RURBANIVE

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RUral-u**RBAN** synergies emerged in an immers**IVE** innovation ecosystem

D5.12 Practice Abstracts – Batch A

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Document History

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Executive Summary

RURBANIVE is a Horizon Europe project that was launched in January 2024. The RURBANIVE project will develop innovations in six domains known to favour bi-directional rural-urban synergies and building up well-being economies:

1. shortening logistics value chains,
2. biodiversity restoration,
3. circular bioeconomy,
4. user engagement and territorial awareness,
5. landscape and heritage access and promotion, and
6. enhanced mobility.

This deliverable provides **10 Practice Abstracts** for the RURBANIVE project. The goal of these practice abstracts is to offer concise summaries of the Phase A of development of the **Rural-Urban Enablers (RUEs)** which are currently being developed in **7 Rural-Urban Co-creation Labs (RUCLs)**, of the **Innovation Framework,** which is also currently under development, and of the initial version of the **Community Store.**

The **ten (10) Practice Abstracts (PAs)** included in **this first batch** correspond to results that had reached a sufficient level of maturity by Month 18 (June 2025). They have been written in accordance with the **EIP-AGRI common format** to ensure accessibility and usability by practitioners, municipalities, and community organisations.

All ten PAs have been reviewed and successfully published on the official EIP-AGRI Project Results Platform[1]. Each abstract can be accessed as an individual entry under the RURBANIVE project profile, making the content immediately available and openly shareable across stakeholder networks. In addition, the abstracts will be disseminated through the RURBANIVE website and the project's social media channels to support wider uptake and impact.

[1] https://eu-cap-network.ec.europa.eu/projects/rural-urban-synergies-emerged-immersive-innovation-ecosystem_en#tab_id=practice_abstracts

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List of Terms and Abbreviations

Term/Abbreviation	Meaning
PA(s)	Practice Abstract(s)
RUE(s)	Rural-Urban Enabler(s)
RUCL(s)	Rural-Urban Co-creation Lab(s)
CS	Community Store
RUSIF or IF	Innovation Framework
CoPS	Community of Practice Suite

1 Introduction

Despite their immense diversity in culture, geography, and topography, rural areas depend heavily on urban centres for their well-being. RURBANIVE's mission is to spark new rural–urban synergies through integrated innovation. Work Package 5 *(Impact maximisation and scale-up)* focuses on transforming the project's technical and social outputs into knowledge assets that can be widely reused by practitioners, policymakers, and stakeholders across Europe.

A key component of this strategy is the production of Practice Abstracts (PAs) - concise, practitioner-friendly summaries that distil project results into actionable insights. Written in accordance with the EIP-AGRI common format, these abstracts are intended for dissemination through the EU's Agricultural & Rural Knowledge database, the RURBANIVE website, and additional project communication channels. This deliverable presents **the first batch of ten (10) PAs**, covering results achieved by **month 18** (M18, June 2025). It represents the first step in a broader effort to generate a total of 30 PAs over the course of the project. The remaining twenty (20) PAs will be delivered in deliverable D5.13 (Batch B) at the end of the project (December 2027).

This first batch of ten (10) PAs include the following:

- **1 PA: The Rural-Urban Sustainable Innovation Framework (RUSIF** or, more simply, **IF)**, a framework that supports rural communities and rural actors in adopting innovations by facilitating systemic transformation.
- **1 PA: The RUCL process,** an iterative methodology that involve continuous feedback employing the multi-actor approach and which forms the platform for the development of the six (6) RURBANIVE RUEs.
- **7 PAs: The six (6) RURBANIVE RUEs**, technological and social innovations which are being developed within the six RURBANIVE domains with two separate PAs dedicated to distinct implementations of the enhanced mobility RUE (in Germany and Greece).
- **1 PA: The Community Store (CS),** an innovative digital platform that connects rural and urban communities in order to combine their strengths and to foster economic growth and improve quality of life.

The scope of this deliverable is to make these early results visible, usable, and shareable. By targeting a non-specialist audience and adopting a structured, readable format, the abstracts are expected to support replication, policy uptake, peer learning, and rural innovation across different European contexts.

Some key benefits that practice abstracts can offer are:

1. Clarity and Conciseness: A practice abstract can distil the essential elements of a project into a concise format. This clarity is valuable for team members, stakeholders, or anyone interested in understanding the project quickly.

2. Efficient Communication: Abstracts help in communicating the project's purpose, goals, and key methods efficiently. This is particularly important in situations where time is limited, or when individuals need to quickly grasp the project's significance.

3. Decision Support: When stakeholders, funders, or team members need to make decisions about the project, an abstract provides a quick overview. This aids decision-makers in understanding the project's potential impact and aligning it with broader goals.

4. Enhanced Dissemination and Communication: Abstracts can be useful for promoting the project to a broader audience. They serve as effective tools for reporting project outcomes, achievements, and milestones, helping to showcase success and garner interest.

5. Time Savings: Busy professionals often appreciate the time-saving aspect of abstracts. They can quickly review the key elements of a project without delving into lengthy documents.

1.1 Context

Objectives

This deliverable supports one of RURBANIVE's core ambitions: to make the project's work truly usable beyond the consortium. Instead of keeping results locked inside reports or technical deliverables, the goal here is to translate them into practical, easy-to-understand formats that others—local governments, cooperatives, rural businesses, or citizen groups—can take and apply in their own settings.

Practice abstracts are central to that mission. Each one distils a specific output from the project into a short, clear summary, highlighting the problem it tackles, what solution was developed, and how it can be replicated or adapted elsewhere. These abstracts are designed to be shared widely and to help spread the project's impact across different regions, sectors, and communities.

Work plan

Deliverable D5.12 is part of Work Package 5: *Impact maximisation and scale-up* and is directly linked to **Task 5.1 Communication and Outreach**, which includes responsibility for structured knowledge transfer to external stakeholders. It also draws on outputs and progress from the following technical tasks:

- T2.1 which started the establishment of the rural-urban connections and initiated the Innovation Framework;

- T2.3 which supports and guides the experimentation and innovation in the RUCLs;
- T3.1–T3.6 which develop the six RUEs across the project domains;
- T4.1 which develops the Community Store digital platform;

The results captured in these abstracts feed back into the dissemination, capacity-building, and policy-support aspects of WP5.

Milestones

This deliverable supports the achievement of milestones related to project visibility, early-stage replication, and stakeholder engagement, particularly:

- MS2 – RUCLs up and running (due M6);
- MS3 – Project's visual identity and Communication Strategy (due M6)
- MS7 – First version of applied innovation framework (due M18)

D5.12 serves as a concrete demonstration that the project has reached the dissemination readiness level expected by M18.

Deliverables

D5.12 is the first in a series of three deliverables dedicated to the production of practice abstracts in the EIP-AGRI format:

i. D5.12 – Batch A (10 practice abstracts, M18)
ii. D5.13 – Batch B (20 practice abstracts, M48)

These outputs are planned collectively to deliver a total of 30 abstracts, aligned with the impact and scale-up ambitions defined in WP5.

1.2 Intended Readership and Document Structure

This deliverable is intended for a wide range of stakeholders involved in rural–urban development, particularly those who can benefit from practical knowledge derived from the RURBANIVE project. These may include local and regional authorities, civil society organisations, rural and urban citizens, innovation intermediaries (e.g. Digital Innovation Hubs, Clusters, Technology transfer offices etc.), and policy actors at both regional, national and European level. The content is also relevant to research teams, technology and service providers, and enterprises working in areas aligned with the project's six thematic domains.

The document is structured to support easy access to results that are ready for practical use. Following an introduction to the context and objectives, the next section outlines the format requirements that shaped the development of the practice abstracts, i.e. the EIP-AGRI guidelines, and the editorial process employed. The core of the deliverable consists of the ten (10) PAs, each presented in a standalone format

suitable for external publication and reuse. The overall intent of this first batch of Pas is to identify early-stage project outputs and highlight how they can be applied or replicated in other contexts, even though the implementation effort is ongoing.

A brief section on dissemination provides information on where and how the abstracts are being shared. Finally, the document concludes with a short outlook on upcoming activities related to subsequent batches of practice abstracts. Supporting annexes contain the final submitted versions of the abstracts and a log of dissemination actions completed up to Month 18.

2 Practice Abstract Format and Editorial Guidelines

The practice abstracts included in this deliverable have been prepared in line with the European Commission's EIP-AGRI common format, originally outlined in the January 2019 submission template. Although the process is now fully digital through the EIP-AGRI project database, the underlying format requirements remain the same and were carefully followed during preparation.

Each abstract includes the standard elements: a short title (up to 150 characters), a brief explanation of the challenge addressed, the main results or proposed solution, practical recommendations for reuse, a set of keywords, and contact details. The total character limit for the core text is 1,000, which encourages clarity and keeps the focus on practical value.

The process was coordinated by WP5 Leader – reframe.food in collaboration with contributing partners concerning each project result. The PAs were reviewed in order to ascertain that they conformed with the standards set by EIP-AGRI Platform, that they followed the required structure, that they used accessible language and that the reflected the core idea of the intended project work. The aim throughout was to make sure that the abstracts were easy to read, useful in practice and ready for public sharing through the EIP-AGRI platform and other RURBANIVE communication channels.

2.1 Identification of RURBANIVE's PAs

The selection of the ten (10) PAs was based on a combination of technical maturity, relevance to RURBANIVE's six domains and the feasibility of early dissemination. Partners were invited to come forth with a description of their work that would i) ensured a satisfactory level of definition and ii) would emphasise the possibility of real-life applicability of the result projected through the PA by M18 of the implementation effort. The process ensure a balanced representation across the project's core innovations, including RUSIF, the RUCL methodology and the phase A of the implementation of the RUEs.

The identification of the PAs was made by the partners in alignment with the project progress until **M18** and development of the project deliverables that can provide the necessary information. The project results that were identified are summarized below along with the respective Tasks that informed and educated the process.

Table 2.1 PA vs Task correlations

PA Nr.	Practice Abstract Title	Relevant Task	Leading Partner (Acronym)
1	Rural-Urban Sustainable Innovation Framework	T2.1: Building RURBANIVE results on previous knowledge and understanding the present context from a broad systems perspective /T2.1.1 Establishment of the rural/urban connections	RISE
2	Community Store	T4.1 Digital platform for urban-rural synergies - community store	ICCS
3	RUCL Process	T2.3: Experimentation and innovation in the RUCLs	AUA
4	RUE on Improving Logistics and Shortening Value Chains	T3.1 Improving logistics, and shortening value chains	CZU
5	RUE on Ecosystem and Biodiversity Restoration	T3.2 Ecosystem and biodiversity restoration	IMERYS
6	RUE on Circular Bioeconomy / Waste Valorisation	T3.3 Regional circular bioeconomy development	Alchemia
7	RUE on User Engagement, Empowerment, Society and Territorial Awareness	T3.4 User engagement, empowerment, society and territorial awareness	AFL
8	RUE on Culture, Landscape and Heritage Access and Promotion	T3.5 Culture, landscape and heritage access and promotion	CARTIF
9	RUE on Enhanced Mobility (RUCL DE)	T3.6 Enhanced mobility	ICCS RUCL: LEMGO
10	RUE on Enhanced Mobility (RUCL GR)	T3.6 Enhanced mobility	ICCS RUCL: e-Trikala

This set of ten (10) PAs provides a representative overview of RURBANIVE's early-stage results. It reflects both the diverse spectrum of RURBANIVE's innovations across the six RURBANVE domains and the collaboration that took place in the RUCLs during this first period of the project's lifetime. The following section will elaborate on the format and editorial process used to prepare the PAs for public dissemination.

2.2 Structure and Content of the Practice Abstracts

The PAs included in this deliverable follow the **EIP-AGRI common format,** which offers a simple and consistent way to present project results to a wide audience. Each abstract contains a short title (up to 150 characters), a brief explanation of the challenge addressed, the proposed solution, practical recommendations (when and if applicable) and contact details. The main body is a 1000-character long text, written in clear language that steers away from technical jargon as much as possible.

This structure was used across all 10 PAs to ensure homogenous aesthetics and consistency across all of them. Each entry highlights a specific outcome from the first

18 months of RURBANIVE and is designed to be practical and relevant to as broad a target audience as possible and to as many RURBANIVE stakeholders as well.

All 10 PAs have been published on the EIP-AGRI Platform, where they are now under review in order to be made publicly accessible. Each PA can be expanded on the platform to reveal the full description, allowing interested users to explore project results and share them through their own channels.

3 Deliverable-Specific Section

The following section presents the ten practice abstracts prepared and submitted as part of Batch A. Each abstract follows the EIP-AGRI common format and is structured to support ease of reading, clarity of application, and relevance to practitioners across Europe. The abstracts are presented as standalone entries; each linked to a specific RURBANIVE output that had reached dissemination maturity by Month 18 (June 2025).

3.1 PA1: The Innovation Framework

Description: Rural-urban communities are complex systems containing a multitude of processes and relationships. As such, they can react in unexpected ways to the introduction of innovative solutions, potentially leading to negating or even reversing the intended impact. The successful development of innovations in such systems requires the ability to continuously move between perspectives, build collective learning, and connect specific actions to the systemic transformation.

The IF is a framework that aims at supporting actors to do exactly this. In the RURBANIVE project the overarching vision is to build sustainable well-being economies in connected rural-urban communities, and the RUSIF aims at connecting innovations towards this systemic vision.

More specifically, the framework is aimed at supporting actors to:

Map, explore and reflect on their current system/community, the relations, stakeholders, structures and processes that it contains, and what a future vision of their system as a well-being economy would contain.

Identify and prototype different opportunities for implementing innovations, focusing on pathways from the current system to the future vision.

Observe and evaluate how the system responded to the interventions from (2) and how the lessons learned require an update of the initial map and understanding (1) for the next iteration of prototyping and refinement of the pathways.

The RUSIF will be developed together with the users/actors in the communities and will focus on combining theoretical knowledge with contextual knowledge and experience. All the RUSIF will be available on the RURBANIVE Practice Suite at the end of the project.

Rise, the Leading RURBANIVE Partner, has further explored the conceptual foundation of the RUSIF in detail through a peer-reviewed study by RISE researchers. The IF approach adopted in RURBANIVE aligns with a broader shift in rural–urban research toward action-oriented and participatory methodologies. This is reflected in this recent academic work, including a systematic review conducted by RISE researchers, which highlights how rural agency, learning processes, and co-created innovation are emerging as key drivers of territorial transition (Carnohan, et al. 2025).

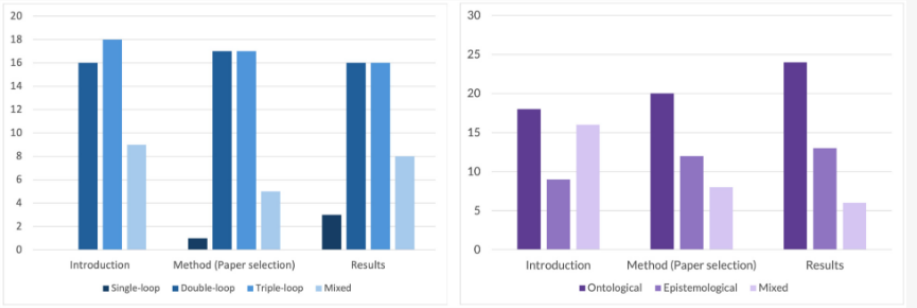

Figure 3.1Methodological approaches and learning perspectives informing the RUSIF – adopted from Carnohan et alles.

Figure 3.1Methodological approaches and learning perspectives informing the RUSIF – adopted from Carnohan et alles., adapted from that study, illustrates the conceptual orientations underpinning this evolving paradigm.

3.2 PA2: Community Store

Description: The RURBANIVE Community Store is a digital platform that aims to connect rural and urban communities across Europe, helping them to share ideas, resources, and innovations. The primary objective of the Community Store is to bridge existing gaps between rural and urban communities, enabling them to leverage mutual strengths, share valuable resources, and establish lasting, beneficial partnerships. Through the project outcomes that will be integrated to this platform, users can access recommendations, engage in discussions, and participate in joint activities aimed at enhancing social connectivity and mutual understanding. The platform makes it easy for rural and urban communities to combine their strengths, fostering economic growth and improving quality of life by supporting cooperation and collective problem-solving.

The Community Store serves as a central online environment where stakeholders from diverse geographical and cultural backgrounds can come together. This digital interface promotes active participation, continuous dialogue, and the sharing of best practices and innovative ideas. Members can collaborate effectively on joint initiatives, addressing common challenges.

A user-friendly interface will enable easy access to the tools and services that will be developed during the project (PA4-10). It will also integrate the Community of Practice Suite which will support discussion forums and collaborative workspaces, and comprehensive resource libraries. Additionally, the Community Store the will provide access to immersive extended reality content to allow users to virtually experience and explore community-led initiatives, significantly enhancing understanding and connectivity between geographically distant participants. Immersive campaigns enable stakeholders to gain valuable insights into the daily lives, environments, and challenges faced by their rural or urban counterparts.

To maximise practical impact, the digital functionalities of the Community Store are strategically linked with physical Rural-Urban Co-Creation Labs (RUCLs). These labs operate as experimental grounds where digital concepts and collaborations can be prototyped, tested, piloted, and subsequently implemented. Representing various European socio-cultural and geographical contexts, RUCLs ensure the solutions and innovations developed are relevant, adaptable, and effective within diverse local scenarios based on bidirectional feedback by utilising the Community Store. This combined approach of digital and physical spaces significantly increases the overall effectiveness and sustainability of community projects.

3.3 PA3: Co-creation Planning and Capacity Building Across RUCLs

Description: Significant progress has been made to support rural-urban collaboration through the design and coordination of co-creation workshops across all RUCLs. AUA played a central role in engaging RUCL leaders, holding one-on-one meetings, and providing tools and guidance to ensure that the workshops are relevant and effective. Each RUCL developed a tailored co-creation plan, supported by a comprehensive toolkit including a co-creation guide, simplified preparation instructions, workshop reporting, consent templates and participant satisfaction surveys. These resources enable leaders to organise focused, productive workshops that respond to real-world needs. The process has been significantly complemented by the systematic mapping, recruitment and engagement of relevant stakeholders in the RUCLs.

To support effective monitoring, a shared calendar of workshop dates, a KPI tracking tool, and a task deadline file were also developed. Additionally, based on the literature review, a capacity-building guide was provided with topic ideas tailored to each RUCL to inspire local training initiatives. RUCL leaders can propose and plan their sessions using the provided input template.

This approach fosters the development of practical solutions tailored to local needs, while promoting collaboration and knowledge sharing for lasting impact and continued growth.

As stated in D2.2 RUCL Stakeholder Identification and Engagement Plan the engagement strategy relies on the quadruple helix model, incorporating perspectives from academia, industry, government, and civil society. Stakeholder participation is facilitated through workshops, policy dialogues, co-design sessions, and digital tools such as XR applications and the Community of Practice Suite. Through a combination of stakeholder mapping, tailored engagement pathways, and iterative feedback mechanisms the RUCL methodology ensures continues collaboration and alignment with regional and thematic priorities and generates pilot-specific strategies for exploitation for innovation adoption and development.

3.4 PA4: Rural-Urban Enabler (RUE) on Improving Logistics and Shortening Value Chains

Description: A part of an effort to achieve the objective of enhancing logistics and shorten the value chain is a series of workshops and online courses organised by Czech University of Life Sciences in Prague, Czech Republic (CZU) for a variety of stakeholders and held in Food Processing Training Centre at its premisses. The aim of the workshops is to actively engage participants in both physical and virtual activities so that they can benefit from a practical understanding of issues related to the benefits of short value products, food traceability and transparent prices. The activities focus on modern food processing technologies that can help farmers and local producers shorten the journey of food products from production to direct sale on the farm or at local markets.

The workshops cover the processing of various products – bakery, milk processing, ageing of beef, and beer brewing. Workshops bring together representatives from public authorities, academia, research institutions with agri-food producers. A set of on-line courses is being developed based on the workshops that is provided to the stakeholders via digital platform.

CZU develops and implements a digital learning platform that aims to function and serve as a socially driven digital hub that connects a wide range of stakeholders across the agri-food value chain to support the shortening of value chains. The intention is to move from a digital marketplace, which currently dominates the state-of-the-art digital platform related to the short value chain, to a hub enabling broad social engagement, where stakeholders can obtain better information and education/training on the shortening of value chains and logistics, as well as on the certification processes of agri-food products.

These activities aim to foster co-creation among stakeholders, strengthen communication between rural-urban domains which should enhance the value chain shortening.

The development of this RUE is actively supported through a series of co-creation workshops and hands-on training sessions led by CZU in the RUCL context. These activities include practical demonstrations on food traceability, product certification, and supply chain transparency across key product categories such as bakery, dairy, beef and brewing. Participants include producers, consumers, students, and policy stakeholders. The RUE's digital learning environment—delivered via a dedicated Moodle platform—is being co-designed with local actors to ensure usability and relevance, further supporting the transition toward more resilient and climate-neutral food systems.

3.5 PA5: Rural-Urban Enabler (RUE) on Ecosystem and Biodiversity Restoration

Description: In the framework of the RURBANIVE project, in Milos island (Greece), we explore solutions and develop tool for preserving ecosystems through ecosystem and biodiversity restoration. Leading by IMERYS we explore sustainable development by combining nature-based solutions, innovative technologies, and community engagement. Based on a series of co-creation workshops, through hands-on sessions and digital tools, participants will discover the practical methods for restoring Mediterranean garrigue ecosystems affected by quarrying activities.

Key expected results

1. reintroduction of native plant communities,

2. improved biodiversity,
3. creation of multifunctional landscapes that combine ecological restoration with productive agriculture and tourism

For farmers and local practitioners, this approach offers direct benefits: restored land can support drought-resilient plants, promote eco-tourism, and enhance the value of local products. Integrating restoration with agriculture reduces costs, improves soil health, and opens new revenue streams. Immersive tools like the AR app also help raise awareness and support better land-use decisions. Practitioners can apply these insights to make their land more resilient, attractive, and economically viable, contributing to a thriving rural-urban connection.

Part of the RUCL process for the development of the RUE involves the gathering of information for the selected plant species in Milos Island. These datasets include, inter alia, information on the common name of the plant, the scientific name of the plant, the family, known pollinators, traditional uses etc. Photographic material across the island has been gathered in order to populate the RUCL process with additional, visual data and to inform the development of the RUE.

3.6 PA6: Rural-Urban Enabler (RUE) on Circular Bioeconomy/ Waste Valorisation

Description: Everyday thousands of kilos of stale bread used cooking oil and bruised fruit leave Vienna as “waste”. The Circular Economy says that there is no such thing as waste!

RUE-3 flips that loss into valuable resources for multiple local and/or regional stakeholders.

What’s in it for you?

Flow map – a Sankey diagram shows resource flows in and out of the focus region for three locally relevant resources, so you can spot potential gaps and plan pick-ups.

Potential innovation pathways – based on the material flow analysis of localy relevant resources, circular innovation pathways are identified.

Pathway analysis -- Holistic multi-criteria assessment of the innovative pathways to compare and assess options considering environmental, economic and social contexts, ensuring long term sustainability.

Match-making tool to find residual waste streams and potential conversion / re-valorisation pathways – type your resource into the free BioBASE Compass, gain insight into the cascading of raw resources.

Main added value

Information on the material flows of residual biomass steams or regional relevant materials and the potential re-valorisation of these otherwise waste-streams = potential income streams instead of disposal fees.

Enable the re-valorisation of residual biomass-streams by connecting waste producers and innovators = win-win for multiple stakeholders.

The RUE is being piloted through collaborative activities in Vienna and Lower Austria, where more than 16 key stakeholders have already contributed to resource mapping, data collection, and co-creation workshops. Using real regional biomass flows - such as stale bread, used cooking oil, and fruit/vegetable residues - the RUE supports the development of circular conversion pathways and multi-criteria resource assessments. Outputs will feed into the BioBASE Compass, an enabling tool currently under development, and will be accessible through the Community Store in 2026. The process has highlighted the value of stakeholder-driven innovation and the potential to reshape how rural and urban systems manage and valorise secondary resources.

3.7 PA7: Rural-Urban Enabler (RUE) on User Engagement, Empowerment, Society and Territorial Awareness

Description: Under the RURBANIVE project, AgriFood Lithuania (AFL) addresses the disparities between urban and rural areas emerging from insufficient local engagement and empowerment. AFL initiative targets Kėdainiai town and district – an area currently hindered by traditional, low-innovation business models and town-focused development policies, limiting rural economic growth and social wellbeing. To tackle this issue, a Startup Village framework will be elaborated and appraised in Kėdainiai by applying the principles of co-creation among local rural-urban stakeholders.

This innovative rural ecosystem model (Startup Village) will facilitate the development of stronger entrepreneurial relations with urban areas and contribute to the local wellbeing. Most importantly, the co-creation workshops will bring together a broad range of stakeholders who will be given the opportunity to contribute to the local development model. The co-design of a novel model will establish shared authorship and responsibility, resulting in strengthened local engagement, empowerment, and territorial awareness.

The documented development and the implementation of the Startup Village model and co-creation workshops will offer the flexibility to replicate it in other regions. Expected entrepreneurial benefits for local actors include:

- → increased knowledge of new business models, markets, and product development;
- → strengthened strategic partnerships among businesses, the public sector, science institutions, and local communities;
- → access to local resource mapping data;
- → widened networking opportunities.

An interactive virtual model of the Kėdainiai Startup Village featuring points of interest such as labs, collaboration areas, and field trial zones can be seen in **Σφάλμα! Το αρχείο προέλευσης της αναφοράς δεν βρέθηκε.**. Each point can provide detailed information and simulations about activities, goals, and outcomes.

3.8 PA8: Rural-Urban Enabler (RUE) on Culture, Landscape and Heritage Access and Promotion

Description: The first tangible outcome is the launch of COC-Tool #1, a stand-alone desktop application designed to assess emotional engagement with landscapes (specifically, the Pasiegos Valleys in Burgos, Spain).

Using a standard laptop webcam, the tool monitors the facial gestures of potential visitors as they view landscape photographs, while also capturing their spoken reactions. A neural network module evaluates facial expressions in real time, and a lightweight NLP engine analyses the emotional content of spoken keywords.

A final one-to-five-star Likert rating is explicitly given by the participant at the end of each session, reflecting their personal emotional response to each image or clip.

The collected ratings will later serve as key inputs to calculate the affective value of each landscape, once the full suite of cognitive computing tools developed by CARTIF under the RURBANIVE project is completed.

Added value for end-users

- Tourism operators can rank imagery, refine brochures and design itineraries around the highest-scoring scenes, lifting click-through and booking rates.
- Destination managers can overlay star ratings on a map to target signage, viewpoint upgrades and maintenance where visitor impact is clearly greatest, maximising tight budgets.
- Regional policy makers and heritage bodies can attach these data-driven scores to grant files and investment proposals, justifying projects with measured public interest rather than subjective opinion.

The RUE is supported by a set of interconnected tools that work together to document, interpret and share cultural and natural heritage in engaging and immersive ways. The system includes high-quality visual capture and modelling, virtual and extended reality applications for exploration, and feedback tools that allow users to interact with and respond to what they experience. At the centre is a shared repository that links all components. This integrated setup supports not only the preservation of heritage, but also its activation through co-creation, learning and connection across rural and urban communities.

3.9 PA9: Rural-Urban Enabler (RUE) on Enhanced Mobility (RUCL GR)

Description: In terms of RURBANIVE, ICCS-SMAS team deploys some mobility-related scenarios tailored for the needs of the city of Trikala (Greece) and its surrounding rural areas. The real-world impact of alternative mobility strategies is modelled, via a comparison of a baseline scenario—where most residents and visitors rely on private cars—with several enhanced mobility scenarios. These include improved public transport frequency, redesigned bus routes, and integrated multi-modal options where users park on the city outskirts and walk or

cycle into the centre. Each scenario is enriched with demographic overlays and behavioural assumptions, allowing local planners to visualise and understand traffic patterns, accessibility levels, and environmental metrics. The tool integrates feedback loops through online surveys and on-site trials, capturing user satisfaction and readiness to switch transport modes.

→ Once validated, the model provides municipalities and mobility operators with a dynamic dashboard to assess the real-world feasibility and sustainability gains of future investments.

→ People with limited mobility within the city can access the public transport stops more easily and reach their destination more directly.

→ Tourists benefit from smoother, more intuitive access to central attractions without needing to navigate local parking constraints, improving their overall experience and likelihood of return.

→ Older residents in nearby villages gain visibility in the planning process through data-driven assessments of rural transport coverage, helping to justify route expansions or on-demand shuttle services that keep them connected to healthcare, markets, and community hubs.

The RUE 'Enhanced Mobility' focuses on the simulation and analysis of mobility patterns in semi-rural and peri-urban environments, with the aim of improving public transport accessibility and reachability for residents without access to private vehicles, and help to change the perspective of residents from absolutely relying on private vehicles to also utilising more sustainable means of transport, by simulating simple scenarios where the latter are more reachable for them.

3.10 PA10: Rural-Urban Enabler (RUE) on Enhanced Mobility (RUCL DE)

Description: In terms of RURBANIVE, the ICCS-SMAS team deploys a set of mobility-related scenarios tailored for the town of Lemgo (Germany), with a particular focus on the Innovation Campus Lemgo (ICL), the city of Lemgo in general and how it is connected with its surrounding cities such as Lage, Detmold etc.

The real-world impact of alternative mobility strategies is modelled through a comparison of a baseline scenario—where most people rely heavily on private

cars—with several enhanced mobility scenarios. These include increased public transport frequency (especially during evening hours), redesigned bus routes to better serve the campus and residential areas, especially during critical hours, and enhancing transport solutions such as park-and-ride schemes with last-mile options via walking or cycling, to constrain even more the already limited usage of private cars inside the Old City centre.

Each scenario integrates demographic overlays and behavioural models, enabling planners to better understand current commuting patterns, accessibility gaps, and environmental effects. The tool also incorporates feedback loops via digital surveys and pilot interventions, capturing people's willingness to adopt new modes of transport and highlighting key drivers of behavioural change.

→ Once validated, the model provides local authorities, campus administrators, and transport operators with an evidence-based dashboard to support sustainable, cost-effective mobility planning.

→ Students, pupils, and academic staff of ICL benefit from a more reliable and flexible transport system that matches their study and work schedules, particularly during evening hours when current services are limited.

→ Residents may also be encouraged to shift away from car-only habits through improved alternatives.

→ Local authorities and mobility stakeholders can use the results to co-design a more inclusive, efficient transport network that reduces congestion while reinforcing Lemgo's identity as a smart and sustainable innovation hub.

Two focus areas, representing cities with a population of around 40,000 to 50,000 people, and their surrounding regions, have been selected for this RUE: Lemgo (Germany) and Trikala (Greece). Both present unique challenges related to mobility and public transport adequacy. In Lemgo, the Innovation Campus (ICL) seems to not be adequately connected with surrounding areas, forcing people utilising private means of transport to reach it, or wait for long hours if they do not possess a private transport means. Simultaneously, Trikala faces public transport limitations particularly outside its city centre; buses connecting the villages nearby with the city proper are not frequent enough and have extremely prolonged routes making them inefficient for the locals. The enabler uses simulation scenarios to assess the effectiveness of enhanced mobility options.

4 Dissemination and Stakeholder action

4.1 Publication on the EIP-AGRI Platform

All ten PAs prepared under BATCH A have been published on the **EIP-AGRI Project Results Platform**. Each Practice Abstract is available under the dedicated RURBANIVE Project Page:

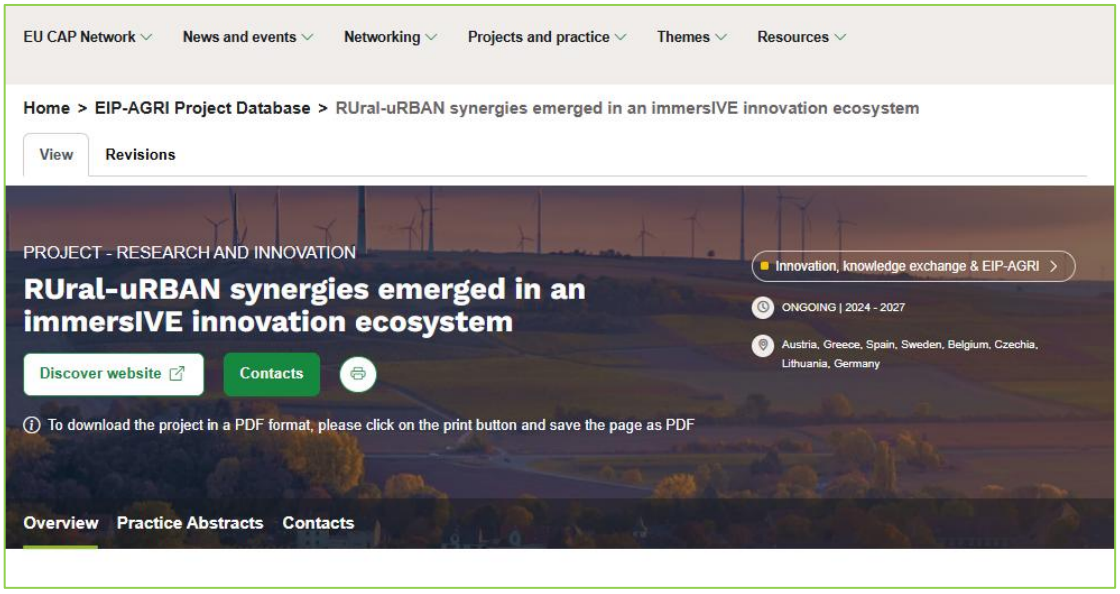

Figure 4.1RURBANIVE's Project Page on the EIP-AGRI Platform

Each PA is then available as collapsable entry. By clicking on the corresponding PA of choice the Abstract is expanded and the 1000-character summary is displayed, along with the title and other relevant information:

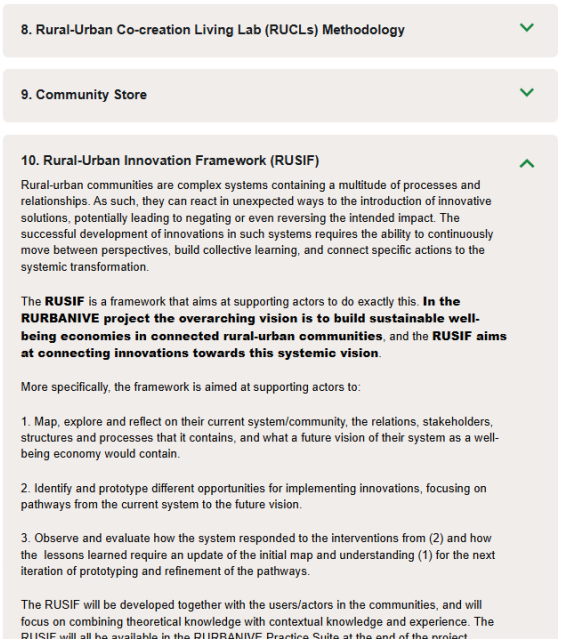

Figure 4.2 Collapsed & Expanded PAs on EIP-AGRI

The platform is designed to promote and ensure the wide dissemination of the Practice Abstracts published, offering a dedicated, shareable link at the bottom of each of the PAs.

However, RURBANIVE intends on using other means to maximise the dissemination of its PAs by employing other means as well, e.g. as stated in 16, all Practice Abstracts, both BATCH A and BATCH B will be made available through the CS' Inventory.

4.2 Additional Dissemination Channels

Beyond EIP-AGRI and the Community Store, the practice abstracts will be disseminated through:

- The RURBANIVE website, under its open-access Resources section;
- Social media outreach (including LinkedIn and X/Twitter), coordinated through WP5;
- Inclusion in project newsletters shared with stakeholders and mailing list subscribers;
- Selected republishing via regional and domain-specific networks (e.g. Living Labs, innovation clusters, municipal associations).

This multichannel dissemination approach helps ensure that the abstracts reach both professional and grassroots stakeholders and encourages uptake across diverse European contexts.

5 Conclusion and Future Work

This deliverable presented the first set of ten PAs developed under the RURBANIVE Project, representing a key step forward in the project's efforts to share knowledge and promote wider exploitation, a two-pronged intent which aligns with RURBANIVE's overall Communication, Dissemination and Exploitation Strategy. The effort was made for each PA to capture a result that had reach a sufficient level of maturity by Month 18. As stated above, the PAs have been made available via the EIP-AGRI Platform but they will also be promoted through additional RURBANIVE dissemination channels.

A **second and final batch** of **twenty (20) Practice Abstracts** will be delivered in **D5.13**, scheduled for Month 48, at the end of the implementation effort. The upcoming set will revisit the RUEs in their final and complete form but will also broaden the scope and range of the documented results by expanding on the fruition of the RUCL process and by promoting the tools that will be developed during the latter half of the project.

6 References

Carnohan, Shane Alan, Tatjana Apanasevic, Pontus Svenson, and Rickard Fornell . 2025. "Systems Thinking and Learning Outcomes Fostering Rural–Urban Synergies: A Systematic Review." *Land*, April 23. doi:https://doi.org/10.3390/land14050919.