packaging. Their reports and case studies highlight European SMEs that have successfully adopted sustainable packaging, providing inspiration and practical insights for other companies interested in following suit. www.eea.europa.eu/en/topics/in-depth/production-and-consumption

4. Research and Academic Partnerships for SMEs

Collaborating with research institutions can provide SMEs with access to new sustainable materials and processes, often through publicly funded projects. Many European universities and research centers focus on eco-friendly materials, such as biodegradable plastics, and sustainable packaging processes.

- Fraunhofer Institute for Process Engineering and Packaging IVV (Germany): This institute conducts extensive research on sustainable packaging, including biodegradable materials and efficient manufacturing processes. SMEs can explore collaboration opportunities or attend events to gain insights into sustainable packaging tailored to their needs. www.ivv.fraunhofer.de/en.html
- TT Technical Research Centre of Finland: VTT collaborates with companies, including SMEs, to develop sustainable packaging solutions, particularly focusing on bio-based and recyclable materials. Through partnerships, VTT offers applied research, development, and pilot testing, enabling SMEs to explore new materials and eco-friendly packaging designs that are viable in the market. VTT's projects often address the unique challenges SMEs face in adopting sustainable packaging, www.vttresearch.com/en/explore/sustainable-alternatives-packaging-and-beyond
- University of Cambridge Institute for Sustainability Leadership (CISL) SME Climate Hub:
 CISL collaborates with SMEs on sustainability projects, including sustainable packaging solutions,
 through its SME Climate Hub. The program provides training, resources, and innovation support,
 helping small and medium-sized companies to reduce their environmental impact and align their
 packaging practices with circular economy principles. CISL also offers access to research insights
 and sustainability strategies, making it a valuable resource for SMEs transitioning to sustainable
 packaging. www.cisl.cam.ac.uk/resources/circular-economy/towards-sustainable-packaging-a plan-to-eliminate-plastic-packaging-waste-from-uk-bottled-water-and-soft-drinks

These partnerships offer tailored support for SMEs, giving them access to cutting-edge research, sustainable materials, and training that facilitate a transition to eco-friendly packaging.

5. Case Studies and Success Stories

Learning from others' experiences can be particularly motivating. Many sustainable packaging case studies and success stories are available, showcasing how SMEs across Europe have successfully transitioned to greener packaging.

- Case Studies from Eco-Packaging Companies: Here are five examples of small to medium-sized enterprises (SMEs) in Europe that are making efforts in sustainable packaging::
- 1. **Papacks** (Germany) Papacks specializes in plastic-free, biodegradable packaging solutions, focusing on reducing plastic waste. They produce items like custom molded fiber packaging using natural materials for sectors including food and cosmetics. www.papacks.com
- 2. **Mondi Simet** (Poland) Part of the Mondi Group, Mondi Simet is committed to circular packaging solutions. They provide recyclable paper and biodegradable packaging, promoting innovations in Poland that align with sustainable practices for retail and industrial packaging. www.mondigroup.com
- 3. **Werner & Mertz** (Germany) Known for its cleaning products, Werner & Mertz has developed 100% recyclable packaging from recycled plastics for its products, focusing on promoting a circular economy within the cleaning and personal care industries. www.werner-mertz.de
- 4. **Constantia Flexibles** (Austria) Constantia Flexibles is working on eco-friendly flexible packaging, such as recyclable pouches and mono-material packaging, to minimize plastic use and improve recyclability across industries like food and pharmaceuticals. www.cflex.com

These companies represent a variety of sustainable approaches, from using recycled materials to developing fully biodegradable packaging, suitable as inspiration for SMEs looking to innovate in eco-friendly packaging.

Sustainability Success Stories from European Brands: European SMEs such as Abel & Cole (UK) and StoraEnso share their experiences and solutions in adopting sustainable packaging. Their ideas often highlight the challenges and benefits, offering practical insights into how other companies can adopt similar strategies.
 www.abelandcole.co.uk/contentpage?folder=AboutUs&file=packaging-promise.htm
 www.storaenso.com/de-de/products/corrugated-packaging-solutions

Conclusion

For European SMEs, the path to sustainable packaging can be illuminated through competitions, industry organizations, digital resources, and academic partnerships. These sources not only inspire but also provide practical steps for SMEs looking to minimize their environmental footprint. By tapping into these resources, business leaders can make informed choices that align with both sustainability goals and market demands, paving the way for a successful and eco-friendly transformation in their packaging approach.

PackLess Handbook 53

4. How to start sustainable packaging?



How to start sustainable packaging?

Transitioning to sustainable packaging can present a powerful opportunity for small and mediumsized enterprises (SMEs) to reduce their environmental impact, align with consumer expectations, and strengthen brand reputation. For European companies, sustainable packaging solutions also meet growing regulations and market pressures for eco-friendly practices. This guide outlines practical steps for SME leaders aiming to initiate a sustainable packaging transformation.

1. Understand the Importance of Sustainable Packaging

Sustainable packaging aims to minimize environmental impact through materials that are renewable, recyclable, reusable, or biodegradable. Traditional packaging often relies on non-renewable resources and generates significant waste; for SMEs, transitioning to sustainable packaging can reduce material costs over time, lessen waste management expenses, and demonstrate a commitment to environmental stewardship, appealing to a growing base of eco-conscious consumers. Additionally, legislation like the European Green Deal and Single-Use Plastics Directive encourages companies to adopt sustainable practices, further driving the demand for eco-friendly solutions in packaging.

2. Assess Your Current Packaging Needs and Environmental Impact

A successful transformation begins with a clear understanding of your current packaging usage and its environmental footprint.

- Conduct a Packaging Review: Review the materials used, sources of materials, recycling capabilities, and waste generated. Analyze which packaging items contribute the most to environmental impact.
- Evaluate Functional Requirements: Determine what your packaging needs to accomplish (e.g., product protection, aesthetics, or shelf life) and see if these needs can be met with more sustainable materials.
- Identify Quick Wins: Some materials may be easily replaceable with minimal impact on cost or functionality. Identifying low-hanging fruit, such as reducing packaging size or using recyclable materials, can provide a starting point that's easy to manage and implement.

3. Set Clear Goals for Your Sustainable Packaging Journey

Setting measurable goals will give your sustainable packaging efforts structure and help you track progress. Goals should address both environmental impact and business objectives:

- Define Long-term and Short-term Goals: Start with achievable goals, such as reducing plastic use by a certain percentage, switching to recyclable materials for specific product lines, or using renewable materials in at least 50% of your packaging.
- Incorporate Key Performance Indicators (KPIs): KPIs like reduction in carbon footprint, increase in recyclable materials, or decrease in packaging volume will enable you to monitor progress.
- Engage Stakeholders: Align these goals with company values and communicate them with your team. Transparency and collective responsibility in achieving sustainability targets make your efforts more cohesive.

4. Explore Sustainable Material Alternatives

The choice of materials is critical to sustainable packaging. Common alternatives include:

- Recycled and Recyclable Materials: Consider materials like recycled paper, cardboard, or plastics that can be easily recycled, reducing their environmental footprint.
- Biodegradable and Compostable Options: Materials such as bioplastics or plant-based fibers can offer alternatives that break down more quickly and reduce landfill waste.
- Innovative Materials: For SMEs options like mushroom packaging, algae-based films, or reusable containers could differentiate your brand as an innovative and eco-conscious choice.

When evaluating materials, assess their availability, compatibility with your product, and local recycling infrastructure to ensure they are sustainable across their lifecycle.

5. Collaborate with Suppliers and Industry Experts

Sustainable packaging often requires collaboration. Work with suppliers who offer certified sustainable materials and engage with packaging experts who can provide insight into the most effective solutions for your specific business needs.

- Seek Certified Suppliers: Choose suppliers with recognized certifications such as FSC (Forest Stewardship Council) for paper products or Cradle-to-Cradle for material safety and sustainability.
- Engage in Industry Partnerships and Networks: Join initiatives and networks, such as PackLess or local chambers of commerce, which offer resources, knowledge-sharing opportunities, and potential partnerships. Industry collaboration can provide a larger context and additional support for sustainable transitions.
- Involve Packaging Designers: Packaging designers can be instrumental in creating solutions that reduce material use while maintaining product appeal, durability, and branding.

6. Educate Your Team and Customers

Creating awareness and support among your employees and customers is essential for a successful packaging transformation.

- Training and Internal Communication: Educate your team about sustainable packaging practices and the importance of their roles in this transformation. This could include training on material handling, waste reduction, and sustainable practices.
- Promote Your Efforts Externally: Highlight your sustainability journey on your website, packaging, and social media. Transparent communication helps build trust and customer loyalty, as more consumers are actively looking for environmentally responsible companies.

7. Measure, Report, and Refine Your Approach

Transformation is an iterative process. Measure the results of your sustainable packaging initiatives regularly to understand their impact and find areas for improvement.

- Use Data to Drive Decisions: Collect data on material costs, waste reduction, and customer feedback to assess the effectiveness of your initiatives.
- Regularly Review Your Goals: Sustainability is an evolving field. As technologies advance and new
 materials become available, adapt your goals and strategies to remain at the forefront of sustainable
 packaging.
- Report Your Progress: Share milestones with your team and customers to maintain momentum and demonstrate your company's commitment to sustainability. Reporting can also enhance accountability and inspire further innovations within your organization.

Conclusion

Starting a sustainable packaging transformation in your company is a strategic move that aligns with both business goals and environmental responsibility. For SME leaders, this process involves clear goal-setting, supplier collaboration, team and customer engagement, and ongoing assessment. By following these steps, your company can make meaningful progress toward sustainability, enhancing both your market position and contribution to a healthier planet.

5. Curricula



5. Curricula

Thinking about packaging sustainably must be learned. In order to initiate the necessary processes for changing awareness and to convey concrete forms of implementation, Chapter 5 contains curricula with concrete training content both at the company level and in the context of vocational education and training. The chapter on learning content concludes with the didactic tools for the use of digital programs for the sustainable economy in education and training.

5.1. Curricula for internal education in the companies



How can knowledge about sustainable packaging be imparted in the company? Owners and managing directors of small and medium-sized companies are usually not didactics. This chapter contains 5 detailed syllabi on sustainable packaging content. Small training units are suggested and provided with didactic tips in order to develop awareness of sustainable packaging within the company and to implement it in concrete terms. Contents concern, for example, the question of how a sustainable marketing plan can be developed, or how the legal framework of sustainable packaging can be trained.

5.1.1 Sustainable packaging branding plan

based on MOOC Modul 1 Unit 2.5 Sustainability marketing plan

Objectives:

- Integrating sustainability into brand identity and effectively communicating it to customers
- Ability to create and implement a strategic plan for sustainable packaging within the business.
- Defining sustainable branding strategies
- Defining sustainable branding goals, target group and communication channel
- Creating communication massage (ex for social media)
- Defining sustainable branding benefits for company
- Proficiency in marketing sustainable practices and reporting on sustainability efforts

Target groups:

SME managers and employees

Preparations:

Go through the module 1. Unit 2 the Packless MOOC; read all information and listen to presentations; review your knowledge with the quiz; read best practices and choose the one(s) you want to share with the learners.

Time needed:

ca. 1 h 45 min

duration: 1 h 45 min

timing

content

additional materials/reading/equipment

5 min 1) Start by explaining the context of the topic saying sth like:

As you already know, we want to implement changes in our packaging system to be more sustainable. We can use sustainable packaging to start enforce our brand as ecofriendly. Today we can start this process and using MOOC Packless we can create our sustainable branding strategy.

10

2) Explain sustainable branding strategies.

See Additional materials and Compendium

Show best practice examples: Lush brand (MOOC Modul 1 Unit 2.1 and 2.4)

MOOC Unit 2 Gaining support/Stakeholders and their needs

min

3) Use Packless MOOC Module 1 Unit 2.5.

Start the discussion by asking:

20 min What are our sustainable packaging objectives? Set clear and measurable objectives for your sustainable packaging promotion, such as informing customers, attracting eco-conscious consumers, reducing waste, or boosting sales.

Write down ideas on brainstorming on-line tool, ex Mural.

My objective is to:

copy the procedure from the flip chart/mural/A3 paper

duration: 1 h 45 min

timing

content

additional materials/reading/equipment

Step 2:

Identify Your Target Audience

Who is our audience that we want to communicate about our sustainable packaging? Determine your primary audience considering demographics, psychographics, and behaviours.. Understand if they prioritise sustainable packaging and if they are willing to pay more for it. People in my audience are:

Step 3:

Craft Your Key Messages

Develop concise, compelling messages aligned with your brand values. Examples include going green, choosing environmentally friendly products, or reducing plastic waste

For example, a fruit and vegetable shop could say: Your Local Fruit and Vegetable Shop, Committed to a Fresh, Green, and Plastic-Waste-Free Tomorrow.

20 min

Step 4:

Choose Communication Channels

What channels we can choose to communicate about our sustainable packaging change? Select simple channels you already use:

- · Social media: Post updates.
- Email: Send a message.
- In-store: Use signs, posters, or stickers.
- Website: Add a sustainability section.

There are also ways to communicate through other organised operations:

donating a portion of profits to environmental organizations

partnering with local community groups to promote sustainability

partnering with other sustainable businesses educating consumers, employees, and partners about sustainability issues.

Closing Prompt:

In the comments, share your slogan ideas for communicating about sustainable packaging.

copy the procedure from the MOOC flip chart/mural/A3 paper

duration: 1 h 45 min

timing

content

additional materials/reading/equipment

40 min

30 min for work, 10 min for presentation)

Step 5:

Divide the learners into 2 groups ask for creating: Step 5: Create Content and Materials Develop easy-to-follow content like social media posts, emails, and in-store materials. Avoid greenwashing and communicate authentically.

Be consistent in your communication efforts:

- Social media: Post weekly.
- Email: Send one announcement.
- In-store: Place signs prominently.
- Website: Update immediately.

Key Tips:

- Advertise only proven data.
- Speak in a friendly tone.
- Keep it conversational and genuine.
- Avoid jargon; keep it simple.

Ask the groups to present the results.

10 min 4) Write down your Sustainable Packaging Branding Plan in one document.

10 min

5) Conclude by asking:

What are the benefits of sustainable packaging for our business and our brand?

10 min

6) Remember to organise last step: Adaptation and Evaluating

You need to check if your strategy works, if your customers accept and like your new approach. How does it affect sales and income?

Regularly review and adapt your strategy based on feedback and results. Stay adaptable to sustainability trends and changing consumer preferences. Decide who from your team will be responsible for sustainable packaging branding (marketing department)

Additional readings:

Creating Sustainable Packaging And Communication Strategies That Benefit The Bottom Line (Forbes) (In English) <u>6)</u> www.forbes.com/sites/forbesbusinesscouncil/2021/11/02/creatingsustainable-packaging-and-communication-strategies-that-benefit-the-bottom-line/

Sustainability Branding: How to Build a Green Brand (In English) www.masterclass.com/articles/sus tainability-branding

5.1.2 LEGAL AND FINANCIAL ASPECTS OF SUSTAINABLE PACKAGING

Objectives:

The main objective of this knowledge sharing is to equip employees with knowledge about the legal requirements and financial implications of transitioning to sustainable packaging, fostering understanding and support for the initiative. The training/knowledge sharing aims to create a knowledgeable and engaged workforce capable of supporting the company's transition to sustainable packaging, ensuring compliance, financial viability and environmental stewardship.

- Increase Awareness and Understanding among the employees for the transition to sustainable packaging.
- Ensure employees understand key EU packaging regulations and compliance requirements.
- Teach employees about the financial aspects of adopting sustainable packaging, including initial and ongoing costs.
- Emphasize the importance of effective communication and employee engagement in the transition process.
- Inspire employees to think creatively about sustainable packaging solutions.

Target groups:

SME employees

Preparations:

Go through the Module 0: Unwrapping sustainable packaging and Module 2: Legal and Financial Aspects of the Packless MOOC: www.mooc.packless.eu/. Read all information and listen to presentations, review your knowledge with the quiz, read best practices and choose the one(s) you want to share with the learners, as good examples and sources of inspiration.

Time needed:

ca. 1 h 20 min

duration: 2 hours

timing

content

additional

5 min

1) Start by explaining the context of the topic in general:

Today, we're starting an important journey toward sustainable packaging. Sustainable packaging refers to using materials and design methods that have minimal environmental impact. It's becoming increasingly important due to growing consumer demand and environmental regulations.

By adopting sustainable packaging, we can not only help the environment but also enhance our brand reputation and meet regulatory requirements.

Initiate a group discussion: Let's discuss our current packaging practices. Do you think they are in any way sustainable? How do you think our packaging impacts the environment? Do you think we shall do more in order to make it sustainable?

materials/reading/equipment

We can go through this Learning content - Module 0 of Packless MOOC so that we can get into the topic of Sustainable Packaging in general.

2) Stepping into the Regulatory environment of EU in regards to packaging

Now that we have a solid understanding of what sustainable packaging is and why it's important, let's take a moment to reflect on the key benefits we've discussed.

Sustainable packaging helps reduce environmental impact, meets growing consumer demand for ecofriendly products and enhances our brand reputation. It's clear that adopting sustainable practices is not only good for the planet but also for our business.

However, beyond these compelling benefits, there are also critical legal obligations that we must adhere to.

Do you know any? (wait for answers)

Governments and regulatory bodies around the world, particularly in the European Union, have recognized the urgent need to address environmental issues related to packaging. As a result, they have implemented stringent regulations aimed at promoting sustainability and reducing packaging waste. Such as... (give a couple of examples from the MOOC)

(Enumerate the directives in PP presentation or refer to the MOOC)

Understanding these key EU directives is essential for ensuring compliance and avoiding potential penalties. More importantly, adhering to these regulations positions us as a responsible and forward-thinking company in the eyes of our customers and stakeholders.

Here you can open Packless MOOC, Modul 2, Unit 1- New legal regulations regarding packaging and go through the information in this section.

15 min

duration: 2 hours

timing

content

additional materials/reading/equipment

3) Start a group discussion by asking the following questions:

 How do you think adopting sustainable packaging can benefit our company beyond environmental impact?

Listen for:)

And

What challenges do you foresee in transitioning to sustainable packaging within our company? Listen for

and create lists of the answers to both questions.

Alternative set of questions could be:

How do you think our current packaging practices measure up against these EU regulatory requirements?

And do we need to take steps to ensure that we are fully compliant with these regulations?

Create a list with the answers.

You can sum up the discussion with the following:

15 min Understanding the legal landscape is crucial for our transition to sustainable packaging. The EU Packaging and Packaging Waste Directive sets the framework, requiring us to meet specific standards regarding material use, recycling and waste management. Compliance is not just about avoiding fines, it's about staying competitive and responsible.

Complying with these regulations enhances our brand reputation. Consumers today are more environmentally conscious than ever before.

You are the consumers as well - do you have any preference for companies that use sustainable packaging? (listen for answers and add your own example)

Have you realised that this practice demonstrates a commitment to sustainability. By complying with EU regulations, organisations send a clear message to their customers and stakeholders that they are dedicated to responsible business practices.

Lastly, by complying with current regulations, we position ourselves ahead of future regulatory changes. The trend toward sustainability is only growing and early compliance prepares us for even stricter regulations that may come. It ensures that we are always one step ahead, reducing the need for abrupt and costly adjustments in the future.

flip chart/mural/A3 paper

duration: 2 hours

timing

content

additional materials/reading/equipment

4) Transit the training from the topic of the need to comply with the EU and national Regulation to the consideration of the financial aspects.

Now that we've explored the importance of sustainable packaging and the legal regulations we need to comply with, it's clear that our journey towards sustainability is both a necessity and an opportunity. We've understood the regulatory landscape, but it's equally important to consider the financial implications of this transition.

Whether it's the initial costs of redesigning packaging, sourcing new materials or investing in new technologies, these changes come with their own set of financial impacts.

However, it's important that we learn to view these costs not as burdens, but as strategic investments in our company's future

Group Activity: Divide participants into groups and have each group select a packaging change that they identified earlier in the training, that is needed. They should list the potential costs (e.g., material costs, redesign costs) and benefits (e.g., waste reduction, brand enhancement) and calculate the net benefit.

Groups shall present their analysis to the rest of the participants, discussing the anticipated financial impact and how the benefits outweigh the costs.

You can go through Packless MOOC, Module 2, Unit 2 together.

30 min

Flip chart/Markers

5) Introduction to Broader Benefits of transitioning to sustainable packaging

We've explored the critical legal requirements and financial considerations involved in transitioning to sustainable packaging. We understand the importance of complying with EU regulations and have analysed the financial impacts, including both costs and benefits. However, the advantages of sustainable packaging extend beyond just compliance and financial metrics.

Now, let's shift our focus to additional aspects that demonstrate how transitioning to sustainable packaging can be highly beneficial for our company. These benefits can enhance our market position, strengthen our relationships with stakeholders and contribute to our overall business strategy. Prepare a presentation, underling the other cons of transitioning to sustainable packaging:

Enhanced Brand Reputation:

Say: Sustainable packaging can significantly boost our brand's reputation.

Ask: Do you think that is true? Why/why not? Why would it have influence on consumers?

30

min

duration: 2 hours

timing

content

additional materials/reading/equipment

Show relevant data and say: Consumers are increasingly making purchasing decisions based on a company's environmental impact. By adopting sustainable practices, we align with their values, which can lead to increased customer loyalty and differentiation in a competitive market.

Market Opportunities and Consumer Preferences:

The demand for eco-friendly products is growing. By transitioning to sustainable packaging, we can tap into new market segments and attract environmentally conscious consumers. This shift not only meets market demand but can also open up opportunities for premium pricing and expanded market reach.

Innovation and Competitive Edge:

Embracing sustainable packaging often drives innovation.

It challenges us to explore new materials, design processes and technologies that can give us a competitive

edge, as you have already shown in the previous activity.

Companies that lead in sustainability are often seen as innovators, setting trends and influencing industry standards.

Long-Term Sustainability Goals:

Transitioning to sustainable packaging is a key step towards achieving broader sustainability goals. It supports our commitment to reducing our carbon footprint and environmental impact, contributing to longterm corporate sustainability and resilience.

Group Brainstorming:

Divide participants into small groups and assign each group to brainstorm specific ways sustainable packaging can benefit various aspects of the company (e.g., brand reputation, market opportunities, employee engagement). Have each group present their ideas to the larger group. Discuss how these benefits can be leveraged in the company's strategic planning and operations.

30 min

5.1.3 Packaging Smarter: Reducing Resource Use and Waste in Your Company

This Workshop is aiming to help SMEs start a conversation about their packaging and assess potentials to reduce the used resources. Learners shall be active beforehand in collecting information on the internally used packaging-products and currently applied packaging practices. Data on packaging types and quantity used per week should be written down for each business unit. These will be used in the workshop to discuss the current situation, raise awareness towards environmental burdens connected to the used packaging and explore solution-options for a reduction of packaging-waste.

Objectives:

- Help employees understand the types of packaging currently in use within the company
- Build awareness of the materials and quantities involved in packaging processes
- Encourage collaboration to evaluate the functions fulfilled by different packaging types
- Initiate a dialogue on opportunities for reducing packaging materials while maintaining effectiveness

Target groups:

SME employees involved in production, logistics, procurement and packaging operations (if applicable)

Preparations:

- Review the company's current packaging types, quantities used, and associated costs
- Review module 3 from the Packless MOOC
- Prepare a list of common packaging types and their functional purposes (e.g., protection, branding, transport)
- Gather examples of best practices for minimising packaging use while maintaining functionality

Time needed:

ca. 1 h 20 min

duration: 1 h 20 min

timing

5

min

content

additional materials/reading/equipment

1) Start by explaining the need to assess the types and amounts of packaging used in the organisation. Emphasise how this assessment can help identify areas for improvement and sustainability.

Example: "Today, we'll focus on understanding what types of

packaging we currently use, the amount of packaging material

involved, and the purpose each type serves. This understanding is the first step toward reducing packaging materials while ensuring that all necessary functions, like protection and branding, are maintained."

Use visuals or real-life examples of the company's packaging materials.

Discuss how each type of packaging serves a specific function (e.g., protecting fragile items or making bulk transportation easier).

2) Overview of Packaging Types and Functions

Content:

10 min

15

min

Provide an overview of the different types of packaging the organisation uses, such as primary, secondary, and tertiary packaging.

Discuss the various functions of packaging, such as protection, containment, convenience, and

Company packaging samples or images.

Reference materials from the Packless MOOC or Compendium on sustainable packaging types.

Flipchart to note and discuss participants' input.

3) Guide participants in identifying the types of packaging the company uses and estimating the quantities involved.

Split participants into groups (ideally one person from each team of the company) and have each group work on compiling a list of packaging types used in the company (e.g., cardboard boxes, plastic wraps, foam inserts)

Ask the groups to estimate how much of each material is used in a typical week or month, based on their knowledge and available data.

A3 paper for group work, already gathered information on packaging amounts and types from the different company areas/teams, and markers.

duration: 1 h 20 min

timing

content

additional materials/reading/equipment

25 min

(15 min for work, 10 min for presentations)

4) After creating an inventory, ask participants to analyse why each type of packaging is used. Does it serve the purpose of protection, storage, transportation, branding, or something else?

Divide participants into two groups:

- Group 1: Analyse the functional roles of packaging types used in protecting goods (e.g., bubble wrap, foam).
- Group 2: Examine packaging materials used for transport and branding (e.g., boxes with logos, instruction labels).

Ask each group to discuss whether these materials are necessary or if there are opportunities to reduce or replace them with more sustainable options.

Discussion Prompts:

- "What function does this packaging serve?"
- "Can this material be reduced, reused, or replaced

Flipchart or whiteboard for recording group findings. A3 paper for group work, packaging samples.

- with a more sustainable option?"

Content:

Facilitate a group discussion on the potential to reduce packaging materials without compromising the quality and functionality of the product.

Activity:

- Have the groups present their analysis on the functions of packaging and suggest areas where reductions might be made.
- Organise a brainstorming session:
- Group 1: Explore ideas to reduce protective packaging while maintaining product safety.
- Group 2: Discuss ways to optimise branding and communication elements of packaging to reduce material use.

Prompts:

- "Which packaging elements could be reduced without losing functionality?"
- "Are there alternative designs or materials that could fulfil the same purpose with less waste?"

A3 paper for group work, already gathered information on packaging amounts and types from the different company areas/teams, and markers.

20 min

duration: 1 h 20 min

timing

content

additional materials/reading/equipment

5 min

Content:

 Wrap up by summarising the key insights from the workshop, highlighting areas where the company can improve its packaging practices. Emphasise the importance of continuous monitoring and innovation.

Prompts:

- "What did we learn about our packaging practices today?"
- "What are the next steps we can take to implement some of the ideas we discussed?"

73

5.1.4 Implementation examples & inspirations

The main objective of the lesson is to implement examples & inspirations to widen the horizon as a basis for the necessary change process in sustainable packaging. What is possible? What is doable? What solutions already exist in practice? What ideas exist for the future?

Objectives:

- Help the employees to learn from examples and inspirations
- Gain basic knowledge of packaging examples & inspirations
- Distinguish between different approaches of packaging
- Decide between appropriate systems for different companies and products
- Introduction to Technical solutions, Management process, Customer information solutions, Ideas for the future

Target groups:

SME employees

Preparations:

Go through the module 4 on Examples & Inspiration in the Packless MOOC; view the Intro video; go the different Units, read all information and listen to presentations; review your knowledge with the ToDo Tasks; read best practices and choose the one(s) you want to share with the learners; Ask yourself what you learned from these inspirations. Be prepared to discuss next goals in sustainable packaging.

Time needed:

ca. 1 h 50 min

duration: 1 h 50 min

timing

content

additional materials/reading/equipment

10 min 1) Start by explaining how we can learn from examples & inspirations.

How can best practise examples help SME to rethink their own packaging?

Start with brainstorming: packaging examples you have in mind.

2) Explain the different topics for implementing changes out of inspirational examples. Focus on Technical solutions, Management process and Customer information solutions

Unit 1: In this unit you will find two different technical solutions which are developed by successful companies. Listen to the presentation and get inspired by the ideas introduced by the companies of "Siemens Mobility Austria GmbH / Pawel Package and Logistics GmbH" and "Cupffee".

Unit 2: Starting the sustainable packaging process is not just ruled by external forces, like legal regulations and customer desires. A very important aspect is to involve the entire staff of a company into the change. This aspect depends on management decisions to become a sustainable company, on the introduction of a management process, on convincing the employees of participating in the process and on the empowerment of the staff to make it their own project. This unit tackles the change management (Module 5) and the innovation management of companies.

Unit 3: The customers are very important stakeholders in the sustainable packaging process. They have to buy the products, and if they are not satisfied with the solutions provided by the company, they will buy them from other producers. Therefore it is an important task to inform the customers about the background for the decisions concerning sustainability.

Main questions to answer:

Unit 1: How to learn from different technical solutions...?

Unit 2: How to involve yout staff in the sustainable packaging process?

Unit 3: How to learn from customer information solution?

MOOC Unit 4 Implementation examples & inspirations video module overview Video:

www.youtu.be/0WHep8erbvE

Unit 1: Technical solutions: PackLess MOOC
Presentation Modul4 1
Technical Solution.mp4

Unit 2: Management process: PackLess MOOC
Presentation Modul4 2 Manage ment.mp4

Unit 3: Customer information solution:

<u>PackLess MOOC</u>

<u>Presentation Modul4 3 Custom</u>
<u>erInformation Solution.mp4</u>

20 min

duration: 1 h 50 min

timing

content

additional materials/reading/equipment

3) Give you an in-depth insight to the Unit1 and 3: Technical solutions and Customer information solutions by using the material in the MOOC Modul4

article

In this article you will find hints on other materials of technical solutions for sustainable packaging. At this point the question of "What is really sustainable" arises as well and gives you some ideas.

30 min Here you will find an assignment to analyse the use of packaging in your own company and to think further how the avoidance of packaging material will be possible.

Unit 3: article

In this article you will learn about the importance of communication with your clients. They have to be treated as serious partners in the process of improving the process of sustainable communication. ToDo

Here you will find an assignment on how to improve the communication on sustainable packaging use with your clients. Find appropriate communication solutions with your customers.

Work with the material provided online:

Unit 1:

Technical solution in sustainable packaging: Sustainable packaging - what packaging alternatives are there?

www.mooc.packless.eu/mod/pag e/view.php?id=73

ToDo - Technical solution in sustainable packaging www.mooc.packless.eu/mod/pag e/view.php?id=74

Unit 3:

Communication in sustainable packaging Communicate environmental awareness in packaging! www.mooc.packless.eu/mod/pag e/view.php?id=79

ToDo: Communication in sustainable packaging www.mooc.packless.eu/mod/pag e/view.php?id=82

25 min

(15 for work, 10 for presentations)

15

min

4) Ideas for the future and your own company

Start a Research:

What kind of inspirations offer public & private Organizations?

-There is already a lot of documentation from other companies in search of sustainable packaging solutions. Be inspired by packaging contests and search on your own.

Work with the material provided online:

Unit 4. Ideas for the future and your own company

ToDo: Inspirations from public and private Organisations www.mooc.packless.eu/mod/pag e/view.php?id=83

5) Start a Modul concluding discussion by asking:

Which inspirational examples (within the Modul 4) we spoke about are the most interesting for you and why?

Which approaches can help companies to implement changes?

What were the core statements and main challenges companies named?

What can I learn from these inspirations for my company? Your next goals in sustainable packaging www.mooc.packless.eu/mod/pag e/view.php?id=84

5.1.5 Gaining support: Stakeholder and their needs

The main objective of the lesson is to increase awareness of the role stakeholders play in any change process, not to mention one related to CE transformation that often demands huge changes in all aspects of the organisation's functioning. By recognising all stakeholders and analysing their roles, one can be better prepared for the changes and go much smoothly through the transformation.

Objectives:

- Help the employees understand the nature of the planned changes
- Build employee engagement in the change process
- Create the attitude of participation
- Share the importance of informing the stakeholders about the changes

Target groups:

SME employees

Preparations:

Go through the module on Implementing Changes in the Packless MOOC; read all information and listen to presentations; review your knowledge with the quiz; read best practices and choose the one(s) you want to share with the learners.

Time needed:

ca. 1 h 15 min

duration: 1 h 15 min

timing

content

additional materials/reading/equipment

5 min

something like:

As you already know, we are getting ready to introduce

1) Start by explaining the context for changes saying

changes to our packaging practices and start transformation to more sustainable ones. It will not happen overnight and everyone needs to be involved in the process. I would like all of us to understand what will happen and what is required for all of us since we will need to explain the changes to our customers, suppliers etc.

Let's look at who will be affected by the changes we want to introduce – the stakeholders.

2) Explain the definition of stakeholders as in the MOOC; show examples if needed

Understanding Stakeholder Needs & Expectations: www.youtube.com/watch?v=PbdPq9s39CE

Stakeholder Engagement Tips: 5 Tips For Project Managers

www.youtube.com/watch?v=APc9S_8v7YY

www.youtube.com/watch?v=APc9S 8v7YY

How to build a key stakeholder map | Stakeholder mapping | Lauren Kress www.youtube.com/watch?v=OkyVirNorAc

Stakeholder Conflicts: www.youtube.com/watch?v=3NtWAHAW8uU

Stakeholders in Packaging: www.youtube.com/watch?v=xG9yZhEHGOc

MOOC Unit 2 Gaining support/Stakeholders and their needs

Prior to the workshop analyse your organisation's stakeholders and make a list as a reference.

10 min

duration: 1 h 15 min

timing

content

additional materials/reading/equipment

3) Start the discussion by asking:

• Who are our stakeholders? Listen to examples.

Next say:

Let's develop a list

• Organise the learners into groups (as suggested in the procedure in the MOOC)

ask: Why is it important to know who can support the changes and who could hinder them?

Listen for:

to prepare to talk to them, to have all documents and explanations ready, to ask those in favour to act as supporters, etc.

copy the procedure from the MOOC flip chart/mural/A3 paper

15 min

25 min

(15 for work, 10 for presentations)

4) Divide the learners into 2 groups and ask:

- 1st group to choose 2 -3 stakeholder groups and brainstorm the strategies on involving them in the changes
- 2nd group to choose 2-3 stakeholder groups to develop strategies (ways) of informing them about the changes.

Ask the groups to present the results

20 min

(10 for work, 10 for presentations)

5) Ask the learners to form pairs; say:

 take 1 person (stakeholder) you both know and write how they should be informed about the planned changes

Ask everyone or a couple of learners to present their ideas

Notice: if you want everyone to talk about their plan, allow more time

6) Conclude by asking:

 what are the benefits of including the stakeholders' perspective in the planned changes?

5.2. Curricula for vocational education training (VET)



In this section, teachers in vocational education and training will find five detailed curricula for teaching content in the context of sustainable packaging. With the help of the curricula, participants learn about the concept of reusable packaging and its importance in reducing environmental pollution. They are able to identify the different types of reusable packaging systems used in different industries. Other learning objectives concern the advantages and challenges associated with reusable packaging from both an operational and an environmental perspective.



Integrating Sustainability into Branding without greenwashing

Module plan information

Learning Cluster:

Integrating Sustainability into Branding without greenwashing

Topic:

Total Workload: 2,15 hours **ECTS Allocation:** 1/10

Syllabus

- Introduction to the sustainable branding
- Objectives
- Identifying areas for creating sustainable branding without greenwashing

Lecture notes

- Prepare examples and case studies for sustainable packaging branding
- Use the PackLess MOOC for gaining knowledge about sustainable packaging branding strategies and provide tasks for learners
- Prepare materials for working in two groups

Teaching methods

- ☐ Blended Learning
- □ On-Line Learning
- □ Pre-recorded Tutorials
- □ Assignment
- □ Learning by doing
- □ Project-based learning
- □ Peer learning
- ☐ Hands-on learning
- □ Collaborative learning
- □ E-Journal

Module Task

This module will guide learners through the process of understanding branding strategies based on sustainable packaging and understanding how to avoid greenwashing.

Objectives

The learners:

- Will gain basic knowledge of sustainable packaging branding
- Integrating sustainability into brand identity and effectively communicating it to customers
- Defining sustainable branding strategies
- Defining how to avoid greenwashing in branding strategy

Preparation

The educator needs to get familiar with PackLess MOOC Module 0 and Module 1 - Unit 2 and sustainable packaging definition, sustainable packaging branding strategies and greenwashing.

WORKLOAD: 2,15 hours

Sustainable packaging definition and sustainable packaging branding examples

- Define sustainable packaging definition (Module 0 PackLess MOOC) (10 min)
- Bring with you examples of sustainable packaging that use packaging for branding strategies for showcase and unsustainable packaging. Mix all packages and divide into two parts. (20 min)
- Divide learners into 2 groups and ask them to divide examples of packaging into sustainable and unsustainable ones.
- Ask the leader of the groups what are sustainable and unsustainable features of these packages.
- Provide information about sustainable packaging branding best practices (Module 1 Unit 2.4.) and 4 best practices for communicating packaging sustainability (In English) (10 min)

www.metrixlab.com/whitepaper-4-best-practices-for-communicating-packaging-sustainability/

WORKLOAD: 40 min

Sustainable branding strategies

- Present sustainable branding strategies (use MOOC PackLess Module 1 Unit 2.1) and Packless Compendium (15 min)
- Provide two examples of branding based on sustainability and ask learners to match strategies to each example sustainable packaging. Ask your learners to analyse on their own their company (products and services). (15 min)
- Questions: If my company uses some branding strategies? How can we incorporate branding strategies based on sustainable packaging? It is time for presenting answers by each participant and comments. (10 min)

WORKLOAD: 40 min

How to avoid greenwashing in your branding strategy

- Introduce greenwashing definition and features. Provide greenwashing examples. (15 min)
- Use MOOC Packless Module 1 Unit 2.2 What is greenwashing?
- Use MOOC Module 1 Unit 2.3. Divide your learners into two groups. (15 min)
- Ask them to do task from Module 1 Unit 2.3.
- Ask the leaders of the groups to present their results. (10 min)
- Compare two results of two groups. (5 min)
- Closing session (15 min)
- Ask each learner about ideas for further changes in branding strategy including sustainability.

WORKLOAD: 40 min

Brand Positioning and Sustainability

- Aligning sustainability with brand values and messaging
- Communicating sustainability as a brand differentiator

Storytelling and Consumer Engagement

- Crafting compelling narratives around sustainable packaging
- Transparency in sustainability claims and certifications

Visual and Communication Strategies

- Designing packaging to highlight sustainability (labels, graphics)
- Educating consumers through packaging (QR codes, augmented reality)

Designing Sustainable Packaging

Material Selection

- Overview of sustainable materials (biodegradable, compostable, recyclable)
- Innovations in packaging materials (bioplastics, recycled materials)

Packaging Design Principles

- Minimalism in design to reduce waste
- Multi-functionality and reusability
- Efficiency in packaging size and shape



Legal and financial aspects of sustainable packaging

Module plan information

Learning Cluster:

Consideration of the legal and financial aspects when SMEs start the transition to sustainable packages for their products

Topic: Organisation circularity

Total Workload: 2 hours **ECTS Allocation:** 1/10

Syllabus

- Define sustainable packaging
- Understand the environmental impact of packaging
- Identify benefits of sustainable packaging for SMEs
- Financial impact of sustainable packaging transition for the SMEs
- Understand EU packaging regulations concerning packaging and identify compliance strategies for SME

Module task

The Module aims to help VET educators to support SMEs so that they will be well-versed in the legal landscape surrounding packaging, ensuring they remain compliant with all relevant laws and regulations, thereby avoiding fines and enhancing their market reputation. But at the same time providing them a clear understanding of the financial implications of sustainable packaging, enabling them to make informed decisions that balance cost and sustainability.

Objectives

The learners:

- Will understand the EU and National Regulations for packaging
- Will start thinking for their own compliance strategies for sustainable packaging
- Will understand initial and ongoing costs of sustainable packaging
- Will understand the pros and cons of starting the transition to sustainable packaging

Preparation

The educator needs to familiarize himself/herself with the latest EU and national packaging regulations and standards. He/she shall explore successful case studies of SMEs that have adopted sustainable packaging, focusing on financial and legal challenges and solutions. It is always a good idea to identify and invite successful business owners who can share their experiences with transitioning or already using sustainable packaging.

WORKLOAD: 2 hours

Introduction to Sustainable Packaging

Definition and Types of Sustainable Packaging. Environmental Impact of Traditional vs. Sustainable Packaging

Present real-world examples of SMEs that have successfully adopted sustainable packaging and their benefits.

Facilitate a discussion on participants' current packaging practices and challenges. Ask the questions:

- Where could they start the transition to sustainable packages in their organisations?
- What is most difficult and why?

Here could be used Module 0: Unwrapping sustainable packaging from the Packless MOOC

Lecture notes

- Explain sustainable packaging's role in environmental conservation. Emphasize the growing consumer demand and regulatory pressures for sustainable practices.
- Explain the financial aspects of adopting sustainable packaging.
- Summarize key legal obligations.
- Use case studies to illustrate the impact of different packaging choices.

Teaching methods

- □ Face to Face Learning
- □ Blended Learning
- □ On-Line Learning
- □ Pre-recorded Tutorials
- □ Assignment
- □ Learning by doing
- □ Project-based learning
- □ Peer learning
- ☐ Hands-on learning
- □ Collaborative learning
- □ E-Journal

Understanding the Environmental Impact of Packaging

Present information on the environmental impacts of various packaging types, including resource use, waste generation and effects on ecosystems. Emphasize the role of packaging in sustainability and its effects on the environment. Present case studies of environmental damage caused by packaging waste, such as plastic pollution in oceans. Ask the participants about their experiences and observations from everyday life.

Have the PP ready and discuss the benefits of choosing sustainable materials such as recycled content, biodegradable options, and renewable resources.

Share examples of companies that have successfully reduced their packaging's environmental impact through innovative designs and materials.

Legal and Regulatory Framework of Packaging

Overview of the EU and National Packaging Regulations. What is expected to happen in the next few years.

Start with a brief overview of why legal and regulatory compliance is crucial for SMEs in the context of sustainable packaging. Highlight potential risks of non-compliance, including financial penalties and reputational damage.

Allow time for participants to ask questions about specific regulations or challenges they face. Provide practical advice and clarifications

Here could be used Module 2: Legal and financial aspects from the Packless MOOC

Financial Implications of Sustainable Packaging

Start by explaining why understanding the financial implications of sustainable packaging is crucial for SMEs. Highlight the potential for cost savings and long-term financial benefits. Make references to the products and processes used by the SME you are working with.

Explain costs associated with adopting sustainable packaging, such as material costs, production changes and supplier adjustments.

Prepareand present an example of cost analysis of a specific packaging change showing initial investment vs long term benefits.

Underline how long-term savings from reduced waste and increased efficiency can offset initial costs.

Here could be used Module 2: Legal and financial aspects from the Packless MOOC



Development of ideas for the implementation of the Rescue model in the company

Module plan information

Learning Cluster:

Topic: Reuse

Total Workload: 2,5 hours **ECTS Allocation:** 1/10

Syllabus

- Introduction to the topic of reusable packaging
- Group work (part 1):
 Research
- Group work (part 2): brainstorming
- Discussion of the results

Teaching methods

- □ Blended Learning
- □ On-Line Learning
- □ Pre-recorded Tutorials
- □ Assignment
- □ Learning by doing
- □ Project-based learning
- □ Peer learning
- ☐ Hands-on learning
- □ Collaborative learning
- □ E-Journal

Module Task

This module will guide learners through the process of understanding reusable packaging, researching existing models, innovating solutions, and discussing and refining their ideas.

Objectives

The learners will be able to:

- Understand the concept of reusable packaging and its significance in reducing environmental impact.
- Identify the different types of reusable packaging systems used across various industries.
- Recognize the benefits and challenges associated with reusable packaging from both a business and environmental perspective.

Preparation

Power Point Presentation about waste hierarchy, circular economy and different reuse models. Documents from the MOOC can be used (see: 1.).

The educator needs to get familiar with the different reuse models and need to be able to give some examples. He/she should be familiar with the preparation of a SWOT analysis.

WORKLOAD: 2,5 hours

1. Introduction of the topic of reusable packaging

Introduction to the European waste hierarchy: Focus on the difference between reuse and recycling. Learners should understand why reuse offers added value compared to recycling. Explain the circular economy: what distinguishes it from the linear economic model, why is it preferable? Use the Value Hill Model, for example, to illustrate the difference. Focus on reusable packaging.

Introduction to the different reusable models: Explain the models and what distinguishes them, provide examples. Discuss the challenges and opportunities of reusable packaging.

WORKLOAD: 20-30 minutes

Required Material: PP-Presentation

The following documents can be used for the introduction: MOOC: Module 3, Unit 2, Unit 3 (Reuse)
Ellen MacArthur Foundation: Reuse – rethinking packaging www.ellenmacarthurfoundation.org/reuse-rethinking-packaging

2. Group work (part 1): Research

Divide the participants into 4 groups (if there are fewer than 8 participants: 2 groups) and assign each group a reusable model. Each group should research examples of their reusable model (preferably from their industry, national or international) and write them down on a flipchart

Key questions:

- What is particularly interesting about the example?
- What challenges do you see?

Subsequent presentation of the examples

WORKLOAD: 30 minutes (20min. Research, 10min. Presentation) Required Material: Flipchart, markers; participants: laptops or mobile phones with internet access

3. Group work (part 2): Brainstorming

The groups are mixed up. Using the examples provided, the newly formed groups should each discuss a reuse model and develop ideas on how the model can be applied to their product packaging. Prototypes, sketches are welcome but not required!

Key questions:

- What options are there for introducing a reuse system in the company?
- What opportunities and challenges can the reuse model bring with it (logistics, costs, brand image, marketing, ecological aspects, etc.)?

Presentation of the models developed.

WORKLOAD: 60 minutes (50min. model development, 10min. Presentation)
Required Material: Flipchart, markers; possible materials for prototyping: scissors, glue, adhesive tape, coloured pens, etc.

4. Discussion of the results

The best model is selected through a vote. The participants discuss the selected idea, the identified opportunities and challenges and develop it further together. A SWOT analysis can be carried out to clusters the opportunities and challenges.

WORKLOAD: 30 minutes
Required Material: Flipchart,
markers



Implementation examples & inspirations

Module Information plan

Learning Cluster:

Implementation examples & inspirations

Topic: Technical solutions, Management process, Customer information solutions, Ideas for the future

Total Workload: 2 hours **ECTS Allocation:** ?

Syllabus

- Introduction to examples
 & inspirations of packaging
- Different approaches
- Technical solutions, Management process, Customer information solutions, Ideas for the future

Lecture notes

- Provide an overview of the different sustainable packaging examples
- Discuss the core statements and challenges
- Provide the further reading material after each approach
- Discuss the results and ideas for the future

Teaching methods

- □ Face to Face Learning
- □ On-Line Learning
- □ Pre-recorded Tutorials
- □ Learning by doing
- □ Project-based learning
- □ Peer learning
- □ Hands-on learning
- □ Collaborative learning
- □ E-Journal

Module Task

The unit serves as an inspiration by learning from packaging examples.

Objectives

The learners:

- Will gain basic knowledge of packaging examples & inspirations
- Will distinguish between different approaches of packaging.
- Will decide between appropriate systems for different companies and products
- Will be introduced to Technical solutions, Management process, Customer information solutions, Ideas for the future

Preparation

Get a Modul 4 overview with the introduction video; Packless MOOC module 4 reviewed

Start with brainstorming: packaging examples you have in mind (take some notes frome own ideas);

The educator needs to get familiar with the different topics for implementing changes out of inspirational examples. Focus on Technical solutions, Management process, Customer information solutions, Ideas for the future

Be prepared to speak and discuss the two examples with a technical solution (Siemens Mobility Austria GmbH, Cupffee) Please have a closer view to the core statements and the challenges in each company. It will be helpful to read together the additional learning materials and include the ToDo with a common company in your mind.

To get a good access to the Management process, view and discuss the two examples belonging to it (MM PACKAGING GmbH, RIEBEL Siebdruck GmbH) with a closer view to the core statements and achievements. The reading material gives you and the learners additional background knowledge.

Explain how to learn from customer information solutions, with the help of the Seidensticker Group example. Have a closer view to the core statements and challenges. Read the reading material with a close view to the 'Tip'. Perhaps it is possible to transfer the ToDo task together with the group of learners to a known company example.

Provide some research on Best Practise Examples for sustainable packaging. Share the results in the group

Workload: 2 hours

1. Introduction to inspirational Examples of sustainable packaging

Introductory session could be based on Packless MOOC module 4 and on the video module overview.

Start with a brainstorming: packaging examples you have in mind

2. Technical solutions:

View presentation prepared, read further reading material, think about the ToDo tasks

3. Management process:

View presentation prepared, read further reading material, think about the ToDo tasks

4. Customer information solutions:

View presentation prepared, read further reading material, think about the ToDo tasks

5. Ideas for the future:

Use the material provided, start some research

6. Discussion:

Start the discussion by asking the questions:

- Which inspirational examples (within the Modul 4) we spoke about are the most interesting for you and why?
- Which approaches can help companies to implement changes?
- What were the core statements and main challenges companies named?
- Are there examples/approaches which are really doable for you, thinking of the company you prefer to work at?
- Which approaches are the easiest for you to implement right away?
- Which successful example that you have researched inspires you the most?

7. Reflection:

Ask the participants to share their thoughts on:

What is the most difficulty implementing ideas out of good examples?

Note: Maybe you can go back to the core statements of the included examples.



Evaluating organisation's circularity status

Module Plan Information

Learning Cluster:

Implementing changes Module **Topic:** Organisation circularity

level

Total Workload: 2 hours **ECTS Allocation:** 1/10

Svllabus

- Introduction to the circularity
- Objectives
- Identifying areas for starting changes in the context of the packaging sector

Lecture Notes

- Provide case studies for a circularity level analysis
- Provide a link to Circularity Assessment Tool and test it before the workshop
- Assignment type: final discussion about the results

Teaching methods

- □ On-Line Learning
- □ Pre-recorded Tutorials
- □ Assignment
- □ Learning by doing
- ☑ Project-based learning
- □ Peer learning
- ☐ Hands-on learning
- □ Collaborative learning
- □ E-Journal

Module Task

The unit serves as an introduction to evaluating business sustainability.

Objectives

The learners:

- Will gain basic knowledge of circular economy (CE)
- Will develop understanding of CE as applied to organisation
- Will learn the criteria for evaluating circularity of an organisation
- Will apply the above knowledge while performing sustainability evaluation of an organisation with Circularity Assessment Tool

Preparation

PP with CE definition; Circular Assessment Tool; a case study of an organisation for analysis; Packless MOOC modules 0 & 4 reviewed

The educator needs to get familiar with the Circular Assessment Tool (preferably conduct an assessment of an organisation to understand the scope of information needed) and prepare a case study in such a way that it has all the information necessary to perform analysis with the tool (or use the example).

It will be helpful to perform, at least partially, the analysis of the organisation the learners come from to be able to give adequate examples. If there are no CE initiatives in place, the trainer could look for any sustainable actions, procedures used to prove some changes have already taken place.

Workload: 2 hours

1. Introduction to Circular Economy

Introductory session could be based on Packless MOOC module 0, module 4 or other external sources like DIY Policies Portfolio and Action Plans from L2C Erasmus+ Project www.ltoc.eu/results

Check with the learners their understanding of the Circular Economy concept. Ask additional questions to make sure they are going in the right direction. Be prepared to show the definition on a slide and explain it.

Start the discussion on environmental benefits of CE but also ask about the benefits for the organisation the learners come from. What benefits could they expect, what benefits is the organisation already experiencing (if any).

Be ready to present a wide array of benefits based on multiple case studies - to be found in Module 4 od Packless MOOC and here: www.ltoc.eu/results

2. Circularity level analysis based on the case study

Work with the real example of the organisation the participants come from or select one example from the sources mentioned in P.1 Together with the group perform step by step circularity analysis of the described organisation using Circularity Assessment from 2Good2Go Erasmus+ Project www.2good2go.ftsnet.it/ or similar.

Note: to work with the learners' organisation you may need to invite some managers/leaders who might have pieces of data the employees might be unaware of or have no access to.

3. Discussion:

Start the discussion by asking the questions:

- Where could we start the changes in this particular organisation looking at the results of the analysis?
- Are there actions you could take on your own?
- What could be done right away?
- What changes are the easiest to implement?
- What changes would have the largest impact?

4. Reflection:

Ask the participants to share their thoughts on: What is the most difficult stage/aspect and why or what does it look like in your organisations?

Note: If there are decision makers present, you could even (after having agreed with them beforehand) have a discussion leading to some organisation commitment to actions.

6. Digital Tools and Curricula



6. Digital Tools and Curricula

In corporating digital tools into vocational education has become essential for equipping future professionals with the skills and knowledge to address sustainability challenges. In the context of sustainable packaging, digital tools provide interactive and practical approaches for understanding complex concepts, fostering innovation, and encouraging environmentally responsible practices. This initiative is vital as businesses and industries are increasingly prioritizing sustainable packaging to reduce their ecological footprint.

The RecyClass and Eco Label Guide curricula focus on two critical aspects of sustainable packaging. RecyClass emphasizes the recyclability of packaging materials, helping learners identify, design, and manage packaging that aligns with circular economy principles. Meanwhile, the Eco Label Guide introduces learners to global and regional eco-labeling systems, enabling them to recognize sustainable products and make informed choices in their professional activities.

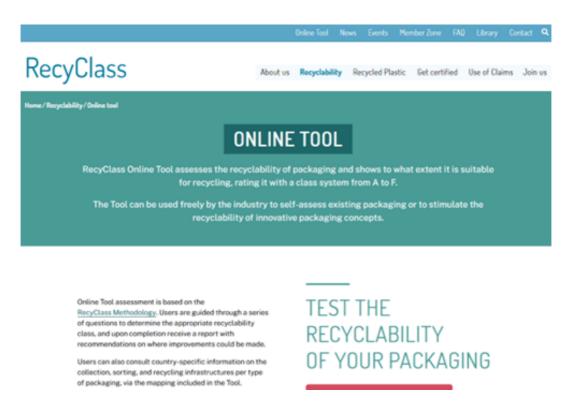
By integrating these digital tools, learners can explore real-world scenarios, engage in self-paced learning, and develop actionable solutions for sustainable packaging. Such education not only advances their career prospects but also contributes to a broader cultural shift toward sustainability within industries. This modern approach ensures vocational students are prepared to be leaders in sustainability, enhancing their ability to drive innovation and make impactful decisions in their fields.

RecyClass Online Tool

The RecyClass Online Tool is designed to assess the recyclability of plastic packaging, providing a rating from class A to F based on its suitability for recycling. This tool is particularly valuable for SME leaders and trainers who want to enhance the sustainability of their packaging practices within their organizations.

With the RecyClass Online Tool, users can freely conduct self-assessments on existing plastic packaging or explore the recyclability potential of innovative packaging ideas. The assessment follows the RecyClass Methodology, where users answer a series of guided questions to receive a recyclability class and a detailed report containing recommendations for improvement.

Additionally, the tool provides insights into country-specific collection, sorting, and recycling infrastructures, which helps organizations understand the varying recycling landscapes across Europe.



https://recyclass.eu

Key features include:

- Unlimited free access for an unlimited number of analyses.
- Recommendations to improve packaging features to enhance recyclability.
- Simulation of potential certification results.
- Insight into existing recycling streams in Europe.
- Updated information on country-specific collection and sorting systems.
- Practical application of RecyClass Methodology and Design for Recycling Guidelines.

SME leaders and trainers can leverage this tool to boost packaging sustainability, align with recycling guidelines, and prepare for third-party certification. Online Tool is continuously updated to reflect technological and market advancements, ensuring that users receive the most current recommendations.

THE CURRICULUM - Improving Recyclability of Plastic Packaging

The main objective of the lesson is to increase awareness and get interest of SME leaders in starting or upgrading recycling of plastic packaging.

Objectives:

- Help the SME leaders understand the inevitable need to analyse the sustainability status of their organisations
- Build their engagement in the change process and create the feeling om immediacy of the changes
- Show one of the tools available for analysing the current status of the organisation and to get ideas for the changes and practice using the tool

Target group:

- SME leaders from organizations that use plastic packaging, who are not recycling the packaging yet or would like to check if they are doing it in the correct way or if they could do more,
- VET educators.

Preparation:

- 1. Update knowledge of the level of understanding the concept of recycling among the learners and their empowerment to make decisions regarding the organisation
- 2. Update knowledge and understanding of EU directives (European and country specific) related to the topic
- 3. Get familiar with the RecyClass a platform offering tools and resources to evaluate and improve the recyclability of plastic packaging; it provides guidelines, assessment tools, and certification schemes to ensure packaging is designed for circularity.
- 4. Get familiar with RecyClass recyclability methodology https://recyclass.eu/wp-content/uploads/2024/03/RECYCLASS-RECYCLABILITY-METHODOLOGY_v.2.3.pdf
- 5. Perform an analysis of a product with the RecyClass Online Tool to be aware of what information on the product/packaging is needed to be able to perform the analysis during the class !!!
- 6. Go through selected modules of Packless MOOC:
- module 0/Unit1/The Impact of Packaging on the Sustainability in SMEs
- module 3/Unit3/Sustainable Packaging: Exploring Different approaches

7. Give Pre-work: Ask the learners to be ready for detailed analysis of their plastic products/packaging (bring samples with them?) or at least to have immediate access to the necessary information; the questions they should be able to answer are e.g. Is it made of plastic? Is it free from hazardous substances? Does it consist of bio- or oxo-degradable plastics? What is the main polymer that constitutes the packaging?

Time needed:

Preparation: 1 month Delivery: 2 h 20 min

duration: 1 h 15 min

timing

content

additional materials/reading/equipment

INTRO

10 min 1) Start with the question: what are the conditions for a product to be considered recyclable? Listen for the 4 characteristics (as per definition below)

2) Quote the global recyclability definition of plastic

packaging developed in 2018 by *The Association of Plastics Recyclers (APR) and Plastics Recyclers Europe (PRE).*

Mention though that:

10 min fulfilling the 4 categories does not automatically designate a product recyclable. Recyclability will depend on the specific design of each packaging, as it can impact the quality of the recycling input material. That is why it is advisable to understand how to perform the recyclability analysis.

Slide with the definition:

Plastics must meet four conditions for a product to be considered recyclable:

- 1. The product must be made with a plastic that is collected for recycling, has market value and/or is supported by a legislatively mandated program.
- 2. The product must be sorted and aggregated into defined streams for recycling processes.
- 3. The product can be processed and reclaimed/recycled with commercial recycling processes.
- 4. The recycled plastic becomes a raw material that is used in the production of new products.

5 min 3) Show on a slide or bring real products as examples of packaging that fulfil the criteria

Optional slide with details of the example selected. Possible examples:

PET bottle, cosmetics packaging (plastic jar or a tube) with Easy-to Access or Easy-to Empty index source: RecyClass Recyclability methodology pp 48-55

5 min 4) Ask:

Why are we talking about that topic? Explain the context for changes in reference to the EU directives Slide with the directives

duration: 1 h 15 min

timing

content

additional materials/reading/equipment

UNIT 1: GETTING READY TO ANALYSE THE RECYCLABILITY POTENTIAL

5 min 1) Ask the learners about the status quo regarding plastic recycling in the their SME and if, according to their knowledge, the packaging used by the SME meets the criteria for recyclability

30 min

2) Activity: MIX and MATCH

Give the group characteristics of recyclability classes (from RecyClass) and examples of products - ask them to match examples with the descriptions relying on their pre knowledge

Analyse with the group Recyclability classes and verify the results of the activity.

Characteristics of RecyClass classes A-F (printed out/available on slides;

examples of packaging for each class – ideally, real life examples to do matching on the tables. Online option – have pictures and the classes on the screen and ask the learners to match them.

NOTE: Have more examples than the classes.

15 min

3) Activity: Analysis with the group - Sustainability Section Decision Tree

Ask the learners for one example of a packaging for analysis and do the analysis together with the group

Slide with Sustainability Section Decision Tree or use the TOOL

UNIT 2: USING THE TOOL

40 min Divide the learners into teams of two or three and ask each team to select one product (from pre-work) they will be analysing. Each team performs the analysis of the selected packaging with RecyCless Online Tool. Ask them to note the pieces of information about the product they were lacking during the analysis; Encourage them to make educated guesses to be able to go with the analysis as far as possible.

Access to the online RecyClass platform; preferably log-ins for everyone to avoid delays.

EcoLabel

ECOnsumer on-line course - Erasmus+ Project

www.virtual-campus.eu/econsumer/EN/m4/content/#/
Module 4 Understanding eco-labels and sustainable certifications

The Econsumer on-line course module 4 equips you with knowledge about credible eco-labels worth for certification, that your learners can consider for their product packaging. You can find there EU Ecolabel wide description.



Ecolabel guide mobile app

www.play.google.com/store/apps/details?id=com.ecounion.EcoLabelIntern&hl=en-US

This app can help identify labels on packaging. What is Ecolabel Guide?

Ecolabel Guide is developed to help consumers make sustainable choice of products based on the information that stands behind the label and to recognize ecolabels from another labels.

The app comprises database of the most popular "eco", "organic" and other environmental and social labels one can find on the products all around the globe. The recognition tool allows to take a photo of the label on the product's package and immediately answers the questions

SME leaders and trainers can leverage this tool to boost packaging sustainability, align with recycling guidelines, and prepare for third-party certification. Online Tool is continuously updated to reflect technological and market advancements, ensuring that users receive the most current recommendations.









THE CURRICULUM - How to label packaging for your product according to new EU regulations

The main objective of the lesson is to provide an understanding of the types and possibilities of ecolabelling on packaging and how to label product packaging according to the new EU legislation.

Objectives:

- Providing knowledge about the most up-to-date product labelling requirements under the new EU regulations SUP directive, PPWR directive, Greenwashing Directive.
- Familiarisation with reliable eco-labels for products and packaging, raw materials used for packaging, which can be used on packaging to avoid greenwashing.
- Presentation of two tools available for analysing ecolabels availability that could be used for the packaging

Target group:

- SME leaders from organizations that use and design each kind of packaging,
- VET educators.

Preparation:

1. Update knowledge and understanding of EU directives – SUP directive, PPWR Directive Greenwashing Directive (European and country specific) related to the topic of presenting product in packaging and informing about waste packaging next steps for consumer Get familiar with the ECOnsumer course Module 4 and different kind of ecolabels and certificates: www.virtual-campus.eu/econsumer/EN/m4/content/#/

Get familiar with Ecolabel Guide mobile app www.play.google.com/store/apps/details? id=com.ecounion.EcoLabelIntern&hl=en-US

- 2. Collect different kind of packaging with ecolabels examples and lables according to new EU rules SUP and PPWR Directive.
- 3. Go through selected modules of Packless MOOC: module 0/Unit1/The Impact of Packaging on the Sustainability in SMEs module 1/Unit1/How To Communicate Sustainable Packaging?
- 4. Give Pre-work: Ask the learners to be ready for detailed analysis of their products/packaging (they can bring samples with them) The questions they should be able to answer are e.g. What material do you use for your packaging? Are the product and packaging materials eco-certified and eco-standardised? What labels do you use on your packaging? Do you use labels on your packaging related to segregation and recycling or reuse of packaging, labels on the plastic content of packaging, and labels on the percentage of recycled raw material? Is your product eco-certified or could it apply for eco-certification? Do you avoid the phrases typical of greenwashing when informing about yout products?

Time needed:

Preparation: 2 weeks Delivery: 2h 25 min

duration: 2 h 25 min

timing

content

additional materials/reading/equipment

INTRO

10 min

- 1. Ask participants to present their packaging or packaging that they decided to bring to the group
- 2. Start with asking the ice-breaker question: What labels can you see on your products/packaging? Do you know what are your new duties because of new EU regulations on packaging issues?

Start the discussion.

Use a whiteboard or different equipment to help summarise the ideas of the group

20 min 3. Present information about Ecolabel. Show examples of ecolabels based on the ECOnsumer online course.

<u>www.virtual-</u> <u>campus.eu/econsumer/EN/m4/c</u> ontent/#/

4. Ask: Why are we talking about it? Explain the context for changes in reference to the EU directives (SUP, PPWR, Greenwashing Directive) Slide with the directives
Single Use Plastic Directive
(SUP)

- an obligation to label products such as tampons, sanitary towels, wet tissues, disposable cups contains plastic - stating that the product contains plastic and must not end up in the environment.
- a ban on the sale and offer of single-use plastic packaging, items, and an obligation to charge the customer for the dispensing of single-use plastic and bioplastic packaging.
- an obligation to offer reusable packaging as an alternative option to single-use plastic packaging.
- a deposit system for plastic bottles, glass bottles and aluminium cans.

20 min timing

content

additional materials/reading/equipment

4. Ask: Why are we talking about it? Explain the context for changes in reference to the EU directives (SUP, PPWR, Greenwashing Directive)

PPWR (Packaging and Waste packaging Regulation):

- Standardised labelling about packaging sorting - simple, legible (graphic element and short descriptive text in a prominent position.
- In the case of reusable packaging, this will have to be accompanied by a QR code or information in another format to facilitate its reuse
- Prohibition of the use of labels, signs, symbols and inscriptions that could mislead or confuse consumers about the sustainability of packaging or packaging waste management options
- Minimisation of packaging appropriate design, banning packaging with double walls, false bottoms or unnecessary redundant layers
- All packaging from 2030 must be recyclable
- Compostable packaging including sachets of coffee, sticky labels attached to fruit and vegetables or very lightweight plastic shopping bags made suitable for industrial composting.
- Recycling requirements in plastic packaging by 2025. 25% of plastic in plastic bottles was recycled, and 30% by 2030.

20 min timing

content

additional materials/reading/equipment

20

min

4. Ask: Why are we talking about it? Explain the context for changes in reference to the EU directives (SUP, PPWR, Greenwashing Directive)

Directive 2024/825 on consumer protection against greenwashing (February 2024)

The EU is banning:

- general, unsubstantiated environmental claims for products
- claims that a product has a neutral, limited or positive impact on the environment because the manufacturer offsets greenhouse gas emissions
- claims about the sustainability of products that are not based on approved certification schemes or have not been established by public authorities

You can use the material from module 2 of the PACKLESS MOOC.

UNIT 1 ECOLABEL IDENTYFYING

20 min Bring real products as examples of packaging featuring ecolabels and labels for waste disposal instructions. Also, include examples of packaging that students have brought to class, as they were asked to do prior to the session.

Ask students to use the Ecolabel guide. Each student's task is to identify the

Each student's task is to identify the markings on the packaging, determine what the certification represents, and assess its reliability.

If a label is not found in the guide, refer to the database in the ECOnsumer course or use information available on the internet.

<u>www.play.google.com/store/apps/</u>details?

<u>id=com.ecounion.EcoLabelIntern</u> &hl=en-US timing

content

additional materials/reading/equipment

UNIT 2 MY LABELS MATCHING

30 min

Part 1: Working in pairs:

Ask the learners about the current state of labeling on their packaging.

Divide the group into pairs. Use flipcharts or online tools like Mural to collect their responses. Each pair should analyze their packaging examples using the following questions:

- What material do you use for your packaging?
- Are the product and packaging materials ecocertified and eco-standardised?
- What labels do you use on your packaging?
- Is your product eco-certified or could it apply for eco-certification?

Summarising: Each group presents their findings.

30 min

Part 2: Working in pairs:

Improvements and finding solutions for your packaging. Use flipcharts or online tools like Mural to collect the answers.

- Is the SUP Directive and PPWR Directive regulations addressed to my company/product/packaging?
- Do you use labels on your packaging related to segregation and recycling or reuse of packaging, labels on the plastic content of packaging, and labels on the percentage of recycled raw material?
- Do you avoid the phrases typical of greenwashing when informing about your product/packaging?
- How should I improve in my packaging system designing and labelling due to new EU Regulations?

(10 min) Summarising: Each group presens their findings.

10 min Discussion and feedback; ask questions about the process, the value of the results; the next steps after the analysis.

Mural (optional)

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