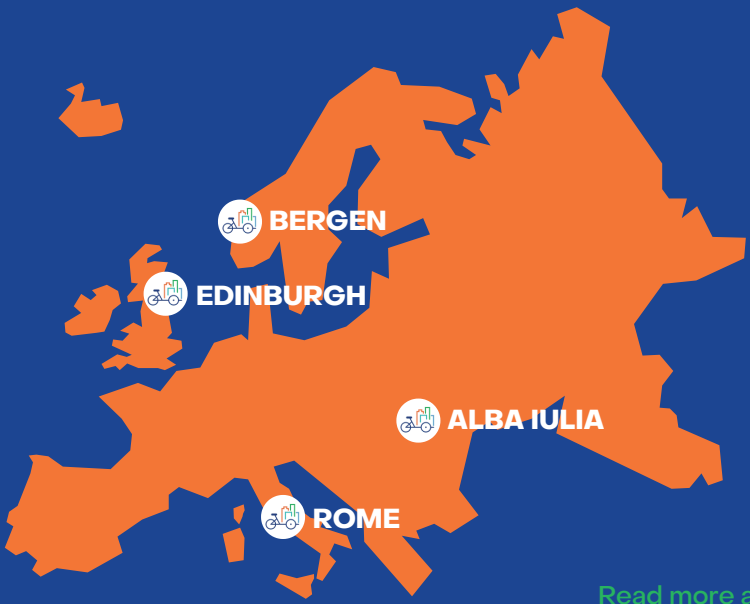
ULaaDS

URBAN LOGISTICS AS AN ON-DEMAND SERVICE

Transforming Urban Logistics and Mobility: Exploring the Journeys of the ULaaDS Satellite Cities



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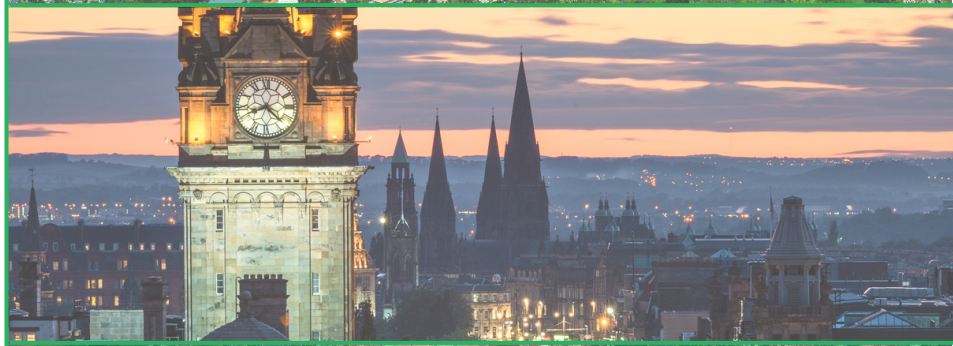
In this insight from the ULaaDS project, the four ULaaDS satellite cities – **Rome, Bergen, Edinburgh, and Alba Iulia** – present their current projects and challenges in urban logistics and mobility, their experiences and lessons learned during the last few years in the project, as well as the future steps they will take in their cities.



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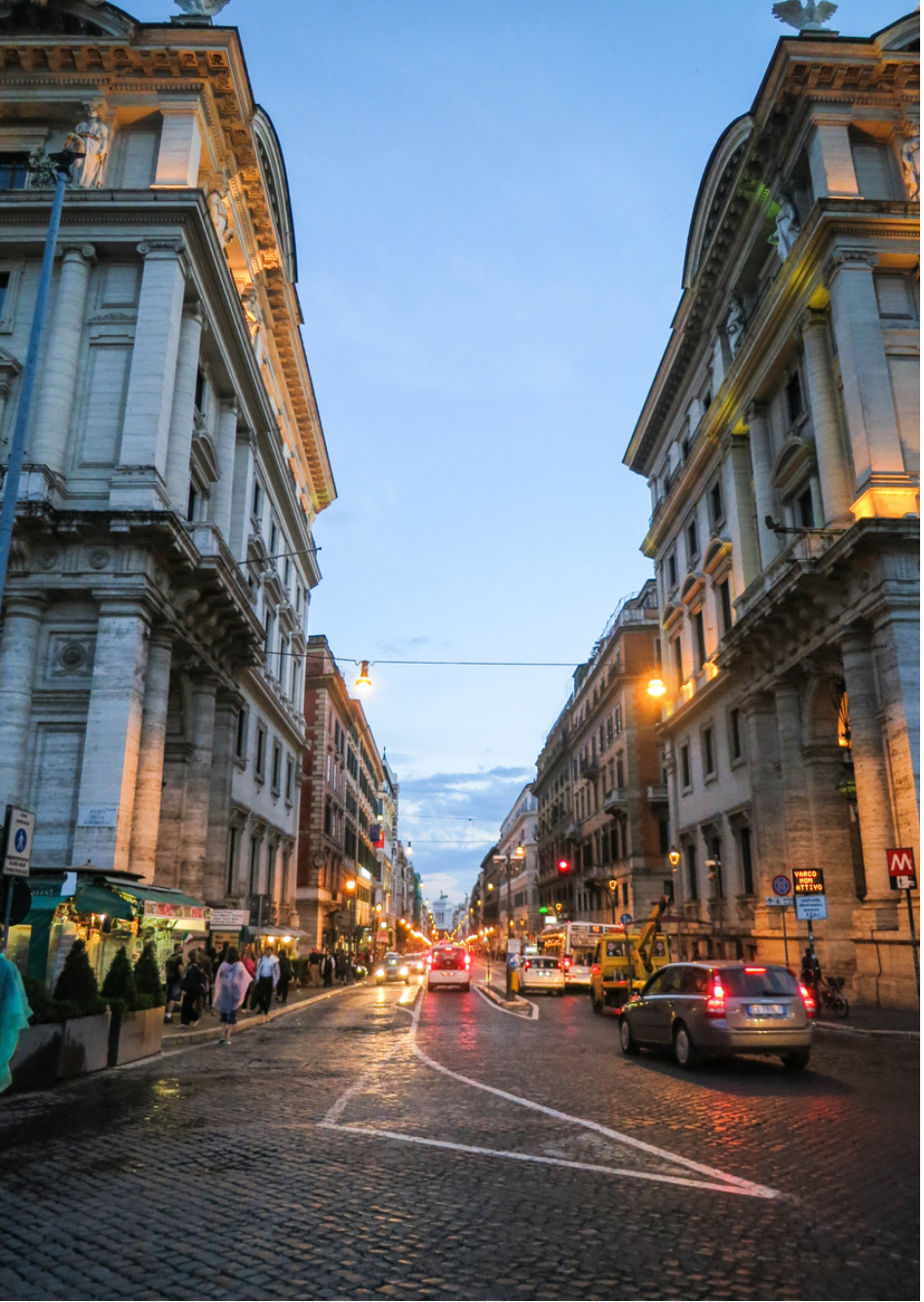


Rome

Contributor:
Marco Surace, Agenzia Roma servizi per la Mobilita' Srl

Projects and challenges

Since the late 1980s, and the inception of Demand Management Policies in Rome, the city has faced the challenge of safeguarding citizens' health and preserving its cultural heritage from traffic pollution. To address this, the city has gradually implemented measures like Limited Traffic Zones and incentives to reduce private vehicle traffic in the historic centre and promote public transport usage. Now, awaiting approval from the Rome administration, the **Sustainable Urban Logistics Plan (SULP)** aims to achieve sustainable freight distribution through various measures.

PRIORITY	MEASURES	
	Measure 1	Rationalisation and reinforcement of loading/unloading bays in the LTZ
	Measure 2	Review of LTZ Access Rules
	Measure 3	Incentives for the purchase of low environmental impact vehicles
	Measure 4	Pick up and Delivery Points (PuDo)
	Measure 5	Cycle-Logistic Incentivation (Cargo-Bikes)
	Measure 6	Collaborative Logistics
	Measure 7	Consultation&Dialogue with the Local Authority
	Measure 8	Monitoring of worksites
	Measure 9	Mini Hubs (proximity logistics areas)
	Measure 10	Urban Distribution Centres (UDC)

The SULP addresses three key challenges, which are directly comparable to the trials conducted in ULaaDS:

- Measure 4: Deployment of PuDo services.
- Measure 7: Involvement of different stakeholders (shop owners, carriers, logistic operators, citizens), each with their own distinct requirements.
- Measures 9 and 10: Identification of suitable areas for logistics operations and development of a business model for the management of mini-hubs and distribution centres.

Additional challenges addressed in the Sustainable Urban Mobility Plan (SUMP) include gaining stakeholder acceptance of new access rules, managing fragmentation and increased deliveries resulting from e-commerce, and addressing the lack of data through surveys.

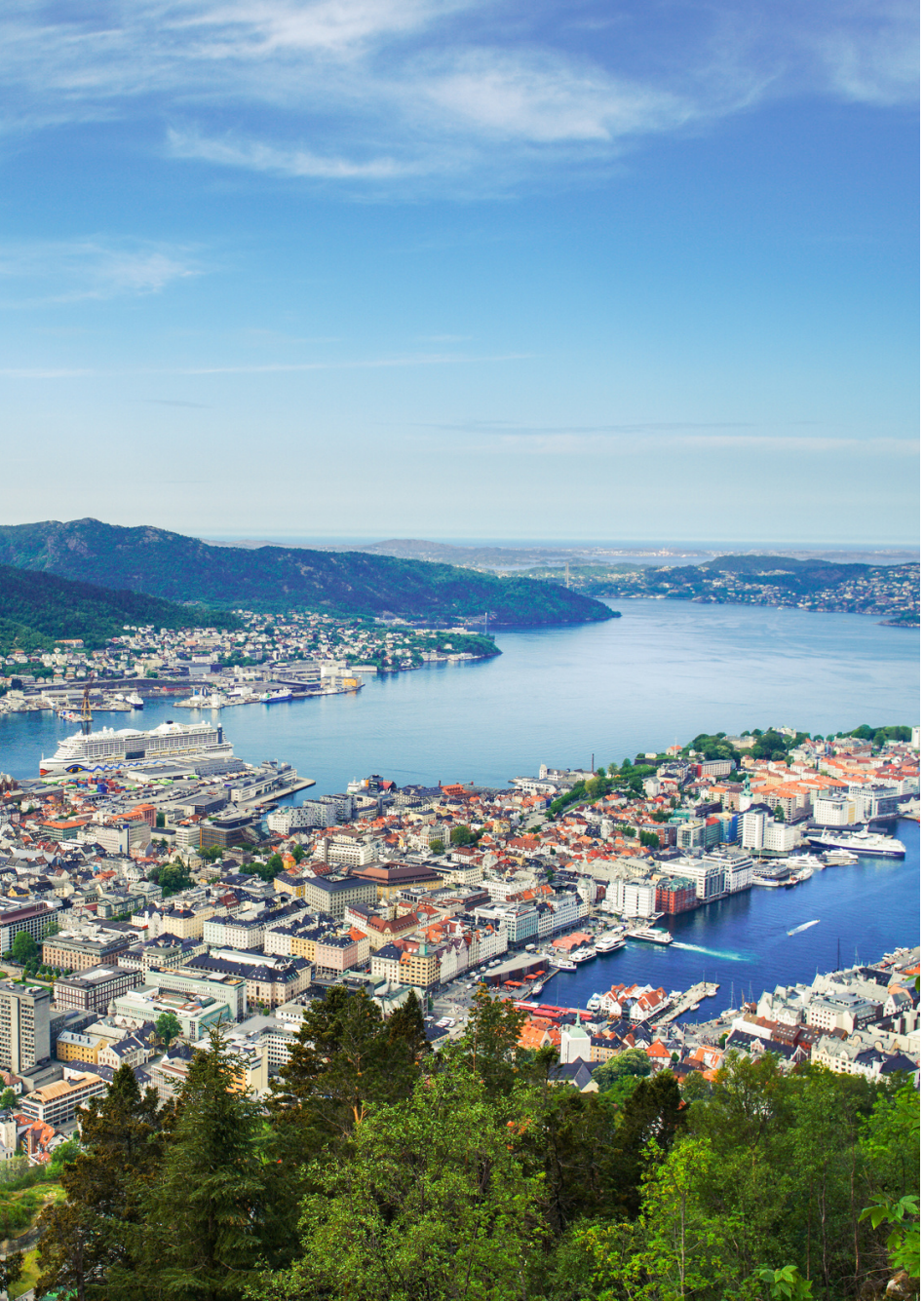
ULaaDS learnings

Rome has gained valuable insights from the lighthouse cities' trials, aligning with its SULP provisions. These insights include consolidation centres, micro-hubs, containerised last-mile deliveries, and parcel lockers at mobility hubs, as well as the ULaaDS Stakeholders Fora methodology. During SULP implementation, technicians will consider and share strengths and risks identified in each trial, such as managing public space, navigating bureaucracy for parcel locker permits, and engaging stakeholders through campaigns. The proposed business and operating models from the trials will support the implementation of these measures.

Next steps

Drawing from experiences gained through the trials, Rome is implementing strategies to optimise parcel delivery and mobility. The city is **deploying lockers near public transport** hubs to consolidate parcels, and establishing **24 bike box stations** at metro stations to encourage combined bike and locker usage. Rome is also promoting cycle logistics for urban parcel distribution and exploring storage options near residential areas with input from operators and stakeholders.

To enhance multimodal mobility for commuters, Rome is creating its **first mobility hub at Flavio Biondo square, close to Trastevere railway station.** The redevelopment includes public transport areas, connections to stops, green spaces, pedestrian zones, bike and car-sharing spots, EV charging stations, loading zones for goods, and a designated kiss & ride area. Parcel lockers will also be installed. Facilitated by the Logistic Living Lab, Rome is also actively engaging various stakeholders to support its SULP.



Bergen

Contributor:
Lars Petter Klem, Bergen Kommune

Projects and challenges

The City of Bergen is on track to achieve its goal of zero emissions from road transport by 2030, currently boasting the highest share of electric cars in the world as of 2023 (38% for passenger cars). In April 2023, electric commercial vehicles surpassed diesel sales for the first time ever. The city's **low emission zone**, which includes a rush hour fee, plays a crucial role in achieving this milestone. However, despite the advantages of electric vehicles in reducing pollution, there are still challenges related to space and congestion.

Finding and establishing new solutions for sustainable urban logistics also requires addressing and understanding how it fits into the logistics ecosystem – from shipment and consolidation at distribution facilities to last-mile transport. In Bergen, many of the largest goods distribution facilities have historically been placed in, or nearby, the city centre and its railroad terminal. This has given way to short last-mile delivery, including the use of cargo bikes.

However, new transformation processes of former industrial areas, along with the **modernisation of the current railway terminal** located in the city centre, have forced several major logistics companies to relocate their facilities to the outskirts of the city. While this creates space for citizens and enhances the liveability of public areas, it also creates longer distances between distribution facilities and the recipients. For the city, this could be seen as an obstacle to achieving a more sustainable last-mile delivery system, but it also lays the foundation for completely new ways of approaching urban logistics.

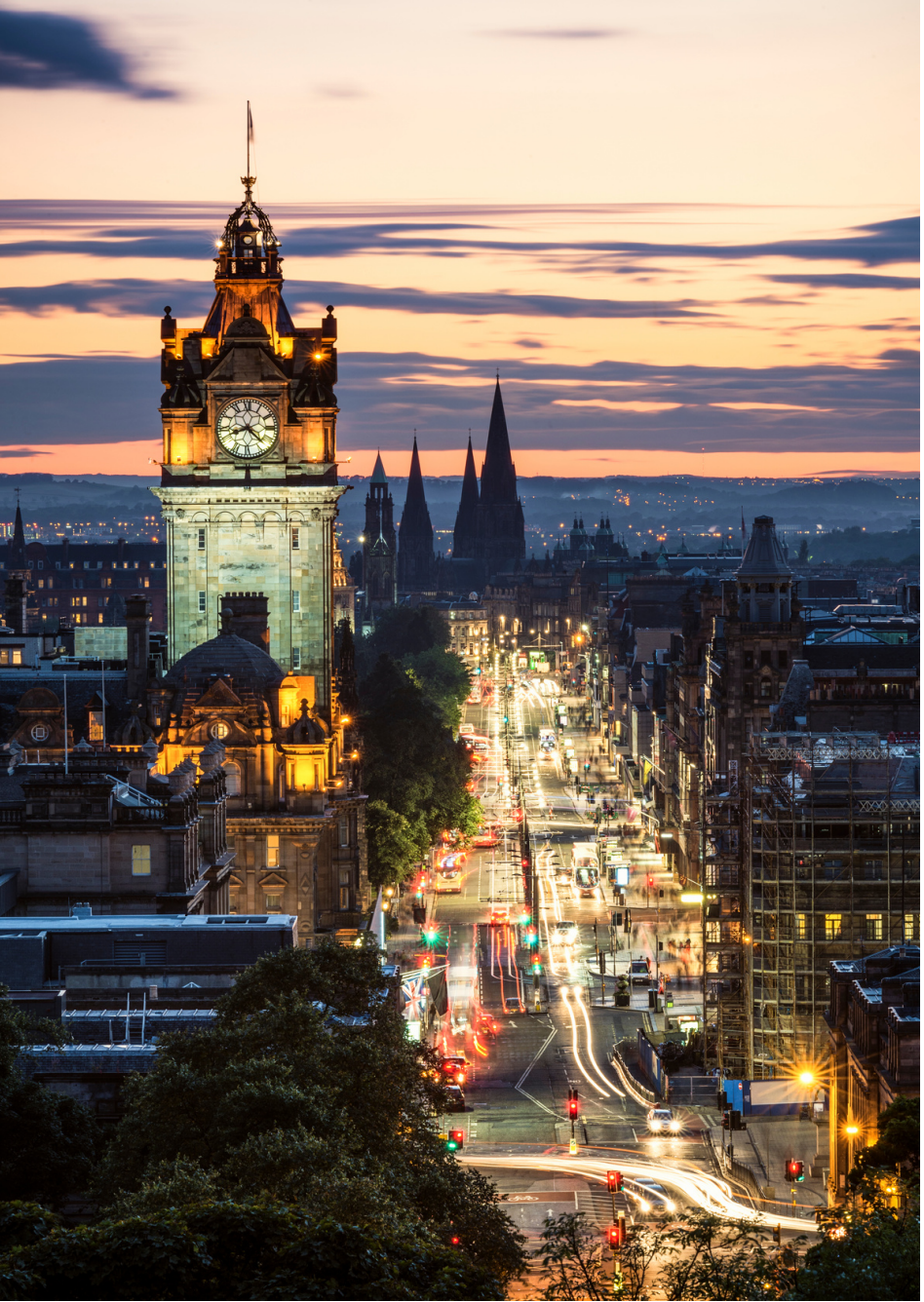
Parcel lockers have proven to be such a valuable tool and have been popping up around the city over the past two years. Bergen has so far prohibited their placement on municipal grounds, and it seems that the logistics companies have managed to find suitable locations on private grounds. The types of parcel lockers currently being used outdoors are flexible and battery-driven, which makes adjusting their location fast and flexible. This flexibility has proved valuable in facilitating communication between the parcel locker operators and the city.

ULaaDS learnings

Participation in ULaaDS has been truly insightful for The City of Bergen. Not only did they have the opportunity to join the study trips and see how the trial solutions are contributing to more sustainable logistics, but they also had the chance to meet colleagues from across Europe and discuss how we together can develop policies that lead us towards a sustainable urban future.

Next steps

In the forthcoming year, the City of Bergen will focus on the development and testing of parcel locker policies across Europe, including initiatives by project partners Mechelen and Groningen, as well as the municipalities of Bærum and Oslo in Norway. A regional tender is being planned to establish parcel lockers on public land. Furthermore, the city aims to actively pursue Zero Emission Zones, with the hope that the national government will give it due consideration. Bergen is also exploring solutions for addressing everyday logistics in their extensive urban transformation projects, such as the implementation of permanent microhubs in local neighbourhoods.



Edinburgh

Contributor:
George Lowder, Transport for Edinburgh

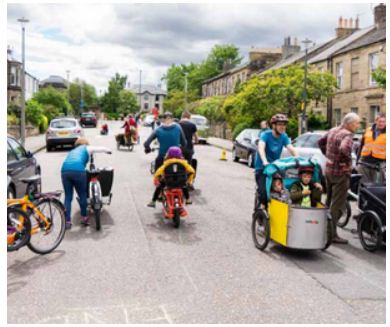
Projects and challenges

Edinburgh aims to achieve carbon net zero by 2030 through various strategies like Climate Strategy 2030, City Mobility Plan 2030, the Active Travel Action Plan, and more. One aspiration of the transformed City Centre is to reduce deliveries by large vehicles and establish a series of logistics hubs around the city centre where last-mile deliveries and collections will be enabled by more sustainable methods. The detailed implementation plans continue to be refined and are being informed by public consultation, pilot projects and interim schemes. Some ongoing projects include parcel lockers by InPost and e-cargo bikes by DHL.

During the **Edinburgh Trams line extension construction to Newhaven**, measures were implemented to support affected businesses, including last-mile deliveries using cargo bikes and trolleys, and collaborating with various organisations to establish Logistics Hubs. One observation was that using trolleys for deliveries, instead of cargo bikes, was preferred due to limited road space and potential congestion. The dedicated Logistics team established effective relationships with delivery agents and businesses, enhancing the success of last-mile deliveries.

The **Cargo Bike Movement**, initiated during COVID-19 lockdown, provided cargo bikes on loans, training, and awareness events. In 2022, the project engaged with a total of 6825 people. It completed 22 direct long-term loans to businesses and community groups and 167 direct and 201 partnership generated short term loans to individuals and families. By December 2022, it saved 91 tonnes of CO_2e (compared to the fuel consumption of a car) and redistributed 11.5 tonnes of food, which would have otherwise been thrown away.

SEStran and Edinburgh Napier University are collaborating with ZEDIFY Logistics on sustainable logistics research. They are **piloting a logistics hub in central Edinburgh's Haymarket area** to explore various commercial approaches to logistics in a crowded urban setting. The partners are re-modeling deliveries, moving away from diesel vans and trucks and instead consolidating them for greater efficiency. The pilot aims to gain insights into sustainable city logistics by examining bottom-up commercial operations, the significance of partnerships (public-private and private-private), the importance of raising public awareness, and validating the concept of the last sustainable mile to boost commercial confidence.

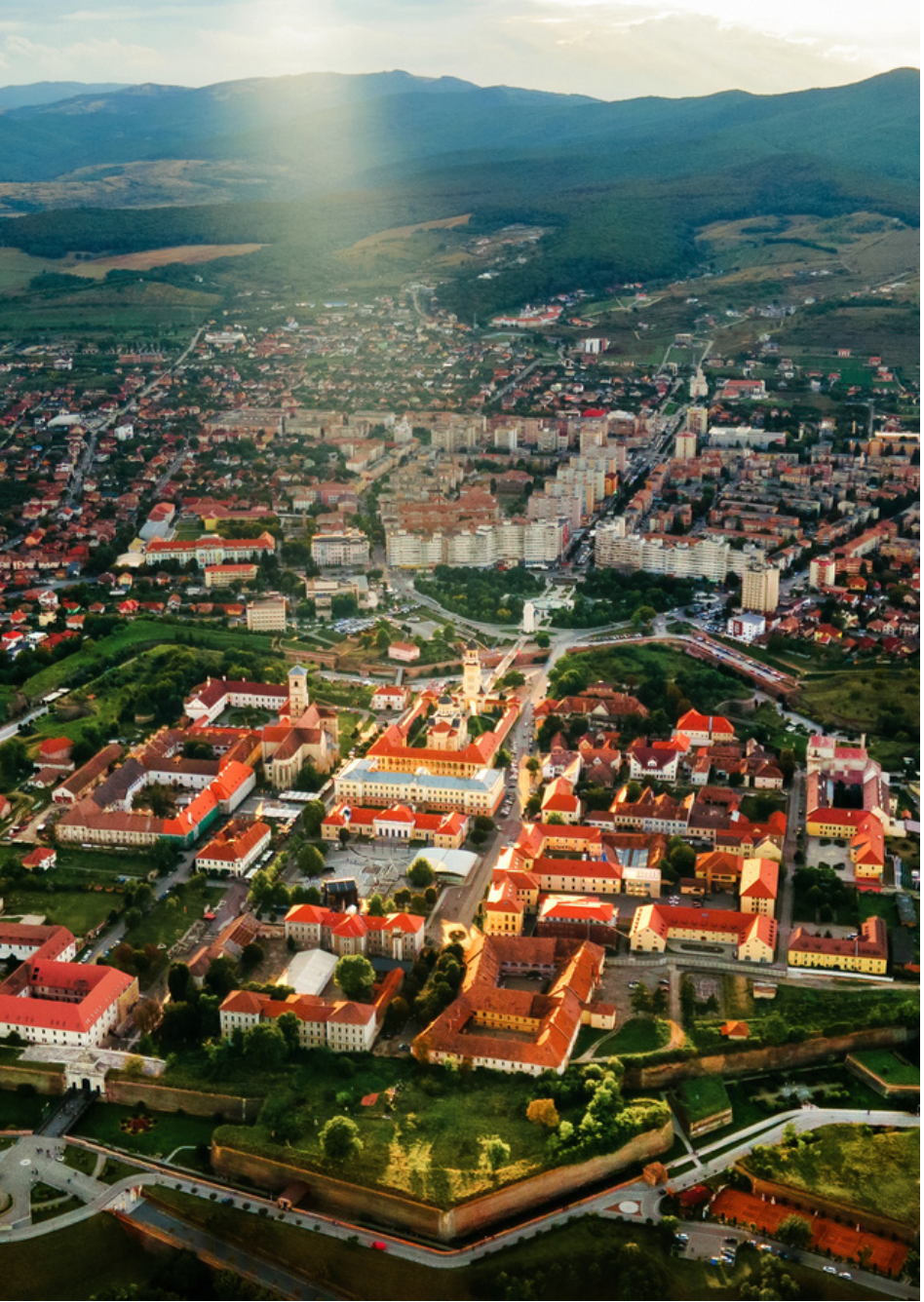


ULaaDS Learnings

It is clear the ULaaDS Lighthouse, Satellite, and Follower cities face common challenges in achieving carbon reduction through sustainable urban logistics. While key components of their solutions are similar, each city's unique geography, demography, topography, and weather require tailored approaches. Funding and business models also differ, necessitating local adaptations. By recognising similarities and sharing best practices, cities can compare experiences, avoid pitfalls, and facilitate the adoption of future schemes by Satellite and Follower cities.

Next steps

Final reports for the Tram to Newhaven, Support for Business Logistic Hubs, and the Haymarket Logistic Hub, are expected in summer 2023. Other schemes will continue to be evaluated for their duration. All of this will contribute to Edinburgh's efforts to develop urban logistics and help meet its carbon net zero target by 2030.



Alba Iulia

Contributor:
Liviu Stanciu, Alba Iulia Smart City

Projects and challenges

Last-mile delivery in Alba Iulia faces challenges due to roadworks, hindering implementation. The municipality lacks the authority to coordinate the flow of delivery services since none of them have parcel lockers in public areas.

Currently, private companies like eMag (11 easy boxes), GLS (3 parcel lockers), and DPD (1 automat pickup) manage last-mile delivery services. As a result, there are no municipal-level policies for last-mile logistics. The outdated Sustainable Urban Mobility Plan (SUMP) adds to the challenges, as more parcels are delivered on private premises rather than public ones.

To address this, **dedicated public spaces for parcel lockers are necessary.** The municipality, though behind other cities, can benefit from regulating placement, design, and aesthetics from ground zero.

Alba Iulia is currently implementing various mobility projects, including:

- Cycle Logistics, ENCLOSE, SUITS, TInnGO, SUMP PLUS, CityChangerCargoBike, and EU-funded energy efficiency projects.
- Two large mobility infrastructure projects funded through the Regional Operational Programme 2014-2020, featuring 18 km of new bus lanes, 95 traffic cameras, a smart lighting management centre, and a bike-sharing centre with 300 bikes.
- Other mobility projects funded by Romania's National Recovery and Resilience Plan, like the development of an eco-friendly public transport system in collaboration with Ciugud.

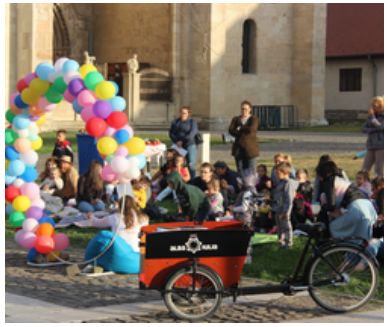
Between 2021 to 2027, Alba Iulia's main steps will revolve around the implementation of operational programmes and the National Recovery and Resilience Plan. Specifically, the city willl focus on the development of the South and North ring roads.

ULaaDS learnings

As a satellite city, Alba Iulia closely followed Groningen and Bremen in terms of freight, parcel locker policies, and last-mile delivery. The meeting in Groningen was a great opportunity for Alba Iulia to learn about micro-logistics and smart delivery. The entire Dutch way of rethinking the Inner City and sustainability and smart mobility is inspiring for Alba Iulia, but this strategy takes some time to replicate.

From Bremen, they learned that an efficient delivery system depends on municipal policies, and micro hubs need to fit well into public spaces without affecting aesthetics. The cargo-bike sharing scheme is also worth replicating.

Implementing efficient solutions in Alba Iulia depends on delivery companies and the local community. **Alba Iulia is a 15-minute city, but its rapid expansion poses challenges for infrastructure.** The 'slipper distance,' a new concept in delivery policies, depends on citizens' comfort zones and road quality to the nearest parcel area.



Next steps

Alba Iulia should implement delivery-related traffic policies and update its SULP with digital parcel locker maps. Increased citizen awareness of parcel areas will lead to greater adoption of new last-mile delivery policies. This is an opportunity for Alba Iulia to learn from the ULaaDS project's solutions and replicate them on a larger scale with improvements.