



Too Good To Go - Waste Free Economy Transformation for SMEs (2Good2Go)

Step-by-Step Policies Portfolio and Action Plans for circular economy

Step-by-Step Guidelines

June 2023



Summary:

| | |
|--|-----------|
| <i>INTRODUCTION</i> | 3 |
| <i>IMPLEMENTATION OF A CIRCULAR ECONOMY ACTION PLAN FOR SMEs</i> | 5 |
| Path | 5 |
| 1. Definition of the chain | 6 |
| 2. Circularity assessment | 7 |
| 3. Circular economy system design | 11 |
| 4. Operational activity | 23 |
| 5. Performance evaluation | 25 |
| <i>ATTACHMENTS</i> | 26 |
| Annex A – Glossary for circular economy | 26 |
| Annex B – Reference certification schemes | 41 |
| Annex C – Assessment of the circularity of SMEs: manufacturing sectors | 48 |
| Annex D – Assessment of the circularity of SMEs: service sectors | 66 |
| Annex E – Creating a basic policy on circular economy: policy planning workflow | 74 |
| Annex F – Ways small business can implement a circular economy strategy | 77 |



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INTRODUCTION

Resource consumption is rapidly increasing globally. The European Commission signals a global trend in resource consumption that will be equal to that of three planets by 2050. The United Nations Environment Program (UNEP) estimates that the amount of material extracted and used has increased eight-fold over the twentieth century, surpassing 80 billion tons in 2015. Furthermore, forecasts indicate that material extraction could exceed 183 billion tons by 2050. Resources are therefore becoming increasingly scarce and their extraction and processing cause half of total greenhouse gas emissions, the loss of more than 90% of biodiversity, and water stress. Hence the need to use resources in a different way. They have become the subject of an increasing number of national and international policies aimed at addressing the issue.

In the context of the circular economy, on 2 December 2015, the European Commission adopted the first package of measures (COM 2015) to encourage Europe's transition towards a circular economy, with the aim of strengthening global competitiveness, stimulating sustainable economic growth, and the creation of new jobs. The Commission's proposals cover the entire life cycle: from production and consumption to waste management and the market for secondary raw materials.

In 2020, the European Commission launched a new Action Plan for the circular economy (COM 2020), an integral part of the European Green Deal, which indicates the concept of circularity as a basis for achieving the goal of climate neutrality by 2050, specifying a series of measures relating to the entire life cycle of products useful for achieving this goal. The plan includes rules to design products with higher use of recycled raw materials, longer lasting products, easier to reuse, repair, and recycle

The eighth Environment Action Program (8th EAP) aims to stimulate the transition to a green economy and to decouple economic growth from environmental degradation, going "beyond GDP". It is therefore required to overcome the traditional model of economic development, born during the Industrial Revolution, which is based on the linear approach of "take, produce, consume, discard". The new economic model instead aims to keep the value of the products intact even after their end of life, reintegrating them into the production process.

According to the Ellen MacArthur Foundation, one of the first and most important organizations to deal with the subject, the circular economy can be defined as:



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“A systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution. It is based on three principles, driven by design: eliminate waste and pollution, circulate products and materials (at their highest value), and regenerate nature”.

However, an unambiguous and shared definition does not yet exist. Depending on the sector there is often a different interpretation of the same concept. Furthermore, even the ability to activate concrete "circularity" actions in the production and supply of goods and services still appears to be relatively limited if we take SMEs as a reference.

In consideration of what has been briefly expressed, this document aims to introduce a working approach for the implementation of an action plan for the circular economy for SMEs with reference to products and services.

The following certification schemes have constituted an important methodological reference¹:

- ISO 9001
- BS 8001
- AFNOR XP X30-901
- ISO 14001 - Environmental management systems - Requirements and guidance for use
- ISO 50001 - Energy management systems - Requirements and guidelines for use
- Carbon Footprint / Product and/or organization carbon footprint (14064 and 14067)
- LCA – Life Cycle Assessment considering the standards:
 - ISO 14040 – Environmental management – Life cycle assessment – Principles and framework
 - ISO 14044 – Environmental management – Life cycle assessment – Requirements and guidelines
 - EMAS (Reg. 1221/2009)
 - Ecolabel (Reg. 61/2010)
- EPD: Environmental Product Declaration (EPD® - Environmental Product Declaration)

¹ Moreover, in order to strongly contribute to promoting the development of the circular economy, in 2018, the International Organization for Standardization ISO established a standard technical committee on the ISO circular economy ISO/TC 323. General objective to strengthen and promote activities for sustainable development. This technical committee is working on developing standards related to requirements, frameworks, guidelines and supporting tools for the promotion of the circular economy. Currently, there are 6 drafts under construction: ISO/WD 59004, Circular economy – Framework and principles for implementation; ISO/WD 59010, Circular economy – Guidelines on business models and value chains; ISO/WD 59020.2, Circular economy – Measuring circularity framework; ISO/CD TR 59031, Circular economy – Performance-based approach – Analysis of cases studies; ISO/DTR 59032.2, Circular economy – Review of business model implementation; ISO/AWI 59040, Circular Economy – Product Circularity Data Sheet.



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A glossary of terms and definitions related to the circular economy as well as details of the above reported certifications are presented in Annexes 1 and 2 respectively.

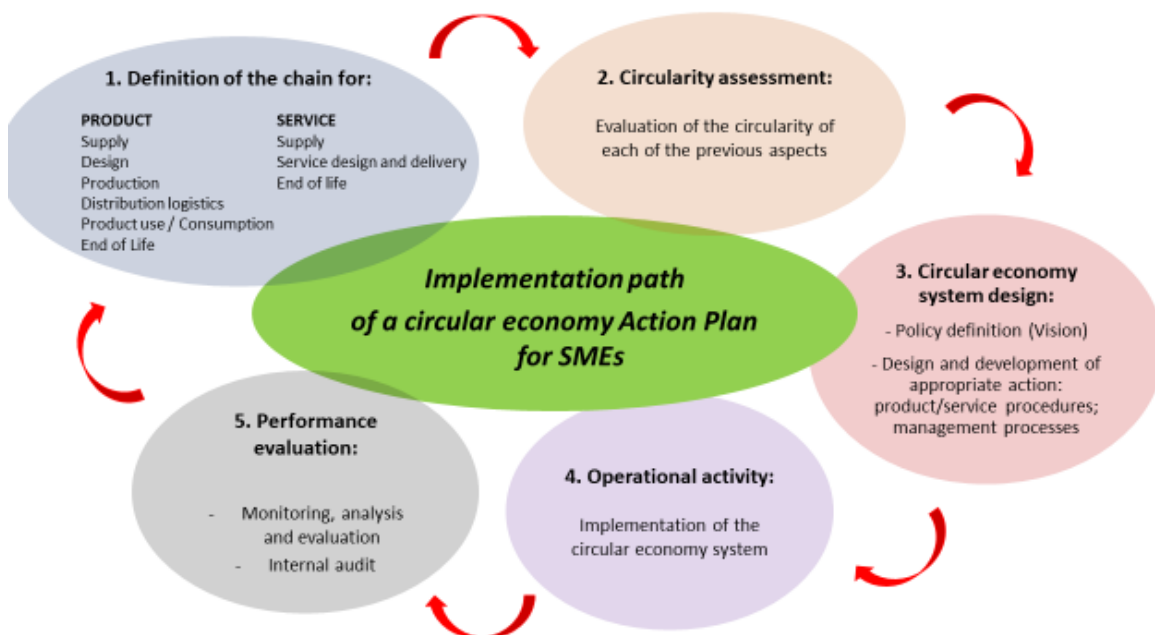


IMPLEMENTATION OF A CIRCULAR ECONOMY ACTION PLAN FOR SMEs

Path

The scheme reported below outlines a possible path that SMEs intending to implement the circular economy in their business can follow. It proposes a series of steps to follow interspersed with verification steps.

Implementation path scheme of a circular economy Action Plan for SMEs



As reported in the previous outline, the definition of the Action Plan touches many elements of an organization's activity involving the entire supply chain for all environmental, economic, and social aspects.

In the logic of continuous improvement, the logical path proposed in the scheme should be repeated on a periodic basis. Indeed, an important operational step is the definition of the measurement and control actions of the established management system. This is done by re-applying a circularity assessment system, which itself is periodically reviewed to make it more in tune with the stakeholders. For example, based on an annual review of the results achieved, it is possible to define the action plan for the following year and the consequent strategic decisions.



1. Definition of the chain

Identification of product/service types

The types of products/services created, and their value chain is identified. This is both before and after production. All in relation to the reference market. From a methodological point of view, it is also considered appropriate to place products and services in two distinct categories, and consequently to distinguish manufacturing companies from those providing services. Manufacturing companies are companies whose main activity is "the physical or chemical transformation of materials, substances or components into new products". On the contrary, service companies are understood to be those excluded from the previous categorization. Service companies are considered, for example, consultancy companies, distribution companies, etc.

By type of product/service, identification of the chain

Once the product/service has been identified, it must be broken down according to the relevant main value chain phases.

As far as the products are concerned, the phases are as follows:

- *Supply*
- *Design*
- *Production*
- *Distribution logistics*
- *Product use / consumption*
- *End of life*

As far as services are concerned, there are different phases:

- *Supply*
- *Service design and delivery*
- *End of life*



2. Circularity assessment

The effective implementation of a business model that favors the circular economy does not disregard a correct assessment of one's circularity. Once you know the strengths and weaknesses of your organization, it is possible to design a circular economy system suitable for the specific context. To make it effective, an assessment of circularity is useful, to be carried out differently depending on the sector to which the organization of interest belongs. This is because companies belonging to the manufacturing sector often have very different needs and resources compared to those belonging to the service system.

At an operational level, Annex 3 contains a proposal for a circularity assessment questionnaire which refers to each of the phases identified in the previous paragraph. The proposed questionnaire was also diversified for SMEs producing products and services. It is a questionnaire with questions formulated in such a way as to allow a response in percentage terms, based on which a score is calculated. The percentage answer is multiplied by the weight assigned to the question. Finally, the total score obtained is made and the result is evaluated with respect to the maximum score obtainable for that phase. In this way a percentage is obtained, a score that can be divided into three main categories:

- a score of less than 33%: low circularity level - further improvements are needed;
- one between 33 and 66%: medium circularity level – further improvement are possible;
- one above 66%: good circularity level.

Example of scoring calculation

Product (maximum score: 300)

Question 1:

Percentage obtained: 70%

Weight: 0,5

Partial score: $70 \times 0,5 = 35$

Question 2:

Percentage obtained: 80%

Weight: 1

Partial score: $80 \times 1 = 80$

Total score: $35 + 80 = 115$



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Final score: 115 / 300 = 38,3%

About the products, the evaluation of the phases investigates the following aspects:

Supply

Procurement intends to investigate the level of circularity along the procurement phases of raw materials and semi-finished products, as well as energy and water resources. The use in percentage terms of virgin and recycled raw materials (or semi-finished products), the possible implementation of an order process optimization system, and the possible optimization of the routes for the supply of raw materials were investigated. raw materials (or semi-finished products), the possible minimization of packaging of raw materials (or semi-finished products), and the use, in percentage terms, of packaging, reused from other processes for the storage of raw materials (or semi-finished products). It is also investigated if the logic behind the purchase manifests the organization's attention to the circular economy. As far as energy and water resources are concerned, their circularity is investigated in percentage terms based on supplies.

Design

The design section intends to evaluate the level of material circularity of companies in the product design phase. The use by companies of guidelines for the eco-compatible design of products and product packaging was investigated, which include indications concerning the "circularity" of materials and waste and any preferences in the choices of planning both towards the use of secondary raw materials and towards the extension of the useful life, the reparability of the product and the management of the end of life of the same. The use of the LCA method in the product design phase is also investigated.

Production

The production section investigates the level of material circularity of companies in the phases connected to the companies' production activities. The possible implementation of management methods, technologies, and tools for the more efficient use of raw materials, the reuse of production waste in one's own production process or in other processes, the possible mechanisms for the reuse of wastewater, and energy-saving measures.



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Distribution logistics

The distribution logistics section measures the level of material circularity of companies in the logistics and sales point management phase. The activation in percentage terms of forms of reverse logistics upon product delivery, the optimization of deliveries (for example, fully loaded journey of the vehicle, route planning, etc.), and the average transport distance of the product were investigated. the type of means used.

Product use/consumption

The use and consumption phase concerns what happens to the product after it leaves production until its end of life. This period, defined as useful life, is evaluated in terms in which the company takes steps to ensure that use is as sustainable as possible. This is done through communication and providing an equivalent service that can replace the product itself.

End-of-life management

The collection and recovery section aims to determine the level of material circularity of the companies in the waste management phases. In this section, the quantities in percentage terms of waste sent for material and energy recovery, any collection/repair/replacement services for damaged components (in addition to those required by law) to increase the life profit of your finished product.



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As far as services are concerned, the aspects assessed are:

Supply

The procurement section intends to investigate the level of circularity along the procurement phase; that is, this section investigates whether the purchases of materials/instruments come from the recovery/regeneration/reuse/recycling supply chains, if ordering process optimization systems have been implemented to avoid waste.

Service design and delivery

The service design intends to evaluate the level of circularity of organizations in the design phase of their activities, mainly through the use of references and guidelines able to better guarantee the minimization of the environmental effects of its activity.

The service delivery section intends to investigate whether the company adopts innovative solutions for the delivery of its services (solutions that make the use of raw materials, energy, and water more efficient, etc.), whether the company uses efficient its structures, and finally if there is an involvement of its employees in the process of improving corporate circularity.

End-of-life management

The last section investigates waste management by asking about the percentage of waste collected separately and sent for material and energy recovery. It was also asked whether products that were no longer used were handed over to third parties

3. Circular economy system design

The logical framework adopted for the design of a circular economy action plan is the well known PDCA (Plan-do-check-act) method, an iterative design and management method used in business for the control and continual improvement of processes and products.



Figure: logical framework of the Plan-do-check-act) method

Thus, the Plan-do-check-act method is divided into four steps:

- Plan: Recognize an opportunity and plan a change.
- Do: Test the change. Carry out a small-scale study.
- Check: Review the test, analyze the results, and identify what you've learned.
- Act: Take action based on what you learned in the study step. If the change did not work, go through the cycle again with a different plan. If you were successful, incorporate what you learned from the test into wider changes. Use what you learned to plan new improvements, beginning the cycle again.

Depending on the type of organization (production of goods or services) it is necessary to identify the best types of intervention to apply based on the results of the circularity assessment.

Starting from the assumption that the SME already complies with all the obligations deriving from the current environmental regulations, it can be kept in mind that the planning of the system, also in compliance with the voluntary certifications that deal with the topic, can follow the following steps:



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- Identify environmental and circularity objectives based on the evaluation results;
- Address your weaknesses and circularity goals. To do this, the organization will need to determine:
 - What will be done,
 - What resources will be needed,
 - Who will be responsible for it,
 - When completed,
 - How the results will be evaluated.

Product manufacturing SMEs

Environmental policy objectives

It is suggested that the organization write and publish an environmental policy. It must make explicit the environmental vision and related objectives that the organization undertakes to pursue. Moreover, it should be an explicit part of the Corporate Social Responsibility (CSR) of a SME, being conscious of the kind of impact it is having on all aspects of society, including environment.

The document must therefore highlight:

- Environmental goals.
- Main routes followed to reach them.
- Commitment to environmental protection and other commitments specific to the context of the organization.

Green policies don't have to be lengthy or wordy. The most effective policies are written in plain language that is motivating and inspires people to change.

The document must be maintained as documented information, updated, and must be communicated within the organization, as well as available to interested parties. A step by step guide on how to define an environmental policy is reported in the Annex 5.



Example of environmental policy

Aware of the central role of sector X for responsible growth, we intend to promote it in the relevant activities. We assume this responsibility in accordance with the principles set out in this Policy. The Environmental Policy guides the Company both in the activities of direct responsibility and in the direction and coordination activities of the Group companies. X, with a view to continuous improvement, undertakes to:

- identify relevant stakeholder needs and expectations;*
- manage the activities in compliance with current legislation and voluntarily signed rules, pursuing environmental opportunities and at the same time mitigating risks;*
- promote the efficient use of energy resources and the reduction of greenhouse gas emissions, through the implementation of highly energy-efficient technologies and the promotion of renewable sources;*
- minimize the impact of activities on the environment, encouraging the adoption, right from the design stages, of a Life Cycle Assessment (LCA) logic in all processes, with particular attention to water consumption, waste, and prevention of soil and air pollution.*
- encourage and support suppliers to improve their performance, supporting the circular economy and promoting the principles of sustainability in the procurement choices of goods, products, and services.*

To meet these commitments, we act at all levels of the organization:

- encouraging the growth of a responsible Group culture, through the promotion of information, training, and updating activities on environmental matters.*
- ensuring maximum transparency and attention to stakeholders, also through their periodic consultation.*
- promoting the selection of suppliers also through logic of attention to the environment.*
- monitoring and communicating the impacts, both positive and negative, on the environment, also through the publication of the Sustainability Report and financial reporting of non-financial information.*
- promoting the adoption by Group companies of an Environmental Management System, also through the sharing of guidelines and support tools.*

The commitments and principles listed above are communicated to personnel, suppliers, and interested stakeholders.

For each of the phases, specific actions consistent with the defined policy will then have to be identified. By way of example, some good practices applicable in relation to the various phases subject to evaluation are identified in the Annex 6.

- *Supply*

To reduce the use of virgin raw materials it is necessary to keep in mind the waste hierarchy of the European Commission: *reduce, reuse, recycle, recover*.

| | |
|--|---|
| <i>Procurement of circular raw materials</i> | <p>The selection of circular raw materials, or semi-finished products made from circular raw materials, is preferred over the use of virgin materials. By circular raw materials we mean:</p> <ul style="list-style-type: none"> • Renewable raw materials • Secondary raw materials • By-products |
| <i>Renewable energy sources</i> | <p>The energy supply must come from renewable energy sources as much as possible. These are:</p> <ul style="list-style-type: none"> • Solar power • Hydroelectric energy • Wind energy • Geothermal energy |
| <i>Use of lower quality water resources</i> | <p>The possibility of using water resources of lower quality allows not to consume those of the aqueduct. They are:</p> <ul style="list-style-type: none"> • Rain water • Treated wastewater • Recirculation of water from nearby industrial realities • Desalinated sea water • Treatment of contaminated groundwater |



| | |
|--|--|
| <i>Natural capital restoration actions</i> | <p>With the same consumption of raw materials, it is advisable to adopt actions that restore natural capital, such as:</p> <ul style="list-style-type: none"> • Reforestation • Groundwater refill • Creation of biopores |
|--|--|

● *Design*

| | |
|---|---|
| <i>Product as a service</i> | The implementation of a service instead of a product is preferred, as it does not involve a similar use of raw materials. |
| <i>Increased useful life</i> | Increasing the useful life of a product means reducing waste. |
| <i>Recycled content</i> | Push on recycled components or made from renewable materials. |
| <i>Design with a view to recycling / recovery</i> | The product components must be easily recyclable/recoverable so that end-of-life management is facilitated. |
| <i>Carbon footprint</i> | During the product design phase, it is recommended to carry out LCA analyzes to identify critical issues and carry out objective assessments of environmental impact. |

● *Production*

| | |
|--------------------------------|--|
| <i>Waste recovery</i> | Material waste from production must be able to be reused in production or undergo third party destinations (industrial symbiosis, transformation into secondary raw material). |
| <i>Recycle water resources</i> | Water resources from production must be able to be reused for industrial/civil or irrigation purposes. |



| | |
|--------------------------|--|
| <i>Energy efficiency</i> | Energy efficiency interventions that can contribute to saving the consumption of energy sources. |
|--------------------------|--|

- *Distribution logistics*

| | |
|-----------------------------|--|
| <i>Reverse logistics</i> | Reverse logistics allows the recovery of the product so that it can be managed in an optimal way. |
| <i>Less impactful means</i> | The use of vehicles that do not use fossil fuels (electricity, hydrogen) or that use less impactful fuels (bioethanol, methane). |

- *Product use / consumption*

| | |
|-----------------------------|--|
| <i>Sustainable branding</i> | Sustainable branding goes beyond using green-themed logos and designs or sticking eco-friendly labels around packages. Sustainability branding is not “greenwashing”; claims about sustainable business must be noticeable and verifiable and the benefits should be directly relevant to the consumer. A sustainable SME doesn’t want the backlash that will come from claiming what it doesn’t do. Having incorporated sustainable practices in the entire process, it becomes much easier to reflect them in communication. |
| <i>Communication</i> | Having incorporated sustainable practices in the entire process, it becomes much easier to reflect them in communication. Effective communication campaigns, both with other operators and bodies in the sector and with customers raise awareness |



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| | |
|--|--|
| | on the subject and identify critical issues. Effective communication on the product allows for its correct disposal. |
|--|--|

- *End of life*

| | |
|---|---|
| <i>Reverse logistics / product withdrawal</i> | Reverse logistics allows the recovery of the product so that it can be managed in an optimal way. Possibility to recover the components of the product. |
| <i>Delivery to third parties</i> | Activation of programs that facilitate the delivery of used products to third parties who are able to reuse them or recover their components. |



SME service providers

Environmental policy objectives

Also, for SMEs supplying services, it is suggested to define their own environmental policy according to the specifications indicated for SMEs supplying products.

For each of the phases being evaluated, some good practices are identified below.

- *Supply*

| | |
|--|---|
| <i>Procurement of circular raw materials</i> | <p>The selection of circular raw materials, or semi-finished products made from circular raw materials, is preferred over the use of virgin materials. By circular raw materials we mean:</p> <ul style="list-style-type: none"> • Renewable raw materials • Secondary raw materials • By-products |
| <i>Renewable energy sources</i> | <p>The energy supply must come from renewable energy sources as much as possible. These are:</p> <ul style="list-style-type: none"> • Solar power • Hydroelectric energy • Wind energy • Geothermal energy |
| <i>Use of lower quality water resources</i> | <p>The possibility of using water resources of lower quality allows not to consume those of the aqueduct. They are:</p> <ul style="list-style-type: none"> • Rain water • Treated wastewater • Recirculation of water from nearby industrial realities • Desalinated sea water |



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| | |
|--|--|
| | <ul style="list-style-type: none"> • Treatment of contaminated groundwater |
| <i>Natural capital restoration actions</i> | <p>With the same consumption of raw materials, it is advisable to adopt actions that restore natural capital, such as:</p> <ul style="list-style-type: none"> • Reforestation • Groundwater refill • Creation of biopores |

- *Service design and delivery*

| | |
|----------------------|--|
| <i>Digitization</i> | Leveraging new technologies is an efficient way to minimize the impact of the service offered. |
| <i>Communication</i> | Effective communication campaigns, both with other operators and bodies in the sector and with customers to raise awareness on the subject and identify critical issues. |

- *End of life*

| | |
|---|---|
| <i>Reverse logistics / product withdrawal</i> | Reverse logistics allows the recovery of the product so that it can be managed in an optimal way. Possibility to recover the components of the product. |
| <i>Delivery to third parties</i> | Activation of programs that facilitate the delivery of used products to third parties who are able to reuse them or recover their components. |



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To correctly implement the Action Plan, it could be a good option to define specific procedures, aimed at guaranteeing the achievement of the objectives and actions that have been envisaged.

By way of example, the following is a list of possible procedures to be implemented:

- analysis of the context of the organization
- management of legislative permits
- risk planning management actions
- post-market surveillance
- validation risk processes
- design: circular product/service
- packaging and labelling: design
- commercial: activities and actions
- procurement: activities and actions
- production: activities and actions
- packaging and labelling: design
- packaging and labelling: activities and actions
- procurement logistics: activities and actions
- distribution logistics: activities and actions
- arrivals warehouse: activities and actions
- shipping warehouse: activities and actions
- packaging: activities and actions
- checks and tests
- human resource management
- material resources
- resource measurements
- preventive actions corrective actions
- management of feedback information from the market (complaints)
- audits
- management review
- communication and raise awareness activities

Here below are reported some examples, showing the minimum contents of an operating procedure.



Example of environmental procedure I

Title: Procedure for procurement of greener office supplies

Purpose

To introduce Green Public Procurement (GPP) criteria to buying products that relates to office paper and supplies.

Contents

- For the supply of office paper, it was mandatory to submit at least one green product. The supply of office paper has to include envelopes and paper arch files made from 100% recycled fibres. The production of virgin paper fibres can contribute to the global shrinking of forested areas and the associated loss of biodiversity, as not all forests are managed in a legal and sustainable manner. The purchase of 100% recycled paper addresses these impacts by reducing the volume of virgin pulp required. In addition, where post-consumer recycled fibre is used, the amount of water and energy required during the production process is significantly reduced.
- The ecological criteria of the EU Ecolabel or other types of eco-labels directly related to paper production (and not the management practices of the factory) must be met. This includes the requirement that paper be elemental chlorine free (ECF) or totally chlorine free (TCF). Indeed, Chlorine compounds used in the bleaching process for paper can react with existing organic substances in water, creating compounds which may be toxic and are poorly degradable in the aquatic environment. Thus, in order to avoid the production of such compounds, the bleaching process should be totally chlorine free (TCF) or elemental chlorine free (ECF).
- For other products (such as pens, post-its and glues), suppliers had the option to submit a green product, which would then be evaluated for inclusion in the framework. Also in this case, the ecological criteria of the EU Ecolabel or other type of eco-labels (and not the management practices of the factory) must be met.
- All products carrying the EU Ecolabel will be deemed to comply. Other types of eco-labels will also be accepted, as will any other appropriate means of proof such as a technical dossier of the manufacturer or a test report from a recognised body.
- Records of the methods and quantitative of purchased products will be kept by the internal purchasing manager.

Responsibility

The responsible for the implementation of this procedure is XXX.



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Example of environmental procedure II

Title: Procedure for Environmental Training of employees

Purpose

To ensure that employees carry out their duties in as environmentally responsible a manner as possible, XXX provides environmental awareness training to all employees and task-specific training to employees whose activities are associated with significant environmental aspects.

Contents

- All new employees receive a 30-minute introduction to the internal environmental policy and environmental objectives, as part of the mandatory New Employee Orientation.
- The web page on the organization includes a summary of the environmental policy and environmental objectives, as well as news updates on environmental implementation and success stories. The page includes a mechanism for employee input and feedback.
- Task-specific training is conducted for the following employees:
 - Individuals and job titles with designated environmental roles and responsibilities;
 - Job titles/functions with responsibility for managing or executing activities associated with the implementation of environmental procedures.
- Awareness training is given to new employees during their first week and annually to all employees.
- Task-specific training is given to relevant employees when they take on a new function associated with environmental management activities and refresher courses are given as required. Both awareness and task-specific training are reviewed at least annually for updates or when there are significant changes to operations.
- Records of the awareness and task-specific training received by each employee are kept electronically by XXX.

Responsibility

The responsible for the implementation of this procedure is XXX.



4. Operational activity

Operational activities are the next step after the policy and related procedures have been created. The task is to take every single procedure contained within the Action Plan and allocate resources as well as set a timeline. Each of these elements is explained below:

Allocating human resources

Every practice/procedure must have an "owner" i.e. somebody has to be responsible for that strategies implementation. If someone is not made responsible for the strategy, it is highly likely that it will not be implemented. In the operational plan, the person responsible for the strategy is generally referred to by their job role.

For instance, a procedure may be allocated to just one person, or to a group of people e.g. a team of people, a sub-committee or a department.

Allocating financial resources (if needed)

Not every practice/procedure requires money, but most will. If people have to be paid to do work, then there will be financial resources needed for remuneration. If volunteers are involved, money may be need to be set aside for food and/or other perks for them.

Many strategies will involve administration costs in the form of telephone calls, printing and photocopying and postage. Some strategies will need purchases of equipment, or materials, or promotional costs such as advertising.

The point is that thought has to be given to all possible costs that might be incurred if a strategy is implemented. If there is an inadequate allocation of money for the implementation of a strategy, chances are it will fail.

Setting timelines

The implementation of any practice/procedure needs a timeline, that is a time period during which work is performed to achieve the desired outcome. The time period can be as short as a day, or it can be several months. The time period could be in the near future, or it might be scheduled for a future year.

The purpose of inserting a timeline for each strategy is to give order to the great many tasks that need to be done. There is always limited resources and therefore, at any given time, decisions need to be made as to priorities and where work effort should be focused. There is no use focusing work effort on strategies that don't need to be completed as yet while no work is performed on strategies that are urgent.

Moreover, there are a number of additional components of vital importance that can be inserted into the operational activities. For an-profit organisation, these components include:

- Calendar of events (or fixtures) for the whole year (or for the season);
- Facility use schedules (i.e. allocation of equipment to particular groups at particular times);
- Resource maintenance schedules (e.g. equipment preparation and repair);
- Training plan for staff and volunteers;
- Budgetary information that provides a breakdown of expenditure per procedure.

The insertion of these additional components helps to create a more useful document that can be given to key personnel within the organisation.

The following table is an example of the main components found in an operational plan.

| <i>Operational plan sample</i> | | | | |
|--|-----------------------------------|---|--|--|
| <i>Practice/procedure</i> | <i>Timeframe</i> | <i>Responsible</i> | <i>Budget</i> | <i>Other resources/needs</i> |
| Procedure for procurement of greener office supplies | Six months | Administrative staff | - 200.00 Euro for green paper - 100.00 Euros for green supplies | Suppliers for quote requests |
| Conduct dissemination events | Events conducted every two months | Technical coordinator with volunteers | Events self funding | Networking activities with other organizations |
| Procedure for Environmental Training of employees | Quarterly basis | Technical coordinator with external experts | - | - |



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5. Performance evaluation

To periodically assess and revise the Action Plan, a specific procedure can be implemented, as reported in the example below.

Title: Procedure for Management Review

Purpose

To ensure the effectiveness of the Action Plan for circular economy and its continual improvement, the responsible for the implementation of the Action Plan (XXX) periodically reviews the most significant elements and procedures of the Plan. The Management Review process is intended to provide a forum for discussion and improvement of the Action Plan and to provide management with a vehicle for making any changes to it necessary to achieve the organization's vision.

Contents

In preparation for the management review, XXX makes the following information available to management:

- Policy on circular economy;
- Updated assessment of performance results (updating the questionnaire for the assessment of the level of circularity);
- List of the team members and others responsible for the implementation of the Action Plan;
- Descriptions of other accomplishments of the Plan (e.g. number of people trained);
- Results of corrective actions taken;
- Description and documentation of feedback from stakeholders.

Top facility management meets to review and discuss the information. Depending on its review, top management may direct specific and/or significant changes in the scale and direction of the Plan in order to improve its effectiveness. The conclusions that result from the management review are recorded on a dedicated assessment report and kept by the responsible for the implementation of the Action Plan (XXX).

Frequency

The review will be conducted at least annually.

Responsibility

Results of management reviews are recorded using at least a dedicated assessment report. Records are kept by XXX.



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ATTACHMENTS

Annex A – Glossary for circular economy

A

Additive manufacturing

Manufacturing objects by adding material (instead of removing material).

Anaerobic digestion

Breaking down biological material in an environment without oxygen. This process is used to generate biogas, which is used as a fossil fuel replacement for electricity and heat generation as well as conversion into gas.

Auxiliary Product

Any product, component or part thereof that is not the primary resource adopted for the production process.

B

Bio-based material

A material that is partially, or entirely made of biomass.

Biodegradable materials

A material which microorganisms can break down into natural elements (i.e. water, biomass, etc.).

Biological nutrients

Organic materials derived from and developed to re-enter the natural environment.

Biomass

Organic materials derived from plants or animals.

Blue economy

Movement for solutions being determined by their local environment characteristics, emphasizing gravity as the primary source of energy.

By-product

A material or substance created when processing or manufacturing something else.



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C

Cascading

Extracting maximum value from a material through alternative uses across value streams.

Circular economy

A perspective in which the economic value of materials is optimized over time. This calls for minimal raw material extraction, reintroduction of materials already in the economy and no waste.

Closed-loop recycling

Recycling a product and manufacturing it into the same product again and again.

Comparative life cycle assessment

An LCA in which two or more products or systems are compared.

Compatibilizers

Additives that allow two polymer resins to bond and stabilize, resulting in an improved final product.

Compostable materials

Materials that can be disposed with biological materials and decay into nutrient-rich material.

Composting

Treatment process that decomposes organic matter in an oxygenated environment. The result is nutrient-rich fertilizer or soil amendment.

Conflict minerals

Raw minerals that directly or indirectly finance or benefit armed groups. Minerals most susceptible include the 3TG (tantalum, tin, tungsten and gold) group and those sourced from the Democratic Republic of Congo.

Corporate social responsibility (CSR)

It is a self-regulating business model that helps a company be socially accountable to itself, its stakeholders, and the public. By practicing corporate social responsibility, also called corporate citizenship, companies can be conscious of the kind of impact they are having on all aspects of society, including economic, social, and environmental.



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Cradle-to-Cradle

A design framework focused on "eco-effectiveness" and positive impact of the product while reducing the negative impacts.

Cradle-to-Gate

An LCA that evaluates the environmental impacts of a product or process from raw material extraction through manufacturing.

Cradle-to-Grave

An LCA that evaluates the environmental impacts of a product or process from raw material extraction up through disposal.

Critical raw materials

Raw materials that are essential to the economy and have high supply risk due to limited quantities, suppliers and access.

D

Decoupling

Breaking the link between economic growth and natural resource consumption.

Dematerialization

Delivering a product using a percentage or none of the mass compared to the conventional product.

Depletion time

The time remaining before a natural resource is completely extracted.

Depolymerization

The process of converting polymers back into monomer(s).

Design for disassembly

Design principle that calls for the end-of-life options of how the product, components and materials can be deconstructed.

Design for durability

Design principle that calls for maximization of a product or service's useful life. Planned obsolescence directly contrasts this design principle.



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Design for environment

Design principle that calls for the minimization of negative environmental impacts across a product or service's life cycle.

Design for flexibility

Design principle (most commonly applied in building design and construction) that calls for use of interstitial space, programmed soft space, shell space, expansion capacity, demountable partitions and mobile or modular furnishings.

Design for recyclability

Design principle that calls for the end-of-life accounting of how the product will be collected and recycled.

Design for repairability

Design principle that calls for products to be manufactured using fasteners, materials and processes that allow them to be easily be fixed.

Design for sustainability

Design principle that calls for the optimization of environmental and social benefits across a product or service's life cycle.

Digitization

Conversion of analog or physical products to digital resources.

Dissipative product

A product that cannot be retrieved due to how it was dispersed during use (i.e. paint, fertilizer).

Downcycling

Use of secondary materials that results in a lower economic value of that material that cannot be recovered.

Durability

Product characteristic that determines the length of time over which it maintains its value or functionality.

E

Eco-design



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Design principle that calls for the minimization of negative environmental and health impacts across a product or service's life cycle.

Eco-efficiency

The economic value of a product or service compared to its natural capital costs.

Ecolabel

The EU Ecolabel is the official European Union voluntary label for environmental excellence. Established in 1992 and recognised across Europe and worldwide, the EU Ecolabel certifies products with a guaranteed, independently-verified low environmental impact.

Electronic waste (E-waste)

Disposed electronic and electrical products. These products typically contain hazardous materials and require certified handling and recycling.

Embedded impacts

The environmental and social impacts of a product, from material extraction through the use phase.

End-of-life

The life cycle stage during which a product no longer has value to its original owner and is then disposed of.

Extended producer responsibility

A policy in which financial or physical liability for end-of-life handling is placed on the producer.

F

Feedstock

A material or substance that is used as an input to a product or process.

Feedstock recycling

Feedstock recycling, also known as “chemical recycling,” is the process of breaking down collected plastics into monomers and other basic chemical elements (“depolymerization”).



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Footprint

The impact of a product or service across its life cycle. One can calculate a product's carbon, water, energy and material footprints, for example. This is similar to an LCA except that footprints typically only evaluate one environmental issue.

G

Gasification

Creating syngas from char using extremely high temperatures and minimal oxygen.

Green chemistry

Designing chemical products and processes that minimize or eliminate hazardous substances.

Green engineering

Designing products and processes to minimize environmental impacts and protect human health without compromising economic value.

Green Public Procurement (GPP)

A policy in which an organisation commits to buying products and services with environmentally-preferable characteristics.

Greenwashing

It is the process of conveying a false impression or misleading information about how a company's products are environmentally sound. Greenwashing involves making an unsubstantiated claim to deceive consumers into believing that a company's products are environmentally friendly or have a greater positive environmental impact than they actually do.

H

Hazardous materials

A material or substance that has the potential to harm humans, animals or the environment.

Horizontal recycling

Material recycling that allows for reuse in a comparable function.

I

Impact analysis



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The second phase of an LCA in which environmental impacts are determined.

Improvement analysis

The third stage of an LCA in which solutions are evaluated for mitigating environmental impacts.

Industrial ecology

The study of material, energy and water flows through an industrial system and their effect on the environment, economy and society.

Industrial metabolism

The physical and chemical processes taking place in an industrial system.

Industrial symbiosis

The mutually beneficial exchange of waste and by-products between three or more parties.

Informal recycling sector

Small businesses and self-employed persons providing material recycling services with little or no legal recognition and low capital investments.

Integrated design

Design approach that convenes different disciplines across the value chain, building on diverse viewpoints early in the process.

Integrated waste management

Managing solid waste from the point of consumer disposal through collection, sorting, reuse and recycling.

Inventory analysis

The first stage of an LCA in which the inputs and outputs (materials, energy, water, economic value, etc.) of the system are identified.

J

Just-in-time manufacturing

Manufacturing strategy to reduce wasted time and resources by providing products or services as they are needed by the next step in the production process.

K



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Kaizen

A Japanese continuous improvement strategy that rests on the following principles: good processes bring good results, learn by seeing, speak with data, manage by facts, identify and correct root causes of problems and work as a team.

L

Landfilling

The disposal and burying of solid waste. The degradation of the waste results in the creation of local air and water pollution.

Lean manufacturing

A manufacturing strategy that aims to minimize all waste (i.e. time, money, resources) through high quality processes.

Leasing

A service model in which the customer pays for continuous access to a product over an agreed period of time.

Life cycle

All of the stages that a product goes through in its lifetime: raw material extraction, processing, manufacturing, use, end-of-life and transportation.

Life cycle assessment

A method to evaluate the environmental impacts of a product or system over its life cycle. An LCA is typically done in three parts: (1) Inventory Analysis, (2) Impact Assessment, (3) Improvement Analysis.

Life cycle cost

A method to evaluate the financial impacts of a product or system over its life cycle.

Life cycle management

The integration of life cycle thinking into decision-making.

Life cycle thinking

Approach of accounting for economic, environmental and social impacts across all stages of a product or services life cycle.

Lifetime extension



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Product characteristics that lengthen the time over which that product continues to serve its originally intended function.

Linear risk

The risk a company faces when depending on the conventional "take-make-dispose" economic model.

Local materials

Materials that are extracted and processed within the same region they are being purchased. Specific distances depend on the material, process and objectives.

Lock-in

Situation in which an established design or manufacturing process discourages innovation.

M

Material flow

The quantity and rate at which materials move through a system (i.e. city, company, etc.)

Material flow analysis (MFA)

A method to evaluate the material flows into and out of a system.

Metabolic analysis

A study of the physical and chemical processes within an industrial system.

Mineral

An inorganic physical material with a specific chemical make-up.

Misconsumption

Consumption that is not in the best interest of the consumer.

Modular design

Design principle that calls for products to be manufactured using a set of components that can be individually replaced, preventing entire products from becoming useless.

Municipal Solid Waste (MSW)

Waste that is generated by households, schools, hospitals and businesses in a given city or region.



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N

Natural capital

The stock of renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.

O

Open loop recycling

Recycling product A and manufacturing it into product B.

P

Packaging (Primary)

Packaging in contact with the product (plastic sack holding cereal).

Packaging (Secondary)

Packaging that contains one or more primary packages (cereal boxes).

Packaging (Tertiary)

Packaging that contains one or more secondary packages (plastic wrap for a palette of cereal boxes).

Pay for performance

Service model in which payment is tied to the quantity or quality of service the customer receives.

Planetary boundaries

The environmental limits within which humans can safely live.

Planned obsolescence

Business strategy to shorten the consumer's ownership period in order to increase sales volume. This is accomplished through poor quality manufacturing, an accelerated product succession timeline or compelling marketing campaigns.

Prefabrication

Practice of manufacturing building components and assemblies in a factory and transporting the product to the construction site for installation.



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Product as a Service (PaaS)

The outcomes produced by a product are sold, rather than the product itself.

Pyrolysis

Chemical decomposition of organic materials through the application of heat in the absence of oxygen, creating syngas and liquid fuels.

R

Rare earth metals

A group of 17 metals that are economically difficult to extract due to low concentrations in nature.

Raw materials

Crude or virgin materials that are used in product manufacturing or processing.

Reclaimed materials

Discarded materials that are recovered and used in another process or product, requiring only minor alterations and or refinishing.

Recovery

Process of extracting material, energy or water from the waste stream for reuse or recycling.

Recyclable materials

Materials that can be recycled.

Recycled content

The portion of a product that is made from recovered and recycled materials.

Recycling

The collection, sorting and processing of disposed materials for use in another manufacturing process.

Refurbished materials

Discarded materials or products that are topically repaired, refinished and sanitized to serve their original function.

Regenerative design

A design principle that calls for products or services to contribute to ecosystem health.

Regenerative economy



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A scenario in which products and services replenish their own sources of energy, water and materials in a closed-loop system.

Remanufacturing

Process of recovery, disassembly, repair and sanitizing components or parts for resale and reuse.

Renewable materials

Materials or other resources (energy and water sources) that replenish themselves after human extraction within a finite amount of time.

Resource efficiency

A percentage of the total resources consumed that make up the final product or service.

Resource productivity

The economic value created per unit of resource.

Resource value optimization

Maximizing the economic value that is created per unit of resource, over multiple lifetimes.

Reuse

Using a product or material again, either for the same or an alternative function.

Reverse logistics

Process of collecting and aggregating products, components or materials at the end-of-life for reuse, recycling and returns.

S

Secondary materials marketplace

Store that facilitates the exchange of secondary raw materials.

Secondary raw materials

Waste materials that are recovered, recycled and reprocessed for use as raw materials.

Sharing model

Business model based on the sharing of under-used assets as a service.



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Social life cycle assessment

A method to assess the social and sociological impacts of a product or service across its entire life cycle.

Standardization

Establishing uniformity across manufacturing processes to minimize errors and save costs.

Stock (reservoir)

The total volume or mass of material in a system (i.e. industrial, municipal, organizational, etc.).

Streamlined life cycle assessment

A simplified version of an LCA that focuses on the most significant environmental impacts of a product or system.

Subtractive manufacturing

The manufacturing of an object by removing mass from the original form. Sculpting from a stone block is an example of subtractive manufacturing.

Sustainability branding process

It is the process of focusing and integrating identified environmental, economic and social issues into the operations of a business.

Sustainable consumption

The use of goods and services that address the requirements of today's population without compromising the needs of future generations to meet theirs.

Sustainable materials management

Management approach that calls for the the reduction of environmental impacts without compromising economic productivity or social equity.

Sustainably sourced bio-materials

The procurement of forestry and agricultural products from suppliers that minimize environmental impacts and protect and enhance nature and biodiversity.

Syngas

Short for "synthesis gas," syngas is a gas mixture produced via gasification of a fuel containing carbon.

Systems thinking



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An approach that accounts for the interdependence and evolution of system elements.

T

Take-back program

An initiative to collect used products or materials from consumers and reintroduce them to the original processing and manufacturing cycle.

Technical nutrients

Man-made materials designed to be long-lasting and reused.

U

Upcycle

Use of secondary products, components or materials that results a higher economic value of that material.

Urban mining

Process of extracting useful materials from city waste stocks.

W

Waste Electrical and Electronic Equipment (WEEE)

See "Electronic waste"

Waste hierarchy

The priority order available for managing wastes, ranked in descending order of preference, based on the best environmental outcome across the lifecycle of the material. (1) Prevention, (2) Reduce, (3) Reuse, (4) Recycle, (5) Incineration, (6) Landfill.

Waste to energy

Process of treating waste that creates energy in the form of electricity, heat or fuel.

Wastewater

Spent or used water that contains dissolved or suspended solids.

Z



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Zero waste

Program to divert all (at least 95%) waste from landfill. The scope of zero waste may or may not include incineration depending on reference.



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Annex B – Reference certification schemes

BS 8001

| | |
|-------------------------|--|
| Title | Framework for implementing the principles of the circular economy in organizations. Guide |
| Organization | British Standard Institution (BSI) |
| Editions | 1 |
| Actual edition | BS 8001:2017 |
| Publication date | 31-05-2017 |
| Applicable to | All types of organizations, regardless of size and type and nature. |
| Scope | Understand the benefits of implementing the circular economy within your organization; support for the practical action of implementing its principles. |
| Accreditable | No |
| Characteristics | First specific standard on the circular economy. It provides a flexible framework composed of 8 phases that allows the formulation of a circular economy model suitable for your organization and the consequent implementation within it. The optimal use of resources (the reuse, repair, renovation, regeneration and recycling of materials and products) is promoted, as well as the conservation and regeneration of natural capital through the return of biological nutrients to the biosphere. Finally, it allows the assessment of the level of maturity of the company in relation to the circular economy. It does not provide any specific requirements, so it is not a certifiable standard. |



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AFNOR XP X30-901

| | |
|-------------------------|--|
| Title | Economie circulaire – Système de management de projet d'économie circulaire – Exigences et lignes directrices |
| Organization | Association Française de Normalisation (AFNOR) |
| Editions | 1 |
| Actual edition | XP X30-901:2018 |
| Publication date | 10-2018 |
| Applicable to | All types of organizations, regardless of size and type and nature. |
| Scope | Understand the benefits of implementing the circular economy within your organization; support for the practical action of implementing its principles. |
| Accreditable | Yes |
| Characteristics | First accredited standard on the circular economy. The document aims to specify the requirements relating to a management system so that we can improve environmental, economic, and social performance with a vision that leads to the development of the circular economy. These requirements must all be met for an organization to apply for accreditation. In particular, the standard identifies the steps that the organization must follow to contribute to the transition towards a circular economy. |

UNI EN ISO 14001

| | |
|-------------------------|---|
| Title | Sistemi di gestione ambientale – Requisiti e guida per l'uso |
| Organization | Ente Italiano di Normazione (UNI) |
| Editions | 3 |
| Actual edition | UNI EN ISO 14001:2015 |
| Publication date | 09-2015 |
| Applicable to | All types of organization, regardless of size and type and nature. Also applicable to the environmental aspects of activities, products and services that the organization determines it can control or influence, considering a life cycle perspective. |
| Scope | Improvement of the organization's environmental performance, also in relation to European and international environmental objectives, through an efficient management system. The definition of environmental objectives must be: consistent with the organization's environmental policy; measurable; monitored; |



| | |
|------------------------|---|
| | communicated. To achieve the environmental objectives, it is necessary to define the rules, resources, responsibilities and timing and evaluate the results. |
| Accreditable | Yes |
| Characteristics | Holistic approach to environmental management. Following a PDCA (Plan-Do-Check-Act) model, the organization identifies the interested parties and the scope of its environmental management system. The planning of an operational plan and its implementation is followed by performance evaluation according to a continuous improvement approach. Great importance is given to the role of leadership in environmental management. |

UNI CEI EN ISO 50001

| | |
|-------------------------|---|
| Title | Sistemi di gestione dell'energia – Requisiti e linee guida per l'uso |
| Organization | Ente Italiano di Normazione (UNI) |
| Editions | 2 |
| Actual edition | UNI CEI EN ISO 50001:2018 |
| Publication date | 27-09-2018 |
| Applicable to | All types of organization, regardless of size, type and nature, complexity, geographic location, organizational culture, or type of product/service. |
| Scope | Provide the tools to establish, implement, maintain and improve an energy management system suitable for your organization. |
| Accreditable | Yes |
| Characteristics | Holistic approach to energy management. Following a PDCA (Plan-Do-Check-Act) model, the organization identifies the stakeholders and scope of its energy management system. The planning of an operational plan and its implementation is followed by performance evaluation according to a continuous improvement approach. Great importance is given to the role of leadership in management. |



ISO 14064

| | |
|-------------------------|--|
| Title | Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals |
| Organization | International Organization for Standardization (ISO) |
| Editions | 2 |
| Actual edition | ISO 14064-1:2018 |
| Publication date | 19-12-2018 |
| Applicable to | Organizations that emit greenhouse gases. |
| Scope | Provide the principles and requirements for the organization-wide quantification and reporting of greenhouse gases. Allow the formulation of a greenhouse gas inventory. |

| | |
|-------------------------|---|
| Title | Greenhouse gases – Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements |
| Organization | International Organization for Standardization (ISO) |
| Editions | 2 |
| Actual edition | ISO 14064-2:2019 |
| Publication date | 15-04-2019 |
| Applicable to | Organizations that emit greenhouse gases. |
| Scope | Outline the principles and requirements for project-level quantification and monitoring of greenhouse gases. Provides tools for reducing greenhouse gas emissions and increasing their removal. |

| | |
|-------------------------|--|
| Title | Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements |
| Organization | International Organization for Standardization (ISO) |
| Editions | 2 |
| Actual edition | ISO 14064-3:2019 |
| Publication date | 15-04-2019 |
| Applicable to | Organizations that emit greenhouse gases. |



| | |
|--------------|--|
| Scope | Specify principles and requirements and provide guidelines for evaluating greenhouse gas claims. |
|--------------|--|

UNI EN ISO 14067

| | |
|-------------------------|---|
| Title | Gas ad effetto serra – impronta climatica dei prodotti (Carbon footprint dei prodotti) – Requisiti e linee guida per la quantificazione |
| Organization | Ente Italiano di Normazione (UNI) |
| Editions | 1 |
| Actual edition | UNI EN ISO 14067:2018 |
| Publication date | 08-2018 |
| Applicable to | Any type of organization that wants to estimate the climate footprint of its products. |
| Scope | Provide the principles, requirements and guidelines for quantifying and reporting the carbon footprint of products, compliant with international life cycle assessment standards (ISO 14040 and 14044). |
| Characteristics | The document indicates the guidelines for the evaluation of the carbon footprint of products (Carbon Footprint - CFP) and is also applicable for the quantification of a partial CFP. Only one impact category is covered, climate change. The social and economic aspects or impacts, or other impacts potentially deriving from the life cycle of a product, are not evaluated. |

UNI EN ISO 14040

| | |
|-------------------------|--|
| Title | Gestione ambientale – Valutazione del ciclo di vita – Principi e quadro di riferimento |
| Organization | Ente Italiano di Normazione (UNI) |
| Editions | 2 |
| Actual edition | UNI EN ISO 14040:2021 |
| Publication date | 18-02-2021 |
| Applicable to | Any type of organization that wants to evaluate the life cycle of its products/services. |
| Scope | Describe the principles and framework for life cycle assessment (LCA). |
| Characteristics | LCA deals with environmental aspects and potential environmental aspects throughout the life cycle of the product, up to the end-of-life treatment and final disposal. There are four phases: definition of the objective and scope; inventory |



| | |
|--|---|
| | analysis phase; impact assessment phase and interpretation phase. The standard covers LCA studies and life cycle inventory studies (LCI studies). |
|--|---|

UNI EN ISO 14044

| | |
|-------------------------|--|
| Title | Gestione ambientale – Valutazione del ciclo di vita – Requisiti e linee guida |
| Organization | Ente Italiano di Normazione (UNI) |
| Editions | 2 |
| Actual edition | UNI EN ISO 14044:2021 |
| Publication date | 18-02-2021 |
| Applicable to | Any type of organization that wants to evaluate the life cycle of its products/services. |
| Scope | Provide requirements and guidelines for life cycle assessment (LCA). |
| Characteristics | LCA deals with environmental aspects and potential environmental aspects throughout the life cycle of the product, up to the end-of-life treatment and final disposal. There are four phases: definition of the objective and scope; inventory analysis phase; impact assessment phase and interpretation phase. The standard covers LCA studies and life cycle inventory studies (LCI studies). |

EMAS

| | |
|-------------------------|---|
| Title | Eco-Management and Ecoaudit Scheme |
| Organization | European Commission |
| Editions | 3 |
| Actual edition | EMAS III |
| Publication date | Reg. n. 1221/2009 (last version 09-01-2019) |
| Applicable to | All types of organization, regardless of size and type and nature. |
| Scope | Improvement of the environmental performance of your organization, also in relation to European and international objectives, through an efficient management system. |
| Accreditable | Yes, with registration in a special register. |
| Characteristics | It integrates the ISO 14001 standard, with the addition of an initial environmental analysis process and the formulation of an environmental statement by the organization. |



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Ecolabel EU

| | |
|------------------------|--|
| Title | Ecological label of the European Union |
| Organization | European Commission |
| Editions | Reg. n. 66/2010 (last version 14-11-2017) |
| Applicable to | All goods and services intended for distribution, consumption or use on the Community market, whether for consideration or free of charge. It does not apply to medicines or medical devices. |
| Scope | Establish the rules for the establishment and application of the European Union eco-label scheme, with voluntary participation. |
| Accreditable | Yes |
| Characteristics | In force in countries belonging to the European Economic Area (EEA). It is a voluntary ecological label based on a system of selective criteria, defined on a scientific basis, which considers the environmental impacts of products or services along their entire life cycle. |

EPD (UNI EN ISO 14025)

| | |
|-------------------------|--|
| Title | Etichette e dichiarazioni ambientali – Dichiarazioni ambientali di Tipo III – Principi e procedure |
| Organization | Ente Italiano di Normazione (UNI) |
| Editions | 1 |
| Actual edition | UNI EN ISO 14025:2010 |
| Publication date | 11-11-2010 |
| Applicable to | Any organization needs to make a type III environmental declaration. |
| Scope | Provide the principles and procedures for developing a type III environmental statement. |
| Characteristics | The type III environmental declaration presents the quantified environmental information of the life cycle of a product to allow comparisons with other products having the same function. The standard mainly refers to business-to-business communication. |



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Annex C – Assessment of the circularity of SMEs: manufacturing sectors

OPERATIONAL FORMS FOR CIRCULARITY MEASUREMENT

0. BASIC INFORMATION

| | |
|---------------------|--|
| Company Name | |
| Localization | |
| Plant location(s) | |
| Type of activity | |
| Employees | |
| Company description | |
| Year of reference | |



1. SUPPLY

| Question ID | Formulation | |
|-------------|--|----------|
| Q1 | <p><i>Does the organization source circular raw materials (or semi-finished products made from circular raw materials) in order to primarily use them in its production process?</i></p> <p>If yes, please indicate the following three percentages for the year analysed: % of circular raw materials (or semi-finished products made from circular materials) in the total consumed by the organisation [consider only those used to make the finished product, not auxiliary products] [The sum of the different contributions must not exceed 100%]</p> <p><i>For the final statement, consider the sum of the different contributions</i></p> | |
| | Answer: | |
| | --- | |
| | Yes, Secondary raw materials (waste materials that are recovered, recycled and reprocessed for use as raw materials) | --- |
| | Yes, Renewable materials (materials that replenish themselves after human extraction within a finite amount of time) | --- |
| | Yes, By-products (material or substance created when processing or manufacturing something else) | --- |
| | No | 0% |
| | Weight | 1 |
| Q2 | <p><i>Does the organization source circular raw materials (or semi-finished products made with circular materials) in order to use them as auxiliary products in its production process?</i></p> <p>If yes, please indicate the following three percentages for the year analysed: % of circular raw materials (or semi-finished products made from circular materials) made from circular materials (secondary, renewable or by-products raw materials) compared to the total consumed by the organisation [The sum of the different contributions must not exceed 100%]</p> <p><i>For the final statement, consider the sum of the different contributions</i></p> | |
| | Answer: | |
| | --- | |
| | Yes, Secondary raw materials (waste materials that are recovered, recycled and reprocessed for use as raw materials) | --- |



| Question ID | Formulation | |
|-------------|--|----------|
| | Yes, Renewable materials (materials that replenish themselves after human extraction within a finite amount of time) | ---% |
| | Yes, By-products (material or substance created when processing or manufacturing something else) | ---% |
| | No | 0% |
| | Weight | 1 |
| Q3 | <p><i>For electricity supply, to what extent does the organization obtain its supplies from renewable energy sources?</i></p> <p>Indicate the percentage of electricity originating from renewable sources compared to the total supplied (both self-produced and purchased) in the year analyzed</p> | |
| | Answer: | |
| | --- | |
| | Insert percentage | ...% |
| | Not applicable | 0% |
| | Weight | 1 |
| Q4 | <p><i>Does the organization source lower quality water resources in order to re-use them in its production process?</i></p> <p>Indicate the percentage of lower quality water resources withdrawn/used by the organization during the year analysed, according to the following items compared to the annual total withdrawn. [The sum of the different contributions must not exceed 100%]</p> <p><i>For the final statement, consider the sum of the different contributions</i></p> | |
| | Answer: | |
| | --- | |
| | collection from rainwater | ---% |
| | from treated wastewater | ---% |
| | by TAF (contaminated groundwater treatment) | ---% |
| | desalinated sea water | ---% |
| | from nearby companies (industrial symbiosis) | ---% |
| | other | ---% |
| | Not applicable | 0% |



| Question ID | Formulation | |
|-------------|---|------------|
| | Weight | 1 |
| Q5 | <p><i>Does the organization's ordering/purchasing system provide for the implementation of technological procedures/solutions aimed at reducing waste?</i></p> <p>Indicate the percentage of orders/purchases for which technological procedures/solutions aimed at reducing waste were active in the year analyzed</p> | |
| | Answer: | |
| | --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partially | 50% |
| | No, he never did or evaluated | 0% |
| | Weight | 0,5 |
| Q6 | <p><i>Does the organization prefer to source from national suppliers and / or proximity, with the same quality and performance of raw materials, semi-finished or purchased goods (eg. consumer goods, other)?</i></p> <p>Indicate, for the year analyzed, the percentage of raw materials (or semi-finished products) or other goods supplied by national and / or local suppliers compared to the total raw materials</p> | |
| | Answer: | |
| | --- | |
| | Yes (insert percentage) | ---% |
| | No | 0% |
| | Weight | 0,3 |
| Q7 | <p><i>Does the organisation purchase/selected goods that meet circular economy criteria (goods are defined as machinery, equipment and office supplies)?</i></p> <p>Indicate for the year analyzed the percentage of goods purchased/selected because they meet "circular" criteria (goods as a service - recycled goods, goods with leasing contract, second-hand goods, goods for which the "pay per use" mode is active, goods from refurbishment processes, goods from remanufacturing processes, etc.) compared to the total of goods purchased/selected</p> | |
| | Answer: | |
| | --- | |
| | Yes (insert percentage) | ---% |



| Question ID | Formulation | | |
|---------------|---|------------|------------|
| | No | 0% | |
| | Weight | 0,5 | |
| Q8 | <p><i>Does the organization adopt actions related to the use of renewable resources that clearly refer to programs / initiatives for the regeneration of natural capital?</i></p> <p>(To be understood: reforestation, natural restoration, groundwater recharge, creation of biopores, etc.)</p> | | |
| | Answer: | | |
| | --- | | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% | |
| | Partially | 50% | |
| | No, it has never been done or evaluated | 0% | |
| | Weight | 0,5 | |
| SUPPLY | Total score (sum of all the percentage multiplied by the weight assigned to each question) | | --- |
| | Maximum score | | 580 |
| | Final score (total score / maximum score) | | --- |



2. DESIGN

| Question ID | Formulation | | | | | | |
|--|--|--|----------|--------|-----|----|----|
| Q9 | <p><i>Does the organization, in the internal procedures, protocols, guidelines, or other types of documentation, used in the design phase of its products / services, take into account circular economy criteria and objectives, including transport ones?</i></p> <p>(To be understood: closure of cycles, reduction of waste, use of secondary raw materials, efficient management of resources, etc.)</p> | | | | | | |
| | <p>Answer:</p> <p>---</p> | | | | | | |
| | <table border="1"> <tr> <td>Yes, in a structured way (procedures and/or guidelines are in place)</td> <td>100%</td> </tr> <tr> <td>Partly</td> <td>50%</td> </tr> <tr> <td>No</td> <td>0%</td> </tr> </table> | Yes, in a structured way (procedures and/or guidelines are in place) | 100% | Partly | 50% | No | 0% |
| Yes, in a structured way (procedures and/or guidelines are in place) | 100% | | | | | | |
| Partly | 50% | | | | | | |
| No | 0% | | | | | | |
| | <table border="1"> <tr> <td>Weight</td> <td>1</td> </tr> </table> | Weight | 1 | | | | |
| Weight | 1 | | | | | | |
| Q10 | <p><i>Does the organization, in the internal procedures, protocols, guidelines, or other types of documentation, used in the design phase of the packaging of its products, take into account circular economy criteria and objectives, including transport ones?</i></p> <p><i>OR does the organization, in choosing the primary packaging to be used, take into account the principles and objectives of circular economy?</i></p> <p>(To be understood: closure of cycles, reduction of waste, use of secondary raw materials, efficient management of resources, etc. Reference is made to the design/choice of primary packaging totally or partially reusable, recyclable, compostable, recycled, in mono-material or other, as well as to packaging for which the organization can activate the take-back once it reaches "end-of-life").</p> | | | | | | |
| | <p>Answer:</p> <p>---</p> | | | | | | |
| | <table border="1"> <tr> <td>Yes, in a structured way (procedures and/or guidelines are in place)</td> <td>100%</td> </tr> <tr> <td>Partly</td> <td>50%</td> </tr> <tr> <td>No</td> <td>0%</td> </tr> </table> | Yes, in a structured way (procedures and/or guidelines are in place) | 100% | Partly | 50% | No | 0% |
| Yes, in a structured way (procedures and/or guidelines are in place) | 100% | | | | | | |
| Partly | 50% | | | | | | |
| No | 0% | | | | | | |
| | <table border="1"> <tr> <td>Weight</td> <td>1</td> </tr> </table> | Weight | 1 | | | | |
| Weight | 1 | | | | | | |
| Q11 | <p><i>Does the organization design its products and/or their components to make their durability as high as possible?</i></p> <p>(To be understood: support the reparability of non-perishable products, increase the shelf-life of perishable products such as food / cosmetics with appropriate atmospheres or facilitate their storage once opened with open-close tabs and other appropriate measures; etc.)</p> | | | | | | |



| Question ID | Formulation | |
|-------------|---|----------|
| | | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q12 | <i>Does the organization design its products and/or their components, in order to facilitate their recovery / recycling at the end of life?</i> (To be understood: support the disassembly of non-perishable products, use circular materials, etc.) | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q13 | <i>Does the organization design its products with LCA in mind?</i> | |
| | Answer: --- | |
| | Yes | 100% |
| | No | 0% |
| | Weight | 1 |
| Q14 | <i>Does the organization, in designing its products and / or components, also design ancillary products / services that facilitate maintenance / conservation over time?</i> (To be understood: design of products to maintain the leather, canvas of shoes and bags; dedicated screwdrivers or other tools to facilitate the opening of electronic devices; design products to be sold already with spare parts, such as kits to fix inner tubes of wheels in the case of bicycles, spare buttons in the case of clothes; provision of repair services, etc.) | |
| | Answer: --- | |



| Question ID | Formulation | |
|---------------|---|------------|
| | Yes, in a structured way (procedures and/or guidelines available) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q15 | <i>Does the organisation take action to reduce its production of hazardous waste?</i> (To be understood: replacing the chemicals used in its production process with those with less or no danger; redesigning some product lines, so that these are made up of substances with a lower level of danger; (re)designing services so that these use products with little or no danger, etc.) | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 0,5 |
| Q16 | <i>Does the organization verify that its circularity strategies also meet sustainability and climate neutrality criteria? Does it monitor/measure the impacts associated with them?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (improvement targets defined, specific KPIs adopted and monitored annually, guidelines available) | 100% |
| | Partly | 50% |
| | No, it has never been done or evaluated | 0% |
| | Weight | 0,5 |
| DESIGN | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 700 |
| | Final score (total score / maximum score) | --- |



3. PRODUCTION

| Question ID | Formulation | |
|-------------|---|----------|
| Q17 | <p><i>Has the organization adopted technological solutions for the more efficient use of raw materials (excluding energy and water)?</i></p> <p>(To be understood: waste measurement and monitoring software, tools for optimizing production cycles, plant adjustments that make production more flexible, facilitating, for example, the reinsertion of process waste, etc.)</p> | |
| | <p>Answer:</p> <p>---</p> | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q18 | <p><i>Does the organization manage its production waste according to a circularity approach?</i></p> <p>(To be understood: it transfers production waste (by-products) to other companies, so that they can be reused in their production processes (industrial symbiosis); it directly reuses its production waste in its production process; it self-produces electricity/thermal energy and/or alternative fuels and/or compost from its own waste, etc.)</p> <p>Complete the following three sections, taking into account that the maximum sum of the three contributions cannot exceed 100%</p> | |
| | <p>Answer:</p> <p>---</p> | |
| | Yes: Indicate the percentage of production waste out of the total production waste produced by the organization that has been transferred to other companies for reuse (annual scale) | ---% |
| | Yes: Indicate the percentage of production waste reused by the organization in its production process with respect to the total waste generated by it (annual scale) | ---% |
| | Yes: Indicate the percentage of production waste out of the total waste produced by the organization and destined for one of the following operations: self-production of electricity/thermal energy to be used in its production process; self-production of | ---% |



| | | |
|------------|--|------------|
| | compost; self-production of alternative fuels (annual scale) | |
| | No | 0% |
| | Weight | 1 |
| Q19 | <p><i>Does the organization reuse process waste water internally for industrial/civil/irrigation purposes?</i></p> <p>(To be understood: to use it in floor washing operations or within the process itself; in bathrooms; other)</p> <p>If yes, please indicate the percentage of process waste water recovered for re-use within the site for industrial/civil/irrigation purposes out of the total water consumed for industrial/civil/irrigation site/year purposes</p> | |
| | Answer: | |
| | --- | |
| | Yes (insert percentage) | ---% |
| | No | 0% |
| | Weight | 0,5 |
| Q20 | <p><i>Has the organization developed interventions for the energy efficiency of its production process and for the recovery of heat from this?</i></p> <p>(To be understood: installation of LED lighting, cogeneration plants, heat recovery deriving from the refrigeration / cooling process, other)</p> <p>Indicate the percentage of the premises/establishments of your production process covered by these interventions out of the total number of premises/establishments</p> | |
| | Answer: | |
| | --- | |
| | Yes (insert percentage) | ---% |
| | No | 0% |
| | Weight | 1 |
| Q21 | <p><i>Is the organization equipped with criteria for the efficient management of everything that is not a production process (i.e. administrative offices, warehouses, points of sale where present)?</i></p> <p>(To be understood: reduction of resource consumption, reduction of waste production, energy efficiency, supply of energy from renewable energy sources, installations made with recycled or certified goods, etc.)</p> | |
| | Answer: | |
| | --- | |



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| | | |
|-------------------|--|------------|
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 0,5 |
| PRODUCTION | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 400 |
| | Final score (total score / maximum score) | --- |



4. DISTRIBUTION LOGISTICS

| Question ID | Formulation | |
|-------------|---|----------|
| Q22 | <p><i>How many deliveries, out of the annual total of those made by the organization for its products, have provided for the activation of forms of reverse logistics aimed, for example, at the reuse of secondary-tertiary packaging?</i></p> <p>Indicate the percentage of deliveries made out of the total in the year analyzed that provided for the activation of forms of reverse logistics aimed at the reuse of secondary / tertiary packaging</p> | |
| | Answer: | |
| | --- | |
| | Insert percentage | ---% |
| | None | 0% |
| | Weight | 1 |
| Q23 | <p><i>Out of the total annual trips made by the organization for the distribution of its products, if possible, how many have been made trying to combine less impactful means (eg. train, ships) or to adopt intermodal solutions?</i></p> <p>Indicate the percentage of trips made for the distribution of products made on the total in the year analyzed that have provided for the adoption of less impactful solutions</p> | |
| | Answer: | |
| | --- | |
| | Insert percentage | ---% |
| | None | 0% |
| | Weight | 1 |
| Q24 | <p><i>Does the organization prefer means of transport that meet circularity and sustainability criteria be used for the distribution of its products / or to provide its services? Has it adopted precise criteria for selecting the vehicles to be used?</i></p> <p>(To be understood: use of vehicles powered by second/third generation biofuels, vehicles with lower environmental impact such as Euro 5 or 6, vehicles powered by LNG and / or vehicles for which there are specifications on the presence of secondary raw materials, etc.)</p> | |
| | Answer: | |
| | --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |



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| Question ID | Formulation | |
|-------------------------------|--|------------|
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| DISTRIBUTION LOGISTICS | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 300 |
| | Final score (total score / maximum score) | --- |



5. USE OF THE PRODUCT / CONSUMPTION

| Question ID | Formulation | |
|-------------|--|----------|
| Q25 | <p><i>Has the organization developed a business model that provides a service in areas that were traditionally sold as products?</i></p> <p>(To be understood: Product as a Service, such as rental offer of own products, a level of performance for a given activity such as lighting, etc.)</p> | |
| | <p>Answer:</p> <p>---</p> | |
| | Yes, for all product lines | 100% |
| | Partly: only for some product lines | 50% |
| | No | 0% |
| | Weight | 1 |
| Q26 | <p><i>Does the organization inform its customers about the best ways to manage the "end-of-life" of its products and related packaging?</i></p> <p>(To be understood: informs customers about the presence of specific take-back-system programs dedicated to them; if there are more effective collection points for starting recycling operations; if for their correct recovery it is necessary to separate some components as in the case of opaque labels used on some bottles; etc.)</p> | |
| | <p>Answer:</p> <p>---</p> | |
| | Yes, in a structured way (procedures and/or guidelines are available and are shared with customers) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q27 | <p><i>Does the organization carry out awareness and communication campaigns aimed at promoting objectives related to Circular Economy issues towards its external stakeholders?</i></p> <p>(To be understood: promoting the importance of reuse; reducing waste and consumption; paying attention to the exploitation of primary resources; waste prevention; proper separate collection; the importance of closing cycles, against the paradigm of fast fashion, etc.)</p> | |
| | <p>Answer:</p> <p>---</p> | |



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| Question ID | Formulation | |
|---|--|------------|
| | Yes, in a structured way (a dissemination plan is available and monitored) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 0,3 |
| USE OF THE PRODUCT / CONSUMPTION | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 230 |
| | Final score (total score / maximum score) | --- |



6. END-OF-LIFE MANAGEMENT

| Question ID | Formulation | |
|-------------|--|----------|
| Q28 | <i>Does the organization have policies to reduce its waste?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (specific policies are in place and are periodically monitored) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q29 | <i>Does the organization try to send the waste produced as a priority to recovery operations?</i> | |
| | Complete the following two sections, taking into account that the maximum sum of the two contributions cannot exceed 100% | |
| | Answer: --- | |
| | Yes: Indicate the percentage of waste sent for material recovery (e.g. recycling, composting) on the total waste produced (annual scale) | ---% |
| | Yes: Indicate the percentage of waste sent for energy recovery (e.g. waste-to-energy plant, anaerobic digestion plants) out of the total waste produced (annual scale) | ---% |
| | No | 0% |
| | Weight | 1 |
| Q30 | <i>Does the organization envisage forms of withdrawal of its end-of-life products and/or packaging, for example in order to reuse parts or components that still have value (activation of specific take-back programs)?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |



| Question ID | Formulation | |
|--------------------|--|------------|
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q31 | <i>Does the organisation support the reuse of packaging, such as from raw materials/semi-finished products or other incoming goods, by facilitating their return to suppliers or by adopting internal reuse practices? (not those subject to forms of reverse logistics)</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 0,5 |
| Q32 | <i>Does the organization favor the delivery to third parties of its goods no longer used (but still functioning, not obsolete) for the purpose of their reuse (for example through sale, donation, other)?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| END-OF-LIFE | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 450 |
| | Final score (total score / maximum score) | --- |



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FINAL EVALUATION

| Category | Final score |
|----------------------------------|-------------|
| SUPPLY | |
| DESIGN | |
| PRODUCTION | |
| DISTRIBUTION LOGISTICS | |
| USE OF THE PRODUCT / CONSUMPTION | |
| END-OF-LIFE | |



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Annex D – Assessment of the circularity of SMEs: service sectors

OPERATIONAL FORMS FOR CIRCULARITY MEASUREMENT

0. BASIC INFORMATION

| | |
|---------------------|--|
| Company Name | |
| Localization | |
| Plant location(s) | |
| Type of activity | |
| Employees | |
| Company description | |
| Year of reference | |



1. SUPPLY

| Question ID | Formulation | |
|-------------|---|---------------|
| Q1 | <p><i>Does the organization source circular raw materials (or semi-finished products made from circular raw materials) in order to primarily use them in its activities?</i></p> <p>Please consider:</p> <ul style="list-style-type: none"> - Secondary raw materials (waste materials that are recovered, recycled and reprocessed for use as raw materials); - Renewable materials (materials that replenish themselves after human extraction within a finite amount of time); - By-products (material or substance created when processing or manufacturing something else). | |
| | <p>Answer:</p> <p>---</p> | |
| | Yes, in a structured way (procedures and/or guidelines are in place and percentages of circular raw materials are accounted) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q2 | <p><i>For electricity supply, to what extent does the organization obtain its supplies from renewable energy sources?</i></p> <p>Indicate the percentage of electricity originating from renewable sources compared to the total supplied (both self-produced and purchased) in the year analyzed</p> | |
| | <p>Answer:</p> <p>---</p> | |
| | Insert percentage | ---% |
| | No | 0% |
| | | Weight |
| Q3 | <p><i>Does the organization re-use water resources in order to use them in its activities?</i></p> <p>Indicate the percentage of re-used water resources by the organization during the year analysed compared to the total water used</p> | |



| Question ID | Formulation | |
|-------------|---|------------|
| | Answer: --- | |
| | Yes: insert percentage | ---% |
| | No | 0% |
| | Weight | 1 |
| Q4 | <i>Does the organization's ordering/purchasing system is also in place to reduce the production of waste?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partially | 50% |
| | No, he never did or evaluated | 0% |
| | Weight | 0,5 |
| Q5 | <i>Does the organization prefer to source from national suppliers and / or proximity, with the same quality and performance of raw materials, semi-finished or purchased goods (eg. consumer goods, other)?</i> | |
| | Indicate, for the year analyzed, the percentage of raw materials (or semi-finished products) or other goods supplied by national and / or local suppliers compared to the total raw materials | |
| | Answer: --- | |
| | Yes (insert percentage) | ---% |
| | No | 0% |
| | Weight | 0,3 |
| Q6 | <i>Does the organisation purchase/selected goods that meet circular economy criteria?</i> | |
| | Refer to goods purchased/selected because they meet "circular" criteria (goods as a service - recycled goods, goods with leasing contract, second-hand goods, goods for which the "pay per use" mode is active, goods from refurbishment processes, goods from remanufacturing processes, etc.) | |
| | Answer: --- | |



| Question ID | Formulation | |
|---------------|---|------------|
| | | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partially | 50% |
| | No, he never did or evaluated | 0% |
| | Weight | 0,5 |
| Q7 | <p><i>Does the organization adopt actions related to the use of renewable resources that clearly refer to programs / initiatives for the regeneration of natural capital?</i></p> <p>(To be understood: reforestation, natural restoration, groundwater recharge, etc.)</p> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partially | 50% |
| | No, it has never been done or evaluated | 0% |
| | Weight | 0,5 |
| SUPPLY | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 480 |
| | Final score (total score / maximum score) | --- |



2. SERVICE DESIGN AND DELIVERY

| Question ID | Formulation | |
|-------------|--|------------|
| Q8 | <i>Does the organization adopt environmental rules/procedures for the provision of its services?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partially | 50% |
| | No, it has never been done or evaluated | 0% |
| | Weight | 0,5 |
| Q9 | <i>Is the organization equipped with criteria for the eco-efficient management of everything that is not directly involved in its activity (such as administrative offices, warehouses, points of sale where present)?</i> (To be understood: reduction of resource consumption, reduction of waste production, energy efficiency, supply of energy from renewable energy sources, installations made with recycled or certified goods, etc.) | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partially | 50% |
| | No, it has never been done or evaluated | 0% |
| | Weight | 0,5 |
| Q10 | <i>Does the organization involve its employees in the process of improving its circularity performance?</i> Please consider the presence of initiatives aimed at increasing the awareness and involvement of its employees in the process of company improvement (conferences, participatory initiatives, internal information, etc.) | |
| | Answer: --- | |
| | Yes, in a structured way (presence of planned and monitored activities). | 100% |



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|------------------------------------|--|------------|
| | Yes, occasionally | 50% |
| | No | 0% |
| | Weight | 0,5 |
| SERVICE DESIGN AND DELIVERY | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 150 |
| | Final score (total score / maximum score) | --- |



3. END-OF-LIFE

| Question ID | Formulation | |
|-------------|--|------------|
| Q11 | <i>Does the organization have policies to reduce and/or recover its waste?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (specific policies are in place and are periodically monitored) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q12 | <i>Does the organization envisage forms of withdrawal of its end-of-life products and/or packaging, for example in order to reuse parts or components that still have value (activation of specific take-back programs)?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| Q13 | <i>Does the organisation support the reuse of packaging, such as from raw materials/semi-finished products or other incoming goods, by facilitating their return to suppliers or by adopting internal reuse practices? (not those subject to forms of reverse logistics)</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 0,5 |



| Question ID | Formulation | |
|--------------------|--|----------|
| Q14 | <i>Does the organization favor the delivery to third parties of its goods no longer used (but still functioning, not obsolete) for the purpose of their reuse (for example through sale, donation, other)?</i> | |
| | Answer: --- | |
| | Yes, in a structured way (procedures and/or guidelines are in place) | 100% |
| | Partly | 50% |
| | No | 0% |
| | Weight | 1 |
| END-OF-LIFE | Total score (sum of all the percentage multiplied by the weight assigned to each question) | --- |
| | Maximum score | 350 |
| | Final score (total score / maximum score) | --- |

FINAL EVALUATION

| Category | Final score |
|-------------|-------------|
| SUPPLY | |
| SERVICE | |
| END-OF-LIFE | |



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Annex E – Creating a basic policy on circular economy: policy planning workflow

A circular economy policy is a company's statement about the commitment to sustainability and environmental transition that a SME is prepared to make. Having a formal green policy shows to employees and customers that managing environmental issues is a high priority for the SME.

A circular economy policy usually contains the following components:

- A declaration of the company's commitment to the environment (environmental vision).
- A concise description of what the company is trying to achieve with the circular economy goals and how it will accomplish these goals.
- A commitment to prevent pollution and to continuously improve environmental performance.
- A commitment to keeping employees and community members safe.
- A statement of the strategies and actions the business is willing to undertake to meet its commitments.

Green policies don't have to be lengthy or wordy. The most effective policies are written in plain language that is motivating and inspires people to change. The policy should be communicated to all employees, stakeholders and customers as a commitment to improving environmental sustainability over time.

Here below is reported a policy planning workflow.

Step 1: Think about what your company wants to achieve through a green policy. Brainstorm a list of action words or very short phrases that reflects your company's environmental commitment to employees, customers, and the community.

Example:

Throughout the company, not a separate program but a way of doing business, stop driving as much, recycle, compost, better office energy efficiency, "think green" all the time, make it a way of life, build a green image in the community, show measurable results, be green leaders for our customers and community, train our employees.



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Step 2: Drawing on the list of words and phrases you have brainstormed above, put them together into a one or two sentence statement.

Example:

At ABC, we apply green thinking to every action and every decision to benefit our customers, our community and our employees. We are committed to making a positive impact on the environment by becoming pros at developing and implementing effective green practices.

Step 3: List the ways that your company is, or plans to, achieve the commitment(s) expressed in the statements above.

Example:

Reduce waste in day to day office operations. Implement a green training program for all employees, including all management personnel. Focus on reducing carbon footprint by reducing energy use (electricity and gas) and reducing vehicle emissions.

Step 4: Draw on the list you developed in Step 3 to put together a statement of how your company will fulfil its environmental commitment(s).

Example:

We are dedicated to taking the following actions to achieve our green vision:

- *Reduce our company's carbon footprint;*
- *Reduce the amount of waste our company produces;*
- *Increase our green knowledge.*



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Step 5: Combine the statements you developed in Steps 2 and 4 and fine tune them to make your complete green policy.

Example:

At ABC, we apply green thinking to every action and every decision to benefit our customers, our community and our employees. We are committed to making a positive impact for the circular economy transition by becoming ABC at developing and implementing effective green practices and procedures as a rule, not as an exception. We are dedicated to taking the following actions to achieve our green vision:

- *Measurably reduce our company's carbon footprint;*
- *Reduce the amount of waste our company produces;*
- *Increase our green knowledge.*



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Annex F – Ways small business can implement a circular economy strategy

The European Commission adopted the circular economy action plan (CEAP) in March 2020 (https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en). It is one of the main building blocks of the Fit for 55 package, a set of proposals to revise and update EU legislation and to put in place new initiatives with the aim of ensuring that EU policies are in line with the climate goals agreed by the Council and the European Parliament. (<https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55-the-eu-plan-for-a-green-transition/>).

The EU's transition to a circular economy is expected to reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss.

The CEAP announces initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible. It introduces legislative and non-legislative measures targeting areas where action at the EU level brings real added value.

Each business has its own particularities, especially SMEs, so the steps one small company takes won't necessarily be the same as the steps others may take. Here are several practical ways for small businesses to reduce their environmental impact in line with the above reported European strategy and action plan.

Use sustainable products

The items companies purchase to ensure their workplaces function well — be it printer paper, cleaning products or to-go containers — can be deleterious to the environment due to the processes that go into making them.

For all those paper items commonly used, such as rolls of toilet paper and reams of printer paper, office managers can look for labelling that says it is made from post- or pre-consumer waste. Recycled products such as these maintain a circular economy and reduce overall waste.



For cleaning products, there is a whole cottage industry of green cleaners that don't include toxic chemicals, opting instead for natural ingredients that work just as well. Using these products keeps toxic ingredients out of the streams and their waste out of landfills.

Make use of second-hand finds

Decking out the office doesn't have to mean paying top dollar for brand-new furniture.

It takes a lot of energy and raw material to make all those new tables, chairs, couches and desks. Companies can go the green route instead by finding beautiful vintage pieces to fill out their offices or opting for recycled furniture.

This ensures that fully functional furniture won't be tossed into landfills in favour of the newest styles. Who wouldn't want some incredible mid-century furniture in their office?

Reduce, reuse, recycle

The best way to keep waste out of landfills is by never sending it there in the first place.

The order of the Rs is important. First, companies should endeavour to reduce usage where they can. Instead of disposable cups, plates and utensils (not to mention coffee pods), they can opt for real glass and ceramic alternatives.

Reuse items whenever possible. In the warehouse, instead of throwing out structurally intact boxes, they can go another round. In the office, employees should be encouraged to use both sides of the printer paper.

When reducing or reusing aren't possible, recycling is the next best thing. Many cities helpfully provide bins for this and have made the recycling process less complicated, so it's much easier to leave the trash can entirely empty these days.

Compost

Another way to divert waste from landfills is to compost. An increasing number of cities are capable of composting just about any organic matter.

The difference between that banana peel in the compost and that banana peel in the dump is what it becomes. In the dump, it slowly decays and off-gases methane, a much more destructive greenhouse gas. In the compost, it decays quickly and becomes soil for gardens and parks.



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The workplace is a perfect place to implement a compost program. All those lunch leftovers can be turned into soil instead of methane.

Use sustainable packaging

For businesses that sell and ship products, packaging is a major part of the operation. From the packaging that each unit is sold in to the mailers and boxes they are eventually shipped out in, this material adds up quickly.

Recycled paper and cardboard are tried and true sustainable packaging options, but there have also been strides toward creating completely compostable packaging that results in zero waste at the end of its cycle.

Offer remote work

As more work gets done online, there is less need for people to be in a physical office. Remote work has taken off over the past few years, allowing employees to have work-life flexibility and substantially reducing their time spent commuting.

This is great for the environment. Fewer cars on the road, idling in traffic, equates to less carbon dioxide (CO₂) being emitted into the air.

This small change can help reduce traffic and a business's overall carbon footprint. Further, with fewer people in the office, companies can save money usually spent stocking, lighting and heating the workplace.

Provide public transit commuter benefits

When employees do need to be in the office, how their commute contributes to greenhouse gas emissions still can be influenced.

Public transportation (buses, trains, vanpools) is the greenest way to commute, and companies can encourage employees to take advantage of these transport options.

Small businesses can provide employees with public transit benefits that help the environment, either directly or through their human resources (HR) software.



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To provide these benefits directly, many city transit agencies offer subsidized passes for businesses. Alternately, these benefits may be available to add through HR software that centralizes all benefit programs.

Make energy-efficient upgrades

Becoming energy efficient doesn't only help to shrink carbon footprints, it also helps to reduce a company's energy bill.

Many simple things can be done: use energy-efficient appliances; move to LED lights; automate lights with sensors; use smart thermostats; take advantage of natural light; and supply staff with laptops instead of desktop computers.

Saving money and saving the planet are not mutually exclusive.

Use green web hosting services

Websites use energy, too. The servers that host a website's data are constantly on, using up copious amounts of energy.

Luckily, companies can choose where their data is stored. More and more, eco-conscious companies are offsetting that energy usage to go carbon neutral.

Google has done a lot to decarbonize its data centers and claims that its cloud services produce zero net carbon emissions. And the largest cloud computing provider out there, Amazon, has promised to achieve the same by 2040 through wind and solar farms.

Do business with green businesses

Web hosting isn't the only way businesses can go carbon-neutral with the companies they choose to operate with.

From software companies and food and beverage brands to apparel labels and shipping carriers, carbon-neutral vendors can be found across every major industry. For many small businesses, their supply chain also will have a big impact on their own footprint.

Again, becoming a sustainable business depends on the companies they support.