## Terms of Reference

**Assignment Title:** *Consultancy services to support the municipality of Ialoveni in its learning and integration process for improving data-driven decision-making for sustainable urban logistics in the city. The consultancy will include:*

- Consolidation of lessons learned through the project initiatives related to more sustainable last-mile deliveries;
- Assistance to local technicians in integrated planning, optimization, and regulation of both passenger and freight transport within the city of Ialoveni;

The consultant's work will result in a report summarizing project insights and their application within Ialoveni's local context, ensuring a clear and direct contribution to the thematic framework of the "Green and Socially Responsible City Logistics Innovations 01C0055 SPOTLOG project

### Background and Context

Ialoveni City Hall is participating in the SPOTLOG project, which focuses on sustainable and socially responsible urban logistics. As part of this initiative, the city seeks to improve its understanding of local traffic flows – particularly transit traffic passing through Ialoveni – and integrate these insights into its urban planning processes. At the same time, all project-funded activities must directly contribute to SPOTLOG's thematic focus on sustainable integrated transport planning and to the capitalisation and local application of SPOTLOG project results in Ialoveni.

Currently, Ialoveni has approximately 11 road segments monitored by video cameras. However, the city lacks the tools and procedures to extract and utilize traffic data from these cameras. With the city's General Urban Plan under development, there is a timely need for reliable traffic data (*including origin-destination patterns and vehicle classifications*) specifically to understand how passenger and freight movements, including last-mile deliveries, interact with the city logistics system and with the SPOTLOG concepts and pilot actions. This assignment will bridge that gap by assessing the city's data collection readiness, guiding the use of technology for traffic analysis, and providing expertise in planning and optimizing both passenger and freight transport within Ialoveni. While traffic data are an important input, the assignment is not a stand-alone traffic study; it focuses on applying SPOTLOG insights in Ialoveni and strengthening local capacity for sustainable urban logistics.

### Objectives

The main objective of this consultancy is to support the municipality of Ialoveni in its learning and integration process in data-driven transport planning by collecting and analyzing traffic flow information, then translating it into actionable insights for sustainable urban mobility and logistics. The specific objectives include:

- **Data Collection Readiness:** Evaluate and enhance the city's technical capacity for traffic data collection using existing surveillance cameras and other available tools. Identify gaps and recommend improvements to enable systematic data gathering.
- **Traffic Flow Analysis:** Obtain and analyze traffic flow data – including origin-destination (O-D) patterns and vehicle classifications (*e.g. cars, buses, delivery vans, heavy trucks*) – to distinguish local versus through traffic and understand key movement trends in the city.
- **Sustainable Logistics Integration:** Apply relevant lessons from SPOTLOG (*such as strategies for sustainable mobility planning*) and provide recommendations on how these insights can inform Ialoveni's transport planning and policies.
- **Knowledge Transfer:** Build local capacity by involving Ialoveni's technicians throughout the process and delivering a presentation of results. This ensures that knowledge and tools developed during the assignment are transferred to the City Hall for continued use beyond the project.

**Scope of Work**

To achieve the objectives, the consultant will perform the following tasks:

1. **Technical Assessment of Data Collection Systems:** support the municipality of Ialoveni to review the existing traffic surveillance infrastructure (*approximately 11 camera-monitored road segments*) and any other relevant data sources. Assess the current ability to extract useful traffic data (*vehicle counts, speeds, classifications, etc*.) from these systems. Identify technical gaps or needs – such as software, hardware, or procedures – required to enable effective traffic data collection and monitoring.

2. **Methodological Guidelines Development:** support the municipality of Ialoveni to develop a concise methodological and technical guidelines document for the City Hall's technical team. This guide will describe how to utilize the camera network (*and any necessary supplementary tools*) to collect traffic data. It will also explain why such data is needed, linking its importance to urban planning uses – for example, feeding into the new General Urban Plan, enabling transport modeling, informing traffic management and road safety measures, and supporting environmental goals. The guidelines should cover basic steps for video data extraction, data processing, and storage, written in clear language for non-specialist technicians, and structured so that they can be reused by the municipality after the end of the SPOTLOG project.

3. **Traffic Monitoring Enhancement Plan:** Support the municipality of Ialoveni to elaborate a plan to improve traffic data monitoring coverage across the city. This includes identifying strategic locations for deploying additional traffic cameras or sensors to capture all major routes for an origin-destination study. The consultant will select locations that cover key entry/exit points and intersections to effectively monitor both internal traffic and transit traffic that crosses the city. The plan should

be practical and cost-conscious, possibly presented with a simple map or schematic highlighting recommended camera positions and the rationale for each (*e.g. to capture freight deliveries in commercial areas or transit flows on the main highway*).

4. **Support for Equipment Deployment:** Provide guidance and on-call support to Ialoveni City Hall in the process of procuring and installing the additional monitoring equipment recommended in Task 3. This may involve specifying technical requirements for new cameras or software, advising on installation angles and settings, and helping test that the new setup successfully captures the intended data. The consultant will work closely with local technicians during this phase to ensure they are comfortable with operating and maintaining the equipment. *(Note: Any procurement of equipment will be handled and funded by the City Hall/project separately; the consultant's role is advisory and supportive.)*

5. **Traffic Data Extraction and Analysis:** Once the cameras (existing and new) are in place and recording, use specialized software tools to extract quantitative traffic data from the video footage. This task includes:

    a. Counting vehicles and classifying them by type (passenger cars, light commercial vehicles, buses, heavy trucks, etc.) over defined time periods.
    b. Tracking vehicle movements through the network to establish origin-destination (O-D) pairs – i.e., determining where traffic is entering and leaving the city, and how it flows between key points. This will likely involve analyzing license plate sequences or time-stamped detections between camera locations, in compliance with privacy regulations.
    c. Identifying traffic peaks and patterns (*e.g. morning/evening rush hours, differences between weekday and weekend flows, or surges due to freight deliveries at certain times/locations*).

The consultant will provide a report summarizing SPOTLOG project insights and their application within Ialoveni's local context, ensuring a clear and direct contribution to the thematic framework of the "Green and Socially Responsible City Logistics Innovations project. The consultant should involve Ialoveni's technical staff in this process as much as possible (through hands-on sessions or training), so they gain familiarity with the software and techniques used for data extraction and analysis.

**Deliverables**

All deliverables shall be prepared in **Romanian**. The expected deliverables are:

1. **Traffic Data Collection Assessment & Guidelines** – A brief report covering Tasks 1 and 2. This document will describe the current status of Ialoveni's traffic monitoring capabilities and present the methodological guidelines for data collection. It should clearly outline the steps for extracting data from existing cameras and explain the relevance of this data for urban planning and logistics. *(Target delivery: mid January 2026)*

2. **Traffic Monitoring Enhancement Plan** – A document covering Task 3, which details the recommended locations and specifications for additional traffic monitoring equipment. It will justify each proposed camera/sensor location and provide guidance for implementation. This plan can be a stand-alone deliverable or integrated as a section in Deliverable 1, depending on the City Hall's preference. *(Target delivery: end January 2026)*

3. **Traffic Flow Analysis & Recommendations Report** – A comprehensive yet concise final report in Romanian, encompassing the results of Task 5. This report will include the analyzed data (O-D matrices, vehicle counts, etc.), visualizations such as the O-D spider diagram, and a set of practical recommendations for Ialoveni's transport planning, ensuring a clear and direct contribution to the thematic framework of the "Green and Socially Responsible City Logistics Innovations" project. *(Target delivery: early February 2026)*

4. **Presentation and Workshop** – Presentation materials (PowerPoint slides or similar) in Romanian, and the delivery of one formal presentation/workshop session (Task 5). The slides will be provided to the City Hall in electronic format as a deliverable. The presentation will be scheduled in coordination with the City Hall, ideally upon submission of the final report, to discuss results and ensure knowledge transfer. *(Target delivery: mid-February 2026, at the end of the assignment).*

*Note:* Given the small scope and budget of this assignment, the above deliverables are intended to be concise and focused. The City Hall and consultant may agree to combine or simplify deliverables for efficiency (for example, merging Deliverables 1 and 2 into a single report) as long as all key outputs are covered. The emphasis is on practicality and usefulness of the outputs to the City Hall, rather than volume.

**Timeframe and Schedule**

The assignment will run for approximately **1,5 months**, from **5 January** to **25 February 2026**. Below is an anticipated schedule of main activities and milestones:

- **Week 1 (by mid January 2026):** Contract signing and kick-off meeting. Consultant meets (in-person or online) with Ialoveni City Hall representatives and SPOTLOG project partners to clarify objectives, gather initial information, and finalize a work plan. Immediate start on Task 1 (technical assessment of existing systems).
- **Weeks 2–3 (Mid January 2026):** Completion of Task 1 and Task 2. The consultant prepares the *Traffic Data Collection Assessment & Guidelines* document. Concurrently, work on Task 3 (designing the monitoring enhancement plan) begins, consulting with city staff on feasible camera locations.
- **Week 4 (end January 2026):** Deliverable 1 (Assessment & Guidelines) submitted to City Hall for review/feedback. Task 3 concluded and Deliverable 2 (Monitoring Plan) finalized. If needed, a brief review meeting is held to discuss these initial deliverables and plan the deployment of any new equipment.

- **Weeks 5 (Early February 2026):** Task 4 in progress – City Hall proceeds with installation of additional cameras/sensors as per the plan, with the consultant advising as required. Meanwhile, the consultant begins Task 5, collecting initial data from cameras and setting up the analysis software. The consultant may provide an informal update to the City Hall on preliminary findings at this stage.
- **Week 6 (Mid February 2026):** Completion of data analysis (Tasks 5) and drafting of the *Traffic Flow Analysis & Recommendations Report*. Deliverable 3 (draft final report) submitted to City Hall for feedback.
- **Week 7 (by 20 Feb 2026):** Final presentation conducted at Ialoveni City Hall. The consultant presents the key results and recommendations, and the workshop facilitates discussion and knowledge transfer.

This timeline is provisional and can be adjusted in agreement with the Contracting Authority. However, the end date of 25 February 2026 should be respected to align with project funding constraints. The consultant is expected to manage time effectively, deliver outputs on schedule, and communicate any risks of delay in advance.

**Key Expert Requirements**

The assignment will be implemented by a consultant (individual expert or a small team) with the following profile:

- **Educational Background:** University degree in Transportation Engineering, Traffic Management, Urban Planning, or a related field.
- **Experience:** At least 3 years of professional experience in transport planning, traffic engineering, or urban mobility projects. Experience conducting traffic studies (such as origin-destination surveys, traffic flow analyses, or similar studies) is required.
- **Technical Skills:** Proven ability to work with traffic data collection and analysis tools. This includes familiarity with video analytics software or other ITS (Intelligent Transport Systems) tools for counting and classifying vehicles and deriving O-D information. The expert should be comfortable handling data sets and creating clear visual representations (maps, charts) of traffic flows. GIS skills or other mapping abilities will be beneficial for creating the O-D spider diagram and related outputs.
- **Project and Thematic Knowledge:** Understanding of integrated transport planning that encompasses both passenger and freight transport. Participation in international projects or local transport planning initiatives in a similar context is required.
- **Language and Communication:** Fluency in **Romanian** and good command of **English** is required.
- **Other Competencies:** Strong analytical and problem-solving skills; attention to detail in data analysis. Ability to work collaboratively with the city's staff and adapt to feedback. The consultant should be proactive, able to work independently under the agreed timeline, and committed to delivering high-quality outputs within the limited budget.

**Contracting Authority:** *Ialoveni City Hall*

**Project Context:** This assignment is funded under the **SPOTLOG** project *"Green and Socially Responsible City Logistics Innovations" (01C0055)*. It contributes to the project's goals by improving data-driven decision-making for sustainable urban logistics in Ialoveni. The contract falls under the "External Expertise" cost category of the Interreg project and covers consultancy and knowledge-transfer services only; any purchase of equipment will be financed separately and is not part of this Terms of Reference.

**Assignment Duration:** *5 January– 25 February 2026 (approximately 1,5 months)*.

**Deliverable Language:** *Romanian.*