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**	City of Nova Gorica 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)

The City of Nova Gorica was in 2025 the European Capital of Culture together with Gorizia (IT), the first cross-border title of this kind (GO! 2025), and faced more than ever the
challenges caused traffic and air pollution, nowadays aggravated by climate change.
Nova Gorica, Gorizia and Šempeter-Vrtojba form one functional urban area with a single road network and a single air basin, divided by a state border that traffic and air pollution cross freely.
Before the EnCLOD Pilot Action implementation, the city relied on a single official air quality monitoring station and lacked continuous data to understand how traffic patterns influence local pollution. This limited the municipality's ability to design targeted environmental and mobility policies. The Pilot Action addressed this need by deploying an integrated network of traffic and air quality sensors, generating Open Data to support evidence-based measures for improving air quality and sustainable urban mobility. The sensor network also covers the freely passable former border crossings, so the flows between the two halves of the cross-border city are measured as well, and all data are published openly and are therefore usable on both sides of the border.

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

The Pilot Action aims to establish an integrated monitoring system for air quality and traffic, generating reliable, openly accessible data across Nova Gorica. By identifying local pollution patterns and their links with mobility, it supports targeted environmental measures, evidence-based planning and the development of an Air Quality Plan, while promoting transparency and data reuse by authorities, researchers and citizens.

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

The Pilot Action was designed to give Nova Gorica a broader and more detailed picture of local air quality and its relationship with mobility. Its main features are a distributed network of 24 traffic sensors, 7 air-quality sensors and 1 reference meteorological station, supported by cellular IoT and LoRaWAN connectivity. The system collects continuous data on traffic flows, vehicle categories, particulate matter, temperature, humidity and pressure, and publishes them through open dashboards and standard APIs.
The sensors were strategically placed at busy roads, intersections, event locations, residential areas and background sites. The collected data are organised through a microzoning approach and visualised in an online GIS platform, allowing the city to compare different urban conditions, identify localised pollution hotspots, establish a baseline during the European Capital of Culture period, and support evidence-based mobility and environmental planning, stakeholder analysis and the preparation of the Air Quality Plan.
The output is innovative because it integrates traffic and environmental monitoring within a single Open Data framework, uses affordable sensors to achieve wide spatial coverage, applies privacy-by-design traffic counting, and extends the microzoning approach to the cross-border urban system of Nova Gorica and Gorizia, providing a transferable model for integrated environmental governance.

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

During the development of pilot activities a diverse audience was involved, including various target groups: public sector, students, technology providers and private citizens.
In detail:
- Public officers, as municipal staff, along with students, were engaged through educational workshops designed to introduce the concepts of IoT technologies and open data.
- Technology providers were responsible for supplying and configuring the sensors, connectivity infrastructure, and supporting platforms used to collect and publish the data.
- Private building owners also played an important role, hosting indoor traffic sensors, allowing the network to achieve broader spatial coverage across the city.
- Target groups from both sides of the border were involved: participants from Gorizia joined the public event on air quality and the open data hackathon, together with the Italian environmental organisation Legambiente, which during the project began preparing a joint environmental report on Gorizia and Nova Gorica. A direct contact with the Municipality of Gorizia was established at a meeting held in its premises, and the EGTC GO representative was kept informed and attended EnCLOD events. Italian institutions took part through direct contacts and joint events rather than as formal partners.

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 Nova Gorica Pilot Action followed the common methodology jointly developed by the EnCLOD partnership, covering sensor network design, Open Data publication, data analysis, tool development, open data training and hackathons. It was implemented by the Municipality of Nova Gorica and the University of Ljubljana (SI), with CityOne (CZ) providing technological and scientific support. The Universities of Olomouc (CZ) and the University of Žilina (SK) contributed to microzoning, hackathon design and stakeholder engagement. Gorizia municipality (IT) was also directly consulted and informed throughout Pilot implementation.

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 main result of the Pilot Action is the elaboration of Nova Gorica's Air Quality Plan, based on the traffic and environmental data collected through the new sensor network. The Plan will provide the Municipality with a concrete framework to identify pollution patterns, define targeted measures and monitor their effectiveness over time. By linking air quality data with mobility and spatial information, it will strengthen evidence-based policy design and support more timely and place-specific interventions.
The output is expected to strengthen Nova Gorica's transition towards data-driven urban governance by embedding Open Data into municipal planning and decision-making. Building on the pilot, the Municipality intends to establish a stronger governance framework for data management, expand the urban data ecosystem by integrating mobility, environmental and spatial datasets, and develop digital planning tools such as a municipal geoportal. The output will also support continued stakeholder engagement through hackathons, workshops and educational initiatives, encouraging the reuse of data by researchers, technology providers and others working in the urban mobility sector. The expected change does not stop at the state border: Nova Gorica and Gorizia share one road network and one air basin, so air quality measures taken on either side affect the whole cross-border city, and because the data are open they can also inform decisions and independent environmental reporting on the Italian side. The Air Quality Plan itself remains an instrument of the Municipality of Nova Gorica and does not define joint measures, while the monitoring and the picture of pollution patterns it relies on cover the whole functional urban area.

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

The Pilot Action was implemented by the Urban Municipality of Nova Gorica in cooperation with the University of Ljubljana and the City of Gorizia. The Municipality owns the sensor network and is therefore committed to maintaining the devices, the online data management system and the continuous collection and use of traffic and air-quality data beyond the project period.
A key lasting result will be the formal approval of the Air Quality Plan by the Municipal Council, currently envisaged by the end of 2026. The Plan will provide the institutional framework for using the collected data to guide future environmental and mobility measures, monitor their effectiveness and support evidence-based decision-making. The pilot results will also be incorporated into the city's developing Open Data Agenda, enabling wider publication and reuse of sensor-generated datasets and creating the basis for extending monitoring activities and testing further digital innovations in urban planning and governance.
The results are durable in a cross-border sense as well: the sensor data and the microzone geometry covering Nova Gorica and Gorizia are published as open data, so their reuse by the Municipality of Gorizia, by EGTC GO, by Legambiente or by any other user does not depend on a bilateral agreement or on a dedicated cross-border platform. The equipment is owned by the Urban Municipality of Nova Gorica and installed on the Slovenian side, so the commitments for maintaining the network and for using the data after the project end remain with the Municipality.

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

Nova Gorica's cross-border experience offers a valuable model for municipalities in Slovenia, Italy and across Europe seeking to improve environmental monitoring and data-driven planning.
The common project methodology (publicly available as Deliverable D.1.3.1 - preliminary version) will be the basis for the EnCLOD Guidelines on effective Open data usage for territorial governance (Deliverable D.3.3.1 - Final revised version available at the end of the project) that will promote knowledge uptake and transferability at the European level, benefitting from all the Pilot Actions to trigger wider replication of the project approach. Transfer will be supported also through project dissemination activities, workshops, hackathons and cooperation with public authorities, researchers and technology providers to encourage wider uptake and replication.

Related final deliverable(s) (Number(s) and title(s) to be included)	D2.4.2 "Nova Gorica 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 Nova Gorica: 45.955, 13.649