

Newsletter #4

December 2024



Welcome to the 4th edition of the GREEN-LOG newsletter!

Dear Reader,

We are pleased to announce the publication of the 4th issue of the GREEN-LOG newsletter. If you are interested in innovative **last-mile delivery solutions** with the highest possible impact on environmental sustainability and traffic reduction, you are at the right place!

Stay tuned @ www.greenlog-project.eu!

With best wishes, The GREEN-LOG team



About GREEN-LOG

The world is experiencing unparalleled growth in last-mile transport following the unprecedented growth of e-commerce. This new reality brings a number of challenges to urban and peri-urban ecosystems and puts immense pressure on courier companies for seamless servicing of higher volume home deliveries.

Against this backdrop, **GREEN-LOG**, the Horizon Europe co-funded project, aims to accelerate systemic changes and create last-mile delivery ecosystems that are economically, ecologically, and socially sustainable.

GREEN-LOG offers Logistics-as-a-Service platforms for interconnected city logistics, automated delivery concepts using autonomous vehicles and delivery droids, cargobike-based innovations for sustainable micro-consolidation, and multimodal parcel deliveries integrating public transportation. The solutions are supported by networked city logistics dataspaces that supply dynamic services for proactive ecosystem optimisation while respecting the interests of stakeholders including consumers, businesses, and the city.

The GREEN-LOG approach is deployed and validated in five Urban Living Labs, an inclusive set of demonstration sites that cover EU regions with different Urban Logistics characteristics and varying challenges. Three follower cities that experience rapid economic and social change and are highly interested in tailoring and replicating GREEN-LOG solutions will benefit from intensive transferability acceleration actions.

Collower cities: - Artad - Helsingporg - Valge

GREEN-LOG launched first suite of its integrated sustainable city logistics platforms, tools and services and began trials

The Horizon Europe GREEN-LOG project consortium is excited to announce the successful release of the first version of its integrated platforms & services and start of the demonstrations in five urban Living Labs, which are in charge of designing, testing and validating these solutions.

Read the relevant PRESS RELEASE

Blueprints for Sustainable Last-Mile Solutions

By analysing the urban contexts and mobility patterns in these cities and areas, GREEN-LOG identified key factors impacting urban freight and service demands, such as city layout, population density, infrastructure, regulatory frameworks, and technological readiness. The project's cocreative and collaborative approach, involving local governments, research institutions, and logistics professionals, led to the creation of practical and scalable logistics solutions tailored to each city's needs. These efforts culminated in the development of comprehensive blueprints specifying and providing innovations that will be integrated and deployed in each demonstration case providing environmental sustainability and improving urban living standards.





Innovative Delivery Methods and Deployment

During the first half of the project's duration, GREEN-LOG released an alpha version of tools and platforms designed to optimise last-mile logistics. The key developments (alpha version) include:

- GREEN-LOG data space for managing project and Living Labs data;
- Al algorithms to predict logistics demand for various scenarios:
- Optimisation models for scheduling daily deliveries via Micro-Consolidation Centres (MCCs);
- Simulation platforms for evaluating long-term planning and what-if scenarios;
- Augmented Intelligence Modelling Platform combining demand prediction, route optimisation, and iterative learning.

These innovations are expected to **reduce congestion**, **exhaust emissions**, **and response times**, significantly enhancing the sustainability of last-mile delivery.

Real-Time and Connected Services

Last-mile logistics face ongoing challenges due to real-time disruptions. In this vein, GREEN-LOG has developed services, platforms and a user-friendly interface that balance the needs of logistics providers, clients, and local authorities. These services are designed to bridge the gap between demand and supply by incorporating a dynamic pricing framework and nudging mechanisms. Key innovations include:



- GREEN-LOG Logistic-as-a-Service (LaaS)
 Marketplace;
- A flexible and modular collection of Software
 Development Kits (SDKs) integrated into Bring your own Device (BYOD) for on-line real-time tracking;
- Nowcasting and forecasting services for near-now and short-term transport demand and traffic pattern predictions;
- A toolset for reactive routing of transport requests to reduce travel time;
- Digital Control Tower a centralised, data-driven platform designed to transform last-mile logistics operations.



Living Labs Demonstrations

Each Living Lab is developing customised solutions tailored to its urban ecosystem, guided by a shared set of high-quality pilot implementation standards. The first round of trials in all five Living Labs started in Q4 2024 in a controlled environment, involving consortium partners and external stakeholders. After these trials, an evaluation will refine the solutions for the final round of real-life testing. Additionally, the project will involve three follower cities experiencing rapid economic and social change - Arad, Helsingborg, and Valga - that will test the transferability of GREEN-LOG's innovations.

The outcomes of these trials will be assessed for their economic, environmental, and social impacts, setting the stage for broader adoption.

WATCH THE GREEN-LOG VIDEO



OUR SYNERGIES



GREEN-LOG is a part of a cluster of three co-funded Horizon Europe projects, together with **DECARBOMILE** and **URBANE**. The cluster focuses on the take-up and upscale of innovative, safe and sustainable last-mile delivery solutions. It also aims to facilitate lessons learning and sharing at the European level, notably through the **CIVITAS Initiative**.

Our Focus

With the goal of improving urban space use, air quality, noise and safety and the overall livability of cities, our three projects are exploring innovative solutions, tools and instruments such as:

- · clean vehicles and modes,
- · dynamic e-routing,
- · load policies,
- · lockers,
- · micro-consolidation centres,
- optimised delivery technologies and processes including improved tracking, logisticsas-a-service, delivery robots, multimodal deliveries and AI and CCAM solutions.

URBANE and the CIVITAS Initiative join forces to deepdive into city-led sustainable last-mile logistics solutions

As part of the CIVITAS Forum that took place in Parma, Italy, from 1-3 October 2024, the URBANE's Green Last-Mile Logistics City Platform and the CIVITAS Initiative organised an interactive workshop showcasing sustainable last-mile solutions led by city or

regional authorities in **Hamburg, Bologna, and Thessaloniki**. Gathering city and regional representatives, as well as other experts from the sector, the workshop was a space for exchange and sharing of experiences in the decarbonisation of last-mile logistics.

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READ OUR LATEST BLOG POSTS



Innovative GREEN-LOG Solutions Introduced in Athens' Urban Logistics

Major cities of Greece are severely affected by logistics challenges, while the delivery of goods and products is also delayed due to traffic congestion in city centers, creating a combination of two interconnected problems. Despite these issues, Greek cities have not yet advanced in implementing countermeasures to mitigate the described challenges.





User-Centred Design in Living Labs: a journey to meaningful innovation

How to go beyond a proof of concept or a simulation? The path of a technology from basic research to commercialisation can be a bumpy journey. One of the biggest hurdles is to develop – technology that resonates with users. One way of bridging this gap is to introduce a technology into a dynamic real-life situation, a so-called

Living Lab. In conjunction with a user-centred design philosophy, a living lab can be used to find out how technology can be seamlessly integrated into the daily lives of users.

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Local shops, sustainable drops in Leuven (BE)

When screening sustainable urban logistics solutions and applications, the city of Leuven is constantly seeking for the added value – efficiency – for their local businesses. Promoting local shopping is promoting sustainable dropping and vice versa. So yes, city logistics should focus on safety and clean air, but what if these local SME's, often microentrepreneurs or small enterprises, were to disappear because the solutions don't fit their needs?

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Sustainable last-mile deliveries: the role of the Administration

Currently, there is a clear international trend toward more liveable cities, designed and planned with citizens at the centre of the process. One of the driving forces behind this movement comes from the *European Union's Green Deal*, which commits to achieving carbon neutrality in transportation by 2050. To fulfil this commitment, various measures and tools are being considered at the urban level to reduce pollution and traffic congestion. However, it's essential to balance these measures with the existing commercial activities in cities, particularly urban goods distribution, which accounts for around 24% of total trips in Barcelona city.

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From Better Cars to Greener Logistics: The Self-Driving E-Cargo Opportunity

Urban last-mile deliveries, which involve transporting goods to the end customer in cities, are undergoing a green revolution. Traditionally plagued by high traffic congestion and significant carbon emissions from diesel lorries and vans, there is now a notable shift towards more sustainable and efficient delivery methods, such as e-cargo bikes.

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GREEN-LOG Mid-Term Review meeting held in Brussels





On 3 September 2024, GREEN-LOG held its first review meeting in Brussels hosted by the project coordinator Netcompany-Intrasoft.

The project partners presented the achievements of the significant work implemented in the first 18 months and discussed the challenges faced and the next steps that will be done. We thank all the GREEN-LOG partners for their dedication & great work and look forward in the next period with enthusiasm ready to keep working hard towards more sustainable last-mile logistics!

GREEN-LOG in the PRESS



GREEN-LOG has been prominently featured in *Logistics & Management*, a leading Greek magazine specializing in logistics and the related markets. The article, authored by our partners Ioannis Avgerinos and Dimitris Zissis from the Athens University of Economics and

Business, introduces the GREEN-LOG project and outlines the innovative work to be carried out at the Athens Living Lab.

Read the article (in Greek)

EVENTS

GREEN-LOG at Urbanism Next Europe 2024



Prof. Joris Beckers from the University of Antwerp presented GREEN-LOG at the inaugural European edition of the Urbanism Next Conference, held in Amsterdam from October 9-11, 2024. The panel discussion brought together representatives from several EU-funded projects—DISCO, GREEN-LOG, UNCHAIN, and URBANE—sharing their experiences and lessons learned in co-creating sustainable solutions with businesses and cities to achieve zero-emission freight transport.

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GREEN-LOG with two papers at the OLL2024



"Driving systemic change through Soci(et)al Engagement for real impact" was the focal topic of the Open Living Lab Days 2024 Conference, which is a flagship annual event organised by the European Network of Living Labs (ENoLL). The event took place on 25-27 September 2024 in Timisoara, Romania.

The GREEN-LOG project was represented at the conference by two research-in-progress papers presented by partners from Halmstad University, Melania Mihalcea and Gregor Cerinšek.

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GREEN-LOG at CIVITAS Forum 2024



GREEN-LOG proudly showcased its innovative urban logistics solutions at the CIVITAS Forum 2024, held from 1–3 October in Parma, Italy. The event marked a major milestone as preparations were underway for the launch of demonstrations in five Living Labs. Engaging discussions with city representatives emphasized the value of co-creative approaches to last-mile logistics, while sharing the exhibition space with peer projects fostered knowledge exchange and collaboration for greener urban logistics systems.

Read more

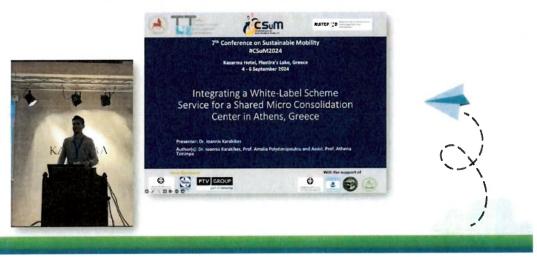
GREEN-LOG at Two Events at Halmstad University



- 10 September 2024 REBEL Living Lab Day
- 11 September 2024 Halmstad University Innovation Conference

GREEN-LOG at the 7th Conference on Sustainable Mobility 2024





Our partner Ioannis Karakikes from the University of the Aegean (UAEGEAN) presented GREEN-LOG Athens Living Lab use cases at the 7th Conference on Sustainable Mobility 2024. This international event took place on 4-6 September 2024 at Plastira's Lake, Karditsa, Greece.

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GREEN-LOG at the 3rd Summer School of Digital Supply Chain and Logistics Management



GREEN-LOG partner ASC SMSA represented by Mr. Panagiotis Kanellopoulos gave a lecture under the topic "ACS last mile: Innovation perspectives and challenges" at the 3rd Summer School of Digital Supply Chain and Logistics Management. As a part of the ASC SMSA presentation, the GREEN-LOG project and its Athens Living Lab were showcased and explained to students & professionals.

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GREEN-LOG at the University of Wolverhampton Festival of Research and Innovation



BEYOND FUTURES

Festival of Research & Innovation

The GREEN-LOG project was presented at the University of Wolverhampton Festival of Research and Innovation, which welcomed visitors from around the world over three days of events (16th – 18th July, 2024). Along with many other successful international projects at the University, GREEN-LOG was explained to staff, students, local businesses and the public with demonstrations and a keynote lecture by Prof Panagiotis Georgakis.

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GREEN-LOG at the IATBR International Conference on Travel Behavior





GREEN-LOG was excited to participate in the Workshop "EU Living Labs for Co-designing Innovative Transport and Logistics Solutions to Address Climate Change. Insights from 7 EU-Funded Projects" at IATBR International Conference on Travel Behavior in Vienna. **Read more**

Harmonising Innovation: Al and Green Energy Standardisation Workshop



Amalia Ntemou from the GREEN-LOG Coordination team (Netcompany-Intrasoft) presented the projects and its standardisation efforts and plans at the "Harmonising Innovation: AI and Green Energy Standardisation Workshop" organised online on 9 July 2024 by the **GREEN.DATA.AI** project.

Read more

GREEN-LOG at the 12th Symposium of the European Association for Research in Transportation (hEART 2024)



GREEN-LOG, repesented by its project partner Lampros Yfantis from Aimsun, proudly participated at the 12th Symposium of the European Association for Research in Transportation (hEART), which took place on 18-10 June in Finland. The aim of hEART is to provide a platform for scientific discussion and collaboration by bringing together leading experts and talented young scholars.

Read more

GREEN-LOG at the Urban Logistics Innovation Day 2024



GREEN-LOG was represented by our partners POLIS and University of Antwerp (UoA) at the Urban Logistics Innovation Days 2024 in Brussels. Dr Joris Beckers (UoA) presented on the topic of the Data for Urban Freight Policy highlighting the work implemented in GREEN-LOG.

Partners:





www.greenlog-project.eu info@greenlog-project.eu









GREEN-LOG is a project under the CIVITAS Initiative. Read more -civitas.eu

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