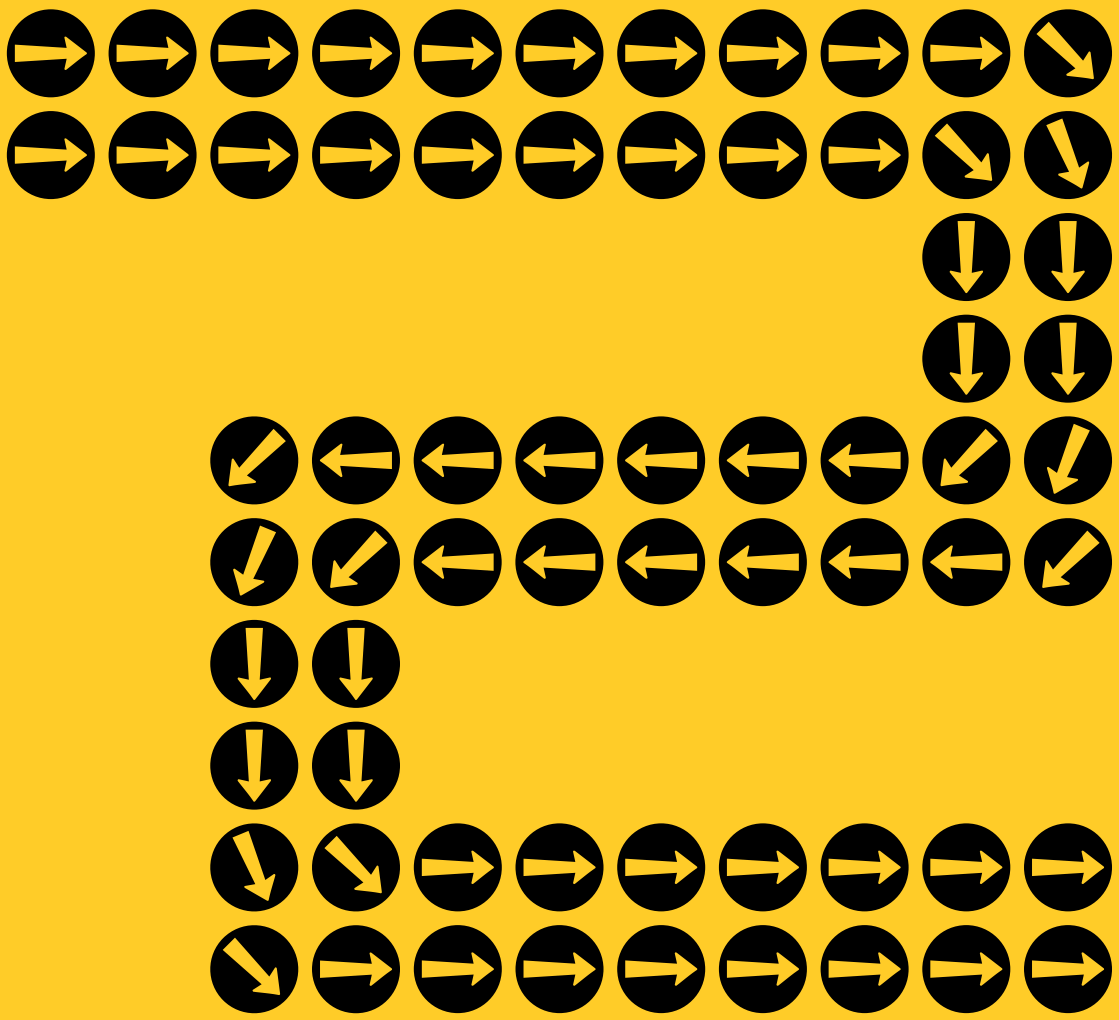


ROADMAP FOR GREEN AND CIRCULAR
PUBLIC PROCUREMENT IN THE CITY OF KOŠICE
(2026–2030) – THE GRIP PROJECT



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STRATEGIC CONTEXT AND VISION

1.1 Introduction: Transforming Public Procurement into a Tool for Strategic Development

Public procurement, which accounts for a significant share of gross domestic product in the macroeconomic context of the European Union, is currently undergoing a fundamental paradigm shift. It is transforming from a purely administrative mechanism for meeting operational needs into an important tool of economic policy and strategic management of public resources. For the city of Košice, as the metropolis of eastern Slovakia and a major public investor, this shift presents an opportunity to reassess its established procurement processes. The goal is to use its purchasing power not only to meet internal needs but also to stimulate market innovation and gradually achieve climate neutrality goals.

The presented roadmap (hereinafter referred to as the “Roadmap”), developed as part of the implementation of the GRIP (Green Responsible Innovative Procurement) project, defines a strategic framework for the implementation of green and circular public procurement (GCP) for the period 2026–2030.

This document takes into account the specific conditions of the city of Košice and proposes a pragmatic, phased model for transitioning from the dominant criterion of the lowest price to more sophisticated methods through the creation of precise methodological support.

1.2 Diagnosis of the Current State and Mitigation of Institutional Resistance

A key prerequisite for the successful implementation of this Roadmap is an objective understanding of the current state of procurement processes and the identification of systemic barriers within the City of Košice. As part of the preparatory phase of the GRIP project, a detailed Feasibility Study was prepared. An integral part of this study was a questionnaire survey conducted in nine key city organizations, with the aim of analyzing current procurement processes.

Although this questionnaire survey revealed that proactive elements of green public procurement are not systematically applied, it is essential to note that for contracts financed by European funds, the “Do No Significant Harm” (DNSH) principle is strictly required and enforced. At the same time, the city is already required to comply with applicable legislative rules and standards, such as the Waste Act, the Act on Energy Efficiency of Buildings, and Directive (EU) 2019/1161 on the promotion of clean and energy-efficient road transport vehicles (the so-called Clean Vehicles Directive), transposed into Slovak law by Act No. 214/2021 Coll., and other related legislative provisions.

Therefore, this roadmap and the accompanying methodology aim to build on the existing legislative framework to identify and propose specific opportunities for utilizing green public procurement in selected priority areas.

To achieve this goal, it is necessary to take into account the findings of a survey that identified three main categories of barriers. These barriers shape current implementation practices, and the roadmap, together with the forthcoming methodological guide, addresses them directly and specifically:

1. Financial barriers and perceptions of cost-effectiveness (the “green premium” paradox)

Frequently cited barrier, explicitly mentioned by a majority (5 out of 9) of respondents, is concern over “higher costs” and a lack of allocated funding. In the institutional environment, eco-friendly solutions are generally perceived as significantly more expensive. This situation is a direct consequence of the fact that, when evaluating economic viability, procurers have not yet adopted the life cycle costing (LCC) methodology. The Roadmap’s implementation response—the Methodological Manual—systematically addresses this barrier by providing practical templates for applying LCC. This will enable buyers to accurately quantify and justify long-term operational savings (e.g., lower energy consumption, lower waste disposal fees), which ultimately demonstrably offset any higher initial procurement costs.

2. Capacity and Knowledge Gaps (Technical Uncertainty)

The second most significant barrier, which fuels institutional resistance, is a “lack of technical expertise.” Staff responsible for public procurement processes feel uncertain about defining non-discriminatory technical specifications for green procurement. This knowledge gap, combined with the fear of potential audits and sanctions by regulatory authorities, leads to a strong preference for the lowest price. Roadmap Implementation Response: The strategy does not require purchasers themselves to act as chemical or environmental experts. The guide currently being prepared will provide them with ready-made, legally sound, and market-standardized wording for contract terms (so-called “copy-paste” clauses), thereby eliminating the risk of error, providing officials with the necessary legal certainty, and significantly reducing their administrative burden.

3. Market Constraints and the Perceived Lack of Alternatives

The third key obstacle is respondents' concerns about a "shortage of suppliers" and the limited availability of environmental solutions in the local market. There is a legitimate perception of risk that the application of strict environmental criteria could lead to a restriction of competition or to the complete cancellation of public tenders due to a lack of bids. Roadmap Implementation Response: This risk will be mitigated by institutionalizing preliminary market consultations (PMCs) for more complex contracts. A handbook for procuring entities will provide guidance on how to conduct a transparent market dialogue, enabling them to verify market readiness in advance and adapt environmental requirements to ensure broad competition.

Summary:

The minimal use of the Public Procurement Act (ZVO) in practice to date has led to a prevailing sense of natural caution among procurement officers. An attempt to abruptly introduce blanket environmental rules in this environment could lead to slower processes and passive resistance. For this reason, the Roadmap adopts a highly pragmatic and cautious approach. Instead of immediately mandating eco-friendly practices, the city is focusing on creating a support tool—a comprehensive methodological guide that will provide public procurement authorities with safe and market-proven procurement models.

1.3 Implementation Framework: Development of a Methodology and a Modular Approach

Given the virtual absence of experience with the Public Procurement Act in the context of the city of Košice, it is not realistic to immediately transition to across-the-board procurement under the “Green by Default” regime. This approach could be hindered by the local market’s lack of readiness and employees’ lack of internal experience in formulating non-discriminatory technical specifications.

Therefore, the main output and cornerstone of this plan will be the development of a practical methodological guide for procurement officers within the GRIP project (hereinafter also referred to as the methodology or guide). This methodology will not prescribe a single universal procedure but, based on international examples of best practices and knowledge of the local market, will outline individual optional models. Procurement officers at the city hall and municipal enterprises (budgetary and subsidized organizations of the city—hereinafter “municipal enterprise”) will thus receive a “catalog” of pre-prepared options from which they can select the appropriate model based on the nature of the commodity, budget size, and market readiness.

The methodology developed as part of the GRIP project will provide purchasers with the following three basic levels of approaches:

- **Approach A: Use of eco-labels and certifications (focused on ICT and cleaning products)**

The methodology will develop a simpler model for commodities where the international market has already undergone

an ecological transformation. It will provide buyers with templates on how to safely include requirements for recognized certifications (e.g., EU Ecolabel, TCO Certified, Energy Star) in technical specifications. In this model, competition continues to be based exclusively on the lowest price, but only among products that meet a defined standard. This does not require complex calculations on the part of buyers; they need only use the pre-prepared contract clauses provided in the methodology.

- **Approach B: Value-Based Approach (MEAT and LCC)**

For more complex contracts with variable operating costs (e.g., street lighting, appliances), the methodology will provide guidelines for applying the “most economically advantageous tender” (MEAT) criterion. The guide will include sample models for assessing total life-cycle costs (LCC). This will provide the contracting authority with a tool to justify to the finance department the selection of a bid that is initially more expensive but will yield energy or maintenance savings for the city in the long term.

- **Approach C: A Strategic Approach Using Market Dialogue**

For more complex investment projects (building renovations), the methodology describes the concept of preliminary market consultations (PMC). It provides procurers with a procedure for conducting an open and transparent dialogue with the sector prior to launching a public tender, with the aim of determining the availability of circular solutions, thereby minimizing the risk of distorting competition.

1.4 Selection of Priority Sectors

Based on an analysis of the needs of the city of Košice, the readiness of the local market, and the potential to achieve tangible environmental and economic benefits, three priority sectors were selected for the purposes of developing the methodology. The following chapters detail specific starting points and procurement models for these priority sectors:

Priority Sector 1:

Procurement of Information and Communication Technologies (ICT)

Priority Sector 2:

Cleaning Supplies and Cleaning Services

Priority Sector 3:

Construction and Reconstruction of Roads

Priority Sector 4:

Construction and Renovation of Buildings

**PRIORITY SECTOR 1:
PURCHASE OF INFORMATION
AND COMMUNICATION
TECHNOLOGIES (ICT)**

2.1 Methodological Rationale: A Standardized Market and Rapid Results

The procurement of information and communication technologies (computers, monitors, printers) represents a relatively standardized market. The methodology in this area will serve as a practical tool for achieving quick wins. City officials in Košice will not have to study complex technical specifications; the methodology will provide them with ready-made formulations referencing international standards that suppliers in the market typically meet.

2.2 Standardized Models and Their Integration into Public Tenders

The handbook will provide officials with specific sections for tender documents covering various phases of the ICT equipment life cycle:

- **Energy Efficiency and Sustainability:**
Sample wording for defining participation conditions that require compliance with ENERGY STAR criteria or the use of certifications such as TCO Certified or EPEAT (Electronic Product Environmental Assessment Tool) in technical requirements.
- **Extended Lifespan:**
The methodology will provide model wording for requiring an appropriate extended warranty and a guarantee of long-term availability of replacement parts.
- **Circular End-of-Life (Take-Back Clause):**
The ICT methodology will include a model clause for the take-back of used equipment. It will ensure that the supplier is contractually obligated, upon

decommissioning of the equipment, to arrange for its removal, secure data erasure, and prioritize refurbishment and subsequent sale of the equipment for further use or certified recycling of used equipment.

Benefits for the City of Košice:

Positive economic and operational benefits with a low administrative burden on staff. Contractually securing a longer warranty and the availability of replacement parts can reduce the need for frequent equipment replacement. The take-back clause significantly relieves the city administration of future fees and processes associated with the storage and disposal of electronic waste. City procurement officers will use pre-prepared templates for this purpose.

PRIORITY SECTOR 2: CLEANING PRODUCTS AND CLEANING SERVICES

3.1 Foundations for the Methodology: From Theory to Practical Implementation

In the case of cleaning services, the methodology takes into account the fact that simply including eco-label requirements in a contract often does not produce the expected results. International experience shows that without ongoing monitoring, suppliers may revert to cheaper and less environmentally friendly cleaning products. The methodological manual will therefore provide local government procurement officers with two specific, practical models that address this problem while ensuring alignment with the effective use of the city's budget.

3.2 Model 1: Centralized Procurement with Defined Environmental Criteria

The methodology describes a model in which logistics are separated from the actual provision of services. In this model, the procuring entity (the city or a municipal enterprise) does not leave the procurement of supplies to the cleaning company but purchases more environmentally friendly cleaning products at its own expense.

- **Procedure for purchasers:**
The guide will provide sample specifications for the procurement of cleaning products and hygiene supplies for dispensers (e.g., appropriate limits for various chemicals and the requirement for EU Ecolabel certification). The subsequent public tender for the cleaning services themselves will cover only the provision of labor and equipment.

Benefits for the City of Košice:

Gaining better control over the quality and health safety of the products used in municipal buildings. The city thus minimizes the risk of “greenwashing,” where suppliers make only superficial claims about their environmentally friendly practices. Another benefit is market opening: by eliminating the need for cleaning companies to finance the purchase of supplies, financial barriers for smaller local companies are reduced. This can promote competition, which could have a positive impact on the price of the service.

3.3 Model 2: Reducing Operating Costs Through Innovative Technologies

The second model, which will be developed as part of the methodology for contracting authorities focused on larger facilities (e.g., City Hall), is based on the use of technology. These technologies can offset the higher unit price of environmentally friendly cleaning products by significantly reducing their overall consumption.

- **Mechanical cleaning and smart dispensing:**
The guide will provide templates for technical specifications requiring the use of microfiber cloths and automated dispensing technology. These systems help limit manual over-dosing of cleaning solutions.
- **Contract Management (Audit-Driven Procurement):**
This model will include pre-established contractual provisions for a Key Performance Indicator (KPI) system. Payment of invoices will, where possible,

be contingent upon on-site physical inspections. The manual will provide a proposal for a penalty mechanism in the event that unapproved procedures are detected.

Benefits for the City of Košice:

Potential financial savings on operating costs. Properly calibrated dispensers and the use of microfibers have been shown to reduce the consumption of cleaning products and water. As an employer, the city also protects its employees and visitors to its buildings—by limiting volatile organic compounds (VOCs), it contributes to a healthier indoor environment.

**PRIORITY SECTOR 3:
CONSTRUCTION
AND RECONSTRUCTION OF ROADS**

4.1 Basis for the Methodology: Prevention of Technological Lock-in (Lock-in Effect)

As the manager of an extensive urban infrastructure, the City of Košice carries out large-scale and financially costly investments in the repair, maintenance, and construction of local road networks. Insights from practical application and consultations with stakeholders in the construction sector clearly point to a fundamental problem: the effort to introduce environmental and circular criteria only in the final phase—that is, during the actual procurement process for the construction contractor—is ineffective and comes too late.

If requirements for material circularity are not explicitly incorporated and technically resolved in the project documentation, the public procurer exposes itself to the so-called “lock-in effect.” If the authorized designer does not propose the use of recycled materials, the construction company will generally not offer them on its own initiative during the public bidding process, as this would entail a deviation from the project documentation and necessitate lengthy approval processes for design changes before the project’s completion. For this reason, this methodology shifts the focus of implementing green procurement in linear infrastructure projects to a key initial phase—the phase of preparing and procuring the project documentation itself.

4.2 Model 1: Integration of Environmental Aspects into Project Preparation

The methodological manual will outline innovative procedures that will enable contracting authorities to legally and bindingly transfer environmental responsibility to designers as early as the drafting of the design brief itself (Design & Engineering).

- **Material Circularity Analysis:**
Part of the proposed amendments to the tender documents for selecting a designer will be a requirement that the preparer of the project documentation must assess and prioritize proposals for the use of secondary raw materials and recycled materials. This will primarily involve proposals for the reuse of milled asphalt pavement (so-called “R-material”), the use of certified recycled construction materials in the structural base layers of roadways, and the use of innovative low-emission asphalt mixtures.

Benefits for the City of Košice:

Removal of technological and legislative barriers in later phases of the investment cycle. The city will receive project documentation that is fundamentally designed for circular construction and is “ready-to-tender.” This minimizes the risks of additional budget overruns and delays in the implementation schedule due to changes in the building permit.

4.3 Model 2: Contractual Requirements for Implementation: Circular Materials and Environmental Mechanisms

Building on well-prepared project documentation, the methodology will provide contracting authorities with specific contractual clauses and technical specifications (or, where applicable, evaluation criteria within the MEAT system) for the actual selection of the construction contractor.

- **Specific requirements for recycling and in-situ technologies:**

The handbook defines model clauses for mandatory material recovery. These will include requirements for the maximum rate of reuse of milled asphalt pavement directly on site (using cold recycling or hot in-place recycling methods), thereby drastically reducing transportation distances. For new asphalt mixtures, formulations will be prepared specifying the minimum percentage of R-material in new mixtures supplied from asphalt mixing plants, in accordance with applicable STN technical standards.

- **Environmentally Friendly Machinery and Decarbonization of Operations:**

Construction and road machinery is a significant source of local air pollution, greenhouse gas emissions, and environmental noise. The methodology will provide templates for applying participation requirements or evaluation criteria that will require contractors to deploy a fleet of machinery meeting the highest available emission standards. These include, for example, requirements for Stage IV or Stage V emission standards for non-road mobile machinery (excavators, loaders, milling machines), EURO VI standards for heavy-duty trucks, and, where applicable, a bonus for the use of machinery with alternative (electric or hybrid) propulsion systems and certified components to reduce noise and dust.

Benefits for the City of Košice:

A dual synergistic benefit—economic and environmental. Extensive use of recycled materials and in-situ methods reduces the consumption of expensive primary natural resources (natural aggregate, bitumen) and drastically eliminates fees for disposing of construction waste in landfills, which can offset other construction costs. The implementation of stricter requirements for the machinery fleet directly contributes to decarbonization, improved air quality, and an immediate reduction in noise pollution in densely populated urban areas during construction work, thereby protecting the public health of Košice residents.

PRIORITY SECTOR 4: CONSTRUCTION AND BUILDING RENOVATION

5.1 Rationale for the Methodology: Overcoming the Fear of Cost Overruns

The construction sector is the largest consumer of natural resources and materials. The construction sector produces a significant share of emissions. Today, the construction sector and building operations are among the largest contributors to greenhouse gas emissions and waste. Current data for 2025 and 2026 indicate that this sector is responsible for approximately 37% to 40% of global CO₂ emissions. At the same time, Slovakia produces approximately 6 to 8 million metric tons of construction and demolition waste annually, which represents a relatively large portion of the total 12 million metric tons of waste generated each year. Reducing emissions and waste in the construction sector is therefore crucial.

At the local government level, however, this is met with considerable caution and concerns about increased costs for investment projects. For this reason, the methodology will not impose complex requirements but will focus on developing models that make sound economic sense, particularly in the areas of construction waste management and risk management with contractors.

5.2 Model 1: Circular Demolition and Waste Stream Management

The methodological manual will outline a procedure aimed at better utilization of demolition and preparatory work, inspired by successful practices, with the goal of minimizing the landfilling of construction waste as much as possible.

- **Selective demolition in accordance with the principles of the circular economy:**
2023/2024, developers of larger construction projects must sort waste on-site to prevent its degradation. The guide describes how to ensure the reuse of waste and maximize its utilization directly at the construction site.
- **Higher construction waste recovery rates:**
The legal requirement to recycle 70% by weight of construction waste can not only be met but also exceeded by appropriately setting the terms of the bid. Good examples from practice show recycling rates of up to 85% for construction waste from building projects. The handbook will describe how to set higher recycling targets for demolition work.
- **Limiting Landfilling and Certified Transportation:**
Clients will have access to contractual clauses that require contractors to transport sorted construction waste primarily to an authorized recycling center. At the same time, the handbook will include a template for a request to submit certified weigh slips from this facility as documentation for reimbursement of invoices for demolition work.

Benefits for the City of Košice:

Significant potential financial savings. The difference between the fee for disposing of unsorted waste at a landfill and the fee for delivering clean construction waste for recycling can reduce the city government's costs for demolition

5.3 Model 2: Fixed-Budget Contract Formats and Design & Build

To reduce the risk of selecting unsustainable materials that would require costly repairs in the near future, the methodology will offer contracting authorities innovative procurement mechanisms.

- **Fixed-Price Contracting (Fixed Budget) and Design & Build:**

The guide will describe a model in which a maximum procurement price is set in advance. Contractors do not compete by undercutting prices, but rather by the quality and scope of the sustainable solutions they offer for this fixed amount. In conjunction with the Design & Build (D&B) model, the winning contractor assumes responsibility for both the design work and its physical implementation.

- **Compliance with the BRP (Building Renovation Passport) requirements** applicable in the Slovak Republic in accordance with the relevant legislation in force in the Slovak Republic.

Benefits for the City of Košice:

Better management of financial and time-related risks for the city budget. The fixed-budget system helps lock in allocated funds and minimizes the scope for subsequent requests for changes and price increases by construction companies. The “Design & Build” model places a greater degree of responsibility for the efficiency of the materials used, as well as for the subsequent operational performance of the building, directly on the contractor.



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