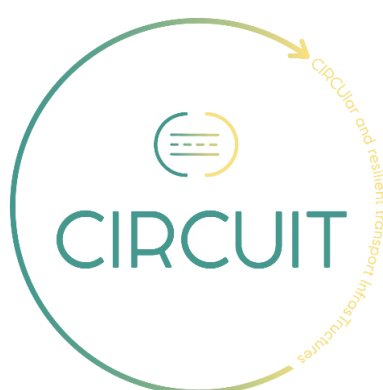


- CIRCUIT -

Holistic approach to foster CIRCULAR and resilient transport InfraStructures and support the deployment of Green and Innovation Public Procurement and innovative engineering practices



– Deliverable 4.1–

Manual for a successful deployment of GPP in CIRCUIT pilots

| Project details | |
|-----------------------|--|
| Project reference no. | 101104283 |
| Project Acronym | CIRCUIT |
| Project Full title | Holistic approach to foster CIRCULAR and resilient transport InfraStructures and support the deployment of Green and Innovation Public Procurement and innovative engineering practices. |
| Call ID Topic | HORIZON-CL5-2022-D6-02 HORIZON-CL5-2022-D6-02-06 |
| Duration | 48 Months |
| Coordinator | Thierry Goger (FEHRL) |

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| 17 | ALGORAB – ALGORAB | Italy |
| 18 | Hrvatske autoceste d.o.o. – HAC | Croatia |
| 19 | Waterschap Hollandse Delta – WSHD | The Netherlands |
| 20 | Uberbinder Limited – Uberbinder | United Kingdom |

| Document Details | |
|--------------------------------|---|
| Title | Manual for a successful deployment of GPP in CIRCUIT pilots |
| Work Package | WP4 – Green and Innovative Procurement Models |
| Date of the Document | 19/11/2024 |
| Version of the document | 1.0 |
| Responsible partner | ERF |
| Contributing Partner | IPK, ACC, RC, ANAS, MITMA, WSHD, CRNA, ZAG, HAC |
| Reviewing Partner | IPK, ACC., FEHRL, ANAS, CRNA |
| Status of the document | Final |
| Dissemination level | PU |

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| Document History | | | |
|------------------|------------|-----------------------------------|--------------------------------------|
| Version | Date | Comments | Author |
| V 0.1 | 11/07/2024 | Draft | ERF, ANAS, IPK |
| V0.2 | 08/11/2024 | Consolidated draft open to review | ERF, ANAS, IPK, RC, ACC. |
| V1.0 | 19/11/2024 | Final version sent for submission | ERF, ANAS, IPK, RC, ACC, FEHRL, CRNA |

Disclaimer:

CIRCUIT has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101104283. This document reflects only the authors' views. The European Commission and CINEA are not responsible for any use that may be made of the information contained therein.

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Executive Summary

The document 4.1, "Manual for a successful deployment of GPP in CIRCUIT pilots", aims at delivering a state of the art of the application of Innovative and Green Public Procurement in the European Union (chapter 2) and in the five CIRCUIT pilot countries (chapter 3); and at suggesting new criteria based on the experience of the pilot projects within the CIRCUIT project (chapter 4).

Besides the legal and policy framework collected for each pilot country, the "state of the art" section includes the results and a key finding from a survey and an interview previously submitted to the pilots in the framework of the Task 4.1 ("GPP and Innovation procurement requirements and facilitators"). In this way the state of the art goes beyond what is contained in law and regulation but aims at investigating procurement practices in the pilots' daily activities.

The survey and the interviews, here summarized, provide information about the actual levels of deployment of IGPP, the key stakeholders and the main barriers. The ideas about the way towards higher level of implementing a innovative and green public procurement are also collected.

The report also includes the main findings from the task 4.2 ("Stakeholders engagement in pilots"), which aims at mapping the supply and value chain in the five pilot countries demonstrations.

Chapter 4, finally, aims at providing recommendations on possible future criteria based on the actual experience of the pilots in developing the projects linked to CIRCUIT. The goal is providing recommendations that can be implemented in the future life cycle management of transportation infrastructure projects.

Abbreviation list

| Abbreviation | Definition |
|--------------|--|
| CF | Carbon Footprint |
| EC | European Commission |
| EP | European Parliament |
| EU | European Union |
| GDP | Gross Domestic Product |
| GPP | Green Public Procurement |
| HAC | Hrvatske Autoceste (Croatian highways) |
| IGPP | Innovative and Green Public Procurement |
| IPP | Innovative Public Procurement |
| ISO | International Organization for Standardization |
| ITT | Invitation To Tender |
| KPIs | Key Performance Indicators |
| LCA | Life Cycle Assessment |
| LCC | Life Cycle Costing |
| MEAT | Most Economically Advantageous Tender (criteria) |
| PP | Public Procurement |
| SMEs | Small and Midsize Enterprises |
| TFUE | Treaty of the Functioning of the European Union |

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Glossary of terms

Carbon Footprint

A measure of the amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization or community.

Circularity

An economic concept (also: circular economy) meaning that a product, service or resource is renewed or regenerated, rather than wasted. Key principle of circularity is allowing materials and products to be used more than once in a value chain either processed (e.g. recycled) or unprocessed (e.g. reused).

EU Green Deal

A set of policy initiatives by the European Commission with the aim of making the European Union climate neutral in 2050.

Green Public Procurement (GPP)

Procuring goods, services and work with a reduced environmental impact throughout their life cycle.

Innovative Public Procurement (IPP)

Innovation procurement includes the development of innovative solutions through the procurement of research and development services, the procurement of innovative solutions that are not yet available or do not exist on the market, the procurement of innovative solutions that do exist, but are not yet widely available on the market.

Innovative and Green Public Procurement (IGPP)

Procurement practices beneficial to both environment and innovation.

Life Cycle

Consecutive and interlinked stages of a product system, from raw material acquisition or generation from natural resources to final disposal.

Life Cycle Assessment (LCA)

A methodology developed to assess the environmental impacts of a building, component, or material. The assessment compiles and evaluates the energy and material inputs and outputs of the material system throughout its life cycle and assesses the relevant environmental impact.

Life Cycle Cost Analysis (LCC)

An analysis of all the costs that will be incurred during the lifetime of the product, work or service. LCC may also include the cost of externalities such as environmental degradation or greenhouse gas emissions.

Material Circularity

The measure describing how much of the total material in the life cycle (%) is being directed back into the life cycle (e.g. recycled and cycled sourced materials vs. non-renewable and virgin material sourced).

Public procurement (PP)

The process by which public authorities, such as government departments or local authorities, purchase work, goods or services from companies.

Recovery

The process of systematically and intentionally collecting, salvaging and reusing materials from a building or construction site to extend their life cycle and reduce waste.

Recycling

Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes.

Resilience

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.

Reusability

The measure describing how much of the existing structures could be used again at the end of life cycle.

Reuse

The repeated use of a product or component for its intended purpose without significant modification.

Value Chain

A business model that describes the full range of activities needed to create a product or service.

1 Introduction

1.1 Objectives

Traditionally, laws and regulations on Public Procurement (PP) at local, regional, national and European level aimed at ensuring a smooth purchase of services, goods and works by public authorities. The highest level of efficiency and the lowest possible waste of public money were the main goals of these kind of regulations. In more recent times, the potential of PP for reaching societal goal was recognized, and terms such as Green Public Procurement (GPP) and Innovative Public Procurement (IPP) became more and more commonly used. In 2014, the European Commission (EC) delivered a series of directives (23/2014; 24/2014 and 25/2014) that were a clear step towards this new idea of public procurement. In the following years, the term “Strategic procurement” was introduced (2017 EC Communication “Making public procurement work in and for Europe) to further stress how public procurement can be a strategic asset to reach the societal goals of the European Union (EU) on environment, innovation or on social policies. Indeed, the document highlighted how the 200 billions on goods, services, and works spent annually by public authorities made up the 14% of the EU GDP. Similar figures are showed today in the EU Commission website on public procurement¹) where it is also highlighted that “Improving public procurement can yield big savings: even a 1% efficiency gain could save €20 billion per year”.

Yet, environment and innovation are not always the priorities of public buyers in their day-to-day activity, and the Most Economically Advantageous Tender (MEAT) is often the main (if not the only) criteria applied. Furthermore, despite the harmonisation efforts lead by the EC to enhance the single market, relevant differences among the national legislations persist. This report (made with the contribution of public buyers and other road authorities from the CIRCUIT pilot countries) aims at providing a concise state of the art of the Innovative and Green Public Procurement (IGPP) in the project pilots and some practical recommendations on the kind of criteria that need to be prioritized in tenders to make IGPP as more as possible the norm in procurement. The recommendations on the criteria are mainly extrapolated by the most relevant insights and lessons learned in the activities of the five pilots run in the framework of the CIRCUIT project.

¹ (https://single-market-economy.ec.europa.eu/single-market/public-procurement_en)

1.2 Purpose of the document

The report is not prescriptive in nature, but instead it aims at collecting practical indication from the deployment of CIRCUIT that can be a guide for public authorities even beyond the time of the project.

The criteria and indicators collected in the tables at chapter 4 are:

- Selection criteria;
- Technical specifications;
- Award criteria;
- Innovation criteria indicators.

These criteria and indicators are related to the activities carried out in the CIRCUIT pilots, namely:

- Croatia: road section (bridge, tunnel, road);
- Spain: roads (pavements and lighting);
- The Netherlands: embankment;
- Slovenia: bridge;
- Italy: tunnel.

Linking the criteria recommendations to the activities concretely carried out in CIRCUIT allow to maintain the report practical in nature, to facilitate the exchange of information within the consortium and to make this report eventually a useful tool for future readers.

The “state of art” section of IGPP in the EU legislation and in the five pilot countries aims at collecting information that are sometimes fragmentated in a concise way. The report aims at being a summary of the legislation and to illustrate how European and National levels are connected.

2 The State of the Art in the EU

2.1 Legal framework

Public procurement in the European Union (EU) is rooted in the basic principles established in the **Treaty on the Functioning of the European Union (TFUE)** for the good functioning of the internal market, in particular, the free movement of goods, freedom of establishment and the freedom to provide services, as well as the principles deriving therefrom, such as equal treatment, non-discrimination, mutual recognition, proportionality, and transparency.

In view of the Europe 2020 strategy set out in the Commission Communication of 3 March 2010 and entitled Europe 2020, a strategy for smart, sustainable and inclusive growth new family of directives on procurement were adopted in 2014. This revision and modernization of public procurement rules aims at obtaining more value from public money and at delivering better outcomes for societal goals such as protection of the environment, social responsibility, innovation, contrast to climate change, employment, or public health. Furthermore, directives aimed at making more flexible and simplifying public procurement procedures and the access of SMEs to procurement and at targeting corruption and fraud.

2.2 Policy framework

On the 28/10/2015 the EU Commission released the Communication “**Upgrading the Single Market: more opportunities for people and businesses**”, that called for a “more transparent, efficient and accountable public procurement”. The strategy recognized that the Directives 23/2014, 24/2014 and 25/2014 had a positive impact on the simplification and flexibility of procurement procedures, but noted that procurement was still often carried out without the necessary business skills, technical knowledge or procedural understanding, with negative consequences for business and taxpayers. Among the problems that the strategy aimed to tackle are the lack of available data and analytical tool and the big variety in which national review systems operate. Furthermore, the complexity and duration of procurement process often tend to delays, especially in the case of large-scale infrastructure projects. In the text of the strategy it is estimated that “nine out of ten large-scale infrastructure projects do not go according to plan: cost over-runs of up to 50 % are common. Delays are also common in all stages of the process, from planning to project implementation and contract execution”.

In order to tackle such challenges, the EU Commission envisaged to take the following initiatives:

- Facilitating the collection, consolidation, management and analysis of procurement data, supporting Member States' efforts towards better governance in public procurement;
- Fostering the development of tools for improved data quality and availability by streamlining existing data gathering mechanisms and supporting the creation of contract registers;
- Promoting the development of data analytics tools, in particular to detect anomalies in the procurement process ;
- Improving the effectiveness, efficiency and transparency of the procurement remedies system under the Remedies Directives (Directive 2007/66/EC of 11 December 2007);
- Encouraging first instance review bodies to cooperate and network to improve the exchange of information and best practice, with a particular attention to the strengthening of the specialised first instance administrative review bodies;
- Improving the monitoring of effectiveness of the national review systems through 14 regular assessment, including through the Single Market Scoreboard;
- Offering Member States the possibility of receiving assistance and advice on the legality of the procurement aspects of projects they intend to launch. Such assistance will be based on a voluntary ex ante assessment mechanism for infrastructure projects whose total value equals or exceeds EUR 700 million;
- Development of a specific procedure to allow procurement authorities to obtain a Commission opinion on the compatibility of the envisaged tender procedure with EU procurement rules on the basis of the notification of the project.

The following actions were also envisaged:

- Set up of a voluntary ex ante assessment mechanism of the procurement aspects of certain large-scale infrastructure projects;
- Promotion of networking between first instance review bodies, providing special legal and technical assistance to Member States willing to create or strengthen specialised first instance administrative review bodies and improving the monitoring of effectiveness by regular assessment including through the Single Market Scoreboard;
- Establishment of contract registers covering the whole life cycle of contracts and by supporting the development and deployment of a data analytics and anomaly-detection tool to better uncover existing or prospective procurement irregularities.

In 2017, the Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions **“Making public procurement work in and for Europe”** defined procurement as an essential economic instrument for the EU member states. It stressed the strategic nature of procurement for public authorities, as a “powerful tool for spending money in an efficient, sustainable and strategic manner”.

Indeed, the document highlighted that the overall government expenditures on works, goods, and services were worth 2000 billion every year, equivalent to 14% of the entire EU GDP. With such figures, public procurement has the potential to “enable investments in the real economy and stimulate demand to increase competitiveness based on innovation and digitalisation...it can also support the transition to a resource-efficient, energy-efficient and circular economy and foster sustainable economic development and more equal, inclusive societies”.

In brief, the Communication “Making public procurement work in and for Europe” calls for overcoming the view of public procurement as an administrative tool and moving towards a strategic and needs-driven approach, where public expenditure can be a powerful leverage to reach the most ambitious goals of the EU: competitiveness based on innovation and digitalisation, the transition to a resource-efficient, energy-efficient and circular economy and the fostering of a sustainable economic development for a more equal and inclusive societies. In order to make procurement an efficient tool to achieve these goals, with the Communication the EU Commission called for a broad partnership with and within member states’ authorities at all level of governments and other stakeholders.

Even if encouraging steps to reform procurement were recognized in several member states, the communication also noticed that strategic procurement possibilities were still not sufficiently used, with 55% of procurement procedures that still used the lowest price as the only award criterion while social, environmental, innovative, accessibility or other qualitative criteria were still underused. On the innovation side specifically, the document recommended a wider use of the innovation partnership procedure, a tool that was introduced by the 2014 directives to meet the specificities of innovation procurement, as well as to increase the legal certainty and reduce the innovation inherent risks.

Finally, the document reported six strategic priorities identified by the EU Commission to “transform public procurement into a powerful instrument in each Member State’s economic policy toolbox, leading to substantial benefits in procurement outcomes”:

1. Ensuring wider uptake of strategic public procurement;
2. Professionalising public buyers;
3. Improving access to procurement markets;

4. Increasing transparency, integrity and better data;
5. Boosting the digital transformation of procurement;
6. Cooperating to procure together.

The idea of strategic procurement gained, if possible, even more relevance under the EU Commission lead by President Ursula von der Leyen, that put a great emphasis on the “twin transition”, i.e. the combination and mutual reinforcement of green and digital transition to strength the EU Economy. Strategic procurement is indeed defined as a combination of:

- Innovation procurement;
- Green public procurement;
- Socially responsible procurement.

It is then clear how a strategic use of public procurement can be instrumental in delivering on some of the EU Commission flag policies such as the **European Green Deal**. Launched in December 2019, the EU Green Deal is a wide strategy that aims at making Europe a climate-neutral continent by 2050. In order to achieve such strategic goal, the EU Green Deal provides a roadmap for boosting resource efficiency and supporting a sustainable economy. Furthermore, the EU Green Deal suggests actions to achieve three fundamental goals:

- Promoting circular economy;
- Restore biodiversity;
- Cut pollution.

Public procurement can play a relevant role especially in promoting a circular economy. The **Circular Economy Action Plan**, launched in March 2020, is one of the most important blocks of the EU Green Deal, and envisages initiatives along the entire life cycle of products, from design to consumption, and aims at ensuring that the resources used are kept in the EU economy for as long as possible. Among the thirty-five actions listed in its action plan (EU Commission Communication 98/2020 “A new Circular Economy Action Plan for a cleaner and more competitive Europe”), the Circular Economy Action Plan includes “empowering consumers and public buyers”.

Acknowledging the relevance of public purchasing as a powerful driver of the demand for sustainable products, the action plan announced the institution of “minimum mandatory green public procurement (GPP) criteria and targets in sectoral legislation and phase in compulsory reporting to monitor the uptake of Green Public Procurement (GPP) without creating unjustified administrative burden for public buyers”. As of today, the Commission is proposing minimum mandatory GPP criteria and targets in sectoral legislation and phase in compulsory reporting to monitor its uptake, while voluntary GPP criteria for several products groups have already been developed. Furthermore, the Circular

Economy Action Plan invited public buyers to take part in the “Public Buyers for Climate and Environment” initiative, in order to facilitate exchanges among buyers committed to GPP implementation thus enhancing capacity building.

2.3 Particular framework for transport infrastructures

2.3.1 EU GPP criteria for Road design, construction and maintenance

In 2016 the EU Commission delivered the GPP criteria for the product group “Road design, Construction and Maintenance”. The criteria were divided into Selection Criteria, Technical Specifications, Award Criteria and Contract Performance Clauses. For each set of criteria, a choice between two ambition levels was established:

- The **Core criteria** were designed to allow easy application of GPP, focusing on the key area(s) of environmental performance of a product and aimed at keeping administrative costs for companies to a minimum;
- The **Comprehensive criteria** took into account more aspects or higher levels of environmental performance, for use by authorities that want to go further in supporting environmental and innovation goals.

Considering the complexity of the activities of designing and procuring road construction, maintenance, or rehabilitation activities with a reduced environmental impact, the document is complemented by a guidance document to provide procurers with orientation on how to effectively integrate the GPP criteria for Road Design, Construction and Maintenance into the procurement process (the *Procurement practice guidance document*).

The document identifies the main points in the sequence of procurement activities where GPP criteria should be integrated. To this end, these criteria are arranged to reflect the most common procurement activities and are accompanied by a guidance document, which provides general advice on how and when GPP criteria could be integrated into this process. It also suggests, based on experience from projects across the EU, how the procurement sequence could be managed to achieve the best results, issues to consider at key stages along the process, and specific types of expertise that may help to obtain better outcomes.

The following stages in the procurement process for a new or maintained road are covered by the proposed criteria:

- Selection of the design team and contractors;
- Detailed design and performance requirements;
- Construction or major extensions;
- Use of the road;

- Maintenance and operation;
- End of life.

In Chapter 1.3 ("Key environmental impacts"), the document estimates that the main environmental impacts arise from the daily traffic during the use phase of the road. Such impact is due to the rolling resistance associated with the pavement texture (directly linked to fuel consumption) and to congestion, which can greatly influence vehicle fuel consumption due to queues and associated slowdowns, both in the construction and the maintenance phase.

Furthermore, the document indicates the construction phase as the road life cycle stage with the second largest environmental impacts, due to materials production, including extraction and transportation. For this reason, the document states that the recycling and reuse of construction materials and products can contribute to reducing environmental impacts and the development of a circular economy.

Finally, the document listed two other impacts generally not included in the LCA but which are of particular importance: environmental noise emissions and storm-water drainage.

In order to assess the environmental impacts of construction material, the document lists the following criteria available to procurers (in decreasing level of ambition and technical complexity):

- **Life Cycle Assessment (LCA):** The carrying out of a Life Cycle Assessment. This requires bidders to evaluate the life cycle impacts of the main road elements;
- **Carbon footprint (CF):** The carrying out of a Carbon footprint. This requires bidders to evaluate the life cycle Global Warming Potential of the main road elements;
- **Requiring recycled and re-used content:** This requires bidders to provide materials with a minimum requirement as regards the amount of recycled and reused content for the main road elements;
- **Requiring reduced emissions from transport for heavy materials:** This rewards low CO₂e emissions from the transportation of the aggregates used for the main road elements.

In Chapter 3, the document highlights that Life Cycle Costing (LCC) considerations have informed the development of the EU GPP criteria for Road Design, Construction and Maintenance. LCC can be used to assess the total cost of ownership of a road over its design or service life. In particular, it enables 'comparative cost assessments to be made over a specified period of time, taking into account all relevant economic factors both in terms of initial capital costs and future operational and asset replacement cost'.

Regarding the rationale and the scope for considering life cycle costs, the document states that “LCC is particularly relevant to achieving an improved environmental performance because higher initial capital costs may be required to achieve lower life cycle running costs. It therefore represents a method for making effective, long-term investment decisions. For road infrastructures, asset management provides a systematic process for maintaining, upgrading, and operating physical assets in a cost-effective manner using a series of road management procedures and tools for both short- and long-term planning”.

Furthermore, “LCC is often the first step towards creating a comprehensive asset management approach. An LCC can be used as a tool during the project definition, concept design and detailed design stages, where it can be used to select, and value engineer the design that will provide the lowest overall cost (and highest residual value) along the life cycle of the asset. A full LCC exercise may be carried out with reference to the ISO standard 15685-5 or equivalent”.

In conclusion, according to the document, the EU GPP criteria for Road Design, Construction and Maintenance will have a positive influence on some of the key factors influencing the overall life cycle costs of a road, in particular:

- Acquisition costs;
- Operation, maintenance and rehabilitation costs;
- Residual value.

2.3.2 EU green public procurement criteria for road lighting and traffic signals

In 2018 the EU Commission delivered the GPP criteria for the product group “road lighting and traffic signals”. The environmental aspects covered by EU GPP criteria for road lighting are split into three broad sections: energy consumption, light pollution and lifetime. The criteria were organized into Selection Criteria, Technical Specifications, Award Criteria and Contract Performance Clauses. For each set of criteria, two ambition levels were established:

- **Core criteria** —designed for easy application of GPP, these focus on the key area(s) of environmental performance of a product and aimed at keeping administrative costs for companies to a minimum.
- **Comprehensive criteria** — which consider more aspects or higher levels of environmental performance, for use by authorities wishing to further support environmental and innovation goals.

Road lighting equipment within the scope of this product group can vary substantially in nature and is rapidly evolving. For this reason, several criteria

include conditional clauses specifying the circumstances under which they should be considered relevant enough to include in the invitation to tender (ITT).

Based on available scientific evidence, the main environmental impacts of road lighting and traffic signals from a life cycle perspective can be summarised as:

- CO₂ and other greenhouse gas emissions resulting from electricity consumption in road lighting;
- Emission of acidifying gases as a result of electricity consumption in road lighting;
- Loss of star visibility caused by upward light output from unshielded luminaires and ground reflection;
- Disruption of nocturnal species' behaviour potentially adversely affecting biodiversity, especially due to blue light;
- Poor resource efficiency when products or components are replaced before the end of their stated lifetime due to, for instance, due to the use of lower quality (and cheaper) LED chips, repair difficulties, or poor installation.

The EU GPP approach to mitigating or reducing these impacts includes the following recommendations:

- Procuring luminaires, lamps or light sources that exceed minimum luminaire efficacy standards;
- Encouraging the use of dimming and metering to ensure that energy consumption in lighting installations is optimised and monitored in real time;
- Requiring that all luminaires have 0.0% upward light output ratio and, at comprehensive level, ensuring that 97% of all light falls within a downward angle of 75.5° from the vertical to reduce obtrusive light and glare;
- Encouraging obligatory dimming in areas of concern and setting limits on the proportion of blue light (G-index) in lamp/luminaire output;
- Procuring durable and fit-for-purpose road lighting equipment that is repairable and covered by a warranty or extended warranty;
- Setting minimum requirements for the person responsible for signing off the lighting installation.

Furthermore, the document specifies the criteria for contracting design services, purchasing lighting equipment, and/or contracting installation works for road lighting, which include:

- A preliminary assessment of existing lighting infrastructure and the installation of dedicated metering;

- Selection criteria;
- Energy efficient lighting equipment;
- Low light pollution lighting equipment;
- Good quality and durable lighting equipment.

Finally, the document listed technical specification (TS) and award criteria (AC) for the purchase of traffic signals.

In Chapter 4, the document highlights that Life Cycle Costing (LCC) is highly relevant for road lighting. The dominant life cycle cost for traditional High Intensity Discharge (HID) technologies has always been electricity consumption during the use phase. LED technologies are more efficient, but they are also more expensive to purchase. As a result, demonstrating lower life cycle costs may actually be a prerequisite for securing financing to convert to a LED installation.

3 Analysis of the Survey's Results and Additional Information

3.1 The legal framework in the CIRCUIT pilot countries: procurement requirements and sizes

The CIRCUIT pilot owners participated in the survey investigating if GPP is applied in the pilot countries and at regional and local level. The survey was also aimed at investigating further information such as the integration of IGPP in the national management systems, how road authorities integrate circular economy criteria in procurement and the main barriers to the application of the IPP and GPP principles.

As a state of the art on procurement in the five pilot countries, the Table 1 collects the most relevant requirements and sizes for each country involved in CIRCUIT. The Annex I to this report provide a more complete framework on the legislative state of the art.

Table 1: Overview of the procurement requirements and sizes per pilot country in CIRCUIT project

| Requirements | | Sizes |
|----------------|---|--|
| Croatia | <p>The criterion for selecting a bid in public procurement procedures is the most economically advantageous tender.</p> <p>References: Art. 283 – 284 – 284 – 287 of the Public Procurement Act (Official Gazette 120/16, 114/22: https://narodne-novine.nn.hr/clanci/sluzbeni/2016_12_120_2607.html https://narodne-novine.nn.hr/clanci/sluzbeni/2022_10_114_1740.html)</p> | <p>The Public Procurement Act does not apply to procurement of:</p> <ul style="list-style-type: none"> - Goods and services, as well as the implementation of project competitions with an estimated value of less than 26,540 EUR - Works with an estimated value of less than 66,360 EUR |
| Spain | <p>Contracts are awarded using a variety of award criteria based on the best quality-price ratio.</p> <p>The best value for money is assessed on the basis of economic and qualitative criteria, that may include environmental or social aspects.</p> <p>References: Art. 145 – 149 L. 9/2017: BOE-A-2017-12902 Ley 9/2017, de 8 de noviembre, de Contratos del Sector Público, por la que se transponen al ordenamiento jurídico español las Directivas del Parlamento Europeo y del Consejo 2014/23/UE y 2014/24/UE, de 26 de febrero de 2014.</p> | <p>The award criteria included in L. 9/2017 only apply to procurements with a value over 15.000 euros (VAT not included) for goods and services, and 40.000 (VAT not included) for construction works.</p> |

| The Netherlands | <p>Award criteria include, among others, environmental costs indicators, carbon footprint, circular economy criteria and low-temperature asphalt. Sustainability requirements (for instance the selection of a competent project manager a/o design team) and minimum, and suggested criteria are also envisaged.</p> <p>References: Sustainable Public Procurement Webtool (mvicriteria.nl) Public procurement act https://wetten.overheid.nl/BWBR0032203/2022-03-02</p> | <p>GPP criteria are mostly applied in tenders worth 215.000 euro and above PP laws are written in https://wetten.overheid.nl/BWBR0032203/2022-03-02 And can be summarized and simplified to the threshold levels as stated in the Errore. L'origine riferimento non è stata trovata.. for services without a deadline, the monthly costs are multiplied by 48 months. For infrequent services the costs of the previous 12 months have to be projected to the next 12 months.</p> <p>2012:</p> <table border="1"> <thead> <tr> <th></th><th>Services [euro]</th><th>Works [euro]</th></tr> </thead> <tbody> <tr> <td>Single quote</td><td>0</td><td>0</td></tr> <tr> <td>Multiple quotes</td><td>33.000</td><td>150.000</td></tr> <tr> <td>Public tender</td><td>50.000</td><td>1.500.000</td></tr> <tr> <td>European tender</td><td>221.000</td><td>5.538.000</td></tr> </tbody> </table> | | Services [euro] | Works [euro] | Single quote | 0 | 0 | Multiple quotes | 33.000 | 150.000 | Public tender | 50.000 | 1.500.000 | European tender | 221.000 | 5.538.000 |
|------------------------|--|---|--|-----------------|--------------|--------------|---|---|-----------------|--------|---------|---------------|--------|-----------|-----------------|---------|-----------|
| | Services [euro] | Works [euro] | | | | | | | | | | | | | | | |
| Single quote | 0 | 0 | | | | | | | | | | | | | | | |
| Multiple quotes | 33.000 | 150.000 | | | | | | | | | | | | | | | |
| Public tender | 50.000 | 1.500.000 | | | | | | | | | | | | | | | |
| European tender | 221.000 | 5.538.000 | | | | | | | | | | | | | | | |

Continuation of Table 2

| | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--------------|------------------------------|--|-------------------------|----------------|---|--------------|------------------------|----------------|--------------|----------------|
| Slovenia | <p>Article 76 Public Procurement Act (ZJN – 3) (Selection criteria) (1) Contracting authorities may establish objective rules and criteria for selection which may relate to:</p> <ul style="list-style-type: none">• A) suitability to pursue the professional activity;• B) economic and financial standing;• C) technical and professional ability. <p>ART 84 Public Procurement Act (ZJN-3) Award criteria The contracting authority shall award a public contract on the basis of the most economically advantageous tender (MEAT).</p> <p>References:</p> <ul style="list-style-type: none">• http://www.djn.mju.gov.si/resources/files/Predpisi/ZJN-3_ang_prevod.pdf (Public Procurement Act - ZJN – 3)• Zakon o javnem naročanju (ZJN-3) (PISRS) (Official Gazette of the RS, no. 91/15, 14/18, 121/21, 10/22, 74/22 – Con. Ct., 100/22 – ZNUZSZS, 28/23, and 88/23 – ZOPNN-F.). | <p>Article 21 Public Procurement Act (ZJN – 3):</p> <p>Thresholds in the general field:</p> <ul style="list-style-type: none">- EUR 40 000 for a public supply or service contract or a design contest;- EUR 80 000 for a public works contract;- EUR 750 000 for a public service contract <p>Thresholds in the infrastructure field:</p> <ul style="list-style-type: none">- EUR 50,000 for a public supply or service contract or design contest;- EUR 100,000 for a public works contract;- EUR 1,000,000 for a public contract for social and other specific services | | | | | | | | | | | | | | | | |
| Italy | <p>The public procurement code divides the requirements into:</p> <ul style="list-style-type: none">- <i>general requirements</i>;- <i>special order requirements</i>. <p>Special order requirements are further divided into:</p> <ul style="list-style-type: none">- <i>professional suitability</i>;- <i>economic and financial capacity</i>;- <i>technical and professional skills</i>. <p>References: The tendering procedures and requirements are defined in the Public Procurement Code (D.Lgs. 36/2023 - https://www.gazzettaufficiale.it/eli/id/2023/04/13/23A02179/sg). The code is the only official reference for the choice of procedure and admission requirements for economic operators.</p> | <table><tr><td colspan="4">Sizes:</td></tr><tr><td>DELEGATED REGULATION (UE) 2023/2495</td><td>WORKS</td><td>SUPPLIES AND SERVICES</td><td>ALL. XIV DIRETTIVA 2014/24/UE (SERV. SANITARI SOCIALI E ASSIMILATI)</td></tr><tr><td>ORDINARY SECTORS</td><td>€ 5.538.000,00</td><td>€ 221.000,00 (€ 143.000 autorità governative centrali)</td><td>€ 750.000,00</td></tr><tr><td>SPECIAL SECTORS</td><td>€ 5.538.000,00</td><td>€ 750.000,00</td><td>€ 1.000.000,00</td></tr></table> | Sizes: | | | | DELEGATED REGULATION (UE) 2023/2495 | WORKS | SUPPLIES AND SERVICES | ALL. XIV DIRETTIVA 2014/24/UE (SERV. SANITARI SOCIALI E ASSIMILATI) | ORDINARY SECTORS | € 5.538.000,00 | € 221.000,00 (€ 143.000 autorità governative centrali) | € 750.000,00 | SPECIAL SECTORS | € 5.538.000,00 | € 750.000,00 | € 1.000.000,00 |
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| DELEGATED REGULATION (UE) 2023/2495 | WORKS | SUPPLIES AND SERVICES | ALL. XIV DIRETTIVA 2014/24/UE (SERV. SANITARI SOCIALI E ASSIMILATI) | | | | | | | | | | | | | | | |
| ORDINARY SECTORS | € 5.538.000,00 | € 221.000,00 (€ 143.000 autorità governative centrali) | € 750.000,00 | | | | | | | | | | | | | | | |
| SPECIAL SECTORS | € 5.538.000,00 | € 750.000,00 | € 1.000.000,00 | | | | | | | | | | | | | | | |

Continuation of Table 3

The following chapters summarize the main findings of the survey. The full answers can be found in Annex II attached to this report.

3.1.1 Actual level of deployment in pilots

All the respondents to the survey indicated that GPP and IPP are applied in the countries involved. All the five pilot countries have implemented national legislation aiming at translating in National law the EU directives on Public Procurement (2014/24 EU).

IGPP is also applied at local level (in Region or Municipality) in all the 5 pilot countries, with some differences:

- In **Croatia** GPP is mandatory at national level, while some municipalities apply it on voluntary basis;
- In **Spain** several experiences at Regional level are in place;
- In **The Netherlands** IGPP is applied at local level with the goal of being fully circular by 2035;
- In **Slovenia** regulation on green public procurement is mandatory for all public contracting authorities in the Republic of Slovenia;
- In **Italy**, the Lazio Region and Roma Province are two examples of local authorities who apply IGPP principles through the adoption of an "Action Plan for the Green Public Procurement".

In four out of five pilot countries GPP is also integrated in overall management systems at national level (such as, joint procurement schemes). The exception is Spain where, as of today, there are no known experiences where Green Public Procurement (GPP) in the road sector has been integrated into Joint Procurement schemes. Despite this, the respondent underlines that Article 38 of Directive 2014/24/EU states that "two or more contracting authorities may agree to carry out certain specific contracts jointly," this article is reflected in Article 31 of Law 9/2017 of the "Public Sector Contracts" when regulating the power of self-organization and systems of vertical and horizontal public cooperation. It stipulates that "entities belonging to the public sector may in any case agree to carry out specific contracts jointly."

The four remaining pilots, by contrast, replied that joint procurement is applied for certain groups of products where GPP is mandatory in order to achieve societal goals.

The five respondents showed different ways the road authorities use to promote green technologies and practices in road construction and maintenance:

- **Croatia** stated that road authorities apply green procurement on a voluntary base;
- **Spain** mentioned the IPP program launched by Directorate General for Roads with the aim of exploring the capabilities of public-private collaboration to develop innovative solutions that facilitate better road management, directly transform citizens' realities, and improve their road travel experience;
- **The Netherlands'** national Ministry of Infrastructures currently uses 2 standard instruments to address sustainability in tenders within the civil engineering sector: a Co2 performance ladder and an environmental cost indicator;
- In **Slovenia**, the green public procurement regulation also applies to road construction. Asphalt is recycled and reused as fill material. In the construction of the road surface, recycled asphalt granulate (milled material) that was created during the renovation of this road or from another source is used as a priority for the production of new bituminized mixtures, and secondarily, in particular, for layers stabilized with hydraulic or bituminous binders, buffers (including banks), beds, embankments and backfills, namely in the amount that is required;
- In **Italy**, road authorities integrate sustainability and circular economy criteria into the procurement process through the inclusion of green specifications in their procurement documents. For example, the road authorities may require designers to include materials, methodologies and technologies that reduce environmental impacts in their design; may provide for the use of supplies and green materials directly in the contract documents or for award criteria.

Regarding the use of KPIs or metrics to measure the sustainability and/or circularity performance for the assessment of new design projects during tendering procedures, Spain and Slovenia replied that KPIs are not in use to assess the environmental performances. Croatia and Italy mention the most economically advantageous offer as the main method for procurement. The respondent from Croatia highlights the implementation by the Croatian highways (HAC) of new documentation management system and application-based solution for its own archive digitalisation, resulting in efficiency increase in documentation management. Furthermore, procurement of electric, energy-efficient vehicles and procurement of vehicles that must meet the minimum emission standards defined by EU directive is mandatory.

The Netherlands mentions as an example the use of certification on CO2 emission for contractors and circular materials for office furniture and of tools such as Dubocalc (a software tool for quick and easy calculation of sustainability and environmental design variants of ground, road and water works) for some kind of projects.

Finally, The Netherlands pilot stated that in the country Circular design and procurement for (pilot)projects is investigated as a potential solution to reach full circularity by 2035. The other pilots do not mention other form of procurement aimed at sustainability (such as sustainable procurement or circular procurement or best-value procurement) besides GPP and IPP.

3.1.2 Barriers

The “barriers” chapter of the survey aimed at investigating the main obstacles that the authorities in pilot countries face in the application of GPP and IPP. In order to do so, the CIRCUIT consortium asked the pilot owners to rank the following key elements and barriers identified for GPP and IPP deployment, in order of importance from 1 (most important barrier) to 7 (least important barrier), see Fig.1:

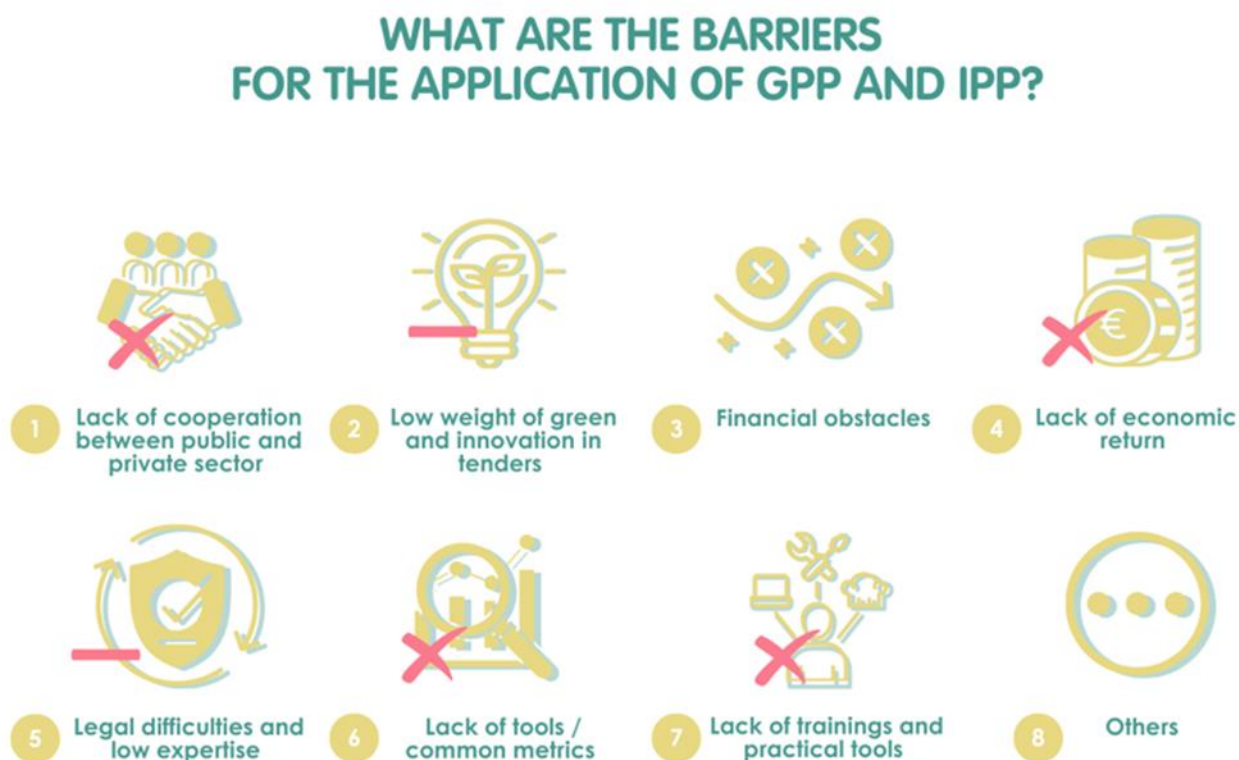


Figure 1: Barriers for the application of GPP and IPP

- **Lack of cooperation** between authorities and private sector preventing elaboration of strategic long-term plans in road infrastructure and future implementation assessments
- **Low weight** in public tendering processes for elements related to innovative and green products and technologies
- **Financial obstacles** for local and regional administrations due to scarcity in public budgets
- **Lack of economic return** for private sector investments due to short and medium approach in public procurement processes
- **Legal difficulties and low expertise** for public authorities (national, regional or local) and/or complexity in tenders that reduce interest from both parties
- **Lack of tools / common metrics** for different products /limited criteria for products or services
- **Lack of trainings / lack of practical tools** and information on GPP/IPP at EU and national/regional levels
- Others: the Slovenia pilots put “**lack of knowledge and practice**” as a further barrier to the deployment of IGPP principles

In Figure 2 the answers provided by the pilot are presented.

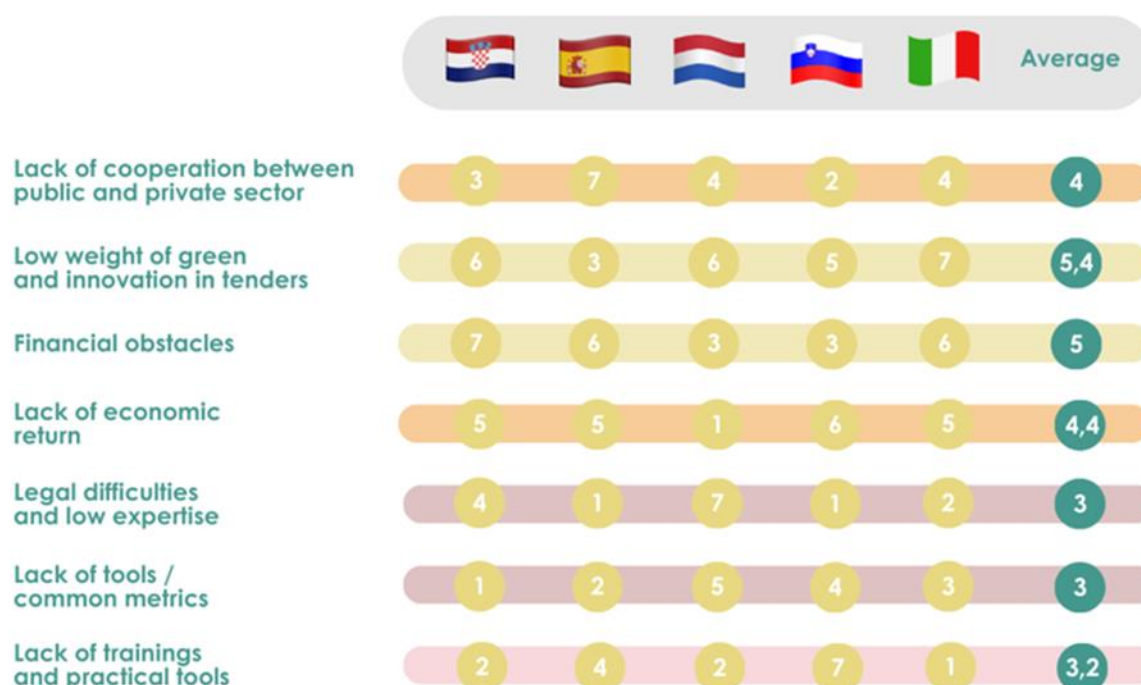


Figure 2: Barriers to the full deployment of IGPP ranked by the CIRCUIT pilots

According to the answers provided by the CIRCUIT pilots, “legal difficulties and low expertise for public authorities (national, regional or local) and/or complexity in tenders that reduce interest from both parties” and “lack of tools / common metrics for different products / limited criteria for products or services” (are the most relevant barriers to the application of IGPP among the proposed options. “Lack of trainings / lack of practical tools and information on GPP/IPP at EU and national/regional levels” is also a relevant barrier to the application of IGPP while the other options proposed are considered less relevant barriers.

The CIRCUIT project investigated the topic of barriers also in the document 1.2 “Up-stream and down-stream supply-chain actor’s needs”. The document aimed to identify the barriers and enablers to the adoption of Circular Economy in the transport infrastructure sector, and it is based on a critical literature review of key documentations such as articles, standards, industry reports and white papers; and a consultation process that includes an online questionnaire and interviews with key relevant stakeholders.

The main finding of the study is that institutional-economic-sectoral aspects are more relevant barriers to the implementation of circularity than technical ones. In line with the CIRCUIT report on procurement (4.1), the respondents to the interviews and survey run in the circularity report (1.2) highlighted the crucial role of the public administration in enabling and driving circularity. In that field (similarly to the field of procurement), the administration is perceived as an independent party with the necessary power to drive market changes through financial instruments and technical regulations. From a technical point of view, new regulations on reuse of materials and use of materials with higher recycled content, as well as standards on materials testing and performance and quality assurance certifications can influence the current risk-aversion mindset of the industry and facilitate decision-makers to adopt circular solutions in their designs.

Another relevant barrier mentioned in the document 1.2 is the fragmented value chain in the construction sector, that should be overcome through an high level of cooperation among stakeholders and a whole-life approach.

Economic aspects such as lack of a clear business case and profitability, cost considerations (especially the entailed high upfront cost), inadequate fiscal environment and market challenges are also seen as relevant barriers to circularity.

Finally, a high level of uncertainty regarding the level of product quality to be required for projects and their durability and adaptability to future needs is highlighted.

3.1.3 The way towards Innovative GPP

The last part of the survey aimed at gathering insights from the pilots' experience and expertise in order to have possible indications on the future of IGPP.



The five pilots indicated **better and simplified procurement processes** as a primary driver for innovation. According to them, the public administration should promote instruments and tools that allow the inclusion of environmental and innovative criteria in procurement processes, from a full life cycle perspective. Financial incentives are also seen as an important driver for innovation. An “environmental ranting” of the operators is also mentioned as a possible innovation.

All the respondents agree that **a more coordinated approach at EU level on GPP** could be helpful to bring innovation in the tendering practices. Among the reasons mentioned, the difficulty in upscaling after a successful project and the similar challenges faced by different countries. For this reason, a more central approach will make it easier to stimulate commercial parties to invest in development due to the bigger possibilities to sell the innovation. Furthermore, it is highlighted that it would be of great interest and assistance to share and thoroughly understand the best GPP practices that are currently being implemented in other EU countries, such as the development of tools and the use of metrics and indicators (KPIs).



The importance of a **dialogue between industry and public authorities** is also recognized, even if one of the respondents consider it “difficult” due to legal aspects and high costs on both sides. The pilots consider the phase of the definition of the criteria as the one where a public-private dialogue can be more fruitful and suggest methodology such as LCA and LCC or carbon footprints or road construction and maintenance. The Spanish pilot mentions the experience of the "Public Procurement of Innovation in Roads" that aims at exploring the capabilities of public-private collaboration to develop innovative solutions that facilitate better road management and also directly

contribute to transforming the citizens' reality and improving their road travel experiences.

The five pilots also shared ideas on how to enhance the **involvement of SMEs** in IGPP initiatives in the road sector. Many answers involved education and training and economic incentives for the SMEs. The introduction of award criteria for the contracts is also suggested. The Slovenian pilot also highlighted that GPP should play a bigger role in “small value procurement”, where, according to their national law, only registration of procurement is required.



4 Involvement of SMEs



5 Encourage the use of environmentally friendly materials

In order to **encourage the use of environmentally friendly materials** (for example recycled or low-carbon materials), many respondents highlight the importance of setting award criteria for the use of this kind of materials. From the point of view of the public authorities, the experimentations and the support to research centres is also mentioned, while specific funding with targeted improvements and other types of incentives can be valuable for the private sector. The

management of a database of construction products that have been evaluated in terms of their environmental impact (LCA, EPDs - Environmental Product Declarations, etc.) is also recommended.

Finally, in order to **ensure the effective monitoring and verification of environmental performance and compliance with GPP requirements** throughout the road construction and maintenance process (or throughout all life cycle stages) by road authorities, the five pilots recommend different solutions, such as pre and post projects tasks on verification and control both on the part of the contracting authority and the project bidder. The monitoring of the implementation of environmental performance all along the project is recognized as important by all pilots, and should be contained in contract provisions. The Italian pilot highlights that operative staff of the road authorities is normally dedicated to this purpose.



6 Ensure the effective monitoring and verification of environmental performance and compliance with GPP requirements throughout the road construction and maintenance process

Summary of the outcome of the survey related to the way forward towards IGPP is presented in Figure 3.

WHAT IS THE WAY TOWARDS INNOVATIVE GPP?

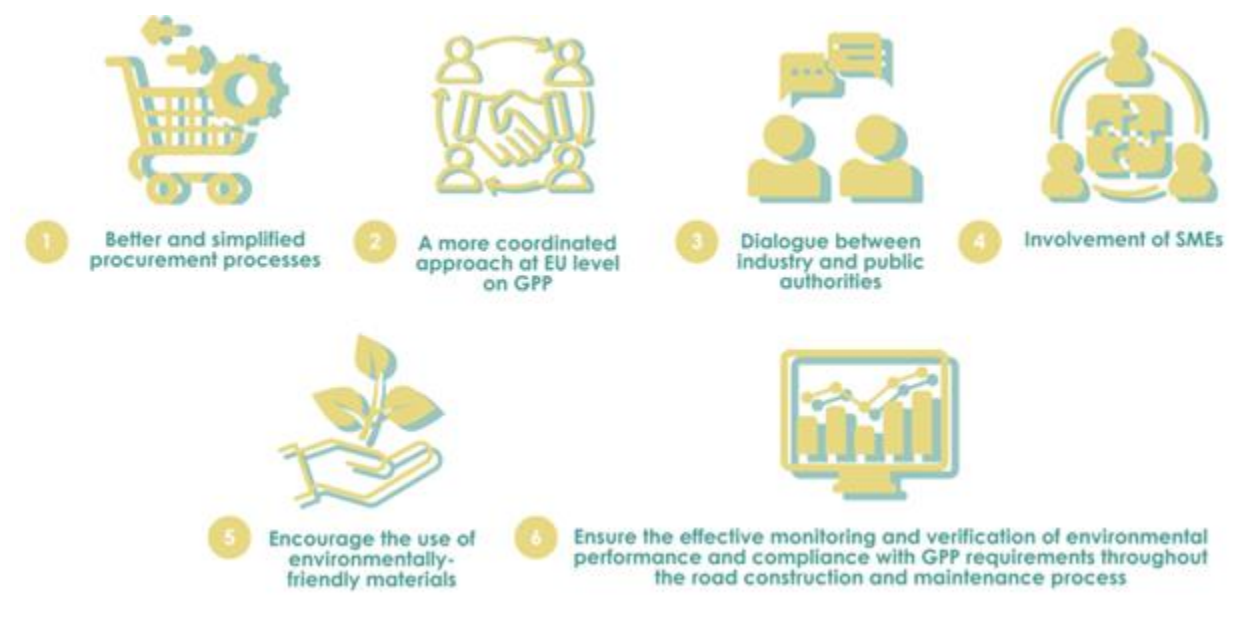


Figure 3: The way towards IGPP

3.2 Preliminary stakeholder maps in the five CIRCUIT pilot countries

Stakeholder mapping for the five pilot countries is an activity that was organised as a workshop, during the M6 meeting in person in Brussels with all partners. The objective of this exercise is to map the main stakeholders involved in each pilot and define the envisaged stakeholder roles in the participatory process. The initial mapping draft was later reviewed and completed by the partners during the next months. A second representation of this mapping was elaborated to represent each stakeholder in relevant categories: Public Authorities, Construction Companies & Designers, Scientific Community and Professionals, Citizens associations & Press, Policy Makers & EC.

In the next figures (Figure 4 to Figure 10) stakeholder maps are presented, initial one and the elaborated one for the pilot in Slovenia as an example, followed by the updated mapping for the other pilots (the initial ones are reported in the Annex).

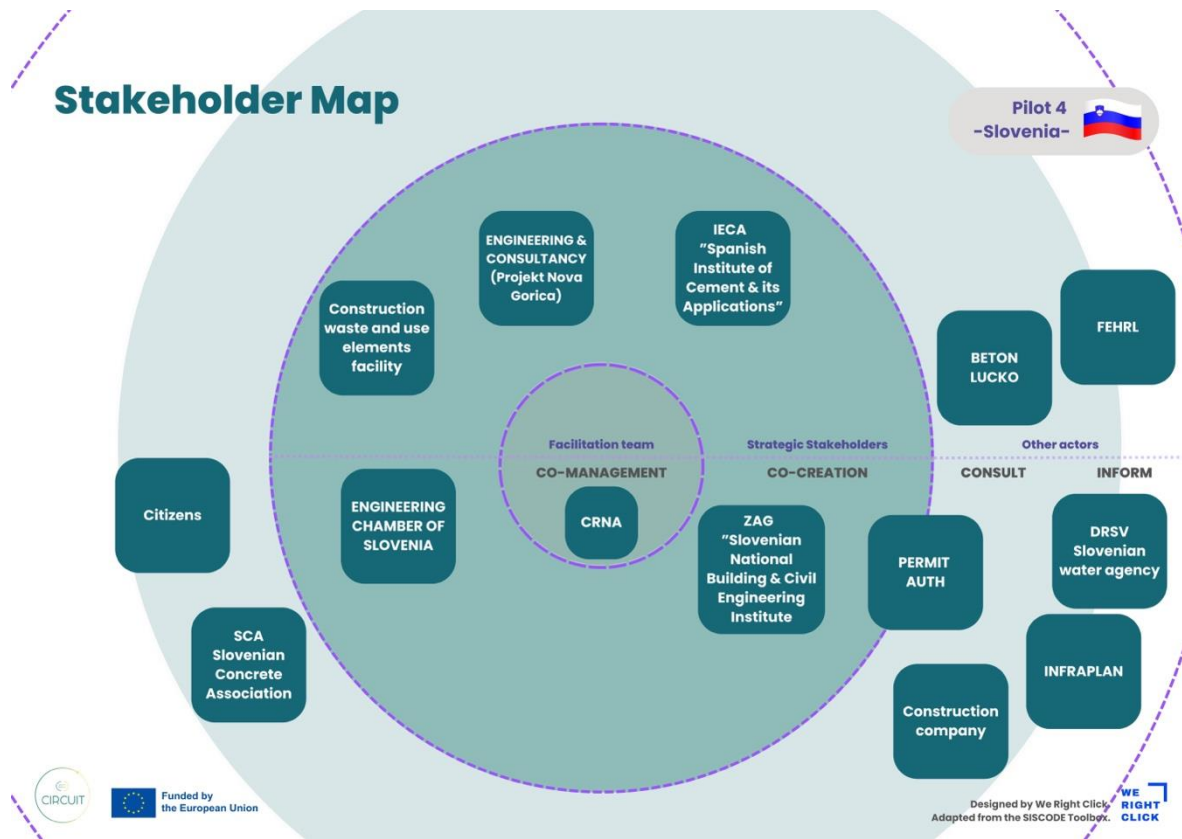
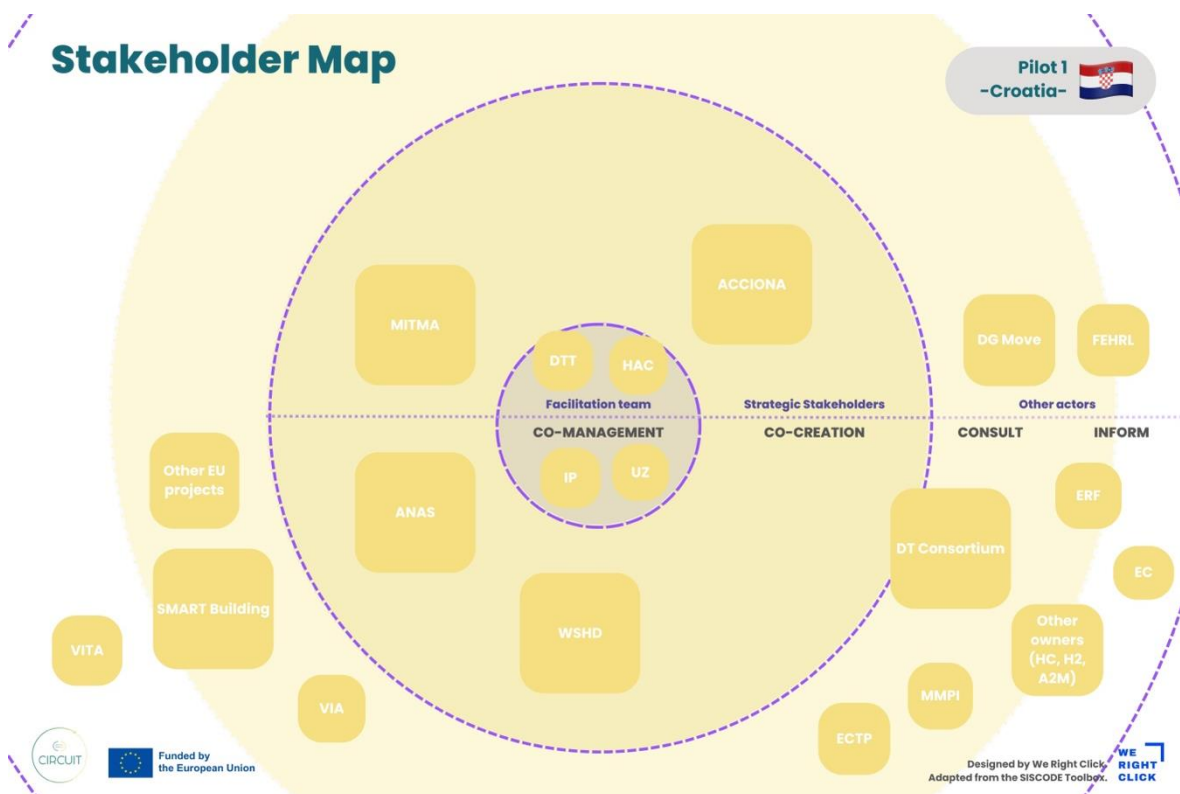
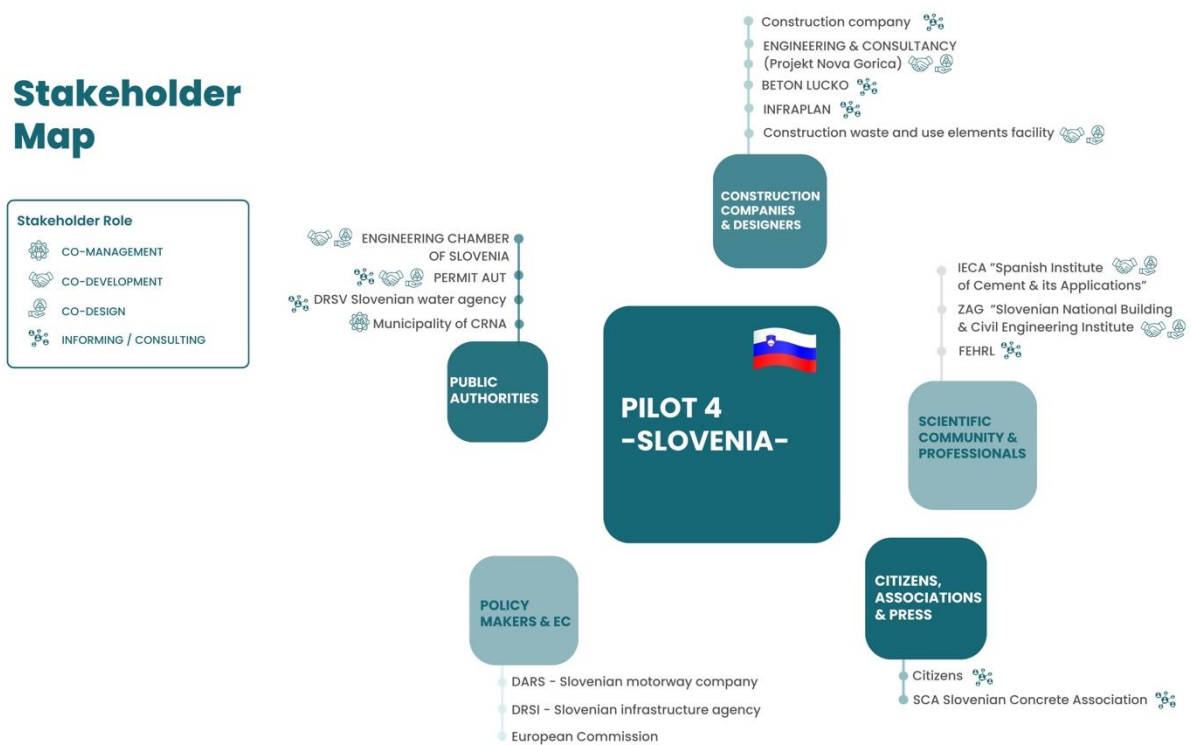


Figure 4: Initial mapping for the stakeholders involved in the Pilot 4, in Slovenia



Stakeholder Map

Stakeholder Role

-  CO-MANAGEMENT
-  CO-DEVELOPMENT
-  CO-DESIGN
-  INFORMING / CONSULTING



Figure 7: Elaborated mapping for the stakeholders involved in the Pilot 2A, in Spain

Stakeholder Map

Stakeholder Role

-  CO-MANAGEMENT
-  CO-DEVELOPMENT
-  CO-DESIGN
-  INFORMING / CONSULTING



Figure 8: Elaborated mapping for the stakeholders involved in the Pilot 2B, in Spain

Stakeholder Map

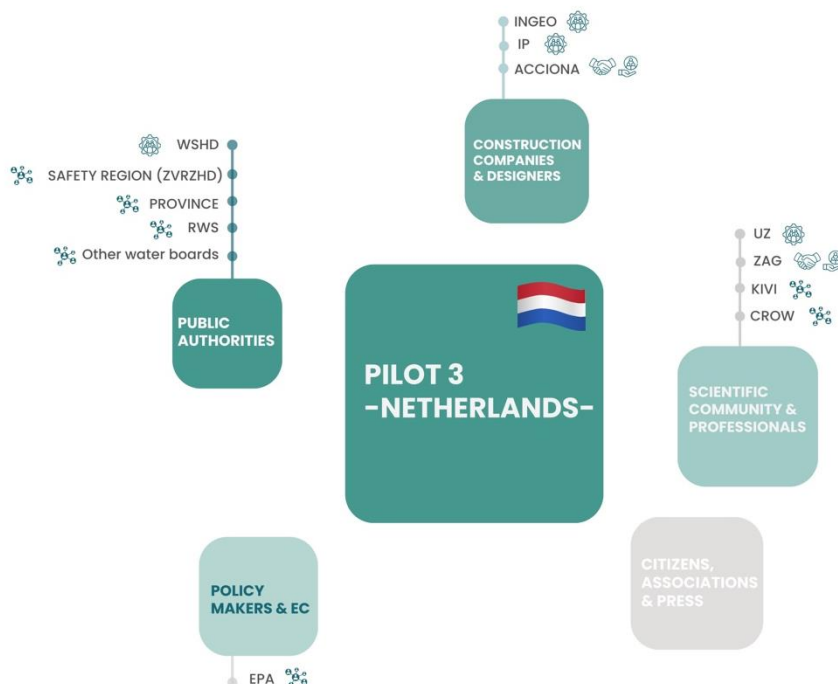


Figure 9: Elaborated mapping for the stakeholders involved in the Pilot 3, in Netherlands

Stakeholder Map

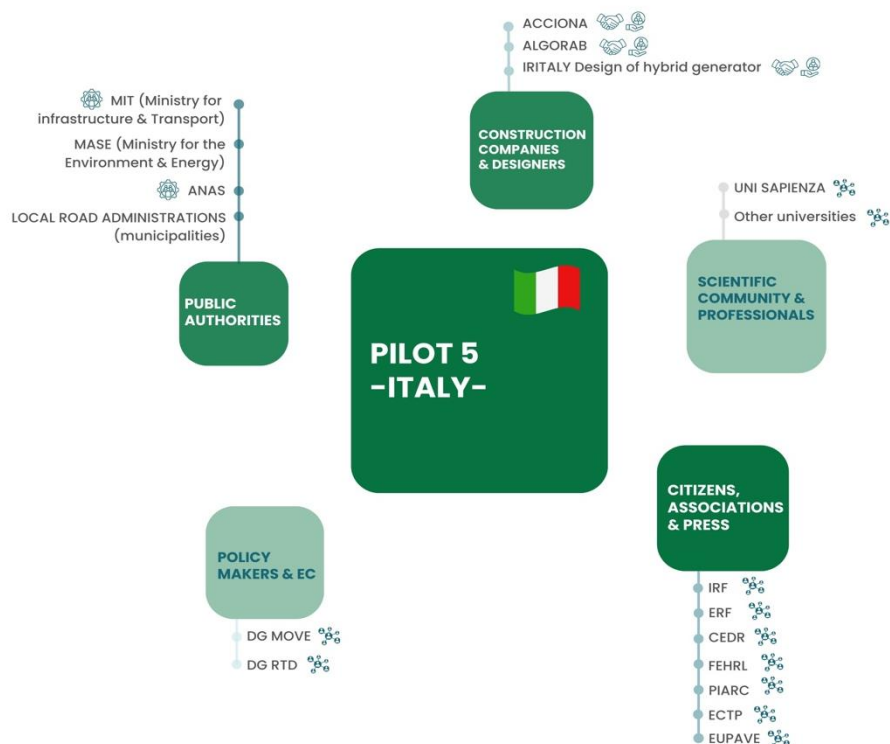


Figure 10: Elaborated mapping for the stakeholders involved in the Pilot 5, in Italy

4 Recommendations (Methodology, Indicators, Requirements) for Public Bodies Regarding the Preparation of IGPP in the CIRCUIT Pilot Countries

4.1 Recommendations for public bodies regarding the preparation of GPP

Tables 2, 3, 4, 5 and 6 show the recommended criteria developed for GPP and set for each CIRCUIT pilot. Selection criteria, Technical specifications and Award criteria are aligned with the *EU Green Public Procurement Criteria for Road Design, Construction and Maintenance* developed by EU commission staff working document. (EU Comission, SWD(2016) 203 final)

Table 4: CIRCUIT recommended criteria – CROATIA

| COUNTRY | INFRASTRUCTURE Included | Objective | Selection criteria | Technical specifications | Award criteria | Innovation criteria |
|---------|--|---|---|---|--|---|
| Croatia | Road section (bridge, tunnel, road) | Asset management system (whole life cycle): inspection and design of new objects or M&R projects using digital platform | Competencies of the project manager and design team | <p>BIM model required with integration into GIS based system</p> <p>Integration of life cycle indicators / parameters related to circularity potential into the BIM model / digital asset management platform</p> | <p>LCC and LCA KPIs - measurable and digitalized life cycle costs and environmental impacts</p> <p>Inspection using less intrusive techniques (lower disturbance of the traffic)</p> | <p>R&D experience and additional capabilities of the solution.</p> <p>Technology demonstrations, innovation level, test plan, communication and dissemination plan, deployment plan, etc.</p> |

Table 5: CIRCUIT recommended criteria – SPAIN

| COUNTRY | INFRASTRUCTURE Included | Objective | Selection criteria | Technical specifications | Award criteria | Innovation criteria |
|---------|-------------------------------------|---|--|---|--|---|
| Spain | Roads pavements and lighting | <p>Road construction using RAP</p> <p>Smart dynamic traffic management system used in road operation</p> <p>Full adaptive lighting system in road operation</p> | Competencies of the project manager and design team, main construction contractors | <p>Low temperature asphalt,</p> <p>Performance requirements for durability of pavement,</p> <p>Performance requirement for lighting installations</p> <p>Monitoring of noise emission during construction and maintenance</p> <p>Traffic Congestion Mitigation Plan</p> | <p>Performance requirements on traffic fuel consumption due to rolling resistance,</p> <p>LCA performance of the main road elements: KPIs related to environmental impacts of materials used</p> <p>KPIs related to the environmental impacts of construction technologies</p> <p>Incorporation of recycled content</p> <p>Performance requirements for CO2 emissions from the transportation of aggregates or any other materials used in the project</p> | <p>R&D experience and additional capabilities of the solution.</p> <p>Technology demonstrations, innovation level, test plan, communication and dissemination plan, deployment plan, etc.</p> |

Table 6: CIRCUIT recommended criteria – THE NETHERLANDS

| COUNTRY | INFRASTRUCTURE Included | Objective | Selection criteria | Technical specifications | Award criteria | Innovation criteria |
|-------------|-------------------------|--|--|---|---|---|
| Netherlands | Embankment | Design and construction of soil stabilization of roads/embankments using industrial by-products (renovation) | Competencies of the project manager and design team, main construction contractors | <p>Excavated Materials and Soil Management Plan</p> <p>Maintenance and Rehabilitation (M&R) Plan</p> <p>Environmental Integration and Restoration Plan</p> <p>Monitoring of vibrations, ground water table, and noise emissions during construction and maintenance</p> | <p>KPIs related to resilience of structures</p> <p>LCA performance of the main structure elements: KPIs related to environmental impacts of materials used</p> <p>KPIs related to the environmental impacts of construction technologies</p> <p>Economy indicators over life cycle</p> <p>KPI in relation to other design options / solutions</p> | <p>R&D experience and additional capabilities of the solution.</p> <p>Technology demonstrations, innovation level, test plan, communication and dissemination plan, deployment plan, etc.</p> |

Table 7: CIRCUIT recommended criteria – SLOVENIA

| COUNTRY | INFRASTRUCTURE Included | Objective | Selection criteria | Technical specifications | Award criteria | Innovation criteria |
|----------|-------------------------|--|--|--|--|---|
| Slovenia | Bridge | New design and construction of the bridge with re-used concrete structural elements, new elements using recycling materials (designed to be re-used) and 3D printed elements (non-structural) with low-carbon footprint cement in concrete | Competencies of the project manager and design team, main construction contractors | <p>Bridge design with the usage of existing secondary structural elements and recycling materials, as well designed to be re-used</p> <p>Resilience performance requirements for the bridge</p> <p>Maintenance and Rehabilitation (M&R) Plan</p> | <p>KPIs related to resilience of structures</p> <p>LCA performance of the main bridge elements: KPIs related to environmental impacts of materials used (recycled, reused %)</p> <p>KPIs related to the environmental impacts of construction technologies</p> <p>Economy indicators over life cycle</p> <p>Circularity potential (bridge designed to be re-used, modular)</p> <p>Performance requirements for CO2 emissions from the transportation of all construction materials and elements used during the construction</p> | <p>R&D experience and additional capabilities of the solution.</p> <p>Technology demonstrations, innovation level, test plan, communication and dissemination plan, deployment plan, etc.</p> |

Table 8: CIRCUIT recommended criteria – ITALY

| COUNTRY | INFRASTRUCTURE Included | Objective | Selection criteria | Technical specifications | Award criteria | Innovation criteria |
|---------|-------------------------|--|---|--|---|--|
| Italy | Tunnel | Tunnel operation using low-energy solutions for lighting and ventilation | Competencies of the project manager and design team, main installation team/contractors | Performance requirement for lighting and ventilation installations Luminaire efficacy Dimming control compatibility Minimum dimming performance Metering Power factor Waste recovery Product lifetime, spare parts and warranty Reparability | Energy efficiency for systems for lighting and ventilation: Enhanced luminaire efficacy, Enhanced annual energy consumption indicator (AECI) Dimming control Economy indicators over life cycle (LCC) | R&D experience and additional capabilities of the solution. Technology demonstrations, innovation level, test plan, communication and dissemination plan, deployment plan, etc. |

4.2 Results of the Interviews

In order to collect useful information for the purposes of Deliverable 4.1, the CIRCUIT partners set a list of questions to be submitted to selected stakeholders from public authorities (legislators and/or regulator at European, national, regional and local level) and GPP buyers from the Pilot countries (public state-owned companies). Different sets of questions were elaborated for different type of stakeholders.

This chapter summarizes the main outcomes from the answers provided by the stakeholders. A full report of the answers can be found in the Annex III to this document.

The questions aimed at investigating (among others) efficiently implemented regulations and best practices as well as barriers to the application of GPP and the differences between GPP processes and the “regular” procurement process. The stakeholders were given the opportunity to answer the questions either in written or oral way, by filling a document and returning it via email or through an oral interview through video call.

Generally, the **public buyers** from the pilot countries that accepted to participate in the interviews do not highlights particular **differences with the regular procedures or other types of difficulties** in the application of IGPP in tenders, since the environmental and innovation criteria are well embedded in the procurement processes. Yet some more difficulties in the monitoring phase and the risk that the tenders are not successful due to their innovative nature are pointed out.

Furthermore, the respondents recognizes the positive impact of IGPP on the achievement on sustainability goals, as well as its positive societal impact overall. IGPP is also considered positively for its economic impact. The public buyers indeed highlighted, among others, the reduction of life cycle costs and increased opportunities for investments. Also, it is noted how GPP can be a leverage to increase organizational credit rating, for example in case of funding from financial institutions and banks, and how it generally ensures a better reputation towards the public.

From the answers received can also be deducted that green and innovative elements are generally not at the same level of inclusion in the procurement processes. Indeed, while green public procurement is today a quite common and accepted idea, one of the respondents note that it's not always easy to define and quantify innovation, so the contribution that procurement can bring to innovation is less obvious.

This difference between green and innovative procurement comes out also from the answers provided by the **road authorities** that participated in the interview. The **examples of good practices** provided in their answers, in fact, concern environmental measures such as circularity.

CIRCUIT D1.1 report “Holistic approach to foster CIRCULAR and resilient transport InfraStructures and support the deployment of Green and Innovation Public Procurement and innovative engineering practices” provides a list of good practices to increase sustainability in construction works and relevance for the CIRCUIT project.

Furthermore, while the respondents provided a long list of **useful criteria** (PI) to assess the environmental impact of construction products, works and services (such as environmental costs indicator, carbon footprint, LCC or minimum requirements of recycled/reused material), they did not provide any example of valid performance indicators for innovation impact of construction products, works and service.

A lack of understanding is generally seen as a relevant **barrier** to the introduction of innovation elements in the tenders. This can also bring to fail the tendering process. By contrast, the lack of time for appropriate market resources run in due time is seen as an obstacle to the deployment of GPP. According to the respondents, this is due to the fact that often procurers priorities other elements in the procurement process. The **Most Economically Advantageous Criteria** (MEAT) is still indicated as the most used principle in procurement. The MEAT criteria was introduced by the EU's procurements directives (2014/23/EU, 2014/24/EU, 2014/25/EU) and includes additional criteria for the assessment, such as quality, price or cost using a cost-effectiveness approach, technical merit, aesthetic and functional characteristics, accessibility, social characteristics, environmental characteristics, innovative characteristics, after-sales service and technical assistance, delivery conditions such as date, process, and period (see CIRCUIT D1.1).

As a further barrier to GPP, it is highlighted that green criteria are not always clear and a lack of awareness on GPP from the market.

5 Conclusions

The manual provides a useful and concise state of the art of IGPP in the EU legislation and in the national legislation of the five CIRCUIT pilot countries. The answers provided to the surveys and interviews submitted to the public buyers involved in CIRCUIT as pilots highlight that, on one hand, the EU legislation is sufficiently incorporated in the national laws, but, on the other hand, barriers still persist to the full deployment of IGPP to reach societal and environmental goals (see chapter 3.1.2).

Specifically, the answers provided reveal that difficulties persist in the monitoring phase, and that a lack of understanding of the criteria by the bidder companies could cause failures in the procurement process. Despite this, the CIRCUIT pilots generally don't experience any specific difficulties in the IGPP processes compared to the "regular" procurement processes. This might suggest the importance of training and communication for the bidders, in order to deploy the positive impact of IGPP on environmental and societal goals and new opportunities for investments and development (mentioned by the respondents as positive consequences of IGPP together with reduction of Life Cycle Costs – see chapter 4.2).

For the public authorities who participated in the surveys and interviews here reported, criteria to quantify the environmental impacts of public purchases are well known, but still under-used in tenders. Furthermore, their answers reveal that quantifying the level of innovation and thus setting innovation criteria can be more complicated compared to the quantification of the environmental impact. When asked about ideas to enhance the deployment of IGPP, the respondents highlighted the importance of simplified processes, and an enhanced dialogue between public and private sector, especially in the definition phase of the criteria (see chapter 3.1.4). CIRCUIT aims at contributing to the improvement of such dialogues also through the deliverable 4.2 ("Novel governance models and Innovation and Guidelines"), that will be released in May 2026 (month 36).

According to the respondents, the Most Economically Advantageous Criteria (MEAT) is still the most used criteria in tenders, if not the only one. The present report provides examples of Award and Innovation criteria concretely deployed in the CIRCUIT pilots for the time of the project (see chapter 4). Examples of best practices are also reported in the CIRCUIT report 1.1 ("Holistic circularity framework"). All this data will provide useful material for the development of innovative governance models and guidelines in the abovementioned deliverable 4.2.

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ANNEX I - Summary of procurement requirements and size threshold in the EU and in the 5 pilot countries

European Union

Source: EU GPP Criteria for road design, construction and maintenance: [Criteria for Road Design, Construction and Maintenance \(2\).pdf](#)

List of criteria:

4 groups of criteria:

1. Selection criteria
2. Technical specifications
3. Award criteria
4. Contract performance clauses

Each of these groups includes some specific criteria, and each of them has two different levels of ambition:

1. Core criteria (easy application of GPP)
2. Comprehensive criteria (more aspects or higher level of environmental performance)

The following stages in the procurement process for a new or maintained road are covered by the proposed criteria:

- Selection of the design team and contractors;
- Detailed design and performance requirements;
- Construction or major extensions;
- Use of the road;
- Maintenance and operation;
- End of life.

Summary of the criteria

DETAILED DESIGN AND PERFORMANCE REQUIREMENTS:

1. Selection criteria:
 - a. Competencies of the project manager and design team
 - b. Competencies of the main construction contractors
2. Technical specifications:
 - a. Low temperature asphalt
 - b. Excavated Materials and Soil Management Plan
 - c. Performance requirements for water pollution control components in drainage systems

- d. Performance requirements for stormwater retention capacity in drainage systems
- e. Environmental integration and restoration plan:
- f. Monitoring of noise emission during construction and maintenance
- g. Minimum requirement for low-noise pavement design
- h. Performance requirements for lighting installation
- i. Performance requirements for road markings
- j. Traffic congestion mitigation plan
- k. Performance requirements for durability of pavements
- l. Maintenance and Rehabilitation (M&R) plan

3. Award criteria:

- a. Performance requirements on traffic fuels consumption due to rolling resistance
- b. LCA performance on the main road elements
- c. Incorporation of recycled content
- d. Performance requirements for CO₂e emissions from the transportation of aggregates
- e. Requirements for water pollution control "soft engineered" components in drainage systems
- f. Requirements for stormwater retention capacity in drainage systems that incorporate "soft engineered" components
- g. Performance requirements for wildlife passages across the road
- h. Performance claim for low-noise road pavement design

CONSTRUCTION OR MAJOR EXTENSIONS

1. Contract performance clauses:

- a. Commissioning of the road construction
- b. Quality of the completed road – monitoring of the performance parameters
- c. Incorporation of recycled contents
- d. Monitoring of the low temperature asphalt
- e. Commissioning the Excavated Materials and Soil Management Plan
- f. Inspection of water pollution control components in drainage system
- g. Construction of water pollution control "soft engineered" components in drainage systems
- h. Inspection of stormwater detention capacity in drainage systems
- i. Inspection of stormwater retention capacity in drainage systems that incorporate "soft engineered" components
- j. Commissioning of the Environmental Integration and Restoration Plan
- k. Inspection of wildlife passages across the road and other measures

- l. Monitoring noise emissions during construction
- m. Conformity of production testing of low-noise pavements
- n. Commissioning of the Traffic Congestion Mitigation Plan

USE OF THE ROAD

- 1. Technical specifications:
 - a. Durability of performance of low-noise pavements
- 2. Contract performance clause :
 - a. Durability of performance of low-noise pavements
 - b. Commissioning of the Maintenance and Rehabilitation (M&R) Plan

MAINTENANCE AND OPERATION

- 3. Technical specifications
 - a. Tar-containing asphalt
 - b. Demolition waste audit and management plan
- 4. Contract performance clause
 - a. Commissioning of the Maintenance and Rehabilitation (M&R) Plan
 - b. Commissioning of the Road Maintenance
 - c. Incorporation of recycled contents
 - d. Monitoring of the low temperature asphalt
 - e. Commissioning of the Environmental Integration and Restoration Plan
 - f. Monitoring noise emission during maintenance
 - g. Commissioning of the Traffic Congestion Mitigation Plan

END OF LIFE

- 2. Technical specifications
 - a. Demolition waste audit and management plan

Croatia

Source:

The Public Procurement Act (Official Gazette 120/16, 114/22)

https://narodne-novine.nn.hr/clanci/sluzbeni/2016_12_120_2607.html

https://narodne-novine.nn.hr/clanci/sluzbeni/2022_10_114_1740.html

The first [National action plan for green public procurement for period from 2015 – 2017 \(NAP GPP\)](https://narodne-novine.nn.hr/clanci/sluzbeni/2015_12_120_2607.html) was adopted by Croatian government in August 2015. National level target by the year of 2020 was 50% of all public procurement contracts should include green criteria. According to statistic reports this target is not reached, so in 2022 only 12% of total PP value had GPP criteria. <https://zelenanabava.hr/rezultati/statisticko-izvjesce-o-javnoj-nabavi-u-republici-hrvatskoj/>)

Requirements:

Article 283

The criterion for selecting a bid in public procurement procedures is the most economically advantageous tender.

Article 284

(1) The most economically advantageous tender is determined based on the price or cost, applying a cost-effectiveness approach, such as life-cycle cost, in accordance with subsection 2 of this section, and may include the best ratio between price and quality, which is evaluated based on criteria, including qualitative, environmental, or social characteristics, related to the subject of procurement.

(2) The criteria from paragraph 1 of this article may include, for example:

1. Quality, including technical value, aesthetic and functional characteristics, accessibility, solutions for all users, social, environmental, and innovative features, as well as trading and trading conditions.

...

Article 285

(1) The criteria for selecting a bid must not be discriminatory, must be related to the subject of procurement, and must allow for effective competition.

(2) Criteria for selecting a bid are related to the subject of procurement if they pertain to the works, goods, or services that will be provided under the contract in any respect and at any stage of their life cycle, including factors involved in:

1. A specific process of production, performance, or trade of those works, goods, or services, or

2. A specific process for another stage of their life cycle, even when such factors are not part of their material content.

(3) The public contracting authority must establish the criteria for selecting a bid in a way that allows for an effective review and evaluation of bids and verification

of the information provided by bidders. In case of doubt, the authority must effectively verify the accuracy of the data and evidence submitted in the bid.

Article 287

The life-cycle cost of a product, service, or work includes all or part of the following costs:

1. Costs borne by the public contracting authority or other users, such as:
 - a) Procurement costs
 - b) Usage costs, such as energy consumption and other resources
 - c) Maintenance costs
 - d) Disposal costs, such as collection and recycling costs
2. Costs of the impact of the product, service, or work on the environment during its life cycle, if their monetary value can be determined and verified, which may include costs of greenhouse gas emissions, emissions of other pollutants, and other costs related to mitigating climate change.

Article 288

(1) If the public contracting authority uses life-cycle cost as a criterion for selecting a bid, it must specify in the procurement documentation the information that bidders need to provide and the method that will be used to determine the life-cycle costs based on that information.

(2) The method from paragraph 1 of this article used to assess the costs from Article 287, paragraph 1, point 2 of this Act must cumulatively meet the following conditions:

1. It must be based on objectively verifiable and non-discriminatory criteria, and in particular, if it is not established for repeated or continuous use, it must not unjustifiably favor or disadvantage certain economic operators.
 2. It must be available to all interested parties.
 3. The requested information must be reasonably attainable by average diligent economic operators, including those from third countries that are parties to the Government Procurement Agreement (GPA) or other international agreements binding on the European Union.
- (3) The public contracting authority must apply a common method for calculating life-cycle costs if the application of such a method is mandated by specific regulations.

Sizes:

The Public Procurement Act does not apply to procurement of:

- Goods and services, as well as the implementation of project competitions with an estimated value of less than 26,540 EUR
- Works with an estimated value of less than 66,360 EUR

Spain

Source:

GPP plan 2018-2025: [BOE-A-2019-1394 Order PCI/86/2019, of 31 January, which publishes the Agreement of the Council of Ministers of 7 December 2018, which approves the Green Public Procurement Plan of the General State Administration, its autonomous bodies and the managing entities of the Social Security \(2018-2025\).](#)

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Law 7/2021 on Climate Change and Energy Transition: [BOE-A-2021-8447 Ley 7/2021, de 20 de mayo, de cambio climático y transición energética](#)

Requirements:

Requirements for “road design, construction and maintenance” from GPP plan 2018 - 2025:

- Design:

Main technical specifications and/or award criteria that may be taken into account by the contracting authorities:

- Reduction of energy consumption in the manufacture and execution of construction units (e.g. semi-hot bituminous mixtures, tempered bituminous mixtures, cold bituminous mixtures, etc.)
- Design, specification and site management to optimise the on-site reuse of excavated materials and soil (including topsoil), maximise the reuse or recycling of construction and demolition waste (CDW), tyres and waste from other industrial processes, and use construction materials with a high recycled or reused material content, even secondary products.
- Specification of proposals to reduce noise emissions (including nature-based solutions, i.e. solutions that are adapted to local conditions, resource-efficient and are systematic interventions inspired by or in harmony with nature, which are cost-effective and provide environmental, social and economic benefits while contributing to improved resilience) during the construction phases, use and maintenance.

Additional points will be awarded for carrying out a study on the carbon footprint of the road in its use phase, using CEDEX CO2TA tools or similar, providing information on the different options considered and the final option selected.

All these options must also be taken into account during the drafting of the project, that is, they must be specifications to be included in them, which cannot be modified in the tender for the works or during their execution.

- Construction:

Increased durability of materials and reduced maintenance needs.

Improvement of energy efficiency in road tunnels through the installation of electronic ballasts in reinforcement lighting, LED lighting in base lighting, implementation of a lighting regulation system, construction of light transition vaults.

Hot recycled in a manufacturing plant for aggregates from milling, as well as in on-site recycling with emulsion.

These specifications must also be taken into account in the drafting phase of the project.

- Road maintenance or maintenance:

Maintenance and rehabilitation strategies that include a monitoring plan and a maintenance plan:

Road congestion mitigation plan that includes solutions such as alternative routes, reversible lanes, and hard shoulders. When choosing the solution for the pavement to be built, in the project phase, a life cycle cost (LCC) analysis will be carried out.

In areas with very high heavy traffic (industrial estates, ports, logistics areas, etc.) introduction of water pollution control components and stormwater holding capacity components, including softly engineered solutions (e.g. nature-based solutions) in the drainage system, including potential to create habitats, in particular to reduce the influx of runoff water into the rainwater piping system and the total amount of water reaching the rainwater pipeline or surface water, thereby significantly reducing flood-related damage.

Follow-up of recommendations or technical criteria to avoid or reduce damage derived from the fragmentation of ecosystems, including the design of specific measures to avoid the risks of wildlife being run over.

(Contracting authorities can consult in detail the criteria for EU green public procurement in this type of contract at the link: <http://ec.europa.eu/environment/gpp/pdf/toolkit/roads/ES.pdf>.)

Art. 145 – 149 L. 9/2017:

Article 145. Requirements and types of contract award criteria.

1. Contracts will be awarded using a variety of award criteria based on the best quality-price ratio.

Subject to justification in the file, contracts may be awarded on the basis of criteria based on an approach that takes into account the best cost-effectiveness ratio, on the basis of price or cost, such as the calculation of the life cycle cost in accordance with Article 148.

2. The best value for money will be assessed on the basis of economic and qualitative criteria.

The qualitative criteria established by the contracting authority to assess the best quality-price ratio may include environmental or social aspects, linked to the subject matter of the contract in the manner established in section 6 of this article, which may be, among others, the following:

1. Quality, including technical value, aesthetic and functional characteristics, accessibility, universal design or design for all users, social, environmental and innovative characteristics, and marketing and its conditions;

Environmental characteristics may refer, among others, to the reduction of greenhouse gas emissions; the use of energy saving and efficiency measures and the use of energy from renewable sources during the execution of the contract; and the maintenance or improvement of natural resources that may be affected by the execution of the contract.

The social characteristics of the contract shall refer, among others, to the following purposes: the promotion of the social integration of people with disabilities, disadvantaged people or members of vulnerable groups among the people assigned to execute the contract and, in general, the social and labour integration of people with disabilities or in a situation or risk of social exclusion; subcontracting with Special Employment Centres or Integration Companies; gender equality plans applied in the execution of the contract and, in general, equality between women and men; the promotion of female employment; the reconciliation of work, personal and family life; the improvement of working and salary conditions; stability in employment; the hiring of a greater number of people for the execution of the contract; training and protection of health and safety at work; the application of ethical and social responsibility criteria to the contractual provision; or the criteria referring to the supply or use of products based on fair trade during the execution of the contract.

2. The organization, qualifications and experience of the personnel assigned to the contract that will execute it, provided that the quality of said personnel may significantly affect its best execution.

3. After-sales service and technical assistance and delivery conditions such as the date on which the latter must take place, the delivery process, the delivery or execution period and the commitments relating to spare parts and security of supply.

Qualitative criteria must be accompanied by a cost-related criterion which, at the discretion of the contracting authority, may be price or a cost-effectiveness approach, such as life-cycle costing calculated in accordance with Article 148.

3. The application of more than one award criterion will proceed, in any case, in the award of the following contracts:

a) Those whose projects or budgets could not be established previously and must be presented by the candidates or bidders.

b) When the contracting authority considers that the definition of the service is susceptible to being improved by other technical solutions or by reductions in its execution period.

c) Those for whose execution the contracting body, agency or entity provides materials or auxiliary means whose proper use requires special guarantees on the part of the contractors.

d) Those that require the use of especially advanced technology or whose execution is particularly complex.

e) Contracts for the concession of works and the concession of services.

f) Supply contracts, unless the products to be purchased are perfectly defined and it is not possible to vary the delivery times or introduce modifications of any kind in the contract, therefore the price being the only determining factor in the award.

g) Service contracts, unless the services are perfectly technically defined and it is not possible to vary the delivery times or introduce modifications of any kind in the contract, therefore the price being the only determining factor in the award.

In service contracts for intellectual services, such as engineering and architectural services, and in contracts for the provision of social services if they promote the social integration of disadvantaged persons or members of vulnerable groups among the persons assigned to execute the contract, promote the employment of persons with particular difficulties in entering the labour market or in the case of contracts for social, health or educational services referred to in the Forty-eighth Additional Provision, or for labour-intensive services, price may not be the sole determining factor in the award. Likewise, in the case of contracts for private security services, more than one award criterion must be applied.

h) Contracts whose execution may have a significant impact on the environment, in the award of which measurable environmental conditions will be assessed, such as the lowest environmental impact, savings and efficient use of water and energy and materials, the environmental cost of the life cycle, ecological production procedures and methods, waste generation and management or the use of recycled or reused materials or ecological materials.

4. Contracting authorities shall ensure that award criteria are established to enable them to obtain high-quality works, supplies and services that best meet their needs, particularly in service contract procedures involving intellectual services, such as engineering and architectural services.

In the service contracts in Annex IV, as well as in contracts for intellectual services, the criteria related to quality must represent at least 51% of the points to be assigned in the evaluation of the offers, without prejudice to the provisions of section 2.a) of Article 146.

5. The criteria referred to in section 1 which are to serve as a basis for the award of the contract shall be established in the specific administrative clauses or in the descriptive document, and must appear in the announcement serving as a call for tender, and must meet the following requirements:

a) In any case, they will be linked to the object of the contract, in the sense expressed in the following section of this article.

b) They must be formulated objectively, with full respect for the principles of equality, non-discrimination, transparency and proportionality, and must not give the contracting authority unlimited freedom of decision.

(c) They must ensure that tenders can be evaluated under conditions of effective competition and must be accompanied by specifications that allow the information provided by tenderers to be effectively checked in order to assess the extent to which the tenders meet the award criteria. In case of doubt, the accuracy of the information and evidence provided by tenderers must be effectively checked.

6. An award criterion shall be considered to be linked to the subject matter of the contract when it refers to or integrates the services to be performed under said contract, in any of its aspects and at any stage of its life cycle, including the factors involved in the following processes:

a) in the specific process of production, provision or marketing of, where appropriate, the works, supplies or services, with special reference to environmentally and socially sustainable and fair forms of production, provision or marketing;

b) or in the specific process of another stage of its life cycle, even when such factors do not form part of its material substance.

7. In the event that improvements are established as an award criterion, these must be sufficiently specified. This requirement will be considered to be met when the following are established, in a balanced and specific manner: the

requirements, limits, modalities and characteristics of the same, as well as their necessary connection with the object of the contract.

In any case, in cases where its valuation is carried out in accordance with the provisions of section two, letter a) of the following article, it may not be assigned a valuation greater than 2.5 percent.

For these purposes, improvements are understood to be additional services to those defined in the project and in the technical specifications, without these being able to alter the nature of said services, or the object of the contract.

The improvements proposed by the successful tenderer will become part of the contract and cannot be modified.

Article 146. Application of award criteria.

1. Without prejudice to the provisions of the first and third paragraphs of the previous article, when only one award criterion is used, this must be related to costs, which may be the price or a criterion based on profitability, such as the life cycle cost calculated in accordance with the provisions of article 148.

2. When a plurality of award criteria are used, in their determination, whenever possible, preponderance will be given to those that refer to characteristics of the object of the contract that can be valued by means of figures or percentages obtained through the mere application of the formulas established in the specifications.

The application of the award criteria will be carried out by the following bodies:

a) In open or restricted award procedures carried out by public administration bodies, the assessment of the criteria whose quantification depends on a value judgement shall be the responsibility, in cases where it is appropriate because they have been assigned a greater weighting than that corresponding to the automatically evaluable criteria, of a committee made up of appropriately qualified experts, with a minimum of three members, who may belong to the services dependent on the contracting body, but in no case may they be attached to the body proposing the contract, which shall be responsible for carrying out the evaluation of the offers; or entrust this to a specialized technical body, duly identified in the specifications.

b) In the remaining cases, the assessment of the criteria whose quantification depends on a value judgement, as well as, in any case, that of the criteria that can be assessed by using formulas, will be carried out by the contracting committee, if it is involved, or by the services dependent on the contracting body otherwise, for which purpose the technical reports that it considers necessary may be requested in accordance with the provisions of article 150.1 and 157.5 of this Law.

The choice of formulas must be justified in the file.

In any case, the evaluation of the offers according to the quantifiable criteria through the mere application of formulas will be carried out after previously carrying out the evaluation of those other criteria in which this circumstance does not occur, leaving documentary evidence of this.

The aforementioned prior evaluation will be made public at the time when the envelope containing the elements of the offer that will be evaluated by the mere application of formulas is opened.

When contracts for the concession of works or the concession of services provide for the possibility of public contributions to the construction or operation, as well as any type of guarantee, endorsement or other type of aid to the company, the amount of the reduction offered by the bidders on the contributions provided for in the contracting file will in any case appear as an automatically evaluable award criterion.

3. Except when price is taken into consideration alone, the relative weighting assigned to each of the assessment criteria must be specified in the specific administrative clauses or in the descriptive document, which may be expressed by establishing a range of values with an appropriate maximum width.

In the event that the award procedure is structured in several phases, it will also be indicated in which of these the different criteria will be applied, establishing a minimum threshold of 50 percent of the score in all qualitative criteria to continue in the selection process.

When, for duly justified objective reasons, it is not possible to weigh the chosen criteria, they will be listed in decreasing order of importance.

Article 147. Tiebreaker criteria.

1. The contracting authorities may establish in the particular administrative clauses specific award criteria for the tiebreaker in cases where, after the application of the award criteria, a tie occurs between two or more offers.

Such specific award criteria for tie-breaking shall be linked to the subject matter of the contract and shall refer to:

a) Proposals submitted by companies which, upon expiry of the deadline for submitting offers, have a percentage of disabled workers in their workforce that is higher than that required by law.

In this case, if several bidding companies that have tied for the most advantageous proposal prove to have an employment relationship with people with disabilities in a percentage higher than that imposed by the regulations, the

bidder with the highest percentage of permanent employees with disabilities in its workforce will have preference in awarding the contract.

b) Proposals from integration companies regulated by Law 44/2007, of December 13, for the regulation of the regime of integration companies, which comply with the requirements established in said regulations to have this consideration.

c) In the awarding of contracts relating to social or assistance benefits, proposals submitted by non-profit entities with legal personality, provided that their purpose or activity is directly related to the object of the contract, as established in their respective statutes or founding rules and are registered in the corresponding official registry.

d) Offers from entities recognized as Fair Trade Organizations for the award of contracts for products for which there is a Fair Trade alternative.

e) Proposals submitted by companies which, upon expiry of the deadline for submission of offers, include social and labor measures that promote equal opportunities between women and men.

Documentation proving the tie-breaking criteria referred to in this section shall be provided by the bidders at the time the tie occurs, and not beforehand.

2. In the absence of the provision in the specifications referred to in the previous section, the tie between several offers after the application of the contract award criteria will be resolved by applying the following social criteria in order, referring to the time of the end of the deadline for submission of offers:

a) Higher percentage of workers with disabilities or in a situation of social exclusion in the workforce of each of the companies, giving priority in cases of equality, to the greater number of permanent workers with disabilities in the workforce, or the greater number of workers included in the workforce.

b) Lower percentage of temporary contracts in the workforce of each of the companies.

c) Higher percentage of women employed in the workforce of each of the companies.

d) The draw, in the event that the application of the above criteria has not resulted in a tiebreaker.

Article 148. Definition and calculation of the life cycle.

1. For the purposes of this Law, the "life cycle" of a product, work or service shall be understood to include all consecutive or interrelated phases that occur during its existence and, in any case: the research and development that must be

carried out, manufacturing or production, marketing and the conditions under which this takes place, transport, use and maintenance, acquisition of the necessary raw materials and generation of resources; all of this until disposal, dismantling or end of use occurs.

2. The life cycle cost calculation shall include, as appropriate, all or part of the following costs incurred during the life cycle of a product, service or work:

a) Costs borne by the contracting authority or by other users, such as:

1. Costs related to the acquisition.
2. The costs of use, such as the consumption of energy and other resources.
3. Maintenance costs.
4. End-of-life costs, such as collection and recycling costs.

(b) the costs attributed to environmental externalities associated with the product, service or work during its life cycle, provided that their monetary value can be determined and verified; these costs may include the cost of greenhouse gas emissions and other polluting emissions, as well as other climate change mitigation costs.

Where a European Union standard makes a common method for calculating life cycle costs mandatory, the same method shall apply to the assessment of such costs.

3. Where contracting authorities assess costs using a life-cycle costing approach, they shall indicate in the tender documents the data to be provided by tenderers and the method they will use to determine life-cycle costs on the basis of such data.

The method used for the assessment of costs attributed to environmental externalities shall meet all of the following conditions:

(a) be based on objectively verifiable and non-discriminatory criteria; in particular, if it has not been established for repeated or continuous application, it will not unduly favor or disadvantage particular undertakings;

b) be accessible to all interested parties;

c) the necessary information must be able to be provided with a reasonable effort by companies, including those from signatory States of the World Trade Organization's Agreement on Government Procurement or from other signatory States of some other International Agreement that binds Spain or the European Union.

4. The contracting authorities shall calculate the costs referred to in the first and second paragraphs of Article 145, taking into account, preferably, the life cycle cost.

Article 31. Public Procurement.

1. In accordance with the provisions of Law 9/2017 of November 8 on Public Sector Contracts, which transposes into Spanish law the Directives 2014/23/EU and 2014/24/EU of the European Parliament and the Council of February 26, 2014, environmental and energy sustainability criteria shall be incorporated in a transversal and mandatory manner in all public procurement when they are related to the object of the contract. These criteria must be objective, respect the guiding principles of public procurement, and be included in the corresponding tender documents along with the weighting assigned to them. To this end, the procurement by the General State Administration and all state public sector agencies and entities shall incorporate, in accordance with Article 126.4 of Law 9/2017 of November 8 on Public Sector Contracts, as specific technical specifications in the procurement documents, criteria for reducing emissions and carbon footprint specifically aimed at combating climate change. For this purpose, within one year from the entry into force of this law, the Ministry for Ecological Transition and the Demographic Challenge and the Ministry of Finance shall prepare a catalog of services for which the aforementioned climate change mitigation criteria will be taken into account in procurement, identifying these emission and carbon footprint reduction criteria, including those related to sustainable and healthy food. In any case, in accordance with the provisions of Article 201 of Law 9/2017 of November 8 on Public Sector Contracts, contracting authorities shall take the necessary measures to ensure that contractors comply with applicable environmental obligations in the execution of contracts.

2. The General State Administration and all state public sector agencies and entities, subject to the provisions of Article 145.2 of Law 9/2017 of November 8 on Public Sector Contracts, shall include among the award criteria in project drafting tenders, works contracts, or work concessions, some of the following:

- a) Requirements for the highest energy rating of the buildings being tendered.
- b) Energy savings and efficiency that promote a high level of thermal insulation in constructions, renewable energy, and low emissions from installations.
- c) Use of sustainable construction materials, taking into account their lifespan.

d) Measures to reduce greenhouse gas emissions and other atmospheric pollutants during the various phases of the public works construction process.

e) Climate change adaptation measures.

f) Minimization of waste generation.

3. Likewise, subject to the provisions of Articles 125 and 126 of Law 9/2017 of November 8 on Public Sector Contracts, the following may be included as technical specifications in project drafting tenders, works contracts, or work concessions:

a) That the wood used in constructions comes from sustainably managed forests, considering its ecological footprint.

b) Reforestation activities with native species as a compensatory measure to offset the carbon footprint resulting from the execution of the work or service under tender.

4. Lease contracts for real estate properties, where the General State Administration and all state public sector agencies and entities are the lessee, which do not qualify as buildings with nearly zero energy consumption according to the version of the Technical Building Code in force as of December 31, 2020, may not be extended beyond 2030. Exceptions to this provision are lease contracts for properties located abroad, which shall be governed by the building and environmental regulations in force in the country where they are situated.

Sizes:

The Public Procurement Act apply to all public procurement. However, the award criteria described on previous articles, only apply to procurements with a value **over 15.000 euros** (VAT not included) for goods and services, and **40.000** (VAT not included) for construction works.

The Netherlands

Requirements:

Criteria source: [Sustainable Public Procurement Webtool \(mivicriteria.nl\)](https://mivicriteria.nl)

- Award criteria:
 - Environmental costs indicator (MKI)
 - Carbon footprint
 - Circular economy criteria
 - Environmental performance of civil engineering works
 - Low-temperature asphalt
 - Applying reuse a/o recycled material
 - CO2 emissions from the transport of materials
 - Reuse of released soil
 - Use of the road infrastructure as an energy source
 - More reused products / product parts
 - The use of an higher percentage of bio-based and/or recycled materials
 - "Nature inclusive" components for limiting water pollution and for water storage in drainage systems
 - Wildlife crossing to the other side of the road
 - A higher level of ambition for Co2 and energy management is rated higher
 - A percentage higher than 5% social return is rated higher
- Suitability requirements:
 - Selection of a competent project manager a/o design team
 - selection of a competent organization for construction
- Minimum requirements:
 - Performance requirements for components for limiting water pollution in drainage systems
 - performance requirements for the storage capacity of rainwater in drainage systems
 - design requirements for the lifespan of surfacing
 - A social return of at least 5% is required
- Suggestion:
 - Investigate customized solutions for social return
- Contract clause:
 - Management plan for the separate collection of excavated material and soil
 - Plan for integration and restoration of green spaces
 - The contractor report on the implementation of social return

Sizes:

GPP criteria are mostly applied in tenders worth 215.000 euro and above

PP laws are written in <https://wetten.overheid.nl/BWBR0032203/2022-03-02>

And can be summarized and simplified to the threshold levels as stated in the table below. for services without a deadline, the monthly costs are multiplied by 48 months. For infrequent services the costs of the previous 12 months have to be projected to the next 12 months.

Simplified Public Procurement thresholds:

| | Services [euro] | Works [euro] |
|-----------------|--------------------|-----------------|
| Single quote | 0 | 0 |
| Multiple quotes | 33.000 | 150.000 |
| Public tender | 50.000 | 1.500.000 |
| European tender | 221.000 | 5.538.000 |

Slovenia

Source:

- http://www.djn.mju.gov.si/resources/files/Predpisi/ZJN-3_ang_prevod.pdf (Public Procurement Act - ZJN – 3)
- [Zakon o javnem naročanju \(ZJN-3\) \(PISRS\)](#) (Official Gazette of the RS, no. 91/15, 14/18, 121/21, 10/22, 74/22 – Con. Ct., 100/22 – ZNUZSZS, 28/23, and 88/23 – ZOPNN-F.). The extracts from this document were translated in English for the purpose of this report.

Requirements:

Article 76 Public Procurement Act (ZJN – 3) (Selection criteria) (1) Contracting authorities may establish objective rules and criteria for selection which may relate to:

- A) suitability to pursue the professional activity;
- B) economic and financial standing;
- C) technical and professional ability.

ART 84 Public Procurement Act (ZJN-3) Award criteria

(1) The contracting authority shall award a public contract on the basis of the **most economically advantageous tender**.

(2) The most economically advantageous tender shall be determined on the basis of price or cost, using a cost-effectiveness approach, for example by calculating the life-cycle costs as provided for in this Law, and may also include the best price/quality ratio estimated on the basis of criteria relating to quality and environmental or social aspects related to the subject-matter of the public contract. Such criteria may include, for example:

a) quality, including technical merit, aesthetic and functional characteristics, accessibility,

design for all users, social, environmental and innovative features, and the trade and conditions relating thereto;

b) the organisation, competence and experience of the staff to carry out the procurement. The quality of the personnel can have a significant impact on the level of performance of the contract;

c) after-sales services, technical assistance and conditions of delivery, such as the date of delivery or the date of completion of the works, the delivery or performance procedure and the duration of the supplies or works.

(4) A cost factor may also be a fixed price or fixed costs, provided that the economic operator on the basis of which economic operators compete with each other solely on the basis of quality criteria.

(5) For the award of a contract for the provision of computer software development services, architectural and engineering services and translation and consultancy services, the contracting authority may not use price alone as the sole award criterion. In public procurement services referred to in Article 67a(1) of this Law, the contracting authority shall procure these services taking into account socially responsible public procurement by including criteria relating to social aspects.

(6) The criteria for the award of a public contract shall be non-discriminatory, proportionate and related to the subject-matter of the procurement. The criteria shall be deemed to be related to the subject-matter of a public contract if they relate to works, goods or services to be provided in accordance with the public contract, in any respect and at any stage of their life lifetime, including factors related to a specific process of production, provision or the marketing of those works, goods or services, or to a specific process for another stage of their useful life, even if such factors are not intrinsically part of them.

(7) The criteria for the award of a public contract shall not have the effect of the contracting authority unrestricted freedom of choice. The selection criteria must ensure that effective competition must be accompanied by detailed descriptions which enable effective verification of the information submitted by tenderers in order to assess how the tender meets the criteria for the award of the public contract. In case of doubt, the contracting authority must verify the accuracy of the information and the evidence provided by the tenderer in relation to the award criteria.

(8) The contracting authority shall specify the relative weighting in the documents relating to the award of the contract, which it shall assign to each of the criteria selected for determining the most economically advantageous tender, except where the latter is determined solely on the basis of price. Those weights may be defined by specifying a range with a corresponding maximum difference. Where it is not possible to specify weights for objective reasons, the contracting authority shall indicate the criteria in descending order of importance.

(9) In the selection criteria for the award of tenders for the procurement of foodstuffs, priority shall be given to foodstuffs, which are covered by quality schemes (e.g. seasonally produced foodstuffs produced in an integrated way, seasonally foodstuffs produced in an integrated way, etc.), foodstuffs produced

in accordance with national rules on food quality standards, and food which is sustainably produced and processed and which is guaranteed a higher quality foodstuffs in terms of improved freshness or reduced environmental impact during transport.

Article 71 of the same law provides the legal basis for the Green Public Procurement (GPP) regulation (which includes procurement for road design and construction):

(1) The Government shall, where necessary, for individual procurement items prescribe that contracting **authorities shall take into account social, ethical or environmental considerations in public procurement procedures** and the manner in which such considerations are to be incorporated in the subject-matter of the procurement, the technical specifications, the conditions for participation, the criteria for the award of the public contract and the specific conditions governing the performance of the public contract.

(2) The contracting authority may also lay down other conditions for the performance of the contract, which may be related in particular to social and environmental aspects, provided that these conditions are in conformity with European Union rules and are specified in the contract notice or the documents relating to the award of the contract.

Sizes:

Article 21 Public Procurement Act (ZJN – 3) - Thresholds for application of the law

(1) This Law shall apply to public contracts the estimated value of which, exclusive of tax value added tax (hereinafter referred to as VAT) is equal to or greater than the following thresholds values:

(a) in the general field:

- **EUR 40 000 for a public supply or service contract or a design contest;**
- **EUR 80 000 for a public works contract;**
- **EUR 750 000 for a public service contract** as determined by Annex XIV of Directive 2014/24/EU (Hereinafter referred to as: social and other specific Annex XVII of Directive 2014/25/EU services), with the exception of services covered by CPV codes 79713000-5, 79100000-5, 79110000-8, 79111000-5, 79112000-2, 79112100-3 and 79140000-7.

b) in the field of infrastructure:

- **EUR 50,000 for a public supply or service contract or design contest;**
- **EUR 100,000 for a public works contract;**
- **EUR 1,000,000 for a public contract for social and other specific services**, excluding services which are covered by CPV codes 79713000-5, 79100000-5, 79110000-8, 79111000-5, 79112000-2, 79112100-3 and 79140000-7.

(2) For public contracts the estimated value of which is less than the thresholds laid down in the preceding paragraph and public contracts which are awarded as individual lots to be excluded in accordance with Article 73(5) of this Law, and the public contracts referred to in points 15, 16, 17 and 18 of the first subparagraph of Article 73(5) of this Law, and public contracts referred to in points 15, 16, 17 and 18 of the first subparagraph of Article 73(5) of this Law Article 27, paragraph 1, of this Law, the contracting authority shall be obliged to comply with the principle of economy, efficiency and effectiveness and the principle of transparency in accordance with this paragraph. The contracting authority shall also keep a record of the award of these contracts, including an indication of the subject-matter and the value of the contract, excluding VAT, and shall communicate the information relating thereto in accordance with Article 106 of this Law. The contracting authority shall, by the last day of February each year, publish on the public procurement portal of the last month of the year and the value of which, excluding VAT is lower than the thresholds referred to in the preceding paragraph and equal to or higher than EUR 10 000 excluding VAT, with a description of the subject-matter, the type of subject-matter and the value of the contract awarded, excluding VAT; and the name of the economic operator to whom the contract has been awarded. For the contracts referred to in the preceding sentence, the contracting authority shall ensure that all tenderers who have submitted a tender have, within 30 days of the award of the contract, written notification of the selection shall be given.

Further comment:

The Green Public Procurement Regulation applies to contracts exceeding the values outlined in Art. 21 of this law. In case road design services fall below the threshold, but the construction will exceed it (if, for example, exceed €100,000), the GPP regulation must still be followed. Thus, even the design phase must take into account the later compliance of construction with the regulation.

Environmental requirements for road design and construction are outlined in the Green Public Procurement Regulation (PISRS). Article 4 defines the subjects, and Article 6 outlines the objectives. These objectives pertain to road renovation, not new construction. They are more explicitly detailed in the document "P14: Road Renovation Design and Execution (gov.si)". The regulation mandates adherence to these goals, but not to the specific method of achieving them. To simplify, from the regulation's perspective, it doesn't matter whether the environmental requirement is included in technical specifications, selection criteria, or contractual clauses. Typically, for road projects, these requirements are included under selection criteria—Technical and Professional Competence—Article 76 of the law, which you've also cited in your document.

Italy

Source: The tendering procedures and requirements are defined in the Public Procurement Code (D.Lgs. 36/2023 - <https://www.gazzettaufficiale.it/eli/id/2023/04/13/23A02179/sq>). The code is the only official reference for the choice of procedure and admission requirements for economic operators.

The article 57 of D.Lgs. 36/2023 Public Contracts Code mandated the adoption of Minimum Environmental Criteria (CAM). The technical specifications and contractual clauses are indicated by the procuring authorities in functions of the subject-matter of the contract and according to the indications of the CAM.

The Green Public Procurement (GPP) was introduced in Italy in 2008 through the National Action Plan for GPP. This plan mandated the adoption of Minimum Environmental Criteria (CAM) for each category of products, services, and works purchased or commissioned by the Public Administration, as stipulated by subsequent ministerial decrees. Following the directives outlined in the European Commission's Communication "Integrated Product Policy: Developing the Environmental Life Cycle Approach" (COM(2003) 302) and in accordance with section 1126, article 1, of Law 296/2006 (Financial Law 2007), the Ministry embarked on a comprehensive consultation process with local authorities and stakeholders. This process, supported by the collaboration of other Ministries and technical support organizations and structures (such as CONSIP, ENEA, ISPRA, ARPA), led to the development of the "National Action Plan for the Environmental Sustainability of Public Administration Consumption" (PAN GPP).

By a decree issued on August 3, 2023, by the Minister of the Environment and Energy Security, in agreement with the Minister of Enterprises and Made in Italy and the Minister of Economy and Finance, the 2023 edition of the "National Action Plan for Environmental Sustainability in Public Sector Consumption" was approved (published in the Official Gazette, General Series no. 193, on August 19, 2023).

The PAN GPP outlines a comprehensive framework for Green Public Procurement, defines national objectives, and identifies categories of goods, services, and works of priority intervention for their environmental impacts and expenditure volumes to establish the 'Minimum Environmental Criteria' (CAM). Furthermore, it specifies requirements for public bodies, which include:

1. Conducting a needs analysis to rationalize consumption and promote decoupling (the separation of economic development from environmental degradation).
2. Identifying the relevant functions within GPP implementation involved in the procurement process.
3. Developing a specific internal program to implement actions under the GPP framework.

The PAN GPP includes an annual monitoring process to verify its application. This encompasses an analysis of the environmental benefits achieved and outlines the training and dissemination actions to be carried out nationwide. In Italy, the

effectiveness of the CAM has been guaranteed by Article 18 of Law 221/2015, and subsequently, Article 34 on "Sustainability Criteria in Energy and Environment" of the previous procurement code, Legislative Decree 50/2016, which mandated the application by all procurement authorities. Article 57 of the new Procurement Code (Legislative Decree 36/2023) continues to stipulate the application of the Minimum Environmental Criteria (CAM).

To date, CAM has been adopted for 20 categories of supplies and contracts:

1. Interior Furniture

Approved by Ministerial Decree on 23 June 2022, n. 254, published in the Official Gazette (GURI) n. 184 on 8 December 2022 – effective from 6 December 2022.

2. Urban Furniture

Approved by Ministerial Decree on 7 February 2023, published in the Official Gazette No. 69 on 22 March 2022. Effective from 20 July 2023.

3. Incontinence Aids

Approved by Ministerial Decree on 24 December 2015, published in the Official Gazette n. 16 on 21 January 2016.

4. Work Footwear and Leather Accessories

Approved by Ministerial Decree on 17 May 2018, published in the Official Gazette n. 125 on 31 May 2018.

5. Charter Services

Approved by Ministerial Decree on 4 April 2013, published in the Official Gazette n. 102 on 3 May 2013.

6. Cartridges

Approved by Ministerial Decree on 17 October 2019, published in the Official Gazette n. 261 on 7 November 2019.

7. Construction

Approved by Ministerial Decree on 23 June 2022 n. 256, published in the Official Gazette n. 183 on 8 August 2022 - effective from 4 December 2022.

8. Cultural Events

Approved by Ministerial Decree on 19 October 2022 No. 459, published in the Official Gazette No. 282 on 2 December 2022.

9. Public Lighting (Supply and Design)

Approved by Ministerial Decree on 27 September 2017, published in the Official Gazette n. 244 on 18 October 2017.

10. Public Lighting (Service)

Approved by Ministerial Decree on 28 March 2018, published in the Official Gazette No. 98 on 28 April 2018.

11. Industrial Washing and Rental of Textiles and Mattresses

Approved by Ministerial Decree on 9 December 2020, published in the Official Gazette n. 2 on 4 January 2021.

12. Cleaning and Sanitizing

Approved by Ministerial Decree No. 51 on 29 January 2021, published in the Official Gazette n. 42 on 19 February 2021.

Amended by the Corrective Decree of 24 September 2021 by the Ministry of Ecological Transition, modifying the Decree of the Minister of the Environment and Protection of the Territory and the Sea of 29 January 2021, regarding "Minimum Environmental Criteria for the Cleaning and Sanitizing Services of Buildings and Civil, Health Environments, and for Cleaning Products." Published in the Official Gazette n. 236 on 2 October 2021.

13. Municipal Waste and Road Sweeping

Approved by Ministerial Decree on 23 June 2022 n.255, published in the Official Gazette n. 182 on 5 August 2022 - effective from 3 December 2022.

14. Collective Catering

Approved by Ministerial Decree n. 65 on 10 March 2020, published in the Official Gazette n.90 on 4 April 2020.

15. Refreshment and Vending Machines

Approved by Ministerial Decree on 6 November 2023, published in the Official Gazette n. 282 on 2 December 2023, effective since 1 April 2024.

16. Energy Services for Buildings

Approved by Ministerial Decree on 7 March 2012, published in the Official Gazette n.74 on 28 March

17. Printers

Approved by Ministerial Decree on 7 October 2019, published in the Official Gazette n.261 on 7 November 2019

18 Textile

Approved by Ministerial Decree on 7 February 2023, published in the Official Gazette n.70 on 23 March 2023

19. Vehicles

Approved by Ministerial Decree on 17 June 2021, published in the Official Gazette n.157 on 2 July 2021

20. Public green

Approved by Ministerial Decree n. 63 on 10 March 2020, published in the Official Gazette n.90 on 4 April 2020

Requirements:

In accordance with art. 100 of the Code, "*procuring stations require participation requirements proportionate and relevant to the subject matter of the contract*". The participation requirements are defined according to the subject, the amount and any specific characteristics of the contract (certifications, presence of professionals, etc.).

The code divides the requirements into:

- *general requirements;*
- *special order requirements.*

Special order requirements are further divided into:

- *professional suitability;*
- *economic and financial capacity;*
- *technical and professional skills.*

If the contract's object relates to an existing CAM, the requirements are detailed in the ministerial decrees indicated above.

Sizes:

| DELEGATED REGULATION (UE) 2023/2495 | WORKS | SUPPLIES AND SERVICES | ALL. XIV DIRETTIVA 2014/24/UE (SERV. SANITARI SOCIALI E ASSIMILATI) |
|---|----------------|---|--|
| ORDINARY SECTORS | € 5.538.000,00 | € 221.000,00 (€ 143.000 autorità governative centrali) | € 750.000,00 |
| SPECIAL SECTORS | € 5.538.000,00 | € 750.000,00 | € 1.000.000,00 |

| SUB-THRESHOLD PROCEDURES | | |
|--|--|------------------------------|
| WORKS <150.000 SERVICES <140.000 | €150.000 ≤ WORKS ≤ 1.000.000 (5 economic operators) | |
| | €1.000.000 ≤ WORKS ≤ THRESHOLD (10 economic operators) | |
| | €140.000 ≤ SERVICES ≤ THRESHOLD (5 economic operators) | |
| DIRECT ASSIGNMENT | | |
| NEGOTIATED PROCEDURE AFTER ECONOMIC OPERATORS CONSULTATION | NEGOTIATED PROCEDURE AFTER ECONOMIC OPERATORS CONSULTATION | |
| ORDINARY PROCEDURES | | |
| OPEN PROCEDURE | OPEN PROCEDURE | OPEN PROCEDURE |
| RESTRICTED PROCEDURE | RESTRICTED PROCEDURE | RESTRICTED PROCEDURE |
| COMPETITIVE WITH NEGOTIATION | COMPETITIVE WITH NEGOTIATION | COMPETITIVE WITH NEGOTIATION |
| NEGOTIABLE WITHOUT TENDER | NEGOTIABLE WITHOUT TENDER | NEGOTIABLE WITHOUT TENDER |
| COMPETITIVE DIALOGUE | COMPETITIVE DIALOGUE | COMPETITIVE DIALOGUE |
| PARTNERSHIP FOR INNOVATION | PARTNERSHIP FOR INNOVATION | PARTNERSHIP FOR INNOVATION |

ANNEX II – Full responses to the survey on the deployment of IGPP in the CIRCUIT pilot countries

Actual level of deployment in pilots

The CIRCUIT pilot owners were submitted a survey investigating if GPP is applied in the pilot countries and at regional and local level. The survey was also aimed at investigating further information, for instance, on the barriers to the application of IGPP and the main stakeholders at pilot level.

The Annex II report in full the answers provided by the pilot owners who participated in the survey, while the main results can be found in the main text of the report D4.1.

Below the list of questions and the answers provided:

Are GPP and IPP applied in your country?

If your answer is: yes, please provide some detail:

Some examples and references

If they are applied to every kind of purchase in a systematic way

If they are in line with EU recommendations or do they differ in some ways

| Pilot | Answer |
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| Croatia | <p>Main legislation for the public procurement in Croatia is Public procurement Act (Official Gazete 120/2016.)</p> <p>First National action plan for green public procurement for period from 2015 – 2017 (NAP GPP) is adopted by Croatian government in August 2015. National level target by the year of 2020 was 50% of all public procurement contracts should include green criteria. According to statistic reports this target is not reached, so in 2021 only 9,9% of the PP contracts are based on GPP criteria. (https://zelenanabava.hr/rezultati/statisticko-izvjesce-o-javnoj-nabavi-u-republici-hrvatskoj/)</p> <p>GPP criteria for the priority product groups in NAP GPP are based on EU GPP Criteria (http://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm)</p> <p>Criteria (in Croatian) are published on web page Zelena javna nabava (Green public procurement) administered by Ministry of economy and sustainable development):</p> <p>EU Green Public Procurement Criteria for Road Transport (https://zelenanabava.hr/cestovni-promet/)</p> <p>EU Green Public Procurement Criteria for Road Design, Construction and Maintenance (https://zelenanabava.hr/projektiranje-izgradnja-i-odrzavanje-cesta/)</p> |

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| | <p>(Izvor https://zelenanabava.hr/mjerila-zejn/)</p> <p>Other additional criteria have not been developed.</p> <p>All information on GPP can be found on the link https://zelenanabava.hr/</p> |
| Spain | <p>In Spain, both Green Public Procurement (GPP) and Innovative Public Procurement (IPP) are implemented through various mechanisms, and there is a specific legislative framework. To this end, Spain's Ley 9/2017 de «Contratos del Sector Público» or "Public Sector Contracts" transposes Directive 2014/24/EU of the European Parliament and the Council dated February 26, 2014 on "Public Procurement" into Spanish law.</p> <p>The explicit purpose of Law 9/2017 is "to use public procurement as a tool to implement both European and national policies in the areas of social, <u>environmental</u>, <u>innovation</u> and <u>development</u>, promotion of SMEs, and competition defense."</p> <p>Law 9/2017 outlines how and where <u>environmental criteria</u> are to be integrated into the purchasing and public procurement process at various stages of any Green Public Procurement procedure. These stages are as follows:</p> <p>Contract Object: By choosing an "ecological" title, it is conveyed that environmental performance will be a significant component of the contract.</p> <p>Technical Specifications: These are the mandatory minimum (environmental) requirements/criteria that a good must fulfill. If an offer does not meet any of these criteria, it will be automatically excluded from the process.</p> <p>Supplier and/or Contractor Selection (or Exclusion) Criteria: Establishing (environmental) requirements for suppliers and contractors prior to evaluating the offers. These requirements demonstrate the technical and professional (environmental) capacity of bidding companies (conditions of capacity and technical solvency). Additionally, in some cases, those who have violated environmental legislation can be excluded (exclusion criteria).</p> <p>Award Criteria: Introducing assessable and quantifiable (environmental) requirements/criteria for the relative evaluation of competing offers (using one or multiple criteria). These criteria allow bidders who meet them to have a better position in the evaluation. Moreover, they serve as a means to "test the waters" and encourage technological progress in the relevant sector.</p> <p>Contract Performance Clauses: Specifying the "environmental" manner in which the contract should be executed. These aspects are complementary and not essential to the contract's</p> |

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| | <p>purpose (nor are they legal obligations), but they enhance its environmental performance during contract execution.</p> <p>The Law 9/2017 promotes <u>innovation and Innovative Public Procurement (IPP)</u> by providing a legal framework that encourages the integration of innovation criteria in public procurement processes. This is achieved through various mechanisms and provisions:</p> <p>Innovative Public Procurement (IPP): The law establishes the basis for the implementation of Innovative Public Procurement, which involves the acquisition of goods and services that do not exist in the market or incorporate significant innovations. This provision allows public entities to collaborate with companies for the joint development and acquisition of innovative solutions that can later be used to address challenges and needs of the public sector. The law establishes that entities can conduct preliminary market consultations before launching a procurement procedure in order to gather information on contract-related matters, such as technical specifications, market conditions, possible solutions, etc.</p> <p>Award Criteria: Law 9/2017 allows the inclusion of award criteria that evaluate innovation in bids. This means that proposals presenting innovative approaches or creative solutions can gain an advantage in the evaluation and selection process.</p> <p>Promotion of Competition: The law aims to promote competition in procurement procedures, which can incentivize companies to present innovative solutions to win contracts. This creates an environment where organizations are motivated to stand out through innovation.</p> <p>Public-Private Collaboration: Law 9/2017 enables collaboration and dialogue between the public and private sectors to identify innovative needs and solutions. This can result in the creation of strategic partnerships that foster the development and adoption of new technologies and approaches.</p> <p>Flexibility and Adaptability: The law provides flexibility to public entities to adapt procurement procedures to the specific characteristics of innovation and IPP. This may include longer deadlines for bid submissions or consideration of risk factors associated with innovation.</p> <p>Spanish Ley 17/2022 de “la Ciencia, la Tecnología y la Innovación” Law of science, technology and innovation establishes a legal framework to promote and regulate scientific research and innovation in a society, fostering technological advancement, knowledge generation, and economic growth.</p> |
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| | <p>On the other hand, in line with the guidance published by the JRC (Procurement Practice Guidance document), the Central Administration has a «Plan de Contratación Pública Ecológica (CPE) para el periodo 2018-2025», GPP Plan published in Orden PCI/86/2019, which encompasses all Spanish Public Administrations. The Plan, in addition to establishing a series of objectives, identifies a group of 20 priority goods, works, and services, in accordance with the EU's ecological procurement criteria, including: the <u>design, construction, and maintenance of roads</u>, the construction and management of buildings, road transport, and public lighting. This GPP plan clearly reflects the intention of the Central Government to include environmental criteria in the tender documents of Spanish Public Administrations. Therefore, this constitutes the overall framework within which collaboration is to be undertaken, aligning with the recommendations in the same direction by the EU for the road sector, in its various phases of design, construction, and/or preservation/maintenance. For each of these areas or groups, the Plan proposes a series of general environmental procurement criteria, of a voluntary nature, which can be incorporated into the tender documents as selection criteria, award criteria, technical specifications, and/or special performance conditions. Alongside the Plan, its annex includes a Table I of "criteria and specifications", containing selection criteria, technical specifications, and award criteria that may be taken into account by the contracting authority. However, the criteria and specifications defined in general do not contain specific indicators for quantification. Consequently, to incorporate these criteria and specifications into the tender documents, it would be necessary to analyze on a case-by-case basis how to do so.</p> <p>Last but not least, the Ley 7/2021 de «Cambio climático y transición energética» Law 7/2021 on "Climate Change and Energy Transition" mentions (in its Article 31) that a series of conditions applicable to Public Procurement will be included, ranging from: Specific Technical Prescriptions in the Tender Documents regarding criteria for emissions reduction and carbon footprint, specifically aimed at combating climate change, and Among the award criteria in the tenders for drafting projects, construction contracts, or concession contracts for construction, some of the following: Use of sustainable construction materials, considering their lifespan. Measures to reduce GHG emissions and other air pollutants in the various phases of the construction process for public works.</p> |
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| | Measures for climate change adaptation. Minimization of waste generation. |
| The Netherlands | <p>Following are the links regarding GPP & IPP for country (rijksoverheid), region (waterboards and provinces) and municipalities.</p> <p>https://www.rijksoverheid.nl/documenten/rapporten/2023/02/15/voortgang-nationaal-plan-mvi-2021-2025-en-manifest-mvoi</p> <p>https://unievanwaterschappen.nl/duurzaam-opdrachtgeverschap/</p> <p>https://www.rijkswaterstaat.nl/zakelijk/zakendoen-met-rijkswaterstaat/inkoopbeleid/duurzaam-inkopen</p> |
| Slovenia | <p>Green public procurement is procurement in which the contracting authority, under the Public Procurement Act (ZJN-3), orders goods, services or works that have a lower environmental impact, conserve natural resources, materials and energy, and have the same or better functionalities compared to conventional goods, services and works over their entire life cycle.</p> <p>Regulation on green public procurement (Official Gazette of the Republic of Slovenia, no. 51/17, 64/19 and 121/21) defines 22 items of public procurement for which consideration of environmental aspects is mandatory, including: electricity; design and construction of buildings; design and implementation of road construction; vehicles for road transport and transport services ; road lighting and traffic signals and anti-noise road fences.</p> <p>The requirements are summarized according to the European recommendations of green public procurement.</p> |
| Italy | <p>Compliance with Green public procurement (GPP) is achieved by applying minimum environmental criteria (CAM). A recent study (conducted by the Legambiente National Scientific Office in collaboration with Padova University, Fondazione Ecosistemi, Regione Lazio, Cofindustria and other partners) monitored more than 400 public procurement authorities (Municipalities, Capitals, Regions, Parks, ASL, etc.): the analysis shows that the application of the CAM is strongly variable as a function of the procurement object. For example, CAM is applied in an almost systematic way for public illumination procurement, paper supplies and cleaning services; they are poorly used for textile supplies tender.</p> <p>The use of CAM is in line with the Code of Public Contracts which is, in turn, in line with the measures implemented by the EU</p> |

Are GPP and IPP applied in your region/municipality?

| Pilot | Answer |
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| Croatia | <p>GPP is applied as mandatory on a national level only in Central state institutions.</p> <p>Some municipalities also apply it voluntarily on a local level, such as are the following examples:</p> <p>Cities of Koprivnica, Križevci, Zagreb and municipality of Župa Dubrovačka have applied criteria of minimum renewable energy source share in electricity supply for procurement of electricity in public buildings and public lighting. The procurement was made jointly by public institutions and it incorporated the public lighting too. Additional points would be awarded in proportion to the electricity to be supplied from renewable energy sources above the minimum requirement in the specification. The ambition of the public tender was to increase the use of electricity from renewable sources and to improve sustainable consumption of energy in local government. The approach was to award the suppliers which offer more energy made from renewable sources.</p> <p>City of Zagreb – Pilot project „Green public procurement for food in public schools“ aims at introduction of locally and ecologically produced food for City primary schools.</p> <p>City of Jastrebarsko published open tender for construction material (stone) using road distance from the supplier's quarry or depo as a criterion. Maximum points to be won in the procurement was 100, and 40 points was given to closest suppliers (under 20 km road distance) therefore granting the reduction of the energy consumption to be used in transport.</p> |
| Spain | <p>Yes, there are experiences at both regional and municipal levels.</p> <p>Regarding IPP, numerous regions have had experiences in different fields:</p> <p>Transport and Mobility: In 2017, the Barcelona City Council carried out a IPP process for the acquisition of electric bicycle systems and charging stations. The objective was to enhance sustainable mobility within the city.</p> <p>Energy and Energy Efficiency: The Barcelona Free Trade Zone Consortium conducted a IPP for energy efficiency in industrial buildings in 2018. The aim was to implement innovative solutions to reduce energy consumption in industrial facilities.</p> <p>Health and Care: In 2018, the Galician Health Service launched a IPP for the acquisition of innovative technology for the diagnosis and treatment of chronic obstructive pulmonary diseases.</p> <p>Information and Communication Technologies: The Agency for Information and Communications of the Community of Madrid</p> |

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| | <p>conducted a IPP for the acquisition of cybersecurity services in 2019. The goal was to enhance the security of the technological infrastructure within the community.</p> <p>Agriculture and Food: In 2019, the National Institute for Agricultural and Food Research and Technology (INIA) initiated a IPP process for the development of wireless sensors for monitoring water quality in agriculture.</p> <p>Environment and Sustainability: The Valencia Interior Consortium carried out a IPP in 2019 for the acquisition of innovative solutions that improve efficiency and sustainability in waste management.</p> <p>Public Administration and Governance: In 2020, the Zaragoza City Council conducted a IPP for the development of an artificial intelligence solution for analyzing and predicting parking space occupancy.</p> <p>The most significant GPP regional experiences in Spain are primarily based on plans and guidelines that develop key aspects for the implementation of environmental criteria in public procurement, as indicated below:</p> <p>Government of Catalonia:</p> <p>At the level of the Government of Catalonia, the "Sustainable Pavement Sector Plan (SPSP)" has successfully incorporated environmental criteria into its tender documents for the reinforcement and rehabilitation of road pavements over several years. This plan aims to promote innovation in the field of bituminous mixtures.</p> <p>The environmental evaluation and award criteria analyzed by the Government of Catalonia, as developed in its Tender Document Instructions (PCAP), consider both objective and subjective assessment criteria.</p> <p>Basque Government:</p> <p>The Basque Government has published numerous environmentally focused publications through its Public Environmental Management Company, Ihobe. These include the "Practical Guide to Green Procurement and Purchasing (2018)," a publication on "Common Mistakes in Introducing Environmental Criteria in Public Procurement," and the "Practical Guide on the Use of Environmental Certifications in Public Procurement."</p> <p>The main document by Ihobe is the manual that outlines the key environmental criteria to be applied under two of the most common procurement procedures: open and negotiated. This covers both the selection of the company to contract and the type of tender: project drafting or execution.</p> <p>Andalusian Regional Government:</p> <p>The Regional Council of Finance and Public Administration of the Andalusian Government published the "Guide for the Inclusion of</p> |
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| | <p>Social and Environmental Clauses in the Procurement of the Andalusian Government" in October 2016. This guide facilitates the incorporation of environmental clauses, both obligatory and recommended, based on the characteristics of each contract, in order to aid decision-making throughout different phases of the procedure, from bid submission to award and execution.</p> <p>Valencian Regional Government:</p> <p>Two documents, while not directly related to CPE criteria in roads, have some relation: the "Green Guide of Environmental Measures in Public Procurement in the Field of Building of the Valencian Government" to promote the consideration of sustainability criteria in public procurement, and the "Guide to Asphalt Pavements for Roads with Low Traffic Intensity (BIT)."</p> <p>Navarra Autonomous Community:</p> <p>Navarra's Law 2/2018, of April 13, on Public Contracts includes aspects related to environmental concepts, such as the use of labels, the introduction of life cycle and life cycle cost concepts to assess the overall costs of the contract object, and the inclusion of environmental requirements in the execution of contracts.</p> <p>Aragon:</p> <p>There is a "Manual of Environmental Best Practices" (2010) aimed at integrating environmental aspects and criteria in the procurement of road works in this Autonomous Community. The creation of this manual is also contemplated in the "Action Plan of the Government of Aragon Against Climate Change and Clean Energies (2008-2012)" as one of the emission reduction actions.</p> <p>Barcelona Regional Council:</p> <p>The document "Proposals for Environmentalization of Public Building Tenders" serves as a reference for quantitative and/or qualitative assessment in sustainability aspects for the promoters of public works tender procedures. For each criterion, there is an evaluation method with minimum conditions (thresholds) that must be met, establishing a scoring system based on the degree of reduction or savings.</p> <p>Additionally, the most significant municipal experiences in Spain include some tender documents as follows:</p> <p>Municipality Level - Barcelona City Council:</p> <p>In 2017, Barcelona City Council published the Mayoral Decree S1/D/2017-1271 on Sustainable Public Procurement. It also has a series of guides and instructions that allow them to incorporate environmental sustainability criteria into supply and service tender documents as they see fit.</p> <p>However, according to Article 7.6 of the Decree, specific measures will be articulated in the specific tender documents for each</p> |
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| | <p>contract (PCAP or PPTP), depending on the type of contract and its object. These measures include solvency criteria, award criteria, execution conditions, technical specifications, or any other criteria that, according to legal regulations, are deemed appropriate, or through the "essential obligation" clause, in which case the consequences of non-compliance will be established with economic penalties or, potentially, contract termination.</p> <p>Municipality Level - Valencia Autonomous Community: Several tender documents related to road construction that introduced certain environmental criteria in a practical way have been identified from 2018 onwards. Generally, as part of the environmental evaluation criteria, companies proposing specific measures to reduce the carbon footprint of the work and the use of environmentally friendly means and materials are positively valued. These contribute to reducing environmental impacts caused by the works. However, these are very generalized criteria, without specific indicators, and account for only 5% of the total tender score.</p> <p>Municipality Level - Basque Country: In Durango City Council, a contract in the form of an open procedure has been detected in which, to some extent, environmental criteria have been applied. However, the definition is generic, with a subjective evaluation and a maximum weight of only 10% of the overall evaluation.</p> <p>Municipality Level - Navarra Autonomous Community: A tender specification has been identified in the project for the reinforcement and rehabilitation of the pavement of a road, which somehow invokes the practical application of environmental aspects through an environmental monitoring and management program referring to waste management and the emission of noise and polluting gases. However, specific indicators, criteria, or concrete CPE thresholds are not mentioned.</p> <p>Municipality Level - Cantabria: Three procurement procedures for improvement and/or conditioning of various road sections have been analyzed, where environmental aspects are considered. These procedures include an "environmental analysis of the work" as part of the criteria assessed through subjective judgments. For example, the use of recycled materials is considered.</p> <p>Municipality Level - Castilla y León Autonomous Community: A procurement procedure for the renovation of the pavement of a road section has been identified, where an environmental aspect is introduced as a special environmental execution condition related to limiting the distance of the production plant for hot</p> |
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| | bituminous mixtures. This aims to reduce GHG emissions during transportation. |
| The Netherlands | Yes, the plan is to be fully circular by 2035, currently we're working towards that goal. |
| Slovenia | Regulation on green public procurement is mandatory for all public contracting authorities in the Republic of Slovenia. IPP is an option defined in the Public Procurement Act (ZJN-3), however it is seldom used. |
| Italy | The region Lazio and the province of Rome join to the use of GPP and IPP through the adoption of an "Action Plan for the Green Public Procurement": the plan provides for the increasingly frequent use of green purchases. |

State of the art in EU your country both at national and regional level

Is GPP integrated into the overall management system at the national level (through - for instance - Joint Procurement schemes?)

| Pilot | Answer |
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| Croatia | <p>Main criteria for PP set by national legislation (Public procurement Act NN 120/2016) is the most economically advantageous offer. This means that GPP criteria could be used in procurement procedures using LCC as one of the metrics and resulting in multiple positive impact: environment, social and financial. This is clear shift from previous practice where price or cost was the only criteria for the PP.</p> <p>Obligations set out in article 6 of the Directive 2012/27/EU on energy efficiency are transposed in the national Ordinance on Green public procurement in central state procurement processes and adopted in May 2021 (Official Gazzete 49/21). Central state institutions obliged to implement GPP Ordinance are: Office of the President, Government of the Republic of Croatia, Croatian Parliament, National Ministries, Central State offices and State institutions.</p> <p>Central state institutions must include procurement using GPP criteria included in technical procurement documentation. Procurement is covering products, services and buildings such as copying and graphic paper, electricity, telecommunication services and mobile phone services together with devices, cleaning services, office IT equipment and motor vehicles.</p> |

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| | <p>State-owned companies are not obliged to use GPP criteria, but here are some examples of good practice:</p> <p>HEP d.d. (National energy utility company) purchased electric vehicles in the procurement of fleet vehicles using technical specifications for electric vehicles. Main goal was to make CO2 emission savings, and improve corporate responsibility.</p> <p>Hrvatska pošta (National postal service) published an open tender for electric bicycles suppliers which resulted in purchasing of 180 electric bicycles to be used instead of motor scooters with internal combustion engines. Hrvatska pošta continued to incorporate GPP criteria using total of 220 electric vehicles and aiming to replace complete fleet with e-vehicles.</p> |
| Spain | <p>There are no known experiences where Green Public Procurement (GPP) in the road sector has been integrated into Joint Procurement schemes.</p> <p>Even though Article 38 of Directive 2014/24/EU states that "two or more contracting authorities may agree to carry out certain specific contracts jointly," this article is reflected in Article 31 of Law 9/2017 of the "Public Sector Contracts" when regulating the power of self-organization and systems of vertical and horizontal public cooperation. It stipulates that "entities belonging to the public sector may in any case agree to carry out specific contracts jointly."</p> |
| The Netherlands | <p>Yes. The "Manifesto on socially responsible Commissioning and Purchasing" put together more than 90 government organizations and semi-government organizations. The manifesto focuses on stimulating ambitious, socially responsible commissioning and procurement. In doing so, they contribute to solutions for societal challenges. These are the themes of environment and biodiversity, climate, circular (including biobased), International Social Conditions (ISV or chain responsibility), diversity and inclusion and social return.</p> |
| Slovenia | <p>Regulation on green public procurement is mandatory for all contracting authorities. Joint procurement is used in the public administration for certain groups of items (paper, electrical equipment, etc.) and is regulated by the regulation on joint public procurement of the Government of the Republic of Slovenia. The procurement process is managed by the Ministry of Public Administration.</p> <p>Joint procurement also refers to when two or more contracting authorities join together to carry out a single procurement (e.g. public authorities).</p> |

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| Italy | Yes, it is. The New Code of Public Contracts (D.Lgs n. 36/2023) reaffirms the obligation of the GPP and compliance with social criteria (gender equity, employment, inclusion) already provided for by Article 47 of the DL Simplifications and the Regulation of 7 December 2021; the Ministry for the Environment (MASE) has approved 6 new Minimum Environmental Criteria (CAM) for interior furniture, waste, events, textiles, outdoor furniture, and has planned, with DM 15 of 31 March 2023, to approve other 7 criteria: 5 with ongoing activities (roads, refreshment, computers and mobile phones, energy services and electricity supply, local public transport) and 2 to start (footwear and accessories overhaul building). |
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How are road authorities integrating sustainability and circular economy criteria into the procurement process to promote green technologies and practices in road construction and maintenance?

Examples:

- Establishing sustainability goals and targets,
- Including green specifications in their procurement documents,
- Encouraging innovation,
- Using LCA and LCC,
- Collaborating with research institutes.

| Pilot | Answer |
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| Croatia | <p>Road authorities in Croatia are Hrvatske ceste (Croatian authority for national roads), Hrvatske autoceste HAC d.o.o (Croatian authority for highways) and Županijske uprave za ceste (Authorities for county and local roads).</p> <p>Road authorities are not obliged but voluntary/occasionally use EU Green Public Procurement Criteria for road design, construction and maintenance.</p> <p>Some examples from HAC areas follows:</p> <p>Electricity purchase - In procurement process HAC d.o.o have applied criteria of minimum renewable energy source share in total electricity supply. Currently active contract for electricity supply is ensuring 10% or more renewable energy share in total electricity purchased.</p> <p>Office paper supply – HAC d.o.o. have applied environmental criteria for office paper supply in a way that offer gets additional points if the paper is made from sustainable sources – e.g. FSC certificate or similar).</p> |

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| Spain | <p>There are various tools for promoting GPP and IPP from the public sector.</p> <p>The Directorate General of Roads, driven by the General Secretariat for Infrastructure, has launched an IPP Program. Its purpose is to explore the capabilities of public-private collaboration to develop innovative solutions that facilitate better road management, directly transform citizens' realities, and improve their road travel experience.</p> <p>The first action of the PPI Program was a Preliminary Market Consultation in November 2022 to assess the maturity level and state of the art of potential innovative solutions.</p> <p>Challenge number 4 of the IPP Program of the Directorate General of Roads includes objectives to collaborate in the process of decarbonizing the economy by reducing the environmental impacts of road construction and rehabilitation works. The supported tasks will involve:</p> <ul style="list-style-type: none"> Development of materials for asphalt pavement that contribute to decarbonization by improving durability. Enhancement of production processes in asphalt plants and logistics of works. Implementation of environmental impact verification systems. <p>Another notable example is the Sustainable Pavements Plan 2022 by the Directorate General of Mobility Infrastructures of the Department of Territory of the Government of Catalonia. Through Innovative Public Procurement, this plan promotes the use of more sustainable materials and technologies in the design, production, construction, and maintenance of road pavements, adding new values to their fundamental road safety functionality.</p> <p>The Sustainable Pavements Plan 2022 has had the following main objectives:</p> <ul style="list-style-type: none"> Rehabilitation of pavements using innovative bituminous mixtures. Comparison of the performance of innovative pavement with conventional pavement. Evaluation of the life cycle of the rehabilitated pavement to confirm its sustainability. Development of technical specifications for the future application of these innovative experiences. Dissemination of the obtained results. <p>Additionally, the Center for Technological Development and Innovation (CDTI), under the Ministry of Science and Innovation, established the Office of Innovative Public Procurement (OCPI) in November 2018. Its main objective is to</p> |
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| | promote IPP in the form of Pre-Commercial Public Procurement (PCP). |
| The Netherlands | <p>The Netherlands' national Ministry of Infrastructures currently uses 2 standard instruments to address sustainability in tenders within the civil engineering sector:</p> <p>Co2 performance ladder: The CO2 Performance Ladder is a CO2 management system consisting of 5 levels. Up to and including level 3, an organization will work on the emissions of its own organization (and all projects). From levels 4 and 5, CO 2 emissions in the chain and sector are also being addressed. From 2013 onwards, Rijkswaterstaat will encourage CO 2 reduction in all projects. The level at which the provider is certified on the CO 2 performance ladder is one of the award criteria. Using the CO 2 performance ladder, a contractor can demonstrate that he is taking measures in his company and in projects that lead to reductions in CO 2 emissions. In this way, the sustainability of the offering party is included in the tender.</p> <p>Environmental costs indicator: In a large number of projects, the sustainability of the design and implementation of the tender itself is an award criterion. This is done on the basis of the Environmental Cost Indicator. This MKI value is calculated using DuboCalc . DuboCalc is the instrument used to calculate the environmental costs of a design.</p> <p>Based on the MKI value, different designs and/or registrations can be objectively compared. For example, Rijkswaterstaat rewards the use of sustainable asphalt, sustainable concrete and efficient construction logistics. In this way we encourage the reuse of materials, limitation of primary raw materials and the choice of raw materials and methods with minimal CO 2 emissions. DuboCalc has been used in approximately 40 tenders since 2012.</p> <p>To ensure that everyone has equal opportunities, Rijkswaterstaat sets requirements for the calculation, testing and monitoring of the MKI value. These are bundled in the Protocol for Calculating and Demonstrating MKI Value.</p> <p>Due to advancing insight and improvements in the life cycle analyzes (LCA) data that underlie an MKI calculation, the requirements that Rijkswaterstaat sets in this Protocol are also changing.</p> <p>The following changes have been implemented in the new version of the Protocol (4.0):</p> <p>The scope of an MKI calculation is more clearly defined (section 2.1).</p> |

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| | <p>The requirements for LCA data have been revised, with the 30% surcharge on category 3 data no longer applicable, provided that this data is representative of the materials or products used. This is because the quality of the category 3 data for civil engineering has greatly improved (section 2.2).</p> <p>Requirements regarding energy consumption have been updated (section 3.3).</p> <p>Requirements for specific materials, products and processes have been revised and reduced (Chapter 3).</p> <p>Requirements regarding plans and reports have been updated (chapter 4).</p> <p>The appendices on lifetimes for category 1 data have been removed (in line with the revised requirements for LCA data in section 2.2).</p> <p>It is expected that civil engineering works tenders from Rijkswaterstaat will use version 4.0 of the Protocol in announcements on TenderNed from January 1, 2024 at the earliest.</p> |
| Slovenia | <p>The green public procurement regulation also applies to road construction.</p> <p>Asphalt is recycled and reused as fill material. In the construction of the road surface, recycled asphalt granulate (milled material) that was created during the renovation of this road or from another source is used as a priority for the production of new bituminized mixtures, and secondarily, in particular, for layers stabilized with hydraulic or bituminous binders, buffers (including banks), beds, embankments and backfills, namely in the amount that is required.</p> |
| Italy | <p>Road authorities integrate sustainability and circular economy criteria into the procurement process through the inclusion of green specifications in their procurement documents. For example, the road authorities may require designers to include materials, methodologies and technologies that reduce environmental impacts in their design; may provide for the use of supplies and green materials directly in the contract documents or for award criteria.</p> |

Are you using any metrics / KPIs to measure the sustainability and/or circularity performance for the assessment of new design projects during tendering procedures? Could you give examples of KPIs?

| Pilot | Answer |
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| Croatia | Since 01.01.2017. public procurement in HAC d.o.o. is subject to obligatory criteria - most economically advantageous offer. |

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| | <p>In 2021, HAC d.o.o. implemented documentation management system and application-based solution for own archive digitalisation. This system enables documentation management in all key business processes and results in efficiency increase in documentation management. Large share of documentation is digitalized and use of office material and paper is reduced.</p> <p>Procurement of electric, energy-efficient vehicles and procurement of vehicles that must meet the minimum emission standards defined by EU directives:</p> <p>In 2022, the procurement of 45 road vehicles was initiated. The vehicles are used for highway patrolling, transportation of operating workers by section to various regular maintenance jobs, transportation of work materials, traffic signals, tools, etc. The minimum standard that the delivered vehicles must meet is Euro 6.</p> <p>In 2023, the delivery of 4 trucks with hydraulic upgrades for winter service was initiated and contracted. The minimum standard that the delivered vehicles must meet is the Euro 6 e standard. Dump trucks are used throughout the year for various maintenance jobs, and most of them are intended for winter maintenance of highways.</p> <p>In 2021 and 2023, public procurement was carried out for the delivery of a total of 10 pieces of electric vehicles, M1 category. The purchase of the vehicle was co-financed from the Fund for Environmental Protection and Energy Efficiency.</p> |
| Spain | In Spain, the requirements for environmental and innovative considerations during public procurement do not include specific metrics or Key Performance Indicators (KPIs) for their quantification. There is also no record of cases where metrics or indicators have been used. |
| The Netherlands | <p>Yes, depends on the tender. We use for instance certification on CO2 emission for contractors and circular materials for office furniture.</p> <p>For some kind of projects, tools like Dubocalc can be used.</p> |
| Slovenia | KPIs are not in use. Objectives are included within the technical specifications. |
| Italy | Our contracting authority frequently uses the most economically advantageous tender method (as provided for in the Procurement Code for contracts exceeding the Community threshold). |

Besides GPP and IPP, does your organization adopt other forms of procurement aimed at sustainability such as sustainable procurement or circular procurement or best-value procurement?

| Pilot | Answer |
|-----------------|---|
| Croatia | / |
| Spain | In general, all Public Procurement in Spain must adhere to the Law 9/2017 on "Public Sector Contracts." Law 9/2017 stipulates the objective of selecting the economically most advantageous offer, incorporating social and environmental criteria in a cross-cutting and obligatory manner whenever it is relevant to the contract's purpose. This conviction stems from the belief that their inclusion provides a better value for money in the contractual provision, as well as greater and improved efficiency in the use of public funds. |
| The Netherlands | Currently the Netherlands are investigating Circulair design and procurement for (pilot)projects and as an effort to be fully circulair for civil engineering projects by 2035. Best value procurement is not used. |
| Slovenia | No, only the legislation of the Republic of Slovenia is considered. |
| Italy | / |

Barriers

The "barriers" chapter of the survey aimed at investigating the main obstacles that the authorities in pilot countries face in the application of GPP and IPP. In order to do so, the CIRCUIT consortium asked the pilot owners to rank the following key elements and barriers identified for GPP and IPP deployment, in order of importance from 1 (most important barrier) to 7 (least important barrier):

- **Lack of cooperation** between authorities and private sector preventing elaboration of strategic long-term plans in road infrastructure and future implementation assessments
- **Low weight** in public tendering processes for elements related to innovative and green products and technologies
- **Financial obstacles** for local and regional administrations due to scarcity in public budgets
- **Lack of economic return** for private sector investments due to short and medium approach in public procurement processes
- **Legal difficulties and low expertise** for public authorities (national, regional or local) and/or complexity in tenders that reduce interest from both parties
- **Lack of tools / common metrics** for different products /limited criteria for products or services

- **Lack of trainings / lack of practical tools** and information on GPP/IPP at EU and national/regional levels
- Others: the Slovenia pilots put “**lack of knowledge and practice**” as a further barrier to the deployment of IGPP principles

The following table collects the answers provided by the pilot:

| Barrier | Croatia | Spain | Netherlands | Slovenia | Italy | Average |
|---|---------|-------|-------------|----------|-------|---------|
| Lack of cooperation between public and private sector | 3 | 7 | 4 | 2 | 4 | 4 |
| Low weight of green and innovation in tenders | 6 | 3 | 6 | 5 | 7 | 5,4 |
| Financial obstacles | 7 | 6 | 3 | 3 | 6 | 5 |
| Lack of economic return | 5 | 5 | 1 | 6 | 5 | 4,4 |
| Legal difficulties and low expertise | 4 | 1 | 7 | 1 | 2 | 3 |
| Lack of tools / common metrics | 1 | 2 | 5 | 4 | 3 | 3 |
| Lack of trainings and practical tools | 2 | 4 | 2 | 7 | 1 | 3,2 |
| Other | / | / | / | 8 | / | |

According to the answers provided by the CIRCUIT pilots, “legal difficulties and low expertise for public authorities (national, regional or local) and/or complexity in tenders that reduce interest from both parties” and “lack of tools / common metrics for different products / limited criteria for products or services” (in dark red on the table) are the most relevant barriers to the application of IGPP among the proposed options. “Lack of trainings / lack of practical tools and information on GPP/IPP at EU and national/regional levels” (in light red on the table) is also a relevant barrier to the application of IGPP while the other options proposed (in orange and yellow on the table) are considered less relevant barriers by the respondents.

Key stakeholders at pilot level

In this section of the survey, the pilots were asked to identify the key stakeholders involved in public procurement and GPP initiatives within each of the pilot country and to provide specific examples under each of the provided target group. The following table collect all the answers provided.

| Target Group | Croatia | Spain | Netherlands | Slovenia | Italy |
|---|---|---|--|--|--|
| Public Authorities (government agencies, or public institutions): | <ul style="list-style-type: none"> Ministry of economy and sustainable development Central state office for central procurement HAC d.o.o. All public authorities legally obliged to public procurement | Ministry of Public Works and Transport. Ministry for the Ecological Transition and the Demographic challenge. Regional procurement agencies belonging to autonomous communities and other municipal entities. | Rijksoverheid, gemeenten, Waterschappen, provincies, Rijkswaterstaat, aanbestedende diensten | Ministry of Public Administration Ministry of the Environment, Climate and Energy Association of Municipalities of Slovenia | Ministry of Infrastructures and Transport (MIT), Ministry of the Environment and Energy Security (MASE), Ministry of Culture (MIC), CONSIP, INVITALIA, AGENZIA DEL DEMANIO |
| Private Companies or businesses: | <ul style="list-style-type: none"> Companies eligible for public procurement tenders Consultancy in the public procurement field | ASEFMA, IECA, ATEB, SEOPAN, ACEX, ... | Numerable | Chamber of Commerce and Industry of Slovenia | - |
| Scientific (scientific or research institutions): | <ul style="list-style-type: none"> EIHP energy institute EKONERG Faculty of civil engineering | Centre for Public Works Studies and Experimentation (CEDEX) IETcc-CSIC (Torroja) Universities | Numerable | ZAG IJS - Jožef Stefan Institute | ENEA, CNR, Universities |
| Policy Making (bodies responsible for developing policies, regulations, or guidelines): | <ul style="list-style-type: none"> Committee for GPP (Ministry of economy and sustainable development) Ministry of the Sea, Transport | Spanish Government | Rijksoverheid (PIANOo – platform organized for PP) | Ministries responsible for individual subject groups (https://ejn.gov.si/sistem/zeleno-jn/kontakt-ni- | Ministries, ANAC |

| | | | | | |
|---|---|---|--|--|--------------------|
| | and Infrastructure | | | podatki.ht ml) | |
| Others if applied: Community-based organizations, non-profit groups | <ul style="list-style-type: none"> Regional energy agency for NW Croatia | The Technical Road Association (ATC-PIARC) Committee CTN 198 - Sustainability of construction works | | SRIP – Circular Economy https://srp-circular-economy.eu/ | Trade Associations |

The way towards Innovative GPP

The last part of the survey aimed at gathering insights from the pilots' experience and expertise through six open questions, in order to have possible indications on the future of IGPP.

Question N.1: In your country, what do you consider to be the primary driver for the innovation of the procurement schemes?

Answers:

Croatia:

- "Stronger legal framework
- Lower total costs in life cycle
- Lower environmental impact and CO₂ emissions in life cycle (direct and indirect)
- Good governance examples
- Education".

Spain:

"The promotion by public administrations of instruments and tools that allow the inclusion of environmental and innovative criteria in procurement processes, from a full life cycle perspective".

The Netherlands:

"The primary driver is to challenge commercial parties to develop solutions for problems we are faced in projects e.g. PFAS, NO_x emissions and CO₂ reduction".

Slovenia:

"It is essential for the contracting authorities that the procurement process is simplified and economically feasible (financial incentives). The support of management personnel (minister, mayor, management of the organization, etc.) also plays an important role".

Italy:

"A possible innovation could be the use of a system of "environmental rating" of economic operators".

Q2: Do you think that a more coordinated approach at EU level on GPP could be helpful to bring innovation in the tendering practices? Do you envisage any form of cooperation with other European countries?

A:

Croatia:

"Cooperation through EU projects (Horizon)".

Spain:

"Indeed, it is highly beneficial to have the EU's support in GPP practices.

Furthermore, it would be of great interest and assistance to share and thoroughly understand the best GPP practices that are currently being implemented in other EU countries, such as the development of tools and the use of metrics and indicators (KPIs)".

The Netherlands:

"Yes, because upscaling after a successful pilot is often difficult and many countries are faced with the same problems/difficulties. Therefore a more central approach will make it easier to stimulate commercial parties to invest in development due to the bigger possibilities to sell the innovation.

For the use of circular materials - several countries are already making their first steps to have a system in place, having a "marketplace" for materials, linking the different marketplaces for the different countries is an important step".

Slovenia:

"At EU level, cooperation and coordination makes more sense on a voluntary basis".

Italy:

"Yes. It is advisable cooperation that allows the use of management standards for the qualification and reward of economic operators who adhere to green protocols".

Q3: How can road authorities collaborate with industry stakeholders to foster innovation and develop new technologies that align with the principles of GPP for road construction and maintenance?

A:

Croatia:

"Road authorities should cooperate with various industry stakeholders (cement, asphalt, aggregates, heavy construction machinery, IT and surveillance technologies, lighting and signalization, etc.) in order to establish the criteria that can be used as a useful metrics for GPP.

Available methodologies could be developed and/or implemented:

- LCA and LCC of road infrastructure and maintenance (products and service)

- Carbon footprints of road construction and maintenance (products and services)".

Spain:

"In Spain, there are experiences such as the [«Compra Pública de Innovación en Carreteras»](#) "Public Procurement of Innovation in Roads" in November 2022, which aims to explore the capabilities of public-private collaboration to develop innovative solutions that facilitate better road management and also directly contribute to transforming the citizens' reality and improving their road travel experiences.

The initial action of the Public Procurement of Innovation Program led by the Directorate General of Roads involved a Preliminary Market Consultation, with the purpose of understanding the level of maturity and the state of the art of innovative solutions that could be incorporated".

The Netherlands:

"This is difficult due to the legal aspects and high costs at both sides to stimulate innovation.

The current procedures generate a lot of cost upfront for the procurer and stiffen innovation".

Slovenia:

"Cooperation between the contracting authority and tenderers is important in the phase before the public procurement phase".

Italy:

"All forms of dialogue and comparison (for example, comparison tables) can be constructive and can develop ideas to foster new technologies that align with the principles of GPP".

Q4: How can road authorities foster collaboration and engagement with small and medium-sized enterprises (SMEs) to encourage their participation in GPP initiatives and promote innovation within the road sector?

Examples:

- Including subcontracting requirements to SMEs in large-scale projects,
- Establishing funding programs or grants specifically designed to support SMEs in GPP,
- Simplifying procurement processes,
- Facilitating networking events and platforms that bring together all stakeholders.

A:

Croatia:

- "Education for the SMEs as offering parties
- Subsidies for energy efficient vehicles, appliances".

Spain:

“Facilitating sustainable practices well in advance through: tax incentives, financing, training, and more”.

The Netherlands:

“Our primary goal is aimed at water. Roads are a relatively small part of our work. Stimulating innovation is because of the lack of scale not so much our main objective. In the pilot project, the embankment acts as both the foundation for the road and as a primary flood defence”.

Slovenia:

“Green public procurement should play a bigger role in small value procurement where only registration of procurement is required (ZJN-3)”.

Italy:

“Introducing award criteria for the contracts”.

Q5: What innovative measures or incentives can be implemented to encourage the use of environmentally friendly materials, such as recycled or low-carbon materials, in road infrastructure projects?

A:

Croatia:

“By awarding extra points in procurement process for usage of environmentally friendly materials, such as recycled or low-carbon materials that are acceptable from technical point of view.

By prescribing minimum technical requirements for materials and equipment used in road construction. For example the lighting infrastructure will be designed based on the group of norms for road lighting HRN EN 13201 with the mandatory requirement of installing "ecological lighting", i.e. with the public lighting "cut off" design, which prevents glare for road users and residents along it. Regulation of the light flow, i.e. the intensity of the lighting in order to reduce the consumption of electricity with regard to the traffic conditions: the influencing factors of the speed limit, terrain configuration, traffic density and atmospheric conditions (fog, rain, snow), in traffic reduction in the late night hours, regulation of the individual lamps power along the highway or rest area”.

Spain:

“From the perspective of public authorities, the main tools arise from pilot projects, experimentation, support from research centers, and ongoing training.

And from the perspective of private companies, through specific funding with targeted improvements and other types of incentives”.

The Netherlands:

“This can be done by putting it down in demands or by using it as an award criterion”.

Slovenia:

“It is important to manage a database of construction products that have been evaluated in terms of their environmental impact (LCA, EPDs - Environmental Product Declarations, etc.)”.

Italy:

“The introduction of award criteria can be useful as well”.

Q6: What strategies can road authorities adopt to ensure the effective monitoring and verification of environmental performance and compliance with GPP requirements throughout the road construction and maintenance process (or throughout all life cycle stages)?

Croatia:

“It depends on requirements from national authorities (Ministries, inspections) and financial institutions.

Preparation and monitoring of implementation of the environmental performance plan for big projects could be useful”.

Spain:

“The contracting authority has the right to demand the minimum characteristics that the product it wishes to acquire must meet, the requirement for guarantees, and the authority to apply penalties for non-compliance, including those of an environmental nature.

Verification and control are another key aspect in GPP, and for this, there must be both pre and post tasks on the part of the project bidder, as well as the contracting authority.

It would be advisable for the bidder of the design, construction, or management project to provide a technical report specifying, among other things, the minimum nominal service life of materials, the physical-mechanical performance of materials, the construction techniques and processes used, and the work plan for construction activities”.

The Netherlands:

“/”.

Slovenia:

“These are contractual provisions which contain an obligation for the contractor to report on the environmental aspect (waste management, number of transports,...)”.

Italy:

“Road authorities usually demand their operative staff to oversee construction works and to check the actual implementation of the proposed environmental measures”.

ANNEX III – CIRCUIT pilots full answers to the interview on IGPP from task 4.1

Questions for public buyers in PILOTS countries

Q1: What are the key differences in the GPP process compared to usual public procurement according to current regulation and practice?

Please rate from 1 to 10 how relevant are the following differences for you daily activity and feel free to add other of them to the list. Then please motivate shortly your decision:

- a. Lack of guidance, tools or capacity. Rate:
- b. Longer procurement period. Rate:
- c. External consultancy needed. Rate:
- d. More documentation (administration) needed Rate:
- e. Rate:

ANSWERS:

Croatia:

- a. Lack of guidance, tools or capacity. Rate: 10
- b. Longer procurement period. Rate: 8
- c. External consultancy needed. Rate: 5
- d. More documentation (administration) needed Rate: 5
- e. Rate:

Motivation:

Public procurement process in HAC is closely linked to project design process which is key for determining materials, goods and services which will be used in construction or maintenance works. (e.g. bill of quantities).

It is therefore important to harmonize these two phases, incorporating the “green” requirements soon enough to be already defined in the design stage or designing in a way to enable more choices in further stages.

The Netherlands:

- a. Lack of guidances, tools or capacity. Rate: 1
- b. Longer procurement period. Rate: 1
- c. External consultancy needed. Rate: 6
- d. Rate:

e. Rate:

Motivation:

GPP criteria are imbedded in the MVI criteria Tool of the Netherlands (see: [Sustainable Public Procurement Webtool \(mvi.criterium.nl\)](https://mvi.criterium.nl)). They are being used since several years in public procurement. Therefore it won't take much extra time and effort to apply these criteria. Mostly it will be applied in tenders worth €215.000 and above.

Slovenia:

- a. Lack of guidances, tools or capacity. Rate: 3
- b. Longer procurement period. Rate: 3
- c. External consultancy needed. Rate: 3
- d. Smaller number of providers. Rate: 1
- e. Complexity of the process due to not knowing what to include in the tender. Rate: 1

Motivation:

Since I am the expert on the GPP field, GPP does not differ much from public procurement. For Slovenian public procurers the main problem with GPP is the risk that the tender would not be successful, since they are implementing something new, innovative etc.

Q2: Please make a self-assessment of how much is the GPP process more complex for you organization in terms of administration, documentation and monitoring as a buyer.

Croatia: Green Public procurement could be implemented using criteria for additional scoring in the competition process, but it is important to enable fair and equal conditions for all competitors on the market. For example, introduction of new (green) criteria should not lead to exclude any competitors.

This condition is sometimes not favourable for the implementation of GPP and could make the process more complex.

HC has already procured the goods (vehicles) and services (electricity supply) using green criteria such as emission standards and share of renewable energy in electricity supplied. Also, HAC is well informed about the EU Green Public Procurement Criteria for Road Design, Construction and Maintenance, and therefore the organization is prepared for new procedures.

The Netherlands: Administration and documentation aren't difficult to apply. It doesn't take much time to process the information. Monitoring is more difficult and remains a point of interest. This part needs to be developed.

Slovenia: Not much different since we have all the needed experts. It takes a day or two longer to get some info but not much different.

Q3: What are, from your viewpoint, the purpose and benefits of GPP?

Croatia:

- Green public procurement is a leverage to increase organizational credit rating, for example in case of funding from financial institutions and banks (e.g. EBRD, EIB)
- Better reputation in public – Green organization with justification
- Better compliance with public policies, national, EU global and international climate and sustainability goals (e.g. SDG)
- Lower incompliance risk
- GPP is a tool to implement and realize own environmental goals such as the ones defined in ESG strategy (e.g. decrease of GHG on an organizational level, zero-waste, water consumption reduction)
- GPP should support innovations in procurement, but it is not yet clear how to define and rate innovation.

The Netherlands: GPP helps us to obtain our sustainability goals. As a public organisation we can influence the contractors strongly on sustainability. Especially when all public organisations tender in the same way, sustainability will become the default and creates opportunities for investments. Policy predictability and investment security are essential in this respect.

Slovenia:

- Health and well being of consumers (for example: cleaning)
- Life cycle cost reduction
- Environmental benefits
- Effect on the green market – reduction of prices for the society

Questions for other road authorities (legislator or regulator at EU, national, regional, local level)

Q1: Could you provide some efficiently implemented regulations on IPP and GPP?

The Netherlands: Our policy is translated into work processes in which is defined in which phase of a project which sustainability tool needs to be applied and by whom. This helps to make sustainability part of the daily work.

Slovenia: Our Decree on GPP which covers 22 products groups: [Uredba o zelenem javnem naročanju \(PISRS\)](#). Around 30% of Slovenian tenders have at least one environmental aspect included.

Q2: Could you provide examples of good practices in the application of Innovative and Green Principles in PP?

The Netherlands :

Innovation : Zero emission equipment is asked for in the latest Tender for maintenance of roads.

Green PP principles : In the latest tender for maintenance of roads has also been environment cost indicator (MKI) applied as an award criterion. Also Carbon footprint has been one of the award criteria.

Slovenia :

Innovation : /

Green PP principles : [Home old - Municipal material cycle \(municipal-material-cycle.org\)](http://municipal-material-cycle.org)
Excellent case in the field of GPP and local circularity

Q3 : In your opinion, which are the useful criteria (PI) available to public buyers to assess the valid environmental impact of construction products, works and service (the criteria are extrapolated from the EC document “EU Green Public Procurement Criteria for Road Design, Construction and Maintenance”)? (e.g. Life Cycle Assessment (LCA, Carbon footprint, requiring bidders to provide materials with a minimum requirement as regards the amount of recycled and reused content for the main road elements, requiring reduced emissions from transport for heavy materials)

The Netherlands:

- environment cost indicator MKI
- Carbon footprint
- Re use of asphalt
- Life cycle cost (including circularity (cradle to cradle))
- Biobased (road marking)

Slovenia: in my opinion these two are the most logical ones with real effects and no room for manipulating the data:

- Requiring bidders to provide materials with a minimum requirements as regards the amount of recycled and reused content for the main road elements
- Requiring reduced emissions from transport for heavy materials.

Q4: Are there any examples of valid performance indicators for innovation impact of construction products, works and service?

The Netherlands: No, not available.

Slovenia: /

Q5: In Public Procurement, what do you think are the most relevant barriers to the application of Innovation and Green principles?

The Netherlands:

Innovation principles: Tender threshold values are a barrier for upscaling successful pilots.

Green principles: For a relevant and good request for proposal it's important to keep up with the developments in the industry. You should be able to start early in the process to make the right choices. Often this is difficult because of lack of time (other priorities) and lack of awareness.

Slovenia:

Innovation principles: Procurers do not understand how this can improve their tenders. There is also risk in doing something for the first time – failed tender process.

Green principles: The main barrier is they do not have enough time for market research and lack of knowledge in this area. The green criteria are sometimes unclear.

Q6: If and how the EU Most economically advantageous tender criteria (MEAT) for public procurement are transposed in national legislation?

The Netherlands: It's a choice which the public procurer can make. There are three choices of award criteria:

- Most economically advantageous tender criteria (MEAT)
- Life cycle cost
- Lowest price

The most used principle is the use of MEAT. Otherwise a procurer needs to explain why he chooses for LCC or lowest price (comply or explain).

Slovenia:

From: Public Procurement Act (ZJN-3):

2.4.4. Selection of the most favorable offer

Art. 84 (criteria for awarding a public contract)

(1) The client submits a public contract on the basis of the most economically advantageous offer.

(2) The most economically advantageous offer is determined on the basis of price or costs, using a cost-effectiveness approach, for example by calculating lifetime costs, as determined by this law, and may also include the best ratio between price and quality, assessed on the basis of criteria, which refer to quality and environmental or social aspects related to the subject of the public procurement. Such criteria may include, for example:

- a) quality, including technical advantages, aesthetic and functional properties, accessibility, design adapted to all users, social, environmental and innovative features and trading and conditions related to it;
- b) the organization, training and experience of the personnel who will perform the public procurement, if the quality of the personnel can significantly affect the level of performance of the public procurement;
- c) after-sales services, technical assistance and terms of delivery, such as the date of delivery or completion of works, the process of delivery or execution and the duration of deliveries or works.

(3) (**repealed**)

- (4) A cost factor can also be a fixed price or fixed costs, if economic entities compete with each other on their basis only in relation to quality criteria.
- (5) For the awarding of a public contract for the production of computer programs, architectural and engineering services, and translation and consulting services, the client may not use price alone as the sole criterion for awarding a public contract. When public procurement of services from the first paragraph of Article 67.a of this law, the client orders these services taking into account socially responsible public procurement with the inclusion of criteria relating to social aspects.
- (6) The criteria for awarding a public contract must be non-discriminatory, proportionate and related to the subject of the public contract. Criteria are considered to be related to the subject matter of the public procurement if they relate to works, goods or services to be provided under the public procurement, in any respect and at any stage of their life, including factors related to the special process of production, provision or marketing of these constructions, goods or services, or to the special process for the second stage of their life, even if such factors are not part of them in substance.
- (7) The criteria for awarding a public contract must not have the effect of granting the client unlimited free choice. The selection criteria must ensure the possibility of effective competition and must be accompanied by detailed descriptions that allow the information submitted by tenderers to be effectively checked in order to assess how the tender meets the procurement criteria. In case of doubt, the client must check the accuracy of the information and evidence submitted by the provider regarding the criteria for awarding the public contract.
- (8) In the documentation relating to the award of the public contract, the contracting authority shall determine the relative weight it assigns to each criterion chosen to determine the most economically advantageous offer, unless the latter is determined only on the basis of price. The specified weights can be defined by specifying a range with an appropriate maximum difference. When the weights cannot be stated for objective reasons, the client shall state the criteria in descending order of importance.
- (9) In the criteria for choosing the offer when ordering food, priority is given to foods that are included in quality schemes (for example, seasonally produced foods in an integrated way, seasonally produced foods in an organic way,

etc.), foods that are produced according to national regulations on food quality and food that is sustainably produced and processed and a higher quality of food is guaranteed in terms of greater freshness or lower environmental burdens during transport.

Art. 85 (lifetime cost calculation)

- (1) The calculation of lifetime costs to the appropriate extent covers all or part of the following lifetime costs of goods, services or construction:
 - a) costs incurred by the client or other users, such as:
 - costs related to the acquisition;
 - usage costs, such as consumption of energy and other resources;
 - maintenance costs;
 - end-of-life costs, such as collection and recycling costs;
 - b) costs from external environmental impacts related to the lifetime of goods, services or construction, if their monetary value can be determined and verified. These costs may include the costs of emissions of greenhouse gases and other pollutants and other costs of mitigating climate change.
- (2) If the client estimates the costs by calculating lifetime costs, in the documentation related to the award of the public contract, he shall state the data that the bidders must submit and the method he will use to determine the lifetime costs based on this data.
- (3) The method used to estimate costs from external environmental impacts must meet the following conditions:
 - a) it must be based on objectively verifiable and non-discriminatory criteria and must not unjustifiably ensure better or worse treatment of certain economic entities, especially if it is not intended for repeated or continuous use;
 - b) must be available to all interested parties and
 - c) the requested data can be provided with a reasonable effort by business entities of average care, including business entities from third countries, signatories to the GPA agreement or other international agreements that are binding on the European Union.
- (4) When the legislative act of the European Union from the List of legal acts, which is Annex XIII of Directive 2014/24/EU and Annex XV of Directive 2014/25/EU, or a regulation of the Republic of Slovenia specifies a mandatory common method for calculating lifetime costs, the client for lifetime cost estimation using the prescribed method.

ANNEX IV – Initial stakeholder mapping for the pilots

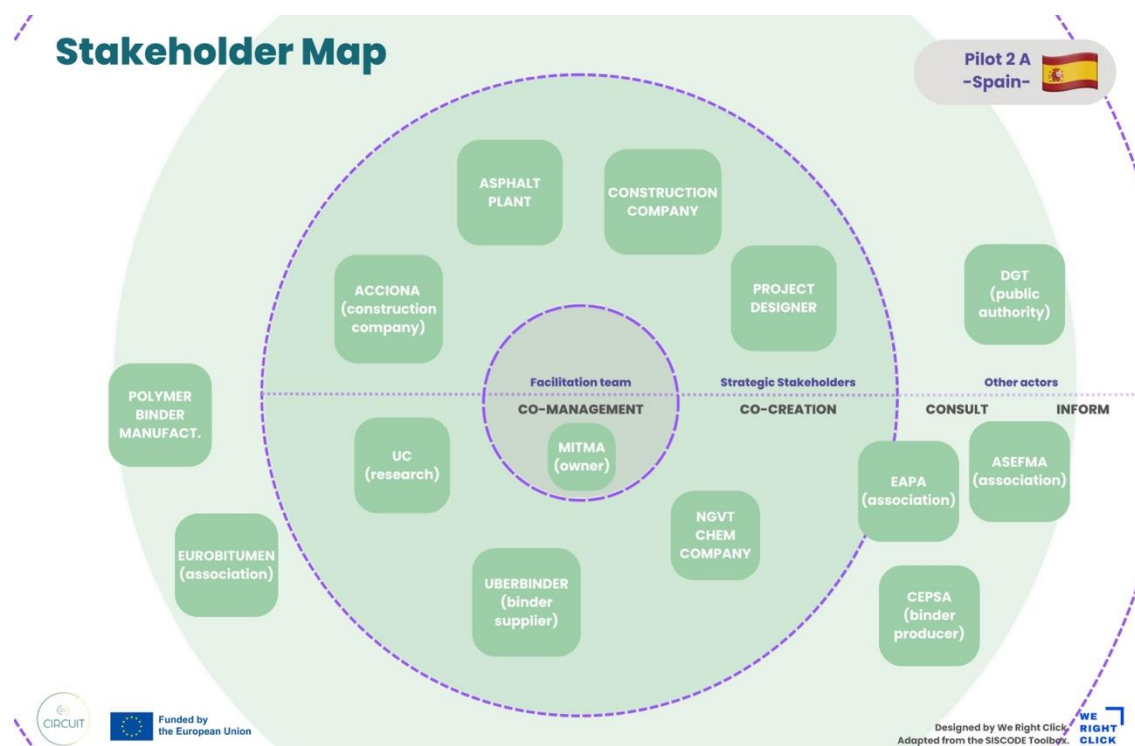


Figure 11: Initial mapping for the stakeholders involved in the Pilot 2A, in Spain

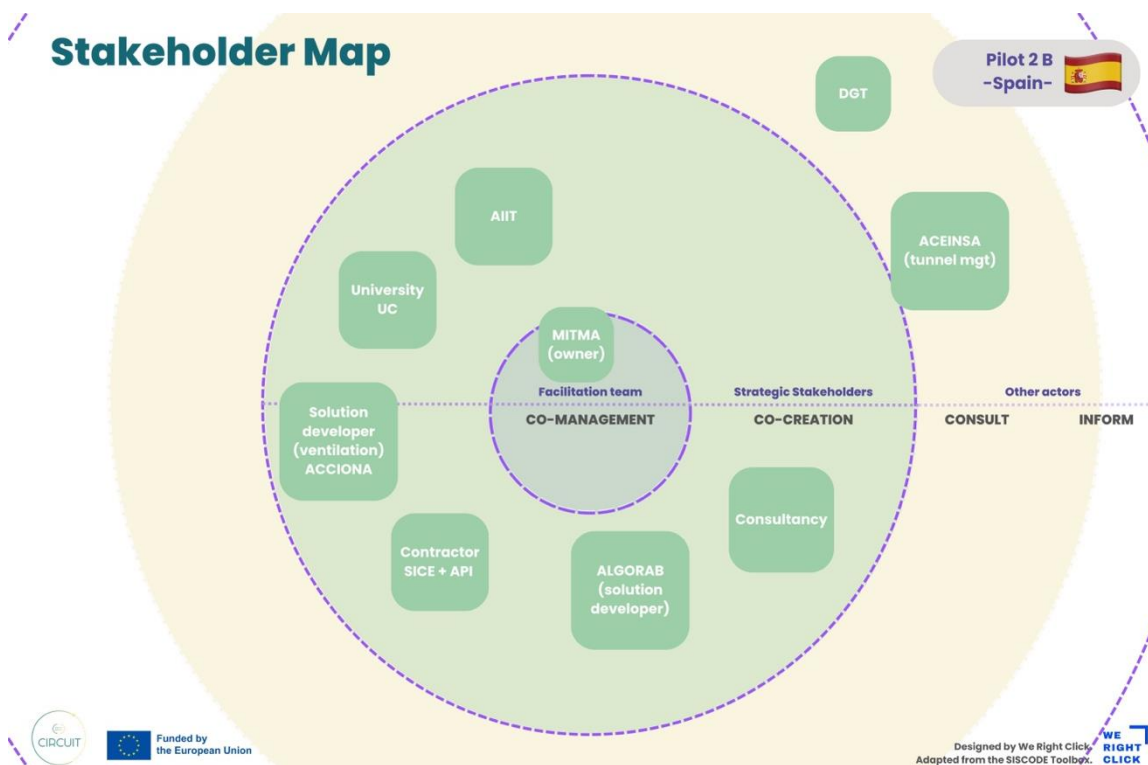


Figure 12: Initial mapping for the stakeholders involved in the Pilot 2B, in Spain

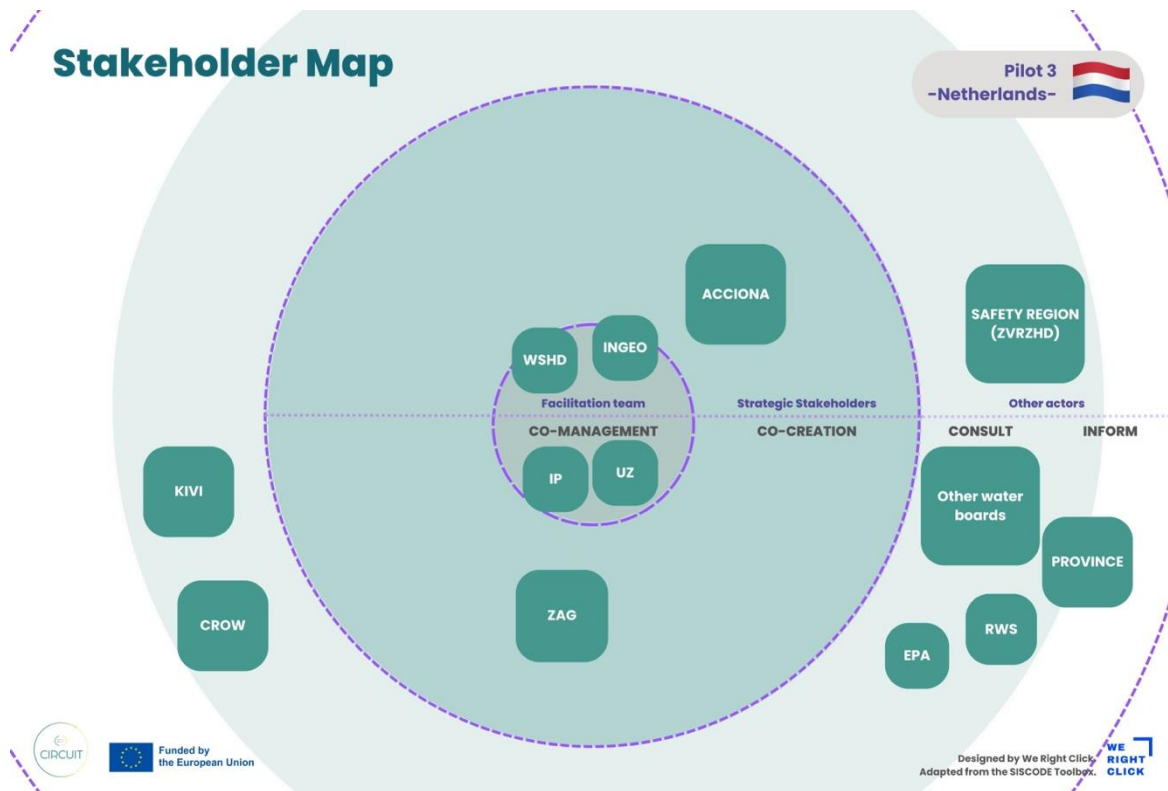


Figure 131: Initial mapping for the stakeholders involved in the Pilot 3, in Netherlands

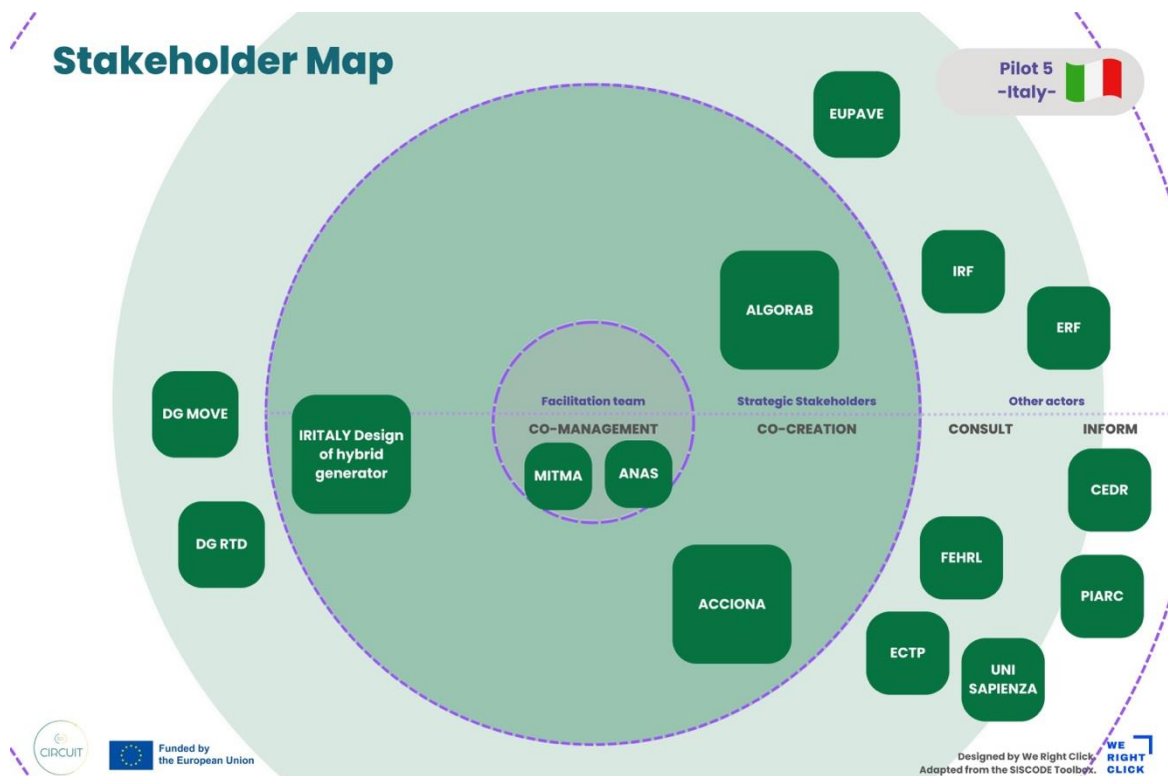


Figure 14: Initial mapping for the stakeholders involved in the Pilot 5, in Italy