

2. State-of-the-art in adopting life-cycle costing in Hungary

This chapter discusses the Hungarian policy and strategic framework on public procurement and its adequacy for the strategic use of public procurement and life-cycle costing (LCC). It also looks at the actions and initiatives to promote sustainable public procurement in Hungary and the existing operational support in implementing GPP. This chapter also analyses the uptake of green public procurement and LCC in the practice, building on the results of the survey conducted by the OECD on the use of LCC by contracting authorities in Hungary, identifying the key barriers for a greater uptake of LCC.

2.1. Hungarian policy and regulatory framework on green public procurement and on LCC

In general, the current Hungarian policy and strategic framework on public procurement (in alignment with the European Union's framework) enables the strategic use of public procurement.

An overall strategy for the development of the public procurement system or for the strategic use of public procurement do not yet exist in Hungary. However, the Government Resolution 1027/2021 on the necessary measures to improve the efficiency of the public procurement system¹ listed the Government's most important strategic priorities in terms of development of the public procurement system. These include actions that can address challenges in the Hungarian system, such as decreasing the number of single-bid procedures, improving the access of SMEs to public procurement opportunities, developing a comprehensive methodology to measure the efficiency of the Hungarian public procurement system, fighting against anti-competitive behaviour in public procurement and increasing the use of green public procurement. To implement the lastly mentioned goal, the Government Resolution mandated the Minister leading the Prime Minister's Office to develop – in collaboration with relevant line ministers – Hungary's green public procurement strategy that enables the incorporation of environmental considerations into public procurement procedures.

The development of the Green Public Procurement Strategy for the period 2022-2027 is currently ongoing. It set to be submitted to the government for adoption in 2022. As contracting authorities need to have the capacity and confidence to evaluate the quality, including sustainability aspects of the tenders, the draft Strategy puts more focus on the development and dissemination of methodologies, tools that support contracting authorities with the greater uptake of strategic public procurement and especially the use of green criteria in public procurement. Amongst others, the draft Strategy intends to promote the use of LCC methods. Furthermore, the draft Strategy entails an action plan, which includes, among others, as a possible measure the examination of introduction of mandatory green criteria for specific purchasing categories and contracting authorities, and the designation of a competence centre within the administration. The action plan also sets out the responsible actors and deadlines for the implementation of the planned measures.

Even if there is still no strategy dedicated to green public procurement, a quite comprehensive strategic framework on climate change and environmental protection defines the directions for actions in public procurement:

The Fundamental Law² of Hungary includes a clear commitment to achieving the goals of climate change and environmental protection.

On 31 October 2018, the Hungarian Parliament adopted the Second National Climate Change Strategy for the period of 2018 – 2030, with an outlook to 2050, which was followed by the First Climate Action Plan for the year of 2020 for the implementation of the National Climate Change Strategy on 20 January 2020. In line with the sectoral themes of the Second National Climate Change Strategy, the Action Plan identified key areas where significant progress can be achieved in short term. The Action Plan focuses on the procurement of electric buses, the acceleration of their deployment and development, distance heating based on renewable energy, renewable energy production, improving the energy efficiency of public and residential buildings, tightening controls on the compliance of vehicles with environmental regulations, developing cycling and public transport. The tasks set out in the Action Plan show that considering green energy in green procurement can significantly contribute to environmental protection measures.

On 3 September 2021, the Government of Hungary adopted the National Clean Development Strategy (NCDS), which is instrumental in achieving the 2050 net zero goal for Hungary set in the Climate Protection Law adopted in 2020 by the Hungarian Parliament. The NCDS is Hungary's long-term low greenhouse gas (GHG) emission development strategy (LTS) that countries need to adopt based on Article 4 of the Paris

Climate Agreement. The NCDS sets the path for the decarbonisation of Hungary's economy by 2050. The Strategy is based on an integrated modelling approach to explore the emission trajectories of the sectors as well as the system-wide and cross-sectoral dynamics of the decarbonisation process. A green transition driven by decarbonisation is likely to have a number of benefits in addition to the initial investment costs, which will also contribute to global efforts to limit global warming and support the national economy and the planet. The adopted Hungarian NCDS has been submitted and posted to the official website of the United Nations Framework Convention on Climate Change (UNFCCC)³.

Another crucial element of green transformation policy is the focus on transitioning to the circular economy. Hungary has taken significant steps to reduce waste in order to create a circular economy. In particular, the use of plastics and the recycling model were revised when the country's waste management system was reformed. The reform of the waste management system operates with "concessions", which means that the concession company is responsible for the entire recycling process, while the government has also limited the prices that the company can charge. The transformation of waste management is one element of the reform, while the other element is the effort to reduce the total amount of plastic used in the economy. The reduction in plastic use stems from EU law. From July 4, 2021, the use of plastic plates, forks, spoons, cotton buds and drinking straws are banned and are not allowed into the EU's Single Market. The European Commission adopted its first circular economy action plan in 2015, which was completed by the end of 2019, and the next action plan was launched in March 2020. Hungary's actions in this area are linked to the trends at the EU level.

In 2018, the third OECD Environmental Performance Review of Hungary (OECD, 2018^[4]) that evaluated progress towards sustainable development and green growth, with special features on waste, material management, circular economy and biodiversity highlighted that Hungary has made significant progress in decoupling its output growth from main environmental pressures, largely due to implementing requirements of EU directives. However, the Review also highlighted that there is still a lot to do and recommended that Hungary could accelerate the transition towards a low-carbon and greener economy, particularly by investing in residential energy efficiency and sound waste and material management, and better mainstreaming of biodiversity protection into sectoral economic policies. In terms of green public procurement, the Review highlighted that there is still little domestic market demand for good environmental performance and the potential of green public procurement to promote green business practices and generate economic opportunities is not fully exploited. Therefore, more efforts are needed on the demand side, such as green public procurement, that would stimulate innovative investment and enlarge environmental markets. The Review recommended the swift adoption and implementation of a national action plan for green public procurement. This would help stimulate demand for greener products and services, and encourage innovation.

2.1.1. The Hungarian regulatory framework on public procurement gives ample room for the use of green public procurement approaches

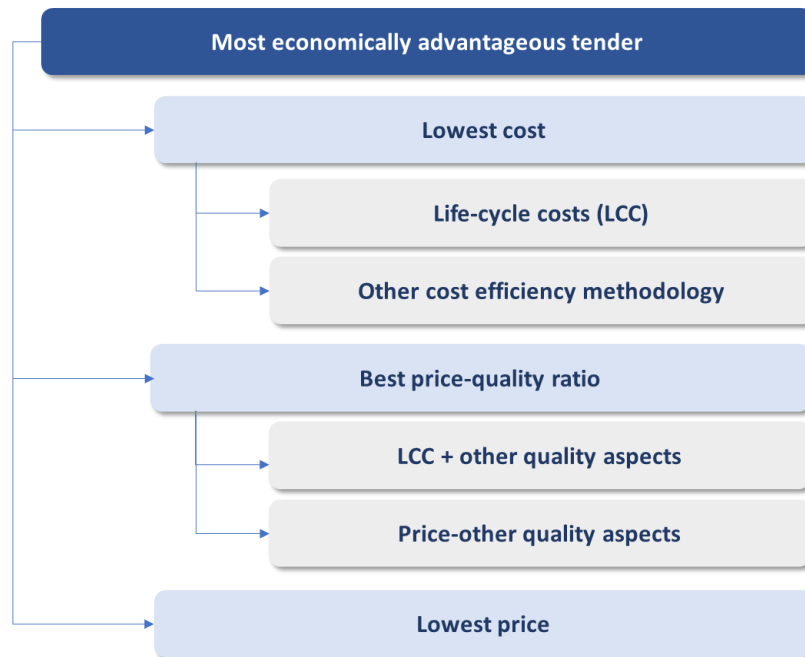
The Public Procurement Law⁴ (Law CXLIII of 2015 on Public Procurement, PPL) defines the Hungarian regulatory framework on public procurement. The law is complemented by several implementing regulations that define detailed rules for different aspects of public procurement. The PPL is transposing the 2014 EU Directives on public procurement and it is effective from the 1st of November 2015 (since then, it was modified several times).

Overall, the Hungarian legal framework provides ample room for the use of sustainable and inclusive public procurement approaches. The PPL enables contracting authorities to use green criteria in their tenders and to take into account quality and sustainability dimensions that are related to the subject matter of the contract. LCC can play a role in these criteria.

With price criteria becoming one of the ways of choosing the most economically advantageous tender (MEAT) (see Figure 2.1), the Hungarian PPL favours the use of the best price-quality ratio over the price

criteria, explicitly stating that contracting authorities shall be bound to apply the award criteria for the lowest cost or the best price-quality ratio. Use of price criteria is banned in case of design, engineering and architectural services or public works. However, price criteria remains to be used in cases when the contracting authority's needs can only be met by a particular supply or service which is able to satisfy specifically identified qualitative and technical requirements, and further quality characteristics would not be helpful in selecting the best option (PPL Section X).

Figure 2.1. Public procurement award criteria as set out in Article 76 of the Hungarian PPL



Source: Adapted from Guideline on Life-Cycle Costing of the Public Procurement Council of Hungary

In case of design, engineering and architectural services or public works, the PPL excludes the use of the lowest price as the sole award criteria and a separate implementing regulation, the Government Decree 322/2015 (X. 30.) lays down the detailed rules on the award criteria and the methods to be applied. This rule applies to both EU level and national public procurement procedures. The Government Decree obliges contracting authorities to choose the winner based on the best price-quality ratio as well as encourages contracting authorities to add environmental and sustainability related sub-criteria to the evaluation framework. These obligations and opportunities are further explained in the Guidelines on the rules for public works⁵ issued by the PPA in September 2021. The Guidelines in general gives guidance to contracting authorities on how to implement the provisions of the PPL and the Government Decree in the practice, and a special section is dedicated to the evaluation framework and award criteria. At the same time, the PPL allows the application of the lowest cost criterion more widely than the lowest price criterion, as decisions based on the lowest cost are also possible for the selection of a designer and engineer or in case of public works.

In the case of competitive dialogues and innovation partnerships, based on Sections 90 (6) and 96 (4) of the PPL, the contract must be awarded on the sole basis of the best price-quality ratio criteria.

In case of the lowest cost as an award criterion, the most economically advantageous tender must be selected by using the cost-efficiency method determined by the contracting authority to calculate the lowest cost. Among the cost-effectiveness methods, the PPL highlights and regulates in detail the application of the life cycle costing method (Section 78 of the PPL), defining the terms life cycle (Section 3 (7) of the

PPL) and the life cycle cost (Section 78 (2) of the PPL) (Box 2.1). When contracting authorities assess the costs of the supply, service or works during the evaluation using a life cycle costing approach, it shall refer to it in the notice launching the procedure (Section 78 (1) of the PPL). However, it is sufficient for the contracting authority to indicate in the procurement documents, what type of data are to be provided by the tenderers and what method will be used by the contracting authority to determine the life cycle costs based on those data.

Box 2.1. Life-cycle costing in the Hungarian Public Procurement Law

Definition of life cycle – Section 3 (7)

'life cycle': all consecutive and/or interlinked stages, including research and development to be carried out, production, trading and its conditions, transport, use and maintenance, throughout the use of the product, provision of the service or existence of the works, from raw material acquisition or generation of resources to disposal, clearance and end of service or utilisation;

Selection of the winning tenderer – Section 78 (1)-(4) of PPL

1. Where contracting authorities assess the costs – taken into account in the course of the evaluation – of the supply, service or works using a life-cycle costing approach, they shall refer to it in the notice launching the procedure and shall indicate in the procurement documents the data to be provided by the tenderers and the method which the contracting authority will use to determine the life-cycle costs on the basis of those data.
2. Life-cycle costing shall, to the extent relevant, cover parts or all of the following costs over the life cycle of a product, service or works:
 - a. costs, borne by the contracting authority or other users, such as:
 - i. costs relating to acquisition,
 - ii. costs of use, such as consumption of energy and other resources,
 - iii. maintenance costs,
 - iv. end of life costs (in particular collection and recycling costs),
 - b. costs imputed to environmental externalities linked to the product, service or works during its life cycle, provided their monetary value can be determined and verified; such costs may include the cost of emissions of greenhouse gases and of other pollutant emissions and other climate change mitigation costs.
3. The method used for the assessment of costs imputed to environmental externalities shall fulfil all of the following conditions:
 - a. it is based on objectively verifiable criteria which ensure compliance with the principles set out in Article 2(1)-(3) and (5), furthermore, which shall not unduly favour or disadvantage certain economic operators;
 - b. the method is predetermined, is accessible to all interested parties and is not tailored to one specific procedure, can be used in other procedures as well;
 - c. the data required can be provided with reasonable effort by normally diligent economic operators.
4. The Public Procurement Authority shall publish guidelines on the methods for the calculation of life-cycle costs and, where appropriate, it shall indicate that a common method for the calculation of life-cycle costs has been made mandatory by a legislative act of the European Union. In the case of certain subject-matters of procurement, mandatory methods for the

calculation of life-cycle costs may be prescribed by a legislative act drawn up on the basis of the empowerment of this Act.

Source: Law CXLIII of 2015 on Public Procurement, non-official translation by the PPA

Besides the requirement of the best price-quality ratio, the PPL and its implementing decrees contain further provisions that support the application of green, social and quality aspects in public procurement, such as the rules on the preparation of procedures (Section 28(1) PPL), the possibility to require environmental criteria in the technical specifications (Section 48(2) PPL), the possibility to use labels and certificates (Section 59(1) PPL), exclusion criteria (Section 63(1)(a) PPL) or defining special contract performance conditions (Section 132(1) PPL).

Government Decree 321/2015⁶ includes detailed provisions on how to define technical specifications and it specifically includes the possibility to require environmental criteria in the technical specifications (Section 48(2)).

The PPL gives authorisation to the Government to set the detailed rules of the environmental, sustainability and energy efficiency requirements in a decree, however, such decree has not been adopted yet by the Government. The authorisation provides the legal basis to the Government decree to define the details of the award criteria and the method with respect to certain subject matters of public procurement, the determination of cases where there is an obligation to integrate social, in particular employment-related and environmental, sustainability, energy efficiency considerations in the procurement procedures, including the mandatory application of reserved public procurement.

Further to the PPL, other legislative acts also mandate and enable GPP, for example:

- The Law on Energy Efficiency mandates public bodies to purchase highly energy efficient services, products and works if the estimated value of a procurement exceeds the EU thresholds. Government Resolution 1849/2014 on Energy Efficiency and the guideline of the Ministry of National Development on energy effective procurements⁷ further details these requirements.
- Government Decree 48/2011 on the Promotion of Environmentally Friendly and Energy Efficient Vehicles⁸ stipulates that contracting authorities and public service providers shall purchase environmentally friendly and energy effective vehicles.

2.2. Using public procurement to deliver on sustainability is promoted widely

The PPA, within its mandate, promotes the strategic use of public procurement to deliver on sustainability. The PPA created a dedicated website for sustainable public procurement⁹ to disseminate sustainability related information by publishing the latest studies and other publications (including the electronic newsletter, the GPP News Alert, edited and published monthly by the European Commission's Directorate General for Environment). The PPA also promotes the latest policy papers of the European Commission and capacity building opportunities (e.g. webinar) that may help contracting authorities incorporating sustainable considerations into their purchasing strategies and tender documentations while procuring certain product groups. It also disseminates relevant information in the "Daily Public Procurement" mobile application.

The dedicated sustainable public procurement website of the PPA includes a separate section on life cycle costing, where PPA shares information about LCC, including tools and guidelines developed by the European Commission or other EU member states.

To support the effective implementation of the PPL and to share good practices, the PPA organises conferences and seminars (recently webinars) to present legislation in force and solutions to problems

detected in practice, and share practical experience with the public. Some of these events were specifically dedicated to the topic of sustainability or green public procurement. The conference materials are shared with the public after the events.

The PPA established two prizes, such as the Public Procurement Prize and the Public Procurement Excellence Award. In 2020, candidates could apply for the Public Procurement Prize by submitting successful public procurement procedures that used sustainability criteria. In 2020, when the PPA and the Public Procurement Arbitration Board celebrated their 25th anniversary, 16 applications were submitted, more than ever before. PPA's co-operating partner, the Blue Planet Foundation for Climate Protection (in Hungarian: Kék Bolygó Alapítvány)¹⁰ offered a further prize for the winners in the topic of sustainability.

In 2020, the PPA concluded a cooperation agreement with the Blue Planet Foundation for Climate Protection, which is a non-profit organisation seeking to raise environmental awareness within and beyond the borders of Hungary. The Foundation is committed to sustainability, sustainable development and climate protection. The cooperation agreement, which is published on the webpage of the PPA¹¹, aims to mutually help each other's tasks and to implement the aspects of sustainable development as widely as possible.

In 2021, the PPA launched the "Programme for Sustainable Hungary" in order to further promote the application of sustainability aspects in public procurement. The main aim of the program is to shape the attitudes of public procurement market actors, strengthen professional dialogue as well as disseminate domestic and international good practices. As a first step to implement the Programme, the PPA established a Sustainability Working Group and prepared a Code of Ethics on Green Public Procurement¹² (Környezetvédelmi Közbeszerzési Etikai Kódex in Hungarian).

The Sustainability Working Group includes delegates from all major domestic contracting authorities, such as the Hungarian Railway Company (MAV Zrt.), the National Infrastructure Development Company (NIF Zrt.) and organisations cooperating with the PPA on sustainability issues. The aim of the working group is to create a forum to share existing, but not widely known good practices, as well as to discuss practical problems encountered in applying sustainable aspects in public procurement procedures, and to create a practical knowledge base that can be of real help to procurement practitioners.

The purpose of the Code of Ethics on Green Public Procurement is to provide guidance to contracting authorities on how they can contribute to promote and implement environmental objectives by incorporating green, sustainable considerations into their public procurement practices and procedures. (Box 2.2) Adoption of the Code is voluntary. Contracting authorities who join the Code commit themselves to consider environmental (green) aspects in their public procurement procedures as well as to respect the values and principles listed in the Code. On its website, the PPA publishes the list of the contracting authorities who joined the Code. The PPA considers these contracting authorities as key partners for the Programme for Sustainable Hungary and enable them to use its logo. Contracting authorities covered by the Code undertake to report to the PPA by the beginning of the financial year, but 31 March at the latest about the green public procurement procedures, they conducted in the previous year, including a summary of other procedures where environmental aspect was not applied. The PPA publishes the reports on its website. The Code is effective from 1 September 2021; therefore, it is still too early to assess its implementation and its impact.

Box 2.2. Code of Ethics on Green Public Procurement

1. Principles of the Code

Contracting authorities covered by the Code undertake to pay increased attention in their procurement procedures to the following core values:

Green public procurement: procurement of goods, services and works, which have a lower environmental impact compared to similar goods, services and works of the same use.

Circular economy: the implementation of an economic model that is based on closed energy and material cycles in the supply chain instead of the linear "extract, produce, dispose" approach. Minimising – and avoiding as far as possible – the negative environmental impacts, it seeks to maximise to keep the value of the products and raw materials used throughout their life cycle. Waste generation and resource use should be minimised, and resources in products that have reached the end of their useful life are retained in the economy, creating additional value through reuse.

Minimise waste generation: the contracting authority shall seek to ensure that its procurement procedures contribute to preserving the value of products, materials and resources in the economy as long as possible and to reduce the generation of waste.

Reducing energy use: the contracting authority will seek to ensure that its procurement procedures contribute to minimising and reducing energy consumption through its procurement procedures.

Reduction of water consumption: the contracting authority will seek to minimise and reduce water consumption through its public procurement procedures.

Reduction of carbon dioxide emissions: the contracting authority will seek to use its procurement procedures to contribute to the minimisation and reduction of carbon dioxide emissions.

Life cycle approach: In designing the procurement procedure, the contracting authority shall take into account all the successive or interrelated phases of the use of the product, the provision of the service or the existence of the works, including the research and development, the production, trade and its conditions, the transportation, the use and the maintenance to be carried out, from the acquisition of raw materials or the creation of resources to the removal, disposal, restoration to their original state or the end of the service or use.

2. Rules of conduct during the public procurement procedure

The Code sets up rules of conduct for the different phases of the public procurement cycle:

1. Planning public procurement procedures:
 - a. *Identifying green procurement priorities and objectives:* Contracting authorities shall define their green public procurement priorities and objectives, in the short and long term. Their annual procurement plan shall take account of these priorities and objectives.
 - b. *Preparation of procurement procedures:* The contracting authority should seek to ensure the conditions for performance of high quality, to take into account the sustainability aspects, and to prevent contract modifications affecting the subject matter of the procurement. The procuring entity may use the method of value analysis.
2. Implementation of public procurement procedures:

Contracting authorities may apply green procurement criteria in the technical specifications, exclusion criteria, suitability criteria and evaluation criteria and in the contract performance conditions. The

contracting authority shall ensure that the green procurement criterion used result in the most environmentally friendly solution.

In terms of the evaluation framework, contracting authorities shall commit themselves to the use of the lowest cost of best price quality ratio as award criteria and the avoidance of the use of the lowest price as sole award criteria. The contracting authorities shall also commit to the use of life cycle costing approach as far as possible in case they choose the use of lowest cost as award criteria.

3. Performance of public contracts

When the contracting authority defines green contract performance conditions, it shall pay particular attention to check, monitor and verify compliance with these conditions and to ensure the proper documentation of their performance.

Source: https://www.kozbeszerzes.hu/documents/2487/kornyezetvedelmi_kozbeszerzesi_etikai_kodex.pdf

The PPA's commitments to sustainable public procurement are reflected in its efforts to incorporate sustainability into its own operation and procurement practices. To set a good example on green public procurement, the PPA applies green criteria in its own purchases. For instance in 2020 in the procedure for the procurement of cleaning services green criteria were defined as contractual clause: the winning tenderer had to commit to ensure that 40% of the cleaning products used must qualify as an environmentally friendly product. When defining the green criteria, the PPA looked at the EU GPP criteria for indoor cleaning services as an inspiration.

Many municipalities – mainly larger ones – have joined or are members of sustainability and environmental initiatives and organisations, such as the EU Covenant of Mayors for Climate & Energy and the International Council for Local Environmental Initiatives. Furthermore, some have a green strategy document or action plan on varying degrees of elaboration, which, among other things, also formulate the need for the strategic use of public procurement. Financial means can also play an important role in the promotion of GPP. Among the funding programmes which contribute to the uptake of green public procurement, the Green Bus Programme – launched in 2019 – aims to replace the buses used in local public transport. The multi-annual programme is currently funded with HUF 35.9 billion of domestic resources, which the government plans to supplement in the future with additional resources available under the Hungarian Recovery and Resilience Plan (RRP) and the Multiannual Financial Framework.

The Hungarian RRP and the operational programmes for the EU budget cycle 2021-2027 will also aim to promote green public procurement by encouraging the applicants/beneficiaries to conduct environmentally friendly public procurement procedures whereby the applicants/beneficiaries as contracting authorities should give preference to procurement of goods, services and works that have a lower environmental impact compared to other goods, services and works of the same type.

2.3. Operational support to contracting authorities on how to implement green public procurement exists; however, further efforts are needed

The PPA issued a guideline on the application of the evaluation criteria for the selection of the successful tenderer in 2016.

The Prime Minister's Office (PMO) issued a guideline¹³ about the proper use of environmental and social award criteria in public procurement procedures related to projects co-funded by EU and a guidance¹⁴ based on EU audit experience regarding the use of strategic award criteria. The purpose of these guidelines is primarily to provide the information required for the application of the provisions of the PPL on award criteria. There is a special section on the monitoring and sanctioning of evaluation criteria, as the contracting authority has to ensure that the commitments of individual tenderers can be monitored, but the

legal consequences of non-compliance with the commitments have to be announced in the tender documentations.

In March 2017, the PPA issued a detailed *Guideline on life-cycle costing methods*¹⁵. The Guideline presents the Hungarian regulatory background for the use of LCC, also placing it in the wider context of quality-based evaluation and sustainable development goals. It explains the theoretical background for LCC, the common use-cases of LCC and methodologies for LCC calculations (e.g. assumptions in LCC calculations, types of costs to be included). It also explains the enabling factors for the successful use of the LCC in practice. Finally, the Guideline includes two examples on the use of LCC. The guideline also aims to provide guidance to tenderers intending to participate in public procurement procedures in which the contracting authority opted for using life cycle costing. The Guideline, however, does not include (as it is beyond its goal) product- or service-specific LCC tools.

While the PPA's *Guideline on life-cycle costing methods* established the methodological framework and explained the legal background for the confident application of the LCC in procurement procedures, it could not address all issues in terms of LCC. It was also not intended to be a textbook on LCC methodologies, therefore its role in education and capacity-building efforts are limited. However, there were some sectors where the Guideline paved the way for further capacity building on LCC as well as for the development of the further guiding documents. (Box 2.3).

Box 2.3. Capacity building efforts on LCC in the Hungarian water sector

Development and support of knowledge related to the use of the life cycle approach has long been on the agenda of the Hungarian water-related professional organizations. A previous capacity building effort of the Hungarian Water Association (HWA) in 2011 targeted the preparation phase of infrastructural investments by promoting the application of life cycle approach and interdisciplinary approach in option analyses and cost-efficiency analyses. Detailed guidelines have been issued and a series of workshops took place. Building on the experiences of the capacity building workshops and the feedback on the use of the guidelines, and with the aim of complementing the PPA's official guide (the *Guideline on life-cycle costing methods*) and further supporting capacity building efforts on LCC, the HWA has issued an LCC guide in 2016¹⁶. This guide promotes cooperation between various specialist (legal, technical, economic) involved in the implementation of water-related projects and provides a joint toolkit for these different actors. However, the guide is not specific to water related procedures, it rather focuses on the methodology of life-cycle approach and it can serve both as a textbook for LCC training programmes and as a useful handbook for procurement practitioners to support their everyday work.

One of the main obstacles to the spread of the life cycle approach is the lack of a "common language" and mutual understanding of the LCC methodology between different experts involved, as well as the lack of skills to interpret LCC calculation and its results in a transparent, standardized way that is understandable for engineers, procurements experts and economists alike.

The HWA's LCC guide:

- summarizes the economic principles essential for understanding and application on LCC,
- defines the concepts of life cycle cost and cost-efficiency,
- presents a simple, transparent, easy-to-learn technique for performing the LCC calculation,
- schematizes the calculation process and the cost structure,
- contributes to a functional, uniform and transparent evaluation, thereby facilitating the application of the method and the verifiability of the results,
- can be used both during trainings, educational programs and practical work
- creates an opportunity to develop interdisciplinary expertise, improve the efficiency and

effectiveness of communication and cooperation between different fields of expertise.

The HWA LCC Guide received international attention at the IFAT 2016, where the European Water Association (EWA) organized an LCC symposium. Recommendations of the symposium have been recognized by Procura+¹⁷ and several other professional organizations. However, it resulted in only one LCC workshop in Hungary at the Budapest Water Works, pointing out the necessity of further policy support and product specific LCC tools for the uptake of this methodology in Hungary.

Source: Information collected during the fact finding missions.

2.4. Uptake of green public procurement is still lagging behind

As the annual reports of the PPA show, Hungarian contracting authorities increasingly apply green public procurement criteria, however, they are still underrepresented, and LCC methods specifically remain very rarely used.

In Hungary, since 2012, the national regulatory framework enables the collection of data on procedures applying green and social aspects. However, data collection is possible only in terms of procedures below EU thresholds. Due to the characteristics of standard forms issued by the European Commission, data are currently not available for procedures reaching or exceeding EU thresholds. Namely, the EU forms do not capture information about green or social criteria. Nevertheless, the introduction of the new EU standard forms (eForms) will enable such data collection by integrating reporting on GPP/SPP. For the same reason, the PPA does not collect data specifically on the use of LCC, as there is no dedicated entry for this in the standard forms. This practice will also change with the adoption of the new standard forms.

The PPA compiles the statistics of Hungarian public procurement procedures based on contract award notices. The national standard form (which is obligatory for the below EU threshold procurement) of the contract award notice includes data fields where contracting authorities can indicate if the procurement has included:

- social and/or environmental clauses as contractual clause;
- social and/or environmental award criteria;
- social and/or environmental requirements as part of the technical specifications;
- environmental measures or compliance with environmental management schemes within the framework of the selection criteria.

However, as EU standard forms do not include such data fields these statistics contain only green procurement procedures launched above national threshold and below EU threshold.

As the PPA's 2020 Annual Report (Public Procurement Authority of Hungary, 2020^[5]) shows, in 2020, contracting authorities conducted 474 green public procurement procedures, spending in total HUF 68.5 billion. This meant that compared to previous years both the number and value of public procurement procedures applying environmental criteria dropped to almost their half. However, the decrease is not as pronounced if the share of green public procurement is compared to total public procurement (including above EU thresholds).

In fact, 10.3% of the public procurement procedures below EU thresholds applied environmental criteria in 2020; thus, the proportion of such procedures lowered by 2.3% compared to the rate in 2019 (12.6%). Similarly, in 2020, 13.1% of the total value of public procurement procedures below EU thresholds applied environmental criteria, which is only a 1.4% decrease compared to the proportion of the previous year (14.5%).

Contracting authorities applied environmental criteria mostly in procurement of public works: in terms of the number of the public procurement procedures, this represents 15.2% of public works below EU thresholds and 14.7% in terms of the value of procedures.

Figure 2.2 shows the changing trends of the uptake of GPP in Hungary during the period of 2012 and 2020. It shows that there is a drop in the number and volume of green public procurement since 2018.

Figure 2.2. The number and value of procedures applying green criteria between 2012 and 2020



Source: 2020 Annual Report of the Public Procurement Authority

2.5. Experience with the use of LCC tools in public procurement procedures is almost non-existent; however, there are some good examples

To understand the current use of LCC tools by Hungarian contracting authorities, OECD conducted a survey on the use of LCC by contracting authorities in Hungary (between 19th of November 2021 and 15th January 2022). The survey¹⁸ covered several aspects, such as the respondents' experience on LCC tools, availability of supporting tools on the LCC use, their perception of the role of LCC in the context of strategic public procurement and the main challenges they face. Twenty respondents answered the 20 questions.

The survey results confirmed the initial presumption that the main obstacle to the practical use of LCC is the assumption that LCC requires specialised knowledge.

The survey results also show that LCC methodology is not yet considered to be a critical component of the public procurement process in Hungary and is very limited both in terms of use and practical appreciation. In fact, only four respondents out of twenty used LCC in their public procurement in the last five years. Half of them applied LCC only once, to purchase public supplies and public works, either when determining preferred product or technology, or during the award of the contract as award criteria. Regarding the method used for LCC calculations, the respondents mentioned Excel tools and found using LCC methodology in their public procurement process very difficult.

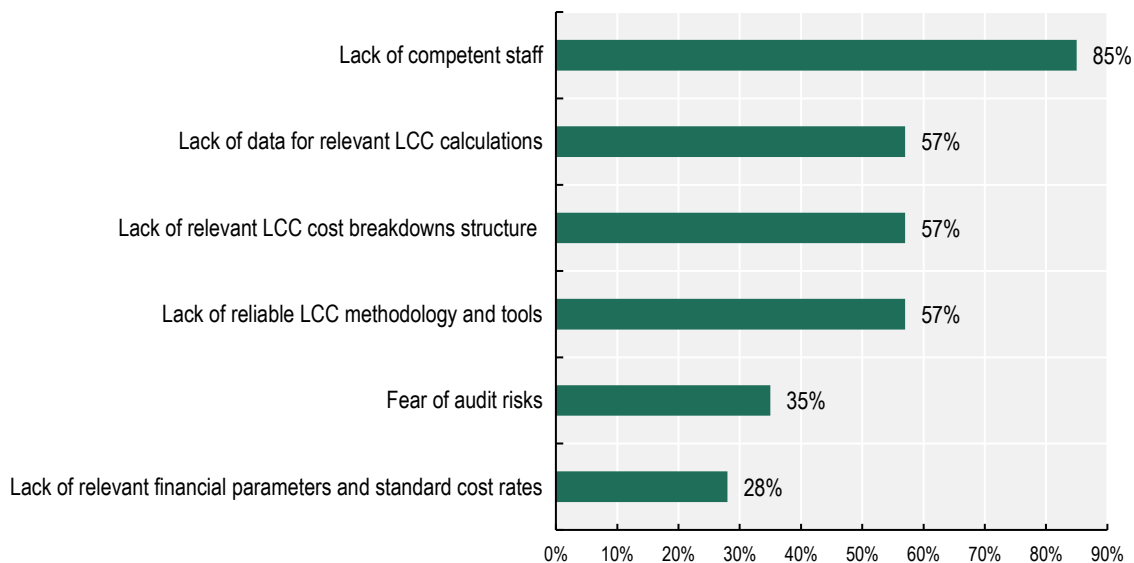
Key findings of the Survey

- Only 4 out of the 20 respondents applied LCC methodology in their public procurement in the last five years and found it difficult to use. The survey results highlight that the use of LCC methodology in public procurement is almost non-existent in Hungary. This is mainly due to a lack of reliable LCC methodology and supporting tools, a presumption that LCC is too complicated to use for the staff, and difficulties in accessing relevant data for LCC calculations.
- Respondents agreed that LCC tools should be developed for the following purchasing categories: supplies (35%), public works (23%) and IT equipment (23%). Although those responses are the most recurrent ones, 3 respondents mentioned the purchase of environmentally friendly equipment.
- **35% of the respondents are indifferent or only partially agree that LCC contributes to sustainable public procurement.** The survey results reveal the mitigated appreciation of the benefits of using LCC in the public procurement process. A non-negligible number of respondents only partially agreed that LCC contribute to sustainable public procurement, and that it is important for budget allocation/financial planning, and for selecting the best value offer in the public procurement process.
- **68% of the respondents would use LCC guidelines and supporting tools if they were developed.** They consider that they do not have staff that would be confident with using LCC at the moment. They believe that comprehensive LCC guidelines and practical trainings should be developed to support them, and to respond to the lack of expertise of contracting authorities, tenderers and control bodies regarding LCC.

2.5.1. The main reasons for the very low uptake of the LCC methodology in Hungary

The survey asked respondents about the main challenges contracting authorities face regarding the use of LCC (Figure 2.3)

Figure 2.3. Challenges encountered by Hungarian contracting authorities in using LCC in their public procurement



Source: OECD survey on the use of life-cycle costing (LCC) by contracting authorities in Hungary.

Lack of practical knowledge and expertise in conducting LCC

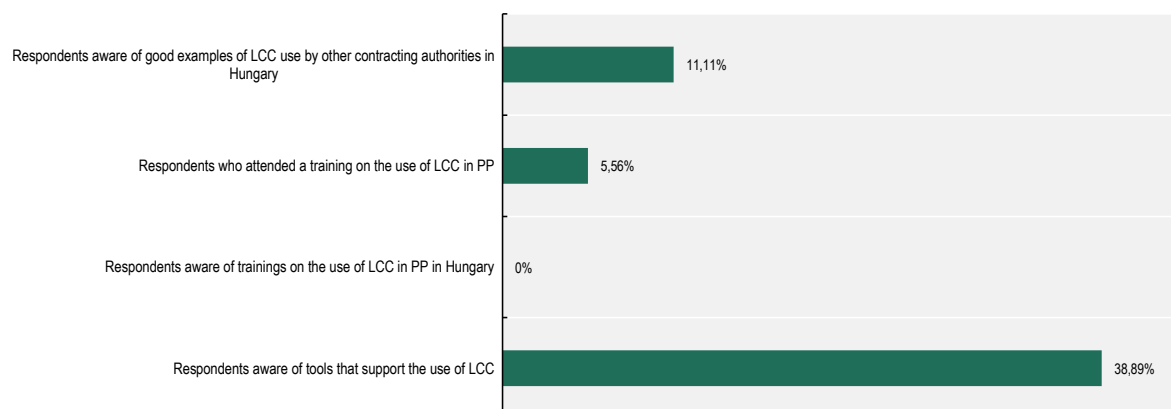
According to the survey results, the lack of knowledge and expertise among contracting authorities' staff is one of the main reasons for not using LCC in their public procurement. There is a general idea that using LCC is too difficult and too demanding for the staff. Respondents consider that LCC methodology is more difficult than the application of other award criteria and discourages market players. While 88% of the respondents have a staff member with expertise in public procurement who will determine the elements that require technical knowledge, they are usually not in a position to provide information on practical issues concerning LCC.

Furthermore, when respondents were asked why they would use LCC in their public procurement, only two of them provided a reply explaining that they would use LCC in their public procurement to assess costs beyond the initial purchase price of a good, service or work and to evaluate all other significant cost flows over the entire life cycle, but only one of them mentioned considering externalities such as environmental costs while using LCC.

Lack of access to a comprehensive LCC methodology and the insufficiency of supporting tools

The survey results indicate that there are serious gaps in the development of, and access to LCC guidelines and supporting tools in Hungary. In fact, at least 61% of the respondents are not aware of the existence of any guidelines to support the use of LCC. Only one contracting authority of the twenty respondents has participated in a training on LCC use in public procurement, and only two are aware of good examples of LCC used by other contracting authorities. (Figure 2.4)

Figure 2.4. Availability and access to LCC supporting tools

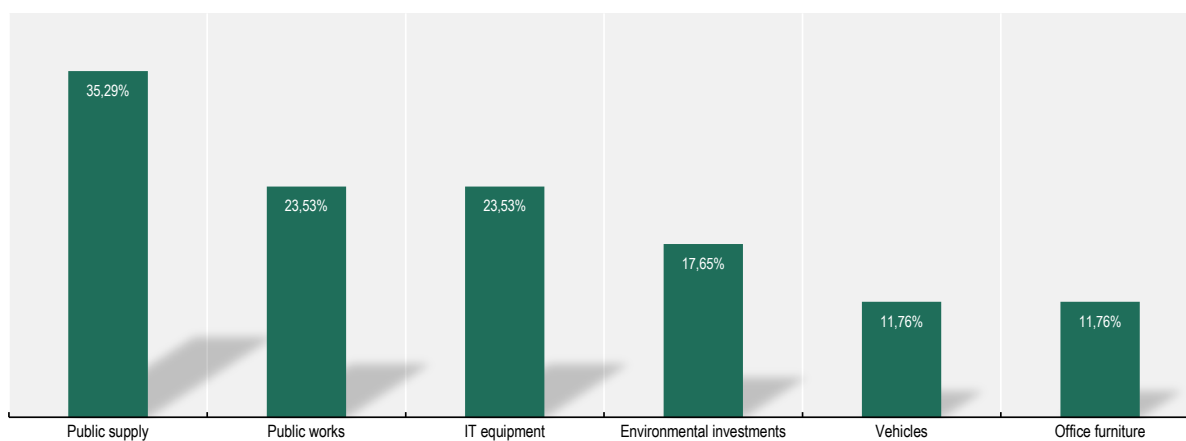


Source: OECD survey on the use of life-cycle costing (LCC) by contracting authorities in Hungary.

One of the respondents suggested that trainings on LCC should highlight its usefulness, especially for management staff. They also mentioned that the PPA does not always have a staff member who can provide them with information on a practical issue concerning LCC, and feel like they cannot rely on it due to its lack of expertise on the subject, while other respondents would like to have a list of LCC experts drawn up whom contracting authorities could involve in the preparation of the procedures as external experts.

Furthermore, the respondents believe that many purchasing categories would benefit significantly from the development of LCC tools, including vehicles, environmental investments, and office supplies, but the three most cited purchasing categories are supplies, public works, and IT equipment. (Figure 2.5) Unfortunately, some of the respondents did not indicate concrete purchasing categories, but only indicated the general subject-matter supply (“árubeszerzés” in Hungarian).

Figure 2.5. Purchasing categories that would benefit the most from the development of LCC tools



Source: OECD survey on the use of life-cycle costing (LCC) by contracting authorities in Hungary.

Unavailability of relevant data for LCC calculations

LCC methodology involves collecting and entering the data, which is needed in order to perform cost breakdowns, calculation and comparison. Contracting authorities in Hungary, however, mentioned that the needed data is either unavailable or not easily accessible. While not many details were provided by the respondents, it seems that having access to databases that would provide benchmarks for the calculation of costs is a real challenge in Hungary.

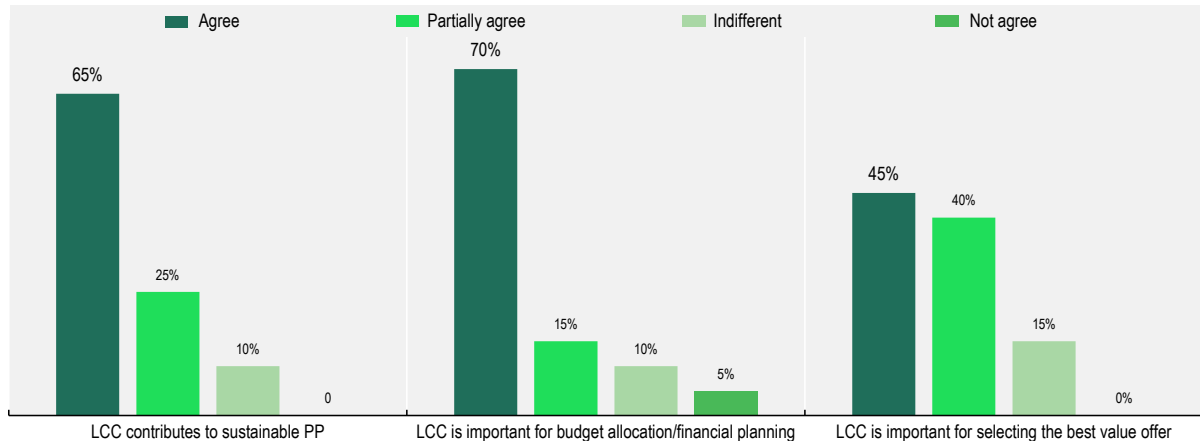
Fear of audits risks

35% of the respondents do not apply LCC because they have concerns that auditing institutions will be critical of the way LCC is used. Contracting authorities are under pressure to demonstrate that tax payers' money is being well spent and tend to choose the best value for money at the time of the purchase rather than using LCC, which may involve larger capital outlays that will be compensated by reduced operating and maintenance cost as well as avoided environmental risks across the project/product life cycle.

A weak appreciation of the benefits of using LCC in public procurement

The low uptake of LCC methodology in Hungary is also due to a lack of general appreciation of the importance of LCC in the public procurement process. The survey results reveal that all the respondents do not yet perceive the benefits of using LCC in their public procurement. The fact that LCC can serve as a cost-effective tool to achieve an optimum use of public funds and sustainable public procurement needs to be emphasised in future tools (Figure 2.6).

Figure 2.6. The appreciation of the benefits of using LCC in public procurement



Key takeaways from the Survey

- LCC tools should be developed and existing guidelines and good practices should be widely promoted. LCC tools and guidance should be as simple as possible, and explain that the application of LCC is not more difficult than the application of other award criteria.
- Capacity building activities such as trainings, providing tips on practical use of LCC in public procurement and sharing real life examples are very important to overcome the initial difficulties and complexities of applying LCC.
- A general appreciation for LCC is essential if the public procurement mindset is to shift from focusing solely on financial returns to considering wider socio-economic and environmental gains across the project/product life cycle, which can be assessed by using LCC.

Other sources (discussions with other stakeholders and procurement practitioners, reports by international organisations and practice of national institutions) also re-affirm the survey's findings in terms of the main challenges in the greater uptake of GPP in general, and specifically in terms of the use of LCC. Practitioners for example confirmed that Hungarian contracting authorities focus almost exclusively on the initial purchasing price, and do not consider any other cost elements in their evaluation framework. In addition, contracting authorities have the perception that green products are more expensive than "traditional" goods, and the higher initial costs and tight budgets, often applied through a single year perspective, provide a constraint to purchasing sustainable products. Additionally, like in many other OECD countries, different budget ownership and appropriation throughout the procurement cycle make it difficult to apply a uniform approach for the procurement procedure. Finally, for contracting authorities, the use of LCC is perceived as a significant audit risk, which they want to avoid.

Practitioners therefore stressed that only the mandatory application of LCC could accelerate the greater uptake of LCC in public procurement procedures. Currently, procurement officers, even with high level sustainability ambitions, do not receive support for the use of LCC neither from the leadership in their organisation nor other departments, units involved in the preparation of the public procurement procedures. However, if there is an obligation defined in the legal framework to use LCC either in the preparatory stage of the public procurement procedure or as part of the evaluation framework as an award criteria, contracting authorities will use it as they want to comply with the legislation. Gradual introduction of this obligation could even help to build up the capacity of contracting authorities and special LCC experts. However, the mandatory application would require clear, robust and legally secure methodology.

Practitioners also highlighted that sharing real life examples on the use of LCC would be a great help. However, these good examples could only help if all the details of the public procurement procedure (e.g. technical specification, the comprehensive evaluation framework) and the contract implementation are available and not only a summary of two-three pages.

The European Commission 2020 Country Report also highlighted, that in practice, the integration of environmental and social policy goals into public procurement process, including supplier qualification, technical specifications, award criteria and contract conditions remains a challenge for contracting authorities¹⁹. The European Commission's audits also show that the use of strategic criteria often leads to issues concerning compliance with competition and equal treatment principles. The European Commission emphasises that raising awareness through training and guidance materials on the use of quality-based criteria in tender selection is essential for ensuring that contracting authorities, especially at the local level, are able to use public procurement correctly and as a strategic tool for sustainable development.

The Hungarian Government is also aware of the low uptake of sustainable public procurement (SPP), as it pointed out clearly in its 2021 Monitoring Report submitted to the European Commission²⁰. The PMO

regularly analyses the experience of its control activities in terms of public procurement procedures, and identifies the key challenges of setting up SPP criteria. The lack of knowledge and the risk-averse behaviour of contracting authorities have also been listed as the main obstacles to SPP. This reluctance regarding the use of social and green aspects is more tangible in the case of EU-funded projects due to the strict and overly restricting approach of audits carried out for EU-funded public procurements in terms of the appropriate use of green and social aspects as award criteria or special conditions for the contract performance. As a result, contracting authorities tend to keep their procurement procedure “simple”. In addition, among the contracting authorities persists the misconception that the application of SPP aspects is complicated and contributes to lengthy procedures and increased prices.

These findings echo what the OECD also found in terms of innovation enhancing public procurement in 2017 in Hungary. The OECD report highlighted that public organisations tend to stick to old routines and are very distrustful of new procurement processes²¹. This attitude has not really changed in the recent years.

The 2021 Monitoring Report also stressed that public procurement practitioners and contracting authorities do not pay enough attention and time to the preparation and planning of public procurement procedures. The lack of proper preparation results in various problems, such as the technical specification and other requirements do not respond properly to the exact needs of the contracting authority and/or do not reflect the realities of the market.

Adding one additional challenge to the above, the PPA highlights the limited capabilities of the potential users in applying the existing LCC tools, emphasising the relevance of developing simple LCC tools with detailed guidance for their use, accompanied by sufficient training and capacity building activities in order to address the issue. Training programmes should include however, not only contracting authorities’ staff members, but also the business sector as well as control and monitoring bodies’ staff members.

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