

FACTSHEET

Green Public Procurement

This document was developed as part of **'SURF – SUstainable Building Renovation – Forming the Future' project.** SURF project is part of the European Climate Initiative (EUKI), a project financing instrument by the German Federal Ministry for Economic Affairs and Climate Action (BMWK). The EUKI competition for project ideas is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. It is the overarching goal of the EUKI to foster climate cooperation within the European Union (EU) in order to mitigate greenhouse gas emissions.

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on the basis of a decision by the German Bundestag The building sector is a key leverage point to reduce greenhouse gas (GHG) emissions in the European Union (EU), as around 36% of the EU's energy-related GHG emissions originate from the building stock.¹ In 2019, the European Commission presented the European Green Deal, its roadmap for Europe to become a climate-neutral continent by 2050. It sets a goal of reducing GHG emissions by 55% by 2030. The European Green Deal aims, among other things, to improve the efficient use of resources through the transition to a clean, circular economy and to stop climate change. It covers all economic sectors, especially transport, energy, agriculture, industries and buildings.² Nevertheless, the EU goal of climate neutrality for buildings by 2050 can only be achieved through increased and sustainable building renovation.

To help achieve climate neutrality of the building sector by 2050, the **SURF project** was launched under the **European Climate Initiative** (EUKI). The main objective of this project is to address the knowledge and capacity gaps of municipal stakeholders in EU Member States regarding sustainable building renovation and, by empowering them, to promote the implementation of deep and sustainable building renovation projects across the EU.

As part of the SURF project, three factsheets on different sustainable renovation topics were developed to expand the know-how of municipal stakeholders and support them with this knowledge transfer in the planning and implementation of sustainable building renovation projects. Each factsheet contains background information on a dedicated topic, related best practice examples from European municipalities, as well as important lessons learnt.

This factsheet focuses on the topic of Green Public Procurement (GPP) and integration of 'green' criteria into procurement procedure related to the construction and renovation of buildings. Two further factsheets are dedicated to the topics of financing sustainable renovation projects and to the importance of using climate-friendly building materials in the planning and implementation of building renovation projects.

¹ European Commission. Energy Performance of Buildings Directive. • Available here

² European Commission: 2050 long-term strategy. • Available here

GREEN PUBLIC PROCUREMENT

According to the European Commission, Green Public Procurement is 'a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured [...]'.³ Thus, Green Public Procurement is a process by which public authorities apply environmental requirements when purchasing goods, services and works, aiming to reduce CO₂ emissions and environmental damage throughout their entire life cycle.⁴

Given that the construction sector accounts for about 12% of GHG emissions from public procurement⁵ and that public procurement represents 14% of GDP in the EU⁶, the public sector holds significant power to influence sustainable practices in the construction industry and enhance environmental quality through GPP.⁷ Public authorities can leverage this purchasing power to achieve the best value for money for society while actively combating climate change.⁸

At the EU level, public procurement rules are established by the EU Public Procurement Directive (2014/24/EU)⁹ and related sector-specific regulations. Although the Directive requires transposition into national law and does not have direct effect, it sets harmonised minimum rules for tenders across the EU.

GPP in the EU is currently voluntary, meaning public authorities can choose whether to apply it. However, some sector-specific directives include binding requirements, which might be relevant also for awarding contracts. Notably, the Energy Performance of Buildings Directive (EPBD)¹⁰ mandates that all new public buildings have zero on-site emissions from fossil fuel from January 1, 2028.

In practice, the application of GPP involves integrating 'green' criteria into public procurement process. Since 2008, The European Commission has been developing voluntary GPP criteria for several product groups, including buildings. These criteria aim to help public authorities reduce environmental impacts while being easily integrated into tender documents. The GPP criteria for buildings are currently under revision. To increase their potential impact, it is proposed to extend their application from office buildings only to social housing and educational buildings. However, **Commission's voluntary GPP criteria can generally be applied to most types of buildings.**"

³ European Commission (2008): Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Public procurement for a better environment. • Available here

⁴ Nilsson et al. (2023): Green Public Procurement: a key to decarbonizing construction and road transport in the EU. SEI report, February 2023.

⁵ Ibid.

⁶ Sapir et al. (2022): Green Public Procurement: A Neglected Tool in the European Green Deal Toolbox? Intereconomics. Review of European Economic Policy. Volume 57, 2022 · Number 3 · JEL: H57, Q58, O52.

⁷ Clement, S. and Watt, J. (2016): The Procura+ Manual. A Guide to implement Sustainable Procurement. 3rd Edition

⁸ Nilsson et al. (2023).

⁹ Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC. • Available <u>here</u>

¹⁰ Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the energy performance of buildings (recast). • Available here

¹¹ Donatello et al. (2022): EU Green Public Procurement (GPP) criteria for the design, construction, renovation, demolition and management of buildings. DRAFT TECHNICAL REPORT (v1.0). • Available here

The proposed GPP criteria address different stages of a building's life cycle, including design, construction, renovation, demolition, and management.

Key topics relevant to GPP for buildings include:



Energy consumption and GHG emissions

Material circularity

Efficient water use

User comfort and well-being

Vulnerability and climate change resilience

Life Cycle Costing (LCC)

Biodiversity¹²

The EU Public Procurement Directive (2014/24/EU) provides various options for incorporating 'green' criteria at different stages of the procurement process: when defining the selection criteria, the subject matter, technical specifications of the contract, the award criteria or the contract performance criteria. In addition, application of GPP offers multiple benefits for public authorities. For example, by prioritising environmentally friendly goods, services and works, authorities can significantly reduce their carbon footprint and align public spending with broader environmental goals. The public sector has a responsibility to take the lead on environmental issues.¹⁴ By setting good examples, public authorities can encourage innovation, driving suppliers to develop greener solutions, and guide private investments which can lead to cost savings in the long term.¹⁵ The amount of such financial savings can be easily determined when evaluating tenders using a Life Cycle Costing (LCC) tool.¹⁶ For more information on GPP for buildings please refer to the **Green Public Procurement Guidelines** for Buildings, developed as part of the SURF project.

In the next section, the case study of the 'Antonio Brancati' School in Pesaro, Italy, illustrates the practical application of Green Public Procurement. By prioritising the principles of the circular economy, the pilot project focused on reducing energy consumption, minimising waste and using sustainable materials, demonstrating how public authorities can drive sustainable development through innovative procurement strategies.

¹⁵ Nilsson et al. (2023).

¹² Donatello et al. (2022): EU Green Public Procurement (GPP) criteria for the design, construction, renovation, demolition and management of buildings. DRAFT TECHNICAL REPORT (v1.0). • Available here

¹³ UBA – Umweltbundesamt: What does green public procurement mean? • Available here

¹⁴ EPA – Environmental Protection Agency (2021): Green public procurement. Guidance for the Public Sector. 2024. • Available <u>here</u>

'Antonio Brancati' school – Circular approach in practice	
What	To accelerate the transition to a circular economy, the City of Pesaro initiated a pilot project focused on the sustainable construction of the 'Antonio Brancati' school. Instead of using a traditional procurement approach, the city opted for Green Public Procurement to effectively implement circular economy principles in the building design. It aimed to address various environmental and social impacts, including reduced energy consumption, lower CO ₂ emissions, improved waste management, enhanced community spaces, etc.
Who	Municipality of Pesaro, Conscoop (contractor)
Where	Pesaro, Italy
When	2018-2020

Background

In 2017, the City of Pesaro initiated a pilot project aimed at embracing circular economy principles in building design, focusing on environmental protection, health, and social considerations.¹⁷ Rather than following traditional procurement methods, the city opted for a circular approach by repurposing an old army barracks from the 1950s into a sustainable new school. This decision not only aimed to revitalise abandoned urban areas but also to create an energy-efficient, low-impact building with minimal maintenance needs. The project emphasises the integration of renewable energy and sustainable materials, prioritising resource conservation and waste reduction throughout the construction process.¹⁸

Implementation



To implement this pilot project, a call for tender was issued with two mandatory criteria: (a) the construction of a nearly Zero Energy Building (nZEB) school, and (b) obtaining environmental energy certification through the LEED scheme.¹⁹

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¹⁷ Construction21 International (2021): 'Antonio Brancati' Middle School. • Available here

¹⁸ Iyer-Raniga, U. and Finamore, M. (2021): Green public procurement: learnings from Pesaro city, Italy. IOP Conference Series Earth and Environmental Science 855(1):012006. • Available <u>here</u>

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¹⁹ Finamore, M. (2024): Replicable model of GPP: case studies on sustainable school construction: Presentation given at the 'circular Buildings' training on October 2, 2024, as part of SURF project.

The technical specifications outlined several key criteria including:20

Indoor Environmental Quality: Classrooms were required to maintain maximum CO₂ concentrations of 1000 ppm on average, with thermal comfort standards set at 19-21°C in winter and 25-27°C in summer.

Material Use: The specifications mandated the use of Environmental Product Declarations (EPDs) for essential construction materials like reinforced concrete and insulation. All paints, adhesives, and wooden products had to possess environmental certifications, such as ecolabels or certifications from FSC and PEFC.

Recycled Material Content: A minimum of 15% by weight of total materials used had to consist of recovered or recycled materials, in line with Italy's Minimum Environmental Criteria (CAM).

Regulatory Alignment: Proposals were required to reference the Interministerial Decree of 16 February 2016 and its annex, ensuring that all bidders adhered to current governmental energy and environmental design standards.

The submitted bids were evaluated with the following weights: technical offers received up to 85 points, economic offers up to 5 points, and completion time up to 10 points. The contract was granted to a bidder who stood out in all green criteria, particularly in energy efficiency and sustainability.²¹

With a score of 88 points, the school building received the LEED Platinum label and complied with nZEB standards.²² The project effectively tackled key environmental impacts, including energy consumption, CO₂ emissions, and indoor air quality.

Notable achievements include:23



Waste Management:

98% of 556,630 kg of deconstruction waste was recycled or recovered, with onsite separation for paper, metal, plastic, and glass.



Energy Efficiency:

The maximum primary energy use for the building is 26.8 kWh/m² per year.



Cost and Energy Reductions:

A 59.07% reduction in total energy performance (TEP) and a 34.8% decrease in annual costs, were achieved through enhanced thermal insulation, optimised lighting, and automated control systems.



Water Conservation:

Aerated taps and efficient flush tanks reduced water usage by 50%.



Sustainable Irrigation:

Rainwater collection tanks were installed for irrigating green spaces and the roof.

²⁰⁻²¹ European Commission. Green public procurement at Pesaro School: Enhancing sustainability in educational infrastructure. Case study of the city of Pesaro, Italy. • Available <u>here</u>

²² Construction21 International (2021).

²³ European Commission. Green public procurement at Pesaro School: Enhancing sustainability in educational infrastructure. Case study of the city of Pesaro, Italy. • Available <u>here</u>

Lessons learnt

The following insights can be drawn from the good practice example of the 'Antonio Brancati' school in Pesaro, Italy:²⁴



Prioritise Sustainability in Scoring

Ensure that the distribution of tender points emphasises sustainability and life cycle principles, assigning a lower value to economic offers to prioritise circular requirements.



Request for Building Certification

Include requirements for building certifications, such as LEED or DGNB, in tenders. This encourages the use of Life Cycle Assessment (LCA) and should specifically reference credits that mandate LCA. Referencing existing rating systems that incorporate LCA helps to address the absence of national laws, methodologies, and databases for life cycle impact assessment in buildings. By assigning about 50% of the tender score to life cycle principles and solutions, the requirement becomes effectively mandatory for project approval.



Further information

- <u>Presentation</u> 'Replicable model of GPP: case studies on sustainable school construction' by Margherita Finamore
- European Commission: Good Practice Library
- <u>Construction21 International</u>



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