



LEARNING UNIT 1

WHAT ARE “GREENING” SKILLS?

EQF LEVEL QUALIFICATION	2
DURATION	2 hours

Learning Outcomes	Knowledge	Skills	Competences
LO1 K1: Examine sustainability within a business and be able to work within a team to communicate how green skills are transferred into task and skills	<p>He/She knows how to:</p> <ul style="list-style-type: none"> Define recommendations that support resource efficiency. Describe sustainability principles Identify recommendations for reduction of waste and promote recycling Learn how sustainability fits within the business Learn how sustainability fits within HORECA businesses 	<p>He/She is able to:</p> <ul style="list-style-type: none"> Express understanding of sustainability within a business and community context Connect sustainable and green strategies to potential skills and tasks 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> Working within a team to communicate how green skills and strategies are transferred into tasks and skills
LO2 K3: Understand the how sustainability fits within the business. Summarize local, regional and national green certification standards	<p>He/She knows how to:</p> <ul style="list-style-type: none"> Explain local, regional and national green certification standards Provide local, regional and national green certification standards as well as the UN Sustainable Development Goals and Tourism and SDGs Provide Digital tools available to help with green skills and sustainability practices 	<p>He/She is able to:</p> <ul style="list-style-type: none"> Differentiate green skills from other tasks within the business Collect relevant publications to remain up to date on green skills with the HORECA sector locally, nationally and within Europe 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> Selecting digital tools available to help with green skills and sustainability practices Working independently to incorporate green skills into work tasks



<p>LO3 K4: Analyze how sustainability fits in the Horeca business</p>	<p>He/She knows how to:</p> <ul style="list-style-type: none"> • Produce templates to help business owners in getting “green”. 	<p>He/She is able to:</p> <ul style="list-style-type: none"> • Explain sustainability within a business and a community context • Interpret government and industry reports about green skills and sustainable strategies 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> • Disseminating up-to-date information and practices about green skills to internal stakeholders
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UNIT CONTENT

The aim of the unit is to provide basic knowledge to the students on “Greening” meaning. The subject is designed to help students recognize recommendations that support sustainability and understand effectively employer’s commitment to sustainability principles. The subject will also present recommendations that support the reduction of waste and promote recycling.

The evidence used by the teacher will be based on theoretical lectures, practical work, individual assignment, presentations by students, guest lectures, workshops, videos, PPT and so on.

At the end of the unit students will be assessed through some questions included throughout these pages. Questions will be a general focus on the theory part and will help to gain the necessary tools to undergone the practical part regarding the future job.

INTRODUCTION

Green technology or also known as clean technology, is the application of environmental science that helps the conservation of the natural environment and its resources, and thus minimize the negative impacts that human beings have on it.

Technology alone refers to the application of knowledge to create goods or services that facilitate and meet people's needs.

Green technologies are closely related to sustainable development.

Some of these technologies are used for recycling, water and air purification, gas treatment, solid waste management and renewable energy.

During the last decades, recycling has been increasingly installed in people's consciences making it a worldwide phenomenon that is



increasing. Recycling is one of the basic activities of the green technology concept, which encourages people to reuse things that can be used such as paper, cardboard, cans, among others.

Water is one of the essential resources for survival. It covers 71% of the earth's surface, 97% is salt water, 3% is fresh and only 1% is in a liquid state.

Therefore it is very important to raise awareness in water care to ensure that it lasts in the future, trying to reduce consumption and creating water treatment facilities.

Using this green technology you can get to recover the water in large quantities thus reducing consumption, another existing technology related to this is to convert salt water to fresh.

Nowadays, renewable energies have become of the utmost importance, this is because they can be reused, in addition to not contaminating and the carbon emissions that are sent to the atmosphere are getting smaller.

This type of energy can be produced naturally by natural objects such as wood, solar energy, wind and biogas among others.

Another type of green technology used for kitchens is the use of food grinders because they reduce the accumulation of waste, reduce emissions of polluting gases and allow food waste to be converted into biogas so that these in turn generate electricity.

The sensors are also considered green technology because they are devices that can measure physical quantities and transform them into electrical signals. There may be presence, temperature, lighting sensors, among others.

Therefore, these sensors are considered as intelligent systems since they control a lot of things in a hotel room and in turn are friendly to the environment since it turns off the lights and televisions when they stay on and no one is in the room.

Likewise, by means of the temperature and occupancy sensors, when the guest leaves the room, the temperature rises or falls according to this climate so as not to contaminate and increase the use of electric energy.

Also, today there is a new technology to illuminate it is known as LED (Light Emitting Diodes), this new light allows a saving of light, apart from that they illuminate more and last longer than a common focus.

This technology was also applied to televisions, formerly the first televisions consumed a lot of electricity since they worked with bulbs, but these were evolving like plasma televisions, LCD and nowadays LED ones, this allows televisions to consume less electrical energy, thus being a more environmentally friendly electrical device.



As it turned out, technology is constantly evolving, being more and more friendly to the environment, and contributing to its preservation.

1. A green offer in hospitality

A green offer in the field of hospitality increasingly pleases environmental lovers. Organic food, water reuse, energy savings through natural lighting and ventilation, gyms with energy generating machines and infrastructure built on recyclable materials, are the authentic proposal with which sustainable hotels seek not only to please the guest, but echo in the climatic factor.

On this hotel alternative, more and more hotels incorporate environmentally friendly technologies, but it is still a not very developed trend, there are some hotels that are already handling sewage, reuse water such as shower for plants, but let's say that it is not the generality of hotels, especially modern ones, which are being built and last generation take into account that kind of thing, solar panels for water heating, technologies that are more friendly to the environment, but we could not say that those hotels are already "green".

1.1 What makes a hotel sustainable?

A hotel located in the middle of nature "is not necessarily a nature-friendly hotel, it is more, it can be in the middle of nature and be an attack on nature, so it is its constructive form, the type of technologies that it uses for water recycling, solid waste separation, water heating, that is what makes it sustainable.

A clear example is given by an hotel in Colombia where in 92 with the Gavia blackout, they started looking for alternatives because they cut the light. Since that time, they started working on how to get solar panels or any other alternative energy source and decided to make the hotel, that did not impact the environment with the operation or its construction.

The Biohotel has vertical gardens on its facade and inside it is green wherever you look, but its guests receive a special tour to understand a little more about its operation, tables are made of compressed cardboard, the cotton is organic within food in the garden (lettuce, tomatoes, eggplants and all the herbs that are used in our restaurant and bar), terrace, panels, people are fascinated and admire that.

In a typical green hotel, a process of separation of garbage is carried out to make it cleaner, where there are no smells and where a company



collects all the waste, even the organic ones in exchange for receiving the fertilizer that is used in planting plants.

2. What about restaurants?

Apart from hotels, restaurants are becoming more and more “friendly” nowadays. The most important thing for an eco-friendly restaurant is being very smart in food waste. To reduce food waste, most restaurants managers use technology. For example, they use digital inventory tools such as Peachworks or BevSpot. Software sends alerts to your smartphones if it’s near expiration. Also, there is a real time inventory so you don’t over order.

Another important fact is to donate surplus food: it is very eco-friendly to donate usable food so that none of it goes to waste. Also, it is a positive press for your restaurant! Part of becoming an environmentally friendly means reducing energy consumption. In order to reduce the energy usage, you can opt for energy efficient appliances. There are Energy Star logos which use less energy without impacting performance.

Moreover, in order to “green” your business, you will need to serve organic food, but organic is not the only factor that affects food sustainability. Organic and sustainable don’t always go together, as the matter of fact other food options and practices are possible:

According to many consumers serving local food is considered one of the best options for your sustainable restaurant. Also, try to reduce plastic packaging using, for example, products coming in recycled content packaging. An alternative would be to use biodegradable or compostable materials such as sugarcane, bamboo, or PLA plastic. These materials are not strongly used because many owners think they are low quality but many options as durable as plastic. For example, many cities all over the world are banning plastic straws substituted by PLA plastic and paper straws are two great substitutes for traditional plastic straws. Some cities have also banned the use of plastic bags, so you should consider switching to eco-friendly bags as well.

Moreover, offering many vegetarian and vegan options, can be not only a good eco-friendly option but also helps gaining popularity among consumers. Preferring plant-based food instead of eco-intensive products such as meat could cut back on environmental damage. From other point of view, seafood cannot, at this time, be certified organic. There are sustainable seafood options listed on Blue Ocean Institute or Monterey Bay Aquarium’s “Green” lists. Try to avoid GMO products and look for other sustainable food labels.



3. Recycling Policies in Place

In the HORECA environment there are many companies which help in checking your local waste and recycling everything that can be recycled. It usually depends on the policies in each country. In general, in most states, plastics, glass, paper, cardboard, and aluminium can all be recycled. Many states offer recycling even for other items: electronics, broken kitchen equipment, batteries, light bulbs, paints, chemicals and more. Some countries also permit turning waste products into biodiesel or reusable energy. To start searching for what can be your options you can search for Earth 911.

It is important to focus attention also on resources and certification for Green Restaurants which help you to use eco-practices and check out your resources. The non-profit organization The Green Restaurant Association (GRA) offers certifications for restaurants that use sustainable policies. The Green Business Network is an American program which help your establishment to successfully enter in the competitive green marketplace. Soon you will get your name on the National Green Pages where green consumers can easily reach you. towels instead of paper towels, eco-friendly cleaners and avoiding chemical products. Steam cleaning can be a useful option for floors and carpets. Also, try to avoid sending uniforms and/cloths to cleaners who use chemicals!

4. Reduce pollution

If you think that your establishment cannot impact pollution, you are wrong. There are many things you can change to contribute positively to the environment. What about employees? They can be incentivized through use less car and more bus, carpool, bike to go to work and give them the necessary tools to use them, for example a bike storage near the office and a shower. Buy alternative fuel vehicles or hybrids also provide an alternative fuel station.

5. Consider Sustainable Interior Decor

Decoration can be sustainable too, for example you can place organic plants and flower in your establishment and also cloths linens for napkins and tablecloths. You can try to avoid paper and plastic disposable dishware. Reuse décor items such as tables, chairs and in general furniture made with renewable wood like bamboo or FSC certified wood. Try to buy organic cotton, not conventional cotton textiles.

Going green is a good way to attract consumers. So, inform your possible consumers and attract them. Green practices are not always seen by



people, so be sure you spread the voice. Social media can help in this intent and celebrate and promote Earth Day at your restaurant!

6. Case studies

6.1. Case study I

Spice Island Beach Resort, Saint George, Granada. The Spice Island Beach Resort is owned by Sir Royston Hopkin and his family, and is a luxury destination for guests looking to relax and enjoy the natural beauty of the "Spice Island." Just a short walk from the famous Grand Anse beach, the resort aims to merge and coexist with the island's native environment. The resort uses solar heating, desalination plants and all kinds of energy conservation. Activities to maximize the preservation of the island, such as cleaning in the community, planting new trees or using chlorine-free swimming pools, are of great importance. In addition, smoking - even electronic cigarettes - is totally prohibited throughout the resort, which strives to promote the renewal of body and soul.

6.2. Case study II

Lefay Resort & SPA Lago di Garda, Gargnano, Italy. Located in the heart of the Riviera dei Limoni, the different structures of this five-star resort have been integrated into the slopes of the hill to reduce the dispersion of energy and heat. The hotel puts all its attention on well-being, a recurring theme and present in the food, atmosphere and peace of the hotel. In the interior design local materials have been used, while the external structure has been raised respecting the landscape and the surrounding environment. The hotel collects rainwater and manages waste in a sustainable way. This beautiful art deco resort has received the highest possible accreditation in ecotourism: the ECO certification in Advanced Ecotourism. Located on a private cape between Cairns and Port Douglas, the resort is actively involved in an environmental recovery process. On a property of 58 hectares, the Thala invites the elders of the Kuku Yalanji community to explain to the guests the peculiarities of their culture; from medicinal plants to how to dig the ground to look for food in the bush.

Try to find something more about these hotels and research on its business plan, focussing on eco tools and how they are exploited. It could be interesting to give emphasis to the investment these hotels have reached with this type of business.



6.3. Case study III

Restaurant *Les Cols*: Girona, Catalonia

This place inspires nothing more with its surroundings, surrounded by a poetic landscape through which the river *Fluvià* flows that flows in streams that rock diners outside Les Cols.

Respecting the tradition and the seasons this referent of the restoration, provides the best of each season in a responsible way. An ecological kitchen in peace with its surroundings and life.

You do not need to express lavishness in your room, the intensity of the beauty of its exterior and the taste combine in an experience worth remembering.

Luxury is the company under a blanket or under the shade of the trees that populate the riverbank, this is possible thanks to a picnic with its baskets in which the identifying seal of its gastronomy is reflected through the product.

In addition to this possibility the house offers two tasting menus to choose from. Both are based on the food not traveled, the products that are given in your garden, and those that are typical of the rural landscape of La Garrotxa.

6.4 Case Study IV

Restaurant *Uncommon Ground*: Chicago, United States

In 2013 it was named the greenest restaurant in the world by the Green Restaurant Association for taking the local to the next level, since it has the first certified organic farm in the United States, where many ingredients come from. The drink options are also green, as beers are offered from the first organic brewery in the state of Illinois, which donates 5% of its profits to various CSOs.

7. Answer the following questions

1. To what extent are green technologies used? Choose the right 3 options:

- a) Pollution
- b) Water and air purification
- c) Recycling



- d) Carbon emissions
 - e) Renewable energy
2. Describe in few words the meaning of recycling. Which description is the most appropriate?
- a) Recycling contaminates the environment
 - b) Recycling is managing water care
 - c) Recycling encourages people to reuse things
3. In which terms hospitality embraces environmentally friendly technologies? Choose 2 correct options
- a) Use solar panels
 - b) Use smart TVs
 - c) Use electronic devices
 - d) Reuse water such as shower for plants
4. What makes an hotel sustainable? Choose the 3 right options
- a) Diversity
 - b) Location
 - c) Gardens
 - d) Cotton
5. In which ways a restaurant can be considered eco-friendly? Choose 2 correct options.
- a) Boycott OGM products
 - b) Use plastic straws
 - c) Serve local food
 - d) Use biodegradable products
6. Which are the main policies used by many countries all over the world?
- a) Throw local waste
 - b) Avoid certifications
 - c) Turning waste products into biodiesel
 - d) Plastic can be reusable
 - e) Batteries can be recycled
7. How can you choose a sustainable interior decor? Choose 2 options
- a) Expand pollution
 - b) Use plastic
 - c) Use renewable wood
 - d) Use common paint
 - e) Buy organic cotton



FAQs FREQUENTLY ASKED QUESTIONS

- 1. How can I support the reduction of waste and promote recycling?**

Water is one of the essential resources for survival, raise awareness in water and creating water treatment facilities. Convert salt water to fresh, allow food waste to be converted into biogas so that these in turn generate electricity. Also, sensor of temperature and occupancy that when guests leave the room, the temperature rises or falls according to climate. LED (Light Emitting Diodes) illuminate more and last longer than a common focus.
- 2. How can I start turning my Hotel into a Biohotel?**

There are many Biohotels all over the world that use green façade, compressed cupboards, organic cotton. Garbage is carried out to make it cleaner without smells and no chemical fertilizer is used for the plants.
- 3. Which digital tool can I use to be very smart in food waste?**

You can use digital inventory tools such as Peachworks or BevSpot. Software sends alerts to your smartphones if it's near expiration. Also, there is a real time inventory so you don't over order.
- 4. Which are the best options to create a sustainable restaurant?**

Serve organic and local food is considered one of the best options to becoming a sustainable restaurant. Also, it is very important to reduce plastic packaging and use biodegradable materials such as sugarcane, bamboo or PLA plastic. Moreover, most restaurants offer many vegetarian and vegan options.
- 5. In the HORECA industry are there companies which help checking local waste and recycling?**

You can start searching for Earth 911 and Green Restaurant that also helps you to use eco-practices and check out your resources. The "Green Business Network" is an American program which helps your establishment to successfully enter in the competitive green marketplace.



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LEARNING UNIT 2

“GREENING” INTERNAL COMMUNICATIONS

EQF LEVEL QUALIFICATION	4/5
DURATION	9 hours

Learning Outcomes	Knowledge	Skills	Competences
K4 LO1: Examine sustainability within a business and be able to work within a team to communicate green skills and transfer them into task and skills.	<p>He/She knows how to:</p> <ul style="list-style-type: none"> • Communicate employer’s sustainability principles, mission or mandate • Waste and recycling policies • Local and regional waste and recycling regulations. 	<p>He/She is able to:</p> <ul style="list-style-type: none"> • Learn the company principles to others through multiple communication channels • Transform data into representations understandable to internal audience groups 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> • Describing disseminating local regulations about sustainability and green skills to internal and external shareholders • Working within a team to communicate how green skills and strategies are transferred into tasks and skills.
K5 LO2: Use digital skills to communicate data, reports and other information to a range of internal shareholders.	<p>He/She knows how to:</p> <ul style="list-style-type: none"> • How to communicate sustainability principles, local and regional regulations to be communicated to shareholders 	<p>He/She is able to:</p> <ul style="list-style-type: none"> • Explain company principles to others through multiple communication channels • Synthesise and interpret data in order to report recommendations about resource efficiency, waste management, recycling and other sustainable practices as required 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> • Working in a team to show sustainability concepts to internal customers • Working both independently and within a team to ensure digital competencies for communication green mandates



<p>K6 LO3: Analyse how sustainability fits in the Horeca business.</p>	<p>He/She knows how to:</p> <ul style="list-style-type: none"> • Produce templates to help business owners in getting “green” 	<p>He/She is able to:</p> <ul style="list-style-type: none"> • Develop creative solutions to disseminate “green” information to internal and external shareholders • Use digital skills to communicate data, reports and other information to a range of internal stakeholders 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> • Work independently to achieve communication goals for internal audiences • Able to work in a team to (digitally) communicate implementation of sustainable practices including green procurement, waste management, and maintenance activities
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UNIT CONTENT

The aim of the unit is to provide knowledge to the students on “Greening” internal communications. The subject is designed to help the students understand how to communicate employer’s sustainability principles to internal stakeholders. The students will learn how to work in a team to communicate implementation of sustainable practices including green procurement, waste management and maintenance activities.

The evidence used by the teacher will be based on theoretical lectures, practical work, individual assignment, presentations by students, guest lectures, workshops, videos, PPT and so on.

At the end of the unit students will be assessed through some written tests, Q & A. Questions will be a general focus on the theory part and will help to gain the necessary tools to undergone the practical part regarding the future.

INTRODUCTION

Sustainability in the green industrial revolution has affected many environmental groups in engaging employees in the design and promoting a strong commitment to the outside world. In order to do so it is important to follow some important steps: define what sustainability means for the company and the value given to it; help employees to interpret sustainability according to their functions; elaborate a comprehensive communication strategy; define the strategy used through different communication channels for example sustainability report. Starting from the internal dimension helps to establish extensive external communications, realizing stakeholder value.

A huge number of companies have now started sustainability programs with strategies and competencies. An important first step would be involving social, economic and environmental vision to reach social equity and biological



diversity. These aspects are bound because environmental protection can improve quality of life that supports economic development. The global Management Initiative (GEMI) develop a model which supports the development of value position with three main sustainable pathways to add to shareholder value:

- Direct involvement to the economic performance: revenues for waste materials, improve worker's productivity and business continuity, increase and enable access to new markets;
- Direct contribution to value drivers apart from financial statements such as improve customer experience, reducing cost of ownership, reach equity reputation, stimulating innovation;
- Indirectly contribute to shareholder value creating value for external stakeholders such as communities, develop regulatory agencies and interest groups. Stakeholders impressions influences company reputation, relationships and consent to operate.

1. Employers' sustainability

The commitment of companies in environmental performance needs to be shared with costumers emphasizing effective communications, enhance market position, attract and retain caring and talented employees to profitable impact the environment.

Most of the pressure for sustainability comes from the outside through socially responsible funds, analyst services increasing shareholders resolutions and investor activism. This focus moves away from what is the most important resource for the enterprise, the "human capital", driving the market valuation of corporations around the world. The sustainability directed to employees has nowadays lower priority and as a result many employees does not understand sustainability and its benefits and authenticity.

Building internal "green" communications before investing on external communications may offer many benefits:

- channeling communications through employees that established credibility with internal and external stakeholders;
- Consistent messaging which leads to a clear understanding by stakeholders;
- Better internal commitment and understanding in the creation of strategic value creation by the entire workforce;

Nevertheless, the success of any communication campaign depends on the interest of the employees in the subject. To enhance interest among the staff, a good starting point would be the need of a strategic communication approach and the creation of a cross-functional team which main action would be to disseminate all the necessary info about corporate communications, investor resources and environmental health and safety.



Emily Rabin in her *Inside Out: Sustainability Communication Begins in the Workplace*, divides few key actions to enhance environmental issues to employees and establish an effective internal communications program:

- Resolve the lack of a shared understanding regarding the meaning of “sustainability”. Nowadays this term is normally confused with other words such as “responsibility” and “citizenship” that can confuse the audience. To reach this objective, be sure that the language is connected to the business objective so that employees can see it as a business commitment;
- Elaborating a positioning statement that express what should be done by the enterprise to commit itself to sustainability, what benefits society, company and individual;
- The message given must be understandable by different type of functions such as human resources, sales and marketing, governmental relations. The discourse must be familiar to each function and improve corporate performance. This type of communication will translate the value to internal and external stakeholders, to managers and shareholders;
- Multiplier effects are based on using sustainability communications through internal gatekeepers who are familiar to the internal and external audiences. For example, uses the owner newsletters and continuing messaging maintaining employee awareness. Improving communication networks, a company can reach organic growth in the acceptance of sustainability.

Following these concepts, the team should adopt a strategy to support the idea of sustainability during the years. Every company should have a plan with some important steps to follow:

- Follow the audience’s understanding and receptivity and consider how the value proposition can be applied to them;
- Communication goals must be measurable and redefined when needed;
- Adopt training programs, brochures, reports, etc...
- Frequently refine the strategy.

For the enthusiasm of the employees, managers and all the staff, it is very important to design internal communications at many levels and clear to the individual, the business and the enterprise. Once the employees are compromised with the matter, the companies can realize the business value of sustainability.

2. Digital tools to go “green”

Nowadays many business owners consider sustainability as an important activity that affects their business directions. When they need to consider how to go green the first thing to consider is to reduce impact on the environment. A starting point would be focusing on the consumer and try to enter in “green”



digital tools. Being in this kind of market can shape target audience and help to go green in a shorter lapse of time.

Many modern apps can help your own business to go green. There is a detailed list below:

- Green Genie. iTunes with many projects to tackle for example how to reduce company's paper usage or plastic directory which goes in deep on why there are numbers on plastic bottles and why it may not be recyclable in your area;
- GoodGuide iTunes which is free and features bar code scanner to check the environmental impact of a specific product;
- Carbon Tracker iTunes, free app which calculates your carbon footprint based on how much you travel and you can set goals to decrease them;
- Green Outlet iTunes predicts your electric bill and carbon footprint. The app can calculate how many hours per day you use appliances, such as microwave, fridge, etc...
- Green Gas Saver iTunes is free and warns you about your driving habits and sounds if you accelerate too quickly or take a turn too hard;
- Find Green iTunes is a free app focused on local food, wellness, office and landscaping. It allows to choose type of transportation and decide to go by foot, bike or car. Consumers can put green businesses on the database;
- Locavore is the app that tells you what is currently in season in your region so you can decide to reduce your carbon footprint. It also includes recipes that use seasoning ingredients and shows you local farmer where you can buy those ingredients.

3. ANSWER THE FOLLOWING QUESTIONS

1. What is the GEMI?
 - a) Global Manager initiative
 - b) Global Management Initiative
 - c) Great Manager Implementation
2. What would be used by the company to interpret sustainability?
 - a) Wait until employees are committed to the matter;
 - b) Use just one communication channel to define the strategy;
 - c) Use a sustainability report to define the strategy
3. Which are the benefits of building internal "green" communications?
 - a) Create a communication channel without employees;
 - b) Involve external stakeholders before the internal ones;
 - c) Channeling communication through employees first of all
4. The meaning of sustainability is normally confused by employees with
 - a) Responsibility and citizenship;
 - b) Environment and consciousness



- c) Greenness and ecological
5. Which is the plan each company needs to follow?
- a) Interest among employees, training programs, reports and a clear strategy;
 - b) Interest among stakeholders, questions to managers, reports and high strategies;
 - c) Interest among executives, reports about sustainability
6. Green Genie helps companies to
- a) Scan bar codes and check the environmental impacts of products
 - b) Tackles how to reduce paper usage and plastic usage;
 - c) Decides which type of food is currently in season in your region

4. FAQs FREQUENTLY ASKED QUESTIONS

1. How can I start building “green” internal communication in my company?

it is important to follow some important steps: define what sustainability means for the company and the value given to it; help employees to interpret sustainability according to their functions; elaborate a comprehensive communication strategy; define the strategy used through different communication channels for example sustainability report. Starting from the internal dimension helps to establish extensive external communications, realizing stakeholder value.

2. Which are the three main sustainable pathways to add to shareholder value?

- Direct involvement to the economic performance: revenues for waste materials, improve worker’s productivity and business continuity, increase and enable access to new markets;
- Direct contribution to value drivers apart from financial statements such as improve customer experience, reducing cost of ownership, reach equity reputation, stimulating innovation;
- Indirectly contribute to shareholder value creating value for external stakeholders such as communities, develop regulatory agencies and interest groups. Stakeholders impressions influences company reputation, relationships and consent to operate.

3. Which are the benefits of building internal “green” communications?

- channeling communications through employees that established credibility with internal and external stakeholders;



- Consistent messaging which leads to a clear understanding by stakeholders;
- Better internal commitment and understanding in the creation of strategic value creation by the entire workforce;

4. Which are the key concepts Emily Rabin uses in her *Inside Out: Sustainability Communication Begins in the Workplace*?

Resolve the lack of a shared understanding regarding the meaning of “sustainability”; elaborating a positioning statement that express what should be done by the enterprise to commit itself to sustainability; a clear message given to human resources, sales and marketing, governmental relations, use the owner newsletters and continuing messaging maintaining employee awareness.

5. What can I do to understand the consumer and have my target audience?

A starting point would be entering in “green” digital tools. Being in this kind of market can shape target audience and help to go green in a shorter lapse of time. Many modern apps can help your own business to go green. For example, Green Genie which helps to reduce company’s paper usage or plastic directory or GoodGuide iTunes which is free and features bar code scanner to check the environmental impact of a specific product.

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LEARNING UNIT 3

“Greening” Consumers/Guest Interactions

EQF LEVEL QUALIFICATION	4/5
DURATION	9 hours

Learning Outcomes	Knowledge	Skills	Competences
K7 LO1: Identify digital skills that can be used to disseminate sustainable practices with consumers and external stakeholders	<p>The student knows how to:</p> <ul style="list-style-type: none"> Learn ways to interact with consumers and to disseminate sustainable practices 	<p>The student is able to:</p> <ul style="list-style-type: none"> Discuss company environmental and sustainable policies with external customers. Select digital methods that can be used when interacting with external stakeholders about sustainability. 	<p>The student is responsible for:</p> <ul style="list-style-type: none"> Working with internal colleagues to gather relevant information for external customers
K8 LO2: Explain to external stakeholders how to engage in positive sustainability practices.	<p>The student knows how to:</p> <ul style="list-style-type: none"> Use digital skills when interacting with external stakeholders about sustainability within the business 	<p>The student is able to:</p> <ul style="list-style-type: none"> Use digital skills to provide and present evidence of sustainable practices to external customers Explain/defend sustainable policies as appropriate to external customers Suggest and teach customers about positive sustainable practices including, but not limited to recycling, energy use, waste and water management 	<p>The student is responsible for:</p> <ul style="list-style-type: none"> Accounting for own or other’s actions in relation to company sustainability and environmental policies



<p>K9 LO3: Analyse, defend and explain sustainable policies as appropriate to external customers</p>	<p>The student knows how to:</p> <ul style="list-style-type: none"> Promote potential areas where they can educate external stakeholders to engage in positive sustainability practices. 	<p>The student is able to:</p> <ul style="list-style-type: none"> Analyse and explain company environmental policies with external customers Present evidence of sustainable practices to external customers 	<p>The student is responsible for:</p> <ul style="list-style-type: none"> Assuming responsibility for external customer engagement regarding the promotion of sustainability practices within the company
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UNIT CONTENT

The aim of the subject is to provide knowledge to the students on how to interact with customers and stakeholders to disseminate sustainable practices and strategies, learn potential areas of sustainability where they can educate external stakeholders. The evidence used by the teacher will be based on theoretical lectures, practical work, individual assignment, presentations by students, guest lectures, workshops, videos, PPT and so on.

At the end of the unit students will be assessed through some written tests, Q & A. Questions will be a general focus on the theory part and will help to gain the necessary tools to undergone the practical part regarding the future job.

INTRODUCTION

Stakeholder engagement is considered one of the key factors that enables a green business model transformation. The success includes top management support; staff empowerment; incentives; rewards; collaborations; effective communication; being proactive; interacting early with clients; building relationships; understanding clients needs; partnerships; facilitating different services.

To reach a high green business model (GBM), it is important to emphasize clients role and focus on five important elements (Abuzeinab & Arif, 2013a, 2013b) as follows:

- Green value proposition (GVP), which means green products and services which may attract customers;
- Target groups (TG), the target clients to whom they want to address to;
- Key activities (KA), activities to create value to clients;
- Key resources (KR), assets tangible, intangible and human which offer value to clients
- Financial logic (FL), assessment of the means employed in the business model



Stakeholder engagement is considered one of the main factors which helps to facilitate the growing of GBM focusing on human assets, managers, staff, supply chain and clients.

Chinyio and Akintoye (2008), reveal that stakeholders are persons who feel interest and influence an organization. They are in charge of developing and sustaining relationships within the organization.

1. Disseminate sustainable practices in guest interactions

Businesses that engage with their stakeholders are more likely to get to some benefits (Rodriguez-Melo & Mansouri, 2011; von Meding et al., 2013), such as sustainability advantage, greater motivation and image, better services, easier access to financial support, innovation and market development.

Two main types of stakeholders can be distinguished that act in internal and external practices. The internal practices are applied to engage managers and staff and which can be named as follows: top management support; staff empowerment; incentives; rewards; collaborations and effective communication.

Top management support allows communications among different levels. For example, a person from a consultant group indicates that there is an environmental manager who reports initiatives and practices and this happens because the strategic level understands the importance of environmental performance.

There are many ways of engagement practice in terms of staff empowerment, for example, continued training, awareness, end up skilling together with incentives and rewards. The internal engagement practice is effective communication and an organization which owns the right conversation can be perfect for engagement.

Having presented the results of internal stakeholders in the previous pages as well, the important next step for this unit will be to focus on external stakeholder engagement practices. The latter can be for example understanding clients and interacting with them; being proactive; communicate effectively, matching and facilitating different services. Understanding clients and their needs is often associated with being proactive and match their requirements. If they are proactive, they can understand and recognize clients' needs and find the best way for working with them.

Carter and Rogers talk about “the strategic, transparent integration and achievement of an organization’s social, environmental, and economic goals in the systemic coordination of key inter-organizational business processes for improving the long-term economic performance of the individual organization and its supply chains”.

These two authors highlight the importance of integration of the sustainability concept into business process through the supply chain giving the aim of



achieving long-term economic advantages. The sustainable supply chain is tasked with social and environmental performance goals, but good supply chain sustainability can only be achieved if each participant works together to fulfil customers` and stakeholders` requirements. To do so organizations need to provide value to stakeholders and use natural resources, achieving sustainable flow of products, services, information and capital, enabling external stakeholders to cooperate among different chain participants.

Organization are always influenced especially by external factors such as government, community and investors. Different drivers can affect supply chain decisions for example media can influence decisions about social dimension. Examples would be coercive, normative ad mimetic pressures. Coercive pressures are made by the government, regulatory bodies and authorities. Normative pressures come from sustainability social obligations by NGOs, trade unions and societies. Mimetic pressure takes place when competitors adopt sustainability practices and organizations are asked to take those actions. Institutional pressures can influence organizations in the adoption of sustainability initiatives.

2. Digital skills to attract external stakeholders

Technology is a huge opportunity to build stronger relationships with customers and improve internal efficiency communication through digital channels. Technology can help adopting a multichannel communication method which will reduce staff pressure.

Costumers are encouraged to adopt channels of communication such as portals, social media, email and live chats allowing the staff to spend less time on the phone and reduce costs. Customers can simply use one of the online communication methods and submit requests quickly at any time.

Moreover, customers are encouraged to use portal for accessing documentation, raising queries and requests, reviewing improvements and using paying for services. It provides a record of communication where costumer and provider can check references for previous conversations. A portal can be also available on smartphones or tablets and it can be taken an extra step for concerns convenient for them. Emails are used to communicate updates and there will be available a system that sends records and requests automatically. Straightforward questions and live chats are taken by the staff through instant-messaging which allows interacting with more than a costumer at a time. Chatbot technology helps booking and can be developed on your own channels and also on external platforms such as Facebook and Messenger. Chatbots have a low level of costs both in interaction and communication method. Online surveys get also feedback from costumers through questionnaires and encouraging an easier interaction.

The digital communication is successful if the new technology work with existing business critical systems. For example, digital tools can determine how



customer communication is transferred into workflow systems and translated into task allocation.

An IT specialist consultant with a deep knowledge, will make sure that the channels used are the most appropriate for the organization. This specialist can assess the effectiveness of communication tools to continue to better meet the needs of customers. Regarding the consumer, findings supported the idea that a good communication, especially done using digital tools, can influence consumers' choices (Hu, 2012; Goldstein, Griskevicius, and Cialdini, 2007).

3. “Greening” costumers in hotel industry: a study research

Literature reveals ambivalent findings regarding consumers' willingness to support environmental practices. For example, Chan (2013) states that consumers are willing to pay for green hotel practices through premium pricing and at the same time Millar and Baloglu (2013) discover that some consumer think that green hotel should charge less money. Some costumers have a great sense of environmentalism and this group is more inclined to pay more for green hotels. Another important factor is the attitude and behavior of consumers who are willing to pay for green products but normally purchase non-green ones (Olson, 2013). Maybe this result is given to the tradeoffs that always are used for green services such as lower quality, reduced performance, less convenience, etc... (Luchs et al.,2010).

The study conducted by Efthalia Dimara, Emmanouela Manganari and Dimitris Skuras, on *Consumers' willingness to pay premium for green hotels:Fact or Fad?*, reveals that a significant portion of the 194 respondents would adopt a towel reuse program in hotels but with no need to pay more. Moreover, they argue that they should be compensated with lower prices. The rest of the respondents, who are not willing to reuse towels in hotels, justify their response with hygiene and cleanliness reasons.

4. “Greening” costumers in restaurant and catering industry: how to survive in the long-term service

Eco-friendliness appears to be an important factor in restaurants and catering industries as well. Especially in catering industries consumers are more conscious about recyclable products and ban non-recyclable packaging such as plastic. Local food bank can help also to reduce food waste and sustainable diets can help to reach a high level of costumers in the green industry.

Foodservice can act differentiating the product offer for example building customer loyalty stimulating the demand and investments and/or improving staff motivation using lower and same cost ingredients, rethinking costs.

Sustainable diets are surrounded by many myths, one above all is that sustainable diets cost more. Despite that, buying meat can result more expensive than buying plant-based ingredients. Other myths suggest that costumers is only interested in price, not sustainability and that there is a huge



lack of understanding in foodservice industry and government incentives to enable restaurants to discredit unsustainable diets.

There are different points that can be used to address to external stakeholders such as consumers:

- Educate to built demand: tell clients why you choose sustainable diets;
- Invest on sustainable supply chains;
- Question yourself if costumers are interested in where your food comes from and how it is made;
- Collaborate for sustainable diets: beyond zero-sum competitiveness to promote the benefits;
- Agree an industry-wide definition of sustainable diets

Foodservice companies want to survive in the long-term service and to prepare them to the future, it is important to ensure their products is ready for the costumer of tomorrow and that their supply chains are fit for the future and their staff ready and motivated. Pressure comes form customers, clients and investors that need to create on the menu of food providers big and small.

1. ANSWER THE FOLLOWING QUESTIONS

1. What is the TG?
 - a) The target clients to whom they want to address to;
 - b) Target ground in which the sustainable practice is settled;
 - c) The key activities to create value to clients.
2. Which group is included in internal stakeholders?
 - a) Clients and shareholders;
 - b) Managers and staff;
 - c) Costumers and staff.
3. Which are the principles to establish external stakeholder engagement? Choose two options.
 - a) Understanding clients and interacting with them;
 - b) Evaluate the performance of managers and staff;
 - c) Communicate effectively.
4. What is a chatbot technology?
 - a) It is a booking and interaction method;
 - b) It helps to find your restaurant;
 - c) It helps to “green” your business.
5. Efthalia Dimara, Emmanouela Manganari and Dimitris Skuras, on *Consumers’ willingness to pay premium for green hotels:Fact or Fad?*, reveals that a significant portion of the 194 respondents would
 - a) Need to have to save water consumption;
 - b) Be conscious in plastic packaging;
 - c) Adopt a towel reuse program with no need to pay more.



6. One of the points that can be used to external stakeholders is
 - a) Educate consumers to build demand;
 - b) Collaborate with foodservice companies;
 - c) Generate pressures from the outside.

2. FAQs FREQUENTLY ASKED QUESTIONS

1. Which are the principles for a high business model towards client role?

Green value proposition (GVP), which means green products and services which may attract customers; Target groups (TG), the target clients to whom they want to address to; Key activities (KA), activities to create value to clients; Key resources (KR), assets tangible, intangible and human which offer value to clients Financial logic (FL), assessment of the means employed in the business model

2. What kind of stakeholders are involved in the internal and external dimension?

Top management support allows communications among different levels. For example, a person from a consultant group indicates that there is an environmental manager who reports initiatives and practices and this happens because the strategic level understands the importance of environmental performance. There are many ways of engagement practice in terms of staff empowerment, for example, continued training, awareness, end up skilling together with incentives and rewards. The internal engagement practice is effective communication and an organization which owns the right conversation can be perfect for engagement.

3. Why internal stakeholders need to use digital tools to reach “greenness”?

Customers are encouraged to adopt channels of communication such as portals, social media, email and live chats allowing the staff to spend less time on the phone and reduce costs. Customers can simply use one of the online communication methods and submit requests quickly at any time.

4. Is the customer effectively committed with the environmental measures taken by the hotel?

Some customers have a great sense of environmentalism and this group is more inclined to pay more for green hotels. Another important factor is the attitude and behavior of consumers who are willing to pay for green products but normally purchase non-green ones (Olson, 2013). Maybe this result is given to the tradeoffs that always are used for green services such as lower quality, reduced performance, less convenience, etc... (Luchs et al., 2010).



5. How can sustainability in restaurants and catering services interact with consumers?

Foodservice can act differentiating the product offer for example building customer loyalty stimulating the demand and investments and/or improving staff motivation using lower and same cost ingredients, rethinking costs and dispel myths on sustainable diets.

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LEARNING UNIT 4

Waste Management

EQF LEVEL QUALIFICATION	4/5
DURATION	10 hours

Learning Outcomes	Knowledge	Skills	Competences
LO1 K10: Identify different types of waste produced by the company.	He/She knows how to: <ul style="list-style-type: none"> Learn different types of waste potentially produced by the employer and proper disposal methods Waste and Recycling policies within the company as well as local/regional waste and recycling regulations 	He/She is able to: <ul style="list-style-type: none"> Identify different types of waste potentially produced by the employer and proper disposal methods Collect digital tools available to help monitor waste processes and levels Independently assess processes to ensure proper waste segregation and disposal 	He/She is responsible for: <ul style="list-style-type: none"> Working with internal departments to list waste disposal processes and procedures Monitoring waste management processes to ensure proper waste segregation Monitoring use of non-reusable materials within the business
LO2 K11: Experiment and apply different methods of waste management with the company.	He/She knows how to: <ul style="list-style-type: none"> How waste management fits within an employer's sustainability principle, mission or mandate. 	He/She is able to: <ul style="list-style-type: none"> Communicate and promote waste management reduction strategies with internal departments 	He/She is responsible for: <ul style="list-style-type: none"> Assume responsibility for disseminating information about potential digital tool that could be of use for monitoring, segregating and reducing waste within the business.
LO3 K12: Evaluate and explain proper methods and processes of waste management within the company.	He/She knows how to: <ul style="list-style-type: none"> Different resources within different areas of the company 	He/She is able to: <ul style="list-style-type: none"> Categorize waste materials Develop processes, procedures and strategies to encourage internal departments and external guests to reduce waste and wasteful practices 	He/She is responsible for: <ul style="list-style-type: none"> Analysing and troubleshooting waste disposal processes and procedures with internal departments



UNIT CONTENT

The aim of the unit is to provide knowledge to the students on how waste management fits within an employer's sustainability principles. The students will learn the different types of waste produced by employers and proper disposal methods. The evidence used by the teacher will be based on theoretical lectures, practical work, individual assignment, presentations by students, guest lectures, workshops, videos, PPT and so on.

At the end of the unit students will be assessed through some written tests, Q & A. Questions will be a general focus on the theory part and will help to gain the necessary tools to undergo the practical part regarding the future job.

INTRODUCTION

Many countries nowadays are putting waste prevention in their environmental agenda. Food waste prevention is the highest priority together with greenhouse gas emissions, water consumption, energy consumption, forest devastation and loss of biological diversity. According to EU plans on resource-efficient Europe - a Flagship initiative under the Europe 2020 Strategy, some ambitions were proposed (J. Marthinsen, P. Sundt, O. Kaysen, K. Kirkevaag, 2012)

- 20% reduction in the food chain's resource input;
- Disposal of edible food waste should have been halved;

Future objective includes prevention of food waste in restaurants, hotels, catering services, future reports on the topic food/organic waste. A good example of initiatives on food prevention appear in school kitchens. Industry has also taken initiatives on how to reduce food waste from the food industry and consumers. Many organizations have signed an authorization of less food waste and coordinate researches in the hospitality sector.

There are four major links in the chain: food producers, hospitality sector, wholesale, retail sector and the household. What happens is that some food is redistributed to food banks for people for example in households or catering to elderly people at home.

Nonetheless, further actions could be taken for example just beginning from the routine: a changing of size of the spoon could be an example. Long-term measures could be high media and guest attention to the food waste issue; customer demands for improvements and environmental standards; strategies and commitment made by the larger operators to eco-labels; reducing food waste always leads to a reduction of costs; stimulating competition on this issue can improve the quality of the results reached; food banks might be a good measure for the redistribution of food. Like recycling station for packaging, food banks can help reorganize the infrastructure in society.

1. Legislation and policy in waste management

Countries should review their plan of existing legislation and systems to identify improvements reducing food waste without reducing ambitions on food safety. Organizing reports can help to reach internal learning for improvements.

The EU waste 88 million tonne of food every year with estimated costs around 143 billion euros (Fusions, 2016). Wasting food depletes the limited natural resources at our disposal. Reducing food losses can be achieved through many actions, such as support farmers, household and companies against climate change

The EU food safety policy has the main goal to protect human and animal health. Member states and stakeholders are looking to prevent food waste and trying to build a stronger sustainability of the food system.

The European Commission is taking the food waste issue very seriously. Good policies could save money and could have a lower environmental impact in food production and consumption.

The Commission Circular Economy Package is dedicated also in part to food waste prevention which could enhance a growth in sustainability and generate new jobs. The Circular Economy Package involve a EU Action Plan and an annex to the action plan with all the proposed actions and legislative proposals on waste. In 2018 was adopted by co-legislators, the Revised EU Waste Legislation to reduce food waste in every step of the supply chain and report the progress made. All the EU countries are committed with the Sustainable Development Goal 12.3 which has the intent to halve the average food waste at the retail and consumer level by 2030. In order to reach this final goal, the commission is meanwhile involved in different actions: elaborating a EU methodology to measure food waste with EU countries and stakeholders; operating on the EU Platform on food Losses and Food Waste in order to help the inter-sector co-operation and share the results obtained; taking measure to clarify EU legislation on waste, food and feed and also to facilitate food donation for example in animal feed.

Important research on this field is also based on analysing in cooperation with industry, NGOs, research institutes on how to reduce food waste without compromising food safety.

The commission wants to raise awareness on food waste prevention through communication materials and the exchange of best practices through the EU platform. For example, Horizon 2020 has been created to establish a website open to stakeholders who want to share their experiences in food waste prevention. This community of experts allows users to search for information about prevention and reduction of food waste initiative.

REFRESH Community of experts is a platform used to share information and best practice on food waste prevention. The food resources that each year are lost could be enough to feed all the hungry people in the world.

2. Waste management methods

Waste management is the process that involves transportation, recycling and disposal of waste. There are several waste management methods according to companies. The differences depend on the countries and residential areas but in all the cases is the local government responsible for it. Industries can also manage their non-hazardous wastes. The methods involve proper dumping, recycling, transportation, collection and creation of awareness.

Dumping methods are the most common waste method and it includes landfill and incineration. The landfill is the burying method of waste in a common pit which is economical and should be far away from the residential areas. Incineration is the combustion of the waste used to convert the waste into steam, gash, ash and heat.

Recycling methods includes products which are considered recyclable such as LDEP, PS, PP and PVC. Many others are not easy to process and need another type of process called biological reprocessing. The waste materials are put in biological decomposition and recycled in agriculture.

Collection and transportation of wastes is different depending on the place. For example, bin rental which costs depend on the size, normally is adopted in each residency with at least three bins.

Creation of awareness requires a strong education on waste management. The reverse vending machines are a good measure to cut down costs on waste management and have a huge positive impact on people.

3. Methods and processes of waste management in the HORECA industry

According to the Green Hotelier (2014), most of the waste is generated by food preparation, followed by spoilage and customer plates. There are also some tricks to reduce food waste: measure and plan an action plan to reduce food waste using the data collected, review the progress of each plan, share results with staff and consumers.

Start collecting food waste in three separate bins (preparation, spoilage and plate waste, to understand where this waste arises and weigh them daily. Preparation is very important since this would be a challenge for all the staff. Second step is to develop an action plan using the data collected. For example, elaborating a plan preventing spoilage would be to review stock management and food delivery processes; store stock correctly with right temperature and packaging. Prepared and frozen ingredients can reduce wastage, not over-order and over-prepare, be creative with the menus, many trimmings can be used in many different ways. bones for stock, bread for breadcrumbs or croutons, ingredients for pate & soups or planning menus starting from the ingredients available in the kitchen or offering potatoes with skin, for example.



Other solutions would be having a buffet with “pay by discourages in taking too much food and throwing it. Staff can give their feedback on the plan adopted and keep them motivated. Reward the excellence and recognize the efforts.

As told in the previous pages, the best option for food waste is to give it to hungry people, food banks and collection. Also, optimization in animal feeds could be a solution. In many countries convert food waste to safe animal feeds may soon be an option. There are several programs, such as Soap for Hope and Linens for Life which are active in leading food safety programs. For example in Mauritius there was a research about collecting food waste from hotels which would have been donated to poor farmers and used for animal feed.

Composting is the way nature recycles food waste and garden clippings which are biodegraded and turned into a fertilizer. When it is used in garden, fertilizes the soil.

Anaerobic digestion is the breakdown of biodegradable material in the absence of oxygen by micro-organisms called methanogens. This process provides a source of renewable energy because the food waste is broken down to produce biogas, suitable for energy production. For examples, Oils can be collected to be recycled into biofuels for vehicles.

Other disposal systems can also convert food waste to water. Dehydrators can be used to extract water from food waste and reduce the weight for landfill and fuel transport.

To optimize the food recycling, hotels and restaurants should adopt some actions: use the right bins and adjusting the frequency they are collected; choose the appropriate waste management solution and ask for management contractor to understand levels of recycling; staff must be on employer’s side in this matter and see the benefits. Their participation is crucial helping increase recycling rates.

4. Answer the following questions

1. Which are the four major links in the food waste management?
 - a) food producers, hospitality sector, wholesale, retail sector and the household;
 - b) biodegradable product, food waste, biofuels and anaerobic digestion;
 - c) green skills, competences, levels of recycling, staff.
2. According to Fusions (2016) which is the amount of food produced every year by the EU?
 - a) 88 million tonnes of food;
 - b) 70 million tonnes of food;
 - c) 143 billion euros.



3. All the EU countries are committed with the Sustainable Development Goal 12.3 which has the intent to halve the average food waste at the retail and consumer level by...

- a) 2020;
- b) 2030;
- c) 2040.

4. Products which are considered recyclable are...

- a) LDEP, PS, PP and PVC;
- b) PVC, BBM, PP, LDEP;
- c) PVC, PPP, BBM, PS,

5. Which is a “pay by weight”?

- a) Buffet in hotels where people pay according to the weight of the food;
- b) Meals in restaurants where people pay by weight;
- c) It is the waste food given to households.

6. Which is the best option to use food waste?

- a) To give it to hungry people, food banks, collection and optimization in animal feeds;
- b) To give it to;
- c) To create an anaerobic digestion.

FAQs FREQUENTLY ASKED QUESTIONS

1. Which initiatives in food waste prevention have been already undertaken?

Initiatives on food prevention appear in school kitchens. Some food is redistributed to food banks for people for example in households or catering to elderly people at home.

2. Can I have an idea of how to become “green” following policies and legislations on food waste prevention of EU partners?

The EU food safety policy has the main goal to protect human and animal health. Member states and stakeholders are looking to prevent food waste and trying to build a stronger sustainability of the food system. Good policies could save money and could have a lower environmental impact in food production and consumption. For this reason, has been created The Commission Circular Economy Package dedicated also in part to food waste prevention which could enhance a growth in sustainability and generate new jobs. The Circular Economy Package involve a EU Action Plan and an annex to the action plan with all the proposed actions and legislative proposals on waste. In 2018 was adopted



by co-legislators, the Revised EU Waste Legislation to rec in every step of the supply chain and report the progress made. All the EU countries are committed with the Sustainable Development Goal 12.3 which has the intent to halve the average food waste at the retail and consumer level by 2030.

3. Which are waste management methods?

The landfill is the burying method of waste in a common pit; incineration is the combustion of the waste used to convert the waste into steam, gash, ash and heat. Recycling methods includes products which are considered recyclable such as LDEP, PS, PP and PVC; biological reprocessing through which the waste materials are put in biological decomposition and recycled in agriculture.

4. What should restaurants and hotels do to optimize food recycling?

Use the right bins and adjusting the frequency they are collected; choose the appropriate waste management solution and ask for management contractor to understand levels of recycling; staff must be on employer's side in this matter and see the benefits.

5. How can I know which is the most food waste generated by and its possible prevention?

According to the Green Hotelier (2014), Food preparation, followed by spoilage and customer plates. There are also some tricks to reduce food waste: measure and plan an action plan to reduce food waste using the data collected, review the progress of each plan, share results with staff and consumers.

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LEARNING UNIT 5

Sustainable Maintenance and Green Efficiencies

EQF LEVEL QUALIFICATION	4/5
DURATION	10 hours

Learning Outcomes	Knowledge	Skills	Competences
K13 LO1: Identify different types of equipment and devices by the organisation	<p>He/She knows how to:</p> <ul style="list-style-type: none"> • Manage with equipment and devices used by an organisation • Deal with areas within the company where efficiencies occur or could occur • Gather data from (digital) devices in order to monitor or measure energy, water or waste consumption • Monitor current energy consumption levels of appliances and equipment within the business 	<p>He/She is able to:</p> <ul style="list-style-type: none"> • Report consumption data • Generate reports from consumption or maintenance data gathered • Display data in visual or digital forms for a variety of audiences (internal and external) 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> • Independently monitoring energy, water or waste tracking devices • Working in teams to monitor and record resource consumption within the company • Working in teams to ensure regular maintenance rosters on all infrastructure and appliances
K14 LO2: Experiment and Apply inspection routines and procedures necessary for optimal appliance use	<p>He/She knows how to:</p> <ul style="list-style-type: none"> • Generate inspection and maintenance routines and procedures necessary for optimal appliance use • How green efficiencies fit within the Employer's Sustainability Principles/Mission or Mandate • How energy and water efficiencies might look like within a business 	<p>He/She is able to:</p> <ul style="list-style-type: none"> • Develop strategies or processes to reduce energy usage or waste production • Develop strategies or processes to accurately monitor energy or water consumption • Collect relevant and up-to-date information on innovations or technologies to ensure optimal resource consumption • Collect data and information about current trends and examples of sustainable building development and use 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> • Instruct others on how to monitor and record resource or waste levels • Assume responsibility for communicating best practices in sustainability for new development areas (including for example, building design, refurbishment, updating, new low energy use equipment purchasing, etc). • Work in teams to improve energy and water efficiency



<p>K15 LO3: Work in teams to track waste devices, monitor and report resource consumption, communicate best practices in sustainability and maintenance.</p>	<p>He/She knows how to:</p> <ul style="list-style-type: none"> • Monitor what current energy consumption levels of appliances and equipment within a business • Determin Horeca building design and ways in which greening can be retrofitted to buildings 	<p>He/She is able to:</p> <ul style="list-style-type: none"> • Communicate to internal audiences how resource efficiencies can be achieved • Develop processes and strategies to ensure energy and water efficiency • Interpret data to make recommendations to support or increase resource efficiency • Compare efficiency levels of existing and potential equipment and appliances • Collect information on digital tools available to help assess energy efficiency of appliance and equipment 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> • Independently monitoring new initiatives to ensure increased energy and water efficiencies • Instructing others in how to improve resource efficiency • Assuming responsibility for disseminating information about (potential) digital tools available to monitor energy efficiency and information on potential savings to internal stakeholders
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UNIT CONTENT

The aim of the subject is to provide knowledge to the students on how to select equipment and devices used by an organisation, gather data in order to monitor energy, water and waste consumption. The students will also discuss and select options for inspection and maintenance routines necessary for optimal appliance use. The evidence used by the teacher will be based on theoretical lectures, practical work, individual assignment, presentations by students, guest lectures, workshops, videos, PPT and so on.

At the end of the unit students will be assessed through some written tests, Q & A. Questions will be a general focus on the theory part and will help to gain the necessary tools to undergone the practical part regarding the future job.

INTRODUCTION

Energy efficiency is a combination of measures that optimize the use of electric energy in companies, becoming an important tool to preserve their profitability. Most of the actions are aimed at optimizing the sources of greater energy expenditure, which are determined through a previous audit that allows to know the sources and the way in which the energy is used in the company. By implementing energy efficiency measures, companies can significantly reduce their energy bill and operational costs, while reducing their carbon



footprint, allowing them to be more competitive, p environmentally sustainable, among other additional benefits.

1. MONITOR ENERGY, WATER AND WASTE CONSUMPTION

In order to help the environment, save money, many entrepreneurs use “green gadgets” such as **smart thermostats** which learn how and when the building uses heating and air conditioning systems. These new thermostats costs not more than \$200 each and it is considered one of the best investments that can make a huge difference. **LED lighting** bulbs represent the lightest option with less money and more efficient than Halogen which are considered unsafe for the mercury in fluorescent bulbs. There are also **energy management systems** to allow to control the entire building via remote control. The lights, heating and air system, stereo, TV, security system will be all controlled from remote control or with your smartphones.

The first step to monitor water consumption is the first action to saving it. Water requires a strong maintenance for example it requires energy to pump, clean and supply and if you waste it you will pay for it. There are experts who assess your company in water use for example to highlight anomalies as out-of-hours water use such as leaks, automatic flushing and other water wasters.

To track water use is common the use of videos and daily recordings automatically updated and also observing on your own around the business can help in this intent and also it can help to check that water-saving equipment is still delivering savings. Staff must be encouraged to report dripping taps and leaks. Repairs in general are quick and simple, normally they require just a new washer or tightening of fittings.

Restaurant owners will also benefit from water-efficiency measures through increased customer satisfaction. In general, consumers have shown a preference for businesses that have made a commitment to reducing their environmental impact. With some customers seeking green restaurants, demonstrating environmental sustainability through water efficiency is a smart way to gain a competitive edge. WaterSense at Work provides guidance on water-efficient operation of restaurants and institutional cafeterias, allowing for a more competitive and environmentally sustainable business.

1.1 USING WATERSENSE IN RESTAURANTS AND HOSPITALITY

The foodservice and hospitality industries use a huge amount of the total water consumption in commercial and institutional facilities in many countries all over the world. The biggest use in restaurants is given in the kitchen especially for the equipment used for food preparation and cleaning.



As the matter of fact, it is important to mention maintenance and education of equipment which are considered best management practices for Commercial and Institutional Facilities. For example, use dishwashers, ice machines, and steam cookers to ENERGY STAR® will reduce water and permit reusing water throughout the cycles. Also, try to prefer food disposal systems equipment such as combination ovens, steam kettles and steam cookers that use less water! Also consider to buy equipment which discharges water continuously. Install WaterSense toilets which have been certified to be 20 percent more water efficient and with better performance than standard models. Check automatic sensors on faucets, toilets, and urinals to ensure they are operating properly and avoid unnecessary water use.

1.2 USE AIR-COOLED ICE MACHINES

A water-cooled ice machine that produces 800 pounds of ice uses an extra 1,300 gallons of water each day to cool the condenser. ENERGY STAR models are approximately 15 percent more energy efficient and 10 percent more water efficient than their conventional counterparts, according to the Arizona Department of Water Resources. A better option is installing an air-cooled ice machine, which uses 100,000 fewer gallons of water per year for a 500 pound machine.

Nevertheless, Hygiene and cleanliness are crucial in the food industry. Hand washing is one of the main water consumption activity throughout the day. Low-flow facets help to immediately decrease water consumption.

2. SOCIAL GREEN ACTIVITIES

The staff must monitor the normal functioning of the green machineries and check activity throughout the day. Beyond regulation and compliance, many environmental and social initiatives are voluntary. The community is responsible for implementing social initiatives and imply their human capital as a valuable resource.

Many hotels have implemented social initiatives and corporate social responsibility (CSR) into their regular day-to-day practices. Corporate social responsibility in the hotel industry ideally exists in human resources management, the local community, and through promoting and practicing environmental initiatives (Bohdanowicz & Zientara, 2008) and is heavily influenced by internal and external forces. Hotels are now trying to be ethical through social initiatives protecting and supporting communities, their human resources, and implementing environmental initiatives (Bohdanowicz & Zientara, 2008). Several multinational companies have gained a very negative brand reputation based on their past unethical practices. Larger companies have been criticized because of their chemical emissions, responsible for



climate change, environmental devastation, and unfair treatment of employees. Due to such criticisms and negative publicity, many businesses have increased the focus on corporate social responsibility.

Audits are essential to set future goals and be aware of hotel's current position in terms of resource used by the department. It is essential to audit how much energy and water is consumed and how much waste is generated. To start an environmental program, measurement and benchmarking is crucial for success. Each department needs to be audited, for example: Engineering, Laundry, General management, Grounds and recreation, Housekeeping, Purchasing, Kitchen and food beverage outlets, Front desk. Staff support is crucial for the success of the environmental program. Also, consulting your team is a great starting point and it will make them proud of working for your sector. To start an action plan, it is important to set possible and specific goals. Setting a goal such as "Reduce energy consumption", would be too vague and more appropriate would be "Replace light bulbs with LED lights".

To start with an action plan, you should choose specific goals that can be easily attainable. An example would be set a double-sided printing and keep track of all the costs and measures you adopt. Choose measures which have a deeper impact, it would be easy to keep track and find money to invest in bigger projects. Electing a green committee can give to employees support and enthusiasm for the goals achieved. To select a Green Team, it is important to find technical expertise in operations, engineering and purchasing, involve marketing and sales professionals as they may have external expertise about consumers and competitors.

Communication skills are also important especially when dealing with external stakeholders. Members of green team should have interest in environmental matters and able to commit with a certain amount of time. It is crucial to write an environmental policy statement which should explain environmental goals, for example committing to reduce 20% of X in a year. The way in which employees are treated for example upholding equal opportunities and other fundamental human rights.

Policy statements need to be communicated on employees' manuals, on the websites, in guest information packs. Try to include the environmental program into employee training. This information should be included in training documentation, in orientation packages for new employees with the aim to integrate policies into the environmental program.

Regular progress reports must be kept updated and are vital in achieving the policy objectives. They should be made on the monitoring and measurement of the goals in the environmental program. All these goals should also be communicated to all stakeholders and placed on the website.

Below some example of self-audit check lists to be used to go green.



Organization, Reporting and Management	Yes	No	Measure	Comment
Do you have a written policy document?				
Are one or more individuals in charge of environmental issues?				
Are reports on environmental issues made regularly?				
Is the business involved in environmental forums such as green business club or waste minimization club?				
Are progress reports on environmental issues and employee relations regularly published?				
Energy Management	Yes	No	Measure	Comment
Is lighting efficient and effective in at least 50% of areas?				
Is there evidence of low energy equipment such as large electrical machinery (fridges, microwaves, cookers, etc.)?				
Is there a member of the staff who is in charge of continually monitoring performance and having targets based on the results?				
Has an initial assessment been identified? For example, changing to energy efficient light bulbs, motion detectors etc?				
Is there any measure that ensures that the establishment energy does not have any effect on local residents' energy?				
Are flow restrictors or controllers used appropriately for inefficient showerheads and taps?				
Can housekeepers identify common maintenance problems?				
Is there any energy management system installed to turn off light and air conditioning when there is no guest inside?				
Is there any towel changing program regarding changing bed linen?				
Can employees use bicycles around the local area?				
Are renewable sources of energy captured on site and used, for example the sun, wind, bio gas or other fuel?				
Water Management	Yes	No	Measure	Comment
Is the business actively engaged in achieving a reduction in water consumption and also reducing cost?				
Do water saving devices effectively reduce water consumptions. For example flow restrictors, aerators, percussion taps or limiters on water pipes?				



Is grey water used after being treated appropriately?				
Are low flush WCs and water saving devices installed in WCs?				
Are the main areas of water consumption monitored by an initial assessment and consequently identified by an action plan for savings?				
Has a member of staff been designated to monitor performance continually and set realistic targets based on the results?				
Is there any technologies installed that enables rainwater and grey water to be reused for gardening, washing, floors, flushing toilets etc.?				
Are there training for employees about water saving practices?				
Can employees detect and repair common maintenance problems such as leaking showers, toilets etc.?				
Are water reducing policies been implemented e.g. not hosing surfaces to clean them and not watering gardens in the day?				
Is the use of chemicals such as bleach and detergent minimized wherever possible?				
Waste	Yes	No	Measure	Comment
Is the business compliant with national waste regulations?				
Is the business apply audits to monitor which department is responsible for waste created for example paper, plastic, aluminum, glass etc.?				
Is there any active procedure in place to reduce or reuse the waste? For example providing recycling bins in each department, buying in bulk, buying products with less packaging.				
Are recyclable items such as cardboard, plastic, glass, metals, food waste etc. collected separately?				
Are soap and shampoo containers reusable and are cloth laundry bags and rechargeable batteries used?				
Do you avoid serving single use condiments such as jam, butter, etc?				
Do you usually give back packaging to suppliers?				
Do you donate furniture and/or food to charities?				
Do you provided the employees with reusable mugs avoiding reusable cups?				
Are there enough waste bins for guests around the hotel?				
Purchasing	Yes	No	Measure	Comment
Are products sourced from local suppliers wherever possible?				



Do you list the use of organic and local and ingredients on restaurant menus?				
Does your hotel purchase products with environmental quality certification?				
Are cleaning material purchased with low environmental impact?				
Is joint purchasing considered among different hotelier to investigate potentials?				
Community support	Yes	No	Measure	Comment
Will the local community benefit from the business?				
Does the hotel actively contribute to local communities development projects?				
Does the hotel support and actively contribute to any conservation or cultural heritage projects through financial or in kind supports?				
Do the hotel show local artwork?				
Is the hotel working with official government and/or tourism businesses to improve environmental standards in the local area?				
Does the hotel promote environmental education in the local community?				
Is the hotel involved in events promoting environmental matters?				
Does the hotel's business itself promotes and respects local culture and heritage?				
Customer Education	Yes	No	Measure	Comment
Are guests encouraged to buy products that are made locally?				
Are guests informed about environmental protection in the local area such as policies protecting turtle nesting sites, coral reefs, etc...)?				
Is the hotel providing a list of what type of souvenirs or food guests should avoid?				
Does the hotel inform guests about religion and culture of the local area?				
Does the hotel inform guests about how to recycle and reuse, and saving practices during their stay, for example switching off lights, washing few towels per week, water saving while washing teeth, etc...?				
Does the hotel encourage guests to explore the surrounding areas?				
Employee Training	Yes	No	Measure	Comment
Do the hotel has an environmental training program for employees, such as how to reduce water consumption and waste?				



Does the hotel give importance to employees' ideas to reduce the hotel's environmental impact?				
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3. ANSWER THE FOLLOWING QUESTIONS

1. Which is the green gadget not used for monitoring energy?
 - a) LED lighting
 - b) Smart thermostats
 - c) WaterSense toilets
 - d) High-flow facets

2. Which are the food disposal systems equipment that reduce water consumption in hotels?
 - a) Combination ovens and steam cookers
 - b) WaterSense toilets
 - c) LED lighting

3. Which department needs to be audited on energy consumption?
 - a) Engineering, laundry, management, housekeeping, kitchen
 - b) Outlets, halls, furniture, rooms
 - c) Washing machines, LED lighting, energy star

4. Which are the skills typically used for a "green team"?
 - a) Communication, keen on environment
 - b) Engineering, mathematics, local area expertise
 - c) Enthusiasm, empathy, local support

5. What should be done in order to manage energy waste?
 - a) Show evidence and monitoring
 - b) Use plastic packaging
 - c) Avoid internal audits

6. Inform guests about techniques used for monitoring waste through:
 - a) Religion and culture
 - b) Food and souvenirs to avoid
 - c) Avoid events promoting environmental education

4. FAQs FREQUENTLY ASKED QUESTIONS

1. How can I monitor energy, water and waste consumption?

Many entrepreneurs use different kind of gadget in order to save protect the environment such as smart thermostats which are used just when guests really need heating and air conditioning. LED lighting bulbs are less energy-consuming than halogen because of high percentage of mercury inside. Energy



management systems control the entire area and each electronic device via remote control, not only heating and air system, but also lights, stereo, TVs, security system. the entire building via remote control through smartphones.

2. How can I track water use in the establishment?

To track water use is common the use of daily recordings that can help to check that water-saving equipment is still delivering savings. Staff must be encouraged to report dripping taps and leaks and repairs in general are quick and simple.

3. Which social initiative can I use to protect and support local communities?

Many hotels implement social initiatives and corporate social responsibility (CSR) into their regular day-to-day practices. Corporate social responsibility in the hotel industry exists in human resources management, the local community, and through promoting and practicing environmental initiatives. Those initiatives protect and support Hotels are now trying to be ethical through social initiatives protecting and supporting communities, their human resources, and implementing environmental initiatives. Several multinational companies have gained a very negative brand reputation based on their past unethical practices.

4. How can I choose a green team?

Choosing a green team can give to employees the right amount of enthusiasm for the goal achieved. To select a Green Team, it is important to find technical expertise in operations, engineering and purchasing, together with marketing and sales professionals because of their external expertise about consumers and competitors. Members of green team should have great communication skills and interest in environmental matters.

5. Which are the best options to start working with environmental program?

The best way to start working with an environmental program is to update regular progress reports in order to achieve policy objectives. Progress reports help in monitoring and measuring the goals in the environmental program. All these goals should also be communicated to all stakeholders and placed on the website. A self-audit check lists can help to achieve these objectives. In the paragraph above there are some examples.



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LEARNING UNIT 6

GREEN PROCUREMENT

EQF LEVEL QUALIFICATION	4/5
DURATION	10 hours

Learning Outcomes	Knowledge	Skills	Competences
<p>LO1 K16 Identify different types of biodegradable ware, eco-friendly cleaning agents. List seasonal produce and suppliers for the local area</p>	<p>He/She knows how to:</p> <ul style="list-style-type: none"> Produce seasonal giving for the local area Find and utilise local suppliers and sustainable procurement channels 	<p>He/She is able to:</p> <ul style="list-style-type: none"> Evaluate food suppliers to ensure that food commodities are sustainable Devise menus that utilise seasonal and locally sustainable products 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> Working in teams to procure sustainable food commodities and products for company
<p>LO2 K17 Explain how employer's sustainability principles relate to sustainability purchase behaviours</p>	<p>He/She knows how to:</p> <ul style="list-style-type: none"> Product and service life-cycles and their environmental impacts How employer's Sustainability Principles/Mission or Mandate relate to sustainable purchasing behaviours Re-use potential of all foods and products purchased within the business 	<p>He/She is able to:</p> <ul style="list-style-type: none"> Collect and assess data on product life-cycles to minimise short and long-term Environmental impacts Source local suppliers of sustainable food commodities 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> Independently assessing purchasing channels to ensure sustainability Monitoring procurement processes to minimise environmental impacts on all purchases
<p>LO3 K18 Assess local channels of sustainable supplies. Explain how to collect and disseminate information about re-usable and bio-degradable products.</p>	<p>He/She knows how to:</p> <ul style="list-style-type: none"> Alternative processes that can assist or reduce procurement processes (i.e. roof gardens, herb planters etc.) Consumables and hazardous materials and how to procure green alternatives How to find, procure and use re-useable or biodegradable wares and eco-friendly cleaning agents 	<p>He/She is able to:</p> <ul style="list-style-type: none"> Communicate sustainable Promote use of local and seasonal ingredients and products in menu design and/or other areas within the business Collect information on re-usable, and biodegradable products and equipment suitable for purchase/use within the company 	<p>He/She is responsible for:</p> <ul style="list-style-type: none"> Working as a team to ensure that food and beverage costs remain appropriate whilst ensuring sustainable and green procurement practices Assuming responsibility for communicating green procurement policy to internal stakeholders to ensure all purchasing processes are eco-friendly



UNIT CONTENT

The aim of the subject is to provide knowledge to the students on how to find, select and utilise local suppliers; how employer's sustainable principles relates to sustainable purchasing behaviours; How to find, procure and use re-useable or biodegradable wares and eco-friendly cleaning agents. The evidence used by the teacher will be based on theoretical lectures, practical work, individual assignment, presentations by students, guest lectures, workshops, videos, PPT and so on.

At the end of the unit students will be assessed through some written tests, Q & A. Questions will be a general focus on the theory part and will help to gain the necessary tools to undergone the practical part regarding the future job.

INTRODUCTION

Products and services need to be designed in order to enable people to reduce the environmental and social impact in everyday life. In order to design products and services for a sustainable life, it is important to support people to act in this way, use technology to facilitate interaction among people and fulfill needs without avoidable environmental social impacts.

In order to do this, it is important to understand the factors that influence users and that lead them to behave in a more sustainable way. In order to do so it is important to know what people feel and dream about. Social influence affects also employers who will be within the employer's sustainable purchasing behavior.

Moreover in this unit, students will need to know how to find, select and utilize local suppliers and how to find, procure and use biodegradable wares and eco-friendly cleaning agents.

1. SUSTAINABLE PURCHASE BEHAVIOR

Employers are people and people are those part of the society that mainly follow the actions of others with the aim of decreasing their energy usage. Sustainable behaviour is for example the use of solar panels which normally influences the 63% of the neighbourhood. Behaviours of others can be motivating especially when it comes to composting and recycling in a group of people who know each other well.

To change behavior, first of people and then of employers, it is important to break bad habits in private life, such as during moving, getting married and starting a new job. To change behaviour penalties can also be a solution rather than rewarding good habits. Penalties can be removed once the Good habit is formed. It is important to provide easy sustainable actions for example for incentives and feedback on an extended period of time.



Employer's sustainable principles relates to sustainable purchasing behavior. Sustainability can be more attractive with personal benefits such as health or product quality, self- efficacy. If people's actions are positively emphasized, they will make greener choices.

Hotels and restaurants can also ask costumers to directly save energy and the reduction has been calculated by 12%. Environmentalism has also been linked to women behavior and has been subscribed to traditional gender roles. Then, it was discovered that environmentalism was attractive to both men and women.

Concrete examples may help in sensitize general opinion on the environment. Animals, plants and people actually affected by climate change can be a good picture to use for being greener. Glaciers change can be seen by photographs by most people and can help to change behavior and perspective towards environment and climate change.

To develop awareness and motivation among employees, there are three important case studies which can be used as an example regarding sustainable catering, concerning labels, local and seasonal, and food waste. The organization can achieve sustainability for example through

- Motivation and commitment in kitchen and service staff;
- Develop knowledge in the kitchen staff becoming more sustainable with enthusiasm and creativity;
- Sustainable appearance of the canteen area;
- No vision and no goals for sustainability can negatively affect the plan;
- Facilitate a survey in order to cut on barriers to behavior changes towards sustainability in catering for staff and guests;
- Deveop a plan to track efforts on sustainability steps;
- Organize a workshop which can inspire and share possibilities for more sustainable menus and teach skills;
- Internal communication and communication with guests;
- Creativity in forming menus and creativity at different department levels;
- Awareness in ratio plat and less animal-based products

2. GREEN PROCUREMENT AND BIODEGRADABLE WARES

Greening development can be achieved from everyday behavior and also can be enhanced to public by huge authorities. For instance, Green Public Procurement (GPP) is an important tool sustained by the European Union and which is used to achieve policy aims relating to climate and environment. The GPP handbook is designed to explain the possibilities in terms of European Union law redirecting to greening contacts. The target readers are public authorities but it contains also ideas for suppliers and service providers and in particular smaller companies. Authorities who implement GPP will meet environmental challenges and reduce greenhouse gas emissions and move towards a circular economy.



Agriculture is an important part of this handbook together with greenhouse emissions, soil and water degradation, biodiversity and waste. Transport packaging and storage of food products is involved within this list. Organic production, reducing food and packaging waste has a significant impact on public opinion.

Two case studies which would be interesting to focus on come from Sweden and from France.

In Malmö, Sweden was served for the first time the 100% of organic food. A pilot for Djupadal school included organic products in the school which were delivered once a week with sustainable vehicles. By the end of the year the impact was wonderful. The costs were minimized also by a shift from meat products to seasonal products.

In France, another pilot showed that The City of Lens supplied 100% certified organic products. They fine in case the products didn't have the information on methods of production and traceability. This new policy helped to promote and raise demand for organic food.

Road transport is extremely important in order to make products 100% organic. It is responsible for about 25% of gas emissions in the EU. The problem is that while vehicles are more ecologic than before, the volume of transport didn't change or has increased in many parts of Europe. What must be done is to encourage other methods of transport. Significant costs savings can be achieved through tax and health benefits and it needs to be supported by public sectors since it is responsible for a large number of vehicles like buses, trucks and every public transport mean.

Catering and hospitality are one of the biggest economic activity in the world and its impact from an environmental point of view is huge. Eco-sustainability, in fact, has often become a marketing strategy, and some tourist accommodations use only small and limited sustainability improvements to please the eyes of sustainable development aware consumers. With the same effort, they could just become really committed to the environmental cause.

We analyzed this phenomenon in depth. Looking at the environmental certifications linked to tourism in Italy and Europe, we wanted to know what are the real requirements to rank the ecological quality of a hotel, a bed & breakfast, a farmhouse, a camping, or any other accommodation for our journey.

Organic food is called zero-mile food and a good example in the HORECA industry in terms of food would be using seasonal, organic and local food products. The menu needs to show clearly that the ingredients coming from bio-farming. They should provide a variety of local and regional receipt and remark the absence of GMO products and/or products subjected to irradiation. It is important to use water from waterworks or glass bottled water from regional sources.

Together with an eco-friendly structure, such as paintings, pieces of furniture composed of natural materials without harmful substances of petrochemical origin and toxicity



spilled in waterways and watersheds, it is important to use highly biodegradable and natural air- fresheners.

Restaurants are finding their way in serving local food and promote not only the greenness of their meals but also other qualities within this choice. For example, there are many other positive facets in adopting eco-friendly measures in food serving such as freshness, flavorful foods, local economies can be supported using their products increase marketing benefits.

Freshness is one of the most important benefits for green restaurants. Fruit and vegetables are daily transported throughout small distances. As said previously, short distance maintains appearance, taste and nutrients of products.

The use of local products helps supporting local economy and foster relationships with other business people in the area where the restaurants are settled. Moreover, costumers love eating products coming from the local environment and it could be a good marketing strategy for the business.

Local foods are also based on the seasons and so restaurants needs to change the menu according to availability of products in nature. Many entrepreneurs think that local products are too expensive, but their cost isn't always that higher. There are other products available the whole year such as poultry, beef, pork, honey, dairy products and bakery. Small farms use less energy than larger ones and many small farms are organic and don't use chemicals, hormones and pesticides.

3. ECO-FRIENDLY CLEANING AGENTS

Today many cleaning products contain chemical substances which are extremely harmful for the environment and also for humans. Apart from eco-friendly cleaning products, there are natural alternatives such as vinegar and apple cider vinegar that help removing microbial contamination killing bacteria and germs. Vinegar can also be used with baking soda that causes a science volcano which can help cleaning kitchens and bathrooms drains.

Peroxide can disinfect and clean to whiten and brighten clothes, walls and counters. Hydrogen peroxide can be used together with essential oils, baking soda and vinegar can create toilet bowl bombs to drop into the toilet and do the cleaning itself.

To neutralize smells baking soda is the best option but it can also be used as stain remover, sanitizer and degreaser. It is mild abrasive and secure to use on delicate surfaces such as marble or copper and brass tarnish remover. Essential Oils are not only used for aromatherapy but they also have amazing antibacterial properties. They can be used to make cleaners and air fresheners. Most used essential oil are lavender, lemon, eucalyptus, wild orange, rosemary, thyme, mint and thieves.

Lemons are also a natural disinfectant and an amazing stain remover. The peel and the juices are both used, and you can use the rind either dry or fresh.



This cleaner is great for multi-surfaces and is an all-purpose use. Use it to clean your kitchen and bathroom counters, the sinks, toilet, tabletops, and more. The essential oils help also to cover vinegar's smell in the house.

There are some industries that produce environmentally safe cleaners. Ingredients are plant-based, biodegradable and never tested on animals. The scents vary from botanical cleaner to popular fruit and veggie stain over. An example is Liquid Green products inc environmentally friendly and humanly safe.

4. ANSWER THE FOLLOWING QUESTIONS

1. What are the main features for environmental social impact?

- a) understand factors that influence people
- b) never care of what people know
- c) never use sustainable purchasing behavior

2. Which type of sustainable behavior is normally used among people?

- a) The use of solar panels
- b) New centric energy machinery
- c) Getting and starting a new job

3. Solutions adopted by governments?

- a) Wait that behavior change by itself
- b) Rewarding bad habits
- c) Behavior penalties

4. Which is the name of the handbook enhanced to public authorities?

- a) GSG Green Security Government
- b) GPP Green Public Procurement
- c) PSS panel Solar System

5. In which countries pilots about zero-mile food have been positively accepted?

- a) Italy and Germany
- b) France and Sweden
- c) UK and Portugal

6. Natural remedies are used in cleaning

- a) Olive oil, salt and sugar
- b) Baking soda, essential oils, lemon
- c) Thyme, mint, orange



5. FAQs FREQUENTLY ASKED QUESTIONS

1. Why it is important for the HORECA industry the use of local food?

Fruit and vegetables are daily transported throughout small distances. As said previously, short distance maintains appearance, taste and nutrients of products. The use of local products helps supporting local economy and foster relationships with other business people in the area where the restaurants are settled. Moreover, costumers love eating products coming from the local environment and it could be a good marketing strategy for the business.

2. Which important principle help to increase sustainable purchasing behavior among people and employees?

Motivation and commitment in kitchen and service staff; Develop knowledge in the kitchen staff becoming more sustainable with enthusiasm and creativity; Sustainable appearance of the canteen area; No vision and no goals for sustainability can negatively affect the plan; Facilitate a survey in order to cut on barriers to behavior changes towards sustainability in catering for staff and guests; Deveop a plan to track efforts on sustainability steps; Organize a workshop which can inspire and share possibilities for more sustainable menus and teach skills; Internal communication and communication with guests; Creativity in forming menus and creativity at different department levels; Awareness in ratio plat and less animal-based products.

4. How can I start to offer zero-mile food?

Organic food is called zero-mile food and a good example in the HORECA industry in terms of food would be using seasonal, organic and local food products. The menu needs to show clearly that the ingredients coming from bio-farming. They should provide a variety of local and regional receipt and remark the absence of GMO products and/or products subjected to irradiation. Using local food, restaurants needs to change the menu according to availability of products in nature. Many entrepreneurs think that local products are too expensive, but their cost isn't always that higher. There are other products available the whole year such as poultry, beef, pork, honey, dairy products and bakery. Small farms use less energy than larger ones and many small farms are organic and don't use chemicals, hormones and pesticides.

5. Is it possible to use only eco-friendly cleaning agents in the HORECA industry?

There are natural alternatives such as vinegar and apple cider vinegar that help removing microbial contamination killing bacteria and germs. Vinegar can also be used with baking soda that causes a science volcano which can help cleaning kitchens and bathrooms drains. Peroxide can disinfect and clean to whiten and brighten clothes, walls and counters. Hydrogen peroxide can be used together with essential oils, baking soda and vinegar can create toilet bowl bombs to drop into the toilet and do the cleaning itself. Moreover, many industries produce 100% eco-friendly products that can be purchased all over the world.



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