CIRGREEN

Guidelines for civil servants on circular public procurement

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About the project

These guidelines are compiled as part of the Erasmus+ funded CIRGREEN project and aim to serve as a concrete, practical toolkit for municipalities to incorporate the principles of circular economy in their procurement processes. The guidelines are compiled in cooperation with EcoFellows Ltd, Provincia di Parma and Mancomunidad Integral Sierra de San Pedro.

The examples used in the guidelines are meant for sharing good practices and promoting innovative thinking about circular economy and public procurement. The examples have been chosen from Europe to better resonate with the users of these guidelines and focus on a more local scope. The aim is that the examples offer as much variety as possible of potential practices and solutions for circular procurement. The tools aim to offer more practical and concrete ways of approaching circularity in procurement.

The European legal framework and national action plans serve as the framework within which circularity is promoted and what is required from a higher level of governance. The steps for circular strategy, incorporating circular economy in the different phases of the procurement process and evaluating the circularity of tenders aim to guide municipalities through the procurement process in a way that keeps circularity in mind and aids in awarding tenders that offer the best possibilities for circularity. The award criteria are presented as thought-provoking examples that can and should be modified according to the specific needs of the procuring organization.

Some resources and support are offered at the end of the guidelines. These are networks, other guides and manuals as well as tools and examples on circular and green public procurement.

Background

Green public procurement

The **Green Public Procurement** is a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact, using **enviromental priciples** throughout their life cycle (extraction of raw materials, production of intermediate goods, production, transportation, use, end of life including reuse, recycling), when compared to goods, services and works with the same primary function that would otherwise be procured."

There are **five steps** in the procurement process that should be integrated with **specific environmental criteria**:

- definition of the procurement subject;
- drafting of the technical specifications;
- identification of supplier selection methods;
- award criteria;
- definition of contract performance clauses.

Background

Green public procurement

The **main environmental objectives** that these criteria aim to achieve are as follows:

1. **Mitigation of climate change** by reducing climate-changing gas emissions, increasing energy efficiency, and reducing the use of non-renewable energy sources;
2. The **prevention and reduction of air, water and soil pollution** by reducing the use and emissions of hazardous substances;
3. Promoting the **transition to a circular economy model** by improving material-use efficiency, reducing the amount of waste generated, extending the useful life of products, better design of products and services, and encouraging the reuse of materials from recycling ;
4. **Protecting biodiversity**.

The four above-mentioned enviromental criteria are part of the **six criteria of the DNSH - approach (Do No Significant Harm)**, introduced by article 17 “Significant harm to environmental objectives ”, **Regulation (EU) 2020/852** on the establishment of a framework to facilitate sustainable investment, then riaffirmed by **Regulation UE 2021/241**, which has established the Recovery and Resilience Facility (RFF), and in Italy, by article 41 of **Public Contracts Code (Legislative Decree 36/2023)**, particularly in Article 11 establishing the "Sustainability Report of the Work" and the related Annex I.7.

Background

Sustainable public procurement

- It should also be mentioned that in public procurement, environmental goals have been integrated with some **social goals** (equal opportunities and access to the labor market, fair working conditions in all supply chains, social protection and inclusion): in these cases it would be better to speak of **Sustainable Public Procurement (SPP)**.
- UNEP, a program of the United Nations, defines **SPP** as: "a process whereby public sector organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing, and if possible, avoiding, damage to the environment" (UNEP 2011).

1. Circular economy

Introduction

- According to the Circularity Gap Report of 2023, only 7.2% of materials used globally are being cycled back to our economy. The European Union alone produces more than 2.2 billion tons of waste every year (European Parliament), and the current circular material use rate in the EU is less than 12% according to Eurostat. The extraction of virgin raw materials, the production processes and waste generation place a huge burden on our environment, accelerating climate change, biodiversity loss and an increase in emissions.
- The planet has a finite amount of resources and raw materials, but e.g. Business Finland (2023) estimates that the world will need 45% more energy, 50% more food and 30% more water by 2030 due to population growth, urbanization and the rising middle class. This means that the planet won't be able to support lifestyles based on the linear (take-make-waste) economy model.

➢ It’s both necessary and beneficial to apply the principles of circular economy in different aspects of how we live and do business.

1. Circular economy

Circular economy definition

European Commission Definition of Circular Economy:

"The value of products and materials is maintained for as long as possible. Waste and resource use are minimised, and when a product reaches the end of its life it is used again to create further value. This can bring major economic benefits, contributing to innovate, growth and job creation."

The circular economy model:
less raw material, less waste, fewer emissions

Source: European Parliament Research Service

1. Circular economy

What is circular economy?

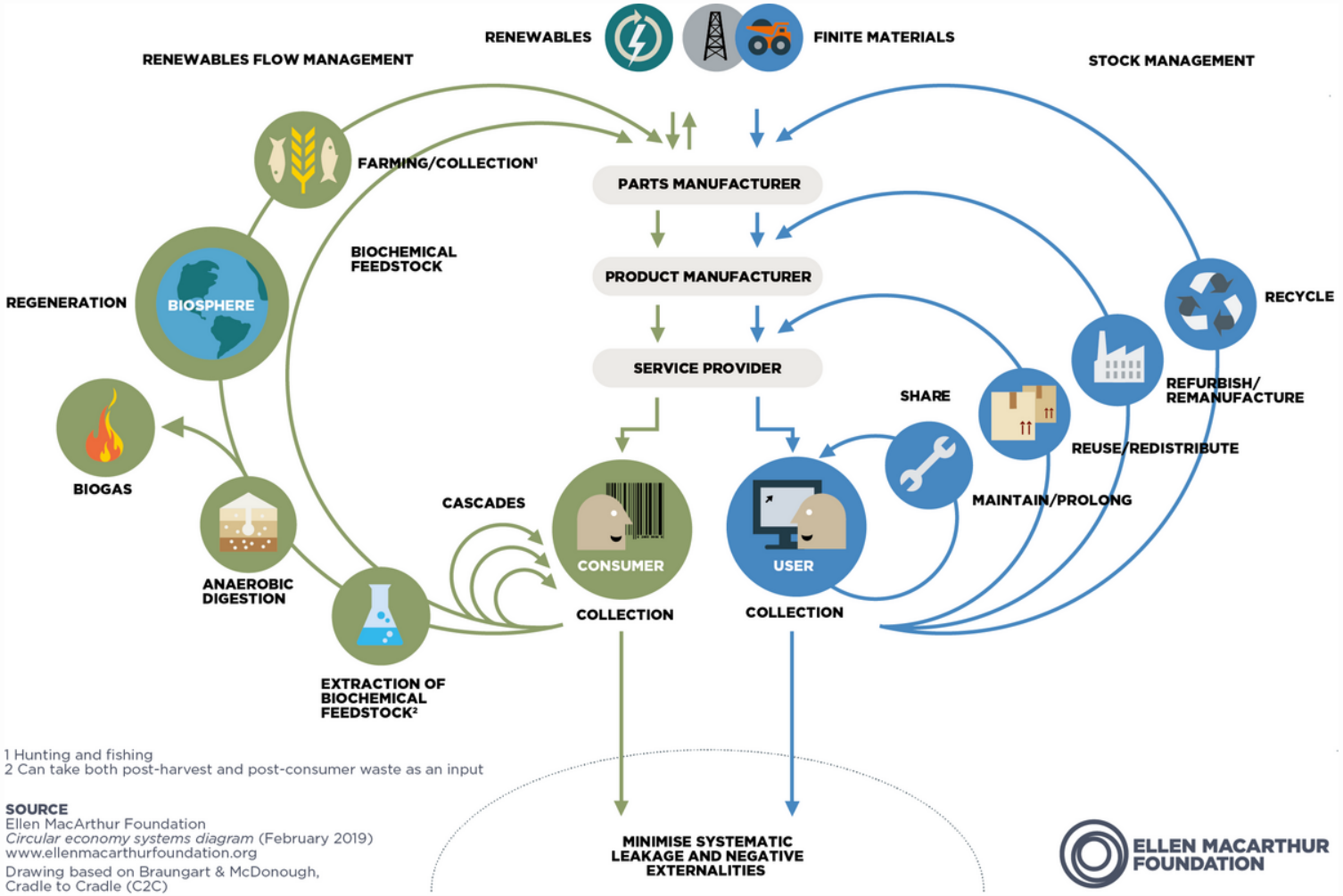
- Circular economy is a new way of thinking that waste is a resource, and focusing on an economic model of using services, sharing, renting, reusing, repairing, refurbishing and recycling instead of producing more goods and owning. In practice, it implies expanding product life cycle to a maximun and **reducing waste** to a minimum.
- Transitioning from a linear production and consumption model to a circular framework is a shift that emphasizes the preservation of value through the closure of product and material loops. When a product reaches the end of its life, its materials are kept within the economy, wherever possible, thanks to recycling. These can be productively used again and again, thereby **creating further value**.
- The circular economy model implies that all products are designed to last longer and be easier to repair, upgrade, remanufacture, reuse or recycle.
- Circular economy can be seen as a tool to achieve a more sustainable way of living and doing. Circle Economy Foundation and Deloitte (2023) estimate that switching to a more circular economy could reduce material extraction and use by one-third, combating or even reversing some of the abovementioned negative environmental impacts.

Sources: Circular economy: definition, importance and benefits | News | European Parliament (europa.eu); https://www.circularity-gap.world/2023

1. Circular economy

What is circular economy?

- The butterfly diagram illustrates the continuous flow of materials in a circular economy system.
- It features two main cycles: the technical cycle and the biological cycle.
  - ➢ In the technical cycle, processes such as reuse, repair, remanufacture, and recycling keep products and materials in circulation.
  - ➢ In the biological cycle, the nutrients returns from biodegradable materials to the Earth, enabling the regeneration of nature.



Source: [The Butterfly Diagram: Visualising the Circular Economy (ellenmacarthurfoundation.org)]

1. Circular economy

How to make transition to a circular economy?

REDUCE

Reduce unnecessary consumption and production.
Example: Replace disposable items such as cups and utensils with durable, reusable alternatives.

REUSE

Reuse existing products and resources or repurpose their use.
Example: Reuse furniture from the old office when setting up a new one.

RETHINK

Rethink products, processes and ownership.
Example: Consider whether it's necessary to own everything individually or if sharing is an option. E.g. car sharing, libraries.

REPAIR

Repair goods instead of throwing them away and getting new.
Example: A municipal government opts for device repair instead of acquiring new items.

RECYCLE

Recycle raw materials at the end of the product's life cycle.
Example: When decommissioning a municipal building, adopt a circular approach by systematically deconstructing and salvaging materials like bricks, steel, glass, and wood for future construction reuse.

1. Circular economy

How to make transition to a circular economy?

The European Union, in the **Communication 98/2020** "A new Circular Economy Action Plan For a cleaner and more competitive Europe", established the 10 principles of circular design, that should guide the design of goods, services and works:

1. Improving product **durability, reusability, upgradability and reparability**;
2. Reducing **hazardous chemicals** in products;
3. Increasing product **energy and resource efficiency**;
4. Increasing **recycled content in products**, while ensuring their performance and safety;
5. Enabling **remanufacturing** and **high-quality recycling** (that implies dissolvability for homogeneous materials);
6. Restricting **single-use** and countering **premature obsolescence,** introducing a **ban on the destruction of unsold durable goods;**
7. Incentivizing **product-as-a-service;**
8. Reducing **carbon and environmental footprints**;
9. Mobilizing the potential of **digitalization** of product information, including solutions such as **digital passports, tagging and watermarks;**
10. Rewarding products based on their **different sustainability performance**, including by linking high performance levels to incentives.

1. Circular economy

How to make transition to a circular economy?

- The ten principles laid out in the Circular Economy Action Plan are key to determining when an intervention - whether it is a procurement, financing, investment, purchase, or decision about "what and how" to produce - can be called "circular."

- The first indicator used by the European Commission, circular material use rate (defined as “circular rate”), which measures the percentage of materials recycled and reintroduced into the economy, makes it very clear what the role assigned to public procurement might be: to introduce criteria for public administrations to “buy circular”.

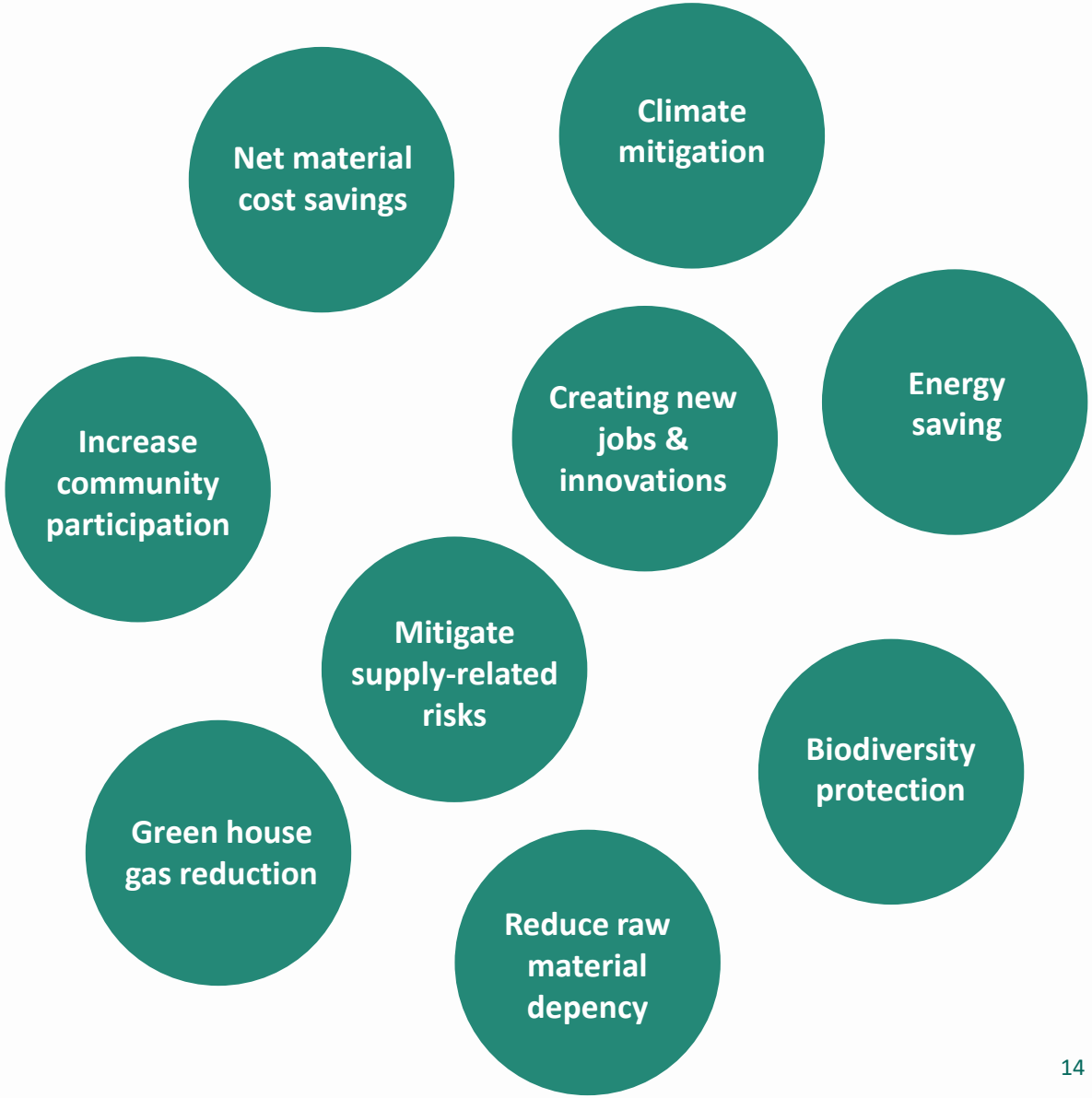
- Circulariry and sustainability become essential elements in all phases of the so-called “value chain” in a way that permeates all stages of the production and subsequent purchase process: **design, production, purchase choice, and consumer use.**

1. Circular economy

The aim of circular economy

Circularity summarizes many of the environmental goals in that:

- It is based on reducing the consumption of primary natural resources by encouraging a shift from the purchase of goods to the purchase of services;
- Pursues the goal of reducing waste generation and requires design based on reuse and recycling;
- Pursues the goal of reducing CO2 emissions and thus mitigates the impact on climate change;
- Ensures the reduction of environmental impact throughout the life cycle of production activities and consumption of good.



2. Circular procurement

Circular public procurement definition

- Circular public procurement means that **the public sector purchases products and services according to the three principles of the circular economy**. These three principles are eliminating waste and pollution, circulating products and materials at their highest value and regenerating nature.
- Circular procurement can be seen as a part of wider green or sustainable procurement. The other two generally take into account more factors such as social responsibility, while the circular approach is mainly focused on the use of natural resources and waste generation.
- In circular public procurement, quality factors such as environmental impact and a product's life cycle are taken into account, so purchase price is not the only criteria.
- Above all, circular procurement means a new way of thinking about the procurement process. For example: Is it necessary to purchase something new, or could existing resources be repaired or recycled? If the purchase is made, could it be a service instead of a product, or could it be shared with another organization

2. Circular procurement

Why it matters?

Public procurement is estimated to account for **15-20% of global GDP**, placing it at the forefront of shaping the model of local economies. This means that it has a high potential to facilitate the transition to circular economy. When civil servants in the public sector engage with potential suppliers during procurement processes, they can play an important role in encouraging the suppliers to adopt more circular practices. This will aid in directing public finances towards a wider adoption of circular solutions.

Source: Ellen MacArthur Foundation Circular public procurement.

2. Circular procurement

Circular public procurement principles

- In the framework of public procurement, most of enviromental goals can be reached introducing “circularity priciples”.
- The ten principles established in the **“Action Plan for Circular Economy”**, also fundamental for the Circular Public Procurement, can be traslated in “operational principles”, guiding public procurement, relating to both the individual purchasing acts and the subjective characteristics of the economic operator.
- The principles of **circular ecodesign,** converted into "operational circularity criteria" to be considered in each individual purchasing act, are as follows:

1.**Eco-efficiency:** preference for raw materials and products that generate fewer negative environmental impacts during the life cycle;
2. **Turn a product into a service:** Turn the purchase of a good into a service, a rental;
3. Purchasing products that have **environmental certification** according to existing Type I schemes (which refer to multi-criteria life-cycle-based, objective, established by independent authorities)
4. Choosing products that use **renewable raw materials** or products derived from renewable materials;
5. Avoiding, if and when possible, the purchase of products that contain **critical raw materials** (for more info, see);
6. Choice of **renewable raw materials and/or products;**
7. Purchasing goods that are used and/or prepared for **reuse** (subjected to inspection, cleaning, disassembly and repair so that they can then be reused and re-marketed);
8. Selection of **recyclable raw materials and products**;
9. Selection of raw materials made from waste materials (by-products);
10. Avoid **single-use products**;
11. **Ecodesign**: purchasing products designed to be disassembled / repaired / reused / remanufactured / recycled;
12. Prefer to purchase **bulk goods** or with packaging with reduced environmental impact;
13. Purchasing products that allow **optimization and monitoring of consumption;**
14. Purchasing products that guarantee service aimed at extending the **useful life of products.**

2. Circular procurement

Circular public procurement principles

- The principles of **circular ecodesign** that directly affect the **supplier selection process**, converted into 6 "operational circularity criteria", instead concern preference for **those operators**:
    1. With a **smaller environmental footprint (OEF)**, as per Commission Recommendation (EU) 2021/2279 of December 15, 2021, with Corrigendum to Commission Recommendation (EU) 2021/2279 of December 15, 2021, on the use of environmental footprint methods to measure and communicate the life cycle environmental performance of products and organizations;
    2. **Zero km** (for reduction of transport-related greenhouse gas emissions) and short supply chain;
    3. Have **environmental management systems** (EMAS, ISO14001) and prepare a sustainability report;
    4. With an **energy** supply contract based on **renewable sources**;
    5. Involved in **industrial symbiosis** projects;
    6. Providing a **take back service**.

2. Circular procurement

Advancing circular public procurement

- Application of **whole life thinking**:
  - Instead of focusing only current needs contemplating procurement from a broader scale. Considering how the product and service will be used (beyond its current lifespan), where it is manufactured, and how.
- Reflection on environmental impact:
  - Finding ways to minimize waste and ensuring that procurements remain in circulation for as long as possible, thus closing product and material loops.
- Innovation for reuse:
  - Innovate new ways to reuse items, prolong their lifespan.
- Collaboration with diverse stakeholders and companies:
  - Foster broader collaboration with various stakeholders and companies.

Example:

A space is needed for the city's leisure department to organize evening recreational activities.

Instead of constructing a new space, consider if existing facilities could be utilized for this purpose.

- **Leasing from private entity.**

2. Circular procurement

Benefits of circular public procurement

- Cost Reduction: Achieve short and long-term cost savings, focusing on Total Cost of Use or Total Cost of ownership.
- Reduced Procurement Frequency: Extend product life, leading to less frequent procurements.
- Decreased Waste Management Costs: Reduce or eliminate the need for extensive waste management, resulting in cost reduction.
- Waste Prevention: Prevent waste and minimize the use of hazardous substances.
- Resource Conservation: Mitigate depletion of scarce raw materials, addressing geopolitical and environmental concerns.
- Supply Chain Transparency: Enhance transparency in the supply chain.
- Cohesive Cooperation: Foster cohesive cooperation in the supply chain for a robust and resilient network.

2. Circular procurement

Approaches to circular public procurement

Understanding of the opportunities available for promoting circularity in different contexts is essential in public procurement. Circular demand from the public sector side can create circular supply. Therefore market dialogue and experimentation are important tools for development. The following figure outlines different levels of models to circular public procurement with a few examples.

System level

The purchasing organization's contractual methods to pursue circularity

- Product-service systems (e.g. Philips Pay-Per-Lux-lighting or photpcopy/printing service systems)
- Public-private partnerships (collaboration in the development of a circular solutions)
- Cooperation between organizations on sharing and reusing
- Renting & leasing
- Supplier take-back-systems including reuse, recycling, refurbishment and remanufacturing
- Support services to optimize the energy efficiency and/or lifespan of the product

Supplier level

The methods by which circularity can be achieved by the supplier

- Supplier take-back systems
- Support services to optimize the energy efficiency and/or lifespan of the product
- Design for disassembly
- Repairability of standard products
- External reuse or sale of products – Buy-resell
- Internal reuse of products and components

Product level

The circularity of the products

- Identifiable origins and materials of the product
- Product can be disassembled after use
- Possible alternative uses for the product or its components
- Recycled or recyclable materials + reusable or recyclable packaging
- Resource efficiency & total cost of ownership
  - Incl. longevity, energy consumption, level of standardisation, warranties etc.
- Eco-certifications and carbon/environmental footprint

Circular procurement models. Sources: Jones et. al./SPP Regions 2017; European Commission 2017 & Kriteeripankki 2024)

2. Circular procurement

Factors affecting circular public procurement Source: Cityloops 2023

Organizational context

Building trust	Openness and transparency in interactions build a culture based on trust and mutual respect, which is conducive to creativity and resilience.
Learning	Education and sharing knowledge across different departments and organisational boundaries is central in creating a common understanding on circular procurement.
Leadership & collaboration	The management's commitment to circular economy from values to practices guides the direction of the organization. Coordination between departments & supportive work environment integrate circular economy in the organization's functions.
Financial evaluation	Initial costs can be relatively high in some cases. Total cost of ownership is often a more suitable cost estimation method than purchasing costs in the context of circular procurement.
Policy alignment	A holistic approach to circular public procurement can be achieved by consistently aligning municipality's sustainability goals with the policies and governance structures.
Data collection and monitoring	Data-collection & monitoring form the basis for long-term data-driven development and meaningful interaction between stakeholders.

External environment

Regulation and incentives	Transition to circular economy is a new kind of endeavour for the public sector and businesses. Supportive regulation and incentives directly influence the development of circular procurement and government subsidies, grants, and tax reliefs reduce the challenges related to costs.
International agreements	International agreements provide a sustainability framework that municipalities can align with through circular procurement practices, that reduce emissions, promote resource efficiency, demonstrate commitment to sustainability and foster collaboration towards circular and sustainable economy.
Stakeholder engagement & collaboration	Involving stakeholders enables the utilization of broad-based expertise and potentially the development of more efficient, practical, and innovative solutions. Facilitating collaboration and sharing information among different stakeholders promotes circular procurement efforts and lays the foundation for systemic change towards circular economy.

3. Tools for Circular procurement

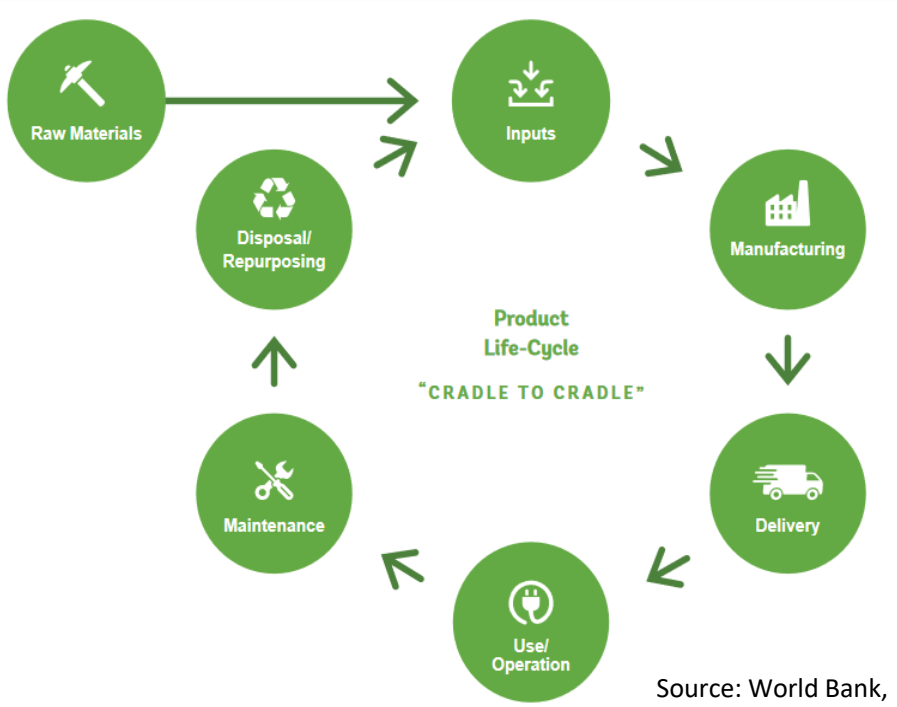
Life cycle costing

The life cycle of a resource – product, service, or infrastructure – means the length of its life from raw material or input stage to disposal or repurposing. A circular approach aims at replacing disposal with repurposing that allows reuse. This reduces the need of new purchases and helps reduce waste and raw material extraction.

Life-cycle costing takes into account all the costs caused to the owner of the resource during its lifetime: the initial purchase, costs associated with operation and maintenance, and disposal costs. Some models also consider social and environmental costs. For example, purchases with a low initial price, but with high maintenance requirements, energy or water use, and disposal costs can end up more expensive and environmentally damaging than purchases with a higher initial price but lower maintenance and longer life.

Life cycle costing can take place at the pre-procurement stage or when evaluating and comparing tenders. The key is predicting future costs of the resource.

Life cycle costing may be used together with life cycle assessment, although it's not necessary. While life cycle costing deals with the costs of the resource during its lifetime, life cycle assessment evaluates the environmental impact of the resource and often requires more time and specialist knowledge to be conducted.



Source: World Bank, 2021

3. Tools for Circular procurement

Life cycle costing

Different calculation tools and more comprehensive guidebooks have been developed for life-cycle costing for different product groups. Quite often it's beneficial to use life cycle costing for comparing products that involve energy usage. It's important to note that the method used depends on the case, and the tools and guidelines presented here aim to offer an example of the use of life cycle costing.

Calculating tools by the European Commission for procurement of vending machines, outdoor lighting, indoor lighting, imaging equipment and computers (2023)

Tools for procuring office IT equipment by Danish Ministry of Environment (N/A)

Life cycle costing state of the art report by ICLEI (2018)

The current EU Directives from 2014 require that where life-cycle costing is used, the calculation method and the data to be provided by tenderers are set out in the procurement documents. Specific rules also apply regarding methods for assigning costs to environmental externalities, which aim to ensure that these methods are fair and transparent. More information can be found here and here.

3. Tools for Circular procurement

Life cycle costing

Examples

PROCUREMENT OF LIGHTING - MUNICIPALITY OF SYDDJURS, DENMARK

Syddjurs Municipality used the Danish EPA Total Cost of Ownership (TCO) tool to calculate the costs of their lighting tender. The calculation showed that LED bulbs are six times less expensive than halogen bulbs, when looking at the total costs over a useful life of 15 years.

A specific challenge from Syddjurs' TCO calculation was how to compare different types of light sources, since the tender was not locked to a single type of bulb or technology. In order to compare them, it was necessary to change from watt to lumen when demanding the light sources offered.

Syddjurs Municipality used TCO price as an evaluation criteria. The tool showed that it was possible to save money on energy consumption, but also that there were savings to be made on working hours when the lamp is not to be changed as often.

The Municipality's procurement department was positively surprised that suppliers also welcomed the use of the tool. The current supplier believes that it is natural to take TCO calculations in a tender because it is an important parameter to calculate the payback period of their solutions. They send a clear recommendation for others to use TCO tools in the tender: "Use it! It is an eye-opener."

Source: http://www.ansvarligeindkob.dk/cases/tco-beregninger-giver-store-besparelser-paa-belysning-syddjurs-kommune/

IT TCO CALCULATIONS - CONSEIL GÉNÉRAL DU LOIRET, FRANCE

With the aim of reducing the global impact of its whole IT infrastructure, the Conseil Général du Loiret contracted an audit to calculate the Total Cost of Ownership (TCO) of its:

- 200 servers
- 1700 desktop and 800 mobile workstations
- 381 printers and 122 multifunction copiers

The 6 months audit (based on interviews, energy and technical data, etc.) revealed that the procurement costs (both of hardware and software) represented 17% of total costs, whilst 20% were operating costs, and up to 63% were indirect costs (maintenance, users and administrators, consumables, electricity costs, etc.).

Following the audit, proposed improvement measures include a one year increase of the computers durability or the mainstreaming of awareness and good practices among users, which could achieve more than 1 million € of savings.

Source: Life Cycle Costing State of the Art Report, ICLEI, 2018

3. Tools for Circular procurement

Market engagement

Market engagement is a process that takes place before, during and after procurement. It aims to identify potential bidders and/or solutions, build capacity in the market to meet the requirements, inform the design of the procurement and contract, help suppliers to submit strong bids and feed back to and debrief suppliers after the process. It can range from looking to inform the market of purchasing intentions through a communication or advertisement to full dialogue and exchange with suppliers to work on a solution together. It's advised to allow 3-6 months for the market engagement process, with larger contracts or processes that involve co-design of goods or services requiring up to 12 months. This can save time in later stages by resulting in fewer supplier clarifications and a more suitable contract for all parties because suppliers have been able to adapt to the procurement's needs.

Fair competition should be ensured at all stages of the market engagement process by making sure that any group of potential suppliers are not disadvantaged and that their intellectual rights are not violated. Managing the risks can include steps such as:

- act responsibly and with integrity – be fair, open and transparent and remain impartial
- plan how and when you will engage with the market
- make the process clear to all suppliers and manage their expectations
- do not favor one supplier over others
- share the same information with all suppliers, for example, by briefing them together
- be open to new players, new ideas and new solutions and do not get ‘sold’ on one solution
- ask suppliers to identify any aspect of their offerings which they deem to be commercially sensitive – then ensure that you do not disclose this information or use it without their written consent
- keep records of your meetings
- try to include at least one neutral observer
- be clear with suppliers as to what will and will not be shared as part of the market engagement process
- work with other public authorities to share advice and knowledge

3. Tools for Circular procurement

Market engagement

The table on the right (ICLEI, 2018) shows examples of how to engage with the market in the different stages of the procurement process.

The information collected through market engagement also varies depending on the stage. During pre-procurement it's usually a basic market research and analysis. During the official tender process, it can be more detailed explanations of needs and specifications and desired results, as well as allowing suppliers to ask questions, develop innovations or fine-tune their solutions.

More detailed instructions on each point can be found in the Market engagement best practice report by ICLEI (2018).

PRE-PROCUREMENT	DURING TENDER	POST TENDER
■ Publish a forward procurement plan (e.g. Annual Procurement Plan) ■ Attend trade shows ■ Attend a 'Meet the Buyer' event for interested suppliers ■ Issue a Request for Information ■ Call a 'show-and-tell' to allow suppliers to explain their proposed solutions ■ Meet with industry bodies ■ Meet with a group of key suppliers or a range of suppliers individually ■ Sound out the market ■ Provide a pre-tender briefing to suppliers who are interested in a contract opportunity ■ Industry workshops	■ Brief suppliers who have submitted a response ■ Brief short listed suppliers ■ Hold a question and answer session – or send a list of all questions and their answers to all suppliers.	■ Let suppliers know who has been successful, including a contract award notice ■ Debrief suppliers, and ask questions about how the process worked for them. ■ Contract and supplier management ■ Strategic supplier management ■ Maintain market awareness and competitor offerings

Source: New Zealand Government, 2013

3. Tools for Circular procurement

Market engagement

Examples

MEETING WITH GROUPS OF KEY SUPPLIERS IN PORTUGAL (LIPOR)

LIPOR employed a restricted procedure by pre-qualification to contract for cleaning services. During the preparatory stage (prior to launching the procurement), several actions were carried out with potential suppliers to inform them of LIPOR's objectives and to assess their response capacity, namely via:

- Meetings to assess suppliers' ability to fulfil sustainability criteria;
- Communicating the benefits and implications of LIPOR's sustainable public procurement (SPP) policy;
- Developing a monitoring plan to assess contract execution; and
- Deciding on how LIPOR would work with suppliers who did not initially respond to requirements.

Involving and establishing a dialogue with suppliers right from the start was considered extremely important, not only to know to what extent suppliers are prepared to respond and compete for increasingly demanding and complex procedures, but also to find out about the availability of alternative solutions on the market.

ADVERTISING YOUR INTENTIONS IN THE UK

Eastern Shires Purchasing Organisation (ESPO) undertook a market engagement process for LED lighting. In order to gauge interest in an lighting project and to provide the project team with an understanding of the supply market of LED lighting technology they placed an advert on a local government association website, formal adverts on Contracts Finder website, ESPO's website and Contrax Weekly. Prior to this ESPO placed a PIN for "Energy efficient products/equipment based on innovative low carbon emission technologies and integrated solutions". This PIN put the three technologies in focus, the first of which provided details on LED's. Companies that responded were invited to tender, and took part in a supplier open day. Early market engagement provided a better knowledge for the procurement team of what is available on the market. When this was combined with using an open tender route, the contracting authority was able to acquire a solution quickly and with reduced procurement timescales.

Source: Market engagement best practices report, ICLEI, 2018

3. Tools for Circular procurement

Joint procurement

A joint procurement means combining the procurement actions of two or more contracting authorities. The key defining characteristic is that there should be only one tender published on behalf of all participating authorities. (OECD)

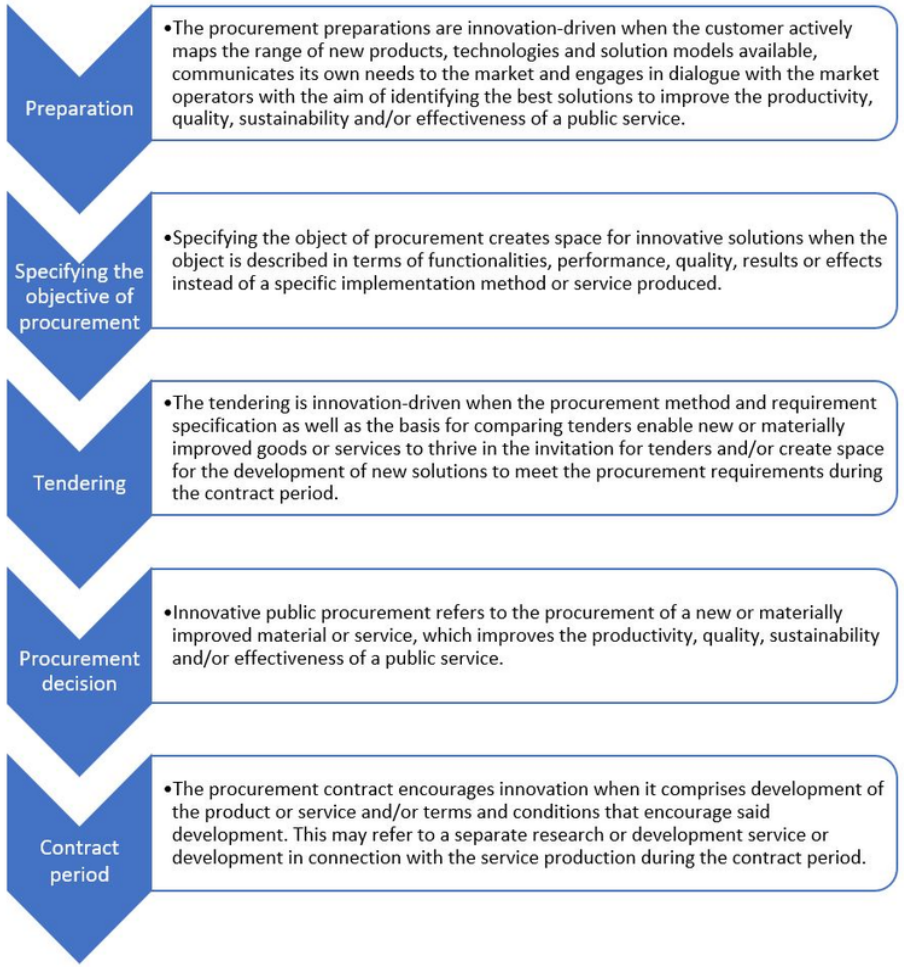
- Joint procurement can allow for larger quantities of circular products or services to be procured, which can incentivize suppliers to scale up production and reduce costs.
- Multiple contracting authorities collaborating in joint procurement can pool their expertise in circular economy practices.
- By working collectively, public entities can encourage suppliers to develop and provide products or services with improved circular characteristics, fostering a more sustainable market.
- However, a challenge in joint procurement arises from the unique needs of individual procurement units, and this must be taken into consideration.

Picture: Pexels.com

3. Tools for Circular procurement

Public Procurement of Innovative Solutions (PPI)

- Innovation procurement plays an important role in the modernisation of the public sector services and the adoption of environmentally friendly technology. The European Union supports the use of **public procurement of innovative solutions (PPI)** and **pre-commercial procurement (PCP)** as complementary tools to promote innovations from the demand side. Source: European Commission
- Through the process of **public procurement of innovative solutions (PPI)**, the public sector can address societal challenges related to the circular economy by acquiring innovations that are not yet widely available on the market, but no longer require research and development. In this way, the public sector acts as an early adopter and facilitates the diffusion of innovations to the market.
- The PPI process proceeds as follows:
    1. A critical mass of demand is created (e.g. through joint procurement) to motivate a larger scale commercialization of the innovative solution.
    2. An early announcement is made of the innovation needs with necessary product features, schedule and price information.
    3. The actual public procurement through the standard procedures already in use (e.g. open/negotiated procedure, competitive dialogue).
- The accompanying figure describes in more detail the different stages of innovation-driven public procurements.



Innovation-driven public procurement. Sources: Keino Competence Center; Valovirta et al. 2017

Sources: European Commission; Keino Competence Center; Valovirta et al. 2017 (in Finnish); Directive 2014/24 on public procurement; European Commission 2022

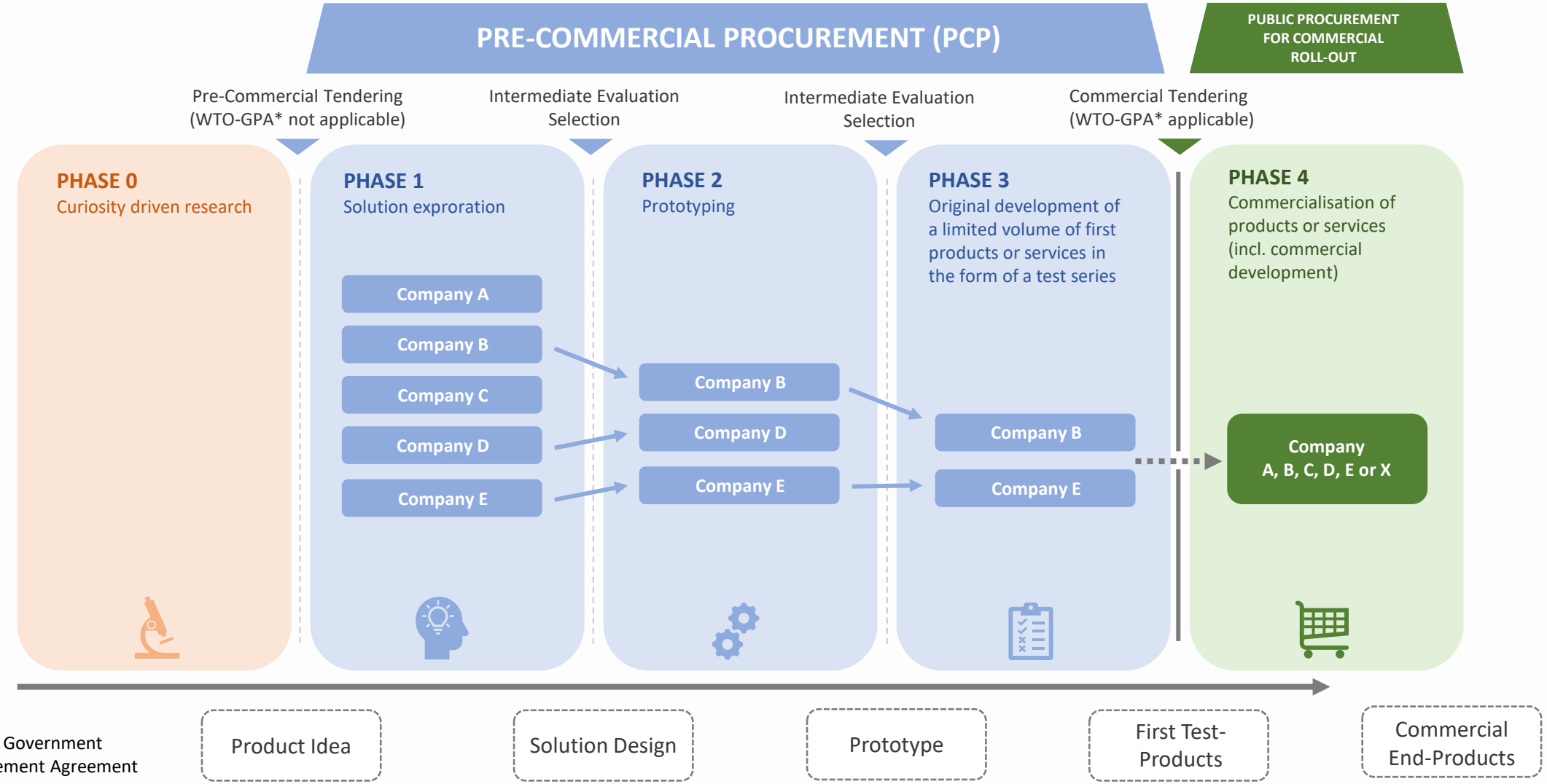
3. Tools for Circular procurement

Pre-Commercial Procurement (PCP)

- **Pre-commercial procurement** (PCP) is a process that focuses on the public procurement of research and development services. Through the pre-commercial procurement, it possible to create products and services that are better suited to the needs of the public sector.
- Pre-commercial procurement has several benefits for both public organizations and suppliers, which include:
  - It allows for the comparison of several different innovative solutions during the development phase and shares the risks and benefits associated with product development between the private and public sectors.
  - It provides a proof of concept and demonstrates the market potential of a new product or service.
  - It creates an attractive customer reference for pioneering companies and provides access to public procurement markets.
- The process can be divided into three different phases (*solution exploration*, *prototyping* and *testing*), between which an interim evaluation and selection of the most interesting solutions is carried out (see the pre-commercial procurement process-figure on the following page).
  - In the *solution exploration* phase, the general feasibility of competing solutions is examined from different perspectives.
  - In the *prototyping* phase, efforts are made to ensure that the different solutions meet the procurer's requirements.
  - In the *testing* phase, the functionality and cost-benefits of the solutions compared in real-life situations.

Sources: European Commission; Commission of the European Communities 2007; Valovirta /VTT 2010

3. Tools for Circular procurement



Pre-commercial procurement process (Source: Commission of the European Communities 2007)

3. Tools for Circular procurement

Dynamic Purchasing Systems

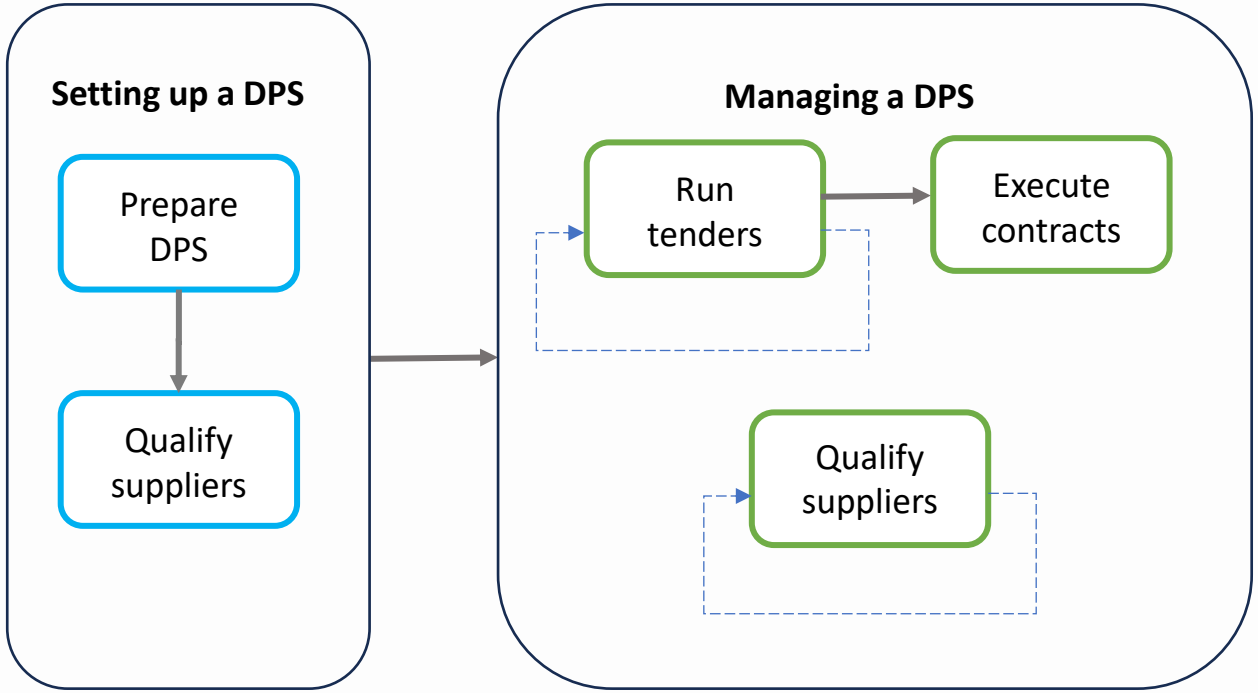
- A dynamic purchasing system (DPS) is a fully electronic procurement process for standardised goods, works or services that are generally available on the market. DPS has potential in sustainable and circular public procurement especially concerning products and services that are relatively easy to define (e.g. local and organic food).
- There are a number of benefits to utilize the DPS system instead of traditional approaches.
  - From the perspective of smaller economic operators, traditional public procurements can appear challenging to due to their bureaucracy, large volumes and binding long-term contracts. The DPS can thus enable new customer relationships between previously unknown economic operators and the public sector.
  - Using the DPS can be more economically viable, for example, in situations where intermediaries are left out of the process. In addition, a fully electronic and partially automated system can reduce the total costs of the procurement process in the long run and lower the risk of supply chain disruptions, when there are multiple suppliers.
  - The supplier can decide which calls for tender to participate in, which creates flexibility especially for economic actors, whose production can fluctuate a lot. A supplier can sign up to offer their products at any time while the DPS is active.
  - Products can be updated with each specific procurement, which allows for the procurement of more innovative products and services than before. This can be particularly important in rapidly developing areas, such as environmentally friendly products and materials.
- Possible challenges of using the dynamic procurement system:
  - DPS is still a relatively new procurement method, which is why adequate communication, training, and other support are crucial for the success of the process.
  - Setting up and managing the DPS can be time-consuming, especially in situations where there are many potential suppliers, and the selection is not automated in any way.
  - The qualified suppliers are not obligated to submit a tender, which can lead to supply chain disruptions.
  - There is no guarantee on the final prices of the products, works or services as opposed to what can be achieved in a traditional framework agreement.

Sources: European Commission 2021; Motiva 2024 (in Finnish)

3. Tools for Circular procurement

Dynamic Purchasing Systems

- Creating a dynamic purchasing system is a two-stage process.
  - In the first stage, the DPS is set up and the qualified suppliers are admitted to the system.
  - In the second (repeated) stage, the invitation to tender is sent to the suppliers for a specific procurement. The system is open to all organizations that meet the selection criteria for the entire duration of the DPS.



A dynamic purchasing system overview

Source: European Commission 2021

4. The principal steps to elaborate a circular strategy

Step 1 – Determine the current situation

- Do we already do something that supports circularity?
- What kinds of procurement processes are currently in place?
- What are our main material and money streams at the moment?

Step 2 - Set scope and targets

- What product or service categories do we want to focus on?
  - E.g. Construction and infrastructure, services, materials (food, furniture, ICT)
- What are the main targets of the procurement?
  - E.g. Longevity and durability, reusability, closing material loops
  - E.g. Reducing waste by 20% by 2030, increasing product life for at least 3 years
- What are the key performance indicators (KPIs) for determining success?
  - E.g. amount of waste or energy saved per year, amount of recycled material used

4. The principal steps to elaborate a circular strategy

Step 3 - Develop action plan

- Ideally, a document with clear, practical details on how the targets will be achieved
  - Relevant stakeholders, division of responsibilities, available resources, implementation in practice, measurement, time frame
- Training and communication within the organization
- Workshops or working groups for support and ideas
- Incentives for procuring sustainably

Step 4 - Implement action plan

- Conduct and provide regular updates and reviews to make sure things stay on track

Step 5 - Monitoring and reporting

- Review of progress towards the targets according to the measurement system set out in the action plan
- Identifying possible problems and developing solutions
- Communication of progress to internal and external stakeholders

5. European legal framework

Existing legislation and recommendations

- In January 2018, the European Commission adopted the first "Monitoring Framework for the Circular Economy", composed of ten key indicators for tracking progress in the EU and member states; this instrument has been revised in 2023 (European Commission Communication 2023/306), giving more emphasis on the production side rather than on waste and environmental footprint indicators.
- The new circular economy monitoring framework measures the direct and indirect benefits related to increasing circularity and is made up of eleven indicators, grouped into **five dimensions**:

1) Production and consumption; 2) Waste management; 3) Secondary raw materials; 4) Competitiveness and innovation , and 5) Global sustainability and resilience.

- The **eleven indicators** are:

➢ **Material consumption** (throught material footprint and resource productivity);

➢ **Green public procurement**;

➢ **Waste generation** (Total waste generation per GDP, total waste generation per capita, total generation of municipal waste, including food waste and packaging waste);

➢ **Overall recycling rates**;

➢ **Recycling rates for specific waste streams** (packaging, plastic, electrical and electronic equipment);

➢ Contribution of recycled materials to **raw-material demand**;

➢ Trade in **recyclable raw materials**;

➢ **Private investments**, jobs and gross value added in circular economy sectors;

➢ **Green innovation** (patents related to circular economy projects);

➢ **Global sustainability from circular economy** (Consumption footprint and GHG emissions from production activities);

➢ **Resilience from circular economy** (material import dependency and EU self-sufficiency for raw materials).

5. European legal framework

Existing legislation and recommendations

Therefore, in order to incorporate circular economy principles into public procurement, it is necessary to develop a planning and design that develops in particular the following elements (without neglecting the circularity profiles in any case inherent in the other indicators)

- Overall recycling rates;
- Recycling rates for specific waste streams (packaging, plastics and electrical and electronic equipment);
- Contribution of recycled materials to raw material demand;
- Trade in recyclable raw materials;
- Waste production (to be understood as reduction of waste produced for the benefit of reuse and recycling of materials).

In particular, these indicators need to be punctually translated into specific **obligations** for people who design projects and into criteria for evaluating offers for the awarding of both design assignments (contracts) and those for the realisation of works, goods and services.

5. European legal framework

Existing legislation and recommendations

Without a **good national governance,** it is not possible to identify **goals and targets** that individual public procurement should meet, such as:

- minimum % quotas of recycled products to be required (or considered at the design stage);
- the reduction in CO2 emissions to be inherent as a target in the individual contract;
- the reduction in energy consumption to be achieved in the use phases of electrical and electronic goods;
- the reduction in weight of packaging.

To maximize the objectives and targets of individual contracts, a careful **knowledge of the target market** is also necessary, i.e. a greater involvement of operators in the sector (who often have more knowledge than the public authorities).

To this end, it is certainly useful to complement the **traditional procedures** for the choice of contractor (open - restricted and negotiated procedures under Articles 27 and 28 of Directive 24/2014) with the use of a different approach offered by the **negotiation procedures** under Articles 29 - 31 of the aforementioned Directive, which allow the contracting authority to indicate the **needs** to be met and the **relevant objectives and targets**, leaving it up to the economic operator to provide the best possible operational solution to achieve these objectives.

5. European legal framework

Existing legislation and recommendations

These **innovative procedures** in fact allow economic operators to formulate their best offers before the start of the design process since:

- the identification of the best environmental solution is left to the economic operator, on the basis of a certain budget and predefined selection criteria;
- the product, process and organizational innovations necessary to achieve the environmental objectives to be pursued are the sole responsibility of the economic operators.
- all design levels are developed at a later stage in the procedure for choosing the contractor and entrusted to the economic operator who will then perform the service;

These negotiated procedures allow - without prejudice to the limits resulting from the prohibition to modify the offer - the development of a project development agreed between the public administration and the economic operator.

In a **traditional procedure**, the Public Administration and the economic operator have strongly differentiated roles and the latter is a mere executor of the service, .whose characteristics have been precisely defined by the public administration.

In an **innovative negotiated procedure**, it is the economic operator that proposes the solution and the Public Administration has the task of selecting the most suitable one to satisfy the public interest described in the document calling for the procedure.

5. European legal framework

Existing legislation and recommendations

The European Green Deal

The EU aims to be the first climate-neutral continent by 2050, achieving this by means of reducing emissions by at least 55% by 2030 compared to 1990 levels. The Green Deal is a package of policy initiatives and legally binding climate targets covering various sectors with the aim of setting the EU on the path of green transition.

- As part of the European Green Deal, the European Commission compiled the 'Fit for 55' legislation by the end of 2023. The Fit for 55 legislative package includes legally binding climate targets for the EU, covering all key sectors of the economy. The implementation is starting in the Member States.

Circular economy action plan

Adopted as an updated version in 2020, the Circular economy action plan is one of the key components of the European Green Deal aimed at reducing pressure on natural resources, creating sustainable growth and jobs, and halting biodiversity loss. It includes over 30 action points on the key themes of designing sustainable products and circularity in production processes, empowering consumers, targeting key sectors and reducing waste. The key product value chains include electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, as well as food, water and nutrients.

5. European legal framework

Existing legislation and recommendations

Corporate sustainability reporting

As part of the European Green Deal, the EU requires large companies and listed companies to publish regular reports on the social and environmental risks they face, and on how their activities impact people and the environment. It also requires companies to report information about resource use and circular economy. For this, the European Sustainability Reporting Standards (ESRS) have been adopted and the reporting requirements will be phased in over time for different companies.

EU Taxonomy

The EU Taxonomy is a financial classification system that helps direct investments to the economic activities most needed for the green transition, in line with the European Green Deal. Transition to circular economy is one part of it. It's mandatory for companies that fall under the Corporate Sustainability Reporting Directive and voluntary for others.

5. European legal framework

Existing legislation and recommendations

The EU Ecolabel

A voluntary, third-party verified scheme awarded to products and licenses that clearly demonstrate environmental excellence. It includes multiple criteria and tackles the main environmental impacts of products along their full lifecycle.

Green public procurement criteria and requirements

Green public procurement (GPP) is a voluntary instrument aimed at boosting resource-efficient economies. It relies on having clear, verifiable, justifiable, and ambitious environmental criteria for products and services, based on a life-cycle approach and scientific evidence base. As a part of the Circular economy action plan, the European Commission is proposing minimum mandatory GPP criteria and targets.

As of 2023, most European countries have a national action plan regarding green public procurement (GPP). However, since there's no binding targets for GPP in the EU, the implementation is up to each member state and can vary greatly. The main challenges to the application of GPP are lack of political support, perceived higher costs, lack of expertise, lack of coordination throughout the EU and lack of clear environmental criteria.

5. European legal framework

National action plans

Finland

- Finland has promoted voluntary green deals between the state and the business or public sector. The Finnish Ministry of Environment has ten green deals that are running in late 2023. Many of these green deal agreements coincide with the principles of circular economy, but the ones that are more clearly associated with circularity are the green deals on sustainable procurement, plastic food packages, plastics in construction, and sustainable demolition.
- Finland has also prepared a strategic program to promote a circular economy. The aim is to transform the Finnish economy into one that is based on the principles of circular economy by 2035. The Finnish government adopted the resolution on promoting a circular economy in April 2021. The program sets the objectives and indicators for the use of natural resources, specifies the measures to be taken and allocates the resources needed to promote circular economy and achieve systemic change.
- As part of the program, Finland is currently constructing a circular economy green deal. The work involves more than 80 stakeholders from different public and private sectors and focuses on scenario work mapping the current situation and the opportunities of circular economy. From the beginning of 2023, the work has focused on six most impactful types of operations to be changed that were identified in the stakeholder cooperation: resource-wise buildings, circulating soil and rock materials, resource-wise production and circulating materials, sustainable consumption business and sharing economy, resource-wise energy production and renewing food chains. The parties involved in the preparation stage will decide on their participation in the Circular Economy Green Deal with their own commitments on the basis of the information and support gained from the scenario work by the beginning of 2024.
- Finland is also updating guidelines and criteria on sustainable public procurement. The website and the criteria can be found here (in Finnish).

National action plans

Finland

FINLAND			
POLICY FRAMEWORK	**AUTHORITIES IN CHARGE OF GPP POLICY**	Ministry of Environment Ministry of Finance Ministry of Employment and Economy Association of Local and Regional Authorities	
	NATIONAL STRATEGY *or* ACTION PLAN	**NAP or National Strategy on GPP in force (Y/N):** YES **Period of validity:**	
		First National Public Procurement Strategy launched in 2020. It aims to increase the level of ecological, social and economic responsibility in public procurement and promote the achievement of ecological, social and economic goals in society. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162418/Kansallinen%20julkisten%20hankintojen%20strategia.pdf?sequence=1&isAllowed=y	
	GPP TARGETS	**National level** In all government procurements, the goal is a comprehensive solution, which promotes energy and environmental goals and utilises cleantech solutions in the most economically advantageous way. More detailed targets for different product areas: food and catering, vehicles and transports, construction, energy, services, energy related products.	**Sub-National level:**
	LINKS WITH OTHER POLICIES (Sustainability, Innovation…)	There is a national focus on public procurement of clean technology, resource efficiency, circular and bio-economy.	
MANDATORY RULES ON GPP USE		Government decision in principle, on the promotion of environmental and energy solutions in public procurement, is binding for central government bodies.	
IMPLEMENTATION	**WEBSITES**	www.motivanhankintapalvelu.fi/tietopankki	
	GPP CRITERIA	**Are GPP criteria developed at the national level (Y/N)?** YES	
		Are national GPP criteria based on EU GPP criteria? YES	
		For which product groups have national GPP criteria been developed: Guidance and criteria for 18 procurement areas www.motivanhankintapalvelu.fi/tietopankki Professional kitchen equipment, Foods, Energy saving services, Cars and vans, IT and Office equipment, public transport, Furniture, Transport service, Thermal entrepreneurship, own energy production, Construction and buildings, Food services, cleaning services and techno chemical products, Energy, Textiles, Work machines, Lighting and Refrigeration equipment.	**For which product groups are GPP criteria currently under development:**
		For which product groups are EU GPP criteria recommended: EU GPP criteria are used as a basis for national guidelines and criteria.	
	TCO/LCC TOOLS DEVELOPED/USED	LCC tool for lighting under development	
	OTHER INITIATIVES (e.g. Labels, PPI)	Guidance on energy efficiency and market communication	
	CAPACITY BUILDING	**TRAINING** (workshops, conferences, helpdesks, publications etc.)	Free of charge Helpdesk and training http://www.motivanhankintapalvelu.fi/in_english
		COOPERATION at national and sub-national level (Platforms, forums, networks, etc.)	Eco-procurement network
		INTERNATIONAL COOPERATION	**Nordic cooperation**
MONITORING **How is monitoring performed?** (Automatically, On-line forms, surveys…) **What is monitored** (Tenders, contracts, purchases, practices…)? **Who is monitored** (central, regional, local authorities)? **Which product groups? Which criteria** (EU GPP criteria/National criteria)? **Results from the latest monitoring exercise**		Monitoring by examining tender calls and by questionnaire in 2012 and 2017. Around half of the municipalities considered sustainability goals in their procurement strategy or other procurement instructions. Sustainability goals are often set at a fairly general level and only around one fourth of the municipalities had defined more detailed sustainability criteria in their procurement strategy or instructions.	

5. European legal framework

National action plans

Italy

Green Public Procurement is one of the tools outlined in the National Strategy for the Circular Economy, approved by Italy in 2022, to succeed in achieving certain targets for the transition to the circular economy: the increase to 60 percent, by 2030, of waste recycling and reuse or the containment, by 2035, to 10 percent of waste disposed in landfills.

In order to make the best use of the **Green Public Procurement tool**, for the purpose of achieving circular economy targets, the **Italian Action Plan** aims to:

- intervene in the definition and updating of Minimum Environmental Criteria (MEC) in strategic sectors for the circular economy (electronics and telecommunications, batteries and vehicles, packaging, plastics, textiles, construction and building, food, water and nutrients);
- Accelerate the procedures for updating MEC to take into account technological developments in the sector, ensure the supply of products and services needed to meet demand from the public administration, and improve the environmental impact to be pursued through the valorization of all materials;
- strengthen the technical capacity of contracting authorities in the application of MEC, establishing requirements that, in line with technological progress, ensure the sufficient presence of products and services in the market and a significant improvement and environmental impact;
- create greater synergy between the “End of Waste” regulations and the production and updating of MEC;

5. European legal framework

National action plans

Italy

- strengthen consultation with industry in the MEC drafting and approval process;
- provide for a streamlining of the bidding process, through the submission by economic operators of self-declarations and commitments when awarding;
- enhance within the MEC, at least in the rewarding criteria, voluntary schemes developed by the industry, according to rules that are a guarantee of transparency and seriousness;
- incentivize investments by companies (especially small and medium enterprises) to improve the environmental performance of their products and services;
- increase training initiatives aimed at companies;
- introduce a supervisory system so that MEC is effectively integrated into public tenders and correctly applied;
- establish an observatory with the task of monitoring the expenditure made through MEC and the environmental benefits obtained;
- enhance the evaluation of TCO (total lifetime cost) in procurement to support initiatives aimed at greater durability of purchases.

Some of these goals could be achieved more easily, if there were more widespread adoption of **marks or labels**, which are themselves certified, that guarantee a product with regard to the use of materials from recycling.

5. European legal framework

National action plans

Italy

The Minimum Environmental Criteria MEC are dictated for specific sectors of intervention and are binding in Italy as they are transposed in specific regulatory sources.
The MECs are divided in two levels:

1. **basic level**: this level is mandatory and operates in the design phase. The acquisition and respect of this level must therefore be ensured at the time of validation and approval of the project;
2. **high level**: this level is optional and can be incorporated within the award criteria for the selection and evaluation of tenders.
   The structure and functioning described above make MECs a valuable tool to develop sustainability issues from the beginning of the design process to the moment of defining the criteria for the selection of bidders and evaluation of offers.

Therefore, although these are **only binding in Italy**, **they can also be used in other countries** through their transposition in the contract between Contracting Authority and designer. In the Italian legislation the MEC report (if present) is an element of the planning and therefore through these the structural connection is guaranteed for all phases of the process up to the awarding.

The **Minimum Environmental Criteria (MEC)** have already defined environmental requirements to strengthen the circular economy, through the adoption of minimum recycling percentages, disassemblability or preference for ecodesign.

- The goal of strengthening the circular economy through the adoption of **"circularity criteria"** in public procurement concerns all product categories, but in particular the following **five product categories**: public buildings collective catering paper and printing services events waste services
- “Circularity criteria" are identified in each individual document for product categories with Minimum Environmental Criteria (MEC):

-MEC **Indoor furniture**
-MEC **street furniture**
-MEC **shoes**
-MEC **paper**
-MEC **toner cartridges**
-MEC **Construction**
-MEC **Events**
-MEC **Supply and Design Public Lighting**
-MEC **Cleaning and sanitization**
-MEC **Waste**
-MEC **Collective catering**
-MEC **Refreshment Services and Beverage Distribution**
-MEC **Printing services**
-MEC **Textiles**
-MEC **Vehicles**
-MEC **Public green**

National action plans

Italy

MEC (Minimum Environmental Criteria)

1. CANDIDATE SELECTION → *These are subjective qualification requirements aimed at assessing the technical capability of the candidate to execute the contract in the most environmentally friendly way. These criteria are not mandatory according to the Contract Code.*

2. CONTRACT CLAUSES → *Indications to award work or supply contracts with environmental care. They are implemented through mandatory criteria pursuant to the Contract Code.*

3. TECHNICAL SPECIFICATIONS → *They define the expected characteristics of the works or supplies and are implemented through mandatory criteria pursuant to the Contract Code.*

4. IMPROVEMENT-AIMED CRITERIA → *Indications for the selection of products with better environmental performance than those required by the tecnichal specifications (above), to which a technical score is attributed for the purpose of awarding according to the offer with the best value for money.*

The improvement-aimed criteria are not mandatory.

National action plans

Italy

ITALY			
POLICY FRAMEWORK	AUTHORITIES IN CHARGE OF GPP POLICY	Ministry of Environment - Ministero della Transizione Ecologica	
	NATIONAL STRATEGY *or* ACTION PLAN	**NAP or National Strategy on GPP in force (Y/N):** YES **Period of validity:** there are no terms of validity.	
		A national action plan on GPP has been adopted by Ministerial Decree of 11th April 2008. The first revision of the NAP has been approved by Ministerial Decree of 10th April 2013: http://www.minambiente.it/pagina/il-piano-dazione-nazionale-il-gpp-pan-gpp The second revision is under consultation	
	GPP TARGETS	**National level** Under art. 34 of the Legislative Decree 50/2016 on public procurement and concessions, as amended by art. 23 of the Legislative Decree 56/2017, the application of the Minimum Environmental Criteria set within the GPP NAP is mandatory for all kind of contracting authorities, for the whole value of the tender, and also for procurement below the threshold amounts fixed by the Directives on public procurement and concessions.	**Sub-National level:** The mentioned obligation applies to all kinds of contracting authorities.
	LINKS WITH OTHER POLICIES (Sustainability, Innovation...)	Guidelines on social criteria in PP have been adopted by Ministerial Decree of 6 June 2012 and defined within the GPP NAP, referring to a monitoring system on the respect of ILO Conventions along the supply chain. In some MEC PGs under development, social criteria are included.	
MANDATORY RULES ON GPP USE		Under art. 34 of the Legislative Decree 50/2016 on public procurement and concessions, as amended by art. 23 of the Legislative Decree 56/2017, the introduction of at least the technical specifications and the contract clauses of the Minimum Environmental Criteria is obligatory in tender documents, regardless of their value, so also for procurements below the threshold amounts. Also the award criteria must be taken into account when a contracting authority awards the contract with the best quality price ratio. A specific exception is foreseen for renovation, demolitions and rebuilt, contracts.	
IMPLEMENTATION	WEBSITES	**National level** http://www.minambiente.it/pagina/gpp-acquisti-verdi	**Sub-National level:** Several local authorities' websites have a section dedicated to GPP
	GPP CRITERIA	**Are GPP criteria developed at the national level (Y/N)?** YES	
		Are national GPP criteria based on EU GPP criteria? (please specify if to a great, some, small or no extent): Yes, EU GPP criteria and Ecolabel criteria are the main reference documents.	
		For which product groups have national GPP criteria been developed: 18 categories: Interior furnishings, street furniture, Incontinence aids, Work shoes and leather accessories, Paper, Cartridges, Building, Cultural events, public lighting (supply, design and service), heating and cooling for buildings, Industrial washing and rental of textiles and mattresses, Municipal waste and street sweeping, Collective catering, Disinfection, Printers, Textiles, Vehicles, Public green areas. https://gpp.mite.gov.it/Home/Cam#CamInVigore	**For which product groups are GPP criteria currently under development:** Design and work services for new road construction and maintenance, Supply and rental of textiles products, Food and drink sales services (indoor bars and vending machines), Street furniture, public transport services, Energy services for buildings
		For which product groups are EU GPP criteria recommended:	
	TCO/LCC TOOLS DEVELOPED/USED	The LCC methodology set by directive 33/2009/EC for buying, leasing and renting of buses and certain CO2 limits for other vehicle categories, is mandatory.	
	OTHER INITIATIVES (e.g. Labels, PPI)	Law 211/2015 provides the development of an environmental label based also on MEC.	
	CAPACITY BUILDING	**TRAINING** (workshops, conferences, helpdesks, publications etc.)	The Ministry of the Environment and Protection of Land and Sea will launch an information and training plan with the support of National Operational Programme on Governance and Institutional Capacity funds, which was recently approved. Events, seminars and workshops on GPP are organised at national and local level. Available also at central level: a website on GPP hosted on the Ministry of Environment's website, a helpdesk service provided by the Ministry of Environment, since December 2015 a monthly newsletter on GPP, a handbook on Minimum Environmental Criteria (Ministry of environment). Some trainings are carried out by the Let's Create PA Project.
		COOPERATION at national and sub-national level (Platforms, forums, networks, etc.)	The Ministry of Environment signed an agreement with Regions to improve training programs and action to facilitate GPP application. Furthermore, another agreement has been signed between metropolitan cities with same scope.
		INTERNATIONAL COOPERATION	Italy is member of several projects on GPP co-financed by EU funds. GPP Advisory group
MONITORING **How is monitoring performed?** (Automatically, On-line forms, surveys...) **What is monitored** (Tenders, contracts, purchases, practices...)? **Who is monitored** (central, regional, local authorities)? **Which product groups? Which criteria** (EU GPP criteria/National criteria)? **Results from the latest monitoring exercise**			An electronic monitoring system is in place since 2010 but no useful data were collected by it. Legislative Decree 56/2017 states that the National Anticorruption Authority (ANAC) must monitor the application of Minimum Environmental Criteria. A specific cooperation with National Anticorruption Authority has been proposed by Ministry of environment on this topic.

National action plans

Spain

SPAIN				
POLICY FRAMEWORK	**AUTHORITIES IN CHARGE OF GPP POLICY**	**1. General Administration** At State level, policy is designed by Inter-ministerial Commission, headed by the Ministry of Agriculture, Food & Environment and the Ministry of Finance and is implemented by all the ministries.	**2. Autonomous Communities** At regional level, each Autonomous Community (regional government) has capacity to implement and promote GPP by its own	**3. Local Entities** (Municipalities, Local City and Island Councils, other Local Entities) have the competence to promote GPP)
	NATIONAL STRATEGY *or* ACTION PLAN	**NAP or National Strategy on GPP in force (Y/N):** YES		**Period of validity:** 2018 - 2025
		National level: The first Green Public Procurement Plan of the State General Administration and its Public Entities and the Managing Bodies of the Social Security was approved the 21st January 2008 and published in the B.O.E the 31st January 2008. http://www.boe.es/boe/dias/2008/01/31/pdfs/A05706-05710.pdf. The new Green Public Procurement Plan for the General State Administration, its autonomous bodies and Social Security management bodies was approved the 31st of January 2019. It promotes the incorporation of social and environmental clauses in public procurement, in accordance with current legislation at all times, and encourages the incorporation of environmental criteria. https://www.boe.es/eli/es/o/2019/01/31/pci86/con Strategic use of public procurement: a report based on this was published in 2023, where its shown the state-of-play on Strategic Public Procurement. https://www.hacienda.gob.es/RSC/OIReScon/informes-especiales-supervision/ies-contratacion-estrategica2023.pdf		**Sub-National level:** **Autonomous Communities** Government agreements of some Autonomous Communities to promote GPP (Basque Country, Catalonia,...)
	GPP TARGETS	**National level** Levels of green purchase between 25% and 100% depending on the product group and implementation phase. 8 product groups have been included, according to the priority groups of the EU Commission, along with a timescale for achieving specific targets. Targets for consumption reduction and energy mix have also been set		**Sub-National level:** Barcelona: https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/125812/1/GM_DA_PlaContractaci%C3%B3Sostenible_2022.pdf
	LINKS WITH OTHER POLICIES (Sustainability, Innovation...)			
MANDATORY RULES ON GPP USE		Barcelona: - 2013 Government Measure and Decree for Responsible Public Procurement with Social and Environmental Criteria - 2015 Decree approving the procedure for implementation of environmental criteria according to the provisions of the 2-13 Decree (Mandatory use of the environmental criteria developed by the Government + sustainable programme).		
IMPLEMENTATION	**WEBSITES**	**National level** http://www.magrama.gob.es/es/ministerio/planes-estrategias/plan-de-contratacion-publica-verde/default.aspx		**Sub-National level:** Aragon – Link to GPP site / Asturias – Link to GPP site Catalonia – Link to GPP site / Basque Country – Link in Euskadi, in Spanish and in English **Local Entities** Barcelona City + sustainable: GPP – in Spanish and English

National action plans

Spain

	GPP CRITERIA	**Are GPP criteria developed at the national level (Y/N)?** YES	
		Are national GPP criteria based on EU GPP criteria? (please specify if to a great, some, small or no extent):	
		For which product groups have national GPP criteria been developed: Construction and maintenance, energy, transport, office equipment, paper and publications, furniture, cleaning products and services, events.	**Sub-National level:** In Catalonia, the Government Agreement on Public Procurement is based on the EU GPP criteria GPP criteria development in the Basque Country is based on market consultation of mainly the EU GPP criteria
		For which product groups are EU GPP criteria recommended:	
	TCO/LCC TOOLS DEVELOPED/USED		
	OTHER INITIATIVES (e.g. Labels, PPI)		
	CAPACITY BUILDING	**TRAINING** (workshops, conferences, helpdesks, publications, etc.)	**1. General Administration** GPP Training is performed by the MoE (with the support of private institutes like Ecoinstitut) for contracting authorities of the different departments from the national government and its public entities. Awareness raising seminars on GPP have been organised by the MoE during 2010 for entities at central, regional and local level A helpdesk has been established by the MoE **2. Autonomous Communities** Some Autonomous Communities have included specific training courses on GPP in the official training programme of the autonomous schools for public administrations (Basque Country, Catalonia, Canary Islands...). In the Basque Country, Ihobe runs a helpdesk which offers greening of tenders for all basque public administrations. Training of trainers has been carried out in Catalonia and the Basque Country with the support of Ecoinstitut Basque country GPP manual - in Spanish & Euskara (IHOBE Basque Agency for Environmental Management- Basque Government). The guide not only includes green criteria for tenders in line with the EC (for more than 24 products) but also recommends rationalising procurement needs, information for bidders and many Basque good practices. Other guidelines on GPP, have been published in Aragon, Andalucia and other Spanish regions Navarra – Guía contratación publica sostenible; Guía para la Incorporación de criterios sociales **3. Local Entities** The whole staff of the Environmental Department of the Barcelona City Council has been trained in good environmental practices at work as part of the "+SCC Programme". The City of Madrid published internal GPP Guidelines
		COOPERATION at national and sub-national level (Platforms, forums, networks, etc.)	Networks of local authorities in Catalonia, the Basque Country, Navarra and Andalucia are carrying out awareness raising activities and training on GPP.
		INTERNATIONAL COOPERATION	

MONITORING **How is monitoring performed** (Automatically, On-line forms, surveys...)? **What is monitored** (Tenders, contracts, purchases, practices...)? **Who is monitored** (central, regional, local authorities)? **Which product groups? Which criteria** (EU GPP criteria/National criteria) **Results from the latest monitoring exercise**	The Departments shall send to the Ecological Transition information on the degree of implementation of the ecological criteria in the contracts formalised in that period, in order to monitor the activities carried out and review the results obtained. All the results are published at: https://www.miteco.gob.es/es/

5. European legal framework

Development prospects

Over the last 20 years, the share of recycled material in the European economy has increased only slightly and the pace has slowed since 2010, with some countries - Finland among them - even facing a decreased recycled material use rate. In 2020 Italy was the fourth largest producer of waste in the EU, with Finland and Spain not too far behind. However, Finland was the largest producer of waste per capita, mainly due to high mineral waste rate from mining and quarrying. Despite producing high amounts of waste, Italy has the highest share of recycling in total waste treatment, with Spain not too far behind and Finland as the sixth lowest recycler of waste.

As of 2023, only nine EU member states are on track to meet the main recycling targets for municipal waste and packaging waste for 2025, and 18 are at risk of missing one or more of them. The EU is still quite far from its target to double recycled material use by 2030. Reaching this target would require a combination of reducing the use of new material and fossil fuels, increasing the rate of recycled material and increasing resource efficiency within a very short time, which can be challenging. (EEA, 2023.)

According to the EEA, countries that perform better in terms of recycling have wider ranges of measures in place compared to those with lower recycling rates. Top countries also have economic instruments such as landfill and incineration taxes, and waste collection fees that strongly encourage recycling. The EEA also found that high levels of national environmental awareness contributed to high recycling rates in addition to the effective roll-out of national waste management legislation.

With this situation it's likely that more laws and regulations will be developed to speed up the transition to circular economy and meet the set targets. As mentioned before, the European Commission is proposing minimum mandatory GPP criteria and targets in sectoral legislation and phase in compulsory reporting to monitor its uptake (European Commission, N/A). In addition, the voluntary criteria is updated frequently. The ESRS requirements related to corporate sustainability reporting will be phased in as well.

6. How to incorporate circular economy in the different phases of the procurement process

Overview of the procurement process

Identifying the public contract management process: The stages

Green Public Procurement (GPP) was defined at EU level already in 2008 and circularity criteria in purchasing processes has several benefits they are still not used in every case. There are many reasons for it, but perhaps the three most important are:

- **lack of training of procurement personnel**
- **difficulties in drafting tender documents**;
- **the lack of companies with environmental and social requirements**

(The annual survey of the Green Procurement Observatory by the Ecosistemi Foundation and Legambiente , Italy).

To address and overcome these critical issues, the first indispensable step is to analyse the procurement process in order to

- identify and analyse the individual stages that make up the process of realising a public contract
- identify, within the path indicated above, the space that must be reserved in each stage for the themes of ecological transition and circularity.

On the other hand, it is not possible to concretely and perfectly identify the documents and contents that must be developed by the operators for achieving the goals and objectives.

6. How to incorporate circular economy in the different phases of the procurement process

Overview of the procurement process

First of all, it is necessary to identify the stages of the process, which can be described as follows: planning, designing, awardind, execution and testing. Even if we have divided the public procurement in various stages, we don’t have to consider these elements as if they were structurally separable and chronologically distinct. The entire process, on the contrary, must be considered as one unity, where each stage is linked to the previous one and to the next, coherently with the very concept of **'life cycle'** that imposes the evaluation of environmental and social aspects in all stages during the entire life cycle goods, services and works.

This **unitary approach** must be maintained even though

- the different stages are identified and can be governed by different units of the organization.
- Community law regulates only the phase of awarding while those of planning, design and management of the contract are reserved to existing domestic law.

6. How to incorporate circular economy in the different phases of the procurement process

How the circularity can be included into the planning stage?

It is necessary to identify the questions, objectives and instruments that are related to the contract and to the type of needs to be met, in order to identify what the outcome of the planning stage should be:

Examples of the questions

- Which needs do we want to satisfy: do we necessarily have to activate public procurement or is it possible to avoid it by repairing or renegerating the product or reusing an old product in a new purpose.
- Which type of contract should we activate? Buy or hire or make a contract of a servece?
- Which environmental constraints must we comply with, taking into account the European taxonomy of sustainable finance, and can we improve the purchase with some taxonomy criteria?

Examples of the ohjectives

- The use of virgin raw materials must bedecreased
- The use of recycled materials must be increased
- Waste generation must be decreased
- Goods, services and works life cycle must be increased
- Energy consumption must be reduced, optimised and the energy must be renewable
- Priority must be given to the purchase of services and works rather than goods
- Choices must be made consistent with the principles of carbon neutrality and reduced water consumption

Examples of the criteria used

- Do No Significant Harm principles (DNSH)
- The Minimum Environmental Criteria (MECs)
- Enhancement of procedures involving economic operators in the design of the goods, service or work to be purchased;
- Development of the life cycle criterion as an element of tender design and selection

Examples of the outputs

- An analysis of the needs to be met and the state of art
- The objectives and indicators of the service covered by the contract
- Possible design alternatives
- Analysis of DHSHs and MECs
- Analysis of areas relevant to transition
- Broad economic framework (life cycle costs)

Acquiring these elements already at the planning stage and adequately answering the questions above are mandatory when promoting circulairty.

6. How to incorporate circular economy in the different phases of the procurement process

The critical choices are made in the very beginning

It is essential that already at the planning stage the above-mentioned elements are considered to ensure the subsequent development of the process and to strengthen the issues of circularity.

In fact, if the **traditional procedures** (open and restricted procedure) are used, this phase will have to conclude with a document containing all the data necessary to execute the design internally.

If, on the other hand, **innovative awarding procedures are used**, this phase must develop the contents of the call for tenders document provided for in Articles 29, 30 and 31 of Directive 24/2014.

In both cases, it is essential that the following issues are taken into account as soon as the first economic framework is defined:

Operational choices	**Definition of guidelines and objectives for the design of the intervention**	**Approval of the 1st economic prospect**
1. What needs do we want to satisfy: do we necessarily have to activate public procurement or can we make efficient / regenerate / reuse? 2. Which type of contract should we activate? E.g. buy or rent? 3. Which environmental constraints do we have to comply with, taking into account the European taxonomy of sustainable finance?	1. Development of the life cycle criterion as a design element of tender selection 2. The use of virgin raw materials must brdecreased 3. The use of recycled materials must be increased 4. Waste generation must be decreased 5. Goods/services/works life span must be increased 6. Energy consumption must be reduced, optimised andenergy must be renewable 7. Priority must be given to the purchase of services rather than products 8. Choices must be made consistent with the principles of carbon neutrality and reduced water consumption	Already at this stage, the economic prospect must be structured in such a way that the **environmental objectives can be achieved**

6. How to incorporate circular economy in the different phases of the procurement process

Which documents and contents are to be developed in the planning phase?

A precise identification of the documents is not possible, as it is conditioned by the regulations in force of the case. On the other hand, it is possible to outline the contents by emphasising the differences arising from the different procedures for selecting the contractor.

In any case, although these aspects are not all connected with circularity in the strict sense, they must be included as early as at the preliminary stage, which varies according to the type of contractor selection procedure.

<table>
<tr><th colspan="4">PRELIMINARY STAGE</th></tr>
<tr><th colspan="4">TRADITIONAL PROCEDURES : OPEN AND RESTRICTED PROCEDURE</th></tr>
<tr><td>Context analysis and purpose of the intervention</td><td>Identifying of design alternatives</td><td>Definition of guidelines for design development</td><td>approval of the 1st general economic prospect</td></tr>
<tr><td>Environmental objectives involved in the provision (goods/services/works) to be designed and executed</td><td>To identify the one with the best economic, social and environmental cost-benefit ratio</td><td>Identifies the life cycle of the goods/services/works
acknowleges the technical specifications deriving from MEC and DNSH to be developed in the design
indicates the environmental, energy and social performance objectives associated with the performance
outlines the technical specifications of the materials focusing on recycling/reuse both in the construction and end-of-life phases</td><td>The 1st economic prospect must be developed considering
the financial profiles linked to the accounting nature of the planning
the life cycle costs to be developed in the design and contracting phase of the intervention</td></tr>
<tr><td colspan="4">In the case of outsourced design, these documents must be material available to the bidders and the special design tender specifications must strictly contain the environmental indicators and standards that are subject of design development. The design contract should also focus (in terms of award criteria) on the solutions adopted in the field of GPP and circularity.</td></tr>
<tr><td colspan="4">Even if these are preliminary documents, they play a fundamental role throughout the development of the process. In fact, it is already at this stage that all potential applications of the tools favouring a "circular" approach should be identified.</td></tr>
</table>

6. How to incorporate circular economy in the different phases of the procurement process

Which documents and contents are to be developed in the planning phase?

PRELIMINARY STAGE			
INNOVATIVE PROCEDURES : COMPETITIVE DIALOGUE, COMPETITIVE PROCEDURE WITH NEGOTIATION			
Context analysis and purpose of the intervention	Specific technical objectives to be pursued in the environmental field and related indicators	Definition of guidelines for the award	Identification of available resources
- environmental objectives involved in the provision (goods/services/works) to be designed and executed	- indicates the environmental, energy and social performance objectives associated with the performance - outlines the technical specifications of the materials focusing on recycling/reuse during both construction and end-of-life	- ascertains the technical specifications stemming from the MEC and DNSH to be developed in the tendering phase - the requirements for the selection/qualification of operators are identified. (Qualification Art. 58 dir. 24/2014) - tender selection criteria are identified	-identifies the life cycle of the goods/services/works - resources available to meet the identified needs are indicated.
The phase of identifying possible project alternatives does not seem necessary because it must be determined with reference to the proposals of the economic operators.			
Both the qualification requirements and the selection criteria can be developed with the aim of rewarding circularity ecological transition profiles.			
These are preliminary documents, but play a fundamental role in the whole development of the process. In fact, this phase has to be concluded with the definition of the contents of the document for launching the tender (notice/document) referred to in Art. 29, 30 or 31 of Directive 24/2014.			

6. How to incorporate circular economy in the different phases of the procurement process

The stages of designing, awarding and verification of requirements

In the case of open and restricted procedures (traditional procedures), design may:

1. Be entrusted to an external professional through a competitive or direct procedure.
2. Be carried out internally.

In the first case, the procedure for selecting the external professional must:

1. Provide selection criteria that require the competitors to formulate project proposals inspired (also) by the themes of sustainability and circular economy and therefore allows already at this stage to define indicators and targets referring to the dimensions of circularity;
2. Include a specification (contract/capitulate) in which the services are adequately regulated also with reference to sustainability-related profiles;

In the second case, the same issues must be managed according to the internal rules of the individual administrations.

It could be useful, at the end of the planning phase, to summarise all the data linked to the sustainability when promoting the principles of circularity.

In fact, it is important to emphasise that circularity is not only one of the objectives but is also a tool and a set of principles structurally connected with sustainability issues.

6. How to incorporate circular economy in the different phases of the procurement process

The stages of designing, awarding and verification of requirements

Regardless of the different national disciplines, the design stage must lead to the analytical definition of the overall quality, technical functional, environmental, social and aesthetic characteristics of the product to be purchased, without exceeding the limit of the financial resources of the goods, services or works to be purchased.

Planning and the early design stages have the task of individualising, introducing and addressing the first and general issues, while more detailed designing has the task of:

- Defining a general framework (design) and setting all the standard objectives and targets to comply with the circular economy.
- Defining the public purchasing process in such a way that the above mentioned are achieved.

6. How to incorporate circular economy in the different phases of the procurement process

Sustainability report

Regulation on the establishment of a framework to facilitate sustainable investment, Taxonomy Regulation, (Article 13 of Regulation (EU) 2020/852) lists the following **twelve ways** in which a given economic activity improves the circular economy:

1. Uses natural resources, including sustainably sourced bio-based and other raw materials, in production more efficiently, including by: (i) reducing the use of primary raw materials or increasing the use of by-products and secondary raw materials; or (ii) resource and energy efficiency measure.
2. Increases the durability, reparability, upgradability or reusability of products, in particular in designing and manufacturing activities.
3. Increases the recyclability of products, including the recyclability of individual materials contained in those products, inter alia, by substitution or reduced use of products and materials that are not recyclable, in particular in designing and manufacturing activities.
4. Substantially reduces the content of hazardous substances and substitutes substances of very high concern in materials and products throughout their life cycle, in line with the objectives set out in Union law, including by replacing such substances with safer alternatives and ensuring traceability.
5. Prolongs the use of products, including through reuse, design for longevity, repurposing, disassembly, remanufacturing, upgrades and repair, and sharing products.
6. Increases the use of secondary raw materials and their quality, including by high-quality recycling of waste.
7. Prevents or reduces waste generation, including the generation of waste from the extraction of minerals and waste from the construction and demolition of buildings.
8. Increases preparing for the re-use and recycling of waste.
9. Increases the development of the waste management infrastructure needed for prevention, for preparing for re-use and for recycling, while ensuring that the recovered materials are recycled as high-quality secondary raw material input in production, thereby avoiding downcycling.
10. Minimises the incineration of waste and avoids the disposal of waste, including landfilling, in accordance with the principles of the waste hierarchy.
11. Avoids and reduces litter.
12. Enables any of the activities listed in points (a) to (k) of this paragraph.

6. How to incorporate circular economy in the different phases of the procurement process

Sustainability report

The procurement process of goods, services and works can be improved by including a **sustainability report** into the process. It helps to ensure that all aspects – overall quality, environmental, social and governmental - are foreseen, required, delivered and controlled at all stages. The sustainability report must contain:

- The description of the primary objectives of the work in terms of results for the communities and territories involved, through the definition of the long-term benefits that may actually result, while minimising negative impacts;
- The identification of the main stakeholders and the methods of their involvement in the design, authorisation and realisation phase of the work, in coherence with the results of the public debate
- Verification of any significant **contributions** to at least one or more of the following **environmental objectives**, as defined within the framework of Regulations (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 and 2021/241 of the European Parliament and of the Council of 12 February 2021, taking into account the life cycle
    - climate change mitigation
    - adaptation to climate change
    - transition to a circular economy
    - pollution prevention and reduction
    - protection and restoration of biodiversity and ecosystems.
- **A Carbon Footprint assessement** and the contribution to the climate objectives
- **A life cycle assessment**, following the international methodologies and standards (**Life Cycle Assessment – LCA**
- An analysis of the **overall energy consumption** with reference to bioclimatic design criteria
- The definition of measures to **reduce the quantities of external supplies** and options for **more sustainable modes of transport** of materials to/from the production site to the construction site
- An assesment of the **socio-economic impacts** of the project, with reference to the promotion of **social inclusion**, the **reduction of inequalities** and **territorial gaps** and the improvement of citizens' quality of life
- The identification of measures for the protection of **decent work**, in relation to the entire subcontracting chain
- The use of **innovative technological solutions**

6. How to incorporate circular economy in the different phases of the procurement process

Sustainability report

The Sustainability Report should include all aspects of the circular economy:

All **cradle-to-gate** processes for materials and services used in construction must be included (rules for determining their impacts and aspects are defined in EN 15804:2021 Sustainability of construction - Environmental Product Declarations (EPDs) - Product Category Development Framework Rules (PCRs)).
Production of **building materials** :

- the extraction of materials needed for the work
- the transport
- the manufacture of intermediate products/components

Transport to and from the site:

- the transport of materials from the factory gate to the construction site, including intermediate storage and distribution
- the transport of owned or hired construction equipment (cranes, scaffolding, etc.) to and from the site, not the transportation of people

Construction:

- excavation, storage
- transport of materials within the site, products, waste and equipment within the site
- temporary works
- on-site production and processing of a product; energy and water supply
- auxiliary materials
- oils and fuels for construction machinery or for cleaning on site
- waste management

Phase of use:

- products and services for the operation or control of the building (heating, cooling, lighting, water supply and internal transport (lifts and escalators);
- products and services for maintenance, including cleaning, repair, replacement of parts and renovation

End of life:

- all processes of demolition and transport of waste and rehabilitation of the area, i.e. until the site is ready for future use
- deconstruction and selective demolition
- transport of materials to recovery facilities (preparation for re-use, recycling, energy recovery) or to landfill

6. How to incorporate circular economy in the different phases of the procurement process

Below are some examples that relate, for different environmental aspect identified by the environmental taxonomy, the relationship between general objectives, operational objectives, calculation methodologies and quantitative indicators.

Regarding **climate change mitigation**:

European environmental objectives	Regulation 852/2020	Substantial contribution of a service (renovation of a hospital)	Calculation methodologies	Quantification of substantial contribution (environmental indicators)	
				Before	After
Climate change mitigation	The production, transmission, storage, distribution or use of renewable energy	Forecast photovoltaic, geothermal, etc. plant for self-generation, storage and also distribution of excess energy produced	Carbon footprint (COM 373/2021)	20% of renewable energy 800 Kw/h/m2/year GWP: 1500 CO2 eq/year	100% of renewable energy 43 Kw/h/m2/year GWP: 2 kg CO2 eq/year
	The building energy efficiency improvement	major renovation of the first level (NZEB)			
	The increase in clean or climate-neutral mobility	Organization of logistics with electric vehicles (including ambulances) Parking electric cars, bikes, car sharing with electric cars	Carbon footprint (COM 373/2021)	GWP …	GWP …
	A shift to the use of renewable materials of sustainable origin	Use of renewable materials in renovation	EPD of product	GWP …	GWP …
	The enhancement of soil carbon sinks(forest restoration, cropland restoration, etc.) afforestation and regenerative agriculture	Afforestation forecast, 3 hectares	Carbon footprint (COM 373/2021)	CO2 avoided/year …	CO2 avoided/year …

GWP before: 3.000 CO2 eq/year → GWP after20 t CO2 eq/year
significant impact according to the COM 373/2021: 20.000 t/year of CO2 eq

6. How to incorporate circular economy in the different phases of the procurement process

Regarding **climate change adaptation**:

European environmental objectives	Regulation 852/2020	Substantial contribution of a service (renovation of a hospital)	Calculation methodologies	Quantification of substantial contribution (environmental indicators)	
				Before	After
Climate change adaptation	Includes adaptation solutions that substantially reduce the risk of adverse effects of current and future climate on economic activity, people and nature	Based on the climate risk analysis, climate adaptation solutions are identified to make the building and essential components (energy infrastructure, water, access roads, etc.) climate resilient	Climate risk analysis (screening and any detailed analysis) COM 373/2021	Characterization of the work in the actual state: no climate change adaptation measures --------- Vulnerability: high	Prediction of climate change adaptation measures (physical and nonphysical) and verification of vulnerability, down to low or no vulnerability -------- Vulnerability: low or zero
	Provides adaptive solutions that contribute substantially to preventing or reducing risk	N/A	N/A	N/A	N/A

Before vulnerability high → After vulnerability low or zero

6. How to incorporate circular economy in the different phases of the procurement process

Regarding **protection of water and marine resources**:

European environmental objectives	Regulation 852/2020	Substantial contribution of a service (renovation of a hospital)	Calculation methodologies	Quantification of substantial contribution (environmental indicators)	
				Before	After
Protection of water and marine resources	Protection of the environment from the adverse effects of urban and industrial wastewater discharges, for example by ensuring the proper collection, treatment and discharge of urban and industrial wastewater	Design of the renovation of collection and treatment facilities		Characterization of the state of affairs and analysis of critical issues	Identification of improvement interventions and post operam characterization to demonstrate
	Improving water management and efficiency, including by protecting and improving the status of aquatic econosystems, promoting the sustainable use of water through the long-term protection of available water resources, including through measures such as water reuse, ensuring the progressive reduction of pollutant emissions to groundwater and surface water, etc.	Design of an efficient water distribution system with water-saving devices (building MEC)	Water footprint (ISO 14046)	Water footprint m3 water/year 10.000	Water footprint m3 water/year 2.000

6. How to incorporate circular economy in the different phases of the procurement process

Regarding **protection and restoration of biodiversity and ecosystems**:

European environmental objectives	Regulation 852/2020	Substantial contribution of a service(renovation of a hospital)	Calculation methodologies	Quantification of substantial contribution (environmental indicators)	
				Before	After
Protection and restoration of biodiversity and ecosystems	The conservation of nature and biodiversity including by achieving a satisfactory conservation status of natural and semi-natural habitats and species, or preventing their deterioration Conservation of the capacity to provide ecosystem services	Design of green and blue infrastructure for ecosystem services	Idenification of ecosystem services	M2 of ecosystem services 250 m2	M2 of ecosystem services 3.000 m2
	Sustainable land use and management, including through appropriate protection of soil biodiversity, neutrality in terms of soil degradation, and remediation of contaminated sites	Land degradation prevention measures (on slope, soil loss, permeability, etc.)	Soil quality analysis (Dir. 1513/2015)	Indicator of soil biodiversity, permeability, ecc. quality	Indicator of land biodiversity, permeability, ecc. quality
	Sustainable agricultural practices, including those that help improve biodiversity	N/A	N/A	N/A	N/A
	Sustainable forest management, practices that improve biodiversity or prevent ecosystem degradation, deforestation and habitat loss	N/A	N/A	N/A	N/A

Ecosystem services before: 250 m2 → Ecosystem services after: 3.000 m2

6. How to incorporate circular economy in the different phases of the procurement process

Verification requirements

The **verification of the fulfilment of requirements** takes place at different stages of the tender by diffrent operators:

- by the Tender Commission, regarding the selection criteria of the designers
- by the Contracting Authority, regarding the conformity of the project with respect to the technical specifications for groups of buildings, technical specifications of the building, technical specifications of the building components, technical specifications of the building site
- by the Works Management, during the execution of the works contract, regrding the conformity of building materials to the technical specifications, prior to the acceptance of the materials on the building site;
- by the Works Management, through verification during the execution of the works contract, regarding compliance with the contractual clauses.

When it comes to the construction management and the environmental criteria of the construction products and means of testing, it must be considered that

- the technical specifications and the relevant means of proof are set out by the designer in the special terms and conditions of the executive project
- the means of proof of conformity are presented by the contractor to the construction manager for the necessary verifications before the acceptance of the materials on site

7. How to evaluate the circularity of tenders

When evaluating tenders, follow these instructions:

- During the procurement planning phase, it is extremely important to think about and write down how the circularity is evaluated.
  - Consider which evaluation method will be used to get the most ambitious offer.
  - Leave additional time for procurement planning, so that the analysis of the circularity can be done carefully, and the criteria written down.
- The scope of the circularity assessment depends a lot on the procurement model. There are a huge number of different procurement models.
  - For example, in a joint procedure, the entire method equals the evaluation.
- It is recommended to include quality scoring in the evaluation.
  - Example: price can be scored 60-70 and quality 30-40.
  - Quality shouldn't go below 30, but this depends a lot on the procurement model.
- It is important to include monitoring and control in the evaluation of circularity. This process monitors how circularity is implemented from the offer phase to the execution phase.
  - The system of sanctions and bonuses can be used as help.
    - sanctions, if the company does not do what it is allowed to do, it can be punished financially.
    -bonuses, if the company does better than promised, it can be rewarded financially.
- The procurement criteria and evaluation are written down, also keeping in mind the possibility of its further use. Municipalities can collect procurement criteria and evaluation in common digital databases so that they can be used in the future.
- There is different **criteria** depending on the type of the procurement and needs of the organization, e.g.:
  - Requirements for warranty, availability of spare parts, possibility for reuse of parts, possibility of repurpose
  - Requirements for amount of recycled material, documentation of recycling, utilization of byproducts and streams
- Different **labels and certifications** can be used to define and prove compliance with award criteria.
  - EU Ecolabel, Cradle to Cradle, national certifications, etc.

7. How to evaluate the circularity of tenders

Examples of award criteria

BUILT ENVIRONMENT, STREET AND CONSTRUCTION

Case Circular procurement in road construction in Tampere Finland

- Circular procurement in road construction in Tampere was evaluated using a separate quality criteria in excel, where the bidders met different quality procurement criteria.
- Points were awarded for:

1. Waste Reduction:
a. Utilization of earth or stone materials on-site, with points awarded based on the percentage of recycled materials:
• 6 points: ≥ 70%
• 4 points: ≥ 50%
• 2 points: ≥ 30%
b. Reuse of surplus soils outside the contract, with points based on the percentage of recycled materials:
• 3 points: ≥ 70%
• 2 points: ≥ 50%
• 1 point: ≥ 30%

2. Conservation of Natural Resources:
a. Integration of recycled materials from external sources, with points based on the percentage used:
• 3 points: ≥ 70%
• 2 points: ≥ 50%
• 1 point: ≥ 30%
b. Inclusion of recycled asphalt in asphalt mixes, with points based on the percentage used:
• 3 points: ≥ 70%
• 2 points: ≥ 50%
• 1 point: ≥ 30%

3. Reduction of Environmental Impacts:
a. Adherence to emission standards for vehicles and equipment:
• 3 points: Vehicles (Euro 6) and Equipment (Stage 4)
• 2 points: Vehicles (Euro 5) and Equipment (Stage 3B)
• 1 point: Vehicles (Euro 5) and Equipment (Stage 3A)

- To assign points, the contracting authority included a material recovery report Excel, also referred to as the mass economy Excel. This tool tracked all masses involved in the contract, assessing them both before and during the contract period.
- There was used weighted criteria where tenders were evaluated based on the most economically advantageous tender: 30% quality criterion and a 70% cost criterion.

Source: https://green-business.ec.europa.eu/green-public-procurement/good-practice-library/introducing-circular-economy-procurement-road-construction-city-tampere_en

7. How to evaluate the circularity of tenders

Examples of award criteria

SERVICE PROCUREMENT

Case Lighting-as-a-service Belgium

Award criteria:

The award criteria were weighted as follows:

• Availability fee per building	100
The cost-benefit of lighting-as-a-service per building, calculated by comparing energy bills (including index and inflation) and maintenance costs over the duration of the contract to the proposed service fees of the bidder. The price the city has to pay to the provider per year over the 15 years. The supplier with the lowest price scored 100 points, and the other bids received fewer percentage points.	
• Lighting plan proposal technical concept	10
• Proposal for offered light fittings: quality of material and appearance	10
• Proposal for a maintenance plan: maintenance of installed luminaires and guarantee of light level	30
• Execution deadline: delivery and installation of light fittings (planning per building)	10
• Circular economy: the plan of approach at the beginning and during the execution of the contract	10
• Circular economy: the plan of approach at the end of the contract - continuity of service provision	20
• Training of users and technical maintenance personnel	10

Source: https://sustainable-procurement.org/resource-centre?c=search&uid=2ddfb414

7. How to evaluate the circularity of tenders

Examples of award criteria

SERVICE PROCUREMENT

Case Reusing staff workwear Denmark

Met the requirements and was deemed to be
the 'most economically advantageous' considering the following assessment criteria and weightings:

1.Price: 50% of total score
2.Climate impact assessment: 20% of total score
3.Function, design, and quality of protective apron: 15% of total score
4.Share of renewable material: 10% of total score (awarded points based on the proportion of renewable material)
A higher proportion of renewable material than 70% would be
awarded as follows: (71-75% = 1 point, 76-80% = 2 points, 81-
85% = 3 points, 86-90% = 4 points, 91-95% = 5 points, 96-
100% = 6 points)
5. Time schedule for test series and full delivery: 5% of total score

Source: https://circularprocurement.ca/reusing-workwear-in-herning/

7. How to evaluate the circularity of tenders

Examples of award criteria

IT-PROCUREMENT

Case End-of-life management of IT equipment Norway

Award Criteria:

Price: 30%
Quality: 70%

Quality Criteria (80% of total quality score):
1. Alignment with circular economy principles and waste hierarchy.

2. Description of how profits from equipment resale are secured.

3. Proposal for interaction with the contracting body.

Automatic Award Criterion (20%): Points awarded based on the company's commitment to the percentage of income return through resale.

Special Performance Conditions:

1. Resale Requirements:
   -Documentation of equipment resale location.
   -Compliance with waste regulations for cross-border shipment.
2. Managing Entity:
   -Recycling handled by an approved company or legal recipient with a permit.
3. Job Placement:
   -20% of workers must be people at risk of social exclusion or with disabilities.

Follow-up of the Contract:

- Annual reporting on environmental, economic, and security aspects.
- Detailed reports allowing identification of each ICT equipment handling.
- Quarterly follow-up meetings with the contracting authority.

Source: Diagnosi of reuse in public procurement (gencat.cat)

8. Resources and support

ICLEI – Local governments for sustainability network

A global network of more than 2500 local and regional governments committed to sustainable urban development and is active in 125+ countries. ICLEI Europe supports local governments in implementing the European Green Deal, the overarching EU strategy for climate neutrality, to build more resilient and equitable communities.

Procura+ - European sustainable procurement network

Initiated and coordinated by ICLEI, Procura+ is a network of European public authorities and regions that connect, exchange and act on sustainable and innovation procurement. They have also published a manual for sustainable public procurement.

Sustainable procurement platform

Also managed by ICLEI, the website provides up-to-date news, case studies, events, guidance and more on sustainable procurement from across the world.

Circular procurement transformation guidance

A guidebook for circular procurement, including a wider explanation of its meaning as well as examples as tools. The guidebook is a result of the ProCirc project in the North Sea Region, and their website has more resources on the topic.

Green Public Procurement

A website by European Commission that includes the criteria, good practices, toolkits, news and events on green and circular public procurement.

8. Resources and support

Green Public Procurement: An Overview of Green Reforms in Country Procurement Systems

A guidebook on green public procurement by World Bank. Includes cases, tools and approaches to green and circular procurement with the help of practical examples.

KEINO Competence Center (KEINO-osaamiskeskus)

KEINO supports and helps Finnish public procurement experts and authorities with the development of sustainable and innovative procurement. The website and material bank, including practical examples, are also available in English.

Circular public procurement: a framework for cities - Ellen MacArthur Foundation

A guide that helps practitioners in city governments to adopt a more circular approach to public procurement.

Product safety and requirements - European Commission (europa.eu)

EU rules on product safety, food safety requirements, rules on animal and plant health, chemical safety and labelling.

European Assistance For Innovation Procurement - Eafip

Through EAFIP, the European Commission supports public procurers in developing and implementing innovation procurements of ICT based solutions across the EU.

9. Examples and best practices

ICT Equipment

Sustainability and circularity as a starting point for ICT procurement

What: The Ministry of Economic Affairs and Climate Policy in the Netherlands implemented an innovative and comprehensive approach to ICT procurement, focusing on sustainability and circularity.
How: The initiative, under the "Procurement with Impact" strategy, involved five interconnected tenders for ICT hardware and services, setting new standards in the field. The procurement objectives included CO2 footprints and Life Cycle Analysis for all products, social inclusion, and adherence to international labor and human rights standards.
What to learn: The project resulted in 12 framework agreements, achieving significant environmental and social impacts, such as CO2 reduction, e-waste reduction, and increased social return. The success was attributed to early market engagement, transparent tendering with green and social criteria, and ongoing market involvement, leading to visibility and recognition, including winning the Procura+ award for innovation 2022.
When: 2021
Where: Ministry of Economic Affairs and Climate Policy, Netherlands

Picture: Pexels.com

Source: Sustainability and circularity as a starting point for ICT procurement - European Commission (europa.eu)

9. Examples and best practices

ICT Equipment

End-of-life management of IT equipment

What: The Directorate of Administration and Financial Management (DFØ) in the Norwegian government has issued a procurement contract focused on the repurposing and recycling of ICT equipment.
How: The procurement process includes a series of steps, starting with the collection of used equipment from diverse government entities and concluding with either the transportation of the equipment to authorized recycling centers or its preparation for resale.
What to learn: The approach to recycling devices is aimed at diminishing the waste of electrical and electronic equipment, thereby decreasing the consumption of new equipment. Additionally, this approach is expected to generate revenue for the administration.
When: 2022
Where: Norway

Picture: Pexels.com

Source: Diagnosi of reuse in public procurement (gencat.cat)

9. Examples and best practices

Furniture

Upcycled office furniture

What: The National Waste Collection Permit Office (NWCPO) relocated from its old office to a new one, and all the furniture for the new office was upcycled.
How: The small-scale project demonstrated flexibility by allowing supplier consortiums and achieved a unique working environment with a budget of €20,000 - €25,000. The consortium response, led by Community Resources Network Ireland, involved sourcing from diverse suppliers, cleaning, repairing, and assembling goods.
What to learn: The project resulted in environmental benefits, including approximately 2.6 tonnes CO2 savings, and supported social enterprises, contributing to circular and social objectives. The initiative showcases the potential for circular and social benefits in public procurement, paving the way for future projects in the reuse sector.
When: 2019
Where: Tullamore, Ireland

Picture: Pexels.com

Source: PTI-Awards_Circular-and-Social-Public-Procurement-Project-NWCPO.pdf (crni.ie)

9. Examples and best practices

Furniture

Office equipment with environmental criteria

Picture: S O C I A L . C U T in Unsplash

What: With the creation of the public entity Basque Water Agency, the need arose to create a tender for the supply of office furniture.
How: A set of environmental criteria were incorporated into the contracting documents, such as the following:
At the material level: The origin of wood from sustainably managed forests; the inclusion of a fraction of recycled material in metals and plastics; environmental improvement measures in upholstery and foams; formaldehyde emission levels in particle and fibre boards; emissions of volatile organic compounds in paints and varnishes; the non-use of chemicals classified as carcinogenic, harmful to the reproductive system, toxic or allergenic.
At the product level: The maximum durability of furniture; easy and correct maintenance; the disassembly at the end of its useful life; The packaging material and its correct removal and final management.
What to learn: This illustrates the great potential to reduce the environmental impact produced by office furniture through green procurement, when this is done integrating ambitious and comprehensive criteria that reflect the life-cycle impact of the products.
When: 2007
Where: Vitoria, Spain

9. Examples and best practices

Furniture

"Non-new-furniture" through the Circular PP project

What: The City of Malmö implemented a circular procurement approach, initially focusing on "non-new furniture" for its city hall and later extending it to navigation signs through the ProCirc pilot. The emphasis is on reusing signs, with recycling as a last resort. 56 kilos of Co2 are saved for each square meter of reused aluminum.
How: Malmö developed three circular criteria for the tender, emphasizing supplier experience in stocking, reusing products, and having optimal recycling processes for various materials.
What to learn: The City of Malmö encouraged the selected supplier, through this tender, to adopt new circular business practices, scale their circular systems, and design innovative products with better materials. The signs produced by the selected supplier are designed for multiple use-cycles.
When: 2022
Where: Malmö, Sweden

Picture: Pexels.com

Source: City of Malmö nominated for Circular Procurement of the Year award, Interreg VB North Sea Region Programme

9. Examples and best practices

Construction and infrastructure

Circular procurement in road construction

What: The project applied a design and build (D&B) operating model, in which the chosen contractor is appointed to both design and then construct the works described in the contract. This way the expertise of the contractor can be utilized instead of depending on the city's internal resources of know-how and expertise.
How: At the beginning of the project the city of Tampere collaborated with an expert panel of academia, procurement specialist and companies to create baseline circular procurement criteria that ensured effective but realistic standards and avoided applying too of stringent measures from the offset. After defining the initial criteria, procuring officials participated in market dialogues to explain the circular and sustainability aims of the procurement and initiate a deeper discussion with the companies. A period of 4 weeks was reserved for companies to comment on the new circular criteria and ask questions before submitting their application.
What to learn: The procurement of the contract favored products and supplies with lower carbon emissions. The award criteria of the tenders awarded points for various factors in the following themes: reducing the amount of waste, conserving natural resources and reduction of other environmental impacts. Tenders were then evaluated based on the most economically advantageous tender: 30% given to the quality criterion and a 70% to the cost criterion. As a result, utilizing recovered material and low-emission equipment on Yliopistonkatu generated positive environmental impacts. The market dialogue also allowed potential contractors to influence the procurement process through circular economy related ideas and innovations for the first time. Because of the extensive interviews to formulate the initial criteria, the process was longer than a traditional procurement process.
When: 2021
Where: Tampere, Finland

Picture: Karoliina Tuukkanen

Picture: Karoliina Tuukkanen

Source: https://green-business.ec.europa.eu/green-public-procurement/good-practice-library/introducing-circular-economy-procurement-road-construction-city-tampere_en

9. Examples and best practices

Construction and infrastructure

Designing a reusable town hall

What: Town hall building was designed for future reuse and modular assembly.
How: Involving suppliers during the early stages of the design phase led to a significant level of circularity in the building. The design was a Lego-like structure where 90% of the materials could be dismantled and reused after 20 years. The construction favored high-quality prefabricated timber elements instead of difficult-to-recycle concrete. The whole structural assembly of the building was recorded in a material passport, turning it into a raw material depot for future buildings.
What to learn: This solution has the potential to reduce carbon emissions due to material reuse. Also, the contractor states that the design of the Brummen Town Hall guarantees that building materials will have 20% residual value at the end of the building life. The modular construction method also significantly reduced the construction period, leading to cost savings.
Where: Netherlands, Brummen
When: Opened 2013

Picture: Pexels.com

Source: https://www.ellenmacarthurfoundation.org/circular-examples/brummen-town-hall

9. Examples and best practices

Construction and infrastructure

Repurposed and recycled materials in townhouse development

What: 20 townhouses were developed using repurposed and recycled materials.
How: The wood for floors, walls and façades was recovered from offcuts that would otherwise have been sent to landfill or incinerated. 75% of the double-glazed windows were recovered from disused buildings, and 1,400 tons of concrete were recycled from the waste generated by the construction of Copenhagen Metro.
What to learn: The townhouses were also designed with flexible interiors, which allows the buildings to stay in use longer even when requirements change. By making use of local, existing materials, this Danish development reduced the need for virgin material extraction and processing, combating climate change, biodiversity loss and virgin raw material extraction.
When: 2018
Where: Copenhagen, Denmark

Picture: Pexels.com

Source: https://www.ellenmacarthurfoundation.org/circular-examples/reusing-construction-materials-to-limit-biodiversity-impacts-upcycles

9. Examples and best practices

Construction and infrastructure

Circularity in railway station renovation project

What: The renovation project of the railway station in Quimper adopted a circular economy approach, aiming to reuse on-site materials and incorporate reclaimed materials from other locations. This initiative marked the region's first pilot project of its kind.
How: Collaborating with the design practice ROTOR, the municipality identified and integrated reclaimed and reused materials into the Railway-Park project's outdoor facilities and roadways. This involved studying the site to identify reusable materials such as natural stones, cobblestones, and wooden elements. Additionally, 16 trees were transplanted and repurposed for another community project. The project specified which elements of the site would be reused while allowing flexibility regarding the non-essential characteristics of the materials. This flexibility enabled the reuse sector to provide materials based on reclaimed material availability.
What to learn: Lessons from this pilot project will assist similar projects in adopting a more circular approach and resource efficiency.
Where: Quimper, France

Picture: Pexels.com

Source: Procura+ | AWARDS 2022 (procuraplus.org)

9. Examples and best practices

Construction and infrastructure

Recycled materials in road construction

What: The TarPaper Recycling case involved a pre-commercial procurement effort by the city of Lahti, offering pilot areas for testing the use of recycled asphalt made from roofing felt waste in road construction.
How: Tarpaper Recycling Finland developed a patented method for recycling roofing felt waste, which involved sorting and processing the waste material at their factory to be used in asphalt production. Additionally, investments in technology were made, and a collection system for roofing felt waste across Finland was established**.**
What to learn: The case highlights the success of how collaboration between municipalities and businesses can lead to environmental benefits and the development of new markets for recycled materials.
When: 2015
Where: Lahti, Finland

Picture: Pexels.com

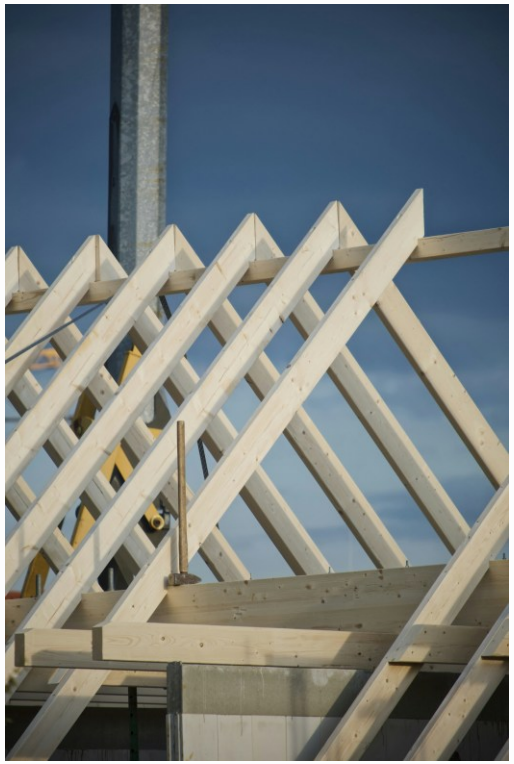
Source: https://norden.diva-portal.org/smash/get/diva2:1092366/FULLTEXT01.pdf

9. Examples and best practices

Construction and infrastructure

Contracting the services of drafting the basic project and management of the execution and construction of the extension and reform of the Health Center of Porriño (Pontevedra)

What: Interested in achieving constructions with a lower ecological impact within a low-carbon economy, and also supporting the forestry industry of Galicia and its artisanal sector, the Galician Administration has opted for the use of wood in the public works of the entities of the regional and local public sector of Galicia.
How: In the case of the contract for the expansion and renovation of the Porriño Health Centre, aspects in this regard were included in the award criteria and the technical or professional solvency. Thus, on the one hand, the evaluation criteria scored, among other aspects, an architectural proposal developed mainly in wood both in the structure and in the enclosures of the building. On the other hand, it was requested to prove that at least the draft of the project and the execution of one work with these characteristics had been directed.
What to learn: Approach highlights the importance of incorporating sustainability and support for local industries into public procurement processes. By prioritizing the use of wood in construction projects, the region supports local forestry and artisanal sectors.
When: 2019
Where: Galicia, Spain



Picture: Yves Cedric Schulze in Unsplash

9. Examples and best practices

Food

Innovative collective catering service

What: The public company “Qualità e Servizi” implements a completely innovative collective catering service and since 2017 has moved from semi-industrial school catering to a catering of excellence, based on a "circular economy" model and the cardinal principles of "good, clean and fair" food.

How: Qualità e Servizi has voluntarily chosen to acquire ISO 9001, ISO 22000, ISO45001, ISO 14001 certifications and to adopt an environmental management system in accordance with the EMAS regulation. In addition, Qualità e Servizi carried out a LCA (Life Cycle Assessment) study on its production chain, estimating a CO_2 production per meal of 0.89 kg, a 69% emission saving compared to an average meal in the literature. The construction of the tenders is accompanied by scouting in the territory in order to transparently publicize the tender, informing local producers about the company's purchasing needs. The company sets tenders according to the principle of the most economically advantageous offer, that is, according to the principle that takes into account the economic sustainability of the offer but also the quality aspect of the product offered.

What to learn: The result is to be able to select products according to the quality standards that the company has set for itself (km0, short supply chain, organoleptic quality, nutritional quality, organic) at prices that are economically sustainable: the result is to obtain long-lasting agreements that allow it to properly evaluate suppliers, support them in their own production development, making the business relationship stable and loyal.

When: 2017

Where: Calenzano, Italy

9. Examples and best practices

Food

Greening of the vending machines service

What: In 2019, a new tender was processed to improve the service of vending machines in order to improve the type of products offering healthier products, the energy efficiency and optimization of machines maintenance, the cleaning of the machines and the correct management of the waste generated.
How: To this end and after contact with the market, it was included in the mandatory technical requirements, the energy efficiency issues of the machines, the need for clear information on which products are environmentally or socially responsible, and the possibility of using them with or without a cup. The special execution conditions established requirements for the management, elimination, transportation, storage and/or recycling of waste. Finally, it was included in the award criteria the energy efficiency of the machines, the quality/variety/rotation of the products offered and their certification, and the proposal of environmental measures to manage the removal of packaging and/or plastic waste for reuse, recycling or disposal.
What to learn: This case shows how, through an apparently simple contract (e.g. service of vending machines), the introduction of ambitious sustainability criteria allows to simultaneously pursue several environmental and social goals (reduced environmental impact, awareness raising, healthy lifestyles, etc.).
When: 2019
Where: Basque Country, Spain

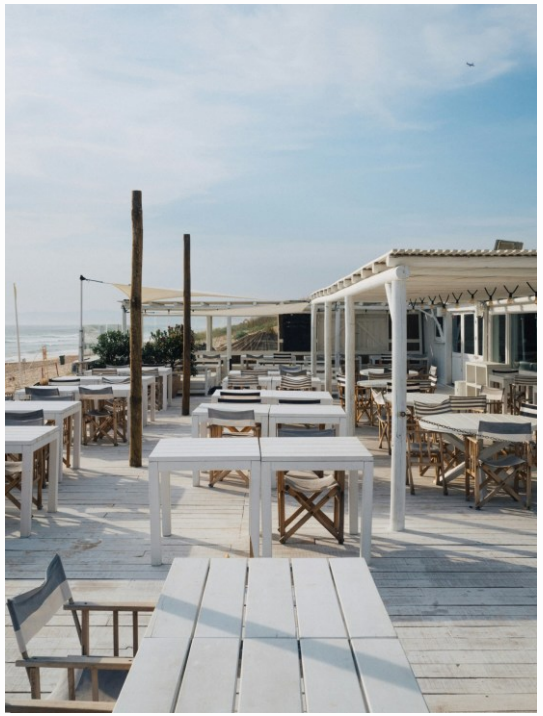
Picture: Petr Magera in Unsplash

9. Examples and best practices

Food, cleaning

Special administrative contract for the management service of the bar-cafeteria and toilet of Playa de Santiago by open procedure (PCAP, PPT)

What: In 2020, the Zumaia City Council contracted the bar-cafeteria and toilet management service of Playa de Santiago applying the Green Public Procurement criteria defined at the regional level through the public company Ihobe. These environmental criteria are included in the scoring aspects of the award criteria, as well as in the conditions and obligations of execution.
How: Among the evaluation criteria for the award of the contract there are aspects such as: the use of environmentally friendly cleaning products (with an eco-label to prove it), chlorine-free toilet paper, coffee coming from organic farming, reusable crockery, glassware and cutlery, measures to minimise food waste and proved training to the work staff on how to carry out their work in an environmentally responsible manner.
Among the obligations of the concessionaire company are, among others, aspects such as: the selective management of the generated waste, information on good environmental practices for beach users (including work staff) or the presentation of the list of products that will be used for the cleaning according to the given instructions.
What to learn: By implementing Green Public Procurement (GPP) criteria, the city council integrates environmental considerations into public purchasing, favoring goods and services with reduced environmental impacts. Specific requirements, such as the use of eco-labeled products and waste reduction measures, promote sustainable practices. Education, including staff training, play a crucial role in fostering a culture of environmental responsibility. Overall, this initiative showcases how incorporating circular economy principles into procurement processes can drive sustainable practices throughout the supply chain.
When: 2020
Where: Zumaia, Spain



Picture: Luca Dugaro in Unsplash

9. Examples and best practices

Food, cleaning

Integral management of Alamillo Metropolitan Park

What: In 2020, the Department of Development, Infrastructure and Territorial Planning of the Regional Government of Andalusia included Special Conditions of Execution of environmental nature in the contracting of the integral management of the Alamillo Metropolitan Park: the use of biodegradable or recycled materials or any other that represents an environmental advantage.
How: The company awarded the contract for the execution of this contract has the obligation to use garbage bags composed of biodegradable or recycled material or any other that represents an environmental advantage. Compliance with this special performance condition must be justified in the monthly activity report by providing an invoice or proof of acquisition of the material.
In the organization of activities, cups and plates must be used with biodegradable or recycled material or any other material that represents an environmental advantage, and the appropriate waste treatment and selective collection must be managed from the activity itself. Compliance with this special execution condition must be justified in the monthly activity report by providing an invoice or proof of acquisition of the material.
What to learn: The initiative shows the importance of integrating environmental considerations into contractual obligations for public projects. By mandating the use of biodegradable or recycled materials and requiring accountability through monthly reports, the government promotes sustainable practices.
When: 2020
Where: Andalusia, Spain

Picture: Ignacio Brosa in Unsplash

9. Examples and best practices

Cleaning

Environmental criteria in cleaning services

Picture: Towfiqu Barbhuiya in Unsplash

What: The EiTB Communication Group (radio, TV and internet of the Basque Country) moved its offices in 2007 and therefore the Group companies had to make new contracts, such as the cleaning service.
How: In the Object of the contract, it was already included the desire to introduce environmental criteria: "This Document aims to define the conditions of the cleaning service with more environmentally friendly methods and products and selective collection of the waste generated in buildings and facilities."
As mandatory criteria, it was forbidden the use of: air fresheners and scented substances for urinals; disinfectant products for cleaning surfaces and floors, except in toilets and those specifically specified surfaces; spray products.
In addition, it was positively valued that the company had an environmental management system; that products with a European ecological label or similar were used; the use of plastic products (garbage bags and packaging) made of PP or PE instead of halogen plastics such as PVC; the use of recycled plastic products.
As clauses for the execution of the contract, the successful bidder had to train its workers in occupational health and environmental protection; make work procedures available in the building; carry out correct and selective management of the waste collected and generated.
What to learn: This is a good example of how a procurement process should include environmental aims and criteria throughout the different elements of the contract. It also represents the diversity of environmental measures that can be included in a cleaning service.
When: 2007
Where: Bilbao, Spain

9. Examples and best practices

Italian cities and regions

The Metropolitan City of Turin

What: Protocol of Agreement (Protocollo d'Intesa) between the Metropolitan City of Turin and ARPA Piemonte (The Piedmont Regional Agency for Environmental Protection)
Name of the project: A.P.E. Acquisti Pubblici Ecologici
Type of project: it's a Network based on the sharing of knowledge, expertise and useful materials. It organises information and training activities, targeted technical support, participation in European projects and comparisons at na tables; it is involved in the creation of tools of various kinds (calculators, checklists, audits, etc.), which are then made av to members.
Who in the network: Nowadays the A.P.E. Network consists of 52 organisations: municipalities, the Turin Chamber of Commerce, the Politecnico di Torino, Fondazione Torino SMART CITY, Universities, SCR Piemonte, etc.
The aim: disseminate the application of GPP. This project, over the years, has focused strongly on strengthening the circular economy. A steadily increasing number of actors in the territory have worked, in networks, with the signing of the "Protocol for the Promotion of Ecological Public Procurement," updated in 2021, with actions and tools for a more effective implementation of GPP within entities and organizations, as well as a broad promotion of ecological public procurement in the territory and towards trade associations, professional orders and representatives of organizations that constitute the "supply," in addition to the expansion of adherents with functions of awareness raising and training of new types of public organizations.
WHEN: Since 2003
WHERE: In Turin (Piemonte)

Source: http://www.comune.torino.it/ambiente/ape/

9. Examples and best practices

Italian cities and regions

Veneto Region

What: Action plan of the Region of Veneto for Green Procurement
Name of the document: PARGPP 2024-2026 This is the third version of the Plan (after 2016-2018 and 2019-2023) and it recognises the fundamental role that regions can play, through actions to support contracting stations and businesses, in the diffusion of green public procurement at the territorial leve
Objectives of the document: The document reiterates the need to continue planning actions to achieve three priority sustainability objectives:
1.climate change mitigation,
2.promotion of the circular economy,
3.prevention and reduction of air, water and soil pollution.
In addition to this, specific objectives in the areas of 'Procurement', 'Training', 'Experimentation', 'Networking' and 'Communication' will be monitored annually.
When: Since 2016
Where: In Veneto Region

Source: https://www.regione.veneto.it/article-detail?articleGroupId=11439163&articleId=13975360

9. Examples and best practices

Italian cities and regions

Metropolitan City of Rome Capital

What: Catalogue of Construction Products, Compliant with the Building MEC
Name of the document: Since 2009 when was published the Action plan of the Region of the Province of Rome for Green Procurement, the city has been very attentive to GPP until the publication of the " Catalogue of Construction Products, Compliant with the Building MEC".
Objectives of the document: makes available to responsible for the process, designers, verifiers, construction managers and public works contractors in the Metropolitan City of Rome a useful tool for highlighting, also with reference to NRP projects, products in the construction sector that comply with the criteria of circularity and sustainability. The product sheets in the catalog make it possible to:

- support the responsible for the process in the definition of design guidelines, providing an extensive catalog of construction products with low environmental impact, compliant with the MEC;
- simplify and speed up the compilation of metric calculations and price lists by the designer, who has at his or her disposal 50 price analyses for MEC-compliant building products derived from a rigorous market survey; • help verifiers assess project compliance with building MEC;
- simplify means testing activities by the construction manager;
- help contractors search -on the regional and national market- for MEC-compliant materials with the necessary product certifications.

When: Since 2009
Where: Metropolitan City of Rome Capital

9. Examples and best practices

Italian cities and regions

Intercent-er

Objectives of the agency: the procurement region agency of Emilia-Romagna, since its establishment, has been committed to enhancing the value of GPP in tendering procedures; since 2018 it has had a policy for GPP and since 2020 it has started a path to report and communicate to its stakeholders, in a direct and transparent way, the value created on the territory in terms of contribution to the Sustainable Development Goals (SDGs) identified within the Agenda 2030. Intercent-ER developed a project aimed at: understanding the needs of its stakeholders, accounting for the value created in the territory, outlining the future prospects of its action, and promoting sustainability and the themes of the 2030 Agenda. This path was translated into a Report in which the activities and projects developed by the Agency were associated with the SDGs of the 2030 Agenda, measuring for each of them the results achieved (for example, in terms of CO2 saved through green purchasing initiatives) and tracing for each theme the possible evolutionary lines.
When: Since 2018
Where: Emilia Romagna Region

GPP
REGIONE EMILIA-ROMAGNA
ACQUISTA VERDE.
RISPARMIA L'AMBIENTE.

Source: https://intercenter.regione.emilia-romagna.it/aree/acquisti-sostenibili/come-fare-gpp/come-fare-gpp

9. Examples and best practices

Italian cities and regions

City of Padua

What: Padua Buys Green
Objectives of the project: The City of Padua has been activating this" project since 2005 as an implementation of Action No. 95 of the Local Action Plan of the Agenda 21 Forum ("Incentivize green procurement in all municipal and public facilities"), with extensive involvement of internal offices through participation paths and specific training. In 2015, the municipality approved a Three-Year Action Plan of the City of Padua for the three-year period 2015-2017, then updated in the following three-year periods: 2019-2022 and 2023-2026. The municipality annually compiles a GPP monitoring report aimed at assessing the status of MEC implementation in the entity's procurement procedures for goods and services.
When: Since 2005
Where: Padua (Veneto Region)

Source: https://www.padovanet.it/informazione/progetto-padova-acquista-verde

9. Examples and best practices

Italian business cases

Fano Jazz By The Sea International Festival

What: Green Jazz Festival
Objectives of the event: The Green Jazz Village is the beating heart of Fano Jazz By The Sea and since 2017 has been a concrete testimony of the Festival's attachment to its territory. It is the ideal place for the course of the Green Jazz project, with which the Festival has espoused the cause of sustainability and ecology, becoming the interpreter of the enhancement, promotion and dissemination of the artistic, cultural, environmental, landscape and local food and wine heritage, through the adoption of MEC (Minimum Environmental Criteria).
When: Since 2017
Where: Fano (Region Marche)

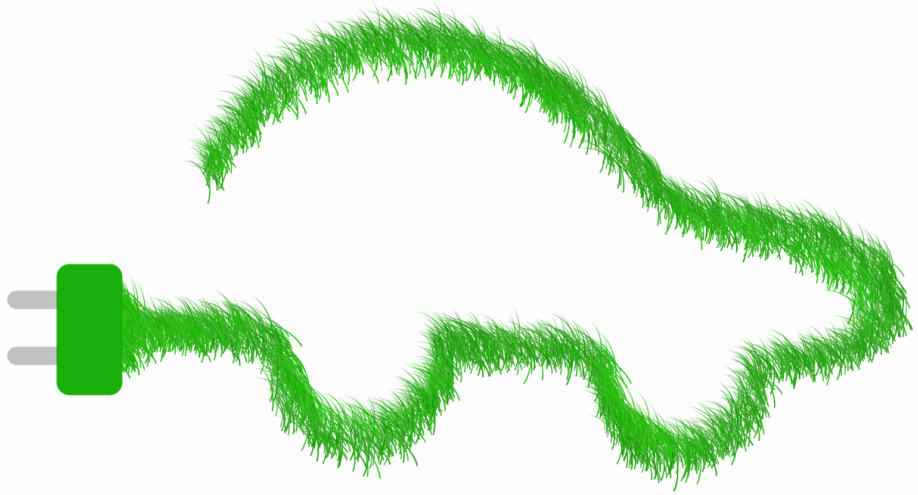
Source: https://fanojazzbythesea.com/experience-the-festival/green-jazz-village/

9. Examples and best practices

Vehicles and fleet

[Biogas cars for city operations](#) (article in Finnish)

What: The city of Nokia substituted some of their old vehicles with 26 passenger cars and one truck that run with either biogas or natural gas. Around the same time, the city together with the regional waste management company constructed a biogas facility in an industrial area focused on bio- and circular economy.
How: The biogas in this facility is created from local biowaste, and the organic matter created as a byproduct from the process is used as an environmentally friendly fertilizer.
What to learn: This way, a big portion of the city's biowaste is recycled and reused, reducing both waste and emissions from traffic.
When: 2018
Where: Nokia, Finland



Pictures: Pexels.com

Source: Nokialla ajetaan nyt ympäristöystävällisillä kaasuautoilla - Nokian kaupunki

9. Examples and best practices

Vehicles and fleet

Biogas busses

What: The City of Vaasa undertook the purchase of 12 public-service buses running on biogas, while Ab Stormossen (a waste processing company partly owned by the City of Vaasa invested in a biogas refinery and filling station.
How: The procurement process involved an extensive dialogue with potential suppliers, considering factors such as fuel and maintenance costs over the estimated life cycle of the buses. Social aspects were also considered, with input from the City Council for the disabled to ensure user-friendly public transport solutions.
What to learn: This initiative highlights the importance of public sector support in advancing clean technology and sustainable infrastructure, as well as the significant impact such initiatives can have on reducing carbon emissions and fostering regional development.
When: 2014
Where: Vaasa, Finland

Pictures: Pexels.com

Source: Biogas bus purchase of city of Vaasa creates markets for clean technology - Motiva

9. Examples and best practices

Vehicles and fleet

Picture: Possessed Photography in Unsplash

Contracting with sustainable public procurement measures for the leasing of a van by the Pet Shelter of Barcelona

What: Because of the absence of vehicle to carry out the activity of the Barcelona Pet Shelter, Barcelona City Council contracted its supply following the Technical Instruction for the application of sustainability criteria in vehicles included in the Mayoral Decree on sustainable public procurement with social and environmental criteria.
How: This instruction establishes a range of priorities in the motorization of the vehicles to be acquired (electric vehicles, plug-in hybrids, non-plug-in hybrids and gas vehicles with the Eco label and other gas and petrol thermal vehicles with the C label). Other sustainability aspects established are: the limitation of maximum power according to the needs to avoid oversizing of the vehicle fleet and reduce costs, lower vehicle consumption and emissions, fuel-efficient tires and the inclusion of efficient driving training for drivers. The instruction applies to contracts for the purchase, leasing, renting or use of vehicles.
Thus, the technical specifications specify that it must be a 100% electric vehicle; with tires with European energy efficiency certification; a minimum battery life guarantee of 7 years or 1,000 charges and a maintenance of charge capacity of 75% after 150,000 km or 7 years; with a maximum power limitation of 136 hp/100 KW and a WLTP approved autonomy of at least 275 km on urban circuit.
With this, Barcelona City Council responds to the need for this supply by bringing together objectives of efficiency, economic savings and environmental improvements.
What to learn: Procurement approach exemplifies a commitment to sustainability by prioritizing electric vehicles and considering various environmental factors.
When: 2022
Where: Barcelona, Spain

9. Examples and best practices

Communication

Environmental criteria instructions for the communication services

What & How: In 2016, the person responsible for the City Council Sustainable Program presented the instruction at the monthly meeting of the Communication Services Directorate that brings together the City Council's communication representatives. As a result of the meeting, a synthetic document was prepared including a list of the environmental criteria proposed in the instruction so that each of the representatives could assess them in a simple way in communication actions and contracts. In parallel, work was done on the greening of the production, installation, monitoring and removal of advertising and other communication elements. The specifications established the use of single-material polypropylene for banners, of 100% recycled paper for outdoor advertising (posters, advertising street displays, etc) and of single-material products for panels, large banners and other similar advertising elements, to facilitate subsequent recycling. The bidding document also included the management of communication elements once removed and prioritized reuse in the production of new products. The Communication Department coordinated the process of reusing the banners.
What to learn: A centralized strategy and guidelines (including examples of environmental criteria), to support green procurement related to communication activities implemented by different actors in Barcelona City Council, is a very good strategy to maximize the impact and accelerate the transition.
When: 2016
Where: Barcelona, Spain

Picture: Pawel Czerwinski in Unsplash

9. Examples and best practices

Product as a service

Reusing staff workwear

What: The municipality of Herning tried reusing workwear because previously discarded the workwear of their Technical Operations Department staff when the staff changed or the workwear contract ended, since the employee's name was printed on the workwear.
How: To find a solution for reusing workwear, the municipality involved design students, economic experts and the staff in question in the tender preparation stage and engaged in market dialogue with relevant enterprises to gain an understanding of the possible needs, solutions and challenges. In the new contract, the supplier had to ensure that the workwear maintained a certain level of quality during the contractual period by performing regular checks on the clothes based on specified quality standards. The municipality was given the possibility of purchasing the clothes when the contract ended, so they were able to continue using them for subsequent workwear servicing contracts.
What to learn: Savings of 6700€ were achieved for a 27000€ contract, and a study on the potential economic and ecological impacts of reusing work clothes predicted savings of 1,011 tons of CO2 over a 4-year period for 100 employees. The Municipality of Herning wished to consider the possibility of conducting joint procurement with other municipalities in the region. This would lead to increased savings and further waste reductions.
Where: Herning, Denmark

Picture: Pexels.com

Source: https://circularprocurement.ca/reusing-workwear-in-herning/

9. Examples and best practices

Product as a service

[Lighting-as-a-service]

What: Procured lighting as a service during an office renovation project. The goal was a 15-year contract for several buildings, in which the supplier is the owner of the lighting installation during its lifetime and responsible for its maintenance.
How: The procurement process included an initial inventory of the current situation in the buildings, which was realized by the bidders. The city used the inventory to determine that for some buildings it was cheaper to buy the lamps instead of lighting as a service, but for some it chose the service option. This depended on the specific needs of each room and building.
What to learn: In the end, the winning bidder estimated that the city reduced their CO2 emissions by nearly 10 tons a year, which is 150 tons for the duration of the contract. According to the city's calculations this means savings of around 15000€ per year on electricity.
When: Started 2017
Where: Mechelen, Belgium

Picture: Pexels.com

Source: https://sustainable-procurement.org/resource-centre?c=search&uid=2ddfb414

9. Examples and best practices

Electricity

Mandatory supply of green energy

What & How: The Framework Agreement for the supply of electricity in the offices and facilities of Barcelona City Council (2013) established the mandatory supply of 15% green electricity. The City Council's Resource Management Department consulted the authorized company about the possibility of requiring 100% green electricity starting with the extension. From there, it was decided to assume an additional cost of 0.3%, associated with the issuance of the request for the guarantee of origin of the more than 3,000 consumption points that had to be registered. The associated annual savings were estimated in more than 44,000 tons of CO2, which, added to the savings, energy efficiency and local renewable generation measures provided for in the energy policies, would allow CO2 emissions to be reduced by practically 40% compared to the base year (2008).

What to learn: The decision to increase the share of renewable energy in the electricity supply of Barcelona City Council offices and facilities, has as a result significant annual savings in terms of CO2 emissions.

When: 2013

Where: Barcelona, Spain

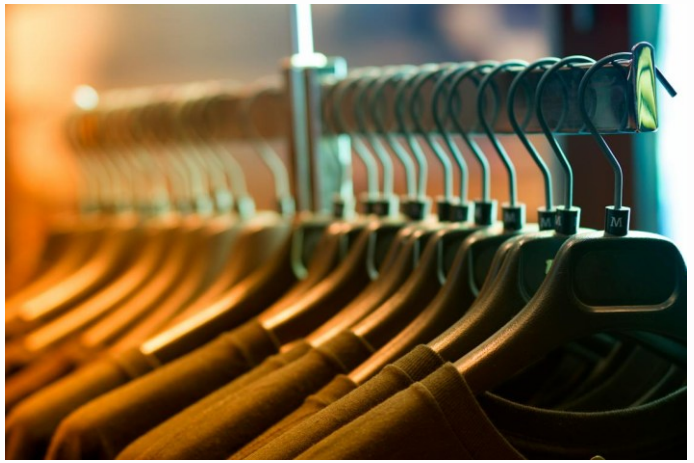
Picture: Luca Bravo in Unsplash

9. Examples and best practices

Textile

Self-owned and rental work clothes with laundry services

What: Helsinki City's Service Center conducted a procurement for ownership and rental workwear, as well as laundry services. The procurement involved four areas, including workwear for educational and daycare services, healthcare workers and managers (ownership), workwear for receptionists and phone-wellness service employees (ownership), workwear for Pakkala food production as a full-service (rental including maintenance), and laundry services for healthcare workers' and managers' clothing.
How: The City of Helsinki aimed for sustainable, functional, and safe workwear across various functions. The procurement focused on reducing the carbon footprint, incorporating circular economy principles, and fostering collaboration to decrease the environmental impact of workwear. The preparation involved early market engagement, including general discussions, pre-surveys, and individual consultations, with an emphasis on sustainability aspects. The criteria for workwear and laundry services included considerations for renewable energy usage, efficiency, responsible textile production, and utilization of recycled fibers.
What to learn: The choice of the final contract partners was influenced by the sustainability criteria used in the tendering. A significant accomplishment was the increased dialogue regarding sustainability and climate action within the market throughout the contract period.
When: 2021
Where: Helsinki, Finland



Picture: Pexels.com

Source: Sustainable procurement of self-owned and rental work clothes with laundry services - Case city of Helsinki | Hankintakeino.fi

9. Examples and best practices

Textile

Collaborative network advancing textile circular economy

What: Telaketju is a collaborative network advancing textile circular economy, focusing on optimizing the collection, sorting, processing, and business models for discarded textiles. With diverse stakeholders, including collectors, processors, social work organizers, and municipalities, Telaketju aims to establish a strong domestic ecosystem, recognized internationally in circular economy networks.
How: Telaketju executes its goals through collaborative efforts across the textile industry's various stages. From collecting and sorting to processing and product utilization, the network coordinates initiatives, pilot projects, and research, supported by funding from the Ministry of the Environment, Tekes (Business Finland), and other sources.
What to learn: As part of the collaborative network's initiative, a full-scale textile processing facility will be constructed in Turku's Topinpuisto for Lounais-Suomen Jätehuolto (Waste Management). The investment project aims to sort and process separately collected consumer discarded textiles in Finland. The processing facility will produce recycled fiber as the final product, which will be sold to industrial companies for further processing, such as turning it into yarn or raw material for new products like fiber fabrics. The project's objective is to recycle approximately 40% of collected consumer discarded textiles while also increasing business opportunities and job creation related to recycling and utilizing recycled materials in Finland.
Where: Finland

Picture: Pexels.com

Sources:

cris.vtt.fi/ws/portalfiles/portal/52366217/Telaketju2_FinalReport_Public.pdf

https://lsjh.fi/lsjh/kehityshankkeet/

https://telaketju.turkuamk.fi/

9. Examples and best practices

Textile

Contract for the supply of flat clothes, clothing and uniforms for the health organizations of Osakidetza (PCAP, PPT)

Picture: JESHOOTS.COM in Unsplash

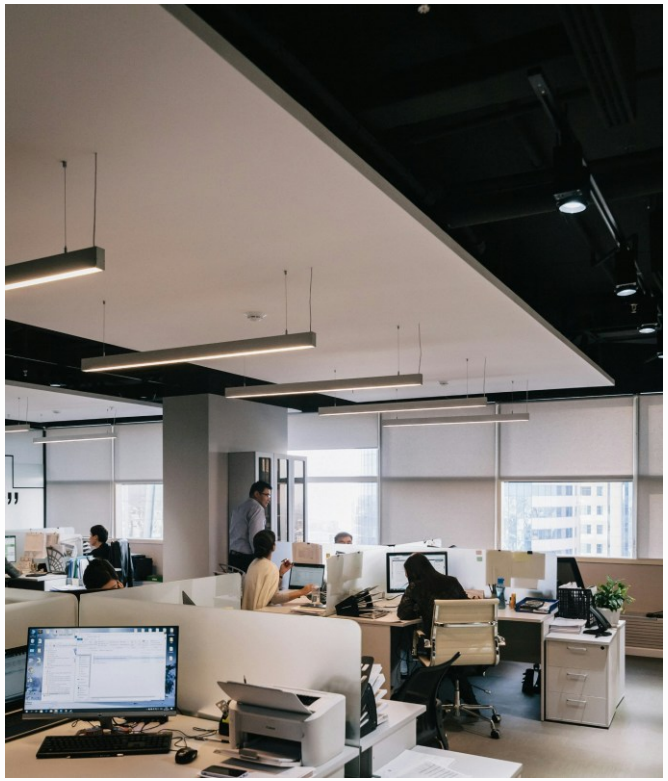
What: Since 1995, the Basque Health Service has managed the entire network of Flat Clothes, Clothing and Uniform Products in an integrated manner, which allows them to be standardised. The contract is divided into lots based on the homogeneous product type and each lot constitutes a contract. The specific administrative clauses of this contract define, at lot level, environmental criteria among the award criteria.
How: Among the environmental criteria assessed are the following aspects: the % of products that comply with a certain standard, the dimensional variation in the washing machine at 90º, the colour fastness to light, washing and chlorine, the formaldehyde content, the exemption of asbestos fibres and the average % of recycled and/or organically farmed fibres or elements in the product.
For the accreditation of compliance with environmental quality requirements, environmental certificates, ecolabels that guarantee compliance with each specification and assessable criteria or documentation where the information can be collected are included. However, other equivalent supporting documentation is also accepted as long as it clearly demonstrates that the established criteria are met. Bidders are required to present these accreditations.
What to learn: This is great example of how integrating environmental criteria into procurement contracts promotes sustainability in product sourcing.
When: 2019
Where: Basque country, Spain

9. Examples and best practices

Printing equipment

Contracting of printing, scanning and copying services

What & How: The lease document for the use without purchase option (renting) of printing, scanning and copying documents in the Ciutat Vella and Les Corts districts of Barcelona City Council (2014) was based on a previous inventory of the existing machines. As a result, the contract changed from the purchase or replacement of printers to the contracting of printing, scanning and copying services (in rental format). In addition, the specification would substantially reduce the total number of machines available to staff, but at the same time improve features and options.
What to learn: This is a good example of product as a service, resulting in a reduced need of acquisition and maintenance of own equipment and therefore a smaller environmental impact.
When: 2014
Where: Barcelona, Spain



Picture: Damir Kopezhanov in Unsplash

9. Examples and best practices

Sports, events

Minimizing the environmental impact of the Barcelona Marathon

What & How: The specifications for the execution of the Barcelona Marathon 2015, 2016, 2017 and 2018 required the presentation of a strategy to minimize the environmental impact by the successful bidder, which included a sustainable mobility plan; a plan for minimization, selective collection and correct management of waste, and an environmental training plan, as well as the progressive incorporation of other environmental measures for textile products, among others, and communication measures for greening actions. It also included the obligation to prepare an environmental report, incorporating environmental measures, indicators (mobility, waste and energy) and the environmental perception of participants.

What to learn: This is a good example of how to reduce the environmental impact of large events, through a green procurement process that includes a diversified set of criteria targeting the environmental impact from different angles (mobility, waste, textiles, communication, training and monitoring).

When: 2015, 2016, 2017, 2018

Where: Barcelona, Spain

Picture: Miguel A Amutio in Unsplash

9. Examples and best practices

Governance

Comprehensive strategy to deploy GPP

What: In 2005, IHOBE (Public environmental management company of the Basque Government) started a process of awareness raising about GPP with the regional government and the municipalities, and in parallel, started working with suppliers to improve their environmental performance. In 2008 the regional government approved the policy framework and resources to support GPP in the region. During 2011-2014, the first GPP Programme in the Basque Country was implemented. With the second one, the relationship with the Economy and Finance Department of the regional government was consolidated, thus facilitating the deployment of GPP.
How: The success of the Basque Country lies on 3 pillars: Political commitment and policy framework; Capacity building (tools and resources); Coordination, shared leadership and building of a network of stakeholders. Regarding the latter, efforts were done since 2005 to create a diversity of working groups and forums (involving local and provincial councils, regional departments, suppliers, etc.), to create a model of shared governance (integrating departments from the regional government and other entities) and a network of entities voluntary joining the programme (public agencies, provincial and local governments, industries) which is managed based on cooperation, co-learning and shared leadership. Those entities voluntary joining the Programme would commit to: annual planning of procurement, definition of goals, identification of those responsible, collaborative work between different departments, engagement of suppliers, follow-up of contracts, measurement of results. The provision of tools such as a manual for GPP including criteria for 30 categories of products (criteria developed in cooperation between the public and the private sector), a support service providing advice, the publication of best practices and bid templates or the organization of training sessions, are some other strategies of success.
What to learn: This case exemplifies a complete strategy to foster the use of green procurement at a large-scale, including training, support materials and guidelines, policy framework, engagement, coordination, networking and co-learning with and between key and interested stakeholders.
When: Since 2005
Where: Basque Country, Spain

Picture: krakenimages in Unsplash

9. Examples and best practices

Other categories

Instruction for socially responsible and sustainable contracting of the Vitoria-Gasteiz City Council

What: With the objective of structuring the City Council contracting system in an effective way and ensuring that technicians in charge of contracting had a clear and concise idea on how a contract should be carried out, the Vitoria-Gasteiz city council developed an instruction for socially responsible and sustainable contracting. In addition to minimizing resources and taking advantage of synergies, different commitments assumed by the City Council were brought together in a guideline.
How: This instruction defined where and how social or environmental criteria could be introduced in the procurement preparation, award and execution phases. The document also specified how to introduce sustainable considerations into the object of the contract, the technical specifications, technical solvency, award criteria and special execution conditions, as well as how to set the penalties of non-compliance.
To ensure compliance, it established that the Local Government Board annually approved a Socially Responsible and Sustainable Contracting and Purchasing Plan for all Departments, that should: establish political commitments; analyse and review procurement practices; set qualitative and quantitative objectives, social and environmental priorities and general purchasing and contracting criteria; assign responsibilities; establish guidelines and procedures to introduce this type of clauses; provide the necessary financial resources; develop a communication strategy for society; send the necessary signals to the market; establish an internal training program.
What to learn: This case reflects a comprehensive and centralized strategy to facilitate and incentivize the use of green procurement within a City Council, including: guidelines for the introduction of sustainability criteria, annual planning and establishment of priorities and goals, political commitment, monitoring, responsibility assignment, communication, training, etc.
When: 2015
Where: Vitoria-Gasteiz, Spain

Picture: Memento Media in Unsplash

9. Examples and best practices

Other categories

Standardization of environmental criteria for 4 tendering categories

What and How: In order to facilitate the green procurement and to reduce the dependence and workload of the environmental technician of the Durango City Council, it was decided to standardize the environmental criteria to be integrated into four standard specifications. The 4 standard documents regard: Office furniture; Vehicles; Computers, laptops and monitors; Events. With the approval of the four standard specifications, all city council tenders in the four specified categories must integrate the established environmental criteria.

What to learn: Complementarily to the standardization of specifications, the city council identified the need of further training of the technical staff, since the process revealed the persistence of a certain dependence on the environmental technician, especially in the evaluations of the tenders.

When: 2009

Where: Durango, Spain

Picture: Arisa Chattasa in Unsplash

9. Examples and best practices

Other categories

Hiring of a stand for a sustainable development fair

What: In the context of GEO2 Sustainable Development Fair 2008, which aim was to promote sustainability in the field of business, public institutions and society in general, the Basque Government incorporated environmental criteria into the design, equipment, supervision, assembly and disassembly of its exhibition stand.
How: The contracting document included mandatory environmental criteria, representing 20% of the award criteria, such as: the incorporation of eco-design and sustainable building considerations in the structure and contents of the stand (e.g. use of materials with low environmental impact and low CO2 emissions); the consideration of energy efficiency criteria in the lighting, the exhibition elements and the computer equipment; the minimization and correct management of waste generated during the assembly, operation and disassembly; the use of 100% recycled and chlorine-free paper in all publications (brochures, reports,...); the use of products from organic and seasonal agriculture in the inaugural lunch, using non-disposable and reusable tableware; the preparation of a sustainability report, available for visitors.
What to learn: This green procurement case represents a good example of the inclusion of sustainability criteria addressing the different environmental impact areas potentially generated by an exhibition stand.
When: 2008
Where: Bilbao, Spain

Picture: Wu Yi in Unsplash

10. References

- 100 ITALIAN CIRCULAR ECONOMY STORIES https://circulareconomy.europa.eu/platform/sites/default/files/100storie_def_web_pag_singole_25-05-18_1527247969.pd
- Ajuntament de Barcelona. Contaricio amb mesures de contractio publica sostenible de l'arrendament en modalitat de renting d'una furgoneta pel d'animals de companyia de Barcelona (CAACB). https://www.ajsosteniblebcn.cat/furgoneta-caacb-ppt_147587.pdf
- Alhola, et al. 2017. Circular public procurement in the Nordic Countries. Nordic Council of Ministers. https://norden.diva-portal.org/smash/get/diva2:1092366/FULLTEXT01.pdf
- Alhola, K. et. al. / SYKE. 2022. Kiertotaloushankintojen käsikirja. https://issuu.com/suomenymparistokeskus/docs/circwaste_kiertotaloushankintojen_k_sikirja_18.5.?fr=sNTBjZDQyODg3NjA
- Anderson, K. 2023. An Overview of EU Green Public Procurement (GPP). Greenly. https://greenly.earth/en-gb/blog/company-guide/an-overview-of-eu-green-public-procurement-gpp#anchor-32
- Baulia, S., Halonen, K. M., Hyytinen, A., Kuusinen, H., Nokso-Koivisto, O., Pousi, M., ... & Virtanen, J. 2023. Yhteishankinnat luovat mahdollisuuksia kustannussäästöille. https://tietokayttoon.fi/documents/113169639/113170760/15-2023-Yhteishankinnat+luovat+mahdollisuuksia+kustannuss%C3%A4%C3%A4st%C3%B6ille.pdf/a829f509-b98a-89c9-9e5e-78b1fd5c15e7/15-2023-Yhteishankinnat+luovat+mahdollisuuksia+kustannuss%C3%A4%C3%A4st%C3%B6ille.pdf?version=1.0&t=1682401033140 -
- BusinessFinland. 2023. Saving the world is high-value business. https://www.businessfinland.fi/en/do-business-with-finland/explore-key-industries/bio-circular-economy
- Circle Economy Foundation & Deloitte. 2023. The circularity gap report. https://www.circularity-gap.world/2023
- Circular innovation council. N/A. Case study: Reusing workwear in herning. https://circularprocurement.ca/reusing-workwear-in-herning/
- CityLoops. 2023. Circular Procurement in Europe: Handbook for local and regional governments. https://cityloops.eu/fileadmin/user_upload/Images/Pages_Images/Circular_Procurement/CityLoops_2023_Handbook_Circular-Procurement.pdf -
- Commission of the European Communities. 2007. Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe. COM(2007) 799 final. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0799:FIN:EN:PDF -
- Crandle to crandle products innovation institute. N/A. Crandle to Crandle Certified. https://c2ccertified.org/the-standard
- Deloitte. 2023. Procurement in a circular economy: Benefits beyond sustainability. https://www2.deloitte.com/ch/en/pages/strategy-operations/articles/procurement-in-a-circular-economy.html
- Ellen MacArthur Foundation. 2021. Reusing construction materials to limit biodiversity impacts: Upcycled studios. https://www.ellenmacarthurfoundation.org/circular-examples/reusing-construction-materials-to-limit-biodiversity-impacts-upcycles
- Ellen MacArthur Foundation. 2022. A building that can be reused: Brummen Town Halll. https://www.ellenmacarthurfoundation.org/circular-examples/brummen-town-hall
- Ellen MacArthur Foundation N/A. Circular public procurement. https://www.ellenmacarthurfoundation.org/circular-public-procurement/lessons-learnt-by-cities -
- Ellen MacArthur Foundation. N/A. Circular public procurement: a framework for cities. https://emf.gitbook.io/circular-procurement-for-cities/
- Ellen MacArthur Foundation. N/A. The Butterfly diagram. Visualising the Circular Economy. https://www.ellenmacarthurfoundation.org/circular-economy-diagram -
- European Commission. 2017. Public procurement for a circular economy. Good practice and guidance. https://circulareconomy.europa.eu/platform/sites/default/files/knowledge_-_public_procurement_circular_economy_brochure.pdf -

10. References

- European Commission. 2021. Dynamic purchasing systems. Use guidelines. https://op.europa.eu/en/publication-detail/-/publication/9b5394f7-3219-11ec-bd8e-01aa75ed71a1 -
- European Commission. 2022. A New European Innovation Agenda. COM(2022) 332 final. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0332 –
- European Commission. 2023. Completion of the key 'Fit for 55' legislation. https://ec.europa.eu/commission/presscorner/detail/en/IP_23_4754 -
- European Commission. 2023. EU at COP28 Climate Change Conference. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/climate-action-and-green-deal/eu-un-climate-change-conference/eu-cop28-climate-change-conference_en -
- European Commission. Green public procurement. Sustainability and circularity as a starting point for ICT procurement. https://green-business.ec.europa.eu/green-public-procurement/good-practice-library/sustainability-and-circularity-starting-point-ict-procurement_en -
- European Comission. Good practice library. N/A. Introducing circular economy procurement to road construction. https://green-business.ec.europa.eu/green-public-procurement/good-practice-library/introducing-circular-economy-procurement-road-construction-city-tampere_en
- European Commission N./A. Pre-Commercial Procurement. https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/new-european-innovation-agenda/innovation-procurement/pre-commercial-procurement_en -
- European Commission. N/A Critical raw materials https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en#fifth-list-2023-of-critical-raw-materials-for-the-eu
- European Commission. N/A. Circular economy action plan. https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en#policy-areas
- European Commission. N/A. Green public procurement. https://green-business.ec.europa.eu/green-public-procurement_en
- European Commission. N/A. Innovation Procurement. https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/new-european-innovation-agenda/innovation-procurement_en -
- European Commission. N/A. Public Procurement of Innovative solutions. https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/new-european-innovation-agenda/innovation-procurement/public-procurement-innovative-solutions_en -
- European Commission. N/A. GPP Training Toolkit - European Commission. https://green-business.ec.europa.eu/green-public-procurement/gpp-training-toolkit_en -
- European Commission. N/A. The EU Ecolabel. https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home/about-eu-ecolabel_en
- European Council. 2023. European Green Deal. https://www.consilium.europa.eu/en/policies/green-deal/
- European Environment Agency. 2023. How far is Europe from reaching its ambition to double the circular use of materials? https://www.eea.europa.eu/publications/how-far-is-europe-from/how-far-is-europe-from
- European Environment Agency. 2023. Many EU Member States risk missing waste recycling targets. https://www.eea.europa.eu/en/newsroom/news/many-eu-member-states
- European parliament. 2023. Waste management in the EU: infographic with facts and figures. https://www.europarl.europa.eu/news/en/headlines/society/20180328STO00751/waste-management-in-the-eu-infographic-with-facts-and-figures -
- European parliament. 2023. Circular economy: definition, importance and benefits. https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits
- European Union. N/A. Life cycle costing. https://green-business.ec.europa.eu/green-public-procurement/life-cycle-costing_en
- Eurostat. 2022. EU's circular material use rate decreased in 2021. https://ec.europa.eu/eurostat/en/web/products-eurostat-news/w/ddn-20221213-1 -
- Finnish Environment Institute. 2022. Kiertotaloushankintojen käsikirja. https://issuu.com/suomenymparistokeskus/docs/circwaste_kiertotaloushankintojen_k_sikirja_18.5.

10. References

- Finnish Ministry of Environment. N/A. Strategic programme to promote a circular economy https://ym.fi/en/strategic-programme-to-promote-a-circular-economy
- GS1 Italy's tool for measuring circularity in the company: https://gs1it.org/content/public/d3/55/d355c88c-47a9-4e27-ad0f-7ec788c41ad2/circolup_gs1_economia_circolare.pdf
- ICLEI. 2016. The Procura+cManual: A Guide to Implementing Sustainable Procurement. https://procuraplus.org/fileadmin/user_upload/Manual/Procuraplus_Manual_Third_Edition.pdf
- ICLEI. 2018. Life cycle costing state of the art report. https://iclei-europe.org/publications-tools/?c=search&uid=JVTB5WYD
- ICLEI. 2018. Market engagement best practice report. https://circularprocurement.ca/market-engagement-best-practice-report-2/
- Ihobe. Textil ropa de interior. https://www.ihobe.eus/CriteriosAmbientales/Ficha.aspx?IdMenu=244677a9-6fc5-4e48-b375-3283c46421fe&Cod=43c00f35-0778-4d14-8662-5a3ddaed56e0&Idioma=es-ES
- Ihobe. Servicio de Comedor. https://www.ihobe.eus/CriteriosAmbientales/Ficha.aspx?IdMenu=244677a9-6fc5-4e48-b375-3283c46421fe&Cod=d762f722-d482-4ac1-8f87-b304f88357f5&Idioma=es-ES
- Jones, M. et. al. / SPP Regions 2017. Circular Procurement - Best Practice Report. https://circulars.iclei.org/wp-content/uploads/2021/01/Circular_Procurement_Best_Practice_Report.pdf -
- Junta de Andalucia. Gestion integral parque metropolitano del amamillo. https://www.juntadeandalucia.es/haciendayadministracionpublica/apl/pdc_sirec/perfiles-licitaciones/detalle-licitacion.jsf?idExpediente=000000255658
- Keino Competence Centre for Sustainable and Innovative Public Procurement. N/A. Innovativeness of public procurement in Finland. https://www.hankintakeino.fi/en/sustainable-and-innovative/statistics-finland/innovativeness-and-sustainability-public-0 -
- KEINO Competence Centre for Sustainable and Innovative Public Procurement. 2021. Sustainable procurement of self-owned and rental work clothes with laundry services – Case city of Helsinki. https://www.hankintakeino.fi/en/materialbank/sustainable-procurement-self-owned-and-rental-work-clothes-laundry-services-case-city -
- Kriteeripankki / Criteria Bank. 2024. Responsibility criteria for public procurement. https://kriteeripankki.fi/en
- Ministry of the Environment and Energy Security. https://www.mase.gov.it/pagina/economia-circolare
- Motiva. 2024. Lisää lähi- ja luomuruokaa dynaamisella hankintajärjestelmällä –opas. https://www.motiva.fi/files/22468/Lisaa_lahi-_ja_luomuruokaa_dynaamisella_hankintajarjestelmalla_-opas.pdf -
- Motiva. 2019. Biogas bus purchase of city of Vaasa creates markets for clean technology. https://www.motiva.fi/en/public_sector/sustainable_public_procurements/examples_of_the_procurements/biogas_bus_purchase_of_city_of_vaasa_creates_markets_for_clean_technology -
- Müller, Assesment of reuse in public procurement. https://agricultura.gencat.cat/web/.content/01-departament/contractacio/compra-publica-verda/compra-verda-economia-circular/diagnosi-reuse.pdf
- Nokian kaupunki. 2018. Nokialla ajetaan nyt ympäristöystävällisillä kaasuautoilla. https://www.nokiankaupunki.fi/ajankohtaista/nokialla-ajetaan-nyt-ymparistoystavallisilla-kaasuautoilla/
- NWCPO. Circular and social public producement project upcycled and pre-loved office furniture fit-out. https://crni.ie/content/uploads/2020/11/PTI-Awards_Circular-and-Social-Public-Procurement-Project-NWCPO.pdf -

10. References

- OECD. N/A. Public procurement toolbox. https://www.oecd.org/governance/procurement/toolbox/about/terminology/
- Official Journal of the European Union. 2014. DIRECTIVE 2014/24/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL. https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014L0024
- Oppen, C., Croon, G. & Bijl de Vroe, D. 2018. Circular procurement in 8 steps. https://www.copper8.com/wp-content/uploads/2018/10/Circular-Procurement-in-8-steps-Ebook.pdf
- Parmalat presented the first certified white R-Pet bottle for UHT milk made from 50% recycled Pet: https://www.parmalat.it/parmalat/sostenibilita
- ProCirc. 2022. City of Malmö nominated for Circular Procurement of the Year award. https://northsearegion.eu/procirc/news/city-of-malmoe-nominated-for-circular-procurement-of-the-year-award/ -
- Procura + network. N/A. Rewarding sustainable, circular and innovative procurement. https://procuraplus.org/dev/awards/awards-2022/
- Sitra. 2023. Inspiring circular economy solutions from around the globe. https://www.sitra.fi/en/projects/inspiring-solutions/
- Southwest Finland's waste management. N/A. Development projects. https://lsjh.fi/lsjh/kehityshankkeet/
- Sustainable procurement platform. 2019 City of Mechelen – Procuring energy-efficient indoor lighting-as-a-service https://sustainable-procurement.org/resource-centre?c=search&uid=2ddfb414
- Telaketju. Business from circular economy textiles. https://telaketju.turkuamk.fi/
- This is the first system in Italy for the recovery and recycling of aluminium coffee capsules: https://www.nespresso.com/it/it/caffe-sostenibile
- Työ- ja elinkeinoministeriö. 2020. Kiertotalouden ekosysteemit. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162083/TEM_2020_13.pdf -
- Valovirta, V. et. al./Valtioneuvoston kanslia. 2017. Innovatiiviset julkiset hankinnat - määrittely, mahdollisuudet ja mittaaminen. https://tietokayttoon.fi/documents/10616/3866814/82_Innohankinnat+Teas+Loppuraportti1912.pdf -
- Valovirta, V./VTT. 2010. Esikaupalliset hankinnat: Menetelmä yhteiskunnalle tärkeiden innovaatioiden yrityslähtöiseksi kehittämiseksi. https://projectsites.vtt.fi/sites/procuinno/www.vtt.fi/sites/procuinno/en/procuinno_es1.pdf -
- Van Oppen, Croon, Bijl de vroe. 2018. Circular Procurement in 8 Steps.https://www.copper8.com/wp-content/uploads/2018/10/Circular-Procurement-in-8-steps-Ebook.pdf
- VTT. 2021. Telaketju – Business from circular textiles. https://cris.vtt.fi/ws/portalfiles/portal/52366217/Telaketju2_FinalReport_Public.pdf
- World Bank. 2021. Green Public Procurement: An Overview of Green Reforms in Country Procurement Systems https://openknowledge.worldbank.org/server/api/core/bitstreams/5ee88e6e-a161-58b6-8126-e8a885e3acef/content
- Xunta de galicia. Consellería de Sanidade – SERGAS. https://www.contratosdegalicia.gal/licitacion?N=579802&OR=11&IDE=801&S=C&lang=gl
- Yanatma, S. 2023. Italy, Belgium, Latvia: Which European countries are the best and worst at recycling? https://www.euronews.com/green/2023/10/17/italy-belgium-latvia-which-european-countries-recycle-the-most

11. Acknowledgements

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EcoFellows Ltd, Finland

Provincia di Parma, Italy*

Mancomunidad Integral Sierra de San Pedro, Spain**

* *In collaboration with Fondazione Ecosistemi*

* * *In collaboration with Innogestiona Ambiental SL*

12. Attachments

Minimum Environmental Criteria (MEC)

In each of the following product categories with Minimum Environmental Criteria, ‘circularity criteria’ are identified.

MEC Indoor furniture ("Supply, rental service and life extension service of indoor furniture" approved by Ministerial Decree June 23, 2022 No. 254)	**4.1.1 Eco-design;** **4.1.5 Wood products;** **4.1.6 Plastic materials;** **4.1.7 Materials for upholstery;** **4.1.8 Upholstery materials;** **4.1.9 Final product requirements;** **4.1.10 Packaging;** **4.2.1 Packaging take-back;** **4.2.2 Warranty;** **4.3.2 Modularity;** **4.3.5 Recycled coatings.** **4.3.8 Extended warranty;** **6.1.2 Performance of service;** **6.1.3 Parts and materials for furniture repair;** **6.1.4 Assessment of improvements;** **6.1.5 Warranty;** **6.2.1 Extended warranty;**

MEC street furniture ("Entrusting the service of design of playgrounds, the supply and installation of street furniture products and outdoor furniture and the entrusting of the service of routine and extraordinary maintenance of street furniture products and outdoor furniture" approved by Ministerial Decree February 7, 2023)	**4.1.4 General directions for material selection;** **5.1.2 Reconditioned products, products prepared for reuse;** **5.1.3 Ecodesign: maintenance, repair and disassembly;** **5.1.4 Products made of wood or also composed of wood;** **5.1.5 Products of plastic or plastic-wood, plastic-glass blends;** **5.1.6 Rubber products and components, plastic-gamma blend products, flooring containing rubber;** **5.1.7 Surfaces of sports camps or areas in recreational spaces made of asphalt mixes;** **5.1.8 Precast concrete products;** **5.1.9 Ceramic products;** **5.1.10 Steel products;** **5.1.11 Products with glass components;** **5.2.1 Packaging requirements;** **5.2.2 Warranty;** **5.3.1 Supply of products prepared for reuse;** **5.3.4 Precast concrete, paving and other manufactured products; made from inert materials: recycled content;**

12. Attachments

Minimum Environmental Criteria (MEC)

MEC shoes ("Supplies of non-EPP work footwear and PPE, leather articles and accessories" approved by Ministerial Decree May 17, 2018)	2.3.8 Durability and technical characteristics of footwear; 2.4.5 Textile components made of recycled fibers; 2.4.6 Polymeric materials; 2.4.9 Recovery of processing by-products - Material Balance; 2.4.12 Collection and reuse of existing pre-tender footwear; 2.5.2 Recycling Collection.

MEC paper ("Purchase of copy and graphic paper" approved by Ministerial Decree April 4, 2013)	For Recycled Paper: 4.2.1 Fiber requirements; 4.3.2 Paper containing post-consumer recycled cellulose fibers. For Mixed or Virgin Paper: 5.2.1 Fiber Requirements.

MEC toner cartridges ("Supply of toner cartridges and inkjet cartridges and for the contracting of the integrated service of collection of spent cartridges, preparation for reuse and supply of toner and inkjet cartridges" approved by Ministerial Decree Oct. 17, 2019)	B a) 2. Print quality and yield; B a) 3. Remanufactured cartridges: minimum quota, possession of environmental labels in accordance with technical standard UNI EN ISO 14024; B (b) 1. Minimum quota of remanufactured cartridges; B (b) 2. Warranty; B c) 1. Supply of cartridges in possession of Der Blaue Engel, Umweltzeichen, Nordic Ecolabel or other environmental labels in accordance with UNI EN ISO 14024; C a) 1. 1. Authorizations.

12. Attachments

Minimum Environmental Criteria (MEC)

MEC construction ("Contracting of design services and contracting of works for construction interventions" approved by Ministerial Decree June 23, 2022 No. 256)	**2.3.5.3 Areas equipped for separate waste collection;** **2.4.14 Disassembly and end of life;** **2.6.1 Site environmental performance;** **2.6.2 Selective demolition, recovery and recycling;** **2.6.4 Backfills and backfills;** **2.5.2 On-site packaged and ready-mixed concretes;** **2.5.3 Precast autoclaved aerated concrete products and vibro compressed concrete;** **2.5.4 Steel;** **2.5.5 Bricks;** **2.5.6 Wood products;** **2.5.7 Thermal and acoustic insulation;** **2.5.8 Partitions, perimeter walls and false ceilings;** **2.5.9 Stone and mixed masonry;** **2.5.10.1 Hard flooring;** **2.5.10.2 Resilient flooring;** **2.5.11 PVC windows and shutters;** **2.5.12 PVC and polypropylene piping;** **3.1.3 Greases and lubricating oils for vehicles used during work;** **3.1.3.4 Plastic packaging requirements for lubricating oils (biodegradable or regenerated-based);** **3.2.7.3 Requirements for lubricating oil packaging (biodegradable or regenerated-based);** **4.3.8 End of life of equipment;**

12. Attachments

Minimum Environmental Criteria (MEC)

MEC Events ("Event organization and implementation service" approved by Ministerial Decree Oct. 19, 2022 No. 459)	4.1.4 Tickets and information and promotional materials; 4.1.6 Exhibits and furnishings; 4.1.7 Packaging of fittings, furnishings, and works; 4.1.8 Collection and reuse of fittings; 4.1.9 Gadgets and prizes; 4.1.17 Tablecloths and napkins; 4.1.18 Waste prevention at food stations; 4.1.19 Waste management; 4.2.2 Plastic fittings and furnishings; 4.2.9 Tablecloths and napkins.

MEC Supply and Design Public Lighting ("Acquisition of light sources for public lighting, the acquisition of public lighting fixtures, the procurement of design services for public lighting systems" approved by Ministerial Decree Sept. 27, 2017)	4.1.3.13 Information on installation, maintenance, and removal of high-intensity discharge lamps, LED modules, and power supplies; 4.1.3.14 Warranty 4.1.4.7 Material balance; 4.1.4.8 Warranty; 4.1.5.2 Electrical and electronic waste management; 4.2.3.10 Luminous Flux Maintenance Factor and Failure Rate for LED luminaires; 4.2.3.16 Warranty; 4.2.4.10 Material balance; 4.2.4.11 Warranty; 4.3.4.6 Material balance.

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Minimum Environmental Criteria (MEC)

MEC Public lighting service ("Public lighting service" approved by Ministerial Decree March 28, 2018)	**4.5.4 Material balance;** **4.6.1 Material balance.**

MEC Cleaning and sanitization ("Entrusting the service of cleaning and sanitization of buildings and environments for civil, sanitary use and for cleaning products" approved by Ministerial Decree 51 of January 29, 2021)	**C.(c)6. Waste management;** **C.(c)7. Reporting on products consumed;** **D. a)2. Concentrated detergents: technical specifications (minimum environmental criteria);** **E. a)6. Dosing systems;** **E. a)7. Packaging requirements.**

12. Attachments

Minimum Environmental Criteria (MEC)

MEC Waste ("Awarding of the service of collection and transportation of municipal waste, street cleaning and sweeping service, supply of related vehicles and containers and bags for the collection of municipal waste" approved by Ministerial Decree June 23, 2022 No.255)	**4.2.1 Separate collection and material recovery targets;** **4.2.2 Articulation of collection service and commodity fractions;** **4.2.3 Collection of waste produced during occasional and temporary events;** **4.2.4 Collection of waste in markets;** **4.2.5 Collection of beached waste;** **4.2.6 Floating waste collection;** **4.2.7 Self-composting;** **4.2.8 Community composting;** **4.2.9 Bags for municipal waste collection;** **4.2.10 Management of collection centers, reuse preparation centers, and exchange and reuse centers;** **4.2.11 Plan for monitoring the compliance of deliveries;** **4.2.14 Operation and maintenance of waste collection containers (excluding street bins);** **4.2.15 Information and awareness of users and in schools;** **4.2.16 Monitoring information system;** **4.2.18 Staff training;** **4.3.1 Systems for identification of the deliverer and measurement of the waste delivered for the plastic fraction;** **4.3.2 Single-material collection of glass;** **4.3.3 Personal Absorbent Products (PAP) collection;** **4.3.4 Promotion and support of self-composting and community composting;** **4.3.5 Implementation of local composting systems;** **4.3.6 Access to collection centers;** **4.3.7 Centers for exchange and reuse and preparation for reuse;** **4.3.8 Waste prevention;** **4.3.9 Micro-collection systems;** **4.3.10 User involvement and participation;** **4.3.11 Communication to users;** **4.3.12 Agreements with large-scale retailers and retail trade;** **4.3.13 Agreements with tourism operators;** **4.3.14 Implementation of recycling supply chains for specific waste streams;** **4.3.15 Automatic container fill level detection systems;** **4.3.16 Provision of take-away containers for collection of smoking products waste, animal droppings, and small waste;**

12. Attachments

Minimum Environmental Criteria (MEC)

MEC Waste ("Awarding of the service of collection and transportation of municipal waste, street cleaning and sweeping service, supply of related vehicles and containers and bags for the collection of municipal waste" approved by Ministerial Decree June 23, 2022 No.255)	5.2.1 Cleaning and sweeping service objectives and type of waste to be removed; 5.2.3 Cleaning fixed and temporary markets and other areas following events and fairs; 5.2.4 Cleaning of parks, gardens, cemetery green areas, areas equipped for public use, bike paths; 5.2.5 Cleaning of sandy shores and river and lake shores; 5.2.6 Cleaning storm drains; 5.2.9 Management, emptying, and maintenance of containers for smoke product waste and very small waste (street bins); 5.2.12 Staff training; 5.3.1 Material recovery from the residual fraction and/or sweeping; 5.3.2 Street sweeping and street washing; 5.3.6 Citizen outreach activities; 5.3.7 Recycling of organic fraction from beach and river/lake shore cleaning; 5.3.8 User warning; 6.1.1 Technical characteristics of street and domiciliary containers; 6.1.2 Identification elements of street and domiciliary containers; 6.1.3 Characteristics of containers for the collection of smoke product waste and very small waste ("street bins"); 6.1.4 Characteristics of sacks and bags; 6.2.1 Take-back of containers at end-of-life; 6.2.2 Technical characteristics of containers: recycled content; 6.2.3 Characteristics of plastic bags and sacks: recycled content; 6.2.4 Renewable raw material content for sacks and bags for organic fraction collection; 6.2.5 Reduction in weight and volume of organic waste; 6.2.6 Reduction of drag effect.

12. Attachments

Minimum Environmental Criteria (MEC)

MEC Collective catering ("Collective food service and food supply" approved by Ministerial Decree No. 65 of March 10, 2020)	**C.a.3. Prevention and management of food surpluses;** **C.a.4. Waste prevention and other requirements of materials and articles intended for direct food contact (FCM);** **C.a.5. Waste prevention and management;** **C.a.6. Tablecloths, napkins;** **D.a.1. Menus;** **D.b.3. Food surplus prevention and management;** **D.b.4. Waste prevention and other requirements of materials and articles intended for direct food contact materials (FCM);** **D.b.5. Prevention of other waste and waste management;** **D.b.6. Tablecloths, napkins;** **D.c.1. Variety and modularity of menus;** **E.a.2. Prevention and management of food surpluses;** **E.a.3. Waste prevention and other requirements of materials and objects intended for direct food contact (FCM);** **E.a.4. Waste prevention and management;** **E.a.5. Tablecloths, napkins;** **E.b.4. Management measures to reduce waste generated by service in inpatient wards.**

12. Attachments

Minimum Environmental Criteria (MEC)

MEC Refreshment Services and Beverage Distribution ("Refreshment Services and to the Distribution of Mains Water for Drinking Purposes" approved by Ministerial Decree November 6, 2023)	**Food, beverage and water dispensing machines** **2.1.6 Packaging;** **2.2.3 Collection of packaging** **2.2.4 Prevention of food waste.** **2.3.1 Packaging reduction** **Food point** **3.1.2 Requirements for food and beverages and their packaging** **3.1.3 Waste prevention and management** **3.1.4 Prevention of food waste** **3.1.8 Refreshment facility furnishings** **3.2.2 Ecodesign criteria for equipmen** **Sandwich preparation and serving services** **4.1.3 Prevention of food surpluses and waste** **4.1.4 Other measures for waste prevention and management** **4.1.7 Refreshment facilities furniture** **4.2.2 Ecodesign criteria for equipment**

12. Attachments

Minimum Environmental Criteria (MEC)

MEC Printing services ("Managed printing service, entrustment of rental service of printers and multifunction office equipment and purchase or lease of printers and multifunction office equipment" approved by Ministerial Decree October 17, 2019)	**D.A.2. Printing and imaging devices: compliance with minimum environmental criteria;** **D.A.4. Control of print production and equipment setup;** **D.A.5. Elimination of stocks of consumables;** **D.A.6. Deterrents to print production;** **D.A.8. Verification of monitoring results and adjustment of the printing system;** **D.A.9. Logistics and supply of consumables;** **D.B.1. Life extension of malfunctioning or obsolete imaging devices of the contracting station;** **D.B.2. Cartridge pick-up and remanufacturing service;** **E.A.1. Rental: compliance with Minimum Environmental Criteria;** **E.B.1. Toner and inkjet cartridges;** **E.C:3. Life extension of malfunctioning or obsolete contracting station imaging devices;** **E.C.4. Cartridge take-back and remanufacturing service;** **F.A:2. Operation with recycled paper;** **F.A.3. Duplex functionality, print preview, availability of multi-page printing;** **F.A.7. Use of remanufactured toner and inkjet cartridges;** **F.A.8. Additional elements of eco design;** **F.A.9. Supply of toner and inkjet cartridges;** **F.B.3. Life extension of malfunctioning or obsolete contracting station imaging devices;** **F.B.4. Service and maintenance.**

12. Attachments

Minimum Environmental Criteria (MEC)

MEC Textiles ("Supplies and rental of textile products and for restyling and finishing service of textile products" adopted by Ministerial Decree February 7, 2023)	3.1.2 Requirements for durability and suitability for use. 3.1.3 "Complex" garments: design for reuse. Bed, table and assimilated linens: reusability; 3.1.5 Packaging. 3.2.2 Product prepared for reuse, content of textile fibers recycled or consisting of by-products from industrial symbiosis; 3.2.5 Additional service service aimed at promoting the reuse of textile products and additional service of repair and maintenance of supplied products, 4.1.1 Textile items: restyling; 4.2.1 Compliance with minimum environmental criteria; 4.2.2 Packaging.

MEC Public green ("Public green management service and supply of green care products" approved by Ministerial Decree No. 63 of March 10, 2020)	E.c.8. Reuse of residual organic materials; E.c.17. Waste management; E.d.9. Valorization and management of residual material; F.a.2. Containers and packaging; F.c.3. Substrates with reduced peat content.

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Minimum Environmental Criteria (MEC)

MEC Vehicles ("Purchase, lease, rental, hire of vehicles used for road transport and for public land transport services, special road passenger transport services" approved by Ministerial Decree June 17, 2021)	**D. (a)2. New electric vehicles (M1 and N1): traction battery warranty and scheduled maintenance plan;** **D.(b)5. New electric vehicles (M1 and N1): extension of traction battery warranty;** **D.(b)7. Use of recycled materials and biobased plastics/polymers;** **D.(b)8. Recycling and recovery of end-of-life electric batteries;** **E. a)5. New electric vehicles (M1 and N1): traction battery warranty and scheduled maintenance plan;** **E. (b)1. New electric vehicles (M1 and N1): traction battery warranty;** **E. (b)7. Use of recycled materials and biobased plastics/polymers;** **E. b)8. Recycling and recovery of end-of-life electric batteries;** **F.(b)4. Recycling and recovery of end-of-life electric batteries;** **G.(b)2. New electric vehicles: extension of electric battery warranties;** **G.b)3. Electric vehicles: removable batteries and regenerative braking system;** **G.b)4. Recycling and recovery of end-of-life electric batteries;** **H.c)1. Greases and lubricating oils: compatibility with target vehicles;** **H.c)1. Biodegradable greases and oils;** **H.c)1. Regenerated-based mineral lubricating greases and oils;** **H.d)1. Biodegradable lubricants (other than motor oils): Ecolabel possession;** **H.d)2. Mineral lubricating greases and oils: regenerated base content;** **H.d)3. Packaging requirements for lubricating oils.**

12. Attachments

Results of the questionnaires

A. Italy (Provincia di Parma)

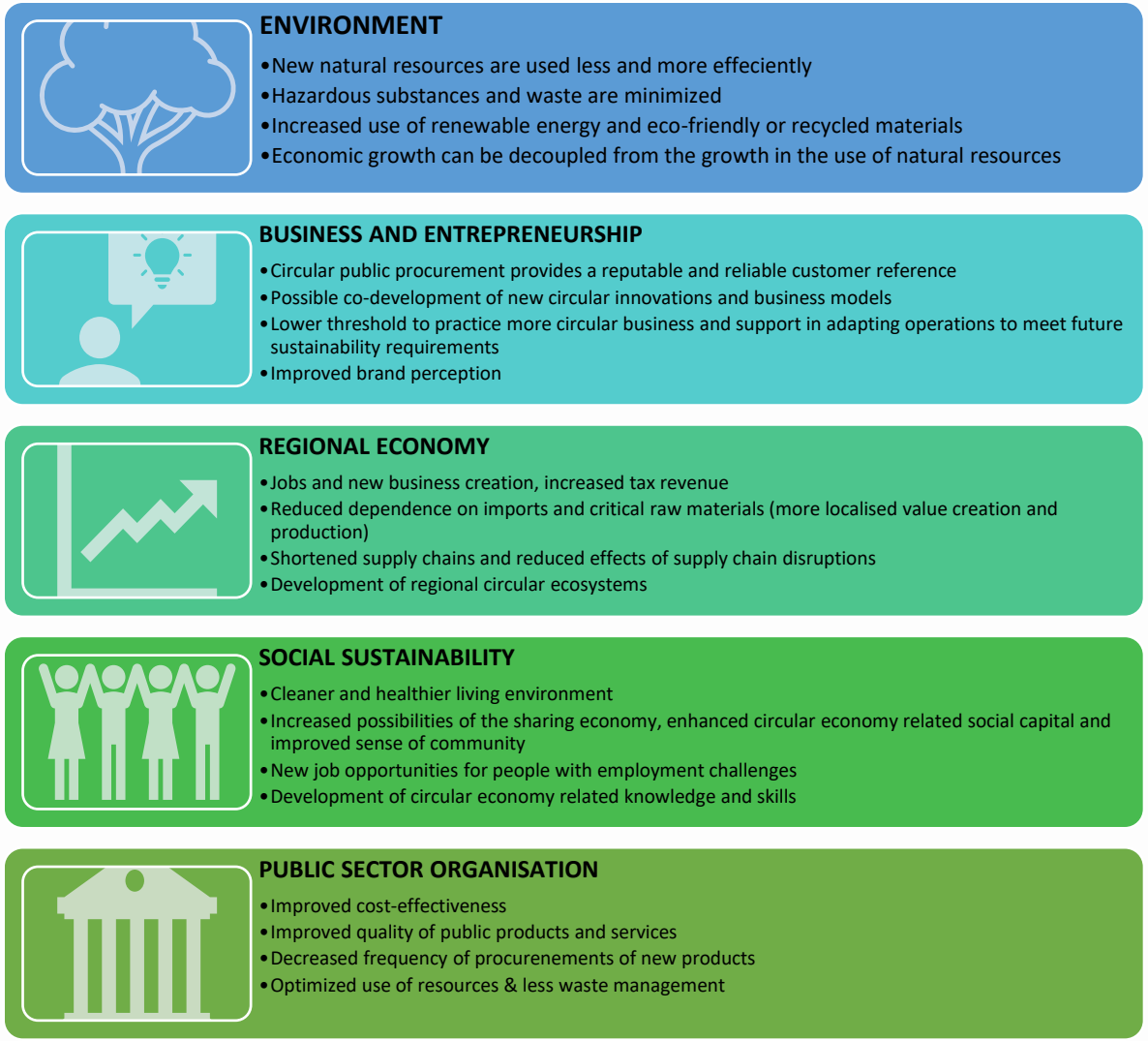
B. Spain (Mancomunidad Integral Sierra de San Pedro)

C. Finland (EcoFellows Ltd)

12. Attachments

Benefits of circular public procurement in different contexts

Examples of the benefits of circular economy and circular public procurement from the perspectives of the environment, business and entrepreneurship, regional economy, social sustainability and public sector organisations.

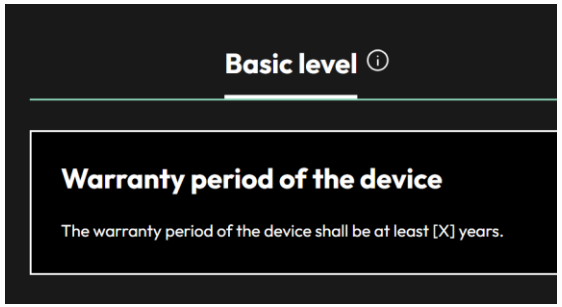


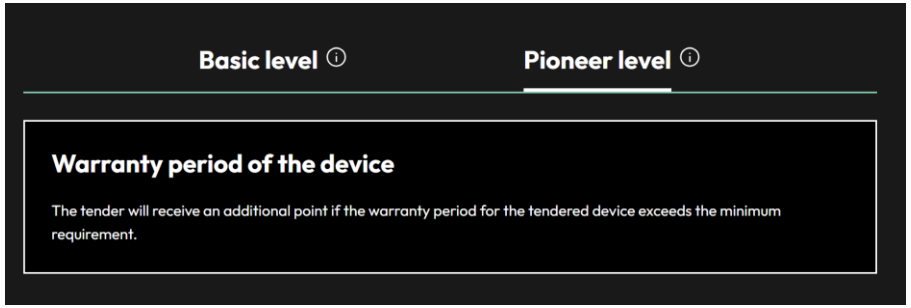
Sources: Alhola et. al./Circwaste (2023) in Finnish; TEM (2020) in Finnish; European Commission 2017, Jones et. al. 2017. / SPP Regions 2017

12. Attachments

Finnish responsibility criteria website Kriteeripankki

- ”Kriteeripankki” or ”Criteria Bank” is a Finnish responsibility criteria website for public procurement.
  - The service streamlines the work of those making purchases and is also useful to companies that offer their products and services to the public sector. The page provides information also on the environmental impacts of products and services.
    - On the website, you can search for sustainability criteria applicable in procurement based on the product or service being procured and the sustainability goal considered in the procurement. Criteria can also be searched using your own keywords such as “recycling”.
      - There are currently (7/2024) 35 different product or service categories to choose from on the Finnish language website ranging from data centers to work clothing.
      - Sustainability goals are divided into 20 different categories such as “air quality and pollution”, “circular economy and waste reduction” and “low carbon”.
        - The website is also partially translated into Swedish and English.
    - The criteria have been developed in dialogue with purchasers, suppliers and key stakeholders in the field and they have been divided into two different levels: basic level (exceeds the minimum requirements of legislation) and leadership/pioneer level (more demanding for the procurement unit and/or the supplier than the basic level, or they are completely new criteria that are not yet found at the basic level). (Kriteeripankki)
- An example of the criteria of ”medical devices” concerning ”circular economy and waste reduction” goals (Kriteeripankki):





- Kriteeripankki is a service of KEINO Competence Center. The maintenance and development of the site is managed by Motiva Oy. You can subscribe to the Finnish-language newsletter on responsible and impactful purchases from Motiva Oy at the following address: https://www.motiva.fi/ajankohtaista/uutiskirjeiden_tilaus

Sources: Kriteeripankki; Motiva

12. Attachments

Glossary

CE = Circular Economy

CP = Circular Procurement

DPS = Dynamic Puchasing System

GPP = Green Public Procurement

LCA = Life Cycle Assessment

LCC = Life Cycle Costing

KPI = Key Performance Indicator

SPP = Sustainable Public Procurement

PCP = Pre-Commercial Procurement

PPI = Public Procurement of Innovative Solutions