



BALANCE
green and stable

GREEN POLICIES & FINANCIAL SUSTAINABILITY

ANALYZED BEST PRACTICES

Report



Co-funded by the
Erasmus+ Programme
of the European Union



BALANCE
green and stable

*'Jobs, growth and investment will only return to Europe if we create the right regulatory environment and promote a climate of entrepreneurship and job creation. We must not stifle innovation and competitiveness with too prescriptive and too detailed regulations, particularly when it comes to small and medium-sized enterprises (SMEs). **SMEs are the backbone of our economy**, creating more than 85 % of new jobs in Europe and we have to free them from burdensome regulation.'*

Jean-Claude Juncker,
Former President of the
European Commission



Co-funded by the
Erasmus+ Programme
of the European Union

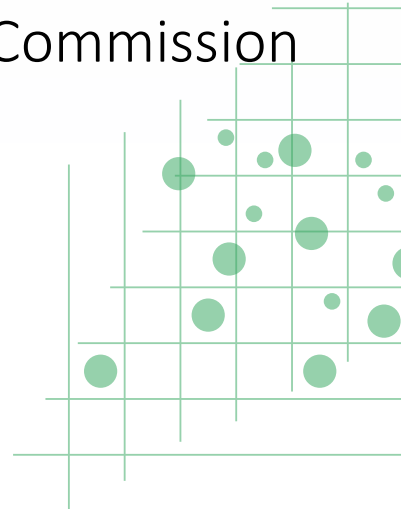


TABLE OF CONTENTS

- 1. [INTRODUCTION](#)
 - 1.1. [Table of contents](#)
 - 1.2. [Context](#)
 - 1.3. [Authors](#)
 - 1.4. [About the project](#)
 - 1.5. [Objectives and results of the project](#)
 - 1.6. [Target group of the project](#)
 - 1.7. [Purpose of the report](#)
 - 1.8. [Conduct of the research](#)
- 2. [DEFINING SMES IN THE EU](#)
 - 2.1. [Definition of SME](#)
 - 2.2. [The role of the SMEs](#)
 - 2.3. [Greening the SMEs](#)
 - 2.4. [National context](#)
 - 2.4.1. [National context – Belgium](#)
 - 2.4.2. [National context – Bulgaria](#)
 - 2.4.3. [National context – Cyprus](#)
 - 2.4.4. [National context – Greece](#)
 - 2.4.5. [National context – Ireland](#)
 - 2.4.6. [National context – Spain](#)
- 2.5. [National green initiatives](#)
 - 2.5.1. [Green initiatives – Belgium](#)
 - 2.5.2. [Green initiatives – Bulgaria](#)
 - 2.5.3. [Green initiatives – Cyprus](#)
 - 2.5.4. [Green initiatives – Greece](#)
 - 2.5.5. [Green initiatives – Ireland](#)
 - 2.5.6. [Green initiatives – Spain](#)
- 3. [Green practices](#)
 - 3.1. [Green practices Belgium](#)
 - 3.1.1. [Working with Wood](#)
 - 3.1.2. [Greener by design](#)
 - 3.1.3. [Clean and green](#)
 - 3.1.4. [Green Energy Solutions](#)
 - 3.1.5. [Change Consultancy and visual storytelling](#)
 - 3.1.6. [Innovative eco-construction](#)
 - 3.1.7. [Conclusions](#)
 - 3.2. [Green practices Bulgaria](#)
 - 3.2.1. [Bottled water without a plastic label](#)



TABLE OF CONTENTS

- 3.2.2. [Eco at the core](#)
- 3.2.3. [Smart Farming - Implementing an innovative digital system in farming production](#)
- 3.2.4. [“Eco-employer” 2019 award winner creates diverse initiatives and Green Board](#)
- 3.2.5. [IT company switches to zero-waste alternatives](#)
- 3.2.6. [Conclusions](#)
- 3.3. [Green practices – Cyprus](#)
 - 3.3.1. [Food chain restaurant reduces plastic use](#)
 - 3.3.2. [Building partnership for sustainable agriculture](#)
 - 3.3.3. [Green & sustainable banking](#)
 - 3.3.4. [Construction company awarded with Environmental award](#)
 - 3.3.5. [Energy efficiency upgrade in Architecture Office](#)
 - 3.3.6. [Conclusions](#)
- 3.4. [Green practices – Greece](#)
 - 3.4.1. [Recycling of olive pits](#)
 - 3.4.2. [Packaging from fishing nets](#)
 - 3.4.3. [Green resorts](#)
 - 3.4.4. [Recycling manufacturing materials](#)
 - 3.4.5. [Papastratos-Sustainable Development](#)
 - 3.4.6. [Conclusions](#)
- 3.5. [Green practices – Ireland](#)
 - 3.5.1. [Managing environmental footprint](#)
 - 3.5.2. [Turning to renewable energy](#)
 - 3.5.3. [Reducing carbon footprint](#)
 - 3.5.4. [Sustainable meat products](#)
 - 3.5.5. [Reducing waste in food](#)
 - 3.5.6. [Conclusions](#)
- 3.6. [Green practices – Spain](#)
 - 3.6.1. [Making the streets accessible](#)
 - 3.6.2. [Recycled Airgill Mask](#)
 - 3.6.3. [Recycling in the food industry](#)
 - 3.6.4. [New eco-packaging](#)
 - 3.6.5. [Sustainability in fresh foods](#)
 - 3.6.6. [Conclusions](#)



TABLE OF CONTENTS

4. [ANALYSIS AND RECOMMENDATIONS](#)

4.1. [Introduction](#)

4.2. [Operational characteristics](#)

4.3. [Green practices characteristics](#)

4.4. [Financial modelling](#)

5. [APPROACH TOWARDS SMEs](#)

5.1. [Introduction](#)

5.2. [The first dimension](#)

5.3. [The second dimension](#)

5.4. [The third dimension](#)

5.5. [The European SMEs framework](#)

5.6. [Application of the approach](#)

5.7. [Conclusions](#)

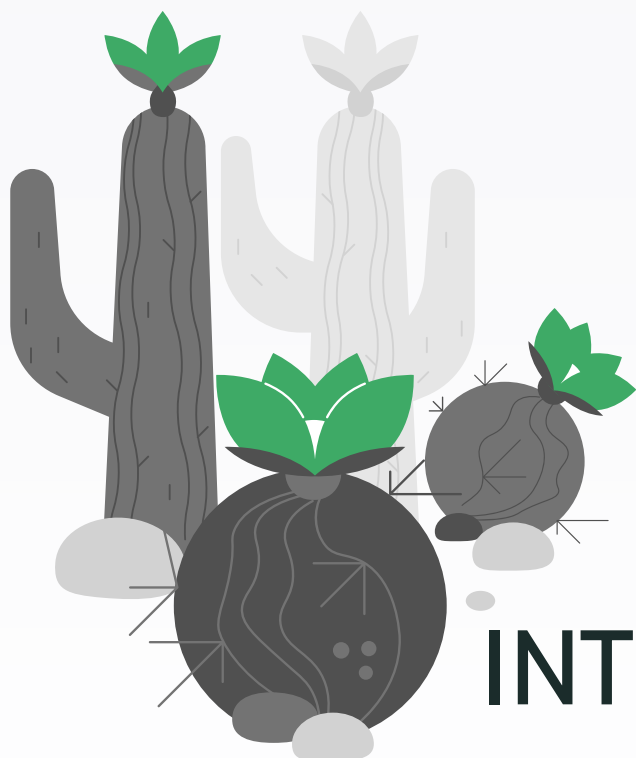
5.8. [References](#)

6. [EXECUTIVE SUMMARY](#)

7. [APPENDIX 1](#)

8. [CONTACTS](#)





INTRODUCTION

Read this part to understand more about the project itself and its aims and objectives. You can find information about the partners behind this report, why and how it has been created.



CONTEXT

Grant agreement	2020-1-KA204-079048
Programme	Erasmus +
Key action	Cooperation for innovation and the exchange of good practices
Action	Strategic Partnerships for adult education
Project acronym	BALANCE
Project title	BALANCE - Green & Stable - Bringing Sustainability and Environmental Action Together for Better Future
Project starting date	01.11.2020
Project duration	24 months
Project end date	31.10.2022
Project Activity (A)	Report: Green policies and financial sustainability - Analysed Best Practises

This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by the
Erasmus+ Programme
of the European Union

AUTHORS

Balance project is developed by six partners from 6 EU countries – Bulgaria, Belgium, Cyprus, Greece, Ireland and Spain. The current report is a result from their combined effort. The creation of the report was led by EUROGEO (presented by Karl Donert and prof. Kostis Koutsopoulos) with the support of Inspire NGO (Ernst Zwingli, Velina Dragiyska and Gergana Deenichina). The design and the graphical identity was developed by Inspire NGO (Velina Dragiyska).



Co-funded by the
Erasmus+ Programme
of the European Union

ABOUT THE PROJECT

The need for climate action and sustainable resources management is more important than ever. The Green Deal presented by the European Commission on 11th of December 2019, sets the goal of Europe to **be a climate-neutral continent by 2050**. The Green Deal addresses the immediate need for specific actions that support Circular Economy, helping to reduce CO2 emissions, transform the energy industry, move the production to a more environmental-friendly stage and many more.

The way to become Climate-Neutral continent will put in front of us new types of challenges. One of them lays in front of small and medium-sized enterprises (SMEs) which have an essential role in achieving a greener economy as it is indicated by the Green Action Plan.

The upcoming regulations based on the Green Deal are really needed, but also, they put many of the traditional business models in **a transitional situation**. The small business struggled to recover in the past decade to recover from the financial crisis and now is facing new challenges operating in COVID-19 world. This type of business finds it **hard to adapt quickly to what is needed**.



OBJECTIVES AND RESULTS OF THE PROJECT







The BALANCE project aims to develop and provide SME decision makers with an innovative program that will **help them transform into greener operations**, while improving their financial literacy and **enhancing their environmental awareness**. The project addresses a key priority of the EU related to **environmental and climate goals**. Supporting individuals in acquiring and developing basic skills and key competencies is a priority underpinning this project. As a result, the BALANCE project caters to the **need for climate action and sustainable resources management**, which in turn is based on The Green Action Plan for SMEs (GAP), presented by the European Commission.

The most sensitive area related to the SMEs, is in the change management, which is challenged by the lack of financial or human resources, sustainability and knowledge, especially for micro-SMEs. BALANCE is a project that addresses this issue. It steps on the key learning points from the Green Action Plan for SMEs, by combining **best practices around EU** and backing them up with financial knowledge.

To achieve that it will create **a training program** that will be accessible to all members of the target group, accompanied with e-learning program materials, and whose curriculum will be **based on ECVET**. This will lead towards the transformation of the small business into becoming greener without having to sacrifice its financial sustainability.



As for the objectives of BALANCE, whose direct target group is the SMEs decision-takers, SME Consultants, and Entrepreneurs, are the following:

-  Provide a Report over best environmental practices already implemented within EU;
-  Provide financial analysis on those measures;
-  Create a dedicated training program so SMEs can implement easier greener change into their operations;
-  Provide SME's consultants with a training program version in order to achieve better reach;
-  Develop E-Learning program accessible to anyone;
-  Provide workshops and Multiplier events and help more micro-SMEs to embrace a greener future.



TARGET GROUP

SME's decision-makers

SME's consultants

Entrepreneurs

The BALANCE project focus its efforts to support **the small and medium-sized enterprises adopting greener operations and transform to more sustainable future.** The SMEs as a are the direct target group will have access to the training program, e-learning program materials that will help them transform their operations in alignment with the Green Deal and the upcoming regulations, and to become greener in general. They will be prepared on how to sustain financially and communication-wise this transition.

The results of the project can be directly implemented, and they shorten the distance between the SMEs and EU regulation and opportunities – an aspect that is a key taking from Green Action Plan for SMEs by European Resource Efficiency Knowledge Centre.



Co-funded by the
Erasmus+ Programme
of the European Union

PURPOSE OF THE REPORT

The main purpose of the current Report: **Green policies & financial sustainability** is to discover and examine successful implementations of green practices in different companies in six European countries.

One of the main objectives is to show **a diverse set of measures proven effective in the national business context and to increase environmental awareness**. The research shows companies which have implemented in their operation's green practices and/or have been successfully transitioned into a greener way of operations. These examples of the report based **on the six participating countries will acknowledge the differences in national regulations**. The project's transnational partnership outlook increases the relevance of the results across the whole EU.

This report, in essence involves **the presentation of the best practices**, analysis of the financial categories, their essence, impact and way of implementation.

The report as well recognizes the recommendations of the Green Action Plan and to the specific scale of work of SMEs. The recommendations will be easy to be used by the decision-makers of the SMEs and as well as they will increase the awareness for the Green Deal and EU policy in each country.

We hope that the practices listed here will serve as inspiration and encouragement to those in need to transform their business operations.




Co-funded by the
Erasmus+ Programme
of the European Union

CONDUCT OF THE REPORT

The main purpose of the current Report: **Green policies & financial sustainability**
The conduct of the current report was executed in 5 stages:

1. The partners created a framework for gathering of information from the companies about their green practices. In Appendix 1 you can see the framework. The form has three main aspects: what is the essence of the green practice (changes in operations, smart and sustainability policies, qualification of the staff), how it was achieved (including financial aspects such as cost of transition, cost of sustaining and overall financial result before and after the transition to a greener policy) and how it was communicated externally and internally.
2. The partners researched the national companies and selected 5 companies each with proven green practices.
3. Consolidation of the results into national report. The partners consolidated the practices they have collected into national reports. Here you can see them. The national reports contain also a research about the national context for SME's development, available support, the current green initiatives and concussions.
4. All the information was consolidated and explored in order to be analyzed. Thanks to the reach academic experience of EUROGEO partners, it was created a position paper.
5. After a peer review, the report has been finalized and presented to the general public and the associated partners.





DEFINING SMEs IN THE EU

The current section provides information over the SMEs in the European Union and explores the different national context and environmental initiatives in 6 (six) countries – Belgium, Bulgaria, Cyprus, Greece, Ireland and Spain.



Co-funded by the
Erasmus+ Programme
of the European Union

DEFINITION OF SMEs

The criteria for defining the size of a SME business differs from country to country. The European Commission (European Commission, 2015) has categorized these enterprises based on the following staff headcount and either the turnover or balance sheet total definitions:

Company category	Staff headcount	Turnover	Balance sheet total
Medium-sized	< 250	≤ €50 million	≤ €43 million
Small	< 50	≤ €10 million	≤ €10 million
Micro	< 10	≤ €2 million	≤ €2 million

Resulting in three categories, which define SMEs:

- Micro-enterprises that have up to 10 employees;
- Small enterprises which have up to 50 employees;
- Medium-sized enterprises having up to 250 employees.



Therefore, the European commission's definition of SME (2003/361/EC 2003) is the following:

"The category of micro, small and medium-sized enterprises (SMEs) made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million."

(European Commission, 2015)

The question that immediately arises is: **why is necessary to have a European definition for SMEs?** The answer is simple yet paramount for the EU, **because the SME definition applies to all policies, programs and measures that the European Commission develops and operates for SMEs. It also applies to the kind of State Aid where there are no other guidelines available.** Deciding whether or not a company is an SME is not as simple as one might think, as well as not as complete as the present-day condition require.

In determining whether or not an enterprise is an SME, the enterprise's size (employees, turnover and balance sheet total) is not the only factor that should be taken into account. In fact, **an enterprise can be very small in these terms, but if it has access to significant additional resources** (i.e., it is owned by, linked to or partnered with a larger enterprise) it might not qualify for SME status. In a similar manner, the necessity to reduce CO2 emissions, transform the energy industry, move the production to a more environmental-friendly stage and many other environmental issues cannot be ignored when obtaining a complete picture of an SME.

Finally, it should be noted that **the term small and medium-sized enterprises (SMEs) is widely accepted and used by the European Union, the USA (without the clear definition of the EU) and many international organizations such as the World Bank, the United Nations and the World Trade Organization.**



THE ROLE OF THE SMEs

The definition of an SME may vary from country to country (for example, the definition in Germany has a limit of 255 employees, while in Belgium it can be 100), but in all of them they are **regarded as the key drivers of the national economy**, because they **represent the major contributor in sustaining the modern-day economy**.

In the EU, small and medium-sized enterprises are indeed the backbone of Europe's economy. There are **over 22 million SMEs in the EU providing over 133 million jobs, creating over half of the gross value added, they represent 99% of all businesses in the EU** (Eurostat, 2018 - [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Statistics on small and medium-sized enterprises](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Statistics_on_small_and_medium-sized_enterprises)) and play a key role in adding value in every sector of the economy.

Most importantly, however, **SMEs provide innovations spread throughout Europe's regions to solve a series of European challenges like climate change, resource efficiency and social cohesion**. They are, therefore, fundamental in attaining EU's twin goals of a sustainable and a digital economy. Moreover, they are essential to EU's competitiveness and prosperity, industrial ecosystems, economic and technological sovereignty, and resilience to external shocks.



In addition, SME enterprises are considered important in Europe **because they involve:**

- job creation;
- unemployment reduction;
- significant contribution to growth in GDP;
- achieve sustainable growth as a centralized theme;
- enable proper money flow across the economy;
- the nursery from which large companies are created;
- contribute directly and often significantly to aggregate savings and investment; development of appropriate technology;
- and in most cases charge lower rates to their clients by providing a quality business.

Moreover, in Europe, **SMEs are a crucial element in the supplier network of large enterprises which are already on their way of becoming an Industry** (Lutz, 2015). According to German economist Hans-Heinrich Bass, "empirical research on SME as well as policies to promote SME have a long tradition in [West] Germany, dating back into the 19th century. Until the mid-20th century most researchers considered SME as an impediment to further economic development and SME policies were thus designed in the framework of social policies. Only the Ordo liberalism school, the founding fathers of Germany's social market economy, discovered their strengths, considered SME as a solution to mid-20th century economic problems (mass unemployment, abuse of economic power), and laid the foundations for non-selective (functional) industrial policies to promote SMEs." (Hans-Heinrich Bass, 2017)





Therefore, it should not be a surprise **that SMEs greatly outnumber the number of large-scale companies operating in the EU** and for that matter in all countries in the world.

Actually, the World Bank estimates that **the SMEs represent about 90% of the businesses and contribute more than 50% to employment worldwide.**

The important role of SMEs in the world, which varies across regions, countries and continents can be seen in two revealing examples. First, **the Australian SMEs make up 98% of all Australian businesses**, produce one-third of the total GDP and employ 4.7 million people. Second in Europe the **Poland SMEs generate almost 50% of the GDP**, and out of the total of 1,784,603 entities operating in Poland, only 3,189 were classified as "large", so 1,781,414 were micro, small, or medium SMEs employed 6.3 million people out of the total of 9.0 million employed in the private sector or 36.2 SMEs per 1,000 of inhabitants (Walczak & Voss, 2013).



GREENING THE SMEs

Small and medium-sized enterprises in Europe **are confronted with rising pressures from society, the market and all governments to meet environmental standards.** At the same time, the **demand for green products and services is rising**, because the international green market is rapidly growing, by 5% a year, and is expected to triple by 2030.

These two facts force a **global shift towards a greener economy**, which helps address environmental challenges, such as resource depletion and emissions. In addition, they bring economic benefits because many SMEs in order to improve their corporate image they try to cut their costs, **while complying with GAP standards and improving their compliance with environmental regulations.**

Integrating the economy with the environment is of paramount importance and one of the priorities in the EU, expressed by the flagship initiative dedicated to a **“Resource-efficient Europe”**. A strategy that enables SMEs to turn the environmental challenges into opportunities, which is one of the ten principles of the Small Business Act.

Of course, there are several other EU green initiatives applying to SMEs such as the Eco-Innovation Action Plan (EcoAP), the Green Employment Initiative and the Circular economy, which provide zero waste program for Europe. In general, EU’s environmental concerns are increasingly mainstreamed into most SMEs economic activities, which help them cope with globalization and competition.





The greatest opportunities for SMEs **are in the concept of Green growth**, which is a means of reconciling economic growth with environmental sustainability.

It is related to **sustainable development**, which is seen as a way to achieve a green economy, by means of balancing the economic and environmental objectives or balancing short-term costs with long-term gains. In this way SMEs participate in:

- sustainable use of resources;
- increased share of renewable energy;
- preserving natural capital (air, water, land and wildlife);
- as well as reducing emissions and waste.

Such entrepreneurship by the SMEs offers, in addition, synergies between environmental protection and economic development, turning green investments into a driver of economic growth and competitiveness.





NATIONAL CONTEXT & NATIONAL GREEN INITIATIVES

In order to understand better the implemented green practices, we need to understand **their national context** – the regulations, the governmental support, the challenges, the opportunities in front of the companies with respect to environmental (green) aspects, legislation, initiatives, grants and support mechanisms. Under national green initiatives are described key initiatives taking place in the country, regionally etc. and the types of infrastructures available in the country (eg chambers of commerce, NGOs, government), also any specific support that exists for SMEs or is being offered.

The following countries were part of the research:

- Belgium
- Bulgaria
- Cyprus
- Greece
- Ireland
- Spain



NATIONAL CONTEXT – Belgium

Belgium has **an open economy, which is largely driven by SMEs** and free and sustainable competition. The green economy is both an environmental and an economic priority for Belgium and for SMEs. As a result, the country's **various public authorities award various types of aid to companies, including allowances, subsidies and tax breaks, for investments and R&D that are designed to ease the burden on the environment.**

In addition to such aid, Belgium's three Regions have reoriented their economies towards sustainable development.

Based on business figures from 2019 (Statista, 2020), **more than half of all small and medium enterprises in Belgium were located in the Flanders region.** Overall, there were **around 1.1 million SMEs in the country.** According to Business Belgium (2020), over the past 10 years, the number of companies **active in the environmental industry in Belgium has increased by 44%.**

At the same time, the turnover of this sector has risen by 22%, and the number of jobs has soared by 40%.



Belgium has established a **framework for Business Clusters to facilitate development**. These clusters aim to provide better knowledge between members and with a view to knowing the environment of the concerned area of activity, updates of technical and commercial issues providing thematic seminars, to strengthen the commercial links between members and allow an innovative capacity and higher competitiveness to be reached.

The clusters seek to develop partnerships in the fields such as the production of **goods and services, research-development or commercial approaches creating new activities**. The framework promotes the region internationally with a view to strengthening the appeal to foreign investors and their participation in specialized trade fairs. The Clusters help members to share knowledge and exchange good practices and strengthen the synergy between the activities of the business cluster and those of other forms of enterprises.

According to the Brussels Times (2019), **Belgium is Europe's SME country** according to the Director of UNIZO. According to SME Lead (2020) a report by business intelligence provider Graydon **suggested small business in Belgium are enjoying their most successful period for ten years**, despite seven months of political uncertainty.

However, a minority of SMEs are in serious trouble and run a considerable risk of bankruptcy, Graydon notes. **In Wallonia and Flanders, about 10% of small and medium-sized businesses are in that situation, but in Brussels, the figure climbs to 20%**. Euractiv (2020) say that according to estimations by Belgian bank Belfius based on a survey of 19,000 companies, up to 30.8% of Belgium's small and medium-sized enterprises may not survive the COVID-19 crisis if the current measures to combat the pandemic continue.



NATIONAL CONTEXT – Bulgaria

The Bulgarian economy is **highly dependent of the SMEs performance**. The data for 2018 shows that €19.6 billion is the total value added is due to SMEs business operations which equals to 65% share of the total value-added in Bulgaria.

In 2019 in Bulgaria, the **419 681 operating on the market Non-Financial Enterprises, 418 922 of which have employed under 250 employees (one of the classification criteria of SMEs)**. The biggest share has enterprises with less than 10 people employed - 388 980 in total.

The SMEs have **employed 1,652,870 people in 2019 which is almost 75% of the total Bulgarian employment**. These figures make SMEs extremely important for Bulgarian economic performance.

The SBA Fact Sheet 2018 – 2019 suggests that in terms of Environmental indicators the SMEs in **Bulgaria perform below the EU average on the environment principle**. There is a 6-percentage drop since 2015 of the shares of SMEs that have been implemented resource-efficiency actions due to public support measures. An increased is observed in the share of SMEs who has received public support for the production of green products (9% for the period 2014-2018), but still, Bulgarian SMEs have one of the lowest proportions among EU states for offering green products.

The Eco-Innovation reporting also states that Bulgaria performs almost 3 times below the EU average. A high number of organizations per population, however, have been ISO 14001 registered. All resource productivity indicators mark an extremely low score index which is concerning observation and shows that the main activities in Bulgaria for SMEs concerning the environment should be directed for the promotion and implementation of such practices.



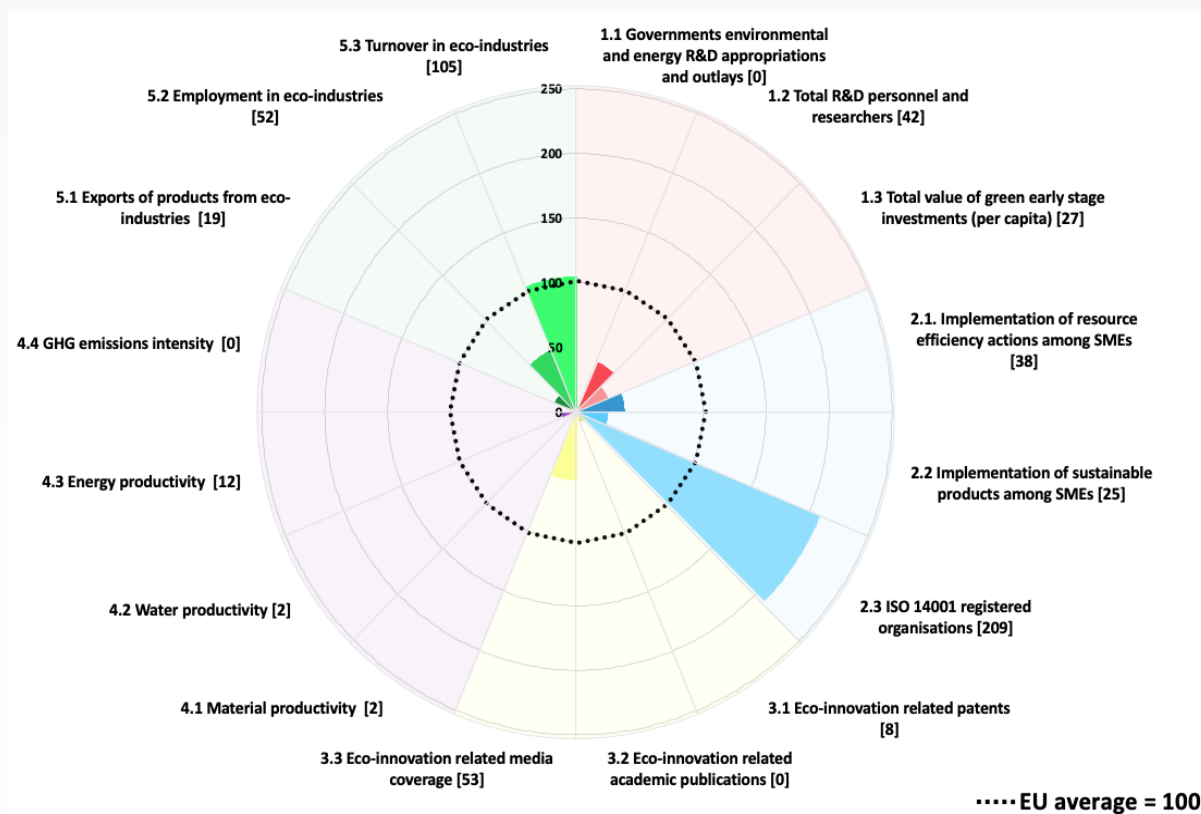


Diagram: https://ec.europa.eu/environment/ecoap/bulgaria_en



The Bulgarian Ministry of the Environment and Water is promoting and managing the **voluntary certification by EMAS**. The EU Eco-Management and Audit Scheme (EMAS) is a European commission management instrument for companies and other organizations which aims to evaluate, report, and improve their environmental performance. Between **2013-2020 15 Bulgarian companies have been successfully certified**.

As well **ECOLABEL** which aims in the promotion of products with reduced environmental impact and in informing consumers with accurate and scientific information about products that they choose to use is announced by the Ministry, but there are no direct actions for deeper implementation or promotion undertaken.

Under the Bulgarian Ministry of Economy is established the **Bulgarian Small and Midsized enterprises promotion agency** (BSMEPA), which main aim is providing support to Bulgarian enterprises for their stable development, successful integration into the European and world economy and expanding their presence on target markets. The BSMEPA has focused its efforts **on developing a digital platform to provide broad opportunities for the Bulgarian enterprises to establish interactive contact with their potential foreign partner**. The agency provides also consultancy and informational services to SMEs and focuses on their internationalization.

The **access to financing for the Bulgarian SMEs is highly dependable on the EU structural funds** and The Financial Mechanism of the European Economic area – Norwegian Financial mechanism.

Under Operational Program Environment 2014-2020 under the European Regional Development Fund, Bulgaria has focused on the following Priority Axes: Water, Waste, Natura 2000 and biodiversity, Flood and landslides risk prevention and management. None of this axis focuses on SMEs directly as beneficent.



However, under the Operational Program Innovations and competitiveness, the priority axe Energy and Resources efficiency has created a special Procedure – Energy Efficiency for SMEs.

The procedure has had 68 SMEs as beneficent in 2017. During 2018 and the first quarter of 2019, no significant new measures were announced in term of supporting SMEs in their environmental principal performance.

Due to COVID-19 pandemic, the indicative programs for Operational Program Innovations and competitiveness were changed to redirect the available funds under the 5 axes for overcoming the economic consequences of COVID-19.

The main program supporting the innovation of SMEs is under the Norwegian Financial Mechanism. The second call of Project Proposals of the Business Development, Innovation and **SMEs Program Bulgaria**, focus area “Green Industry Innovation” has been closed on 30th of September 2020. The first call closed on 21st of March 2019. The program aims to support the implementation of innovative technologies, processes and services, Sustainable business development, Greening of existing businesses and processes and Development and implementation of innovative products and services. **The aim is 75 % of the program budget which has a total value of € 28,500,000, to be allocated to small and medium-sized enterprises.**





List of references:

https://ec.europa.eu/growth/smes/sme-strategy/performance-review_en

<https://www.nsi.bg/en/content/8237/employed-enterprises>

https://ec.europa.eu/environment/ecoap/bulgaria_en

<https://www.moew.government.bg/en/prevention/emas/register/>

<https://www.moew.government.bg/en/prevention/eu-ecolabel/legislation/>

https://www.sme.government.bg/en/?page_id=2001

<http://2020.eufunds.bg/en/6/0/PriorityLines>

<http://2020.eufunds.bg/en/5/0/Project/Search?Prior=%2FaWurOrQh9Q%3D&Proc=%2BP8WkA18Nv0%3D&ShowRes=True&IsProgrammeSelected=False&IsRegionSelected=False>

<https://opic.bg/news>

<https://www.innovasjon Norge.no/en/start-page/eea-norway-grants/Programmes/business-development/Bulgaria/>



NATIONAL CONTEXT – Cyprus

The economy of Cyprus **relies heavily on small and medium-sized enterprises**. A staggering number of enterprises in Cyprus (99.9%) have fewer than 250 employees and 95% of these SMEs are employed by less than 10 people. According to Statista, the total number of SMEs in Cyprus, in 2018, was 55,1722. Therefore, it is not surprising that SMEs provide more than 75% of the total value of the island's economy, excluding finance.

Information retrieved from the Cyprus-SBA Fact Sheet (2019), suggests that in relation to the environment **Cyprus performs substantially below the EU average**. More specifically, the number of SMEs that benefited from public support in terms of resource efficiency **has decreased by 54% since 2016**.

The report states that the number of SMEs in Cyprus that receive public support to produce green products is **one of the lowest in the EU**. On the other hand, it is reported that Cyprus has one of the highest percentages **of SMEs that have more than 50% of their turnover generated by green products or services**.

Contact was established with the Ministry of Agriculture, the Cyprus Centre for Environmental Research and Education and the Federation of Employers & Industries in Cyprus in order to find out whether there are any environmental/sustainability laws or any type of national legislation for SMEs. The information retrieved indicates that **the only national legislation established for SMEs in Cyprus is related to waste management**.

The Packaging and Waste Packaging Law (L.32(1)/2002) was established in April 2002. According to this national law **any manufacturer or importer of products who places packaging into the market is obliged to recover and recycle a percentage of this packaging**.



There are **no official regulations for SMEs**, hence why most businesses in Cyprus pay to get certified with ISO 14000. ISO is an independent, non-governmental international organization which provides businesses with an environmental management system. Being certified with ISO 14001 means that a business has an official Environmental Management System which allows it to be successful without neglecting its environmental responsibilities and its impact on the environment 5

According to the Eco-Innovation Observatory report for 2018-2019, policy and funding measures and mechanisms for promoting eco-innovation **in Cyprus highly depend on co-financing through the EU structural funds**. SMEs in Cyprus are not supported in ensuring energy and environmental regulatory compliance as there is no green public procurement as part of the procurement policy in Cyprus (Cyprus - SBA Fact Sheet, 2019).

Nevertheless, the government has encouraged **SMEs to voluntary become certified by the Commission's eco-management and audit (EMAS) scheme**. The EU Eco-Management and Audit Scheme (EMAS) is a European commission management instrument for companies and other organizations which aims to evaluate, report, and improve their environmental performance.

During 2007-2017, **582.600 euros were provided to SMEs in Cyprus to implement EMAS**. Funding for consultancy services is also included under the EMAS system. In addition, the Cypriot government promotes the ecological scheme ECOLABEL which aims in the promotion of products with reduced environmental impact and in informing consumers with accurate and scientific information about products that they choose to use.



Other initiatives taken by the Cypriot Government:

- The Scheme for **“Promoting Saving and Upgrading in Business”** is co-financed by the Republic of Cyprus and the European Regional and Development Fund in the framework of the operational program “Competitiveness and Sustainable Development” 2014-2020. The objective of the scheme is the energy upgrade of large-scale building installations which are owned by SMEs by insulating the shell of the buildings, installing renewable energy systems for heating / cooling and electricity saving systems. The total funding is €15,3 mil and the maximum **amount of funding per SME is 200,000**.
- In January 2018, an **Action Plan to Strengthen the Social Enterprise Ecosystem** (Σχέδιο Δράσης για την Ενίσχυση του Οικοσυστήματος των Κοινωνικών Επιχειρήσεων) was announced by the Cypriot Ministry of the Interior. The action plan is in line with the national policy statement for enriching the Cypriot entrepreneurial ecosystem, agreed in 2015, and sets goals to develop the entrepreneurial environment in Cyprus. The main aims of the plan are to create a social entrepreneurship culture, support SMEs access to finance and to overall create an ideal business environment (Cyprus - SBA Fact Sheet, 2019).
- The **“Scheme for the Enhancement of Youth Entrepreneurship 2nd Call”** was introduced by the Ministry of Energy, Commerce, Industry and Tourism of the Republic of Cyprus in order to support and encourage entrepreneurship for young people between the ages of 20- 40, who wish to develop an enterprise in the sectors of manufacturing, services, tourist activities and e-commerce. Emphasis is given in the development of new technologies, in the use of innovative methods of production and promotion of products and services, and in companies that prioritize environmental protection.



- The **Cyprus Entrepreneurship Fund (CYPEF)**. CYPEF is a fund created by the Republic of Cyprus to support and reinforce entrepreneurship by providing SMEs in Cyprus with access to funding. The financing is made available to the Cypriot government by the European Investment Bank (EIB). Almost all enterprises and self-employed entrepreneurs under the Cyprus social insurance scheme can have access to this fund.

List of references:

https://www.researchgate.net/publication/326566637_Internal_CSR_practices_within_the_SME_sector_in_Cyprus_from_the_employees'_perspective_-_challenges_and_prospects

<https://www.statista.com/statistics/878752/number-of-smes-in-cyprus/>

<https://www.cyprusprofile.com/articles/cyprus-smes-provide-75-2-of-total-value-added-generated>

[http://www.moa.gov.cy/moa/environment/environmentnew.nsf/All/F2DD126BB44553B6C225802F003AB309/\\$file/N32\(I\)2002.pdf](http://www.moa.gov.cy/moa/environment/environmentnew.nsf/All/F2DD126BB44553B6C225802F003AB309/$file/N32(I)2002.pdf)

<https://www.iso.org/standard/60857.html>

https://ec.europa.eu/environment/ecoap/sites/ecoap_stayconnected/files/field/field-country-files/eio_country_profile_2018-2019_cyprus.pdf

<http://www.mcit.gov.cy/mcit/sit/sit.nsf/32177ee11d0d6003c225816f001d4b05/a b7a6b03df68044bc225819200419072?OpenDocument>

<http://www.gov.cy/mcit/sit/sit.nsf/32177ee11d0d6003c225816f001d4b05/993590539bd6cdc0c22581f300316f3e?OpenDocument>



Co-funded by the
Erasmus+ Programme
of the European Union

NATIONAL CONTEXT – Greece

Greek SMEs are one of the main drivers of the country's financial and non-financial business performance. They represent 99.9% of the total private sector and latest data show that the overall financial outcome of SME's is positive with a **percentage growth of 21.3% in value added and 13.1% in employment during 2018-2020**. Numbers have changed since the first quarter of 2020 due to the Covid-19 situation and its implemented measures.

Additionally, SME's have been challenged over the past decade because of the financial crisis which had a profound impact on the Greek economy since 2010.

Based on the EU Environmental Implementation Review (EIR) **2017 Greece has not implemented sufficiently the EU environmental policy** and has not managed to address waste management issues within the country, to improve nature protection by applying a protection system, raising citizens awareness, investing sustainably and completing the implementation of the Urban Waste Water Treatment.

More specifically **Greek SMEs are responsible for the 15-20% out of the total carbon dioxide (CO2) emitted by taking also into consideration their energy consumption**. This mainly occurred due to the inadequate financial and educational support towards Greek SMEs.

Furthermore, due to the continuous economic recession SMEs in Greece have faced a **rapid decline in employment** as a direct and visible result but also the "lack of liquidity" as the private sector is unable to support them financially. Other challenges faced by the SMEs are **low adaptation capacity** to business initiatives and EU initiatives exploitation because of no present strategic business choices to organize the production and marketing activities (lack of educational and financial investments on R&D and ICT) but also due to **reduced competitiveness**.



The proportion of SMEs benefit from public support measures for their resource-efficiency actions as recovering from the crisis and heading towards becoming more innovative in cooperation with the public sector and business associations. More specifically **27% of the companies appreciate technical and financial consultancy among all Greek SMEs and find grants and subsidies supportive.**

SMEs in Greece have altered their operating procedures over the years in taking advantage of resources based on national Laws and regulations that regulate companies to adapt to the Circular Economy package and SBA policies. According to the SBA fact sheet 2019 even **though Greece has one of the highest shares of SME's offering green products and services but are not provided with the appropriate support to improve their energy efficiency and use of renewables, still continue to score below the EU-28 average in the environmental aspects of the SBA.**

Piraeus Bank in association with the European Commission and more specifically with the General Directorate of Environment established the LIFE program.

The LIFE program was initiated in order **to establish green practices and initiatives** which can be adopted by every enterprise that desires to become greener. This program supported by WWF aims to promote this mentality to SMEs in order to decide to adopt environmental policies and enjoy other advantages than becoming greener.





These advantages are:

- Reputation: Companies or enterprises that have a green mentality create a much more positive marketing image especially nowadays when consumers have a different perception, therefore for SMEs to turn greener gives them the opportunity to upgrade their reputation.
- Competitive advantage: By adopting green practices, SMEs do not only create a better reputation but become more competitive in the market. This is achieved by obtaining certifications and applying systematic environmental principles which result in cooperation opportunities with new customers.
- Saving money: Wise use of natural resources in accordance with a systematic approach for reducing environmental impacts results in significant financial benefits.



NSRF 2014 – 2020: National Approved Projects

Thematic Objectives	Budget (€)	Contracts (€)	Payments (€)
Research – Technology and Innovation	733,665,557	576,859,104	168,900,729
Information Communication Technology (ICT)	1,528,242,859	883,685,071	315,657,123
SMEs Competitiveness	7,033,377,229	6,778,312,749	3,739,848,199
Low Pollution Economy	5,109,899,937	2,890,926,680	1,509,556,027
Climate Change - Precautions	577,418,491	305,522,683	149,694,020
Environmental Protection	4,799,644,167	2,118,797,410	1,166,945,903
Sustainable Transport	4,263,222,204	2,354,286,992	1,304,189,908
Occupation	2,874,217,700	2,425,074,260	1,406,307,096
Social Integration	2,715,581,752	2,286,786,445	1,299,194,651
Lifelong Learning	3,244,086,564	2,930,568,401	1,032,568,403
Public Administration Reform	381,303,146	253,984,136	121,091,714
No Objective	727,336,967	652,740,626	404,536,600



According to the latest NSRF public results **13 multivariate and multisectoral Peripheral Projects apart from sectoral programs are co-funded by Greece and the EU for the period 2014-2020.**

Each and every one of the Greek regions is part of a Peripheral Project which includes regional projects and actions and takes advantage of the regional benefits and is funded by the European Regional Development Fund (ERDF) and the European Social Fund (ESF).

Their common objective is the regional and local authorities' empowerment to act effectively according to the NSRF main priorities. Greek SMEs were funded by the thematic objective "SME's competitiveness" which also covers SME's actions towards protecting the **environment but the NSRF funded actions for producing green products and sustainable energy consumption.** Furthermore, the Peripheral projects included the "Environmental Infrastructure" action with a total expenditure of 40 million euros with an intermediate management body, the Special Service for Management and Implementation of Industry, Trade and Consumer Protection (EYDE-BEK).

The action concerned the project financing for the **business utilization of waste invested by new and existing SMEs.** This aimed for the produced waste to be treated accordingly and be re-entered into the production cycle and reused as raw materials to serve again either their original use or other uses. 69 investment projects with a total budget **of 88,523,545.70 euros were submitted with a total public expenditure reaching 40,265,989.03 euros.**



NATIONAL CONTEXT – Ireland

The economy of (the Republic of) Ireland is **an open, highly developed knowledge economy, focused on services in high-tech, life sciences, financial services, and agribusiness, including agri-food**. Even though the country's economy is considerably directed towards the multi-national sector and ranks high in foreign direct investment, **the SME sector is of substantial significance to the Irish economy**.

At 12.5%, Ireland **one of the lowest corporate taxation** rates attracting numerous foreign companies to locate there and set up an operation. More than 1000 multinational companies have strategically chosen Ireland as their European base due to its low corporation tax rate.

Latest data (2017) on Gross Value Added (GVA) generated by foreign-owned enterprises shows that Ireland had the highest percentage in the EU28 at 62.8%, way above the EU-28 average at 26.1%, followed by Hungary, Slovakia, and Romania.

SMEs (below 250 employees) dominate the Irish economy, thus consisting a critical pillar of the Irish economy; 2018 data from Central Statistics Office in Ireland demonstrate **that 99.8% of total number of enterprises in Ireland in were considered SMEs (containing micro-, small, and medium SMEs). – or 70.1% of total employment** in the 'non-financial business economy. In addition, SMEs in Ireland engage 67.5% of all persons in employment.



Corporate VAT cuts in Ireland was a measure to deal with the five-year economic crisis that hit the country in 2008. The attraction of large multinational corporations—like Google, Microsoft, or Pfizer—who used Dublin as a base for their European activities, was the main reason behind the economy’s recovery in 2013.

In the latest years, Ireland resembles more of a mature – economically speaking – country in the EU, **and remaining a small open economy makes the Irish economy highly vulnerable to global crises such as the coronavirus pandemic.** Next Generation EU is the largest package ever financed through the EU budget to help Europe recover the latest crisis. Reflecting the Commission’s European Green Deal roadmap for a sustainable economy, it aims to help Post-COVID-19 Europe be greener, more digital, more resilient, and better fit for the current and forthcoming challenges.

The development of the green economy can make a significant contribution to restoring Ireland’s economy to growth by creating employment and export opportunities in green enterprises. It can also help existing companies in all sectors to improve their competitive position through adopting innovative environmental goods and services.

Sustainable development has been a priority in Ireland long before the 2008 financial crisis and the 2020 coronavirus epidemic; “Sustainable Development: A Strategy for Ireland was published in 1997”.

Towards this direction, Enterprise Ireland, the government agency responsible for the development and growth of Irish enterprises in world markets, has produced a very useful document, **First Steps to Green Competitiveness Guidebook**, which aims to help companies **understand how managing environmental impacts** and producing an Environmental Policy Statement can be beneficial to them. The guidebook includes practical and easy to use assessment tools for water, energy, noise, air, storage and wastes.



Enterprise Ireland has also initiated a Green Business Offer, made up of three levels of support for the Irish companies, **so as they incorporate sustainable practices into the day-to-day running of their business**. The benefit is expected to be multi-level towards improved resource efficiency and direct cost savings but also towards an increased access to customers who are increasingly demanding more environmentally friendly products and services.

Through the Green Start assignment, companies can apply for grant support towards the cost of hiring a Green consultant/trainer to undertake a short in-company assignment, whereas the **GreenPlus** is a medium-scale training project facilitated/supported by an external environmental expert.

Enterprise Ireland also acts as an information point, so as Irish companies can find useful links to other supports, training, and information in:

- Energy
- Water
- Waste / Circular Economy
- Climate Action & Sustainability
- Construction sector
- Food sector
- Free Carbon/Environmental Footprint Calculators and Tools
- Recent Guidelines/Standards
- Investors / Stakeholder disclosure platforms
- Irish Associations/Organizations/Platforms
- EU, UN & International Agencies/Organizations.



In addition, the Sustainable Energy Authority of Ireland (SEAI), Environmental Protection Agency (EPA) and Enterprise Ireland (EI) **all offer a variety of environmental supports to Irish businesses.** These supports include everything from guidance documents and tools to free one-on-one consultancy, nationwide workshops, and financial grants. In more detail:

- SEAI runs a dedicated service for small, medium, and micro business in Ireland. This includes the following key offers:
- Free Advice and Mentoring to help you reduce energy usage, cut costs, and benefit the environment.
- Small Business Training for companies with an annual energy spend of less than €100,000.
- Energy MAP Training for companies with an annual energy spends of more than €100,000. Energy MAP is an online tool which provides a step-by-step guide to creating a best practice action plan for your business.
- Case Studies to see what other companies are doing to save energy and reduce costs.
- Quick Wins by sector and technology to help you start saving money straight away.

Green Business is a free and confidential resource efficiency service for all types of SMEs in Ireland, funded by the Environmental Protection Agency (EPA) under the National Waste Prevention Program, with the objective of delivering substantive resource efficiency improvements and cost savings, through waste prevention and reductions in water and energy consumption. Enterprises can request a free site visit carried out by experienced Green Business advisors.



A customized recommendations **report for resource efficiency savings** is then produced. Green Business also runs free events and workshops all over the country and, in its resources section, offers a wealth of guides, reports, videos and case studies on everything from resource efficiency to eco-design to life cycle management to green procurement. They are also connected to the Green Hospitality program, which is focused on the travel and tourism sector.

SMILE Resource Exchange is a free service for businesses that encourages the exchanging of resources between its members to save money, reduce waste going to landfill and to develop new business opportunities. Potential exchanges are identified through free networking events, a free online exchange facility and a support team to assist throughout. At SMILE networking exchange events and through the website, businesses can identify resources they would like to exchange such as reusable items, by-products, and surplus products. All resources offered are either free of charge or below market value.

GreenStart: The GreenStart program is designed for SME companies only. It aims to increase the level of environmental awareness relating to regulatory compliance and help with the development of a basic management system in companies which do not have in-house expertise or have conducted limited environmental activities to date. An increase in environmental performance can help companies reach a level where they can achieve competitive advantage through greater resource efficiency (energy/water/waste costs) and greater market share through enhanced credentials.

Envirocentre: This website offers several free-to-access databases and tools, such as the one of environmental legislation.





List of references:

<https://www.cso.ie/en/releasesandpublications/ep/p-bii/businessinireland2018/smallandmediumenterprises/>

<https://journals.openedition.org/etudesirlandaises/4730>

<https://www.enterprise-ireland.com/en/Productivity/Build-a-green-sustainable-Business/>

SMEs Resources and Tools: Environment in <https://www.bitc.ie/resources/smes-resources-and-tools/smes-resources-and-tools-environment/>



NATIONAL CONTEXT – Spain

Spanish SMEs are a fundamental pillar in the economic development of the country, since they represent the 99,98% of the country's business fabric, generating 70% of employment, representing over 62% of Gross Value Added and 66% of total business employment.

The role of these small and medium sized enterprises is considered as a key factor in the sustainable development and the prosperity of the territories, offering income opportunities, generating employment, formation and professional career development. The sustainable development opens doors to new markets, promotes innovation and improves reputation.

The application and support of green economies is an economic and an environmental priority not only for SMEs but also for Spain. Efforts are being made to raise the level of implementation of Social Responsibility in companies, as a set of economic, social and environmental commitments adopted voluntarily by companies and which constitute an added value to the fulfilment of their legal obligations, advancing in a type of company which generates quality employment and is committed to lifelong learning, the reconciliation of personal, family and working life, and equal opportunities between men and women, among other aspects. (Gobierno de España, 2019).

From Spain, the aim is to get SMEs to turn environmental challenges into opportunities. In recent years, concern for the efficient use of resources, economic, social and environmental sustainability, in other words, in the creation of sustainable growth and employment, has gone further and the concept of the "Circular Economy" has been coined.



This concept is situated at **the intersection of economic and environmental aspects as it is a matter of maintaining the value of natural resources** in the economy as long as possible, making efficient use of them, while minimizing the generation of waste, improving their management and promoting the reincorporation of materials. Thus, the aim is **to change the production and consumption model**, from linear to circular, as has been developed in recent years by both the Spanish and EU governments. In this way, Spain is committed to the EU's efforts to develop a resource-efficient, competitive and sustainable economy that will also contribute to reducing GHG emissions. (Gobierno de España, 2019).

As mentioned, micro, small and medium **enterprises account for 99% of the Spanish business fabric**. The Epson report states **that only 20% of the country's SMEs are in favor of making improvements and investments in environmental matters**. With this, apart from saving water or paper, some global agreements, such as Agenda 2030 and its **Sustainable Development Goals**, serve as a reference in terms of carrying out sustainable practices within the company. In this agreement, Spanish companies have ceased to be mere spectators and have become essential partners in curbing global warming.

Despite the important role they play, **78% of Spanish SMEs are not aware of the 2030 Agenda or are only superficially aware of it**. (Cinco Días, 2017).

Over the last few years, the **integration of sustainability into the business strategy of Spanish SMEs has become a priority issue**. The ten principles of the Global Compact and the Sustainable Development Goals have functioned as a framework to identify the **different areas of action**, the strategies to be implemented and the new challenges. Sustainability is a major challenge for small and medium-sized enterprises and progress is increasingly evident. Although large companies are advancing at a **fast pace in terms of sustainability**, the commitment and achievements of Spanish SMEs are becoming more and more significant. The environmental area represents a great challenge for small and medium-sized companies due to the limited human and economic resources available to them. (Gobierno de España, 2018).



The 2030 Agenda for Sustainable Development, adopted in September 2015 by the United Nations, it is **intended to be an instrument for the fight for sustainable development in the social, economic and environmental fields**. A universal action plan in which 17 goals and 169 targets are defined. The Spanish network of the Global Compact, the General Council of Economists of Spain and the Spanish Confederation of Small and Medium Enterprises presented a guide for SMEs to the SDGs, with the aim of contributing to the 2030 Agenda and generating alliances linked to the goals. The aim is to ensure that SMEs obtain economic benefits under the principles of sustainability. Sustainability should be a very important part of the business strategies of SMEs, not only because of their ethical commitment, but also because of the opportunities they can find, such as cost and tax bill reduction, new business opportunities, improved reputation and competitiveness, among others. (Gobierno de España, 2018).

The role of the business sector in the development and implementation of the SDGs is very important for its implementation. **The Spanish private business sector recognizes the need to foster partnerships and increase the mobilization of public and private resources towards the financing of the 2030 Agenda.**

In addition, they are committed to incorporating the SDGs into business strategies, always observing compliance with international regulations. By aligning core business activity to the SDGs, companies are conducting impact diagnostics across the **value chain and establishing priority focuses for action and indicators to measure progress**. The Spanish private sector is aware that for a more effective implementation of the SDGs within the Spanish business sector, several improvements are needed and they have made several contributions.



Among these contributions, we can find the **integration of a business culture** linked to the SDGs in all activities and operations of the company to transfer it to stakeholders, the outlining of alliances between different parties to develop joint solutions to the SDGs, disseminating resources that facilitate the contribution and communication of progress on the SDGs, developing a national sustainable development strategy and adopting stable policies and legal frameworks aimed at sustainable development, launching awareness-raising campaigns to raise awareness of the SDGs among the Spanish business sector and the Spanish population as a whole, incorporating sustainable criteria in public procurement and granting incentives to companies that adopt sustainability criteria aligned with the SDGs. (Gobierno de España, 2018).

With regard to the SDGs, Spanish SMEs adhering to the **Global Compact** are making positive progress in their contribution to the 2030 agenda, committing themselves more and more to the different goals linked to their activities. In the context of the health and economic crisis as a result of COVID-19, it is important for companies to prioritize their **commitment to sustainability**, as it currently represents a tool for organizations to build and adapt their business models to unexpected changes or crisis situations, thus ensuring their resilience and stability over time. (Gobierno de España, 2018). In a recent study by McKinsey, he reflected that of the more than 85,000 companies that have been destroyed since February by the coronavirus situation, 83% are small businesses with fewer than five employees. This destruction of businesses comes from before.

Spain **has lost more than 100,000 businesses in one year between August 2019 and 2020**, that is, almost 7 per cent of the total. According to the Bank of Spain, 25% of Spanish companies are in a situation of technical bankruptcy and, according to the aforementioned McKinsey study, 55% in economies such as Spain or Italy are doomed to closure in September 2021 if the current measures to combat the pandemic continue and 70% would close if things worsen. (Daniel Lacalle, 2020).



NATIONAL GREEN INITIATIVES - Belgium

Belgian policy to promote innovative entrepreneurship and innovation activities in SMEs is largely designed and delivered at the regional level through three regions, the Brussels-Capital Region, Flanders and Wallonia. The following initiatives indicate some examples of this.

A new center of competitiveness for Wallonia: The Walloon government decided to devote a new 'center of competitiveness' to new environmental technologies. Wallonia is deploying economic tools to seize this opportunity, focusing in particular on start-ups, spin-offs, very small enterprises (VSEs) and SMEs in industries in the environmental sector and also on training in professions within these areas of activity. In addition, three green clusters (Eco Construction, Tweed and Waste) are already active in Wallonia (<https://clusters.wallonie.be/federateur-en/the-walloon-business-clusters.html?IDC=36&IDD=250>).

Environment and Sustainable Development



CAP 2020 is the Walloon network of sustainable construction. It brings together all types of construction actors: architects, design offices, contractors, installers, producers and materials suppliers, real estate developers, research centers and training, associations. Together, members work together to promote sustainable construction, acquire new skills and develop their business.



Eco-construction is a network of companies that aim at building while taking into consideration today's environment and the one of future generations while offering a maximum of comfort to the inhabitants. It gathers architects, infrared thermography and electromagnetic pollution specialists, builders, companies active in the green renovation sector, manufacturers, green building materials suppliers and green electricians, companies active in the field of renewable energy, building contractors specialised in water treatment by lagooning, natural pools installation, rainwater treatment and recovery,...



TWEED cluster (Technology of Wallonia Energy, Environment and sustainable Development), is the Business Cluster gathering entities active in the "sustainable energy" sector, which means renewable energy sources, energy efficiency: the implementation of new processes in order to achieve energy savings, energy efficiency or the reduction of greenhouse gas emissions, green products and services.



Co-funded by the
Erasmus+ Programme
of the European Union

Developments in Brussels:

- The Brussels-Capital Region also has **an environmental technology center**, which provides Brussels-based companies with assistance on all aspects of environmental protection, ranging from air, water and soil purification to biotechnology and training.
- **BrusselsGreenTech** (<https://www.circlemade.brussels/en/>) was founded in 2018, with Circlemade as the Brussels network for circular economy pioneers. It is an organization of cutting-edge companies, public institutions and experts. It monitors, informs, supports and mobilizes to drive innovation which boosts the development of the regional circular economy offering and maximizes the impact of its members' initiatives. Members commit to cooperating to develop innovative circular solutions together.

Coopcity: Coopcity is the center for social, cooperative and collaborative entrepreneurship in Brussels. Coopcity **supports Brussels entrepreneurial initiatives with high added value for society and is particularly interested in the needs of emerging collective projects.** Their approach is based on cooperation, commitment offering the best resources to materialize and develop Brussels social entrepreneurship projects, creativity and the continuous improvement of services, trust having full confidence in the professionalism of the partners, in the strength of the collective and in the ability of the people of Brussels to become entrepreneurs of change.



The Greenbizz initiative: Greenbizz is a business incubator in the economic sectors of sustainable energy and the environment. It offers reception, hosting and support infrastructure for managers of environmental projects with the incubator boasting 7,500 m² of incubation, pre-incubation, prototyping and pre-production spaces at the heart of Brussels' green and circular economy ecosystem, offering opportunities to develop business networks and grow business. It is a 4-hectare space dedicated to the development of environment-conscious enterprises. Greenbizz is the first sustainable economy incubator in Brussels. Launched in 2016, the initiative is one of several strategies employed by the Brussels-Capital Region with the goal of making Brussels a more sustainable city.



Greenbizz is part of a large-scale urban development called TIVOLI, funded by the European Regional Development Fund (FEDER) and CITYDEV. The facility is housed in an energy-efficient building made of wood and other sustainable materials. “As a passive building, it is well insulated and doesn’t require a lot of energy for heating. In fact, the building generates more energy than it uses,” says Greenbizz director Jean-Marc Bryskère.

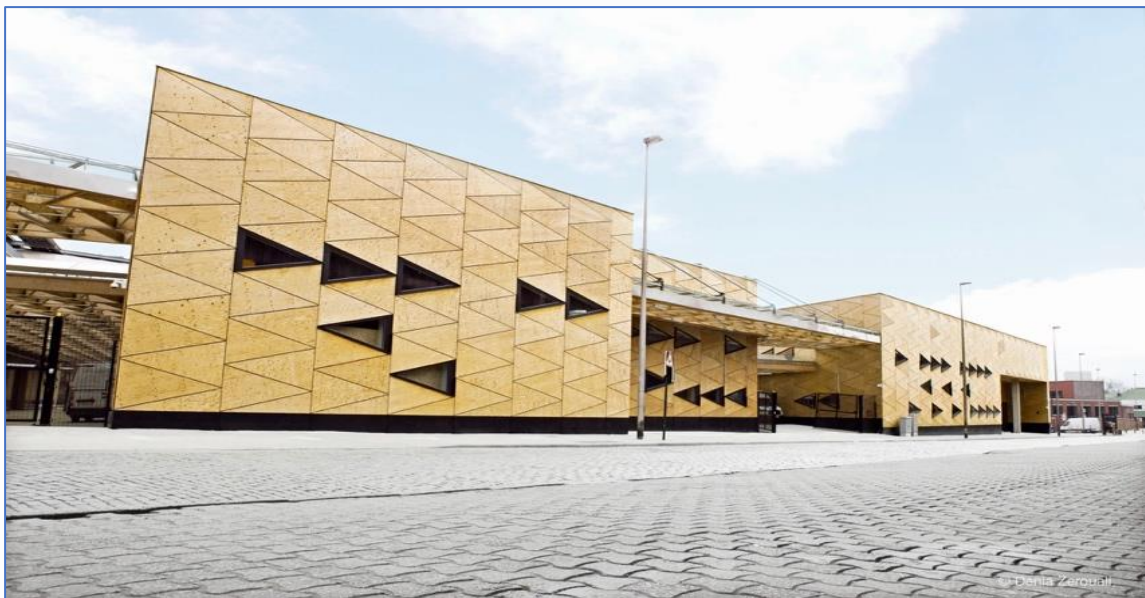


Co-funded by the
Erasmus+ Programme
of the European Union



At present, Greenbizz is incubating about 40 different start-ups. The place has a good feel to it, where people are devoted to the same philosophy and mission of promoting and cultivating socially and environmentally responsible ways of making profit. Greenbizz welcomes entrepreneurs who want to make a more positive impact on the planet. **Greenbizz provides them with work spaces in a stimulating environment conducive to innovation.**

There are production workshops, modular offices and co-working spaces. The Workshops are from 120 to 550 m² (height 6 to 8m) meeting low energy standards, Casco with water - gas - electricity - internet connections – outlets and are adaptable to AFSCA laboratory standards.



There is access by vans and unloading space for trucks. The modular offices provide accommodation for 1- 10 people, in the new passive building, “all in” formula. Greenbizz offers fixed prices including all services in the cost, flexibility in terms of the contract duration and in terms of office space, adapting to the needs of clients.

The co-working spaces provide a flexible format either as full time (24/7) or half-time (20h / week) with a flexi-desk formula in a calm space. The co-working spaces have been approved by Bruxelles Économie et Emploi giving the possibility of benefiting from a bonus grant of up to €450.

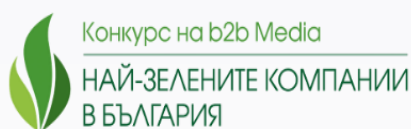
Greenbizz is said to offer **a work environment entirely dedicated to the sustainable economy, with many startups who can exchange**, share and develop business. Privileged contacts with players in the innovative and sustainable economy in Brussels: hub.brussels, Bruxelles Environnement, Innoviris, etc. and access to specialized funding sources.

Greenbizz offers fully flexible production workshops and private offices, 100% equipped meeting rooms and fablab with the latest digital equipment, reception and logistics service: with high-speed internet, telephony, printers, furniture, common areas, bicycle parking with showers.



NATIONAL GREEN INITIATIVES - Bulgaria

Awards for corporate green initiatives:



The greenest companies in Bulgaria (<https://green.b2bmedia.bg/>): is a competition among Bulgarian companies for green innovations and CSR initiatives. The competition is organized since 2010 by 2b2 Media and divides the awards into 30 different categories.

16 of the categories are dedicated to different industries and 14 are categorized based on the time of the green innovation. Each year the companies can apply via an application and receive an evaluation by a special jury. The contest receives high media coverage in Bulgaria.

Green accelerator



Cleantech Bulgaria (<https://cleantech.bg>) is managing and executing Climate-KIC Accelerator in Bulgaria which is Europe's largest green-tech accelerator for early-stage startups.

The program is part of the largest public-private partnership in Europe in the field of climate change. In Bulgaria, during its three editions, the programme has invested in 24 teams which have attracted over 1 000 000 BGN (approx. € 511 296.92) external investment and have launched several innovative products on the market. The accelerator is divided into three main phases. In the first phase a selection panel, the showing potential startups receive up to € 10 000 for business model development, during the second up to 15 000 € for customer validation and first sales. The final stage prepares the startups for investors and provides them with up to € 50 000 for scaling up.



Co-funded by the
Erasmus+ Programme
of the European Union

Coalition Green Restart



The Coalition for Green restart is a union between four major NGOs operation in Bulgaria: Move.bg, Greenpeace – Bulgaria, WWF – Bulgaria and Institute for Circular Economy. Together they develop different policy recommendations for the implementation of the Green deal and Just transition mechanism.

As well they provide in diverse formats education and support to the business to stimulate sustainable operations and to minimize the impact on the environment.



Co-funded by the
Erasmus+ Programme
of the European Union

NATIONAL GREEN INITIATIVES - Cyprus

Organizations and Businesses Awards for the Environment:
<http://kykpee.org/en/envawards/>

The Cyprus Centre for Environmental Research and Education (CYCERE) is the first independent environmental center of Cyprus. CYCERE contributes to environmental conservation by adopting and promoting strategies in environmental education, environmental research and information. Recognizing that SMEs and organizations can have a detrimental effect on the environment, CYCERE, supports and promotes businesses that implement environmentally friendly policies and practices by providing them with environmental awards and recognition.



The Bronze Environment Protector Award is awarded to an organization/business that has drawn up an environmental policy, on its own or in cooperation with CYCERE, and has as a permanent goal to respect the environment.



The Silver Environment Protector Award is awarded to the organization/business, whose main purpose is the protection and rational management of the natural environment, by taking actions that contribute to the environmental consciousness of its visitors/customers.



The Gold Environment Protector Award is awarded to the organization/business which manages environmental issues as an integral part of its operational policy, by establishing practices and actions that preserve the natural environment. In addition, it reduces the consumption of natural resources through the adoption of appropriate best techniques, thus contributing to sustainable development.



Co-funded by the
Erasmus+ Programme
of the European Union

The awards are organized by CYCERE and the Office of the Commissioner for the Environment and are sponsored by the Cyprus University of Technology (CUT), the Association of Employers and Industrialists (OEB), the Cyprus Tourism Businesses Association (STEK), the Organization of Professional Women Entrepreneurs of Limassol.

The Green Cluster (<http://www.greenclustercy.org/>)



The Green Cluster is an initiative established by AKTI Project and Research Centre in Nicosia Cyprus.

The aim behind the initiative was to bring together companies as well as individuals working in the environment and green sector in Cyprus and build a community of small businesses and producers. The main aims of the Cluster are to achieve gender equality, foster collaboration across various economic sectors and develop an inclusive growth concept. The Green Cluster has more than 300 members and its main activities involve identifying opportunities and market needs in the green sector in Cyprus, hosting networking events, and providing online tools such as the Green Cluster e-platform and the web-database of green best practices.

Green dot Cyprus (<http://greendot.com.cy/en>)



Green dot Cyprus is a non-profit organization which was established with the initiative of the local industry and of the Cyprus Chamber of Commerce and Industry (CCCI) as an umbrella organization and is the only Collective Compliance System for Packaging Waste in Cyprus. The Organization was set up on the basis of European legislation under which companies which import or package products in Cyprus, are obligated to collect and recycle a percentage of their packaging. Green Dot Cyprus undertakes the obligation on behalf of its company-members and its members undertake the funding of these procedures. The organization currently provides legal cover to more than 900 companies in Cyprus by collecting and recycling their waste



Co-funded by the
Erasmus+ Programme
of the European Union

Green office certification: (<https://www.togetherycyprus.org/en/green-offices/>)



Green Offices is an innovative environmental quality certification for buildings and offices. The Green office certification promotes, supports and recognizes offices that implement and enforce principles related to energy and water consumption, waste management, environmentally friendly cleaning products and environmental education.

Green Offices is part of the Foundation for Environmental Education, an international non-governmental organization that promotes sustainable development and environmental education worldwide. In Cyprus the national operator of the Green Offices Program is the Environmental Organization CYMEPA. The program is executed in collaboration with the Network of Volunteers Together Cyprus and is sponsored by the Environmental Commissioner.

Small Business Support Program in Cyprus by EBRD

(<https://www.ubaconsultants.com/en/funding-schemes/subsidy-schemes-archive/386-programme-%C2%ABsmall-business-support-programme-in-cyprus%C2%BB-by-ebrd>):

The Ministry of Energy, Trade, Industry and Tourism of the Republic of Cyprus and the European Bank for Reconstruction and Development (EBRD) signed an agreement for the implementation of the “Small Business Support (SBS) Program in Cyprus”. The program is achieved through the provision of grants from the bank to the businesses. It is co-funded by the European Regional Development Fund and aims to help SMEs gain access to know-how, enhance their competitiveness and grow by bringing them in contact with local and international consultants. It was expected that, between 2017 and 2020, the Program would provide assistance to 120 companies in Cyprus and around 100 consultants would receive training. Moreover, 200 entrepreneurs would be involved in mentoring and networking activities and 100 jobs would be created in SMEs



Co-funded by the
Erasmus+ Programme
of the European Union

IdeaCY (<https://ideacy.net/>)



IdeaCY (NGO), founded by the Bank of Cyprus and the Cyprus International Institute of Management (CIIM),

is the first integrated accelerator/incubator program in Cyprus which aims to develop and support innovative and sustainable start-ups with a global outlook and ultimately create employment opportunities to boost the competitiveness of the Cyprus economy. The program targets teams of up to 5 people that want to implement a creative and innovative idea. The Programme comprises of 2 stages, the accelerator phase (3 months) and the incubator stage (6-9 months).

ChrysalisLEAP (<http://chrysalisleap.com/>:[//ideacy.net/](https://ideacy.net/))



ChrysalisLEAP is a Cleantech accelerator in Cyprus which supports entrepreneurs to bring their cleantech ideas to the market. The company provides training, designs, innovation networking events and support to start-ups to get funded.

ChrysalisLEAP is the official organiser of EIT ClimateLaunchpad in Cyprus. ClimateLaunchpad is the world's largest green business ideas competition. The competition welcomes ideas related to renewable energy, sustainable transition in the food chain, a mind shift in urban mobility or any other way to tackle climate change. The 3 best ideas receive a money prize and the top 16 teams gain access to the Climate-KIC ClimateLaunchpad Accelerator, a business school for cleantech entrepreneurs, that provides training on how to transform great ideas into successful businesses.



NATIONAL GREEN INITIATIVES - Greece

Greek SMEs are invited **to adapt to the emerging green direction since Greece embodies many advantages**. Greece is one of the most **geographically gifted** countries in the world as it contains a variety of natural resources that businesses ought to manage sustainably (solar energy, biofuels, etc.). There are available financial possibilities that allow the **internal environment to develop in long-term quality wise both in rural and urban areas** of the country since local and functional systems can enhance the local production, demand of resources, and contribute into removing intra and interregional inequalities.

In 2017 the Greek government enacted a **recycling law that adjusts existing laws and regulations to circular economy principles**. This law states that from the 1st of January 2018 consumers are obliged to pay for the use of plastic bags. Through this new law Greek Municipalities are motivated to reduce residential fees and develop waste management since the waste management carriers will award the Municipalities according to the amount of waste collected and reduce the correspondent fees. Law 4496/2017 aims to firstly reduce waste production, secondly reuse, and recycle biodegradable materials. Additionally, other objectives are the optimization of the **Alternative Management Systems (ALS)** operation. These objectives aim to ground fundamentals for better control and cost rationalization of the respective services and promote economic and environmental investments.



Apart from the enactment of laws and regulations the Greek government **supports equity financing**. More specifically in 2016 a private **equity fund was launched by the cooperation of the government and the European Investment Fund**, which invests in high-value added and innovative early growth stage companies. Furthermore in 2019 the Greek government in cooperation with the Central Bank of Greece and according to the law 4608/2019 established the Hellenic Development Bank (HDB). HDB intends to **improve SMEs access to finance to become more innovative and facilitate investments in infrastructure** by providing shared-risk loans, guarantee facilities and financial expertise to the public sector. HDB deploys a list of new products by using both public and private funds for the support of SMEs and targets projects that affect sustainable growth, regional development, and job creations.

The Athens Chamber of Commerce and Industry applies **a project “Think Green”** which aims to face environmental impacts such as pollution and enhance the environmental consciousness and ecological mentality of SMEs.

The program “Think Green” focuses on Greek SME’s applying **good practices to minimize environmental impacts** from their operations such as waste management. Good practices according to the EEA grants involves all instructions, techniques and methodologies that aim for sustainability, development, profitability, and environmental protection. The idea of applying green practices in Greece especially during the period of economic crisis is followed by the idea of excessive cost for a small or medium enterprise.



However most environmental practices do not always relate to excessive costs but to a change of mentality. Practices such as recycling, wise use of resources towards the environment, using lamps of high energy class have shown that reduce significantly the production costs of an enterprise. On the other hand, practices followed by high costs such as buying high tech equipment are considered to be investments for the long-term profit of the company. The Athens Chamber of Commerce and Industry provided some suggestions on:

- Sustainable Energy consumption
- Renewable Energy Resources Utilization
- Water Management
- Waste Management
- Green supplies
- Supply chain and transport
- Environmental actions

The Development Law 3908/2011 reinforces investments concerning the innovation and application of **green practices such as studies on developing environmentally friendly technologies, know-hows and certification plans on environmental management** for the use of renewable sources, on biofuel production, etc.

The National Strategic Reference Framework (NSRF) 2007-2013

The Guarantee Fund for small and very small businesses provides guarantees on long-term and short-term loans or finances small and very small enterprises that not only show lack of finance access but also a higher risk that middle businesses.



NATIONAL GREEN INITIATIVES - Ireland

The National Policy Statement on Entrepreneurship (NPSE) was launched in 2014 and was designed to cover the five years up to 2019. It set out the Government's strategic objectives as a facilitator within the Irish entrepreneurship ecosystem. Its ambition was to double the jobs impact of start-ups on the Irish economy over the 5 years by:

- Increasing the number **of start-ups by 25%** (3,000 more start-ups per annum)
- Increasing the survival rate **in the first five years by 25%** (1,800 more survivors per annum), and
- Improving the capacity of start-ups to **grow to scale by 25%**.

The Entrepreneurship and Small Business Policy Unit within the Department of Business, Enterprise and Innovation has responsibility to ensure the goals and objectives set out in the Policy Statement are completed and review the progress made in the **entrepreneurial ecosystem**.

Both the Chambers Ireland, as the largest business organization in the State, and Small Firms Association (SFA), called the "**Voice of Small Business**" in Ireland, for businesses with less than 50 employees, have welcome the opportunity to input to the consultation on **the national entrepreneurship policy statement for Ireland**; according to SFA, the policy should drive entrepreneurship in a determined and coherent manner, similar to those that characterized the drive for foreign direct investment in Ireland, so as to harness the necessary resources – both public and private – at national, regional and local level.



However, what really was innovative in the Irish State was **the first-ever Government Policy for Social Enterprise that came in public in July 2019**, which focuses on the social dimension of the enterprises; whose core objective is to achieve a social, societal, or **environmental impact**. These enterprises are just like any other enterprise, but any surplus they record is re-invested into achieving a social impact or improving the environment, rather than towards maximizing their profits. Corporate sustainability and social entrepreneurship have become a solid component of the overall entrepreneurship ecosystem.

Organizations in Ireland such as Social Entrepreneurs Ireland and Social Innovation Fund Ireland provide support to social entrepreneurs and innovators through funding and other measures such as advice, mentoring, training, and networking opportunities. The wider community and **voluntary sector is also highly appreciated in Ireland and continuously offer synergies and support to all organization seeking to deliver on social/societal/environmental objectives for a better society/environment in Ireland.**

Local authorities (Local Community Development Committees) also play a key role in supporting enterprises through initiatives, such as the Social Inclusion and Community Activation Program.

For example, Dublin City Council, through its Economic Development Office, its partnerships, and the Dublin City Social Enterprise Committee, **seeks to encourage and support sustainable and strategic social enterprise and social innovation development in the city, in the form of training, mentoring, awards, resources and promotion of social enterprises.**





49 Local Development Companies across the country deliver community and rural development, social inclusion, and social enterprise services, playing a valuable role in supporting enterprises in their communities through in-house expertise and external funding.

31 Local Enterprise Offices all over the country deliver a range of services offering 'soft' support, such as training or mentoring (for example: Start Your Own Business course).



NATIONAL GREEN INITIATIVES - Spain

The European Union's **"Life Program"** has approved economic aid worth 64.7 million euros for 32 projects and actions to be carried out over the next four years in Spain aimed at protecting nature, the environment and climate change. In the European Union as a whole, this year's resolution approved the Life Program with aid valued at **243 million euros for the development of 142 projects**. (La Vanguardia, 2018).

The Spanish Council of Ministers approved the **"Action Plan for the Implementation of Agenda 2030: Towards a Spanish Sustainable Development Strategy"**, in the preparation of which all the Ministerial Departments, as well as the Autonomous Communities, Local Bodies and organizations representing civil society participated.

The importance of SMEs is clearly reflected in the **Agenda for Change**, aimed at guiding the Government's action in line with the reforms contemplated in the United Nations' Agenda 2030 for Sustainable Development, and which includes such important measures as the Promotion of the Spanish Innovation Ecosystem and support for SMEs, and the Integration of the fight against the gender gap in public procurement tenders, the demographic challenge, the promotion of SMEs or start-ups and innovative public procurement. (Gobierno de España, 2019).

Therefore, the new challenges make it necessary to go one step further in defining a policy specific focus on SMEs that avoids the dispersion that currently exists and that, following the guidelines of the Government of Spain and the European Union, mainly, and others international bodies, set the path for SME growth and competitiveness Spanish. (Gobierno de España, 2019).



The Spanish strategic framework for SMEs that consolidates what has been achieved so far and opens the way to new proposals to strengthen the position of our SMEs in a **changing, global, digitized, innovative and sustainable environment** so that they know how to be attentive to the reality of the markets and adapt to new challenges.

The aim is to define the policy framework for action by Spanish public administrations in the field of small and medium-sized enterprises in the long term, consisting of a set of recommendations that are considered strategic in any policy that has SMEs at its center. **All of this is framed within the Government's Agenda for Change and aligned with the Sustainable Development Objectives, in coordination with other plans and strategies**, either sectoral or of a more transversal nature, both from the General State Administration and from the Autonomous Communities and Local Bodies. (Gobierno de España, 2019).

In recent years, **both the Spanish and EU governments have been developing measures to facilitate and encourage the transition of companies to the circular economy**. Thus, since September 2017 the Spanish government has been working on drawing up a Spanish strategy for the circular economy in line with the European strategy (a package of measures and a European action plan). A Strategy in which Spain, as a Member State, in line with the EU Action Plan for the Circular Economy, is committed to the EU's efforts to develop a resource-efficient, competitive and sustainable economy that will also contribute to reducing GE emissions. (Gobierno de España, 2019).

Spain responds to the mandate to collaborate with local governments and institutions to promote the implementation of the **Agenda at the local level**, which constitutes a fundamental way to disseminate the values and principles of the United Nations and facilitate collaborative partnerships with companies to big scale.



For its part, one of the regions in the north of Spain, the **Basque Country considers the 2030 Agenda an opportunity for the region**, as it coincides with some of its priorities; human development that guarantees essential services to all people and sustainable growth that generates higher quality employment opportunities. The Basque Government takes in this 2030 Agenda for sustainable Development through the adoption of the Euskadi Basque Country 2030 Agenda in April 2018.

An action plan that reflects the degree of alignment and contribution of the government program and the sectoral policies that develop it with the goals and targets linked to the 17 sustainable development goals that will address the main social, economic and environmental problems. (Gobierno Vasco).

Aligning efforts towards the achievement of the Sustainable Development Goals (SDGs) and the goals set by the 2030 Agenda are some of the challenges to which the Basque Country is firmly committed.

The 2030 Agenda offers all levels of government a common language to improve public policies. It also encourages the incorporation of the logic of multilevel governance and respect for the responsibilities of each of the different levels of government.

Among the goals and targets set out in this agenda, from a business and sustainability point of view, two of the 17 goals can be highlighted. On the one hand, **goal 8, which aims to promote sustained, inclusive and sustainable economic growth**, full and productive employment and decent work for all. On the other hand, goal 9; which aims to build resilient infrastructures, promote inclusive and sustainable industrialization and foster innovation. Different plans and actions with the aim of supporting SMEs can be found within this goal. 1) Support the technology and/or innovative SMEs.



Restructuring of companies in difficulties through “Gauzatu Industria” and “Bideratu” programs. 2) Promotion of the competitive transformation companies, through the Advanced Manufacturing technologies and the Industry 4.0 model. 3) Promotion of the different areas like “Margen Izquierda Ría del Nervión”, “Oiartzualdea” and other municipalities with an unemployment rate higher than 20% of the annual average of the Autonomous Community of the Basque Country, through the support of companies that carry out productive investment that entails competitive improvement and economic development (Indartu Program). 4) Encouraging the promotion of economic activities in the regions (Bizkaia Orekan Sakunduz).

Incorporating the SDGs transversally into the action plans of companies is essential to achieve the objectives of the 2030 agenda. To do so, an attempt is being made to involve as many companies as possible with the collaboration of local business clusters through the support from the business development agency of the Basque Government. The materialization of the alliance is taking place through a training program on Agenda 2030 for companies in the region. This program includes both a training and awareness-raising module on Agenda 2030 applied to the business world and an online business management platform that will allow organizations to learn the necessary steps to implement the 2030 Agenda in their activities and processes.





GREEN PRACTICES

The current section provides description of 31 successfully integrated business practices in Belgium, Bulgaria, Cyprus, Greece, Ireland and Spain.



GREEN PRACTICES - Belgium

This research reviews the situation for SMEs in Belgium. It aims to show some successful, implemented examples of companies that focus on greener operations in order to increase the awareness of environmentally friendly transitions.

The research was undertaken initially by an Internet search on the national situation and initiatives. Then attempts were made to contact SMEs operating in different regions. However, due to COVID lockdown it was difficult to reach directors of the companies by phone or email. Of those that responded only one was prepared to conduct the interview online. Therefore a fuller Internet search was undertaken and information extracted from reports and company Web sites.



GREEN PRACTICES - WORKING WITH WOOD

Company name: Wood Harmony

Size: less than 10

Industry: Carpentry and wood refurbishment

Years of Existence: 4

Description of the green practices involved:

Wood Harmony is a carpentry business that creates wood products for indoor and outdoor applications. Their approach is underpinned by a local, environmentally responsible philosophy that we apply at every stage, from design to manufacturing. Our workshop uses cutting-edge wood dust filters. Our projects can optionally be built using wood from sustainably managed local forests. We also offer the possibility of using reused wood and hardware.

Their values are:

- Quality of work: Great attention to detail in all aspects of projects from conception to installation at our customers
- Modern equipment: The equipment is recent. The workshop is installed in "GreenBizz" which brings together companies active in sustainable development.
- Reliability: Open and constructive partnership with our clients in the development of their project.
- Respect of deadlines: They attach the greatest importance to respecting deadlines both for submitting an offer and for carrying out our work



Co-funded by the
Erasmus+ Programme
of the European Union

Wood-Harmony performs all types of work in the field of carpentry and cabinetmaking. They produce from the most classic to the most contemporary, whether for interior or exterior projects. We are also specialized in shutter repair and we are approved by for the installation of fire doors. They make outdoor terraces which are aesthetically pleasant and durable. The materials are carefully selected from local suppliers. The products used are adapted to the project, always with a concern for aesthetics and durability. The company is concerned with green practices through sustainability of products.

Procedures, Activities, Phases

Wood Harmony have an eco-responsible approach. They define themselves as an eco-responsible carpenter-designer. This means identifying the environmental impact of their activity and acting accordingly to limit it. This is to preserve our planet, for future generations and quite simply for its own health and safety.

The actions they are taking are as follows:

- The wood used comes from sustainably managed forests and our manufacturing processes are entirely eco-responsible: wood certified PEFC (Program for the recognition of forest certifications).
- They are responsible purchasing by sourcing wood and materials from local suppliers
- They optimise travel and priority management of local sites
- There is respect for the environment: using glues and natural finishing products
- There is a reduction and management of waste, among others recycling, recovery of used or abandoned wood





- They limit the consumption of non-renewable resources
- The focus on the reduction of nuisances (noise, dust, etc.)
- Renewable energy heating from production waste is used
- The offcuts produced are reused to make decorative and innovative objects
- There is customer orientation towards solid wood or VOC-free (formaldehyde) panels.
- Production is carried out in a shared workshop to have a better rationalization of energy and space.

They are members of a network on "The valuation of our noble waste" (solid wood chips) by making them available for associations in permaculture.

Description of the implementation:

Investments and running costs

Wood Harmony is one of the non-food start-ups at Greenbiz, the first sustainable economy incubator in Brussels. The carpentry business carries out all types of woodwork from classic to contemporary design for outdoor and indoor installations.

Investments have been made in equipment, materials, workshop space in "GreenBizz" a location where SMEs are based that are operating sustainable practices.



Challenges

It's a struggle for most sustainability ventures to make it in the market. "Since sustainable economy is a fairly new sector, it's quite difficult to launch these start-ups. It involves a lot of risk. You have to develop new business models and find new clients, you have to challenge old business practices and traditional ways of consumption," Getting new clients is particularly challenging since sustainable products are more expensive in general. The business of having to look for rarer and more durable alternative materials and solutions that provide environmental, social, and economic benefits all at the same time – is not cheap.

People need to understand that sustainable economy is not particularly less expensive than traditional economy. But it has a huge positive impact on the environment and on public health. It will take time for mentalities to change, but it's happening slowly.

Role of digital technologies

Digital technologies are used for marketing and for design purposes.

Results of implementation

The company has established a unique selling point for its products.

Description of the communication:

-Internally (towards the employees): All employees are responsible for sustainable actions.





Externally: Web site, Facebook.

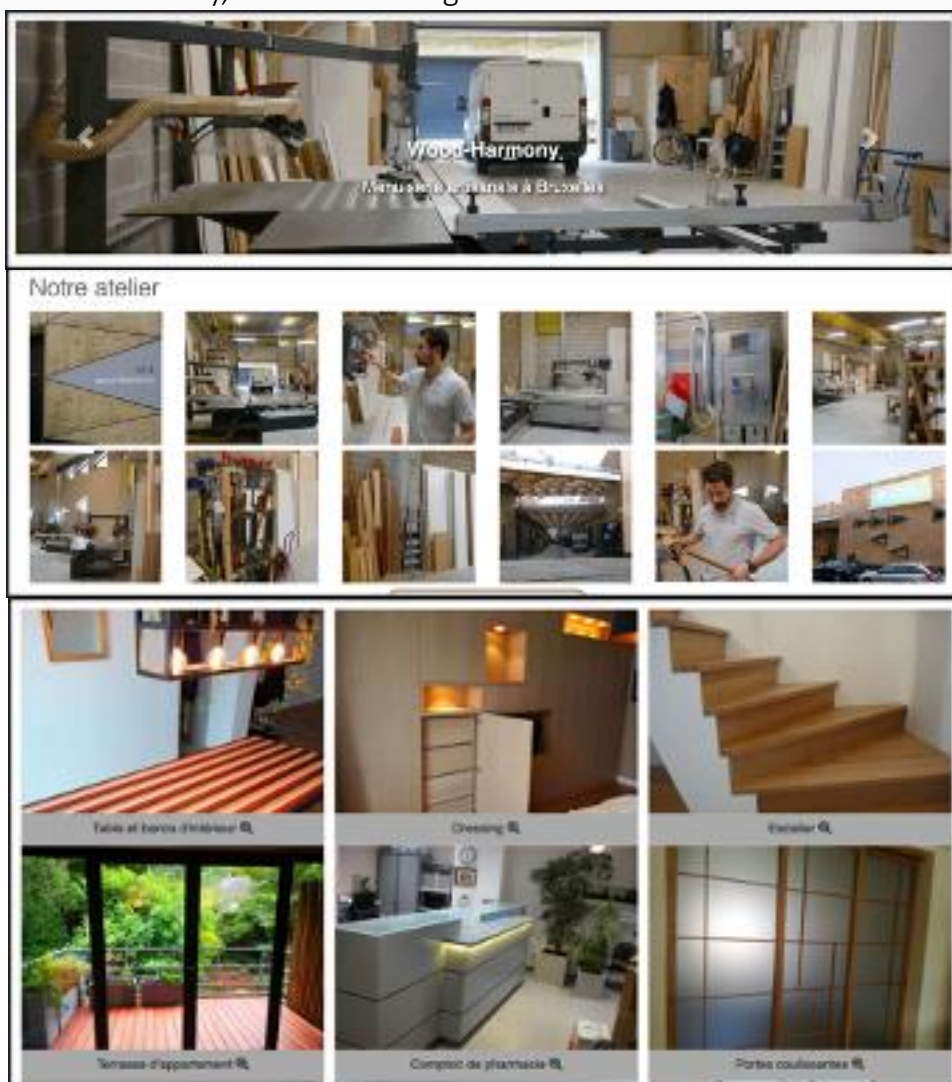
<https://www.wood-harmony.be/>



Lessons Learnt

Company has a clear vision on environment and sustainability.

Focus on sustainability, even if costs higher.



GREEN PRACTICES - GREENER BY DESIGN

Company name: EuGeos

Size: less than 10

Industry: Environmental Design

Years of Existence: 21

Description of the green practices involved

EuGeos is a consultancy company based in the UK with a Belgian office. They focus on life cycle assessment (LCA, EPD and footprinting), environmental management and sustainability consultancy for a circular economy

The company works to ensure that environmental and sustainability management delivers business benefits for client organisations.

As an environmental consultancy, EuGeos's ultimate objective is to benefit the environment. However, EuGeos's activities do consume resources and create pollution, but they aim to understand and minimise this.

Procedures, Activities, Phases

Their consultants and associates come from a wide range of industrial, commercial and environmental backgrounds. They have extensive experience of implementing effective environmental management and sustainability programmes in organisations ranging in size from the very small to the multinational. They are able to assist organisations to face the challenges of management for sustainability, where actions for - and communications about - environmental care and social responsibility play an important part in the total performance picture.



Co-funded by the
Erasmus+ Programme
of the European Union

Description of the implementation:

Investments and running costs

The company take the following steps to control and reduce the harmful effects on the environment:

- making as much use as possible of modern communications technology to reduce travel needs and consumption of resources such as paper and ink.
- using paper which is certified to at least one national eco-labelling scheme and reducing paper consumption through minimising printing and using the double-sided option.
- selecting energy-efficient office equipment which meets respected environmental standards and using the low-power standby facilities of this office equipment.
- optimising business travel and using public transport whenever convenient.
- making high fuel efficiency a strongly preferred feature of any business car, purchasing cleaner fuels where these are available at competitive prices, and regularly maintaining vehicles.
- recycling as much as possible and disposing of wastes safely and legally.

Challenges

Adjusting to new regulations. This adjustment however creates more business.

Role of digital technologies

Digital technologies are used to save on communication and reporting. Also essential for management, monitoring and report of environment.

Over 15 years Eugeos have employed various LCA software solutions, integrating data from a range of sources. (LCA = life cycle assessment) EuGeos' 15804+A2_IA v4.1 database is a version of ecoinvent v3_6 extended to allow calculation of the indicators required in construction product EPD to meet European standard EN 15804.



Results of implementation

Measuring, monitoring and reporting of environmental management and savings. Environmental product information enables customers to check whether the environmental attributes of products or services meet their expectations, and enables the green credentials of competing products to be compared.

Description of the communication:

Internally (towards the employees): All the consultants employed 'buy in' to the vision of the company. As environmental experts they seek to share expertise and provide savings for their clients

Externally: The company are very active on the Web.

Financial details explanation:

The company make savings on using modern communications technology to reduce travel needs and consumption of resources, using paper which is certified to at least one national eco-labelling scheme and reducing paper consumption through minimising printing and using the double-sided option, selecting energy-efficient office equipment which meets respected environmental standards and using the low-power standby facilities of this office equipment, optimising business travel and using public transport whenever convenient, making high fuel efficiency a strongly preferred feature of any business car, purchasing cleaner fuels where these are available at competitive prices, and regularly maintaining vehicles and recycling as much as possible and disposing of wastes safely and legally.

Lessons Learnt

The company have a clear vision on environment and the high-level and advanced services it can offer to its clients, this is shared within the company and acted upon.





Measure and analyse

the environmental impacts of your organisation's products and services, including their carbon footprint.

- Life Cycle Assessment (LCA) studies
- carbon footprinting and water footprinting
- Environmental Product Declaration (EPD) preparation

Communicate

the environmental performance of your products and the sustainability achievements of your organisation to all your stakeholders.

- Environmental Product Declarations (EPD)
- green marketing & ecolabels
- green claims (environmental self-declarations)

Manage and improve

your products, services, processes and supply-chains to reduce their environmental impacts.

- environmental management and environmental management system (EMS)
- environmental reviews
- environmental audits
- ecodesign

Comply with standards, legislation and regulations

to meet your obligations as well as the expectations of customers and wider society.

- environmental compliance
- environmental permits
- LCA critical reviews
- Environmental Product Declaration (EPD) review and verification

life cycle assessment

environmental management

EPD

environmental audits

carbon footprinting

EMS

environmental permits

ecolabels

LCA critical reviews

EPD verification

LCA

water footprinting

Environmental Product Declarations

openLCA

<http://www.eugeos.co.uk/>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - CLEAN AND GREEN

Company name: Informatic Poly Cleaning IPC

Size: less than 10

Industry: Specialised cleaning services

Years of Existence: 25

Description of the green practices involved:

IPC services garages and manufacturing plants, SMEs and information centres.

Using a 100% environmentally-friendly method, workstations are cleaned, server rooms cleaned, dust removed from server. The company is a supplier of: Cleaning services | Cleaning products for information technology | Networks - installation and maintenance | IT Services | computer assistance maintenance.

Procedures, Activities, Phases

IPC is in the computer equipment cleaning and disinfecting business and has successfully combined flexibility and logistics – two factors that enable it to extend its services to many sites and business sectors such as banking and insurance, the hotel and outside catering industries, Ministry of Justice and European institutions, public and social services, garages and manufacturing plants, SMEs and information centres. Using a 100% environmentally-friendly method, workstations are cleaned, server rooms cleaned, dust removed from server racks and Switch by Ionization, Moving and ergonomics (relocation), server rooms decontaminated. IPC has premises in Brussels and Luxembourg, close to the major administrative centres, and its recognized experience has resulted in it working for numerous businesses in Belgium, Luxembourg and further afield. IPC has had the IBGE Enterprise Ecodynamic label for more than 13 years. IPC uses a leading-edge process that is unique in Europe. The cleaning of computer equipment also contributes to maintaining hygiene, brand image and respect for the equipment.



Description of the implementation:

Investments and running costs

Investments have been made in terms of specialist machinery and equipment, logistics support for mobile workforce and training for staff

IPC has developed extensive know-how in 100% environmentally-friendly IT equipment cleaning and disinfection using a nanotechnology-based process. We also specialise in data centre maintenance and hot and cold server micro-dusting.

Challenges

Specialisation – keeping up to date with changes in technology.

Marketing unique processes establishment.

Role of digital technologies

Digital technologies are used for training, logistics of staff.

Informatic Poly Cleaning is actively using 24 technologies for its website, including Viewport Meta, iPhone / Mobile Compatible, and SSL by Default.

Results of implementation

Their focus is on making cost savings for organisations, their clients – for instance on energy and inefficiency and lowering the failure rate of equipment. Due to implementation they are able to stay ahead of competitors

Description of the communication

Internally (towards the employees): Employees are specialised and undergo high quality training to meet customer demand.

Externally: Web site and via trade agencies.

Financial details explanation:

Informatic Poly Cleaning is located in Bruxelles, Belgium and is part of the Electronic Equipment Repair Services Industry. Informatic Poly Cleaning has 1 employee at this location and generates \$191,000 in sales (USD).



Lessons Learnt

Stay ahead of technology changes

High level training of staff to be able to meet specialist needs of clients

Develop and promote unique methods – selling point.



BREAKDOWN PREVENTION
Our professional teams use the right tools to remove dust particles which can interfere with the proper operation of your computer equipment over the long term.

ENSURING HYGIENE
Work instruments like your keyboard and mouse can harbour many bacteria if you don't clean them on a regular basis.

WORKING CONDITIONS
More positive working conditions. It's always more agreeable to work with clean equipment.


A BETTER BRAND IMAGE
Given that computer equipment is the main work tool at companies, it's important that it project an impeccable image.

ENERGY SAVINGS


IPC

Server micro-dusting

Micro-dusting of servers with ionisation removes static electricity and safely removes dust and particles from the equipment.



Cold dusting (Servers off)



The server is released and carefully slid forward to ensure that no cables are disconnected.

Hard drives, power sources, fans, internal protective plastic covers and hard drive covers are removed.

The server is cleaned with a high-volume ESD vacuum. High-powered ionised air is then blown throughout the server.

The cards, then the electrical power block are dusted with the high-powered ionising air gun.

<https://www.ipc-cleaning.eu/en/>

LinkedIn <https://www.linkedin.com/company/informatic-poly-cleaning/about/>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - GREEN ENERGY SOLUTIONS

Company name: Vortex Energy

Size: 3 (in the Belgian office) set up in 2017

Industry: Renewable energy solutions

Years of Existence: 3

Description of the green practices involved

Vortex Energy develop, engineer, finance, implement and operate projects with 100% renewable energy. Our mission is to develop renewable energy in a sound socially responsible and sustainable manner. Our goal is to unite public policy and area characteristics, landowners, local authorities, citizens' initiatives, residents, NGOs, etc., and shape the interests into the implementation of concrete projects, with an emphasis on wind energy.

The company deploys its services where they are needed – offering customized service components (e.g. planning and development, construction and technical and commercial management) or as full-service turnkey renewable energy provider.

Procedures, Activities, Phases

Vortex Energy develop, engineer, finance, implement and operate projects with 100% renewable energy. They flexibly deploy their services as a partner for renewable energy projects and are open for your participation in projects. In addition to projects that they develop themselves, they also buy started projects that are in difficulty or have been abandoned at an early stage and determine what it will take to implement them successfully.



Description of the implementation:

Investments and running costs

Since 2004 Vortex Energy have offered their services as a responsible, experienced partner for local authorities, landowners, institutions and investors, primarily in the fields of wind energy and photovoltaics. As such vortex energy developed a portfolio over 390MW of wind energy projects mainly in Germany and Poland. In 2017, vortex energy started an office in Belgium as part of the internationalization strategy of the company. In 2018, Vortex Energy Deutschland GmbH became part of E.ON.

The Vortex Energy Group remains internationally active and pursue its growth targets with the Polish and Belgium offices. Our Belgian/Polish and German ways diverge but richness of experience stays for future activities.

Challenges

Difficulties related to COVID as public enquiries, related to energy projects, have been postponed since March 2020. Due to the measures taken to limit the spread of the COVID - 19 virus in the population on the Walloon Region, the Walloon Government has, by Decree of special powers, decided, dated March 18, 2020 to suspend deadlines for public inquiries.

Role of digital technologies

The company offer digital solutions to monitor and maintain energy. They use digital marketing tools.

Results of implementation

Before Covid the company was very successful in developing projects and supporting clients. However, since Covid they are under threat and may be forced to close despite national and European focus on green energy.





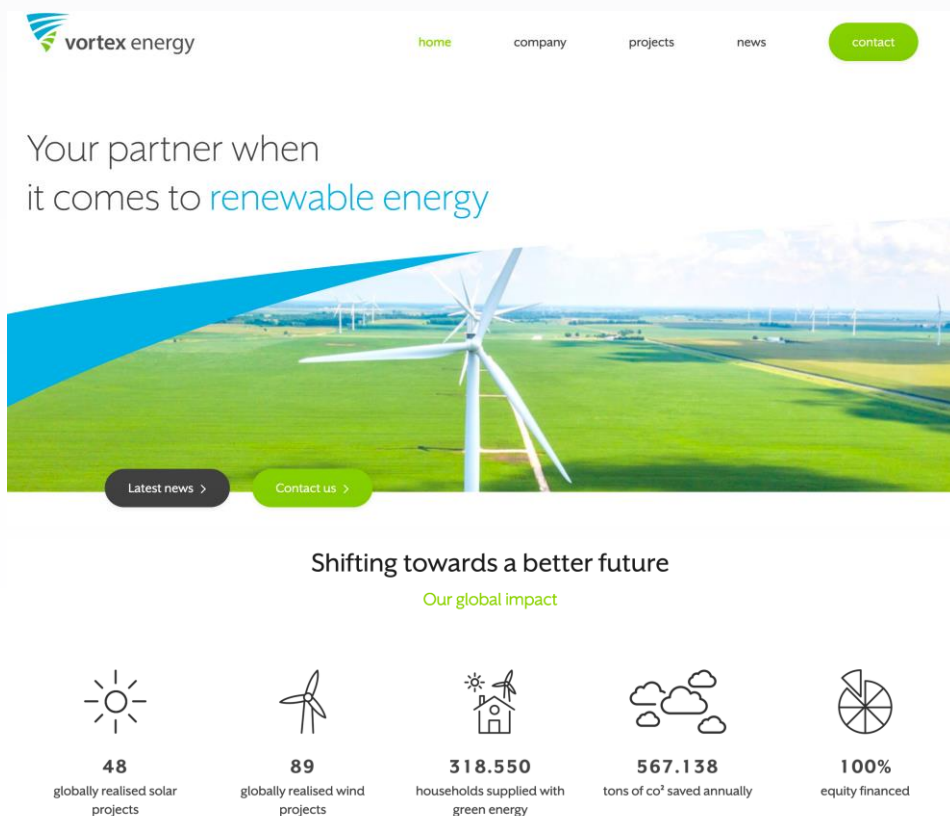
Description of the communication

Internally (towards the employees): The company is based on green energy projects and employees are experts in the field.

Externally: Via Web sites and trade agencies. Environmental groups.

Lessons Learnt

Before COVID green energy development projects were rapidly growing and SMEs like Vortex played a key role in developing major projects. The sector has been struggling through the pandemic but will recover once restrictions are lifted as green energy schemes are high priority in national and European policy.



<https://vortex-energy.be/>



GREEN PRACTICES - CHANGE CONSULTANCY AND VISUAL STORYTELLING

Company name: Visuality

Size: 1-10

Industry: Graphic design for change and consultancy, including training for sustainability

Years of Existence: 2

Description of the green practices involved:

The company provides visual design and graphic consultancy based on Teambuilding, Strategy sessions, Meetings, Brainstorming, Scenario planning, Conferences and Co-creation sessions to companies who are seeking to create a more sustainable, social and inclusive future, for both people and the planet.

The company use 'graphic recording' is an opportunity to turn a meeting into a stimulating space designed to spark fruitful discussions, encourage collective thinking, and a thinking tool to engage audiences. Graphic Recording helps create an environment that motivates people to be active participants, speak up, and share their knowledge to better reach the meetings objectives.

Visuality facilitates and accelerates impactful change towards a more sustainable and conscious society through visuals. As a visual consultancy, they offer graphic facilitation, graphic recording, and visual storytelling services. They facilitate interactive workshops for companies and organizations and give training on visual thinking for personal and business use.

Procedures, Activities, Phases

The purpose is to drive positive change helping clients to co-create a future that is sustainable for our planet and its inhabitants. Their consultancy work focuses especially on the environment, education and equality. They produce Infographics, Explainer videos, Presentations, Manuals and reports, Training material etc.



Description of the implementation

Investments and running costs

The company allocates 5% of company revenue to pro bono projects that reflect Visuality's core values of sustainability, either by doing a job totally for free or by reducing the original fee. The available amount is calculated quarterly. They also give each employee two days a year to devote to pro bono projects that they believe in.

Challenges

The first main challenge was finding a venue / green location for the company. Obtaining a range of services and a portfolio of clients.

Role of digital technologies

As a design company much of their work relates to digital and online designs, helping promote sustainability in different industries.

Results of implementation

Visuality are collaborating with many different organisations, including "Hommes et Terre", an organisation that is reforesting sub-Saharan areas in Africa thus creating new agricultural zones and forests. Since planting trees helps to capture carbon, it's in-line with our goal to minimise our carbon footprint!

Visuality have initiated the creation of the European Forum of Visual Practitioners by organising co-creation sessions. The company organised the EuViz conference in the summer of 2018 and co-hosted the Leadership Festival in 2019.

Description of the communication:

Internally (towards the employees): As a company, they practice what they preach as they drive electric, use bicycles and fly as little as possible - and only if it's really necessary. They work in a green building surrounded by many like-minded businesses.



Externally: Web site, using publicity opportunities through green initiatives in the Brussels area and through the European Forum of Visual Practitioners network they launched.

Lessons Learnt

Green and sustainable initiatives need leadership.

Companies need support services to help them green their practices.

They are a scale-up company based on new and experimental forms of leadership and management.

Storytelling is fundamental to establishing a clear message.

<https://www.visuality.be/>



GREEN PRACTICES - INNOVATIVE ECO-CONSTRUCTION

Company name: Réconfort Plus

Size: 15

Industry: Construction

Years of Existence: 8

Description of the green practices involved:

The company was established in Brussels in 2012. The green practices take place across the main operation of the company as they are involved in renovation of older properties with sustainability as the main goal in terms of eco-construction and renovation of properties.

Réconfort + is a general contractor specializing in the fields of sustainable eco-renovation and eco-construction. They use environmentally-friendly renovation and rebuilding techniques and is constantly looking for new and innovative “green” technologies.

Their economic goals are the creation of sustainable jobs in eco-construction with a view to professional integration. They aim to provide vulnerable households with healthy, better insulated housing and reduced environmental impact due to better energy efficiency.

The company has two objectives: to improve the energy performance of homes; and the sanitary and environmental quality of homes.

In general, Réconfort Plus is based on a consensus that sustainable development is essential to meeting human needs and improving the quality of life. The company's missions incorporate the main dimensions of this vision: the social pillar (social reintegration) and the environmental pillar (thermal eco-rehabilitation of buildings), while combining the essential economic viability.

Fuel poverty is the consequence of two closely related factors: low income and poor thermal quality of housing. The project aims to provide these households with better insulated housing that will allow them to reduce their energy bill and free up a budget for other items.



Co-funded by the
Erasmus+ Programme
of the European Union

Procedures, Activities, Phases

Réconfort Plus is a green and innovative company. They offer a full range of services from design to construction. They aim to do the renovations so that the home will remain healthy and safe for years to come.

They take care of all the renovation work including insulation, painting, plumbing, electricity, heating, laying of floor and wall coverings, carpentry ... As specialists they focus on "green aesthetics", which includes the use of natural materials, to make a dwelling, a house, soothing and invigorating. The environment is necessarily one of our priorities. By positioning ourselves as the greenest company, we are implementing various actions to achieve and maintain our objectives.

Their clients are avant-garde: owners who seek to make the world a greener place through innovative and ecological techniques.

Réconfort + effectively aims to create green jobs, the development of current jobs taking into account environmental issues and the integration of unemployed people. They have chosen to put environmental and social goals in the foreground and on the other hand to develop an economic model promoting the active participation of workers in company decisions.

Description of the implementation:

Investments and running costs

The training and integration of groups in a company with a social purpose.

Challenges

Marketing and developing a reputation and recognition for their work.

Role of digital technologies

The technologies that are used by Réconfort Plus are: Schedulista, F5 BIG-IP Application Security Manager, Facebook Analytics, F5 BIG-IP Platform. These have allowed the company to develop its market, do innovative and attractive design and promote itself online.

-



Co-funded by the
Erasmus+ Programme
of the European Union

Results of implementation

For more than 8 years, they have been developing dynamic partnerships with institutional and economic players.

They have earned recognition for their work, as on the initiative of His Majesty the King, 25 organizations including Réconfort + have been working together in recent months on a new platform for and on social entrepreneurship.

Description of the communication:

Internally (towards the employees): The environmental dimension of Réconfort Plus is inseparable from its social purpose. The company makes significant investments in continuing education on sustainable actions for its employees.

Externally: The company principally communicate through the Web site and via word-of-mouth, testimony from others.

Lessons Learnt

Promoting green practices is challenging.

Training of staff is vital.

The company benefits by being part of a Green Business hub – where useful services are available like architects, marketing, legal support etc.

<http://www.reconfortplus.be/>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – CONCLUSIONS BELGIUM

There is a strong and healthy environment for environmentally-conscious SMEs in Belgium. There are many benefits and advantageous regulations which have allowed entrepreneurial activities to develop pre-COVID. They have illustrated innovation capacity that has enabled the possibility for them to develop unique products and services for local regional, national and international markets. This makes the SMEs key actors for increasing resource efficiency and improve 'quality of life'.

The individual environmental footprint of small enterprises may be low, but their aggregate impact can make a big difference. However, SMEs require the right political and legal framework and opportunities to establish themselves. Major hubs of active companies, like Greenbizz, can offer SMEs many interconnections, beneficial relationships, networking, actions and services. The organisations that cluster tend to have a similar vision, they assist one another in encouraging development. Specifically, examples of eco-design involving collaboration with networks of companies including suppliers in designing green products and offers the potential of turning environmental practices into systemic processes.

SMEs have been providing innovative solutions in response to local social, environmental and economic challenges. They tend to be based on innovative business cases. As enterprises that focus on environmental benefits, they have the ambition drive a sustainable economy forward. They have developed eco-business models for the green economy transition. The adoption of green supply chain practices by SMEs show that eco-design and green purchasing can affect economic and environmental performance.





Re-manufacturing, repair, maintenance, recycling and eco-design have the potential to become drivers of economic growth and job creation, while simultaneously addressing environmental challenges. Through innovation and the redesign of products as well as production and business models, companies can reduce the use of expensive primary raw materials and create less waste.

COVID has brought uncertainty and it is likely that many SMEs may not have survived, however there is a lot of rhetoric about the use of the environmental sustainability of SMEs as a means for a green recovery.



GREEN PRACTICES - Bulgaria

The main purpose of the research is to discover and examine successful implementations of green practices in different Bulgarian companies. One of the main objectives is to show a diverse set of measures proven effective in the national business context and to increase environmental awareness. The research shows companies which have implemented in their operations green practices and/or have been successfully transitioned into a greener way of operations.

The conduction began as desk research of the biggest companies in Bulgaria and their activities. All companies with international Headquarters were excluded to focus over the polities created and implemented in Bulgaria. Simultaneously the Green awards initiatives were researched, and all awarded companies contacted. One this stages we selected around 15 Bulgarian companies with sustainable policy and proven green practices. We excluded the companies who conduct green practices only in a form of an event or donation for green causes.

All of those companies were contacted via email or/and phone for more detailed information and clarification. However, due to COVID lockdown, it was difficult to reach the management of the companies by phone or email. During the email exchange, we chose five companies which fit the most of our criteria. With 2 of the companies we had a video interview with their Sustainability, HR and marketing department, with another two we had phone interviews and with one we collected the information via the Internet using their websites and later one we confirmed with a PR employee.



GREEN PRACTICES - BOTTLED WATER WITHOUT A PLASTIC LABEL

Company name: Aspasia-92 LTD

Size: 100 - 250

Industry: Manufacturing soft drinks, Bottled water

Years of Existence: 29

Description of the green practices involved:

Aspasia-92 LTD is the first company in Bulgaria to produce plastic bottle water without plastic labelling. The company operates in the Bulgarian market since 1992 and due to the new progressive leadership in 2018 begins to produce new plastic bottles due to transition into greener operations.

They have implemented a new way to stamp the necessary information and logo on the bottle itself. This new practice eliminates more than 1,5 tons of labels per year, which saves not only costs and resources but also significantly reduce waste.

The unique bottle also contains Braille inscription which makes the product suitable for visually impaired people as well, it is 100% recyclable and in lighter packaging.

For every 1000 bottles sold Aspasia is planting 2 trees. An alternative campaign is running as well for every 1000 bottles sold with the usual plastic label for which the company is donating the plantation of 1 tree.

The company also makes regular donations of bottled water in different cities in Bulgaria.



Co-funded by the
Erasmus+ Programme
of the European Union

Procedures, Activities, Phases

The idea of the new way of bottling the water comes from the management of the company that wants to empower a new set of corporate values into daily operations. They have made a research on different technical solutions in terms of production and environmental footprint.

After the research, they have decided to invest in a new production line and to launch to the market water first bottles without labels.

Description of the implementation:

Investments and running costs

A relatively big investment was made in order to be able to produce such bottles. They have expectancy this investment to be returned in 5 to 6 years.

The new production is connected with a heating system of the administrative building of the company. This way they use the energy produced during the bottling for heating purposes. This allows them to reduce a big part of their previous heating costs.

Challenges

This practice is facing challenges when it comes to customers and their way of perceiving the new labelling of the bottles. A group of customers does not recognize the bottle as a water product. Another group of customers has the reception of a low range price segment product since the lack of label.

The company has made a research among different target groups to get more information and how to increase the interest of the customers.



Because of the market resistance, the company launches the initiative for tree planting for every 1000 bottles of water realized on the market. For those 1000 bottles with the plastic labels, they plant one tree, for 1000 bottles with the new stamp technology they plant 2.

By this campaign, they try to educate the market about the benefits of using less plastic while bottling.

Results of implementation

Currently, the water is performing well on the market. The environmental impact is estimated to 1,5 tons of reduced labels per year and a drastic drop in external energy usage by the administrative buildings of the company.

Description of the communication:

Internally (towards the employees): Before the start of the implementation of the new production process, the management has released a survey among the employees about the different options for labelling (stamping and using plastic rings). Due to the surveys' results, the management has seen the need for training to the employees. Most of the employees did not recognize the water with no plastic label as a water product. Some of them shared the thoughts that the plastic bottle is refilled and used the second time. These negative associations are still bottlenecked for the whole product. But the company invests in different marketing and communication approaches in order to overcome the negative assumptions.

They have received great support from environmental NGOs in terms of improving the awareness of the environmentally friendly bottle.



The resistance from the internal sales and distribution department was overcome by providing different educational pieces of training for the benefits of the reduced plastic usage and the branding of an eco-friendly product.

Externally: The company's direct customers are the big retail chains, so they focused on providing information via the sales department. Besides that, they had several product give-aways and standard digital communication channels

Financial details explanation:

Expected ROI in 5-6 years.

Lessons Learnt

That there is some market resistance when launching new products with non-conventional design. However, with good education, this can be easily overcome.

One very important finding was that the water performed much better when it was introduced to the higher segment of the market.

In their opinion, the Bulgarian customer is still not ready to embrace such changes in products.

<https://ekoh2o.bg/>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - ECO AT THE CORE

Company name: Musala Soft

Size: 500

Industry: IT-Software Services

Years of Existence: 20

Description of the green practices involved:

The company has implemented directly in its culture and values a strong holistic environmental responsibility policy.

Musala Soft has demonstrated its effectiveness in managing environmental impact by maintaining an ISO 14001 and ISO 26000 compliance and achieving certification by the standard.

The direct measures: to reduce energy consumption, air emissions and waste.

Main goals of the practices:

Musala Soft has integrated into their culture and values environmentally friendly thinking and way of operating. Each employee that joins the company gets involved in this way working, following the example of their coworkers, and in this manner, it is formed a strong and consistent responsibility to the environment.

Musala Soft tracks every year and keep records and set goals of its Significant Environmental Aspects. For each significant environmental aspect, there is a quantitative representation in terms of an environmental indicator, which is used as a tool for assessing environmental performance and reporting on progress towards sustainable development.



- Electricity consumption:

Measures that were taken:

- Virtualization of storage space, servers, and network resources where reasonable - reduce power consumption, noise and heat output, as well as hazardous waste;

- Use an external Data Center for high consuming devices;

- Observe energy efficiency policies.

- Generated GHG emissions to air - company use a vendor calculator to reveal what is their impact on air pollution. Metric is GHG emissions generated by electricity use and Unit of measurement tCO₂/MWh (per employee). They make calculations about the use of fuel for transportation - Fuel use for a company car, Fuel Used for Air Travel, Kilometers travelled by taxis. Measures were taken:

- Observe using tele- and video-conferencing when possible - Preferably use of eco-friendly airlines for business flights

- Use of public transport, instead of a company car or taxis when possible

- Alternative ways for going to work – use a bicycle, go walking when reasonable

- Generation of waste

Measures taken:

- Paperless office – continue and extend where possible usage of internal systems for automating business processes and administration activities

- All documentation is kept digitally

- Usage of high-quality equipment for printing/faxing with economical use of consumable materials



- Waste separation - eco-bins for PLASTIC, PAPER and separate storage rooms for paper/cardboard waste, toners, batteries and obsolete equipment
- Waste recycling – use only licensed companies for waste disposal, authorized for recycling waste in a sustainable manner
- Economic use of paper – Print double-sided, Print More than One Page Per Sheet, Use Print Preview and Shrink to Fit, Only Print the Selection You Need, Print to PDF Instead of Paper
- Environmental company awareness initiatives focused on promoting waste segregation.

Aspect	Objective	Target 2019
Electricity use	Increase efficiency, reduce electricity use and reduce GNG emissions	2% reduction of electricity use compared to 2018 2% Reduce emissions compared to 2018
Consumption of paper for copying, faxing, printing	Reduce annual paper & printing purchases	3% reduction of paper purchased compared to 2018
Generation of waste paper and cardboard	Recycle paper & cardboard waste	5% reduction of waste from paper compared to 2018
Generation of waste from batteries, toners	Recycle waste where possible	10% reduction of waste from batteries and accumulators compared to 2018
Generation of waste from plastic materials	Reduce waste	5% reduction of waste from plastic compared to 2018
Use of fuel for air travel	Reduce emissions	1 % Reduce emissions per employee compared to 2018

Goals for 2019:

Musala Soft has organized and participated in many green events externally and internally. During all events the company follows the same practices as in the office – recycling of the waste, using reusable or environmentally friendly materials and minimize their impact on the environment. Some examples: participation at the World Cleanup Day, Green workshop for the children of the Musala Soft's colleagues. Event part of the initiative “Да изчистим България заедно”, – Musala Soft sports weekend– 10 km marathon, Musala Peak climbing in Rila Mountain and etc.

ISO 26000 is a voluntary International Standard providing guidance on social responsibility. Musala Soft recognizes ISO 26000 as a reference document which provides guidance on social responsibility. Musala Soft aligns with the ISO 26000 standard as part of their social responsibility practices.

Description of the implementation:

Due to the consistent tracing of the company's fuel and energy consumption and the implemented measures in the aim of reducing pollution, the organization has decreased its costs for these resources.

Role of digital technologies

In the current situation with COVID-19 and shifting from working in the office and group meetings in person to home office and work from anywhere the digital technologies are playing extremely important role. Due to this change the company has significantly decreased the air and car travel for work as most of the conferences and meetings are conducted online. Musala soft uses different communication platforms like MyMusala - a mobile application and web portal that informs colleagues about all current news and events and VING – a company solution for conference video calls and meetings.



Results of implementation

As a consequence of ongoing partnerships and the integration of newly employed people in different locations, additional business travels take place. However, Musala Soft managed to decrease the level of harmful emissions from air transport through 2018 in comparison with the previous period. Electricity used for manufacturing, heating, lighting has decreased by 1,8%, Emissions to air – 1,8%, Kilometers travelled by taxis – 20%, Paper, and cardboard – 8%, Batteries – 3%, Plastic - 10%

Following a Code of Conduct, they have strived to facilitate the communication between the employees in the different locations in order to provide opportunities for better integration of the team members and to create an efficient working environment.

They develop an internal communication platform that will help them to achieve these goals. Furthermore, they are implementing a new way of calculation of emissions in the company as per employee, in order to determine more accurate indicators, to measure that we will meet the company long-term plan, considering the business growth.

Description of the communication:

Internally (towards the employees): As the company has implemented in their values and cultural preservation of the environment, their employees are motivated to act and participated in the green practices.

The company is encouraging employees to propose and discuss ideas and initiatives that are eco-friendly. The department of Public communications and people care of Musala Soft organizes Creative pool every few months so employees can present their ideas with a clear goal, budget, and timeline which later or are presented to the management for approval.



In addition to that, the department has created a green skype chat where participates can discuss and exchange ideas.

Due to the openness of the management towards environmentally friendly ideas and events, the employees feel motivated and encouraged to take part and share ideas.

Externally: Website, social media & company identity.

Alignment with the company's CSR

Musala Soft's Corporate Citizenship commitment is consistent with the CSR and Environmental Policy and Musala Soft Code of Conduct - all essential for continued business success. The Musala Soft ISO 14001 certified companywide environmental management system is used to manage and drive a continuous reduction of adverse environmental impacts.

Financial details explanation:

All measures are directly incorporated into the company's budget. They have no limited amount per year. Instead, they are investing in everything they find reasonable as a change/initiative.

Lessons Learnt

The most remarkable thing about Musala Soft's green initiatives is the fact that the company has been established as a sustainable one and managed to transfer the belief that everyone is responsible for the environmental footprint during its growth up to 500 employees.

The environmental action is not just an addition but a core value that is visible at every layer of the company and communicated constantly.





<http://www.musala.com/wp-content/uploads/2019/09/Corporate-Citizenship-and-Environmental-Performance-2017.pdf>



GREEN PRACTICES - SMART FARMING - INNOVATIVE DIGITAL SYSTEM IN FARMING PRODUCTION

Company name: Otbrani

Size: 30 + with seasonal workers 300

Industry: Farming

Years of Existence: 20

Description of the green practices involved:

The farm "Otbrani" grows different types of berries on the area of 900 hectares and has more than 20 years of experience. They operate in the Bulgarian market by selling directly to the big retail chains.

The grows crops in which the precise irrigation and fertilization, in accordance with the climatic conditions and the stage of growth is of utmost importance.

In conditions of frequent droughts, adapted irrigation is needed, while at the same time it is important to save the available water resource.

Due to the need to optimize costs and to become more resource sustainable, the farm is looking for solutions to implement automation of irrigation and fertilization.

Main goals of the practiCes.

The farm "Otbrani" grows different types of berries on the area of 900 hectares and has more than 20 years of experience. They operate in the Bulgarian market by selling directly to the big retail chains.



The crops are grown with precise irrigation and fertilization, in accordance with the climatic conditions and the stage of growth is of utmost importance.

In conditions of frequent droughts, adapted irrigation is needed, while at the same time it is important to save the available water resource.

Due to the need to optimize costs and to become more resource sustainable, the farm is looking for solutions to implement automation of irrigation and fertilization.

Procedures, Activities, Phases.

Since the business is family-owned they are in capacity to introduce and decide over the investment in the automatized system relatively fast.

After research for innovative solutions, they choose a system that is digitally controlled. The optimization of this process includes controls over 1 main pump or 1 main valve, 12 irrigation valves and 1 water meter. In terms of fertilizer application controls up to 3 dosing channels and 1 dosing booster pump.

An innovative software platform allows the creation of programs for irrigation programs and visualizes historical data about the processes, allows activation of alarms in case of accidents and adaptation of irrigation and fertilization according to the weather forecast for the next 3 days.

By using precise irrigation and fertilization, the team of "Otbrani" ensures that the plants are supplied with the optimal amount of water and nutrients. Thanks to this innovation the farm registers a significant increase in production. The technical team manages and controls the irrigation from their mobile devices even before they reach the farm. The farm also registers significantly less water consumption compared to previous years.



Description of the implementation:

Investments and running costs

The initial investment has been returned in 8 months due to the saved water, natural fertilizers, and increased production.

Challenges

The management shares that they have faced almost no major challenges during the transition of the irrigation.

Role of digital technologies

In this practice, digital technologies play an incredibly important role. The software of the system calculates the usage of the resources by tracing different indicators such as weather forecast.

Results of implementation

- o 30% less water consumed
- o 20% less use of fertilizers
- o 20% increase in production

All of this led to more sustainable farming and less impact on the environment.

Description of the communication:

Internally (towards the employees): During the transition, the employees received extensive training on how to control and manage the system via their smartphones.



Financial details explanation:

One of the main costs – water was reduced significantly because of the investment.

Lessons Learnt

The overall impression of the owner was extremely positive over the digitalization and the optimal usage of the water resources. He believes that digital technology and automatization is a key for a producer – big or small.

<https://ondo.io/bg/clients/otbrani>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - “ECO-EMPLOYER” 2019

Company name: PostBank

Size: >250

Industry: Banking

Years of Existence: 30

Description of the green practices involved:

The main aim behind the implementation of the green practises starts in 2013 with the clear goal to be created sustainable corporate social responsibility policy with a focus on the environment. In 2017 – 2020 is established a wholistic system for corporate social responsibility with strong bottom-up culture.

Procedures, Activities, Phases

The main aim behind the implementation of the green practises starts in 2013 with the clear goal to be created sustainable corporate social responsibility policy with a focus on the environment. In 2017 – 2020 is established a wholistic system for corporate social responsibility with strong bottom-up culture.

The first eco campaigns of the company started in 2008 under the initiative “Green start with PostBank” which is an internal campaign dedicated to increasing the environmental awareness among the employees.



The second major phase was in 2013 when the bank established a Green Board. Some of the board members are representatives of structural units in the bank, which are essential for the implementation of its environmental policy ("Operations", "Buildings", "Human Resources", "Corporate Communications" and "Information Technology"). The other members are colleagues who hold various positions in the company. The Bank's Green Board operates according to a pre-approved annual strategy and holds regular meetings.

Between 2013 and 2017 the bank realized diverse micro initiatives in order to promote “green behaviour” among the employees and the local communities.

In 2017 PostBank restarts the green project for corporate social responsibility of the bank, which already has a new name and a new logo. "Green Together" unites in one complete program all activities of Postbank to promote environmentally responsible behaviour.

The main focus is on the little things that each of the employees can do “here and now”. The goal for 2017 – 2018 is to analyse and minimize the negative environmental impact of the bank on the environment by reducing electricity consumption, paper consumption, carbon emissions of the bank as a whole and to implement the strategy "Reduce" adopted by our Green Board.

“Heroes in Green” is internal competition between the employees. They are given the opportunity to propose their own ideas under the program “Green Together”. Each year different teams form based on interest and realise a diverse set of internal and external projects. Some of the winning proposals that the bank has implemented are:

- Changing the bank's internal procedures to ease the regime for issuing paper statements for business clients.
- Switching entirely to electronic archives and document exchange, and the symbolic project "Electric Diet", held in the hours with a smaller flow of customers in one of the branches of the bank.



- Installing a special highly innovative foil on the building of its Head Office, which acts as insulation and leads to a significant improvement of the microclimate in the building of about 20,000 square meters, which employs nearly 1,000 employees of the bank.
- using a special camera for thermographic inspections of buildings and equipment. It allows for extreme precision in the preparation of analyzes of energy efficiency, as well as problem areas in its buildings and the equipment in them.
- developing a comprehensive waste management policy. The main types of banking waste - paper and toners - are recycled.
- Equipping the Central Office building with tap water treatment machines, which eliminates the use of plastic bottles of mineral water. This significantly reduces the amount of waste plastic that the bank uses.

“Outdoors Green Stories” is an additional project aiming to renovate different trekking paths in Vitosha mountain. Regularly employees of the bank volunteer to work towards protection of the Bulgarian nature. They install information signs for the typical plant species in the area, assemble a wooden bridge, clean the area and refresh the benches and swings so that there is a place to rest in the comfort of the majestic native mountains.

Description of the implementation:

Main investments are made in the development of sustainable practices both in terms of its business processes, leading to the reduction of resources used and environmental risk management in corporate lending, and for the formation of socially responsible behaviour in its employees and the general public.

Some of the largest environmental investments of Postbank are for optimizing the energy efficiency of its office buildings and the development of projects of public importance, including - cleaning of polluted public areas, afforestation campaigns.



Role of digital technologies

One of the key technologies used for achieving the goals connected with the strategy “Reduce” is the implementation of digital signatures. Alone this change leads to 40% less paper usage in a year.

Results of implementation

The direct result of “Heroes in Green” is the optimisation of corporate processes which leads to reducing the time for serving a client and increased customer satisfaction. The bank has also reduced the costs for office supplies by introducing more responsible behaviour of the employees. The reduction in energy costs is achieved as well.

Description of the communication:

Internally (towards the employees): The first campaign “Green start with PostBank” was completely dedicated internally. It was created a variety of infographics with useful daily tips. The infographics were distributed in the office areas to encourage responsible behaviour among the employees. In order to provide additional engagement with the campaign – it was introduced an internal competition between the different branches of the bank with rewards.

Better communication is achieved because of the way the Green Board is designed. The key department managers are members, so they spread better the information and serve as ambassadors of the diverse campaigns.

“Heroes in Green” gives the opportunity to the employees to realise their own environmental ideas supported by the bank. They also can propose a change in the conduct of the operations which empowers and stimulates a bottom-up culture.

Communication campaigns are held annually among employees on the importance of recycling and separate waste disposal.





Externally: Website, a dedicated section for Green Initiatives and other dedicated section for the outdoors projects, green business awards participation.

Green Together is communicated by a series of short videos with recommendations and tips.

Lessons Learnt

Establishing a Green Board with members from different departments plays a key role in ambassadorship of the programs. The high engagement levels are based on the freedom that the employees have to propose their own projects within the bank's strategies.

However, one of the key measures was the consistent communication towards the employees and the initial investments in campaigns increasing environmental awareness.

Green Together video: https://www.youtube.com/watch?v=WS8FouP4W_A

<https://www.youtube.com/watch?v=kZh-YMhxulo>

<https://www.youtube.com/watch?v=TIQeRemovKQ>

<https://www.youtube.com/watch?v=fNaZIOZuxkA>





Outdoors Green Stories:

Video: https://www.youtube.com/watch?v=kmuFbxM5QBw&feature=emb_title



GREEN PRACTICES - IT COMPANY SWITCHES TO ZERO-WASTE ALTERNATIVES

Company name: Melon AD

Size: 170

Industry: IT

Years of Existence: 17

Description of the green practices involved:

1) Melon Offices

The main goal was to eliminate all single-use plastic items in our offices and switch to ecological and/or zero-waste alternatives. In order to reduce the company's environmental footprint, they have focused on recycling at all their offices and decided to go plastic-free.

2) Organization of E-waste day

Since they have recognized only 20% globally of the E-waste in 2019 is formally recycled, decided to have a dedicated day to gather different equipment was from employees and partners and recycle it with a partnering company. The main goal was to increase the awareness over the produced E-waste and to encourage people to act sustainably promoting to Repair and Reuse the devices and if not – to treat them properly.

Procedures, Activities, Phases

The project started with a detailed analysis of the use of disposable plastic in their offices in Bulgaria and in the Republic of North Macedonia – all usages were listed and described accordingly.



Co-funded by the
Erasmus+ Programme
of the European Union

Afterward, it was conducted research for possible alternatives and picked the most suitable ones.

The criteria that were used to determine the replacement were divided into 3 main areas:

- ecological impact – calculating the impact on the environment.
- availability – what was available on Bulgarian market as a replacement product with proven benefits over the environment.
- price – what were the cost-effective solutions.

The exact measures were following:

- They have provided all employees with shared glass lunch boxes to take with them when they buy ready-made food. After each use, the lunch boxes are properly washed and made available again, just like ceramic plates.
- They have replaced plastic water gallons with installed machines for filtered tap water in our offices.
- No more plastic containers for hand & dishwashing soap. They have ordered reusable containers, and we are exploring other options for detergents.
- The dish sponges and kitchen cloths were replaced with biodegradable cellulose alternatives.
- No more regular trash bags. Since the biodegradable alternatives were quite expensive, they have decided to switch to using recycled trash bags until the biodegradable solution becomes more accessible.
- All plastic cups, dishes, and cutlery were replaced with ceramic reusable ones.
- They have replaced wet wipes with bio-friendly hand sanitizers.
- All physical marketing supplies are from recyclable materials.



Additionally, at all offices located in Bulgaria, they have containers for plastic bottle caps. They gather them to give them to a charity organization that collects around 70 tons of plastic caps and using the money, they raised from the recycling supported 35 hospitals to buy incubators for new-borns.

2) E-waste day.

First, they have informed the employees over the definition of E-waste and presented data from the Global E-waste Monitor report for 2017.

The six e-waste categories they presented:

- 1) Temperature exchange equipment such as refrigerators, freezers, air conditioners, etc.
- 2) Screens including televisions, monitors, laptops, notebooks, and tablets
- 3) Lamps like fluorescent, high-intensity discharge, and LED
- 4) Large equipment including washing machines, dish-washing machines, electric stoves, etc.
- 5) Small equipment such as vacuum cleaners, microwaves, toasters, etc.
- 6) Small IT and telecommunication equipment like smartphones, GPS, printers, etc.

Afterwards, they partnered up with a company specialized in e-waste disposal to take care of the collected waste. They asked their colleagues and neighbours and partners to bring the e-waste they have at home and have no idea how to dispose of it.



Description of the implementation:

Investments and running costs

They stated that unsurprisingly, most plastic-free and ecological alternatives to main-stream products are more costly, but they were willing to invest in maintaining a more sustainable business model and value higher the environmental impact contribution.

Challenges

Because of the location of some of the offices, no plastic-free substitutes for many of the commonly used items were available. However, they have made their best effort to reduce the use of such products to a minimum.

Results of implementation

1) Green Offices - Their offices significantly reduced their environmental impact and became greener. After assessing the impact, thanks to our plastic-free approach, now they eliminate 160kg+ of plastic trash per year:

- 11K+ trash bags,
- 750 milk boxes,
- 560 coffee packages,
- 230 dish sponges and kitchen cloths,
- 127 hand soap bottles,
- 100+ soft drinks bottles,
- 90 dish soap bottles.



2) E-waste

In a day, they gathered:

- Large equipment waste - 120 kg.
- Small equipment waste - 52 kg.
- Small IT and telecommunication equipment - 143 kg. -
- Screen waste - 105 kg.
- Batteries - 40 kg.

Total of 460 kg.

Besides that, the biggest impact was the significantly increased awareness of the topic among the employees

Description of the communication:

Internally (towards the employees): They have prepared a detailed presentation that they shared with everyone in the company. It included general information regarding the importance of the initiative and specifically calculated the impact in terms of environmental footprint.

Externally: Via blog post and social media channels.

Alignment with the company's CSR

Yes. During drafting their CSR policy, they have executed an internal survey among their employees, and it has become clear that all their developers are very eager and care deeply about preserving the environment. That is why, as a company, they have put special effort into becoming plastic-free. Environmental protection is one of the main directions of their CSR policy.





Financial details explanation:

Their office costs increased approximately double, but in general, they are a very small percentage of their overall budget.

Lessons Learnt

Even though at the beginning it seemed like a very hard and time-consuming initiative, it turned out to be easier and cheaper than expected.

It is good that the public awareness of the importance of individual and corporate environmental footprint is growing and this gradually leads to an increased amount of eco substitutes for commonly used consumables.

<https://www.melontech.com/blog/2020/melon-offices-go-plastic-free>

<https://www.melontech.com/blog/2019/melon-s-e-waste-day>



Melon Offices Go Plastic-Free



mgLON

E-Waste Day



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – CONCLUSIONS BULGARIA

Even before the COVID-19 pandemic, the Bulgarian business environment showed performance below the EU average. The funding opportunities for the SMEs for green innovations are limited despite the key role they have in the process of environmental transition and economic growth. Given the employment rates in SMEs (around 75%) and their added value to the economy, no actual change would be achieved without the promotion of accessible mechanisms for a transition. Regardless of the fact that their individual contribution to the climate goals might be considered small, their combined effort is a true game-changer.

Most of the needed legislation is in place, but access to funds is not strictly related to the promotion of more environmental measures. The financing is highly dependable on the EU structural funds and the Norwegian mechanism. There are very few local initiatives indicating an effort to support SMEs development.

However, the non-governmental sector possesses deep expertise and provide guidance for the Green Deal implementation and Just transition measures.

During our research of awarded companies in green performance, we concluded as well that the major award winners are the local branches of international companies. Industries such as IT, Banking and production have a leading role among winners.

Reporting on environmental measures such as sustainability reporting is adopted in very few and most international companies and it's mainly connected with the ISO 14001 requirements. The mandatory reporting managed by the Ministry of the Environment and water is limited to industries with severe environmental impact and does not stimulate measures towards the SMEs. Our research showed a diversity of CSR environmental events. However, most of those campaigns are executed as once per year events which leads to less sustainable impact.



Most of the successful implementations of green practices in the Bulgarian companies are driven by new and more environmentally responsible leadership that drives the enterprises into transformation. For some of the practices it is visible that empowering the employees and creating a bottom-up culture plays a key role. Creation of green board, open systems for communication between the employees and management company's culture and values are important aspects of the transition.

In conclusion, we would like to point out that there is a lot to be implemented in the Bulgarian environment in order for the SMEs to grow and act sustainably and with minimized footprint. The environment for that is yet to be developed. The way Bulgarian SMEs recover from Covid-19 economic consequences has a crucial role in improving the environmental performance of the country. The first step towards that is the increased environmental awareness and education.



GREEN PRACTICES - Cyprus

The main objective of this research is to examine the current situation for SMEs in Cyprus and the implementation of green practices in their operations. The purpose is to identify already successful examples of green and environmental practices of companies in Cyprus in order to increase awareness on the benefits of transitioning into greener operations and influence other SMEs.

The first phase of the research included an Internet search in order to identify companies that are already implementing green policies and have transitioned to greener operations in Cyprus. Once the five companies were identified attempts were made via email and phone in order to arrange interviews to solicit the required information. Unfortunately, due to the pandemic and the Covid-19 situation we experienced difficulties in arranging online interviews with the staff of the companies. Out of the five case studies included in this report, three were conducted via phone interviews. For the remaining two case studies a thorough internet research was carried out and the information was extracted from the companies' official reports and websites.

The information presented on the national context for SMEs in Cyprus and national initiatives concerning environmental practices in Cyprus was also retrieved via the Internet.



GREEN PRACTICES - FOOD CHAIN RESTAURANT REDUCES PLASTIC USE

Company name: TGI FRIDAYS

Size: 400 EMPLOYEES

Industry: HoReCa

Years of Existence: 24

Description of the green practices involved:

The company is trying to reduce its plastic usage used both within the restaurant (straws & packaging) but also in its delivery/take-away services (reduce the use of plastic for delivery packages or containers).

Procedures, Activities, Phases

The company replaced its plastic straws with paper straws and also adopted a policy by which the guest has to ask for a straw in order to receive one. Where plastic could not be avoided (for example with certain suppliers packaging), the company has a strict recycling process. All the employees are informed about how to use the distinct separate recycling bins.

As for the delivery packages, the company has researched a lot in order to find appropriate carton boxes that are suitable for recycling and environmentally friendly.



The biggest change in the company, was the replacement of the brand's loyalty cards to a Mobile Rewards App. The aim was to digitalize their rewards system in order to stop the use of plastic cards and eventually to also stop all the printing of paper coupons/discounts. The loyal fans of the company now have to download the Fridays Cyprus Rewards App and the coupons are sent to them in a digital form.

Description of the implementation:

Investments and running costs

1. Purchasing of special recycling bins and paper straws for the restaurants.
2. Purchase of special carton/paper materials that are usually more expensive than plastic ones, but more friendly to the environment. The design also has a distinct recyclable sign so the guest remembers to recycle their package after product consumption.
3. The purchase and development of a new mobile app.

Challenges

The biggest challenge the company faced was to migrate all the loyalty card owners to the new rewards app, train their staff but also their customers on how to use it, communicate the new app to the local market and convince new guests to use it. A lot of time and money was spent on this process, and also some loyal card owner guests were lost in the process.

Role of digital technologies

Digitalization of processes to reduce the use of plastic and paper:

Replacement of the brand's loyalty cards with a Mobile Rewards App, coupons and discounts are now in digital form.



Results of implementation

The company reports a significant reduction of paper waste and plastic use.

Description of the communication

Internally (towards the employees): Due to the size of the company, the company has a from-top-down hierarchy system whereby communication for new practises leaves from the support centre, leads to restaurants management and from there managers in each restaurant inform and remind regularly during shift meetings all the team members. Training sessions are also held regularly by the training department and where applicable by the marketing department. Visuals are also found within the staff areas to remind the staff of company's policies and practices.

Externally: In the case of the rewards app, a 360-marketing campaign was executed for about 4 months, using traditional platforms (press releases, radio, billboards, magazines, press conferences) but also online ads (social media & google ads).

#REFUSE THE STRAW campaign:

<https://fridays.com.cy/refuse-the-straw/>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - BUILDING PARTNERSHIP FOR SUSTAINABLE AGRICULTURE

Company name: ORTHODOXOS & MISOS WAREHOUSES LTD and ROHA PREMIUM POTATO LTD

Size: 10-20 EMPLOYEES

Industry: Agriculture

Years of Existence: ROHA PREMIUM POTATO since 2007 ORTHODOXOS & MISOS LTD since 2016

Description of the green practices involved:

The company RoHa Premium Potato Ltd, deals with the production, quality sorting, packaging and sale of potatoes abroad.

In order to reduce waste (e.g second class potatoes), RoHa Premium Potato LTD decided to create another company called Orthodoxos & Misos LTD. RoHa Premium Potato Ltd supplies Orthodoxos & Misos LTD with second-class potatoes.

The company Orthodoxos & Misos, deals with washing, peeling and cutting of fresh vegetables (e.g. potatoes), in order for them to be ready for cooking or consumption. Through this process, a new opportunity was developed for the implementation of another green and sustainable practice. Since a lot of waste was produced during the peeling of the vegetables, the company decided to use it as fertilizer for their crops and as food for animals.

Procedures, Activities, Phases

In order to achieve the collection of waste during the peeling of vegetables, it was necessary to install a special bucket at a specific point on the production lines.



The transformation of waste into fertilizer was achieved by anaerobic digestion. Additionally, the employees of the company were informed about the above changes and the whole process is now part of the training program for new employees in the company.

Role of digital technologies

The whole process is automated with new technological methods – beginning from the sorting of the vegetables to the packaging of products. The method and process of the anaerobic digestion is also automatic, therefore, no human intervention is required to complete it.

Results of implementation

By applying these practices, the company resulted in saving money both for the production (by using the fertilizer from the waste conversion) and for the supply of the raw material (received by RoHa Premium Potato Ltd).

Description of the communication:

Internally (towards the employees): The company's workforce knows and shares its goals. The employees were made aware of the reason behind the company's creation and share the same feelings towards collecting and modifying waste.

As mentioned above, this process is automatic.

Alignment with the company's CSR

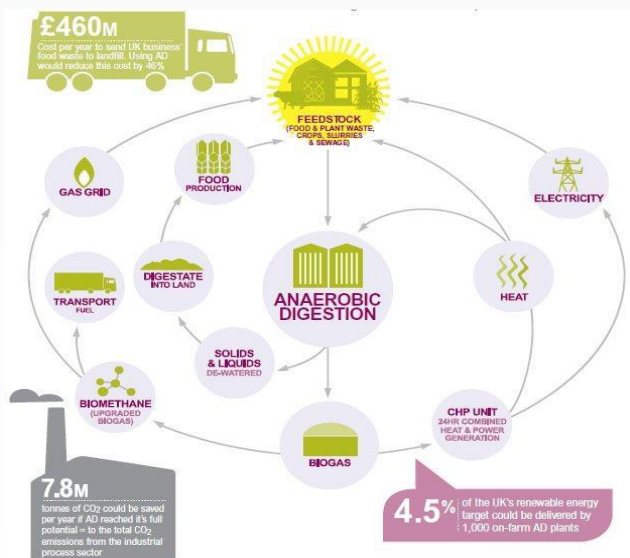
It is worth pointing out that the initial goal of founding the company has been fulfilled and that through the whole process other ideas were initiated and explored for the implementation of green and sustainable practices.



Lessons Learnt

The implementation of green and sustainable practices is an important factor for the creation of sustainable businesses, the impact on the environment and the financial development of a company.

<https://makersmeadow.wordpress.com/2012/09/03/mouldy-potato-peelings/>



GREEN PRACTICES - GREEN & SUSTAINABLE BANKING

Company name: Bank of Cyprus

Size: 4.156

Industry: Corporate

Years of Existence: 122 years

Description of the green practices involved:

The Bank of Cyprus is committed to establishing a greener planet by implementing environmental sustainability policies and procedures in order to reduce the negative effect that the company has on the environment as much as possible. The company prioritises certain key environmental impacts and is constantly trying to improve its eco-efficiency by adopting a series of measures. The measures include actions related to efficiency of energy, water and paper, green Information Technology (IT), replacing business trips with video conferences etc.

Procedures, Activities, Phases

1. Participation in the European Programme Business4Climate

The Bank of Cyprus participates in the Business4Climate programme which aims to make businesses commit themselves to a more active involvement in climate protection. In line with the programme, the bank has committed to reducing its greenhouse gas (GHG) emissions by 8% until 2030.



Co-funded by the
Erasmus+ Programme
of the European Union

2. Energy Management:

The Bank of Cyprus is committed to continually improve its energy performance, through the implementation and maintenance of an Energy Management System based on ISO 50001:2018.

Actions taken in 2018:

- the use of a fully recycled photocopying paper was used to enhance the environmental awareness of employees.
- Completion of their premises energy audit that commenced in 2017.
- Installation and connection of 100 KW photovoltaics to cover part of the electricity needs of the Information Technology building.
- Ongoing replacement of old air conditioning equipment using R22 gas, with new more efficient ones.

Actions taken in 2019:

- replacement of mechanical equipment with new, more efficient equipment in three buildings. This replacement resulted in savings of 383,977 kWh.
- development of the Building Management System (BMS) for more efficient management of the electromechanical equipment in six large buildings
- preventive and scheduled maintenance of heating and air conditioning equipment
- recertification with ISO50001 on Energy Management System for the two Data Centres of the Bank
- replacing light bulbs with LED lamps in two buildings.



3. Waste Management:

The Bank has had a paper recycling programme installed in all their premises since 2014. The company managed to recycle 735,000 kg of paper during 2018 and 390,000 kg of paper in 2019.

4. Paperless Programme:

The bank encourages its employees through its upgraded Internet Portal to further decrease the use of paper during their daily tasks. In addition, customers are encouraged to use an innovative web portal and phone banking services which were developed to reduce paper use. Furthermore, via the “Stop Paper Statement” function, customers stop receiving statements for their accounts by mail, contributing to the protection of the environment and the conservation of natural resources. Finally, a New Fees and Commissions Schedule was introduced to motivate customers to switch to digital and other paperless services.

Description of the implementation:

Investments and running costs

Investment in energy-saving: €2,049,956

Role of digital technologies

The Bank of Cyprus aims to modernise the Back-Office Operation with the continuous advancement of the existing systems, the automation of manual procedures as well as the streamlining of procedures. These procedures also contribute towards the environment. Current practices in process:



- Automated Teller Cash Recycling Machines (TCRs): which act as vaults safely storing cash
- Scanners to reduce paper and increase operational efficiency
- Electronic signature pads (ePADs) to enhance customer experience
- New Card Management System
- New flexible and dynamic Payment System
- mobile APP 1bank

Results of implementation

- 151,336 kWh savings from photovoltaic system at Bank's premises
- Reduction of environmental footprint and reduction of CO2 emissions by 2%
- Boost recycling across Bank's operations
- Use of recycled paper
- Integration of environmental awareness in Bank culture. Staff have become more educated on environmental issues and run activities to enhance it.

Description of the communication:

Internally (towards the employees): Via personal and/or group meetings and presentations, Internal portal and email announcements, Internal Workshops, Open Days, Staff Opinion Survey Management Practices, Survey Internal Customer Satisfaction, Survey Yammer Internal Collaboration Tool



Externally:

Shareholders: Via the website and email, through announcements, meetings

Media: Via email, personal meetings and press conferences

All the practices are aligned with the company's CSR policy.

The bank's responsibility towards the environment:

<https://www.bankofcyprus.com/en-GB/our-responsibilities/environment/>

Corporate Responsibility Report 2019:

https://www.bankofcyprus.com/globalassets/csr/boc_corporateresponsibilityreport2019_eng.pdf

EO signs the «CEOs Call to Action» for Sustainable Development in Europe:

https://www.bankofcyprus.com/en-GB/News_Archive/ceo-signs-the-ceos-call-to-action-for-sustainable-development-in-europe/

https://www.bankofcyprus.com/globalassets/csr/boc_corporateresponsibilityreport2019_eng.pdf :

COMMITMENT TO THE SUSTAINABLE DEVELOPMENT GOALS



GREEN PRACTICES - CONSTRUCTION COMPANY AWARDED WITH ENVIRONMENTAL AWARD

Company name: Leptos Estates

Size: Over 1,300 employees

Industry: Construction

Years of Existence: Since 1960 (61 years)

Description of the green practices involved:

The philosophy behind the Leptos Estates Group is to create projects with sophistication, quality and excellence in design whilst remaining conscious to the environment. The company prioritizes concerns related to sustainable development and delivers construction projects that seek to enhance and compliment the natural environment of the area. Having a significant sensitivity to the environment and society, Leptos Estates seeks daily implementation of environmental and social culture to all staff and customers. The company has a commitment to the protection of the environment, including the prevention of pollution, and the reduction of environmental impacts resulting from the activities of our Group. Main practices involve energy, waste and water management.

Procedures, Activities, Phases

The Leptos Estrates group has a large number of hotels all over Cyprus. According to their CSR report (2017) all the hotels issue a Sustainability report and are certified with a System Environmental Management ISO 14001. Through the implementation of this system, the Group has developed a set of administrative, technical and economic actions aimed at saving energy and improving its energy efficiency.



At the administrative level, they have created a relevant energy policy which is communicated to the staff and have developed the establishment and operation of Energy Committees. Additionally, they have created a position for a person within the Group to deal with energy management issues in all the hotels.

At a technical and financial level, the Group has the necessary resources to achieve energy set goals, investing in best available practices and energy use more efficient products and services. They have replaced all light bulbs with LED in all their hotel units, they have installed heat recovery systems in chillers and use alternative energy sources such as pellets. Furthermore, they aim to purchase energy efficient appliances and equipment.

The energy performance of the Group is monitored on a monthly and annual basis and the results are communicated to the Group Management, which makes key decisions in order to achieve the maximum possible best result. In order to minimize the amount of waste, the company reuses and recycles as much as is economically feasible and ensures that the rest is managed properly. A recycling system is established for paper, plastic, glass, cooking oils, batteries and ink. For example, the company uses paper or any other materials, more than once if applicable.

Neapolis Smart EcoCity project:

In 2010, Leptos Group announced the start of an Eco City project. The vision is to develop the most Innovative Smart EcoCity in the Mediterranean that will set standards of excellence in Healthcare, Education, Research, Business Parks and Planned Green Living with an integrated blend of Lifestyle Retail, Entertainment and Culture. The project is an integrated urban mixed-use scheme located on a 1.1 million square meter site in Pafos, Cyprus with an approved masterplan for 520.000 building coefficient sq. meters of development. Phase one is already underway, with over €171m of investment already committed to the development. The project will generate 8000 new jobs by the close of 2018, contributing significantly to the local economy.



The Neapolis Smart EcoCity is the first project of its kind in the Mediterranean and one of the largest in Europe. The design of this city is based on eco-friendly and sustainable principles and incorporates “green” technologies and smart solutions and it aims to become the prototype of an eco-efficient and smart city on an international scale. Neapolis will use a single 'Intelligence Platform' to accommodate the use of new green technologies, the latest in digital applications and sustainable town infrastructure solutions. Some of the unique features of Neapolis include: an intelligent utilities network employing integrated Smart energy, water and waste grids with Smart meters in every home and business; a Smart web wireless search engine available in all public spaces and homes through a single Ethernet environment, and self-sustainable and eco-friendly living with 25% of energy to be generated from indigenous sources such as geothermal and solar power. One of the key objectives of this project is to provide quality life services by creating a sustainable green environment.

Characteristics & values of the city:

- Ecocity Green Design & Architecture – Balanced with nature, tradition and culture; intelligent city planning; sustainable strategies.
- EcoCity Intelligent Utilities Network – Includes Smart Energy, Water, Waste Grids (integrated smart Energy grids with smart meters in every home and business).
- EcoCity Green, Clean Technologies - Recycling; Water Purification; Sewage Treatment; Solid Waste Management; Renewable Energy.
- EcoCity Smart & Green Building – Green Building Technologies (Materials & Resources, Indoor Environment etc), Energy Efficiency (BMS, Integrated Photovoltaic Systems etc).
- Ecocity Intelligent Platform & Internet - Smart Web Search Engine, knowledge resources and online public services with a single Ethernet environment.

EcoCity Knowledge Grid Environment - Intelligent Information Ecosystem.



Co-funded by the
Erasmus+ Programme
of the European Union

Description of the implementation:

Investments and running costs

Investments for Neapolis Smart EcoCity: 2 billion euros.

Results of implementation

The implementation of green and sustainable practises, policies and actions has resulted in the company receiving their first Environmental Award in October 2020. More specifically, Armonia Estates LTD, which is a member of the Leptos Group of Companies, was awarded as the best contactor by the Cyprus Recycling Organisation (OAK) in recognition for the company's efforts to improving the quality of the human and natural environment. The company received the "Class A" Gold Environmental Award for using its resources in sustainable and ecological ways.

Description of the communication:

Internally (towards the employees): The company ensures that all the staff as well as other external partners working on projects of the company are properly trained so that we all understand the important environmental aspects of their work and the environmental policies of the workplace. In this way all the staff are educated and motivated to effectively contribute to the company's vision.

Externally: By encouraging the involvement of local actors in environmental management. The company also publishes articles, brochures, and events to encourage investors to participate in their projects such as Neapolis Smart EcoCity.



Alignment with the company's CSR

Yes, most of the information was taken from the company's 2017 CSR report. The Group has established criteria for evaluating the significance of its environmental activities, products and services to identify which ones have significant environmental effects by also taking into account community law. The policies are in terms with current laws and through the establishment of specific environmental goals and objectives the company pursues continuous improvement of its environmental performance through the Environmental and Social System Management.

<https://www.leptosestates.com/news/leptos-group-news/armoniaestatesltd> :

CSR report 2017:

[https://leptoscalypso.com.cy/wp-content/uploads/2019/11/CSR-Report-Leptos-Calypson-2017-V11.pdf](https://leptoscalypso.com.cy/wp-content/uploads/2019/11/CSR-Report-Leptos-Calyпсо-2017-V11.pdf)

Neapolis Smart Eco City brochure:

<http://www.neapolis.com/resources/downloads/Brochure.pdf>



GREEN PRACTICES - ENERGY EFFICIENCY UPGRADE IN ARCHITECTURE OFFICE

Company name: Philitsa Panayidou, Polycarpos Sophocleous

Size: 0-9

Industry: Construction-Architectural services, Specialized Experts of Energy Performance of Buildings (Houses)

Years of Existence: 32

Description of the green practices involved:

The main goals of the green practises that the architecture office implemented were to decrease electricity costs, decrease paper use and waste in general and to reduce CO2 emissions.

Procedures, Activities, Phases

1.Improving building external U values of roof, walls and windows + gradually new equipment and appliances with low energy consumption.

2a. New double face multi task machine

2b. Print only if necessary

2c. Gradually use e-mail instead of fax and hard copy in our communication with clients, consultants, contractors

3. Recycling paper or re-use for notes, plastic, metal, electrical items, consumables

4. Hybrid car for transportation



Description of the implementation:

Investments and running costs

- Covered external roof and walls with polystyrene 8cm.
- Changed big north window with thermal insulated window with energy glass
- Change AC with new generation type - low energy consumption
- Change lamps with new type led
- Change old copy machine and old printer with a new multitask machine/double face printing

Challenges

The changes mentioned previously had high costs.

Role of digital technologies

- Digital technologies helped in the following ways:
- Reduction of paper work and archiving,
- Assisted in the accurate measure of study results
- Improved communication between customers and partners.

Results of implementation

Lower running costs and a workplace with better comfort conditions.





Description of the communication:

Internally (towards the employees): The company only has 2 employees, however, they managed to persuade 10 of their clients to upgrade their houses via the renovation plans of the Ministry of Energy Trade and Industry.

Financial details explanation:

Overall, the changes made to implement the green and sustainability practices were costly, however, in time the expenses of the company will decrease.

Lessons Learnt

Transforming into greener operations results in working in more comfortable conditions that have a more positive effect on the environment. Buildings are responsible for the 30% of energy consumption in Cyprus. It is important to significantly decrease this percentage.



GREEN PRACTICES – CONCLUSIONS CYPRUS

To conclude, the Cypriot economy is dominated by far by SMEs. It is unfortunate that eco-innovation in Cyprus is mainly shaped by individual sectors such as research institutes and enterprises as the country still lacks in established eco-innovation sectors.

Although Cyprus has been provided with support on how to reform the civil service structure to improve and simplify environmental licensing and environmental inspections, little improvement has been accomplished in this direction. Policy and funding for promoting eco-innovation and green practises in Cypriot SMEs significantly depends on co-financing through the EU structural funds.

As reported in the Eco-innovation in Cyprus report (2015), a comprehensive national strategy to promote a circular economy is still absent. The limitations of the public sector hold back the growth of businesses on the island. Cypriot public procurement procedures need to be reformed and the national waste strategy needs to be reinforced. The main reason for Cyprus' SMEs positive environmental performance is due to the large number of entrepreneurs that aspire to create a green and positive environmental profile for their business and manage to get funding and support to implement it. This support is mainly granted to them by EU funds or by the few accelerators/incubators of the island.

To sum up, there is a need for national and local authorities to collaborate and provide solutions and support to SMEs in becoming more green and sustainable businesses.





GREEN PRACTICES - Greece

The reports green policies and financial sustainability across European countries. The current research provides the present status of SMEs in Greece and the five analyzed best practices operating nationally.

The research was conducted by combining desk research and phone interviews with the associated companies. Face to face interviews were not feasible due to the Covid-19 situation and the implemented restrictions by the Greek government.



GREEN PRACTICES - RECYCLING OF OLIVE PITS

Company name: KLIMIS (VAS. & EK. KOTTARIDI GP)

Size: 10-12 people

Industry: Manufacturing (Producer of lime products and products made from olive pips)

Years of Existence: 53 years, since 1977

Description of the green practices involved:

The company deploys its services to create eco-innovative products as sustainable sources of energy. Using these 100% sustainable products, many households have efficient cooking and heating with 30% less carbon monoxide emissions in comparison to wood charcoal. The company aims to use natural resources without interfering to the life cycle of olive trees. The company's main activity is to produce lime products which are separated in two categories. Quicklime is used in a form of powder in the agriculture sector as a fertilizer and Putty lime is used as a building material in the construction sector. However, they also create heating and an innovative product, the barbecue briquettes. Every year the olive trees provide olive fruits and by using the olive pips they create the olive barbecue briquettes. They do not cut down and burn trees or use remnants of chopping down trees to make charcoal because barbecue briquettes grow on olive trees. This is a way to tackle deforestation and greenhouse gas emissions, as combustion of biomass is carbon neutral.



Procedures, Activities, Phases

Klimis's main activity is to produce Quicklime and Putty lime. To do that, in simply words, they bake limestones in a kiln. The process is called "Calcination." Through this process a thermal decomposition of the limestone in a temperature of about 1,000 °C is achieved. Once the decomposition is completed quicklime is created. The chemical name for quicklime is calcium oxide (CaO) used as a fertilizer in powder form. However to bake the limestones a fuel is needed. This fuel is a by-product created from the olive oil production called pomace commonly and it is a sustainable biomass fuel. The extracted olive pomace is a remnant from pomace factories produced during the process of collecting olive oil. Furthermore, in the kiln the fuel combustion that takes place is incomplete so, a black powder is created during the heating process of the limestones. This black powder is not wasted but it is compressed in oval shape to create the barbeque briquettes.

The olive pips are also utilized as logs for heating. It is described as a green fuel more specifically as a 100% natural product free of chemicals with a heating power of 4520kcal/kg.

Description of the implementation:

Investments and running costs

It is a family company that own their own facilities; therefore, their financing source is private (company's investments) and have not received any investments neither from the public nor the private sector due to lack of financing from the banks and because of high interest rates. In 2006 and in 2010 they received financial support from PA (Partnership Agreement for the Development Framework) to improve the equipment and facilities and to improve the production processes.

This improved production capabilities and the quality of the produced products. Additionally, 50% of the company's revenue originates from the produced waste.



Challenges

In 1992, after 15 years (1977-1992) of experiments, the company managed to produce and put the olive barbecue briquettes in the Greek market. The main difficulties that were faced during those years was the lack of the appropriate machines and to find out the natural raw material for gluing the black powder “waste” for making the final product as up to today there is insufficient information available for innovative products and as around 70% of the wood charcoal used annually in Europe is imported. So, they designed and made from scratch, new machines (mixers, press machines, dryers) and tested to produce the new by-product. Additionally, since the company managed to expand their market network by more than 50% internally and abroad there was a high demand of the olive briquettes and due to the lack of financing the company had more costs to deal with. Furthermore, KLIMISCOAL aims in creating new partnerships to increase production capabilities and raise people's awareness on using natural resources because EU (European Union) Ecolabel certification for such kind of products does not exist.

Role of digital technologies

The company uses digital technologies to participate in online events, workshops and virtual events and present their products and processes efficiently and in more detail but also to enhance customer management and customer relations. Additionally, they use digital marketing tools for the e-shop and their website.

Results of implementation

The company ensures the quality of the production by implementing standards ISO 9001:2015 and ISO 14001:2015. Through these standards KLIMISCOAL assures both the company management and employees as well as external stakeholders for the validity of their projects.



Technically the company creates a new "green" product from waste which leads to protect the environment as there is no waste disposal in the environment and financially, their income is raised by 50%. The last years they managed to export the product abroad mainly in Germany, Sweden, Romania and in Canada and Australia.

Description of the communication:

Internally (towards the employees): The company forms their processes on environmentally sustainable projects and employees are experts in the field. All employees are encouraged to express their ideas, report any non-conformities they have observed and propose corrective actions. New employees are trained daily for each process implementation and are being informed for every preventive process maintenance and inspection of production equipment separately.

Externally: In the ongoing process to make the environmental and innovative aspects of the barbecue briquettes known to the public, the company very often participated in social events and exhibitions, where eco-friendly products and innovative environmental processes were presented, and the participants had the chance to get involved in an open dialogue with the public.

Also, the company participated as speakers in many conferences in Greece and abroad that were organized by private companies, organizations, and universities. Through those conferences, they had the chance to present their experience in environmental development and circular economy implementation. By participating also at the EMAS (Eco-Management & Audit Scheme), the winning European EMAS Awards back in 2009 & 2014. In 2018-2019 as the winner of Runner-up in the European Business Awards for the- Environment, in the category "The Management Award for Micro and Small Companies the company became "visible" and promoted the by-product in the European market. New potential customers are thoroughly informed by the trained personnel, and an advertising brochure is distributed to them, explaining all the ecological aspects of the product as well as all its characteristics that make it an eco-innovative.



Alignment with the company's CSR

The company follows a pattern towards a sustainable economic recovery for Europe, well aligned with the priorities of the European Green Deal and with a profound respect for the environment at the very core of their business principles.

Lessons Learnt

By cascading the olive materials through a sequence of value extracting processes the company has created multiple revenue streams from olive by-products. In global terms recovering energy from the by-products of locally grown food crops, offers a carbon-neutral fuel alternative for industrial processes as well as a certified way for citizens to avoid inadvertently contributing to deforestation.

Recommendations

The company advises other SME's in the Greek market to persist and pursue any possible way to develop and promote their eco-innovative green practice by either participating in Green award competitions, programs and projects on environmental and economic sustainability and keep up with the trends and conditions promoted by other EU countries.

<https://klimiscoal.gr/en/>

<https://klimiscoal.gr/en/products>

<https://circulareconomy.europa.eu/platform/en/good-practices/production-agricultural-lime-summer-barbecues-olive-pits-make-perfect-circular-fuel>

<http://www.circulary.eu/project/klimis/>

https://ec.europa.eu/environment/emas/emas_for_you/news/news3

[en.htm](#)



Co-funded by the
Erasmus+ Programme
of the European Union



Barbeque briquettes



Olive pips to bbq briquettes



GREEN PRACTICES - PACKAGING FROM RECYCLED FISHING NETS

Company name: NILO D.PAPAMICHAIL & CO L.P.

Size: 59 people

Industry: CHEMICAL PRODUCTS, DETERGENTS, DISINFECTANTS & COSMETICS
MANUFACTURER

Years of Existence: 46 years, since 1974

Description of the green practices involved:

NILO is a company that produces and disposes detergents since 1974 and aims to serve all human activity needs in everyday hygiene and further extending and developing their activities and innovating products on personal hygiene, aesthetics and the food industry. The company's goals and responsibility are closely aligned to the UN's sustainable development goals. NILO's green practices target the replacement of 100% virgin plastic material of their filled bottles into a percentage % of recycled material and aim to reduce their environmental impact and positively affect their ecological footprint on the planet.

Procedures, Activities, Phases

The company contributes to the environmental protection via two components: one internal and one external. The internal component refers to the company's efforts to reduce the environmental impact of its operation.



Co-funded by the
Erasmus+ Programme
of the European Union

In order to meet this goal they are actively involved in the recycling of plastic, paper and wood by the Collective Alternative Management System of the Hellenic Recycling Company (E.E.A.A.) and ensure that all plastic materials will be either reusable and recyclable in packaging selection. Due to this fact NILO in collaboration with a danish company PLASTIX is exploring the development of packages made by 100% recycled fishing nets, fibbers and rigid plastic waste i.e. " Green Plastic". The use of "Green Plastic" causes an up to 95% reduction of CO2 emissions compared to virgin plastic. In more detail, by using "Green plastics" the company reduces CO2 emissions up to 82% compared to virgin plastics and they also reduce the marine pollution. Furthermore, by using Vegan certified formulas, 200 animals, 6.000.000lt water and 1.5ton CO2 emissions are annually saved. Finally, NILO uses palm oil, palm kernel and palm oil derivatives, which are exclusively derived from sustainable palm oil this means that they come from fully traceable, non-traceable crops, do not contribute to deforestation and meet the principles and criteria of the Roundtable for Sustainable Palm Oil (RSPO). The external component refers to the company's efforts to raise customers and suppliers environmental awareness and to actively support non-company actions related to the overall preservation of the natural environment for future generations. To achieve this goal, the company encourages clients to adopt an ecological philosophy by offering them eco-friendly formulas and packaging solutions (recycled PET and PE) as it is indicated by the European Parliament and Council directive on reducing the impact on the environment of specific plastic product for green economy and sustainability.

Description of the implementation:

Investments and running costs

In collaboration with the danish company PLASTIX which supplies plastic fishing nets, fibbers and other waste to the shipping industry and converts them into high quality plastic raw materials.



New Household Cleaning Products & New Liquid Hand soap launched in Greek market with Vegan formulation, packed in bottles made of the recycled plastic material sourced from the recycled fishing nets, trawls and ropes that was supplied from PLASTIX. For the R&D of these innovative products investments made, came up to 20.000€ which included the conduction of the migration and compatibility tests. Research has been made for plastic packaging manufacturers and showed that they would incorporate this type of recycled plastic raw material into their production process & equipment

Challenges

The really difficult conditions stemming both from the sharp competition in the sector and the overall economic performance of the country in recent years, challenged NILO despite the steady upward trend in its economic data. However, challenges emerged by the difficulty of using the recycled material into plastic packaging production. Repeated Sampling process was carried out by the plastic packaging supplier.

Role of digital technologies

With regard to services, always aiming at the most direct and effective customer service, NILO takes a further step and implements a dynamic and integrated ERP system that is fully suited to the needs of the company to process and monitor all of the information required for the continuous and efficient operation of business processes. The implementation of the system will enable it to monitor and verify its customers' needs in a timely manner, organize their stocks and group their missions, electronically take orders and promote them directly for execution. Additionally, the company promotes the vegan products VELVET-love for nature using digital marketing.



Results of implementation

1st company in Greece to supply Green Household & Personal care products with Vegan formulas packed in Green recycled plastic packaging sourced from maritime industry.

Carbon footprint reduction

Green manufacturing approach

Reduce the impact that our packaging proposals has on the environment.

Influence daily employee habits that revolve around single-use products, in order to reduce their waste production and environmental footprint simultaneously.

Description of the communication:

Internally (towards the employees): NILO promotes environmental awareness to all colleagues and calls for personal advice and ideas that contribute to the implementation of green practices. Therefore developed Sustainability Work Policies:

- Energy saving setting to equipment used by employees.
- Strive to reduce paper use & printing.
- Training employees on the importance of sustaining the environment and share what the organization is doing to help conserve resources.

Externally: In line with the innovative action and products, NILO attended a meeting of business representatives of new technologies, extraversion and innovation, invited by University of Volos, regarding the innovative products of the new range of "VELVET Love for Nature" natural cosmetics, developed at R&D. In addition, some company executives have participated as lecturers in seminar programs organized by the University of Thessaly in fields of innovation and development, presenting products and innovative actions of the company.



NILO also participated as a mentor in student groups at Innovation and Entrepreneurship Unit of University of Thessaly aiming at mentoring in the business world. Communication strategy:

- Via site, social media, letters to vendors and customers
- Participation in Green Awards

Alignment with the company's CSR

The company follows a pattern towards a sustainable economic recovery for Europe.

Lessons Learnt

Responsibility & Sustainability and the importance of collaborations & partnerships



<https://www.nilo.gr/www.nilo.gr/detergents/contact.html>

<https://www.nilo.gr/www.nilo.gr/detergents/contact.html>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - GREEN RESORTS

Company name: IDEALES GROUP- Ideales resort

Size: 6 people Industry: Hotel Industry

Years of Existence: 16 years, since 2005

Description of the green practices involved:

IDEALES group is a construction company that became part of the hotel industry by building a complex of villas to a resort, more specifically the “GREEN” resort in Kefalonia-Greece. The company’s goal is to build and offer ecological products such as the “Eco pool”, an environmentally friendly pool that reduces water and energy consumption due to its construction.

Procedures, Activities, Phases

IDEALES Resort is a complex of 12 villas in Kefalonia. IDEALES RESORT is part of the IDEALES group that have been awarded nationally and internationally for their sustainable development and for the green practices applied in everyday operations. All villas power their electrical appliances apart from the refrigerator with a card that is given at the visitor’s arrival.



This card is placed in a special slot next to the main entrance for power supply. Upon leaving the villa, the visitor removes the card from the slot and all appliances switch off to avoid wasting energy. Air conditioners only work when the front doors and windows of a room are closed so that there is no loss of cooling or heating from the room. All electrical appliances are selected mainly on the basis of their energy class and all are of the highest possible energy class. The windows are energy efficient with thermal breaks and double glazing reducing the consumption of cooling and heating.

For the lighting of the Resort only LED lamps are used. These lights are recycled after their expiration and at the main entrance of each villa there are lights with photocell.

To save water but at the same time ensure hot water to the customers, the villas are equipped with solar water heaters. Additionally, pressure reducers, blowers are emplaced in each tap and double flow cisterns in all villas.

Bed linen, towels and pool towels are changed twice a week, thus reducing unnecessary laundry services and their consequent environmental impact (waste of water, detergent and energy).

All villas have ecological pools built in. These pools are maintained according to the hygiene and safety regulations. The pools due to their construction operate with water and energy reduction and the minimum usage of disinfectants making them more environmentally friendly.

To recycle and reduce waste, all visitors are encouraged to throw away everything made of paper, glass, aluminium or plastic in special recycling bins located in each kitchen.



All contents of the bins are transferred to the blue recycling bins. The resort is also equipped with organic waste compost bins located on the premises of Ideales Resort. To protect the Environment and the health of the Visitors only ecological cleaning products and detergents are used and the packaging of which is always promoted to be recycled.

Other Initiatives

Selected plants are placed in each villa as they can preserve against any weather condition. Their need for water is very small and also provide shade outside the villas. With the rich tree planting that has been done in the large area of Ideales Resort, adding plants and trees in harmony with the natural landscape, the wider area has also been upgraded.

Description of the implementation:

Investments and running costs

Investments were made by the company itself mainly at the beginning of the Resort's construction. The resort was built according to the environmental regulations applied to all buildings in earthquake zones during the period 2005-2009 such as Kefalonia. All initial investments were made based on the long-term plan in order not to affect the running costs of the company.

Challenges

Due to the measures against Covid-19 the resort announced that the Cleaning Service would not be provided during a visitor's stay, causing excess use of bed linens and towels. All visitors would be provided with extra sets of bed linens and towels during their stay at the resort. This influenced the excess water and energy consumption. Additionally, due to the Covid-19 situation the resort was not able to distribute informative leaflets on recycling and other green activities to visitors.



Role of digital technologies

The resort aims to exceed expectations for their sustainable development and green practices since 2005 in order to reduce operating costs and at the same time increase guest satisfaction. These practices use digital technologies such as:

Ideales blog: A blog through which the company raises awareness and encourages people to recycle.

Ideales booklet: A booklet which informs visitors on the flora and fauna of the island.

Website: Available on computer and mobile devices, the website provides a full description of all green practices of the resort including nominated awards from different organizations.

Navigator Pro: A pool cleaning robot that operates with water pressure instead of electricity.

Its hydrodynamic design helps to achieve a very fast cleaning of the bottom of the pool, offering a beautiful pool with healthy water. Its biggest advantage is the advanced SmartDrive system that achieves a complete coverage of the pool.

Results of implementation

The resort is constructed by advanced systems and ecological products that allow the Visitor to enjoy the pool with respect towards the environment and without wasting water and energy, but also in a completely healthy and safe way. This allows the resort to be cost-effective and environmentally, economically and socially sustainable.



Description of the communication:

Internally (towards the employees): The company invests in the dissemination of knowledge in the workplace and in the education of their employees. The professional staff receives constant training on innovative systems in Greece and abroad. All changes regarding recycling procedures are communicated via formal emails or in direct contact by the owners. Furthermore, the company also encourages employees to provide innovative ideas on green practices.

Externally: The company very often participated in social events and exhibitions, where eco –friendly products and innovative environmental processes were presented, and the participants had the chance to get involved in an open dialogue with the public. Ideales resort participated in many events through which was awarded the Green Key eco-label award. Green Key is an eco-label for tourism and leisure establishments and is awarded to establishments that fulfil a list of environmental requirements. Obtaining Green Key demonstrates the responsibility of the establishment for its surroundings and society. Additionally, another important award added to the numerous distinctions for Ideales Resorts' Green Practices was the recent Silver Distinctions in the Greek Hospitality Awards 2018 as a Best Greek Green Resort, the Silver Distinctions in Tourism Awards 2016 and 2017 and the gold award in the Green leader's program by Trip advisor.

https://www.idealesresort.gr/eng/faqs/ideales_resort_green_practices <https://www.ideales.gr/en/ideales-resort/demanding-travelers>
<https://www.ideales.gr/en/responsibility/environment>
<https://blog.ideales.gr/en/>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - RECYCLING MANUFACTURING MATERIALS

Company name: TOLIS DISPLAY HELLAS S.A

Size: 85 employees

Industry: Manufacturing

Years of Existence: 61 years, since 1960

Description of the green practices involved:

Tolis Display Hellas S.A is a manufacturing family company which produces and trades products in wire, tube and plate with several surface treatments as high gloss chromated zinc, zinc with baked on protective lacquer and plastic colour coating for shops, supermarkets, logistics and business commerce since 1960. The company's perception towards applying green practices started in 2012 by recycling most of their spare materials (paper, plastic, metal). This concept was initiated from the family itself and expanded over the years to the company in a way to become more organized, more efficient and more productive but also comply with laws and regulations that were established nationally at that time.

Procedures, Activities, Phases

The company holds the international Quality Certification EN ISO 9001:2000 and is considered a guaranteed approved supplier of large Greek and multinational groups as well as of multiple smaller companies. Due to the company's cooperation range, its green practices occur internally and externally



Co-funded by the
Erasmus+ Programme
of the European Union



Internally the company as mentioned manufactures and produces professional store and logistic equipment such as shopping carts, transport, warehouse-logistic trolleys, recycle bins wire and metal merchandising materials. Trolleys or in general carts are manufactured in a facilitating way by metal or a combination of metal and plastic for collecting and moving items, therefore during the cart production high volumes of metal and plastic waste is created. TOLIS applied an effective recycling solution to create a seamless process from waste creation to the correct collection, disposal and recycling of it in order to avoid directing it to landfill. More specifically the company took into consideration the approximate volume of metal and plastic waste created from their premises and determined their appropriate container sizes for each type of waste, then by setting a collection schedule the waste created was effectively collected, separated, stored within their containers and then sent off for recycling. Within the company's factory premises there are also the municipal blue recycling bins for cardboard and paper waste and the municipal green bins to dispose domestic waste. Within the company's office the recycling occurs by using the metallic bins they produce, these metallic bins with DCP 1.25mm contain stands for degradable plastic bag inside the bin surface treatment with each colour representing a material:

Blue bins for plastic

Yellow bins for paper

Red bins for metal

Green bins for other waste

Additionally, plastic and metal materials used for different products need to be colour coated. The powder applied for coating is certified as environmentally friendly due to their low carbon footprint with a 99% usage.



This powder once used is then specially filtered in order to be reused on other products, the powder residue is then sent to external premises for further processing. Furthermore, soap oil is added in the paint used for metal coating, this prevents metals used for carts, trolleys and other merchandising materials to rust. The soap oil residue is also sent off to a certified private company to further process and reuse.

Finally, the company aims to cooperate with companies certified for the environmental practices innovative products.

Description of the implementation:

Investments and running costs

It is a family company that own their own facilities; therefore, their financing source is private (company's investments). All investments provided for implementing paper, metal and plastic recycling paid off within a year of operation of the factories whereas metal recycling reduced costs around 50%.

Challenges

Supervising that the recycling process is carried out correctly and that all produced waste is categorized into the container bins according to the material.

Role of digital technologies

The company uses digital technologies to participate in online events, workshops and virtual events and present their products and processes efficiently and in more detail but also to enhance customer management and customer relations. Additionally, they use digital marketing tools for their website through which they offer support, in product design and after sales service. The website is available on computer and mobile .



Results of implementation

The recycling process of the manufacturing waste provided the company with the opportunity to become more organized, more productive and hence cost-effective, environmentally, economically and socially sustainable.

Description of the communication:

Internally (towards the employees): The company invests in the dissemination of knowledge in the workplace and in the education of their employees. The professional staff receives constant training on innovative systems in Greece and abroad. All changes regarding recycling procedures are communicated via formal emails or in direct contact by the owners. Furthermore, the company also encourages employees to recycle by setting up markings both at the factory and office premises of the company. Finally, TOLIS encourages the staff to provide ideas on innovative green practices.

Externally: The company initiated all green practices during the production in 2012. These practices were communicated outside of the company by:

Placing milestones in all three factories

Face-to-face meetings with suppliers and clients

Participating in social events and awards

Sending out certified letters to vendors and customers

All practices are aligned with the company' CSR policy.

<https://tolis.gr/en/home/>

<https://tolis.gr/about-gr/>

<https://tolis.gr/en/product-catalogs>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – PAPASTRATOS - SUSTAINABLE DEVELOPMENT

Company name: PAPASTRATOS - PHILIP MORRIS

Size: 833 employees

Industry: Tobacco company

Years of Existence: 85 years, since 1926

Description of the green practices involved:

PAPASTRATOS has as a main goal to align businesses' activities with the Sustainable Development Goals (SBA-SDGs) of the UN. Additionally, the company aims to improve the products' life cycle effects, starting from the environmental effects of tobacco cultivation and reaching the implementation of effective programs production with low carbon dioxide emissions as well as waste management and recycling.

Procedures, Activities, Phases

In 2019 by renovating the administrative building (Administrative Building Renovation), the natural light was enhanced throughout the building and it was achieved by replacing opaque partitions with glass inner partitions. The new layout of the building led to its optimized air conditioning, utilizing the eastern and west orientation of the respective offices, while saving energy.



Co-funded by the
Erasmus+ Programme
of the European Union

In 2018 by converting the factory into an exclusive production centre of heated rods tobacco and the initiation of commercial production, there has been a greater focus of the company on environmental issues. Additionally, due to the fact that the factory emits gaseous pollutants, the company monitors and controls the particles emitted in order to meet all regulations. They also perform a chemical analysis of the processed water composition from the plant by utilizing a biological treatment. Furthermore, in order to maintain the quality of the water resources the company implements programs such as, that of Good Agricultural Practices -GAP. Sustainable water management in agriculture also includes access to safe water and sewerage for tobacco growing communities. In 2012 PAPASTRATOS initiates the program "Layout Of Future Technology", which aims to reduce the volume of produced and assigned to Specially Licensed External Management Body, hazardous liquids waste and with which they have managed to reduce these quantities by 40%. In 2017 the company starts a new project on wastewater management, called "Flocculation" (Physicochemical precipitation - flocculation). This method is simple, it is an automated process that separates solids from its liquid components waste, it occurs mainly in one reactor and requires a limited number of electromechanical equipment and consumables. Other actions to improve the company's environment performance:

All the electricity supply comes from renewable sources, by obtaining the relevant certificates from the electricity supplier energy.

In 2016, low consumption lighting was installed (LED) in the Print Unit.

In 2018, the factory was connected to the Natural Gas Network This action helped the gradual decoupling of fuel oil usage and contributing significantly to the reduction of carbon dioxide (CO₂) emissions.

The relevant environmental indicators are constantly monitored (fuel consumption, electricity, water, CO₂ emissions, waste generated, recycling / disposal).



Description of the implementation:

Investments and running costs

In 2019 2.4 million euros were invested for the renovation of the administrative building (Administrative Building Renovation)

Challenges

The water strategy includes many risks such as potential pollution and the lack of water resources and their effects respectively in the related hydrological basins (catchments). The water strategy is the compass to ensure sustainable water management.

Role of digital technologies

Recognizing the needs of society, the company has transformed into a technology company, offering adult smokers not only alternative tobacco products but also digital solutions for every moment of their daily life related to their use.

Results of implementation

Reduction by 70% in quantities of hazardous liquids waste in 2019.

Waste Management of 99.9% of produced waste with some recovery form (recycling, composting, energy recovery). For the productive activities of the company, it is necessary to use electricity and thermal energy, which correspond to 41% and 59% of the total respectively.

For 2019 it was observed that energy intensity (MJ / unit of product) decreased by 36% compared to 2018. Given that absolute energy consumption increased in 2019 compared to 2018, energy intensity for 2019 improves its operation in regards of the production volume, which showed an increase.





The indirect emissions of the greenhouse gas (market-based) for 2018 and 2019, are zero as the company obtained Guarantees of Origin from the company IRON THERMOELECTRIC SOCIETE ANONYME. By Using Guarantees of Origin, PAPASTRATOS promotes the use of Renewable Energy Sources (RES) in comparison to 2018, when the company received guarantees of origin for 71,280,000 MJ (19,800 MWh) of electricity produced by RES while in 2019 it received guarantees of origin for 90,741,600 MJ (25,206 MWh).

Description of the communication:

Internally (towards the employees): A total of 204 trainings were conducted on the Environment, Health and Security, lasting 2,000 working hours in 2019, against 149 duration trainings 1,000 working hours in 2018.

Possible alignment with the company's CSR All practices are aligned with the company' CSR policy.

<https://papastratosmazi.gr/>,

[https://papastratosmazi.gr/media/wyldxv2x/papastratos_fin
al.pdf](https://papastratosmazi.gr/media/wyldxv2x/papastratos_fin_al.pdf)

[https://www.pmi.com/resources/docs/default-source/pmi-sustainability/pmi-
sustainability-report- 2018-low-res.pdf](https://www.pmi.com/resources/docs/default-source/pmi-sustainability/pmi-sustainability-report-2018-low-res.pdf)



GREEN PRACTICES – CONCLUSIONS GREECE

Greek SMEs ought to adapt the concept of sustainable development which concerns the wise use of energy land stocks and integrate them within their daily business practice initially as a cost reduction strategy. As they represent 99.9% of the total private sector, SMEs should treat CSR as a new market opportunity, focus on environmental practices and at the same time strengthen their market image and increase the competitiveness with the big corporate companies. It is suggested that businesses ought to implement, monitor environmental programs and individual actions as using recyclable materials for their packaging products, forecasting CO2 emissions, defining environmental objectives (e.g. reducing carbon footprint by 10%). Additionally, they should increase internal environmental awareness by organising/ funding/ participating in training programs for staff education and informing employees on the environmental performance of the company. Finally, SMEs should plan and implement an Environmental Management System, that will allow them to put everything into a plan that will be monitored, audited and improved on a frequent basis.

Greek SMEs come across different obstacles when adopting circular economy and hence green practices basically due to their small size. In more detail such obstacles could be lack of interest by consumers, lack of national finance especially during the economic crisis period. Additionally, due to current legislations small business are only able to recycle instead of designing circular and greener operations. For this, financial incentives will develop SME's circular economy and enhance circular product creation which will be more profitable than recycled or remanufactured products.





GREEN PRACTICES - Ireland

The current research offers an overview of the present status of SMEs in Ireland. Its purpose is to show 5 successfully implemented examples of companies which have changed their operations into more environmentally friendly ones.

The research was undertaken mainly over a desk research since contacts with the SMEs themselves were difficult to make, as a result of the COVID-19 situation and imposed restrictions.



GREEN PRACTICES - MANAGING ENVIRONMENTAL FOOTPRINT

Company name: Brown Thomas Arnotts Ltd.

Size: Over 3500 people employed across all company's business (according to the sustainability report)

Industry: Department (and Lifestyle) Store

Years of Existence: Since 1849

Description of the green practices involved:

Elimination of single use plastic packaging (under Ireland's REPAK Plastics Pledge)

Brown Thomas managed to ban plastic microbeads in beauty products as well as plastic containing cotton buds and wet wipes from their beauty halls. Similarly, the company have removed single use plastic straws, water bottles and coffee cups from their restaurants. All employees have been offered a reusable cup, at their induction. Plastic shopping bags have also been eliminated, in favor of paper and cardboard - certified to Forest Stewardship Council or Programme for Environmental Forest Certification).

Reduction of carbon footprint (under the Science Based Targets initiative)

With the company (and the world) transitioning to a zero-carbon economy, BROWN THOMAS are working with the Science Based Targets initiative (SBTi) to reduce their emissions in line with climate science; the company has committed to reduce their carbon emissions across their estate (scope 1 & 2) by 50% and in their supply chain (scope 3) by 15%, from a baseline of 2018, by year 2030.



Launch of first Sustainable Products edits (vegan, cruelty free and organic beauty to sustainable fashion, food, homewares, and Irish sourced products that have a light footprint) in May 2019.

Zero waste to landfill

The target of achieving “Zero Waste to Landfill” across all company’s stores was set in January.

2019. The year under study started at 22% waste going to landfill and this has been reduced to 2% so far. This has been achieved by working in partnership with Thornton’s, waste contractor company by (1) reducing waste generated (2) segregating recyclables (Dry Mixed Recyclables, Cardboard, Plastic, Glass, Hangers), composting the food and sending the remaining General Waste for Waste to Energy Incineration. Reduction in the use of packaging where possible, as well as shift to lower impact options in line with the sustainable packaging requirements of the company’s Ethical Trading Requirements were also applied.

Main goals of the practices

The sustainability vision of the company is to achieve Positive Change and support their customers to Buy Better. This is seen by the company as Doing the Right Thing, a core business value. The company’s principal aim is to manage own environmental footprint, responsibly source products and support our people and communities. Consequently, three pillars of action have been established; Work responsibly, Buy & Sell Responsibly and Support Community through charity and volunteering. Annual sustainability targets and policy are published on our website for all to see.



Procedures, Activities, Phases

According to the Sustainability Progress Overview covering the period from 01 Feb 2019 to 31 Jan 2020, BROWN THOMAS ARNOTTS have joined several sustainability leadership initiatives in Ireland and internationally (such as Repak Plastics Pledge, G7 Fashion Pact, Voice Ireland and Refill.ie).

In an internal phase, the company has established a dedicated sustainability team to lead their programme with oversight from their Sustainability Executive Group and over 40 “Champions” (employees passionate about delivering the company’s vision by cascading and implementing environmental improvements, charity fundraising and volunteering) to support implementation across the business.

Description of the implementation:

Challenges

The company’s teams raise charity for partners local to their stores, and the company matches the team funds raised up to €100,000/annum.

Results of implementation

Although at an early stage, the company declares committed to placing sustainability very high on their business agenda; the company has been leading the Irish retail for over 175 years and the sustainable way of working is the road ahead in the years to come. The company has achieved in the under-study period milestone targets, and as a result are very satisfied with their results so far.



Description of the communication:

Internally (towards the employees): Internally, the company has established a dedicated sustainability team to lead their programme which is overseen by their Sustainability Executive Group and over the “Champions” to support implementation of sustainability goals across the business. Every member of the sustainability team that the company employs has one paid volunteering day per year. Through the activities they select the sustainability teams engage and walk the sustainability talk in practice.

Training for employees starts in Induction, through to function specific training such as for buyers/brands on responsible sourcing, green procurement (suppliers), waste and sustainable food in our restaurants.

Externally: The so-called “Champions” raise charity for local partners the company’s stores. The business matches the team funds raised up to €100,000/annum. The company also work with own brands on charity products such as MAC Viva Glam for AIDS and the annual Brown Thomas ISPCF fashion show. During the under-study year the company raised over €205,000 for charity. From customer surveys the company run, it has been known that most of their customers are influenced by sustainability when shopping, therefore raising awareness is a key point, to enable customers buy better. The company published the 1st Brown Thomas digital magazine devoted to sustainability in June 2019 to break the news about their sustainability activities to the public, which was followed by regular publications, along with articles on the company’s websites to inspire change. Several campaigns to raise awareness on Single Use Plastic coffee cups, water bottles and sustainable products. Water fill stations have been installed in company’s restaurants for the customers, whereas a reusable cup and GOTS certified Organic tote makes part of each employee’s induction pack.





Alignment with the company's CSR

Yes, it is. According to Lawler Sustainability, a multi-disciplinary team of highly qualified Building Services and Green Energy Engineers, Brown Thomas have committed to a carbon roadmap to save up to circa 3,000 Tonnes of CO₂. Lawler Sustainability worked closely with Brown Thomas Arnotts Sustainability Team in analysing the building's energy load, engineering systems and energy bills as well as looking at the companies Science Based Targets. From there, Lawler Sustainability could devise an energy roadmap that the company can follow. This Carbon Roadmap devised by Lawler Sustainability outlines how the company can save up to circa 3,000 Tonnes of CO₂.

Lessons Learnt

Sustainability principles have been integrated in every aspect of the business and entails all sectors and employees, from the top management to the "Champion" employees. The company believes that this is the way forward in the years to come if they are to continue leading the retail industry.

<https://brownthomas.a.bigcontent.io/v1/static/BTA%20SUSTAINABILITY%20PROGRESS%20REPORT%20OFY1920>

<https://www.brownthomas.com/about-brown-thomas/brown-thomas-sustainability.html>





SUSTAINABILITY PROGRESS OVERVIEW - 01 FEB 19 – 31 JAN 2020

1. INTRODUCTION

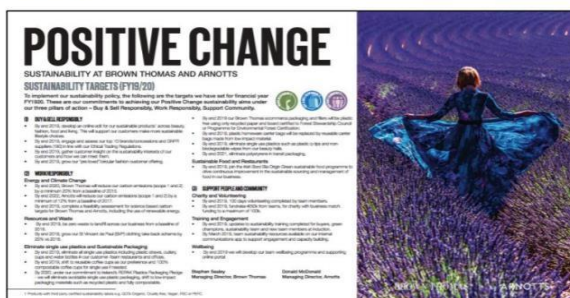
At Brown Thomas Arnotts, we are dedicated to our sustainability commitments, from working, buying and selling responsibly to supporting our communities. Over the last year we have achieved milestone targets in these areas. We launched our Sustainable and Irish Products Edits, introduced take back and circular fashion initiatives, achieved our 20% carbon emission reduction target, switched to 100% verified green electricity, set our Science Based Targets for 2020-2030, reduced our waste by 20% and achieved



2. SUSTAINABILITY MANAGEMENT – VISION, AIMS, ACTIONS, KPIs

Our sustainability **vision** is to achieve **Positive Change** and support our customers to **Buy Better**. We see this as *Doing the Right Thing*, one of our core business values. We're at an early stage, but committed to placing sustainability at the heart of how we work, what we buy and sell.

Our **aim** is to manage our environmental footprint, responsibly source our products and support our people and communities. To deliver our aim, our sustainability programme has three pillars of **action** – **Work responsibly, Buy & Sell Responsibly and Support Community through charity and volunteering**. Our **Sustainability Policy**, annual **Targets** and programme to drive continuous improvement are published on our **website** for all to see. Over the last year we have achieved ambitious targets across our three pillars. Our sustainability strategy is integrated in all parts of the business, management objectives and monthly Key Performance Indicators.



3. ORGANISATION, GOVERNANCE AND OUR TEAMS



GREEN PRACTICES - TURNING TO RENEWABLE ENERGY

Company name: Astellas Pharma Co. Ltd. (APCL) – IRELAND leg

Size: 400 people in Ireland across three locations (Dublin 24 – Co. Dublin, Killorglin - Co. Kerry, and Mulhuddart - Co. Dublin)

Industry: Pharmaceuticals

Years of Existence: Since 1923 (for the mother company) - Since 2005 the Irish company has the present format (following the merger of Fujisawa and Yamanouchi)

Description of the green practices involved:

- Support on academia and health care institution, as well as on patient organisations (Marie Keating Foundation)

The company support several Marie Keating Foundation projects such as Get Men Talking, Survive & Thrive, Heroes of Hope & Stand up for your Prostate. All these projects aim to positively affect the lives of men & their families touched by prostate cancer. For example, the “Stand up for your Prostate” project encourages men across Ireland to ‘stand up’ for their prostate. The Marie Keating Foundation's Stand Up for Your Prostate' campaign is aimed at empowering Irish men to be more open and comfortable discussing their health. Sponsored by Astellas, the integrated campaign hopes to increase awareness of what is the most common cancer in men, after non-melanoma skin cancer, in Ireland during Blue September and raise vital funds to support the 3,550 men diagnosed with the disease every year. This campaign is based around three simple principles that aim to increase awareness of prostate cancer (WATCH for any symptoms, TALK with family and friends and ACT by going to see the GP).



Such campaigns have been backed by broadcasting videos where well-known Irishmen (politicians, journalists) talk openly about the prostate problem they faced in the past.

Another similar campaign is the “Heroes of Hope”; Astellas Ireland supports the Marie Keating Foundation by exhibiting the stories of 15 men (Heroes of Hope) who have survived prostate cancer. These men are from different counties, do different jobs, are of all ages and each has travelled their own individual cancer journey.

Reduction of CO2 emissions in Kerry manufacturing plant

On the company’s effort to reduce Green House Gases (GHG), renewable energy is actively used in Kerry plant. This was achieved by introducing photovoltaic panels and wind power, and equipment as biomass boilers to the plant facilities. All energy generated through these means is consumed at these facilities. In addition, the company purchases electricity generated by renewable energy sources, so both directly and indirectly the company is suppressing GHG emissions. In more detail, the following measures have led to 98% reduction in CO2 emissions, at Kerry plant since 2005.

- 691 m2 solar panels on new building roof area
- 35% reduction in energy use from baseline through optimal Building Fabric, Mechanical Design, HVAC considerations and Renewable aspects
- Leading Energy Efficiency Design (LEED) Gold achieved

Enhancement of sustainability of society. Two aspects are considered here.



Value creation: Astellas company is creating value for society by addressing social issues such as unmet medical needs, and by rewarding stakeholders. By reinvesting the gained profit, the company gain through business activities, strengthen their capabilities in research and development. In addition, by winning trust from government and business partners, they create new business opportunities, and this is how value is created and company's sustainability is enhanced.

Value Protection: Astellas company seek to reduce its environmental burden and preserve biodiversity, ensures compliance, and takes measures to prevent corruption. In addition to the social value of these activities, they contribute to mitigating reputation risk and elevating Astellas' corporate brand, thereby protecting their enterprise value.

Description of the implementation:

Role of digital technologies

Although non-exclusively mentioned at all resources, it is obvious that digital technologies have been used extensively in the use of alternative sources of energy for the Kerry plant (at least).

Results of implementation

For the Astellas company, fulfilling their social responsibility means the realization of their business philosophy (in their words).



Description of the communication:

Internally (towards the employees): The Astellas Policies and Position Statements, establishing the important rules, principles, and management responsibility, including the sustainability principles and commitments, of the overall Astellas group worldwide, apply to all full-time directors and full-time and part-time officers, employees, and other temporary staff of the Astellas. They may also apply, in whole or in part, to agents, consultants, contractors, or other individuals who act on behalf of Astellas, if so stipulated in relevant contracts.

Externally: Broadcasting and testimonials of people that have survived cancer and are speaking openly about it, extensive information on the company's website about CSR (company social responsibility), awards and recognition in national and international level ("Green Large Organisation of the Year" in Green Awards 2019 in Ireland)

The company's green practices are very closely connected with the company's CSR policy.

Lessons Learnt

This is at the same time the company's mission: the company will seek to be the company of choice, and gain the trust of all its stakeholders, including its customers, shareholders, employees, and the global community by, at the same time, enhancing its enterprise value in a sustainable manner.





The screenshot displays the Astellas website's 'RESPONSIBILITY' section. The top navigation bar includes 'ABOUT', 'THERAPY AREAS', 'INNOVATION', 'RESPONSIBILITY' (highlighted), and 'NEWS', along with a search bar. The main content area is titled 'HIGH LEVEL KP ENVIRONMENTAL TARGETS' and features a circular diagram labeled 'OUR JOURNEY TO SUSTAINABILITY'. The diagram consists of four colored arrows forming a circle, labeled A, B, C, and D, pointing to 'BIOMASS', 'WIND', 'SOLAR ELECTRIC', and 'SOLAR THERMAL' respectively. A large green arrow points from the diagram to a text box stating '98% Reduction in CO₂ since 2005'. To the right, a 'RESPONSIBILITY' sidebar lists categories: 'Making an Impact' (expanded), 'Environment', 'Kerry Manufacturing', 'CSR-Based Management', 'Access to Health', 'Ethics & Compliance', and 'Activities'. Below the main content, the 'Corporate Responsibility' section is visible, featuring three columns: 'Making an Impact' (with an image of a healthcare worker), 'Access to Health' (with an image of a group of people), and 'Activities' (with an image of a group of people sitting around a table). Each column has a brief text description and a small image.

<https://www.astellas.com/ie/>

<https://www.astellas.com/ie/responsibility>

<https://www.astellas.com/ie/responsibility/kerry-manufacturing>



GREEN PRACTICES - REDUCING CARBON FOOTPRINT

Company name: Hotel Doolin

Size: 120 full and part time employees in 2019

Industry: HO.RE.CA (Hotel)

Years of Existence: 2006

Description of the green practices involved:

The Green Hospitality Programme, which is a national resource for sustainable and responsible tourism in Ireland recognised by governmental authorities including Fáilte Ireland, Tourism Ireland, Discover Ireland and the Sustainable Energy Authority of Ireland (SEAI), aims to reduce the carbon footprint of the hotel by reducing waste, water and energy use throughout the hotel. Hotel Doolin is the only hotel in Ireland recognised as having achieved a 'Carbon Neutral12 GREENMark' award. The carbon/energy reduction programme focused on minimising energy consumption, creating an active energy management and reduction plan, a substantial investment in green electricity and a viable, long-term solution to offsetting carbon emissions by planting native Irish woodland trees in a controlled location close to the hotel. In more detail, some of the transformations included this of the oil-based heating system to an ambient air to water system and the replacement of an events marquee with an Eco-Barn for weddings and events. Plastic bottles and single-use items are completely banned in the hotel with all napkins reusable and toilet paper made from recycled materials. Rainwater is harvested and in addition, 75% of food supplied to the hotel is sourced within 50km.



The development of the Geopark as a sustainable tourism destination.

To achieve this, the hotel teams participate in conserving the natural and cultural heritage by taking part on clean ups, adopting a hedgerow scheme and the “Leave No Trace” principles, and by informing the hotel guests of existing schemes and programmes. For the latter, Hotel Doolin has a tourist information office on site with Geopark maps and booklets of information, and they also include a Heritage paragraph of info on the Geopark on the guest bedrooms booklets. In a more systematic way, and to make the community benefit from the hotel enterprise, they have ensured that 70% of their suppliers are based in The Burren, and they make sure to promote Doolin as a destination and not the Hotel itself, they organize 3 festivals every year (The Doolin Folk Festival, The Doolin Surfest and the Doolin Writers’ Weekend) which bring more than 3000 clients staying overnight to the area.

The contribution to the local economy is also ensured by maintaining and supporting local employment, by sourcing services and produce locally wherever possible, and by engaging with other businesses in promoting the region as a sustainable tourism destination. Hotel Doolin has increased its staff from 20 Full time employees in 2013 to 120 full and part time employees in 2019. A rough estimation shows that The Barn at Hotel Doolin brought in €2.5 million to the local economy last year.

Description of the implementation:

Hotel Doolin has become the first Irish hotel to be awarded carbon neutral status (Green Medium Sized Organisation of the Year at the Green Awards 2019 – Ireland). Commitment to sustainable practices has definitely paid off; the business has grown by 30% since sustainability code of the hotel was publicly known.



Description of the communication:

Internally (towards the employees): While carbon neutral status can be achieved without a hotel revising its team structure, Hotel Doolin made the decision to put together a green team and has appointed a 'Green Team Manager' whose role is to guide and implement new sustainability and social responsibility initiatives. The Green Team Manager was appointed to the HR manager of the hotel, and this as a choice has proved to be very wise; assuring a sustainable workplace is very beneficial in attracting and retaining staff.

Externally: Hotel Doolin, through its Environmental Policy Statement, offers collaboration with all stakeholders to collectively develop the Geopark as a sustainable tourism destination, with the aid of training and networking events as possible throughout the year as well as participating with subgroups formed from Burren Eco Tourism Network.

Since the Hotel is highly preferred for weddings and other ceremonies, the staff plant ten native trees locally in partnership with Hometree for every wedding held at the hotel, with over 1,700 trees planted in the past two years. The hotel staff are introduced to the program at induction stage and are encouraged to give their own feedback on any improvements that they can see would help reduce the enterprise's carbon footprint.



Alignment with company's CSR

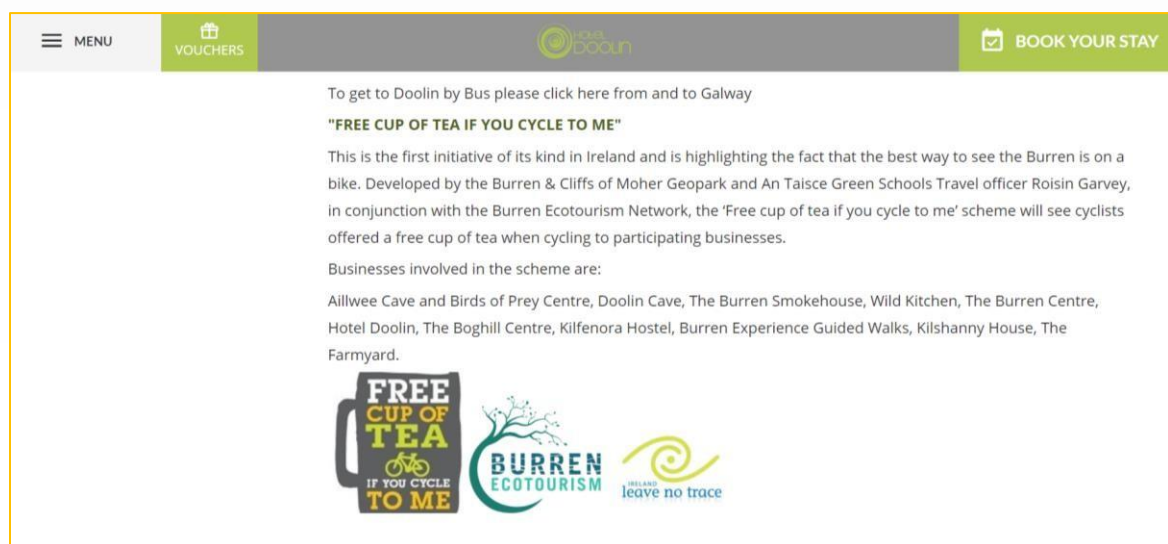
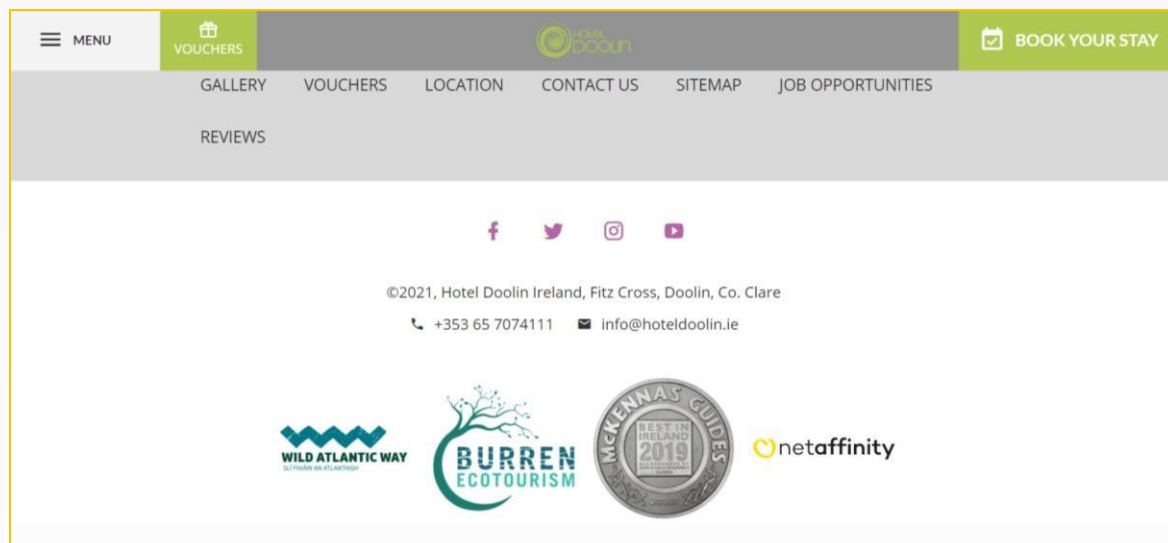
Totally aligned. The numerous awards Hotel Doolin has achieved mark their success in this.

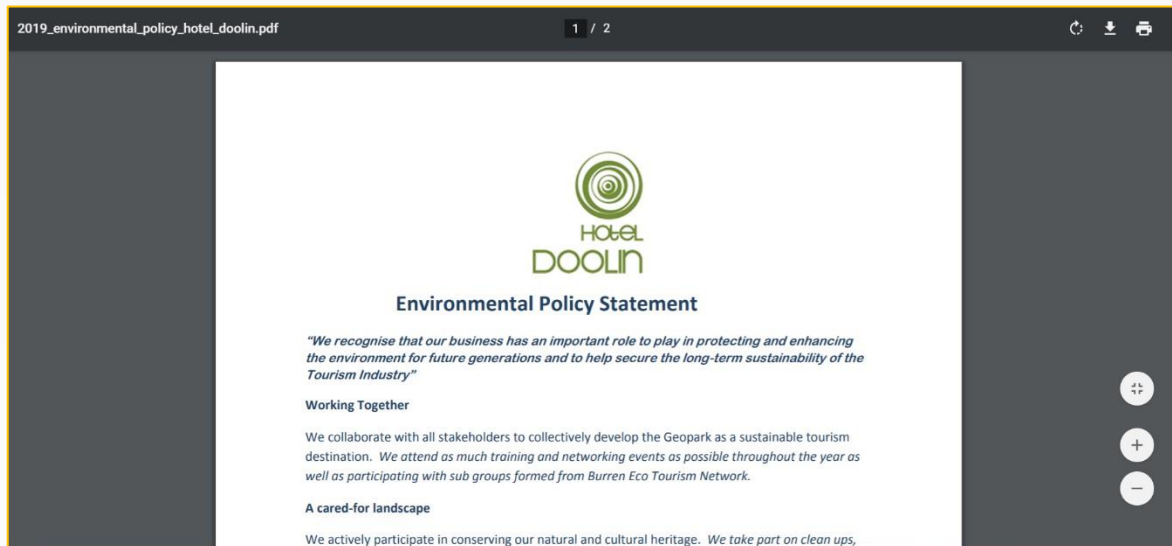
- Winner of Chambers Ireland's CSR Awards in the Excellence Environment Category for the project Green Team Work.
- Winning Green Organisation of the Year at the Green Awards two years in a row in 2018 and 2019 the Green Tourism & Entertainment Award in 2015, 2016 and 2017, and the Green Festivals Award 2017.
- The Social Responsibility team have organised a number of fundraising events with a great success, thanks to the help of the local community, and the hotel customers. Several charities and organisations have benefited, namely the Irish Cancer Society, Alzheimer's Ireland, St. Vincent De Paul charity and many more.

Lessons Learnt

All the electricity used in the hotel comes from green sources and the hotel staff continuously monitor and reduce their energy consumption. The consumption in 2017 was 465 tonnes of carbon compared to a projected 110 tonnes by end of 2019. If a small hotel in the west of Ireland can do this, hopefully, bigger companies can see what is possible to be done (with creativity and teamwork) and be inspired to follow suit.







USEFUL LINKS

<https://www.clareecho.ie/hotel-doolin-first-premises-in-ireland-recognised-as-carbon-neutral/> <https://www.hoteldoolin.ie/green-initiatives.html>
<https://www.hoteldoolin.ie/water-efficiency.html>
<https://www.hoteldoolin.ie/leave-no-trace.html>
https://www.hoteldoolin.ie/cmsFiles/2019_environmental_policy_hotel_doolin.pdf



GREEN PRACTICES - SUSTAINABLE MEAT PRODUCTS

Company name: DAWN MEATS

Size: 7250 Employees in 12 countries (as of 31st Dec 2019)

Industry: Meat processing – marketing of meat products

Years of Existence: Since 1980

Description of the green practices involved:

Sustainable suckler beef production, in 4 key priority areas:

- Environment
- Animal medicines
- Animal welfare (Freedom from hunger and thirst, Freedom from discomfort, freedom from pain, injury and disease, freedom to express normal behaviour, freedom from fear and distress)
- Farm management

Dawn Meats fully supports the collaborative nature of the Origin Green programme, the national sustainability programme for the Irish food and drink industry. There is a holistic approach adopted, from farm to fork, so that the end product supplied to customers is sustainable, healthy & high-quality meat products.



This collaborative work is exemplified at the Newford Farm. A standalone suckler herd has been established by Dawn Meats and Teagasc, supported by McDonald's and The Irish Farmers Journal at Athenry, Co Galway to demonstrate best practice in sustainable suckler beef production. The herd, which is known as the Newford Herd, is run on a fully commercial basis and demonstrates the potential of a moderately large suckler beef farm to generate a viable family farm income when operated to the highest level of technical efficiency and best practice. The farm acts as a shop window for the technologies that drive profitability in a suckler herd and operates in a transparent manner, with all measurements and data available to visiting groups, other interested parties and the farming public through the farm's blog for example.

- Wastewater treatment

Dawn Meats identified a cost-effective solution to treat wastewater at its Carroll's Cross site (Co. Waterford), which was producing 80m³ of wastewater per day from its process and administrative facilities. The conventional mechanical wastewater process was both financially and environmentally demanding (in terms of carbon emissions), so the idea of a more sustainable, low-cost option appealed to the organisation; The company installed a seven-acre integrated constructed wetland (ICW) over two phases at its facility in order to treat wastewater, the first phase in 2004 and the second in 2012. This constructed wetland relies on natural processes to remove microbial, chemical and sedimentary contaminants from the water. As the receiving environment is a low flow stream, the wastewater is treated to a high standard as laid out in the discharge licence. The ICW is reducing the biological and solid load by 95% and the nitrogen and phosphorous loads by 90%.



The ICW succeeded in avoiding the high carbon emissions associated with energy-intensive mechanical water treatment, as well as the high operating costs. The ICW has also enhanced the wildlife on the site, which was an important consideration for the company. As well as being valuable in terms of providing a home and food source for various species of bird, animal, plant, insect and fungi, the creation of this biodiverse habitat has brought with it a positive social outcome that complements the environmental and economic aspects of the project. The ICW has assisted in forging strong community connections, specifically between Dawn Meats and Waterford Institute of Technology (WIT) and its students, who have conducted initial baseline and biennial biodiversity surveys in order to monitor the health of the habitat over time.

Biodiversity protection at all levels:

- Site
- Supply chain
- Industry
- Nationally

The company has constructed wetlands, at sites in Ireland and the UK. On another site there have been installed beehives. The company manage water ways proximate to their sites. To support biodiversity, the company plant trees and areas are permitted to 'go wild' supporting pollinators. The importance of biodiversity is communicated through the Dawn Direct newsletter and during the company's environmental week.



Dawn Meats has signed up to support the Irish Business and Biodiversity Platform by (1) facilitating constructive dialogue, engagement and collaboration between businesses, academia, NGOs and all levels of Government, (2) raising awareness of national and international biodiversity issues among the business community, (3) promoting the business benefits of voluntary engagement and build business support for Irish biodiversity objectives and initiatives, (4) promoting the objectives of the Convention on Biological Diversity and the National Biodiversity Action Plan, (5) sharing best practice between companies and sectors, promoting tools, share international case studies and research, (6) contributing Irish business perspectives on biodiversity to the UN CBD's Global Business Partnership and the European Business@ Biodiversity Platform.

Support on certain UN Sustainable Development Goals

Goal 1 – No Poverty

Goal 2 – Zero Hunger

Goal 3 – Good Health and Well-being

Goal 5 – Gender Equality

Goal 6 – Clean Water and Sanitation

Goal 7 – Affordable and Clean Energy

Goal 8 – Decent Work and Economic Growth

Goal 10 – Reduced Inequalities

Goal 12 – Responsible Consumption and Production

Goal 13 – Climate Action

Goal 14 – Life Below Water



Co-funded by the
Erasmus+ Programme
of the European Union

Goal 15 – Life on Land

Goal 17 – Partnerships for the Goals

Description of the implementation:

Investments and running costs.

Training - Aiming to address IT business systems training.

During 2018 the company implemented LMS365, a software application that is used to administer, track, report and deliver IT business systems training in an area that had previously lacked a dedicated training resource. Through LMS365, training can be accessed online, internally within the company and is flexible to suit the scheduling of individual team members. The three main programmes are:

Apprenticeship Scheme

Butchery Academy

Management Trainee Programme

Challenges

It is a great challenge to have all teams of such a big enterprise serve the sustainability principles; All teams (from the CEO and the engineering/environmental team which recently achieved ISO 50001 certification; the operations; agriculture; procurement; HR and the community and charity teams) drive the sustainability agenda across multiple platforms and via participation in a range of initiatives, including the Newford Suckler Beef Demonstration Farm; the Better Farm Programme; the Young Beef Farmer Sustainability Programme; the European Round Table for Beef Sustainability; the Government CSR Forum; the SDG Forum; Bord Bia's Diversity and Inclusion Taskforce; and BITC's Low Carbon and Social Inclusion working groups.



As the Head of CSR at Dawn Meats has put it, at the Green Awards 2019: “We published our first sustainability plan 10 years ago this year, so it has been a key theme for us for some time. We have ambitious 2025 targets to reduce water and energy intensity by 40% and CO2 emission intensity by 50%. None of this would be possible without the commitment of the whole team and this award is even more appreciated because it recognises the Group wide effort. 2025 is fast approaching, and we will continue to keep a close eye on our targets to ensure that we meet and exceed them where possible”.

As regards challenges for sustainable working within Agri-Food sector, the truth is that, from a resource perspective, Irish livestock production has a natural advantage over most other countries, as it has been studied and recognised by the EU commission and the UN's FAO as one of the most efficient systems in the world already. As regards emissions, the company export 90% of the beef produced in the country so the percentage of national emissions arising from agriculture is high due to the way in which emissions are attributed.

In carbon accounting terms, agriculture does not get credit for the carbon sequestered in grasslands nor from the relative performance of methane emissions compared to carbon emissions from other industries. One solution to this challenge is given by the company itself; policymakers should account for emissions from food production in net terms. This, of course, does not absolve the company of their responsibility to be more carbon efficient.

Role of digital technologies

Since the company prioritise resource use efficiency, they typically pilot new technologies on one site before roll-out across the entire estate. They have rolled out Lean Six Sigma across their business over a five-year period following a successful pilot in 2013/2014.





Results of implementation.

By following a holistic approach, the company has compromised on initial implementation to optimise for business impact over the medium term. This has enabled the company to fast-track projects on heat recovery, heat exchange, fossil fuel elimination and ISO50001

achievement which have delivered in excess of 66% of our 2025 Scope 1 and 2 emissions reduction targets.

Description of the communication:

Internally (towards the employees): The company place great emphasis on supporting their employees at both pre-boarding and at the on-boarding stage. The goal is to provide an interactive experience using a blended learning approach, allowing them to integrate smoothly into the company by:

Learning about the corporate culture and values

Obtaining skills that can be used within their daily work

Building a network across departments, sites, and countries

All teams in the company are committed to the sustainability principles and drive the sustainability agenda to even greater commitment and results (please see the answer above on challenges for more information).

The adoption of Lean Six Sigma focuses on the contribution each team member can make towards the elimination of waste streams and the achievement of the company's broader sustainability goals.



The progress towards becoming 'Europe's most sustainable meat company' for the company was the result of the input from both the sustainability executive in updating policy and with the cross-functional teams involved in implementing new practices and demonstrating performance. The sustainability executive may decide policy and set targets, but it is the cross-functional teams and departmental leads that manage delivery and performance.

Externally: One of the 3 pieces of advice that company give to other companies in the industry that would wish to excel in sustainability for their business is to communicate success to all stakeholders.

In addition, through program CONNECT, the company engage with primary, secondary and third-level schools and agricultural colleges to create a greater awareness of what they do.

Alignment with the company's CSR

Definitely yes; the company's increased focus on sustainability has also changed the company's hiring needs; In 2015, the first CSR Manager was recruited, whereas, in 2019 a Group Head of CSR & Sustainability was appointed to co-ordinate policy, practice and performance across the business in the area of sustainability. This has streamlined the company's approach and focused resources in the areas of greatest impact which in turn help to deliver on the so-called Science Based Targets.

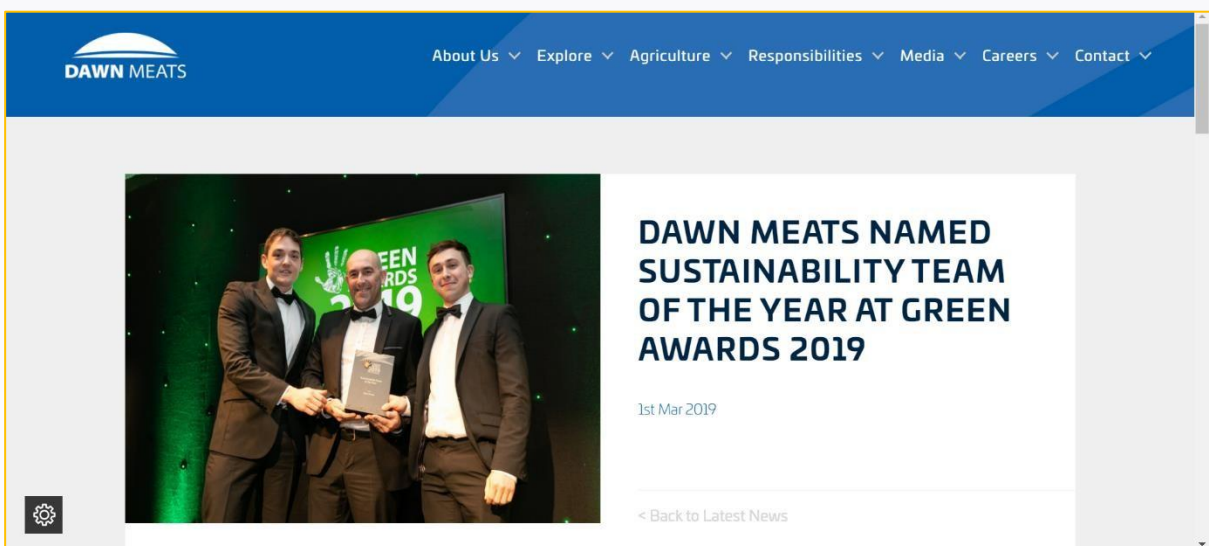
Financial details explanation:

The integrated constructed wetland (ICW) which was installed by the company in 2004 and was later extended in 2012 (which more than doubled the size of the wetland), it has saved Dawn Meats approximately €200,000 and at present is saving around €25,000 a year in reduced energy, chemical, maintenance and labour expenditure. Over the two phases, the project itself cost approximately €215,000, so the calculations speak for themselves.



Lessons Learnt

The main lesson learned was that green infrastructure can save money, reduce emissions, promote biodiversity, and enhance community relationships.



<https://www.dawnmeats.com/dawn-meats-named-sustainability-team-of-the-year-at-green-awards-2019/>

<https://www.bitc.ie/csccasestudies/dawn-meats-how-a-green-infrastructure-project-saved-money-and-conserved-biodiversity/>

<https://2i2cqz41qq7hduf8z2mmxm8c-wpengine.netdna-ssl.com/wp-content/uploads/2017/08/csrreport.pdf>

<https://2i2cqz41qq7hduf8z2mmxm8c-wpengine.netdna-ssl.com/wp-content/uploads/2019/07/2019-CSR-Report.pdf>

<https://www.dawnmeats.com/responsibilities/origin-green/>

<https://www.cpl.com/blog/2020/02/dawn-meats-q-and-a-the-impact-of-sustainability-on-the-agri-food-industry>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES - REDUCING WASTE IN FOOD

Company name: FoodCloud

Size: 52 full-time employees and 1056 volunteers (2019 data)

Industry: Non-profit social enterprise (registered as Charity)

Years of Existence: Since 2013 (2018 the merger)

Description of the green practices involved:

FoodCloud is a non-profit social enterprise that connects Irish businesses that have surplus food with charities and community groups that need it to make sure that no good food goes to waste.

Main goals of the practises

To reduce the environmental, social, and economic impact of food waste by redistributing surplus food to their network of Charity and Community Group partners.

Procedures, Activities, Phases.

The Charity acts in 2 ways/practices:

FoodCloud retail solution, where a store with food surplus uploads a description of it using the in-store scanner or the charity's smartphone application. The notification is received by a charity which belongs to the network, which accepts the food and collects it. A win-win situation for all; Charities have access to a supply of fresh food and benefit through making savings on their food costs, while businesses can contribute to their community in a meaningful way.



Co-funded by the
Erasmus+ Programme
of the European Union

FoodCloud Hubs located in Dublin, Galway and Cork work with farmers, distributors, and manufacturers to rescue large volumes of surplus food and redistribute to charities and community groups across Ireland. Once surplus food reaches the Hubs, is uploaded onto the IT warehouse system and goes to storage, in safe condition. Charity partners place an order for delivery by paying a nominal contribution towards the storage and transport of the food.

Other initiatives in place:

The Gleaning program, an ancient act of collecting leftover crops from farmers' fields after they have been commercially harvested. Partners that took place in 2019 were Meade Potato Company and Ballymakenny Farm, and crops included tonnes of potatoes, onions and broccoli.

Innovative product

FoodCloud works in cooperation with Falling Fruit Ireland, who harvest the seasonal glut of apples, pears, plums, nuts, and other fruit that would otherwise not be picked throughout the Dublin area. They then partnered with The Apple Farm in Tipperary, who pressed almost 3,000 kg of apples over the last two years to make FoodCloud's Cloudy Apple Juice, the first product made from food that would otherwise go to waste.

Description of the implementation:

Investments and running costs.

FoodCloud has been supported to date through award funding, government funding and via two start up incubator programmes. However, FoodCloud has reached financial sustainability since 2015 by charging donating businesses an annual subscription fee per store; in this way, pricing is comparative with the cost of waste disposal but also incorporates the CSR value for a business of working with FoodCloud to connect to a network of local charities.



Challenges

The two founders quickly realised that the big challenges to the process they visualised through FoodCloud was velocity, as well as efficiency in reaching all parties involved. They therefore identified a mobile technology that was being used in the US that could do exactly that and started to develop this solution for Ireland.

Role of digital technologies

Digital technologies have played a large and significant role in enabling the charity to achieve their scopes. Without this the process could not be realised since the network of registered charities and community groups to benefit from FoodCloud is rather big. There needed to be a process that could be fast and efficient at the same time (please also see previous question).

Results of implementation.

In 2019, and following the merger of FoodCloud with FoodCloud Hubs, both solutions combined had a total impact of redistributing the 1,739 tonnes of food, the equivalent of 4.14 million meals. By preventing this surplus food going to landfill, resulted in an equivalent reduction of approximately 5,565 tonnes of CO2 emissions.

FoodCloud worked closely with the DEASP as the delivery partner for the FEAD programme nationwide. During the six months ended 31 December 2019, 652 tonnes of procured FEAD product was distributed to a network of over 150 eligible charities across 25 counties, supporting 150,863 individuals, 43% of whom are children.



Description of the communication:

Internally (towards the employees): None of the charity's success would have been done without the help of the hundreds of volunteers who have donated their time to the mission of FoodCloud.

Externally: This has largely been achieved through cooperation with European Networks, which has enabled FoodCloud to be more visible on a European level.

FoodCloud are the Irish members of the European Food Banks Federation, which has 24 national member organisations that together are supporting more than 45,000 charities across Europe. In addition, FoodCloud work closely with the Global FoodBanking Network, who support foodbanks in 34 countries. To date, the Network has redistributed 503,000 tonnes of food to over 55,000 charities.

The expansion of their activities in the UK, Europe, and even in Australia has managed to

expand their actions even more and make the charity's technology solution widely applicable:

FoodCloud also works with their UK partner, FareShare, since 2015, which is the largest charity fighting hunger and food waste. The Irish's charity technology was rolled out to the UK in 2018, and that allowed charities to accept donations more easily and access insight on the impact of the donations they receive.

The successful pilot with Tesco Central Europe in Czechia and Poland, has made the technology super popular across all Tesco stores in both countries, while pilot trials will next take place in Slovakia and Hungary.

The purpose-built application was piloted with OzHarvest, the organisation that is tackling food waste in Australia.



FoodCloud has a three-year partnership with Allied Irish Bank (AIB) supported by Rethink Ireland (formerly Social Innovation Fund Ireland) on national level.

In 2019, FoodCloud worked with Aldi, Dunnes, Lidl, Musgrave MarketPlace and Tesco to redistribute 1,192 tonnes of surplus food to 584 community groups via their technology platform. Through the last 6 months of 2019 following the merger of FoodCloud with FoodCloud Hubs, 547 tonnes of food were redistributed through the three warehousing hubs to a network of 235 community groups. This was made possible thanks to the generous donations of 107 food partners and further supported by the 3,400 hours provided by 573 volunteers across Dublin, Cork and Galway.

In 2019, members of the FoodCloud teams spoke at over 40 events, speaking to a combined audience of over 10,000. All these people worked as an ambassador for FoodCloud and shared the charity's story.

Alignment with the company's CSR

FoodCloud are committed to helping Ireland become a leader in achieving UN Sustainable Development Goals SDG 12.3 (to halve per capita global food waste at the retail and consumer levels), and SDG 2 (to achieve zero hunger by 2030).

Lessons Learnt

FoodCloud represents a local solution to a global problem; their mission is to become a leader in developing solutions for surplus food redistribution from an ever-growing network of sources. Now, the charity has managed to be in a position to offer an end-to-end solution to surplus from the food industry.





<https://food.cloud/wp-content/uploads/2020/08/FoodCloud-Annual-Report-2019-Final.pdf> <https://food.cloud/origingreen/>



OUR TEAM AND BOARD

A huge thank you to the FoodCloud team, who make FoodCloud work. Each and every day, the members of our team work with our donors, volunteers, Community Groups and partners to ensure no good food goes to waste.



In 2019 we had **52** full-time members on our team spanning warehouse operations, our tech development team, partnerships, finance, communications, HR & our charity support team. FoodCloud is governed by a Board of Directors of ten members (seven men and three women) who are responsible for providing leadership, setting strategy and ensuring control through operational and financial oversight.

ORIGIN GREEN



FOODCLOUD HUBS and ORIGIN GREEN



SUSTAINABILITY PARTNERS

FoodCloud Hubs is a social enterprise that connects businesses with surplus food with charities across Ireland. We offer food businesses the opportunity to meet your Origin Green sustainability targets.



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – IRELAND

CONCLUSIONS

Accounting for 70% of total employment (in the ‘non-financial business economy’), SMEs are particularly important for the labour market in Ireland. In Irish economy that is characterised by the strong presence of foreign firms and their multi-national character, the latter are capitalising the success of the Irish SMEs at a great extent. BREXIT is another critical factor for their sustainability.

Despite the country’s good results in most areas of the Small Business Act for Europe, it is a recognized need to facilitate SMEs’ access to bank lending with lower interest rates but also to improve transparency and reduce the legal services for smaller companies.

A lot has been made by the Irish Government towards this direction; recent measures for SMEs and entrepreneurs include, for example, funding schemes, tax incentives, and mentoring and accelerator services. One-stop shops have also been set up to inform local SMEs about the government schemes that they can apply for. In an attempt to increase the number and quality of start-ups that can offer employment to more than 10 people, Enterprise Ireland teamed with the National Digital Research Centre have launched a new accelerator programme for tech start-ups in the southeast region. The programme aims to give budding entrepreneurs assistance to help them understand what value their company can offer to customers, their strategy for growth and how to get ready to meet the demands of both investors and the marketplace.

Ireland provides an attractive environment for start-ups and high-growth companies. Businesses can be quickly set up and put into operation. They can benefit from the availability of high-skilled employees, a streamlined visa process for non-European citizens, a favourable tax system, and a supportive business environment. A broad range of grant and loan schemes are also available to help Irish start-ups, high-growth companies and those considering foreign direct investment in Ireland to scale up.



Despite all this which is good news, work remains to be done to structurally improve the provision of entrepreneurial education for students of all ages. Initiatives are ongoing to bring employers and higher-education institutes together to co-create entrepreneurial and vocational pathways, set up support systems and develop skills. However, in primary and secondary education, there is still insufficient focus on entrepreneurship and entrepreneurial skills.

A survey that was conducted by Sustainable Energy Authority of Ireland, prior to the SEAI Energy Show in Dublin in 2019, showed that the majority of Irish SMEs believe they can do more to tackle climate change funds and time willing, which is really encouraging for the Irish economy and green entrepreneurship, nevertheless it was rather worrying that a quarter of them said that they are simply not interested in or have not investigated the opportunities to be more energy efficient, which brings awareness and education to the fore.

References:

EUROPEAN COMMISSION, 2019, "Internal Market, Industry, Entrepreneurship and SMEs - Internal Market, Industry, Entrepreneurship and SMEs – SBA Fact Sheet for Ireland



GREEN PRACTICES - Spain

The objective of the research is to increase the awareness of environmentally friendly transitions by showing some well implemented green operations examples carried out by enterprises. The review below shows us the situation for SMEs in Spain.

As a consequence of the COVID-19 it has been more difficult to contact companies. Several attempts have been made to contact with enterprises operating in different regions of Spain (Basque region and Catalonia). In order to prepare the case studies, we have search information in the company websites and in some reports about the green practices presented that showed useful information.



GREEN PRACTICES – SPAIN

MAKING THE STREETS ACCESSIBLE

Company name: ZICLA

Size: Around 15

Industry: Town Planning

Years of Existence: 16

Description of the green practices involved:

Since 2005 working to make city streets more accessible, sustainable, inclusive and friendly, and to ensure that city waste is used as a raw material in industrial processes.

Using the market as the main driver for the 'recycling train'.

Develop, design, promote and sell quality recycled products, all of which are innovative, competitive and based on the concepts of a recycled product life cycle.

Achieve industry and urban development based on the circular economy and good use of the industrial fabric and local technologies

Products aimed to provide safer mobility (cyclist, pedestrian, etc.) and improve accessibility at bus stops.



Procedures, Activities, Phases:

ZICLA have designed and developed solutions that help cities to make their streets more accessible, sustainable, inclusive and friendly. In order to create this solutions they have used modular, Eco designed, recycled and recyclable products with a small environmental footprint. They have been continuously improving their products, constantly adapting them to evolving cities and their needs. They have developed innovative solutions so that waste is transformed into materials and products that the market accepts because of their small environmental footprint and their quality and price.

Description of the implementation:

Challenges

The challenges encountered by ZICLA in implementing its good practices have been due to the supply of waste materials, the difficulty of adapting to the market, mistrust and the difficulty of finding suitable personnel, as training in this area is scarce.

Role of digital technologies

The role of technologies has been important in activities such as product design. However, the use of digital technologies has not been as important for the other activities they have carried out to implement good practices.



Results of implementation

Activities carried out until now:

- 237 cities located in 15 countries in which ZICLA solutions are applied.
- 535 accessible bus stops with vectorial platforms
- 480km of bike lines protected with ZICLA dividers
- 2.847 tons of plastic waste consumed between 2009 and 2019.
- 60 innovative projects related with waste
- 5.230 tons of CO2 emissions avoided

Description of the communication:

Internally: ZICLA was already born with a vocation to be a sustainable and environmentally aware company: the whole company is dedicated to sustainability, it was not necessary to invite employees to use good practices because the employees already know before working in the company the fields in which they work. Externally: Blog, presence on social media, Sponsor of the National Bike Summit 2017.



ZICLA®



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – RECYCLED AIRGILL MASK

Company name: Ternua

Size: 200

Industry: Textile Sector

Years of Existence: 30

Description of the green practices involved:

The TERNUA AIRGRILL mask is a hygienic, reusable, pleasant, light, comfortable and attractive mask, using textile materials treated with Polygiene ViralOff® technology.

Due to the coronavirus crisis, many of the countries of the world have imposed the mandatory use of masks in their territories. The useful life of surgical masks according to health authorities should not exceed 4 hours of use. Taking into account the high number of masks that would be discarded daily around the world, Ternua considered the implementation of reusable masks with a useful life of 4 months within its products. These masks, apart from being created to protect the population from the Coronavirus as it reduces the presence of the virus by 99% thanks to the technologies used for its creation. This are also created with different recycled and biodegradable materials, taking into account the commitment to the planet and the people who live on it.



Co-funded by the
Erasmus+ Programme
of the European Union

Procedures, Activities, Phases:

Ternua masks have been created using recycled and biodegradable materials. This antiviral reusable hygienic adult mask for Covid-19 eliminates 99% of the viruses deposited on its surface. For this, Polygiene ViralOff® technology is used, which has been tested by several laboratories to verify its virucidal efficiency and its bactericidal effectiveness in accordance with international standards for determining the bacterial activity of textile products. This same technology has been subjected to other laboratory tests that certify its properties of water repellence, oral toxicity, protection against UVA rays and prevention of bad odour.

Description of the implementation:

Challenges

The biggest challenge that TERNUA has encountered when creating these masks has been the technological process behind it. Since they have added a new product in which specific material and technologies were needed in order to obtain the results they wanted to. The role that technologies have played has been very important and since they had not experimented with these before; the search for this specific technology for textile products has been another challenge.

Role of digital technologies

For the creation of the masks, the use of new technologies has been necessary because without these technologies the studies carried out for the creation of these masks would not have been possible.

Polygiene ViralOff® technology, that is used to treat textiles and other products, it reduces the presence of viruses on its surface by more than 99%.



Trials and tests in laboratories have been made to conclude that the Polygiene ViralOff® technology will remain in the masks for 15 washes, giving it a useful life of 4 months, since, thanks to the technologies developed, it is not necessary to wash the mask every day.

The Odor Crunch © technology effectively eliminates bad odors by neutralizing them. Strong odors are also permanently eliminated.

Its fabric is water repellent and has anti-splash finishes on the outside of the mask to prevent liquids from penetrating the fabric.

This mask is comfortable and adjustable thanks to the 3D fit shape that conforms better to the face than most fabric face masks.

Results of implementation

Their focus is on creating sustainable products, from a symbol that represents the planet and people. So, this green practise is achieving on the one hand, sustainable results for the earth: 1) Sustainable materials are being used to make the masks and 2) the durability this masks have in comparison with others. On the other hand, they protect people from Coronavirus.

Description of the communication:

Internally (towards the employees): TERNUA is a committed and sustainable brand that protects the planet and people since its creation, from a symbol that represents the relation between both. As it was created with this idea of sustainability, employees knew from before the way TERNUA worked. So, taking into account what the needs of the population were due to the pandemic, the implementation of reusable and sustainable masks was accepted.



Externally:

In order to communicate the sale of a new product such as masks among the population, TERNUA has made use of its website, social networks, digital articles.



**AIRGILL
MASK EU**



**TERNUA PRODUCTS CARRYING THE
COMMITMENT LOGO ARE EITHER...**

- Made of recycled materials.
- Made of biodegradable natural materials.
- Made of organic cotton.
- Made of bluesign® fabrics.

[MORE](#)

https://www.ternua.com/es/mascarilla_airgill_covid19



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – RECYCLING PACKAGING IN THE FOOD INDUSTRY

Company name: EROSKI

Size: 28,939

Industry: Food Industry

Years of Existence: Since 1969

Description of the green practices involved:

Sustainable objectives:

In 2018, as part of their commitments to Health and Sustainability, they set environmental improvement objectives for the coming years and deployed several lines of work to achieve them. They have continued to develop these in 2019 and explain them in this chapter. The key objectives are:

Reduce CO₂ emissions by 25% by 2025 to minimize their impact on climate change. For this, they are improving the efficiency of their equipment and processes and increasing the use of renewable energy.

Reduce the weight of plastic packaging used by 20% by 2025, with the aim of reducing their potential contribution to the contamination of the marine and terrestrial environment with this material. For this, they are encouraging the sale of non-packaged products, the use of reusable bags and packaging and the use of alternative materials from renewable sources.

Orient the processes towards zero waste and the principles of the circular economy with the aim of ensuring that no food is wasted, thus avoiding the environmental and social impact that would otherwise be generated. To this end, they are also ecodesigning their containers and packaging to be 100% recyclable by 2025.



To promote products which are produced in a more environmentally-friendly way and take animal welfare into account, they require environmental certifications on 100% of the EROSKI Natur products and are expanding the range of organic products, with animal welfare stamps, etc. In addition, they collaborate with suppliers on different projects which encourage them to incorporate environmental improvement criteria in their processes.

Procedures, Activities, Phases:

In 1997, Eroski started offering the first reusable bags and in 2010 they started charging for bags, reducing their consumption by 62% in the first year.

In 2018 they set their goal to ecodesign all their packaging by 2025 to make it 100% recyclable, eliminate over-packaging and encourage the use of recycled and renewable materials. To achieve this, they have implemented various measures, including actions to encourage reuse among their customers. Thus, they allow the customer to use their own reusable packaging, such as plastic food storage containers, in the meat and fish sections. In addition, in 2019 they introduced a new reusable mesh bag as an alternative to the single-use plastic bag for buying loose fruit and vegetables.

All this is accompanied by a commitment to the sale of loose, non-packaged fresh produce. Thus, in 2019 they have eliminated packaging from the EROSKI Natur line of mandarins, lemons, red peaches, yellow peaches, nectarines, Saturn peaches, Eusko label peppers and Euskal Baserri chillies. This means they already have approximately 60% of the fruit and vegetables loose and without packaging. In other sections, the percentage of non-packaged products is even higher, for example in fish it exceeds 85%.



In addition, they are committed to replacing plastic with other materials which have less environmental impact. For example, they have replaced the plastic trays in almost 20 types of fruit and vegetables by FSC® certified cardboard, which guarantees that it comes from responsible sources. All these improvements in the fruit and vegetable section have meant a reduction of more than 60 tonnes of conventional plastic per year.

In addition, they work to eliminate elements of packaging that may not be essential for usability or food safety and they encourage the use of recycled materials in line with their commitment to the model of a circular economy. Thus, they use meat and fish trays made using more than 80% recycled plastic, which allows us to avoid 45 tonnes of single-use plastic per year; they have replaced the polystyrene trays used for in-store packing of bakery products by 100% recycled PET, which they estimate will allow us to avoid the consumption of more than 250 tonnes of virgin plastic per year; and they have replaced the 15-use fossil-origin plastic bag with a bag made using more than 55% recycled plastic, among other actions.

With regard to carrier bags, in early 2019 they introduced a wide range of sustainable solutions to replace the conventional plastic carrier bag. Thus, in addition to the bag that contains more than 55% recycled material, they introduced a new paper bag with the FSC® seal that is 100% recyclable, and another compostable bag, made with renewable materials of plant origin, that can be reused as a food waste caddy liner. In addition to these new sustainable solutions, EROSKI continues to offer the alternative of using its reusable bag, which is made from 70% recycled material, and its fabric reusable charity bag, which can easily be folded to be carried in a pocket, bag or glove compartment and which combines respect for the environment with support for charity, as all the profits from its sale are dedicated to charitable causes.



In this line, CAPRABO participated in #proyectoCERES, a pioneering initiative by the Ellen MacArthur Foundation to replace single-use plastic bags, both carrier bags and produce-selection bags, by compostable bags. In January 2020 they began this change to completely eliminate conventional single-use plastic bags from the stores of the entire Navarra network. Progressively, throughout 2020, this type of bag will be eliminated from the rest of the network. They have also participated in the ReWINE innovation project of the European LIFE programme to facilitate the reuse of wine bottles.

All these actions are steps on their roadmap to reduce the weight of single-use plastic in packaging by at least 20% by 2025 and reduce the weight of conventional plastic in their fresh store-packed products by 21% by 2021.

Description of the implementation:

Investments and running costs: 15 million euros spent in environmental issues. 92% Investments aimed at minimising environmental impact and protecting and improving the environment. 8% Expenses aimed at minimising environmental impact and protecting and improving the environment.

Results of implementation:

Visit: https://corporativo.eroski.es/wp-content/uploads/2020/08/Memoria-2019_en.pdf (pages 96-99) to see a comparison in images of what it was achieved in 2018 and in 2019.



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – NEW ECO-PACKAGING

Company name: SOUL CEMOSA

Industry: Production

Description of the green practices involved:

SOUL is a new packaging from CEMOSA for 6, 10 and 12 eggs which will allow you to highlight the most special parts of your range of eggs. SOUL has the ecological advantages of being a recyclable, biodegradable and environmentally-friendly form of packaging because it is produced with sustainable raw materials such as moulded cellulose.

Create egg packages made from recycled cellulose fibers, biodegradable and environmentally friendly materials.

Procedures, Activities, Phases

Ecodesign: Less carbon footprint than other alternative packaging, less CO2 emissions during productive process and warehouse space optimization (21% plus per pallet).

High Egg Protection: High protection thanks to its ability to protect and absorb shocks, bears different changes of temperature, absorbs humidity and allows egg to breathe through its thousand packaging tiny holes.

Design: Attractive design and various colours.

Packaging: It's technical advances and optimal design allows an excellent functionality into packaging line.



Co-funded by the
Erasmus+ Programme
of the European Union

Description of the implementation:

Challenges

The challenge of designing the egg carton was particularly delicate as the egg must be protected during replenishment, transport, and display in the shop and in the shopping basket itself. In addition, the packaging must emphasise the characteristics of the product in its external appearance.

Results of implementation

In this design they managed to reduce the use of cellulose by 30%, strengthening the shape and expanding the labelling surface.

17% increase in capacity in packaging units per pallet.



<http://soul-cemosa.es/es/>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES – SUSTAINABILITY IN FRESH FOODS

Company name: GUTIERREZANGULO

Size: 21

Industry: Food Industry

Years of Existence: 43 years (Since 1987)

Description of the green practices involved:

Goals: Replace non-biodegradable trays such as aluminium and plastic trays with sustainable and environmentally friendly biodegradable and compostable trays. Procedures, Activities, Phases packaging innovation across the European continent for fresh foods such as Red Meat, Fish, Chicken and - in particular - Fruit & Vegetables and Prepared Meals.

These trays are a suitable alternative to replace with sustainable trays, the current trays present in the market of other non-biodegradable materials such as Aluminium and Plastic. Manufactured with pure and sustainable raw materials that are biodegradable and compostable.



Co-funded by the
Erasmus+ Programme
of the European Union



BALANCE
green and stable

2020-1-BG01-KA204-079048

These non-polluting trays made of pine and spruce cellulose pulp allow direct contact with dry, moist and greasy food.

Unlike recycled materials, the pulp fibres ensure that no food substances, such as chemical residues, can be transferred to the foodstuffs. Only wood from sustainable, FSC-certified forestry is used in our manufacturing process.



<http://gutierrezangulo.com/envases-ecologicos/envases-termosellables-compostables>



Co-funded by the
Erasmus+ Programme
of the European Union

GREEN PRACTICES –SPAIN

CONCLUSIONS

There is a **growing awareness of environmental and sustainability issues among SMEs in Spain**. The awareness of companies is due to the effort being made to try to achieve the sustainable development objectives of 2030 and to the benefits and advantages given **to companies for taking an active part in sustainability**, environmental and circular economy issues, among many others.

With the current needs that in terms of sustainability, it has been possible to create companies or to get companies that were not in the sustainable field to think more about the planet by creating green jobs and practices. These cases have enabled the possibility of developing products and services at all levels that have been and may be very important factors for small and medium enterprises to have a positive impact on the environment.

Today there are still companies that do not know the objectives of sustainable development. A very high percentage of SMEs have carried out **at least one activity related to the circular economy**. A priori SMEs individually cannot achieve remarkable changes in sustainability issues, but if we take into account the effect that all SMEs can have in terms of sustainability the result could be quite good. Although the impact these activities have today may not be sufficient to achieve the objectives of sustainable development, the impact they will have will be increasingly so as the years go by.

Given this extraordinary situation of the COVID19, SMEs will be the most affected ones within the business world, many of them have closed and many more will have to close down in the next months. The process of achieving sustainable development objectives will be affected by the losses not only of employment but also to the loss of capital that this crisis is generating. This situation does not detract from the fact that many SMEs are trying to provide affordable **sustainability and environmental solutions** by developing different green economy models that will have a positive impact not only on businesses but also on the environment.





ANALYSIS & RECOMMENDATIONS

The current section explores the presented practices and provides analysis over their characteristics, financial aspects and sustainability. This section is written in collaboration between by prof. Kostis Koutsopoulos, Ernst Zwingli and Velina Dragiyska with the support and supervision of all partnering organizations.



ANALYSIS & RECOMMENDATIONS

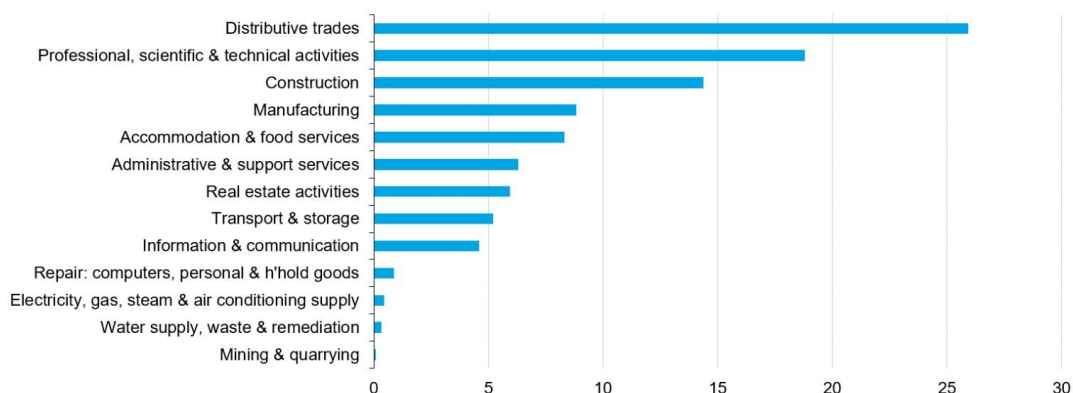
This chapter is concerned with the conduct of an analysis of the green practices (policies, decisions and activities) made by the reported companies in the partners countries and consolidate the results.

The total number of **green practices reported by the partners are 31** (6 from Belgium and 5 for each of the rest of the countries). Their distribution in the major economic categories is (for comparison there are figures for EU GDP %):

	NUMBER	%	EU GDP %
AGRICULTURE	2	6,0	1,5
MANUFACTURING	14	45,0	24,5
CONSTRUCTION	2	6,0	3,3
SERVICES	13	43,0	70,7



Sectoral share of the number of enterprises within the non-financial business economy, EU-27, 2017 (%)



Note: the total number of enterprises in the EU-27 non-financial business economy was 22.2 million in 2017.

Source: Eurostat (online data codes: sbs_na_ind_r2, sbs_na_con_r2, sbs_na_dt_r2 and sbs_na_1a_se_r2)

The linked image cannot be displayed. The file may have been moved, renamed, or deleted. Verify that the link points to the correct file and location.

Source:

[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Structural business statistics overview#Sectoral analysis](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Structural_business_statistics_overview#Sectoral_analysis)

As visible of the figure above, services present the biggest sectorial share within the EU. Among the presented practices they have also the biggest share of examples.



Co-funded by the
Erasmus+ Programme
of the European Union

I. OPERATIONAL CHARACTERISTICS

In order to summarize the green perspectives of these enterprises, four major activities were chosen to characterize them, because they represent the factors that are not only easily detectable but are the most important in the cases presented.

From the following table, it can be seen that the green practices of the 31 enterprises exhibit the following characteristics:

17 are related with their entrepreneurship (adjust the enterprising environment they conduct their business);

17 are shown innovation (introducing innovative approaches in their operation);

3 are exhibiting leadership (provide leadership in their area of operation) and

8 are related to their network (are connected with other enterprises as well as economies of scale and juxtaposition).

Although the 31 companies do not represent a statistically acceptable sample to draw conclusions about SMEs, **the fact that the great majority of the reported enterprises are mostly interested in improving their operation, indicate that two set of concerns are important to SMEs: first, the use of actions to gain the benefits of efficient resource utilization, which in turn requires a second necessity to devise new innovative approaches.**



I. OPERATIONAL CHARACTERISTICS

These concerns are also supported by what these enterprises **have stated as challenges in promoting green practices**. According to the statements provided by the companies, there is a **big variety of internal and external factors or challenges related to the operations and management of them**. However, the enterprises practically responded to these challenges by adjusting only the internal constraints to green practices, which can be influenced by them, and ranging from the need to overcome “market resistance” to the need for a “clear vision” from their part.

In sum, the benefits and advantages available to companies for taking an active part in sustainability, environmental and circular economy issues, can be materialized mainly by internal adjustments. Without, of course, downgrading the major role the external factors are playing.



I. OPERATIONAL CHARACTERISTICS

Practices Belgium

	ENTREPRENEURSHIP	INNOVATION	LEADERSHIP	NETWORKING
Working with Wood	✓			✓
Greener by design		✓		✓
Clean and green	✓	✓		
Green Energy Solutions		✓		
Change Consultancy and visual storytelling	✓	✓		
Innovative eco-construction		✓		



I. OPERATIONAL CHARACTERISTICS

Practices Bulgaria

	ENTREPRENEURSHIP	INNOVATION	LEADERSHIP	NETWORKING
Bottled water without a plastic label	✓	✓	✓	
Eco at the core	✓			
Smart Farming - Implementing an innovative digital system in farming production		✓		
PostBank	✓			
IT Company switches to zero-waste alternatives	✓			





I. OPERATIONAL CHARACTERISTICS

Practices Cyprus

	ENTREPRENEUR- SHIP	INNOVATION	LEADERSHIP	NETWORKING
Food chain restaurant reduces plastic use.	✓			✓
Building partnership for sustainable agriculture	✓			
Green & sustainable banking	✓			
Construction company awarded with Environmental award	✓	✓		
Energy efficiency upgrade in Architecture Office	✓			



I. OPERATIONAL CHARACTERISTICS

Practices Greece

	ENTREPRENEURSHIP	INNOVATION	LEADERSHIP	NETWORKING
Recycling of olive pits	✓	✓		✓
Packaging from recycled fishing nets		✓	✓	
Green resorts	✓			
Recycling manufacturing materials	✓			
Papastratos-Sustainable Development	✓			✓



I. OPERATIONAL CHARACTERISTICS

Practices Ireland

	ENTREPRENEURSHIP	INNOVATION	LEADERSHIP	NETWORKING
Brown Thomas Arnotts	✓			
Astellas Pharma Co. Ltd.		✓		✓
Hotel Doolin	✓			
DAWN MEATS		✓		✓
FoodCloud				✓



I. OPERATIONAL CHARACTERISTICS

Practices Spain

	ENTREPRENEURSHIP	INNOVATION	LEADERSHIP	NETWORKING
ZICLA		✓	✓	
TERNUA (Airgill Mask EU)		✓		
EROSKI	✓	✓		
SOUL CEMOSA		✓		
GUTIERREZ ANGULO		✓		



II. GREEN PRACTICES

Another major issue in the green practices of the reported enterprises is the type of practices applied by them. The most important practices from an environmental point of view are the practices for: reducing energy or energy efficiency; recycling; optimization of the used resources; and Company Social Responsibility (CSR). From the following table, it can be seen that type of practices of the 31 enterprises exhibit the following distribution:

• REDUCING ENERGY	8
• RECYCLING	8
• RECOURSE OPTIMIZATION	27
• CRS	10

The reports from the various companies show **that most enterprises exhibit concern for such issues as resource scarcity, growing prices for materials, dependance on outside resources etc.** As a result, they strive to **attain an efficient and effective production processes**, which are the basis for a sustainable and digital economy. It is not surprising, therefore that the Green activities of the majority of the enterprises are focused on improving their entrepreneurship operation by optimizing their resources.

These enterprises in addition to activities related to their product output, requiring energy efficiency or recycling, they **consider Company Social Responsibility a sound investment in influencing society** (external conditions) in order to increase their entrepreneurial ability to operate with the least possible constraints.



II. GREEN PRACTICES

Belgium

	ENERGY EFFICIENCY	RECYCLING PRACTICES	RESOURCE's OPTIMIZATION	CSR
Working with Wood	✓		✓	
Greener by design			✓	
Clean and green			✓	
Green Energy Solutions	✓			✓
Change Consultancy and visual storytelling			✓	✓
Innovative eco- construction	✓			



II. GREEN PRACTICES

Bulgaria

	ENERGY EFFICIENCY	RECYCLING PRACTICES	RESOURCE's OPTIMIZATION	CSR
Bottled water without a plastic label		✓	✓	
Eco at the core	✓		✓	
Smart Farming - Implementing an innovative digital system in farming production			✓	
PostBank			✓	✓
IT Company switches to zero-waste alternatives		✓	✓	



II. GREEN PRACTICES

Cyprus

	ENERGY EFFICIENCY	RECYCLING PRACTICES	RESOURCE's OPTIMIZATION	CSR
Food chain restaurant reduces plastic use.			✓	
Building partnership for sustainable agriculture			✓	
Green & sustainable banking			✓	✓
Construction company awarded with Environmental award	✓		✓	
Energy efficiency upgrade in Architecture Office			✓	



II. GREEN PRACTICES

Greece

	ENERGY EFFICIENCY	RECYCLING PRACTICES	RESOURCE's OPTIMIZATION	CSR
Recycling of olive pits	✓		✓	
Packaging from recycled fishing nets		✓	✓	✓
Green resorts			✓	
Recycling manufacturing materials		✓		
Papastratos-Sustainable Development	✓		✓	



II. GREEN PRACTICES

Ireland

	ENERGY EFFICIENCY	RECYCLING PRACTICES	RESOURCE's OPTIMIZATION	CSR
Brown Thomas Arnotts			✓	✓
Astellas Pharma Co. Ltd.			✓	✓
Hotel Doolin	✓		✓	
DAWN MEATS			✓	✓
FoodCloud			✓	✓



II. GREEN PRACTICES

Spain

	ENERGY EFFICIENCY	RECYCLING PRACTICES	RESOURCE's OPTIMIZATION	CSR
ZICLA		✓		✓
TERNUA (Airgill Mask EU)		✓	✓	
EROSKI		✓	✓	
SOUL CEMOSA		✓	✓	
GUTIERREZ ANGULO			✓	



II. GREEN PRACTICES

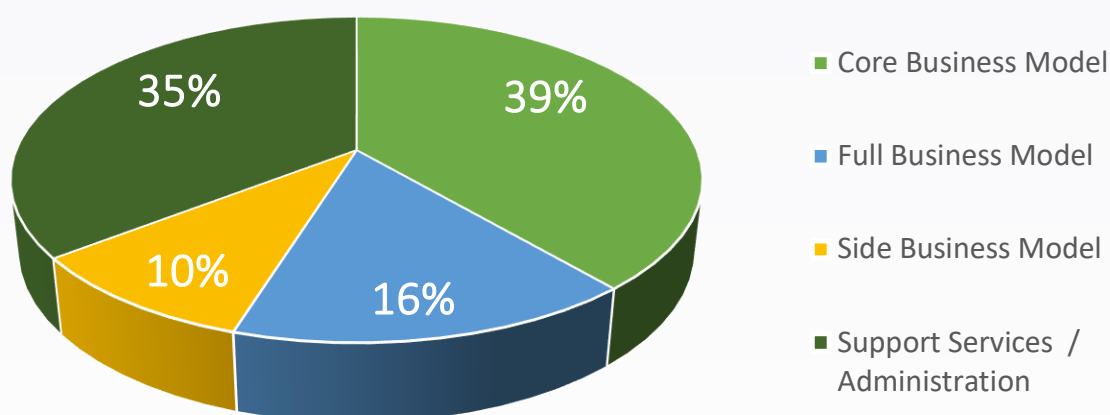
Another important aspect to be observed is where the practices occurred. For the purpose of this analysis, we have created the following categories:

1. Practices occur in **the Core Business model**. We consider them there when the practices is about the products directly contributing to the value chain and therefore the products that are integrated part of the turnover or are directly related goods and services from the supply chain, that get deducted from turnover to calculate gross profit.
2. Practices occur in a **Side Business model** – We consider them there when side products, waste or excess from the Core Business model got used to create its own value chain.
3. Practices occur in the **Support services of the business / administration** - All activities that are from cost perspective not directly related to a value chain, but are overall services such as accounting, HR, office supply, building management, etc.
4. Practices affect **the Full Business model** – Activities that evaluate all of the above three categories. Their focus is to reduce emissions throughout the company as a whole, no matter, where the emissions occur.



II. GREEN PRACTICES

Where the practices are implemented?



Due to the fact that the examples have 100% successful implementation with exemplary character and benefits for the implementing company, it can be said, that **valuable green practices are mainly applied along the value chain**, either by **improving the Core business or making use of side products to start a side business model**. Companies that have applied green practices mainly in the support services/administration area are mainly service oriented company, where it is not very easy anymore to apply measurable and valuable green practices. Also buildings, that in general have **high potential for being improved**, are usually accounted within Support Services. Therefore the company **benefitting from green practices is directly related to a serious evaluation for green practice improvements in the core business and/or full business**. Where management lives and applies a strong culture towards green practices, the full business and especially the core business profits from it.



III. FINANCIAL MODELING

This part explores the financial implications of the implementation of green practices in the presented cases. It is divided into different categories.

For the purpose of this part the fifth practice in Ireland is excluded since it is an NGO and the financial modeling cannot be applied due to the different way of funding and operating. As well the fourth practice of Cyprus is divided into two practices since their different nature – construction and improvement of the buildings.

1. Required investment size for the implementation of the practice:

- The investment can be executed within the running costs.
- ● The investment requires up 6 months turnover.
- ● ● The investment requires between 6-12 months turnover.
- ● ● ● The investment requires more than a year turnover and it is not feasible for SMEs.





III. FINANCIAL MODELING

1. Required investment size for the implementation of the practice:

BE-1	●
BE-2	●
BE-3	● ●
BE-4	● ● ● ●
BE-5	●
BE-6	● ●
BG-1	● ● ●
BG-2	● ●
BG-3	● ●
BG-4	● ●
BG-5	●
CY-1	● ●
CY-2	● ● ●
CY-3	● ●
CY-4.1	●
CY-4.2	● ● ● ●
CY-5	● ●





III. FINANCIAL MODELING

1. Required investment size for the implementation of the practice:

GR-1	● ● ●
GR-2	●
GR-3	●
GR-4	●
GR-5	● ●
IR-1	●
IR-2	● ●
IR-3	● ● ● ●
IR-4	● ● ● ●
ES-1	●
ES-2	● ●
ES-3	●
ES-4	●
ES-5	●





III. FINANCIAL MODELING

2. Comparison.

In order to create more complex picture, we set 6 more additional criteria:

- What is the effect on the running costs.
- How the implementation of the green practices affect the customer positioning and the marketing segment.
- How big was the step towards climate neutrality.
- How much the company culture is directed towards climate neutrality.
- How easy/hard would be for an SME to adapt the practice.

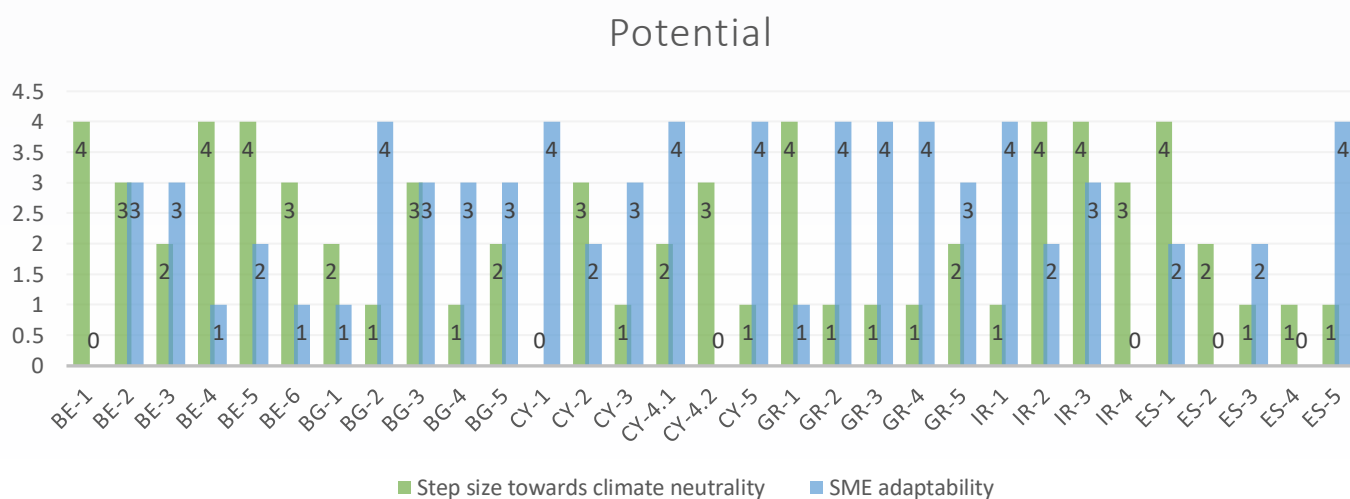
Similar as evaluating the investment we have rated from 1 to 5 the presented status in the green practice.



III. FINANCIAL MODELING

2. Comparison.

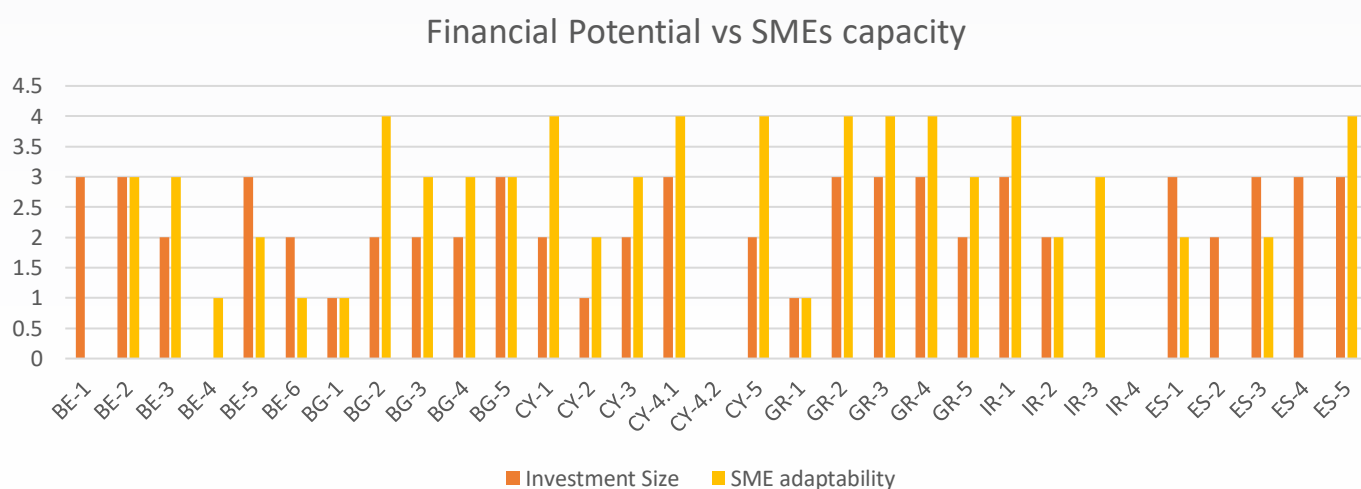
If we compare the relative step towards climate neutrality to the potential for SMEs to adapt the practice, we see that out 7 highest ranking in contributing towards the climate neutrality (where 4 is the highest rank representing that the practice contribute substantially), few practices can be easily adapted by SMEs. Such practice is Green Practice 3 of Ireland Reducing carbon footprint which can be transferred more easily and would lead to bigger impact.



III. FINANCIAL MODELING

2. Comparison.

In the presented graphic, the higher value of the Investment Size presents that the investment is relatively easy to be executed by an SME.



III. FINANCIAL MODELING

3. Data and Conclusions

Country-ID	Investment Size	Operational costs	Market positioning	Company culture	Step size towards climate neutrality	SME adaptability
BE-1	3	-1	2	3	4	0
BE-2	3	1	0	2	3	3
BE-3	2	0	2	2	2	3
BE-4	0	0	3	0	4	1
BE-5	3	1	2	4	4	2
BE-6	2	-1	2	3	3	1
BG-1	1	2	1	1	2	1
BG-2	2	1	0	0	1	4
BG-3	2	2	1	3	3	3
BG-4	2	2	1	0	1	3
BG-5	3	-2	0	1	2	3
CY-1	2	1	1	0	0	4
CY-2	1	2	1	4	3	2
CY-3	2	1	0	0	1	3
CY-4.1	3	2	2	4	2	4
CY-4.2	0	0	3	4	3	0
CY-5	2	1	1	2	1	4
GR-1	1	-2	2	4	4	1
GR-2	3	-1	0	1	1	4
GR-3	3	2	0	0	1	4
GR-4	3	2	0	0	1	4
GR-5	2	2	0	3	2	3
IR-1	3	1	0	1	1	4
IR-2	2	2	1	3	4	2
IR-3	0	2	2	4	4	3
IR-4	0	2	2	4	3	0
ES-1	3	0	3	4	4	2
ES-2	2	-1	1	0	2	0
ES-3	3	2	0	0	1	2
ES-4	3	2	1	0	1	0
ES-5	3	0	1	2	1	4



III. FINANCIAL MODELING

3. Data and Conclusions.

When evaluated the previous categories, we made the following observations:

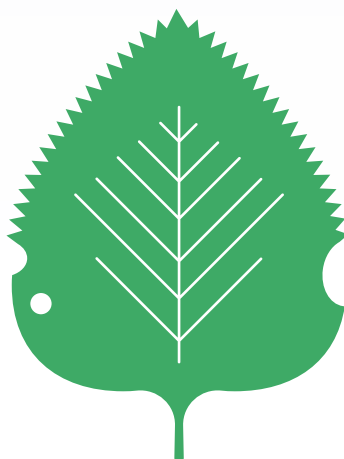
The highest impacts are reached by relatively simple and straightforward initiatives.

Just applying the quick-wins helps saving costs but has a rather relatively low environmental impact. But with already small efforts big environmental impacts can be achieved, also positively impacting company culture as side-effect.

Therefore, the biggest step towards climate neutrality is reached only, if company culture is aligned as well.

Consistent, honest and authentic initiatives have a greatly positive effect – it allows better communication towards the employees.

For a positive change in market positioning, investments are required. However, both values are else rather unrelated to environmental impact.





APPROACH TOWARDS SMEs

The current section is written by prof. Kostis Koutsopoulos in order to deepen the understanding we have on SMEs transformation. The section is by its essence a position paper from perspective based on the presented practises and an extensive academic research



INTRODUCTION TO THE SECTION

This report has been written in order to exhibit real examples of SMEs in the partner countries and provide some best practices in their business sector. In the presentation and analysis presented previously **these objectives were achieved, but at the same time an important need has surfaced, namely that important changes have to be made in the way we approach and consider SMEs.** More specifically, it became clear that in examining SMEs three dimension play an important role: the nature of the SMEs, their entrepreneurship operation and the application of the GAP. As a result, a good understanding and a detail clarification of the elements of each these components are necessary not only for the success of the BALANCE project, but in approaching SMEs in general.

Europe's continuous economic development over many decades has reached almost an impasse. Today it **faces multiple challenges related to stimulating growth, ensuring jobs and the well-being of its citizens.** As a result, EU is facing serious issues such as securing ecological sustainability, addressing climate change, and social cohesion, among others. There is a **growing concern for resource scarcity, growing prices for materials, dependance on outside resources and mainly in attaining sustainable and digital economy,** which are dependent on efficient and effective production processes.

There is a **need for a transition to new models of economic production,** which offer new opportunities **for sustainable economic growth of European countries.** That has led to the adoption of the packages mentioned previously, which have put Europe on a new road to development and growth based on alternative economic production models. Given, however, that businesses and industries are the important actors in economic production as well as in building a circular and more resilient economy, EU has to focus on them.



Small and medium-sized enterprises are an essential element of the European production and the economy in general, and one of the principal ways to address these challenges, it forces EU to also deal with SMEs focusing on the SMEs is desperate needed, but also puts many of the traditional models of describing and analyzing SMEs in a transitional situation. Assessing SMEs in terms of economic indicators (staff headcount and either the turnover or balance sheet), cannot be sufficient by itself. It is suggested that to address Climate-Neutral SMEs, **an integrated approach is necessary**, which has to simultaneously deal with:

- the degree an SME fulfils its multiple advantages (i.e., Informal Management, Flexibility etc.);
- the enterprising environment it conducts its business (i.e., Development Potential, Network and Supply Chains etc.);
- and the degree it applies the Green Action Plan (GAP) (i.e., eco-innovation, reduce CO2 emissions etc.),

in an integrated manner respecting all these aspects. In other words, all factors related to the SMEs existence should be considered in assessing any SME.

In determining such an approach, demands the building of a different philosophy in addressing an SME, which should include a set of SME attributes related to: **the ADVANTAGES it exhibits; the ENTERPRISING ENVIRONMENT within which it operates; and the aspects of GREEN ACTION PLAN it applies.** As a result, for an appropriate way to deal with SMEs there is a need to clarify some major issues related to the way they are regarded and assessed, which have an impact on the success of the BALANCE project and SMEs in general. In examining SMEs, from a point in view related to their entrepreneurship, three major dimensions can be discerned.



THE FIRST DIMENSION: SME's ADVANTAGES

This dimension concerns the understanding of the many advantages that SMEs possess as enterprising entities (Bölükbaş & Güneri, 2017). As Ahmed (1019) has written, SMEs "... are able to do things that can be difficult for larger companies" It is believed that in the coming days they will become the unforeseen revolution for improving EU's economic growth. Among the most important SME advantages are:

1. Encourage Team Spirit

In a big company many employees might work for many years, but on different floors and buildings, thus meeting other co-workers is not easy. In addition, aspirations for positions and staffing are very competitive and usually not friendly. On the other hand, in SMEs, it is easier to form bonds and know the qualities of others, while the owner recognizes every employee and understands their importance, which can be used to increase performance and improve teamwork.

2. Closer to their customers

This is the most obvious advantage of SMEs, as they can deal more directly with their customers. That enables them to **meet customer needs accurately** and effectively by offering an individualized service. SMEs by establishing some bond with their customers they know their business better than large companies.

3. Direct involvement

SMEs owners directly control their enterprise's output and customers interaction as opposed to big companies. The owner of an SME is practically **in a position to scrutiny the product quality and rectify any problems that might occur**, and thus any risk is minimized, and any crisis can be prevented at an early stage.



4. Better detect and take advantage of small market niches

Generally, an SME has a greater ability and interest to detect and satisfy the very **specific needs** of customers and demands when compared with a large company.

5. Able to change their market

In the SMEs, due to their uncomplicated operational needs and the simplicity of the required infrastructure, **it's easier to change their market niche** (the space where the consumers of their services or products are).

6. Communication within the enterprise is easier

Owners and employees of an SME by **being closer makes it easier for them to communicate with each other**. This allows not only problems to be solved fast and efficient, but mainly to enable new ideas to flow.

7. Informal management style

For small and medium enterprises, **the management is usually informal**. The owner has to do almost everything and employees are normally expected to be also able to everything, because there is no permanent or even sometimes clear division of tasks. (Kotey, 1999).



8. Customer Interaction

A competitive advantage for SMEs is that customer interaction with the management takes place on a regular basis, because every customer is important to them. This is not true for big companies who don't rely on repeat business from any individual customer. An SME owner knows what his customers specifically want **through many forms of interaction** (emails, phone calls, and social media). As a result, he caters better the customers' needs (additional products, a change in pricing and customer service enhancements).

9. Cost effectiveness potential

SME owners can directly contact potential customers as well as promote his company's products with minimal or no cost. Due to the **digital revolution**, the cost of advertisement is cut down. Plenty of costs effective, professional solutions are available for start-ups and SMEs to promote their catchy brands and other marketing materials.

10. Taking immediate decision

In SMEs, decision-making normally falls on a person or a small group **that does not require any official hierarchy** which might slow down the process. As a result, they can quickly react to the marketplace changes. Moreover, an SME owner if he sees an opportunity to challenge his competitors, he can do it momentarily without waiting for any approval. As opposed with large companies, where decisions often require complex decision-making mechanisms involving a lot of people and teams.



11. Dependence on individual decision makers

The SMEs are managed and operated by the owner. The entrepreneurs of the business lead the company and play **a role as both employee and employer**. The growth of the firms is determined by the owner. (Feltham & Barnett, 2005)

12. Internal mobility

An employee in an SME can easily have the opportunity to learn the work in another area of production, if he is willing and shows an interest to advance his carrier. But big companies have strict work descriptions, limiting employees to position changes hindering an employee's growth potential.

13. Adapting to change potential

SMEs can be much more adaptable to change than larger and more complex organizations. Because of this adaptability, SMEs exhibit not only a better ability to withstand difficult economic conditions, but they can faster recover from crises.

14. Flexibility

SMEs have the needed flexibility and capacity to adapt to changes in the economy, due to their size and informal structure. In addition, SMEs by been closer to their customers allow them to know variations in the market, before the big companies and adjust faster. (Aragon-Sanchez & Sanchez-Marin, 2005)



15. Innovation capability potential

SMEs are by nature candidates for innovation, because they foster an entrepreneurial culture, which provide resilience in the economy and thus increase innovation and competitiveness of the economy. Because of their size, SMEs are **often much better at identifying and embracing new trends** in the industry and, therefore, driving the innovation within their respective sectors. This allows SMEs to be pioneers in emerging technologies, paving the way for bigger and braver investments. The most important factors that influence SMEs innovative activities include the following:

- Strong leadership, usually a highly educated owner or manager, who play a major role in setting innovation goals and in pursuing these goals for the enterprise.
- Presence of a small number of managers who provide the SMEs with less bureaucracy, a flat organizational structure, less diversification (Forbes and Milliken, 1999).
- Flexible organizational culture and the use a smaller number of formal systems, procedures, and planning measures.
- Presence of highly qualified scientists and engineers, as a result of SMEs commitment to develop human capital, signaled by the abundance of formal and informal training programs.





16. Learning

Sectors dominated by SMEs usually facilitate learning geographically and across the sectors. Due to the SMEs dynamics and mobility, these sectors usually generate higher levels of competition, which in turn forces higher levels of learning. This is of course the basis for creating sustainable growth.

17. Social Role

SMEs social role is more efficient than big companies especially in resource allocation, because SMEs can raise employment at lesser capital costs. In addition, SMEs usually are actively involved in the community, because they view themselves as members of the community. Big companies are practically independent of the community, especially if it is the home office.



THE SECOND DIMENSION: ENTERPRISING ENVIRONMENT AND CHALLENGES

The second dimension is related to understanding the various internal and external conditions that determine the entrepreneurial ability of an SME to freely operate. The literature (OECD, 2017; KfW, 2016; Christos, Peter & Nicholas 2007; Adler & Shenbar, 1990 ; Lumpkin & Dess, 1996; Cogliser et al., 2008; Deepa, Babu & Manalel,. 2016) has shown that many SMEs have difficulties adjusting their business processes that are crucial to tap their full competitive potential, and pursue their business advantages. The main barriers faced by SMEs on achieving such a goal are related to the entrepreneurial environment within which they operate and constraint or challenge their business. The basic categories are the following:

I. SME'S OWN CHARACTERISTICS

These represent the most important factors that determine the successful operation of an SME. Internal and external factors shape the operating environment of the SMEs. The internal factors are those concerning the enterprise itself, and they have a greatest impact on how it operates. Among them the most important are:

1. Enterprise characteristics

The success of an SME depends in addition to characteristics such as size, age, location of the firm, and economic indicators (staff headcount, balance sheet and economic stability) important role play: first, the products or services or a combination of both it offers and second, how well the firm is able to differentiate them from what the competitors offer.



2. Owner's characteristics

The owners' characteristics or the managing director of a medium size firm also play an important role. For example, **the entrepreneurial skillset, the educational background** of the owner is **widely believed to be a key source of the firm's management** and marketing approaches as well as its innovative efforts (Hoffman, 1998). Because the attained education level of an SME owner or manager contributes to his: cognitive ability, capacity for information processing, tolerance for ambiguity and receptivity to new ideas and innovation.

3. Proportion of Qualified Personnel

Highly qualified employees are considered, among others as: an invaluable asset, **a knowledge base of the company**, a tool to absorb information from external sources (implying higher dependence of SMEs on external sources) and a source of ideas and inspiration for innovations (Radas, 2009). According to Tessa (2004)) qualifying personnel represent the most essential resource of any EMS.

4. Maintaining profitability

Independent of the product or services an **SME maintaining profitability is a challenge**, which every one of them has had to consider at some point. However, there are a number of things that can help during that effort: Reduce costs, increase turnover, increase productivity and efficiency, which can be accomplished by: looking at their suppliers, premises, production processes and finance facilities



5. Increasing revenue

It is a fact that most SMEs **struggle to maintain and sustain growth**. While it is impossible for an SME to control all the market forces that are present in the environment it operates in, there are a number of things the enterprise can do to increase revenue. For example, if a SME is operating within a market that is too small to generate the desired revenue, it can consider offering additional products or services.

6. Limited resources

An SME generally has limited resources, because it does not have money to purchase the required machinery and to hire many workers. This is extremely true for new SMEs (starts-up) due to an absence or lack of track record on the firm to convince and attract potential investors and bankers. As a result, they are extremely dependent on the capability of the owner to generate resources (Welsh, White, and Dowell, 1981).

7. Market commitment

This concept is composed of two factors. First, the amount of resources committed, for example, **the size of investment in the market** (marketing, personnel, organization etc.); Second, **the degree of commitment**, for instance, the difficulty of finding an alternative use for the resources and transforming them to practice.



II. EXTERNAL CHALLENGES

There is a big variety of external factors or challenges related to the operations and management functional areas of SMEs. For example, a recent survey by Dutta (2020) in the UK listed as fundamental worries of the SMEs the following: Financial challenges 36%; Technology risks 21%; Regulatory compliance 17%; Societal changes 13%; Supply and logistics 5%, which are presented next:

1. Financial Challenges

The principal financial challenges of SMEs are **the cash flow and the pricing structure**, because they represent the determining factor in driving them forward. This is especially true in the EU where late payments remain a leading concern for SMEs, as opposed to larger companies who can push suppliers into accepting lengthier and more flexible payment terms. Cash flow problems lead SMEs to detrimental measures such as prompt invoicing, strict credit controls and other restrictions aimed at protecting cash flow. Maintaining cash flow and building up working capital are critical to SMEs operating in volatile economy as well as in supporting their growth.

2. Technology risks

These risks are concerned with the **potential for technology shortfalls** that affect SMEs, and which might **result in losses**. They include the potential for project failures, operational problems and information security incidents (i.e., a SIMPLICABLE report mentions 36 types of technology risks). In general, SMEs having small resources must adopt at risk management measures by facilitating well known efficient technology processes.



3. Regulatory compliance

The regulatory and compliance obligations of a SME depend on the area in which it operates. In general SMEs are **required to comply with all relevant consumer rights legislation among which the most burdensome are the Consumer Protection Act and Protection of Personal Information Act**. Compliance with rules and regulations is necessary and socially accepted, but it represents a major challenge, especially for small firms.

4. Societal changes

Too many societal challenges remain without solutions, while too few SMEs are engaged in social contributions and innovations. There is a need for SMEs to become stakeholders dealing with social or societal issues and seize the opportunities to contribute towards alleviating social needs or societal challenges. Few SMEs have developed concrete solutions to these issues, which should be described in the form of innovation opportunities, suitable to SMEs. Thus, synergies between social enterprises and them is a necessary step to follow.

5. Supply and logistics

The literature (Kherbach & Mocan, 2016; Hong, & Jeong, 2006; Arend & Wisner, 2005) has **shown that trade logistics and supply chain management are needed by SMEs in order to improve their competitiveness and increase their market share**. Indeed, an SMEs market with well-organized logistics and supply chain management facilities has a qualified advantage over other economic sectors, whereas improving logistics infrastructure may a competitive tool in increasing their market share.



III. EXTERNAL FACTORS

In addition, however, there are many more external determining factors, among which are:

1. Access to Capital

As SMEs increasingly challenge big firms, access to funding is becoming more and more important for them. Generally, in both the developed and the less developed countries banks and other traditional lenders are reluctant to lend to SMEs stiffening their growth.

2. Strong Competition

SMEs are finding that competitors are more often relying on price as a key point of gaining market share. But strong price competition is decreasing cash flow and profitability, which often involves changing the business' approach to stock control, reducing inventory on hand. On the other hand, it leads to better management and the creation of a better customer experience, including by selling boutique or artisan products.

3. Attracting new customers

Willment (2020) has mentioned that **79% of the UK SMEs stated that their toughest challenge was attracting new customers**, creating a serious problem for them. Big companies with a strong brand supporting them find it easier to attract new customers, but SMEs do not have such an instrument.



4. Development Potential

In the EU, SMEs play a significant role in the **vitalization and the economic development of the country as a whole but especially in the countryside**. An SME is creating job opportunities, promotes stable work markets, supports development of regional economies, produces creativity and invention that fuels economic progress, promote the competition and cooperation and produce quality value added products. Therefore, **nowadays the contribution of SMEs in creating a sustainable economic development across cities, rural areas, regions and countries is indisputable**.

5. Environmental Entrepreneurship

The demand for **environmentally-friendly products and services are increasing all over the world** (climate change accord). This has created two types of environmental practices in the EU: the practices related to production processes (greening processes) and the practices related to products and services (greening product and service offerings). Both these practices, however, **create complexity, administrative burdens and high costs in complying with the innumerable and various rules and regulations demanded by the EU legislation**. The result is that SMEs owners and entrepreneurs are discouraged from apply them and meet the costs involved.



IV. INNOVATIVENESS

Innovation is a complex and multidimensional process, (it concerns ideas, approaches, methods, processes, structures, behaviors, attitudes, cultures, technologies and capabilities) which is reflected in the relationship between technological or internal innovations (product innovation and process innovation) and the administrative system innovations or external (organizational innovation and marketing innovation) (Armbruster et al., 2008; Varis & Littunen, 2010). This relationship can be easily observed in the way SMEs are operating by balancing different types of innovation in accordance with their needs. As a result, innovative performance is practically a construct made up of the different forms of innovation carried out by an individual SME. The most important enterprising innovation determinants, in addition to internal factors, are:

1. External Factors Bearing to SME's innovativeness

The external factors are connected with the major characteristics of the entrepreneurship environment an SMEs operates and the policies, mechanisms utilized by the overseen **legislative and administrative entities of the area, region, country and the EU**. The external factors sometimes help SME's (mostly the environment), but mainly constrain their operation requiring their constant alertness and wiliness to comply.



2. IT Capabilities

The literature (Roman, 2012; Carbonara, 2005; Banker, 2006) has shown that SMEs IT capabilities such as computer-aided design (CAD), computer-aided manufacturing (CAM) processes, and the application of other commonly used software are linked to: increased performance, internalization of successful practices, facilitating exchanges of opinions, information sharing, work coordination, as well as significant increase in the extent and quality of product design and decrease **time spent on it which lead to their innovativeness**. In a wider context, ICT (information-communication technologies, which are mainly telephone, computers and Internet) play a role in reduced uncertainty and transaction costs, growth of information and knowledge flow, productivity and cross-border competition, which again lead to the rapid spread of innovations.

3. Owners Perception of Innovation

In the SMEs the personal characteristics of the owner, and exclusive decision maker, are determinants in his perception of innovation and in adapting innovation at least during the initial phases of the business, as well as later in leading towards innovative success (Koellinger, 2008; Marvel & Lumpkin, 2007) and economic performances (Robinson & Sexton, 1994). Generally, the influence of education and other mental capabilities such as cognitive complexity (Thompson et al., 2010) of the owner are paramount **in the motivation and management style, the promotion of creativity**, the discovery of business opportunities, and his capacity for technological absorption.



V. INTERNATIONALIZATION

Nowadays technology, abolition of trade barriers and a series of other factors are forcing the world economy, willingly or unwillingly, to become dependent and integrated. The creation of such a globalization has a positive effect on SMEs by allowing them to fast become international in an effective way. SMEs by playing an increasingly active role in international markets they are rapidly expand their businesses to international markets and mainly use these international activities as an important strategic tool to grow. In most cases, however SMEs are motivated to internationalize due to reasons such as: increasing sales, diversifying operations, getting closer to its clients, reducing costs (production and supply-) and compensating for home market decline. To achieve internationalization can be a simple described process, but difficult to apply, requires a set of difficult actions such as:

1. Eliminating Risks

Any internationalization process, including that of the SMEs by its **nature involves risk and uncertainty, which have significantly impact upon enterprises and their strategy**. Therefore, for SMEs to internationalize successfully, they have to lower these risks and uncertainty. These can be done by choosing the right strategy and methods, and mainly to have the experience or information about foreign markets to avoid risking the survival of the enterprise or the competition to undermine their activities.



2. Acquiring Knowledge

Knowledge is a key element in any SME strategy and method for internationalization. Incorporating internationalization into the competitive strategy of an SME, requires gaining –knowledge– about other clients and markets, the capacity of competitors and even the cultural diversity the areas of interest. Although, gaining knowledge rarely appears in SMEs plans, yet it is of crucial importance because all enterprises companies need to work– in international markets in order **to be exposed to the need for excellence that international competition brings.**

3. Creating competitive advantages

It is imperative that SMEs define the competitive advantage they trying to gain. As a result, they should consider the following:

- Offer better **value** than its competitors, either by offering enough differentiation or a lower price to be able to **sustain a competitive advantage.** They should realize that this is true not only in their national market, but it is also relevant within a global context.
- Choose appropriate ways of **entering and consolidating a market** that is the base for any international expansion. The literature (Ricart and Llopis, 2014) and experience has shown that there is a wide range of options available
- Apply differentiation: One size does not fit all. **Selling is not the same as manufacturing; commercializing any product cannot be the same across space, time and operating conditions.**
- Adapt to different cultures, languages, religions, administrative norms, modes of consumption, competition and distribution, as well as lack of resources, infrastructure and labor characteristics.



- Accept that internationalization is a long and complex process, requiring planning, flexibility, and, **above all patience.**

4. Adapting to local frameworks

The adaptation strategy consists of increasing income and market share by tailoring products and services to the local context and the key is to arrive at the correct adaptation of the business model and the product and service offered to the target market.

5. Entrepreneurial orientation and SMEs performance

SMEs need to Exploit the differences between national and international markets in order to convert them into **opportunities for optimizing market share** and available resources. The key is to locate independent parts of the demand and the supply chain in different places in order to exploit the advantages of their production on a global scale. On the other hand, taking advantage of economies of scale through the creation of international operations can become the key to standardize products, grouping together activities on the basis of areas or geographical zones and thus optimize costs. In other words, internationalization reveals the linkage between entrepreneurial orientation and firm performance.



VI. COMPETITIVENESS

Given that SMEs are the backbone of EU economy, the competitiveness of SMEs is at the forefront of the EU commission, which is creating strategies for competitiveness leading towards smart, inclusive and sustainable growth. The latest data (2020, EU commission) show that 1.2 million SMEs enterprises are created in the EU every year, yet only half of those survive the first five years. As a result, the challenge for member states and regions is to improve policies that can boost entrepreneurship and support SMEs competitiveness.

Achieving SMEs competitiveness is complex and requires great efforts in areas such as: internationalization, access to markets, financing, growth capacity, networking and clustering, innovation capacity, business transfer, entrepreneurship development and capacity building. Therefore, there is a need for the incorporation of new forms of SME development, such as design, eco-conception and corporate social responsibility.

Presently the EU is focusing in:

- Helping them to innovate and break down the barriers that prevent business growth.
- Fostering exchange of experience, capacity building and networking aimed at allowing SMEs to grow in regional, national and international markets.



VII. PLANNING

Planning is a necessary process, representing a major challenge for SMEs in order to guide them in their day-to-day decision-making, but mainly in evaluating their operation, their progress and their decisions in changing operation. The primary objectives/challenges in Strategic planning are the below following key areas:

1. Mission

Defining SME business purpose represents the first and most important step in strategic planning, because it synthesizes and **clarifies the dominating enterprise's concepts**, which in turn determine their practical strategies. They should be broad enough to guide both management and employees and narrow enough to enable them to clearly define their actions and decisions, consequently saving time.

2. Vision

It describes what an SME wants to achieve at some point in the future and expresses what the enterprise would like to be in order to achieve its goals and be successful. Given that a strategic planning process **represents measurable goals** (specific objectives expressed in terms of quantities and timelines), it enables managers and employees to evaluate progress and pace developments in concrete terms.

3. Plan

It refers to the process that outlines the way an SME wants to achieve its ultimate goals. This challenge entails the **identification of the SME's objectives**, which in turn lead to the formulation and monitoring of the specific strategies to achieve them and the resource allocation of the enterprise.





4. Evaluation

It represents the assessments of what an SME can achieve, **by evaluating the progress of the plan objectives based on realistic information related to what the enterprise can achieve.** The evaluation process' as a value achievement' has to be concerned with assessing plan goals within a well-defined time period and not in general, because unforeseen conditions might change the operating situation any time.



VIII. INFRASTRUCTURE AND FACILITIES

Like any other enterprise an SME needs general infrastructural facilities such as: power, water, transportation, telecommunication, drainage and pollution control, banks, as well as SMEs specific facilities such as: **distribution network, raw materials, storage and marketing outlets, service facilities and technological backup services**. Both of these facilities represent challenges for SMEs, but the specific for the SMEs facilities are controlled by them and thus they are the ones that can reduce the cost of SMEs production and services and increase their overall profit margin, which help them compete with existing local and foreign enterprises.

In sum the Decalogue of major SME challenges are:

- Lack of financing.
- Lack of technical knowledge.
- Lack of managerial skills.
- Lack of market research.
- Lack of sector specific skilled manpower.
- Market competition.
- Poor infrastructure.
- High bank interest rates.
- Government regulation.
- Unfriendly business environment.



THE THIRD DIMENSION: GREENING SMEs

The third dimension is related to the SMEs quality of a good or service or a combination of both, and the efficiency of production as well as of the recycling processes that are as important, and which are dimensions in which SME's enterprises can benefit from the implementation of resource efficiency measures or the application of the SMEs Green Action Plan (EREK, 2018).

The Green Action Plan (GAP), proposed by the European Commission in 2014, has set a goal for Europe and consequently SMEs to be climate-neutral by 2050, and is aiming at turning environmental **challenges into business opportunities and using the potential to transition to a green economy**. The Green Deal addresses the immediate **need for specific actions that support Circular Economy**, helping to reduce CO2 emissions, transform the energy industry, move the production to a more environmental-friendly stage and many more. In addition, the impact of GAP is not only in making the EU economy green, but also more competitive and sustainable

In order for the European Commission's Green Action Plan for SMEs to achieve its goals it sets out a series of objectives and corresponding actions which can be grouped in the thematic areas shown in figure 1. The importance of this concept lies in the recognition that the many SMEs activities have to be seen as different manifestations of "a whole", the entity of SMEs. Therefore, an integrated approach towards SMEs is required.





Fig.: GAP Objectives for SMEs (source: EU commission)

These series of objectives accompanied by a set of actions have to be implemented within the **framework of the Multiannual Financial Framework 2014-2020**. Practically, these actions are conditioned on the potential of SMEs for resource efficiency and access to green markets. But more importantly, these actions address two set of challenges: first, the means to persuaded SMEs to gain the benefits of resource efficiency, which in turn requires a second necessity to devise an integrated approach to take into consideration the following objectives and actions:



1. Objectives

The GAP objectives address a **set of challenges** by increasing awareness, offering tailored information, technical and advisory support, as well as facilitation of the investment schemes for enterprises, in order to:

- Provide European SMEs with practical information, advice and support on how to improve their **resource efficiency** in a cost-effective manner
- Support **efficient technology transfer mechanisms** for green technologies
- Facilitate the access to **finance** for resource-related improvements and energy **efficiency** in SMEs.

2. Greening SMEs for More Competitiveness and Sustainability

The GAP actions concerning SMEs competitiveness and sustainability address a set of challenges to the basic issue related to many SMEs practically refusing to reap the benefits of resource efficiency. They address it by **increasing SMEs awareness; providing technical and advisory support; offering SMEs tailored information; and facilitating investment schemes. More specifically:**

- Provide European SMEs with practical information, advice and support on how to improve their resource efficiency in a cost-effective manner.
- Support efficient technology transfer mechanisms for green technologies.
- Facilitate the access to finance for resource-related improvements and energy efficiency in SMEs.



3. Support Green Entrepreneurship

The GAP actions concerning SMEs entrepreneurship address issues, which can create the conditions for the necessary solutions associated with providing incentives for: research; development and demonstration; formulating entrepreneurship skills; and supporting networking and collaboration. More specifically:

- Promote all forms of eco-innovation, including non-technological eco-innovation.
- Facilitate business partnering, skills and knowledge for green entrepreneurship.
- Exploit better the role of clusters in support of eco-innovative SMEs.

4. Provide Opportunities of Greener Value Chains

The GAP actions related to this area of SMEs **activities are focused on fostering circular economy** and long-term resource independence. They are addressed by financing actions such as in-depth analysis of existing barriers and how to tap into the potential of European clusters and cross-regional exchanges. More specifically:

- Address systemic barriers to cross-sectoral and cross-national value chain collaboration and business creation and cooperation.
- Facilitate the creation of service business models.
- Re-use of materials, products and waste.



5. Facilitation of Market Access for Green SMEs

The GAP actions concerning SMEs market access, address the problem associated with their weak internationalization. They address this issue by helping in matchmaking activities, in creating appropriate platforms, and in providing special support services. More specifically:

- Promote a greener European internal market
- Facilitate access to international markets for green entrepreneurs
- Facilitate the uptake of resource efficiency technology in partner countries through cooperation with European SMEs.

In addition, from an administration (Governance) point of view the Green Action Plan for SMEs aims at helping SMEs turn environmental challenges into opportunities, reconcile economic growth with environmental sustainability and take advantage from the transition to a green economy, which offer numerous business opportunities for them. The basic aims are:

6. Improving SME Resource Efficiency

This can be achieved by:

- Providing information and advice to SMEs on how to improve their resource efficiency in a cost-effective manner.
- Supporting green technology transfer.
- Facilitating access to finance for environmental improvements.





7. Green entrepreneurship, green skills and eco-innovation

This can be achieved by:

- Developing, financing.
- Putting green ideas on the market.
- Promoting eco-innovative business ideas.
- Promoting green entrepreneurship.
- Innovative clusters.

8. Green value chain and circular economy

This can be achieved by:

- Enhancing cross-sectoral cooperation across the value chain.
- Cross-regional cooperation across the value chain.
- Share specialized knowledge.



THE EUROPEAN SME FRAMEWORK

It is suggested that nowadays the condition, **benefits and the impacts of SMEs in the economy and the society in general, can be assessed only through an integrated approach related to their entrepreneurial processes.** Based on this principal, important changes in the way we approach and consider **SMEs have to take place.** There is a need to view SMEs in a new approach, which requires changes of their perception and assessment. Present day scientific knowledge (Baron & Shane 2007; Omerzel, & Antoncic. 2008; Urban & Naidoo. 2012; Baron & Shane, 2007) clearly indicate that a new integrated approach to SMEs consideration needs to be utilized to have successful results. The goal of this position paper is to substantiate that in achieving an effective and efficient approach to SMEs, the nature of all the factors involved in determining their successful operation have to be fully understood, because in turn they determine the way the dual goals of EU (circular and more resilient economy) can be implemented, which include the greening of the SMEs.



The position presented here is simple in its explanation, but radical when is considered in terms of the existing beliefs and practices in considering SMEs. The conceptualization and application of a new philosophy, can be (Figure 2).

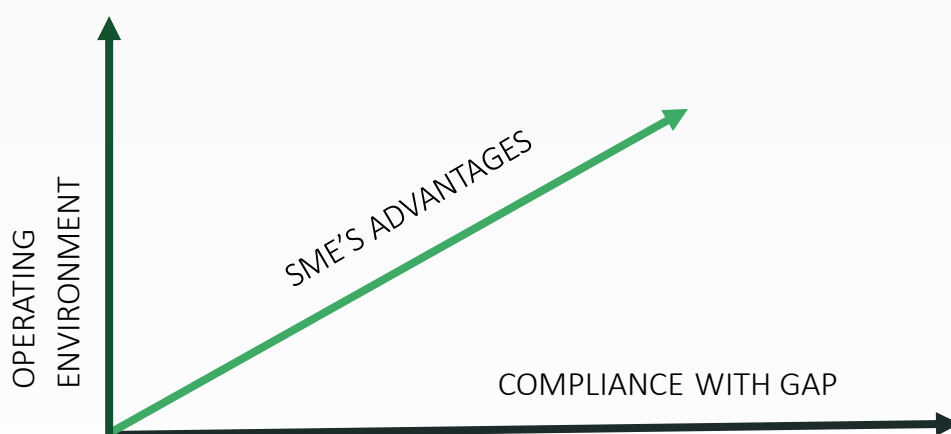


Fig. 2: Conceptualization of European SMEs

APPLICATION OF THE THREE-DIMENSIONAL APPROACH

In order to receive a holistic understanding of the described above national context and initiatives towards the three-dimensional approach we can explore the following structure:

Belgium	SME'S ADVANTAGES	OPERATING ENVIRONMENT	COMPLIANCE WITH GAP
A new center of competitiveness for Wallonia	Deploying economic tools.	Green clusters.	
Brussels Technology center			Assistance on environmental protection.
Brussels Environmental Technology center		Monitors, informs, supports and mobilizes to drive innovation.	
Coopcity	Entrepreneurial initiatives.		
The Greenbizz initiative			Sustainable energy and the environment.



BULGARIA	SME'S ADVANTAGES	OPERATING ENVIRONMENT	COMPLIANCE WITH GAP
The greenest companies in Bulgaria		Green innovations and CSR initiatives	
Green accelerator			Climate-KIC Accelerator
The Coalition for Green restart			Policy recommendations for the implementation of the Green deal



CYPRUS	SME'S ADVANTAGES	OPERATING ENVIRONMENT	COMPLIANCE WITH GAP
Organizations and Businesses Awards for the Environment			Adopting and promoting strategies in environmental education, environmental research and information
The Green Cluster		Bring together companies as well as individuals working in the environment and green sector	
Green dot Cyprus			Collective Compliance System for Packaging Waste
Green office certification		Environmental quality certification for buildings and offices	
Small Business Support Program in Cyprus» by EBRD	Help SMEs gain access to know- how, enhance their competitiveness and grow		



GREECE	SME'S ADVANTAGES	OPERATING ENVIRONMENT	COMPLIANCE WITH GAP
Recycling law			Adjusts existing laws and regulations to circular economy principles
Equity financing		Invests in high-value added and innovative early growth stage companies	
"Think Green" program.			Face environmental impacts of SMEs
Development Law 3908/2011			Reinforces investments concerning the innovation and application of green practices
The National Strategic Reference Framework (NSRF) 2007-2013			Provides guarantees on long-term and short-term loans or finances small and very small enterprises



IRELAND	SME'S ADVANTAGES	OPERATING ENVIRONMENT	COMPLIANCE WITH GAP
<i>The National Policy Statement on Entrepreneurship (NPSE)</i>		A facilitator within the Irish entrepreneurship ecosystem	
"Voice of Small Business" program		Drive SMEs entrepreneurship in a determined and coherent manner	
Government Policy for Social Enterprise		Achieve a social, societal, or environmental impact of SMEs	
Social Entrepreneurs Ireland and Social Innovation Fund Ireland	Provide support to social entrepreneurs and innovators through funding and other measures		
Local Community Development Committees	Support enterprises through various initiatives		



SPAIN	SME'S ADVANTAGES	OPERATING ENVIRONMENT	COMPLIANCE WITH GAP
Life Program			Economic aid to protect nature, the environment and climate change
Action Plan for the Implementation of Agenda 2030: Towards a Spanish Sustainable Development Strategy			Implement a Sustainable Development Strategy
The Spanish strategic framework for SMEs		Solicits new proposals to strengthen SMEs in a changing, global, digitized, innovative and sustainable environment	
Spanish strategy for the circular economy			A package of measures and a European action plan
Sustainable Development Goals (SDGs) and the goals set by the 2030 Agenda			Offers all levels of government a common language to improve public policies



CONCLUSIONS

This report represents the first output of the BALANCE project that shows real examples in the partnering countries and provides financial analysis over the current best practices in the business sector. These examples, which are companies that have already implemented greener policies and sustainable policies in the partnering countries, they can be used as important trend-setter and can provide input **into resolving actual implementation problems**.

The results clearly:

- Validate the notion that there is a gap between the big companies and the SMEs as a result the dramatic **difference in their resource availability**. On the other hand, SMEs are facing harsher regulations regarding their footprint.
- Improve the awareness of Environmental Policies and the topics around **financial sustainability**. It can be utilized as valuable tool to promote green operations to SMEs.
- The **awareness about Green Deal**, environmental protection and SMEs business can be increased, and at the same time the footprint of the business of the SMEs decision takers can be reduced. But more importantly - answers to questions such as what the cost is of environmentally-friendly business can be given.
- SMEs green practices are mainly applied along the value chain, either by improving the Core business (the products directly contributing to the value chain) or making use of side products to start a side business model. Therefore, an SME is benefitting from green practices when their improvements are in the core business, creating in this way a strong culture towards green practices.



- In SMEs, from a financial point of view, the following observation can be made:
 - ✓ Small but constant financial efforts have big environmental impacts, because they create a company culture, which in turn leads towards climate neutrality.
 - ✓ Consistent, honest and authentic environmental initiatives of an SME have a positive effect, because allows the enterprise to have better communication with its employees.
 - ✓ Any change in market positioning of an SME requires investments, but this does not necessary lead to an environmental impact.

In addition, a conceptualization for a strategic consideration of SMEs is presented, which is based on a framework of the principal entrepreneurial concerns, whose objectives and actions were identified and presented. It was shown that within an integrated philosophy of SMEs, **which is based on a three-dimensional space consisting of the Advantages they exhibit, the Enterprising Environment within which they operate, and the aspects of GAP they apply, any EMSs consideration, appraisal or examination is not only necessary, but possible.** More specifically, any SMEs consideration should be seen as defining a point in this three- dimensional space, which:

- Provides a very efficient and effective SMEs assessment tool.
- Helps any administrative entity (from local to the EU level) to recognize the context, in which SMEs operate.
- Helps in understanding the integrated nature of SMEs.
- Provides a comparison tool differentiating SMEs operation.



REFERENCES

Adler, A. Shenbar, C. (1990). Adapting your technological base: The organizational challenge Sloan Management Review, 25 (3): 25-37

Anam, A. (2019). The Advantages of SMEs. Bizfluent report. Accessed 1 Feb. 2021: Biz fluent: A Guide to Running Your Small Business

Arend, R.J. Wisner, J.D. (2005). Small business and supply chain management: is there a fit? Journal of Business Venturing, 3: 403-436.

Armbruster, H. Bikfalvi, A. Kinkel, S. Lay, G, (2008). Organizational innovation: the challenge of measuring non-technical innovation in large-scale surveys. Technovation 28(10): 644–657.

Baron, R A. & Shane, S.A. (2007). Entrepreneurship: A Process Perspective, 2 Ed., Mason, OH: Thomson South-Western.

Bölükbaş, U. Güneri, A.F. (2017). A fuzzy multi-criteria decision approach for measuring technology competency performance of SMEs. Sigma Journal of Engineering & Natural Sciences, 8(1):31-40.

Cogliser, C.C., Brigham, K.A., & Lumpkin, G.T. (2008). Entrepreneurial orientation (EO) research: A comprehensive review and analyses of theory, measurement, and data-analytic practices. In Babson College. Entrepreneurship Research Conference.

Deepa, B. Manalel, J. (2016). Entrepreneurial orientation and firm performance: A critical examination. Journal of Business and Management, 18(4):21-28.

Dutta, D. (2020). Here are the biggest challenges SMEs in the UK are facing. Accessed 1 Feb. 2021: Here are the biggest challenges SMEs in the UK are facing - Dataconomy



European Commission. What is an SME? - Small and medium sized enterprises (SME) - Enterprise and Industry. (2015) ec.europa.eu. Accessed Feb. 1 Eurostat, 2018.

Forbes, D.P. and Milliken, F.J. (1999) Cognition and Corporate Governance: Understanding Boards of Directors as Strategic Decision-Making Groups. *Academy of Management Review*, 24:489-505.

<https://doi.org/10.5465/amr.1999.2202133>

Hans-Heinrich, B. (2006) KMU in der deutschen Volkswirtschaft: Vergangenheit, Gegenwart, Zukunft, Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen Nr. 101, Bremen. Accessed 1 Feb. 2021 at the Wayback Machine

Hong, P. Jeong, J. (2006). Supply chain management practices of SMEs: from a business growth perspective. *Journal of Enterprise Information Management*, 19: 292-302.

Koellinger, P. (2008). Why are some entrepreneurs more innovative than others? *Small Business Economics* 31(1): 21–37.

Kotey B. (1999). Debt Financing and Factors Internal to the Business. *International Small Business Journal*. 17 (3): 11-29.

Lumpkin, G.T., Dess, G.G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of business venturing*., 16(5): 429-451.



Lutz, S. (2015). Industrial revolution - industry 4.0: Are German manufacturing SMEs the first victims of this revolution? Journal of Industrial Engineering and Management. 8 (5). DOI:10.3926/jiem.1470.

M. Battor, M. Battor. (2010). The impact of customer relationship management capability on innovation and performance. Journal of Marketing Management, 26 (9–10) 842-857

Marvel, MR. Lumpkin, GT. (2007). Technology entrepreneurs' human capital and its effects on innovation radicalness. Entrepreneurship Theory and Practice. 31(6): 807–828

OECD (2017). Enhancing the Contributions of SMES in a Global and Digitalised Economy. In Meeting of the OECD Council at Ministerial Level (pp. 1-24). Paris: OECD Publishing.

Accessed 1 Feb. 2021: <https://www.oecd.org/mcm/documents/C-MIN-2017-8-EN.pdfKfW>, SMEs face a wide range of barriers to innovation – support policy needs to be broad-based, 2016.

Omerzel, D. G., Antoncic, B. (2008). “Critical entrepreneur knowledge dimensions for the SME performance”, Industrial Management & Data Systems, vol. 108, (9): 1182-1199.

Oualid, K. Liviu Mocan, M.(2016). The importance of logistics and supply chain management in the enhancement of Romanian SMEs.

Procedia - Social and Behavioral Sciences. 221, 405 – 413. DOI: 10.1016/j.sbspro.2016.05.130



Ricard, J. Llopis, J. (2014). Next Stop: Making SMEs International", IESE's Alumni Magazine. 132 Accessed 1 Feb. 2021:

<https://www.forbes.com/sites/iese/2015/04/20/how-smes-can-internationalize>

Robinson, PB, Sexton, EA. (1994). The effect of education and experience on self-employment success. *Journal of Business Venturing*. 9(2): 141–156.

Sivadas, F.R. Dwyer, E (2000). An Examination of organizational factors influencing new product success in internal and alliance-based processes. *Journal of Marketing*, 64 (1) (2000), pp. 31-49.

Thompson, P. Jones-Evans, D. Kwong, CY. (2010). Education and entrepreneurial activity: a comparison of white and South Asian men. *International Small Business Journal*. 28(2): 147–162.

Urban, B. Naidoo, R. (2012). Business sustainability: empirical evidence on SME operational skills in South Africa. *Journal of Small Business and Enterprise Development*, 19 (1): 146-163.

Varis, M. Littunen, H. (2010). Types of innovation, sources of information and performance in entrepreneurial SMEs. *European Journal of Innovation Management*. 13(2): 128–154.

Walczak, D. and Voss, G. (2013). New Possibilities of Supporting Polish SMEs within the Jeremie Initiative Managed by BGK. *Mediterranean Journal of Social Sciences*. 4 (9): 760-761.

Welsh, A. White, J. f. and Dowell, P. (1981). A Small Business is not a Little Big Business. *European Small Business Journal*. 1 (1), 95-95





EXECUTIVE SUMMARY

The current section is an executive summary of the report written by Violetta Koutsogiannopoulou. The summary provides a short overview on the topics address in the current report.



EXECUTIVE SUMMARY

Small and medium enterprises (SMEs) being the backbone of the European economy, are the centre of the green transformation and sustainable resources management, as per the 2019 EU Green Deal. Immediate actions need to be taken supporting Circular Economy, by helping reduce CO2 emissions, and moving the production to a more-environmentally-friendly stage.

Small businesses have long suffered from the 2008 EU financial crisis and the resulting remedial actions. Further change therefore is not easy to integrate, since it is challenged by the lack of present financial and/or human resources, sustainability, and knowledge.

BALANCE is an Erasmus+ project that addresses the key priority of environmental sustainability, as set out in the Green Action Plan for SMEs, and aims to guide the SME decision makers towards transforming their operations into greener ones, while enhancing at the same time their environmental awareness and securing their financial sustainability.

In this context, the project partnership has carried out extensive desk research, as part of the first set of actions foreseen by the project proposal. Project partners from Bulgaria, Spain, Ireland, Greece, Cyprus, and Belgium researched the national context for SME's development, available support, and the current green initiatives. They then identified and collected successful implementation cases of green practices in different companies in their countries.



The report presents the collected best practices in detail, based on three main aspects:

- The essence of the green practice (changes in operations, smart and sustainability policies, qualification of the staff involved)
- How the green practice was implemented (including financial aspects, such as cost of transition, cost of sustaining and overall financial result before and after the transition to a greener policy, and
- How it was communicated both internally and externally.

The report is offered in the following format:

1. The national context for SMEs per partner country is described,
2. National green initiatives are explained per country,
3. A total number of 31 practices are presented by country,
4. An analysis on the collected practices, based on:
 - a. **The operational characteristics** (challenges in promoting green practices), which indicated that the benefits and advantages available to companies for taking an active part in sustainability, environmental and circular economy issues, can be materialized mainly by internal adjustments. Without, of course, downgrading the major role the external factors are playing.
 - b. **The green practice** (changes in operations, smart and sustainability policies, qualification of the staff involved), which indicated that the green activities of the majority of the enterprises in order to attain an efficient and effective production processes are focused on improving their entrepreneurship operation by optimizing their resources.



c. Implementation of the green practice (financial aspects, such as cost of transition, cost of sustaining and overall financial result before and after the transition to a greener policy), which indicated that the highest impacts are reached by relatively simple and straightforward initiatives, which also have positive impacts on company culture as side-effect.

1. The last part of the report is in essence a position paper, based on the collected practices and extensive literature review; it provides an assessment of a more integrated approach including the following three dimensions:
 - a. The advantages SMEs possess as enterprising entities,
 - b. The enterprising environment within which an SME operates,
 - c. The aspects of Green Action Plan that an SME applies.

This three-dimensional approach helps offer a more holistic understanding of various national contexts and initiatives for SMEs in the form of quadrats.

Overall, the report aspires to become a trend-setter in interpreting SME transformation towards greener operations, as well as resolving implementation problems, in this direction.

In conclusion, this report represents the first output of the BALANCE project that shows real examples in the partnering countries and provides financial analysis over the current best practices in the business sector. These examples, which are companies that have already implemented greener policies and sustainable policies in the partnering countries, can be used as important trend-setter and can provide input into resolving actual implementation problems.



The results clearly:

- Validate the notion that there is a gap between the big companies and the SMEs as a result the dramatic **difference in their resource availability**. On the other hand, SMEs are facing harsher regulations regarding their footprint.
- Improve the awareness of environmental policies and the topics associated with **financial sustainability**. It can be utilized as valuable tool to promote green operations to SMEs.
- Increase **awareness of the Green Deal**, environmental protection and SMEs business and at the same time that the SME footprint can be reduced.
- Show that there are many internal and external factors and challenges related to the operations and management of SMEs. However, they are able to respond mainly by **internal adjustments to green practices**, because they can be influenced by them.
- Focus on improving their entrepreneurship operation by optimizing their resources by striving to **attain an efficient and effective production processes**. In addition, however, they consider Company Social Responsibility a sound investment in influencing society.
- Confirm the notion that **small and constant efforts** do have big impact, since they cultivate a company culture and reputation towards environmental sustainability.
- Suggest that SMEs need to establish a clear vision of green perspectives and the ways they can contribute to the Green Deal



Appendix 1

Case study of green practise in companies

Case study concerning an example of developing green policies and practices which should:

- show **successful, already implemented examples** of greener operations
- provide **examples of cost-effective solutions**
- evaluate their **financial aspects** where possible
- assess their **transition to environmentally friendly working**

Partner name	
Title	
Name of the company	
Website page and/or contacts	
Industry	
Number of Employees	
Years of existence	
In what areas of operation do the green practises take place?	
Describe the green practices involved	<ul style="list-style-type: none"> - Main goals of the practises - Please provide information over Procedures, Activities, Phases.



Appendix 1

Describe how the green practises have been implemented	<ul style="list-style-type: none"> - What investments have been made and what are the effects on the running costs? - What were the challenges you have faced? - Where relevant specify the role of digital technologies - What are the results of the implementation of the practise?
How did you communicate the practises?	<ul style="list-style-type: none"> - Internally within your company? How did you invite and encourage the employees to implement the practises? - How did you communicate externally including PR? - Did you align the practises with your company's CSR policy?
What savings (cost effectiveness) or increase of expenses do they make as a result? Provide financial details if available.	
What were the main lessons learnt	
Visuals and URLs	



CONTACTS

Follow more about the Balance project at:



www.balanceproject.eu



www.facebook.com/balance.euproject



Co-funded by the
Erasmus+ Programme
of the European Union