

EUROPEAN GREEN DIGITAL COALITION

Supported by the European Commission and Parliament at the EU Council's request, the EGDC unites companies to use digital solutions for reducing emissions across key sectors.



Funded by
the European Union



OPSIS-Research

Opsis Research has developed an application and bike sharing solution to provide safe and accessible bicycles that can be unlocked, used, and relocked at various points around a given city. A pilot study was run in Botosani in Romania and data was collected using the application use as well as a questionnaire to residents. This involved utilising 15 bicycles provided by the municipality and 5 docking stations with Bluetooth locks to lock bikes between uses.

This case study is an ex-post assessment carried out in Botosani, Romania, between January 1st 2024 and 30th June 2024.

Organisational contribution: Opsis Research is responsible for deploying the solution, creating the application and operation of the bike sharing system. This aligns with A-level classification as defined by ITU-T L.1480 (contribution of the integrated solution or the innovation of the solution).

Quantified impacts:

6 months

Assessment period

-0.6 to -1.4
kgCO₂e/user/year

Net carbon impact range
accounting for uncertainty

-176 kgCO₂e/year

Net carbon impact per year

Other identified impacts:

Further environmental and social impact: Improved air quality and mobility - Implementation and use of this bike sharing solution can yield additional, harder to measure benefits for both residents of the city and the municipality as a whole. The solution encourages more cycling in cities and specifically aims to reduce car trips taken, this reduces traffic and congestion in cities. This has knock on effects of improving air quality, pedestrian experience in cities, and improved road safety.

Policy impact: Contribution to EU policy priorities - by supporting the mitigation of transport poverty through improved access to affordable mobility options, aligned with the objectives of the EU Emissions Trading System for buildings and road transport (ETS2) and national Social Climate Plans.

Website

Contact Opsis Research

Relevant links: [Contact the EGDC](#) | [Methodology](#) | [Calculator](#)

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