OUTPUT FACTSHEET

Project index number	CE0200649	**Acronym**	EnCLOD			
Output type *("x" to be included)*	**Strategy/ action plan**		**Pilot action**	X	**Solution**	
Output number (O.xx)	O 2.1	**Output title**	Olomouc Pilot Action on Open Data to improve territorial governance			
If the output target is > 1 in the AF, please specify the output(s) described in the factsheet	1					
Output delivery date	30/04/2026					
Project website	https://www.interreg-central.eu/projects/enclod/					

Summary description of the output

Please present the output by addressing the following topics.

Territorial challenges and needs in the regions specifically addressed by the output
(max. 700 characters)

Olomouc faces a significant urban challenge: traffic and parking areas contribute to heat accumulation, while climate change makes summer heat more intense. Reducing heat island effects requires a holistic approach to collecting and analysing urban data to understand where heat accumulates and how a different organization of parking areas could affect local climate conditions, which was previously missing or incomplete. The Olomouc Pilot Action addressed this gap by combining real urban data from a city-wide sensor network into an open database, improving data accessibility to researchers and local stakeholders that seek to develop solutions.

Main aim(s) of the output and how it contributes to tackle the identified challenge(s)
(max. 500 characters)

By deploying a network of IoT sensors (weather, surface temperature, and traffic/occupancy sensors) across 10 parking-related hotspots, the Olomouc Pilot Action aimed to demonstrate how data can improve understanding of the interactions between parking policies, traffic patterns, and urban heat island effects, supporting better decision-making in mobility and parking policies and climate adaptation. Moreover, by making these data openly accessible and promoting their use through hackathons and public events, the pilot sought to actively engage citizens, researchers, businesses, and other local stakeholders, increasing their awareness and understanding of these issues while stimulating innovation and identifying additional uses of the generated data to support better territorial governance.

Technical description of the output (e.g. scope, main features, innovative elements etc.)
(max. 1500 characters)

The Olomouc Pilot Action developed and tested an Open Data ecosystem to investigate the interactions between parking policies, traffic patterns and urban heat island effects, and to demonstrate how data-driven approaches can support climate adaptation and urban governance.
A city-wide monitoring infrastructure was deployed, consisting of 38 traffic sensors, 10 weather stations and 10 heat-island sensors located in parking-related hotspots. The sensor network generated continuous data on traffic flows, parking occupancy, air temperature and surface heating, enabling the comparison of different urban locations and the identification of areas most exposed to heat accumulation.
To improve the interpretation and usability of the collected information, the city was divided into microzones and sensor data were integrated with additional public datasets, including parking and heat surveys. This allowed the pilot to analyse concrete use cases, such as the impact of parking demand on urban heat, the effects of commercial activities on traffic and parking occupancy, and opportunities to replace oversized parking areas with greener solutions.
All collected data were published according to Open Data principles and made accessible through dashboards, maps and digital services. Training activities, stakeholder workshops and the Olomouc Hackathon promoted the reuse of data by public authorities, researchers, students, companies and citizens, generating new ideas and applications for mobility, climate adaptation and urban planning.
The main innovation of the pilot lies in combining real-time urban sensing, Open Data, stakeholder engagement and decision-support tools into a single approach that improves evidence-based policymaking, public awareness and local innovation capacity.

Involvement of target groups during output development and/or implementation
(max. 700 characters)

Three main groups of stakeholders were identified and involved throughout the implementation of the Pilot Action in Olomouc:
1) City managers/officers, directly involved in the establishment of sensor networks and the elaboration and exploitation of the open data produced;
2) Regional officers, through publication of selected datasets in the regional open data catalogue and increasing visibility/accessibility of the open data produced;
3) The general public, including other public sector members, IT companies, students, civic committees and other citizens attending and participating in local events, training workshops and hackathons

Cooperation dimension of the output, i.e. joint development within the partnership and, if applicable, joint implementation (see output indicator definitions in chapter I.3.3 and Annex 2 of the programme manual)
(max. 700 characters)

The Olomouc Pilot Action (Czech Republic) was developed within the common EnCLOD methodology jointly designed by the project partnership, providing a shared framework for testing how Open Data and IoT can support territorial governance. The Pilot Action roadmap (sensor deployment, Open Data publication, microzoning, stakeholder engagement and decision-support tools) was validated through continuous transnational cooperation among partners.
In particular, the Province of Vicenza (LP, Italy) and the University of Ljubljana (Slovenia), leader of the EnCLOD Guidelines on Open Data and IoT for governance, contributed to the design and refinement of the pilot approach and monitoring, while the University of Žilina (Slovakia) supported mainly stakeholder engagement, hackathons and microzoning applications.
Further exchanges were held with DKV (Hungary) and the Municipality of Nova Gorica (Slovenia) through peer learning among Pilot Actions. This cooperation improved implementation and ensured transferability across Central Europe.

Results - expected change and lasting effects in the territories generated specifically by the output, its uptake by relevant organisations and benefits for target groups
(max. 1000 characters)

The collected data from the Olomouc Pilot Action provide a new evidence base for comparing the use and climatic performance of different parking and residential areas. Initial results have highlighted significant differences among locations and demonstrated how apparently similar urban spaces may require different interventions. At the Kafkova shopping area, low parking demand may support negotiations with private owners to reduce oversized parking surfaces and introduce green infrastructure. Data from regulated residential areas can provide evidence to assess and reinforce current parking policies, while findings from visitor parking areas may lead the city to reconsider development proposals that are not supported by actual demand. The pilot also demonstrated how traffic data can assess the effects of road closures and signage changes on adjacent residential areas.
A major lasting result is the City's decision to expand monitoring from the initial 10 pilot locations to 40 sites, significantly upscaling the use of sensors, microzoning and Open Data in urban planning. The results are already contributing to Olomouc's wider digital twin approach and future procurement strategies. Open access to traffic, parking and climate data will also enable citizens, researchers and companies to conduct further analyses, develop innovative services and participate in a more transparent, evidence-based dialogue on urban development.

Ownership and durability of the output after the project end, considering financial and institutional support including, if applicable, maintenance
(max. 700 characters)

This pilot action was designed with the City of Olomouc as associated partner and main future user. The sensors deployed during the Pilot Action are owned by CITIQ, which provided them under a Data-as-a-Service model, as foreseen in the approved Application Form. Most sensors were installed on city assets, while some traffic sensors were connected to infrastructure managed by the Olomouc Region. CITIQ is responsible for their operation and maintenance.
The design of the new monitoring network identified a subset of climate and traffic sensors as suitable for long-term integration into the future city's Intelligent Transport System strategy and related digital twin system. In this case, their continued operation and maintenance will be part of the City of Olomouc's digital twin implementation. The remaining sensors that are not needed for the digital twin will continue to operate under CITIQ.

Transferability of the output to other territories, sectors or target groups and planned measures for supporting such transfer
(max. 700 characters)

The innovative Open Data methodology defined in agreement by the whole partnership offers a solid and transferable platform for using data to support governance in mobility, urban planning and environment: Olomouc Pilot Action offers a concrete and successful example for other cities to follow, able to offer inspiration to city managers and decision-makers.
The common methodology used to develop the project Pilot Actions is publicly available (Deliverable D.1.3.1 - preliminary version, Deliverable D.3.3.1 - Final revised verison, available at the end of the project) and shall promote knowledge sharing and broader uptake of the EnCLOD approach at European level.

Related final deliverable(s) (Number(s) and title(s) to be included)	D2.5.2 "Olomouc Pilot Action report & lesson learned"
Output web link (if applicable)	https://www.interreg-central.eu/projects/enclod/?tab=media

GPS coordinates (if applicable)	City of Olomouc: 49.592, 17.247