International Scientific Conference

„Living Labs: Opening Innovation Ecosystems for Co-creation and Impact “

Conference Book

&

Collection “Living Labs of Lithuania 2025”

Kaunas – Lithuania – May 27, 2025

LLLNet - National Network of Living Labs, Research Council of Lithuania, Lithuanian University of Health Sciences, Lithuanian Centre for Social Sciences

Conference Book & Collection "Living Labs of Lithuania 2025"

ISBN 978-609-8324-16-7 (PDF)

Editors:
National Network of Living Labs
Research Council of Lithuania
Lithuanian University of Health Sciences, Faculty of Public Health
Lithuanian Centre for Social Sciences, Institute of Economics and Rural Development

Edited by:
Rita Lankauskienė

How to cite:
International scientific conference "Living labs: opening innovation ecosystems for co-creation and impact". Conference Book & Collection "Living Labs of Lithuania 2025". Vilnius: Lithuanian Centre for Social Sciences, 2025. - 46 p. ISBN 978-609-8324-16-7.

Lithuanian Centre for Social Sciences, Institute of Economics and Rural Development
https://www.ekvi.lt/en
A. Vivulskio str. 4A-13, LT-03220, Vilnius, Lithuania
E-mail: ekvi@ekvi.lt

LLLNet - National Network of Living Labs
https://www.linkedin.com/company/lllnet
Address: Paribio str. 45-30, LT-08102, Vilnius, Lithuania
E-mail: asociacija@lllnet.lt

Research Council of Lithuania
https://lmt.lrv.lt/en/
Address: Gedimino ave. 3, LT-01103, Vilnius, Lithuania
E-mail: info@lmt.lt

Lithuanian University of Health Sciences, Faculty of Public Health
https://lsmu.lt/en/about-lsmu/structure/medical-academy/faculty-of-public-health/faculty-of-public-health/
Address: Tilžės str. 18, LT-47181, Kaunas, Lithuania
E-mail: dekanvsf@lsmu.lt

Table of Contents

About the Conference

About the Conference

LLLNet - National Network of Living Labs,

in collaboration with the

Research Council of Lithuania,

Lithuanian University of Health Sciences and

Lithuanian Centre for Social Sciences,

invites to the International scientific conference

„Living Labs: Opening Innovation Ecosystems for Co-creation and Impact“.

This is the first unique event in the region, accelerated by the newly launched LLLNet - National Network of Living Labs. Living Labs are open innovation ecosystems in real environments, based on a systematic user co-creation approach that integrates research and innovation activities into community/multilateral settings, with citizens and/or end-users at the centre of the innovation process.

The conference is devoted to bringing together various experiences from Living Labs, already operating and to be launched soon in Lithuania, and putting all these practices into a broader context of scientific and practical discussions, reflecting the latest changes in innovation ecosystems and co-creation for greater impact.

The event offers a unique platform for networking, exchanging best practices, collaborating on running and new projects, and reflecting on the latest trends in shaping the future for greater impact with empowered Living Labs methodologies.

The conference is held on the Lithuanian University of Health Sciences premises, which hosts several newly established Living Labs focused on health and public health care in Lithuania.

Scientific Committee

Chairs:

Dr. Rita Lankauskienė, Lithuanian Centre for Social Sciences (Vilnius, Lithuania)

Dr. Renata Kudukytė-Gasperė, Lithuanian University of Health Sciences (Kaunas, Lithuania)

Members:

Dr. Tomas Baležentis, Lithuanian Centre for Social Sciences (Vilnius, Lithuania)

Dr. Jovita Balandaitė, Vytautas Magnus University, Academy of Agriculture (Kaunas, Lithuania)

Dr. Daiva Burokiene, Nature Research Centre (Vilnius, Lithuania)

Dr. Milda Damkuvienė, Vilnius University, Šiauliai Academy (Šiauliai, Lithuania)

Dr. Evelina Grinienė, Klaipėda University, Marine Research Institute (Klaipėda, Lithuania)

Dr. Gintarė Kalinienė, Lithuanian University of Health Sciences (Kaunas, Lithuania)

Dr. Kristina Kovaitė, VILNIUS TECH - Vilnius Gediminas Technical University (Vilnius, Lithuania)

Dr. Ida Liseckienė, Lithuanian University of Health Sciences (Kaunas, Lithuania)

Dr. Rasa Melnikienė, Lithuanian Centre for Social Sciences (Vilnius, Lithuania)

Dr. Vitalija Simonaitytė, Lithuanian Centre for Social Sciences (Vilnius, Lithuania)

Dr. Alvija Šalaševičienė, Kaunas University of Technology, Food Institute (Kaunas, Lithuania)

Organizing Committee

Chairs:

Dr. Rita Lankauskienė, National Network of Living Labs, Lithuanian Centre for Social Sciences (Vilnius, Lithuania).

Dr. Renata Kudukytė-Gasperė, National Network of Living Labs, Lithuanian University of Health Sciences (Kaunas, Lithuania)

Members:

Dr. Gintarė Kalinienė, National Network of Living Labs, Lithuanian University of Health Sciences (Kaunas, Lithuania)

Dr. Ida Liseckienė, Lithuanian University of Health Sciences (Kaunas, Lithuania)

Almanė Pakrijauskaitė, National Network of Living Labs, Lithuanian University of Health Sciences (Kaunas, Lithuania)

Lina Liepytė, Lithuanian Research Council, National Contact Point (Vilnius, Lithuania)

Jolanta Revaitienė, Lithuanian Research Council, National Contact Point (Vilnius, Lithuania)

Conference Programme

Conference Programme

Date: 27 May 2025; **Venue:** LSMU Faculty of Public Health, Tilžės st. 18, 101 a., Kaunas, Lithuania

*Sessions will be streamed **online***

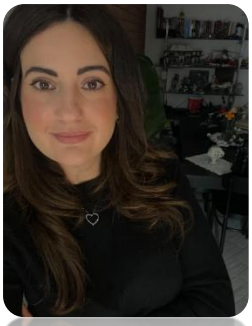
Eastern European Time

8:30-9:00	*Registration, welcome coffee/tea*
9:00	**Opening of the conference** Moderated by Prof. Dr. Gintarė Kalinienė Prof. Dr. Ida Liseckienė, *Dean of the Faculty of Public Health, Lithuanian University of Health Sciences* Dr. Zita Duchovskienė, *Head of the Technology and Innovation Department*, *Ministry of Education, Science and Sports of the Republic of Lithuania* Dr. Boguslavas Gruževskis, *Director of the Lithuanian Centre for Social Sciences* Dr. Rita Lankauskienė, *President of the Lithuanian National Network of Living Labs*
9:30-10:45	**Plenary session I - Panel discussion** **„Living Labs in Focus: How Science Happens in Real-Life Contexts“** Moderated by Aurelija Povilaikė „ENoLL - The Concept and Horizons of Living Labs Around the Globe“ *Gabriella Quaranta, ENoLL Head of Network & Senior Project Manager, Belgium.* "From Ideas to Impact: Co-Creation in Horizon Europe" *Lina Liepytė, Research Council of Lithuania, National Contact Point for Horizon Europe, Lithuania.* Panel discussion guiding questions: 1. How do Living Labs reconfigure the traditional boundaries between science, society, and policy — and what are the implications for scientific rigor and democratic legitimacy? 2. What methodological innovations and challenges arise in integrating research within Living Lab environments, particularly in capturing complex socio-technical dynamics and localized knowledge? 3. In what ways can Living Labs contribute to systemic transformations, such as the green and digital transitions, and what governance models best support their scaling and institutionalization? *Moderator: Aurelija Povilaikė, Research Council of Lithuania, NCP Head and NCP Coordinator, Lithuania* *Participants:* • *Gabriella Quaranta, ENoLL Head of Network & Senior Project Manager, Belgium* • *Dr. Mona Enell-Nilsson, Research Director, University of Vaasa, Finland* • *Dr. Zita Duchovskienė, Head of the Technology and Innovation Department, Ministry of Education, Science and Sports of the Republic of Lithuania* • *Katarzyna Gizińska, Coordinator of ESIRA Living Labs across Europe, European Rural Development Network, Poland* • *Dr. Rita Lankauskienė, President of the Lithuanian National Network of Living Labs, Lithuania*
10:45-11:00	*Coffee/tea break*

11:00 -12:30	**Plenary session II**
	Moderated by Dr. Rita Lankauskienė
	„Mission Soil: 100 Living Labs Across Europe“ *Gabriele Quattrocchi, SOILL-Startup Project & Trust-IT Services, Italy.*
	"Opening Innovation Ecosystems for Co-creation and Impact - Experiences from Finnish Ostrobotnia". *Dr. Antti Mäenpää and Dr. Mona Enell-Nilsson, University of Vaasa, Finland.*
	"Living Labs - an Innovative Approach to Creating Small Homelands". *Katarzyna Gizińska, European Rural Development Network, Poland.*
	Questions & Answers
12:30 - 13:15	*Lunch*
13:15-15:00	**Living Lab Session I**
	Moderated by Prof. Dr. Gintarė Kalinienė
	„Living Labs for Aging: Engineering Innovation through Interdisciplinary Collaboration“ *Dr. Peter Abadir, Assoc. Prof. of Medicine at Johns Hopkins University; Co-principal Investigator, Johns Hopkins Artificial Intelligence and Technology Collaboratory for Aging Research; Director, Gerotech Incubator & Translational Aging Research Training Program, USA.*
	"Lessons on Open Innovation in the Biopharmaceutical Industry" *Prof. dr. Phillip Phan, Alonzo and Virginia Decker Professor at the Johns Hopkins Carey Business School, USA, with joint appointment as Professor in the Department of Medicine. Robert Bosch Policy Fellow at the American Academy in Berlin, Germany.*
	„The EDUTECH STEAM Laboratory at Klaipėda University as a 'Living Laboratory': Teachers' and Students' Experiences in the Co-Creation Process“ *Assoc. prof. dr. Gražina Šmitienė, prof. dr. Julija Melnikova, assoc. prof. dr. Aleksandra Batuchina, dr. Rasa Kulevičienė, Klaipėda University, Faculty of Social and Humanities Sciences, Lithuania.*
	“Exploring Living Labs Approach: a Case Study of CATALISI Project” *Prof. dr. Eglė Butkevičienė, Kaunas University of Technology, Lithuania.*
	„A Living Lab Framework for Promoting Student Well-Being in Lithuanian General Education“ *Dr. Renata Kudukytė-Gasperė, Lithuanian University of Health Sciences, Lithuania.*
	„Socially Sensitive Challenges in the Implementation of Living Labs for Oncological and Schizophrenia Prevention: The LSMU Experience“ *Irina Kolomiiets, Lithuanian University of Health Sciences, Lithuania.*
	"Evidence-Based Living Laboratory in the Context of Urban Green Space Co-development: A Perceived Ecosystem Service Value Approach" *Assoc. prof. Milda Damkuvienė, assoc. prof. Jurgita Joniškienė, Junior Researcher Sigitas Balčiūnas, assoc. prof. Jūratė Valuckienė, assoc. prof. Evandželina Petukienė, assoc. prof. Martynas Kazlauskas, assoc. prof. Ingrida Šaulienė, student Kipras Merkelis, student Darija Bučienė, Vilnius University Šiauliai Academy, Lithuania.*
	Questions & Answers

15:00-15:15	*Coffee/tea break*
15:15-16:45	**Living Lab Session II** Moderated by Dr. Monika Belhaj
	"Living Labs as a Tool for Sustainable Society Progress Integrating Biodiversity Conservation, Adaptation to Climate Change and Education in Forest Ecosystems: eco2adapt and eNaBlS Project Experience" *Prof. dr. Gediminas Brazaitis, prof. dr. Vitas Marozas, Faculty of Forest Sciences and Ecology, Vytautas Magnus University Agriculture Academy, Lithuania.*
	"Practices of Stakeholder Engagement Aiming at Advancing the Blue(bio)economy in the Klaipeda Region" *Eglė Stonkė, dr. Viktorija Vaitkevičienė, Faculty of Social Sciences and Humanities, Klaipėda University, dr. Zita Rasuolė Gasiūnaitė, dr. Evelina Grinienė, Marine Research Institute, Klaipėda University.*
	"Experience of Raising Awareness among Potential Applicants to Establish Soil Health Living Labs" *Erika Mankutė, Head of Marketing Department, Lithuanian Agricultural Advisory Service, Lithuania.*
	„DroneLab - LivingLab as Part of the CODECS Project" *Vineta Gailite, Junior Research Fellow in Environmental Protection, Raul Sampaio de Lima, Appointed Research Fellow in Remote Sensing, Kaupo Kokamägi, Appointed Junior Research Fellow in Environmental Sciences and Applied Biology, Estonian University of Life Sciences, Estonia.*
	„From Fields to Futures: Empowering Women Through Agricultural Innovation Processes in a Living Lab" *Dr. Vida Dabkienė, Dr. Tomas Baležentis, Lithuanian Centre for Social Sciences.*
	"Cooperation of Small and Medium-sized Farms as a Tool to Enhance Participation in Public Procurement" *Dr. Nelė Jurkėnaitė, Lithuanian Centre for Social Sciences, Lithuania.*
	„LIRA lab - Living Innovations for Regional Advancement: AI-empowered Diagnostics and Co-creation for Society" *Dr. Rita Lankauskienė, Lithuanian Centre for Social Sciences, Lithuania.*
	Questions & Answers
16:45-17:00	**Closing of the Conference** Moderated by Dr. Rita Lankauskienė

Abstracts & Collection “Living Labs of Lithuania 2025”



ENoLL - The Concept and Horizons of Living Labs Around the Globe

Gabriella Quaranta

ENoLL Head of Network & Senior Project Manager, Belgium

E-mail: gabriella.quaranta@enoll.org

This presentation introduces the European Network of Living Labs (ENoLL) and explores its role in fostering open innovation, citizen engagement, and multi-stakeholder collaboration across Europe and beyond. Living Labs are real-life test and experimentation environments where users, researchers, public authorities, and businesses co-create innovative solutions for societal challenges. ENoLL supports this ecosystem by promoting knowledge exchange, networking, capacity building, and enhancing the visibility and mission of Living Labs worldwide. A key mechanism through which ENoLL ensures quality and impact is its Labelling and Certification process. This rigorous evaluation assesses the maturity, sustainability, and user-centric nature of Living Labs, helping them align with LLs core principles and best practices. The presentation will also provide insights into the value of this process for Living Labs seeking recognition and improvement, highlighting how this process contributes at building trust among stakeholders.

Gabriella Quaranta *graduated in Aerospace Engineering at the University of Rome "Sapienza", she has been involved as project manager in EC funded projects, working with multidisciplinary teams and driving collaboration across a diverse range of stakeholders for the last ten years and, she has been very active in the EU R&I Framework Programmes being also an Italian National Contact Point (NCP) in Horizon 2020 and Horizon Europe following mobility and security areas in particular.*

She has been, and still is coordinating EC funded projects, dealing of course with project management but also with dissemination & communication activities and with stakeholder engagement, acquiring a deep knowledge in these matters as well; furthermore, she has been a trainer, delivering dozens of trainings on Horizon 2020 and Horizon Europe related issues.

She happily joined ENoLL as Head of Network and senior project manager, after a long period in APRE, the Italian Agency for the Promotion of European Research, and two years in EMSO ERIC, the European Multidisciplinary Seafloor and Water Column Observatory.

From Ideas to Impact: Co-Creation in Horizon Europe

Lina Liepytė

Research Council of Lithuania, National Contact Point for Horizon Europe, Lithuania

E-mail: lina.liepyte@lmt.lt

In Horizon Europe, co-creation is not just a buzzword – it is a strategic approach to ensure that research and innovation are relevant, impactful, and inclusive. This presentation will explore how co-creation is embedded in the Horizon Europe programme and how researchers can integrate it meaningfully from the early stages of project design to maximise long-term impact. The presentation will share programme call examples that require co-creation insights and the Living Labs approach.

Lina Liepytė *serves as the Programme Coordinator at the Research Council of Lithuania. In this capacity, she acts as the official National Contact Point (NCP) for Cluster 6: "Food, Bioeconomy, Natural Resources, Agriculture, and Environment" under the Horizon Europe framework programme.*

As a National Contact Point, she provides comprehensive guidance, practical information, and tailored support to researchers, institutions, and organisations in Lithuania who are interested in participating in Horizon Europe. Lina Liepytė is also a national expert in the Horizon Europe Cluster 6 Programme Committee, contributing to the strategic planning and implementation of the programme at the European level.

Mission Soil: 100 Living Labs Across Europe

Gabriele Quattrocchi

SOILL-Startup Project & Trust-IT Services, Italy

E-mail: g.quattrocchi@trust-itservices.com

Life on earth depends on healthy soils. However, being a vital non-renewable resource in our lifetime, soils are threatened by human activities, including anthropogenic climate change. The EU Mission "A Soil Deal for Europe," a flagship initiative under Horizon Europe, aims to establish 100 Soil Health Living Labs (SHLLs) and Lighthouses leading the transitions to healthy soils across Europe by 2030. The 2025 Mission Soil call for proposals offers new funding opportunities for consortia interested in setting up SHLLs, i.e., transdisciplinary, place-based innovation ecosystems that co-design and implement soil health solutions with local actors. This presentation explores the thematic areas of the 2025 specific call topics, highlighting key requirements for applicants, including the multi-actor approach and collaboration expectations.

Additionally, participants will be introduced to the **SOILL-Startup** project, the official support structure of the Soil Health Living Labs. SOILL-Startup provides tailored services to both potential applicants and funded SHLLs, including stakeholder engagement, capacity building, training, mentoring, matchmaking, helpdesk support, and access to the SOILL Hub. This session is essential for any stakeholder interested in setting up a Soil Health Living Lab in the Boreal biogeographical region of Europe and contributing to the green redevelopment of soils containing pollutants or contaminants.

Gabriele Quattrocchi *is project manager at Trust-IT Services, an Italian company leading the engagement and promotion activities of the Mission Soil project SOILL-Startup. He works on the design and implementation of communication, and dissemination strategies for research and innovation actions. Since 2017, He has worked in Belgium and Italy on EU-funded R&I projects revolving around precision agriculture, bioeconomy, food supply chains and soil health.*

Opening Innovation Ecosystems for Co-creation and Impact – Experiences from Finnish Ostrobothnia

Dr. Mona Enell-Nilsson & Dr. Antti Mäenpää

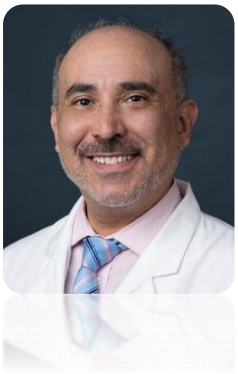
University of Vaasa, Finland

E-mails: moen@uwasa.fi; antti.maenpaa@uwasa.fi

Creating a living lab takes time and requires effort in order to form a well-functioning environment, where the parts "living" and "lab" are combined in a way, which benefits different parties. One of the challenges for involved actors is the time frame, which is usually project-driven and thus time-specific, meaning that the work carried out in the frame of a project has a clear start and end. Thus, well-functioning collaboration environments and co-created knowledge can get lost when a project is ending. In the Finnish region Ostrobothnia, recent developments have been based on the idea of keeping well-functioning processes ongoing by clearly building new projects upon earlier projects and by actively engaging with projects carried out in parallel focusing on similar topics. This type of "project ecosystem thinking" has offered a rather long-term view on local and regional development, turning individual projects into an effective tool to advance local and regional development. Furthermore, when engagement is constantly evolving, projects get more unique and advanced, which may result in more extensive funding opportunities and thus development work. One example can be seen in the Ähtävä area in Ostrobothnia, in which the Horizon 2020 project RIPEET boosted a local development project, which is currently continued in the Just Transition Fund project PEAK. This plenary focuses both on the long-term perspective for creating living labs as social innovation environments together with local stakeholders, as well as more recent insights and learnings from stakeholder engagement activities in the PEAK project.

Mona Enell-Nilsson *is working as Research Director in the School of Marketing and Communication at University of Vaasa. She has extensive experience of international and local projects focusing on the regional energy transition and stakeholder engagement. Mona is leading the work package concerning societal aspects related to the future regional energy system in the ongoing PEAK project and is actively engaged in building (research) collaboration across funding instruments and projects.*

Antti Mäenpää *is a postdoctoral researcher in School of Management in University of Vaasa. He has been studying regional innovation ecosystems and regional collaboration, especially concerning EU´s smart specialisation policies and strategies. He also studies sustainability transition from a regional point of view and works in the PEAK project.*



Living Labs for Aging: Engineering Innovation Through Interdisciplinary Collaboration

Dr. Peter Abadir

Assoc. Prof. of Medicine, Johns Hopkins University; Co-Principal Investigator, Johns Hopkins Artificial Intelligence and Technology Collaboratory for Aging Research; Director, Gerotech Incubator & Translational Aging Research Training Program, USA.

More information: https://www.linkedin.com/in/peter-abadir-87401715/

As populations age globally, the need for scalable, equitable, and effective innovations to support older adults becomes urgent. In this presentation, I will share insights from the Johns Hopkins Artificial Intelligence and Technology Collaboratory for Aging Research (AITC), a national NIA-funded center that brings together engineers, clinicians, and implementation scientists to co-create AI and technology-driven solutions that enhance health, function, and independence in later life.

We will explore how Living Lab principles are embedded within the AITC model—through real-world validation, stakeholder engagement, and rapid translation—to support innovation in caregiving, cognitive decline, and frailty detection. Case studies across biomedical engineering, gerontology, and digital health will illustrate how collaborative infrastructure and mission-aligned training programs accelerate progress from idea to impact.

This session will also highlight how interdisciplinary environments—particularly those integrating engineering and medicine—can serve as sustainable living ecosystems for aging-focused innovation. We will conclude with a discussion of how international collaborations and policy integration can further scale the living lab model for aging societies worldwide.

Dr. Peter Abadir *is a physician-scientist and geriatrician at Johns Hopkins University, where he holds joint appointments in the School of Medicine and the Whiting School of Engineering. His research focuses on the molecular and technological drivers of aging, with a particular emphasis on identifying and translating novel biomarkers and AI-driven tools to improve the health and independence of older adults. He co-leads the Johns Hopkins AITC, a national center that promotes interdisciplinary innovation in aging and supports early-stage technology development. He also directs the Gerotech Incubator and a T32 training program in translational aging research. His work has advanced our understanding of frailty, mitochondrial dysfunction, and the use of digital biosensors in aging care. In addition to his research leadership, Dr. Abadir serves as Chair of the MD Admissions Committee at Johns Hopkins and Deputy Editor of the Journal of the American Geriatrics Society.*

Lessons on Open Innovation in the Biopharmaceutical Industry

Dr. Phillip Phan

Alonzo and Virginia Decker Professor at the Johns Hopkins Carey Business School, USA, with joint appointment as Professor in the Department of Medicine, Robert Bosch Policy Fellow at the American Academy in Berlin, Germany.

More information: https://carey.jhu.edu/faculty/faculty-directory/phillip-phan-phd

Innovation in the pharmaceutical and healthcare industries is increasingly driven by open innovation models and the role of serendipity in discovery. This presentation explores how accidental discoveries have contributed to groundbreaking innovations, such as the benzene ring structure, cholesterol-lowering drugs, and sugar substitutes. It examines how organizations can intentionally incorporate accidents into their innovation strategies.

The presentation highlights the benefits of knowledge pooling, collaborative networks, and open coordination to drive scientific and technological advancements. Examples from Johnson & Johnson and its Janssen Pharmaceuticals subsidiary illustrate how strategic collaborations enhance drug development and accelerate time to market. The challenges of open innovation—including intellectual property concerns, performance measurement obstacles, and industry consolidation pressures—are also discussed.

The presentation further outlines key factors for successful collaboration, such as trust, shared vision, and value-based partnerships. By leveraging innovation ecosystems and strategic alliances, organizations can navigate the rising costs and complexities of research and development while ensuring the delivery of high-impact, differentiated medical solutions for unmet healthcare needs.

***Phillip H. Phan**, Ph.D., is Alonzo and Virginia Decker Professor at the Johns Hopkins Carey Business School with joint appointment as Professor in the Department of Medicine. He is Robert Bosch Policy Fellow at the American Academy in Berlin.*

His academic and professional work focuses on innovations in health care that impacts patient safety and quality. He has published more than 200 peer reviewed research papers and is author/editor of 13 scholarly books. He is Deputy Editor of the International Journal for Quality in Health Care, Academic Editor of Medicine®, and Associate Editor of the Journal of Technology Transfer. He reviews for the National Academies of Sciences, Engineering and Medicine, National Institutes of Health, and the National Science Foundation.

He is director of the Networking and Mentoring Core for the Johns Hopkins Artificial Intelligence Collaboratory for Aging Research, and PI of the Johns Hopkins Innovation for Substance Use Disorder (I4SUD) program, a NIDA-funded national technology commercialization training program for researchers in substance use disorders.

Living Labs - an Innovative Approach to Creating Small Homelands

Katarzyna Gizińska

European Rural Development Network, Poland

E-mail: katarzyna.gizinska@erdn.eu

Background and aim: In the face of dynamic socio-economic changes in rural areas, local communities are challenged to maintain their identity and sustainability. It is also a challenge to ensure the voice of rural residents to be heard. The purpose of this study is to identify the potential of the Living Lab as an innovative tool in the process of creating and strengthening small homelands in rural areas.

Applied Methods: The study used Living Labs methodology based on a participatory approach involving stakeholders from different sectors: representatives of local government, civic organizations, activists, science, entrepreneurs and public institutions. The following methods were used: field research, participatory observation, workshops, individual and group interviews, content analysis, including analysis of strategic documents and literature on the subject.

Most important achievements so far: Created Living Lab in 2022 within the framework of the SHERPA project (Horizon 2020) and then ESIRA project (Horizon Europe) contributed to creating a bridge between staholders who would not normally meet, developing a platform for exchanging good practices, networking, discussing issues affecting local communities. A statement from one LL member sums it up: "*If I hadn't been in this group, I would never have had the chance to meet these amazing people and learn that such great things are being done next door, over the mountain - the mobile library, the rural women's circle obtaining a grant to build an amphitheater for community residents or the municipal youth council.*"

Core challenges met: During the creation of LL, the challenge was to attract stakeholders and keep them engaged, the cohesion of the group, and the rotation of participants (some people leave, new ones come in). The challenge is to build trust and integrate a group that would not be too intrusive, but at the same time have bonding power and ensure sustainability.

Conclusion/Future foresight: LL is a promising method of supporting small homelands, through which the previously unheard voice of rural residents can be more heard. This method enables the creation of various solutions and recommendations through a process of co-creation and co-design. Strengthening local leaders and seeking sources of funding for LLs is key.

Keywords: living lab, multi-actor approach, innovation ecosystem, social economy, rural development

---

General information about Living Lab under presentation:

Title of the Living Lab: *MAP Leski-Bieszczadzki (Podkarpackie voivodeship, Poland).*

Type of Living Lab*: SHERPA project-based (Horizon 2020), ESIRA project-based (Horizon Europe).*

Geographical coverage*: regional.*

Areas of Work/Action: *Social dimension, NGO, governance, social economy initiatives.*

Main Expertise to share: *Building bridges between different sectors, creating a safe environment for fruitful cooperation and platforms for information exchange.*

Contacts/more info*: katarzyna.gizinska@erdn.eu, +48 607 255 888.*

The EDUTECH STEAM Laboratory at Klaipėda University as a 'Living Laboratory': Teachers' and Students' Experiences in the Co-Creation Process

Assoc. prof. dr. Gražina Šmitienė, assoc. prof. dr. Julija Melnikova, assoc. prof. dr. Aleksandra Batuchina, dr. Rasa Kulevičienė*

Klaipėda University, Faculty of Social and Humanities Sciences, Lithuania

**Corresponding author e-mail: aleksandra.batuchina@ku.lt*

Background and aim: The EDUTECH STEAM Lab at Klaipėda University exemplifies the "Living Lab" model, serving as an open innovation ecosystem connecting scientific research, educational practice, and technological advancement in teacher training. As a user-centered, participatory learning environment, the lab fosters collaboration among educators, researchers, students, and industry partners to co-create, test, and refine emerging educational technologies and methodologies. This study explores how the Living Lab approach enhances pre-service and in-service teacher education by integrating AI-driven learning analytics, adaptive assessments, and interactive STEAM pedagogies into real classrooms. The lab's governance model ensures collaborative decision-making through strategic and operational frameworks. Representatives from Klaipėda University, the Department of Pedagogy, and educational and industry stakeholders contribute financial and in-kind resources to sustain the lab's activities. Strategic decisions are made annually at board meetings, while monthly meetings provide the agility needed for responsive innovation. Short-term goals focus on developing and applying innovative digital learning tools, while the long-term vision aims to advance research-driven methodologies and contribute to global educational innovation networks. Research questions: How the KU EDUTECH STEAM lab activities meet the principles of the "living lab" model, based on the experiences of participants (teachers and students)? Also what are the experiences gained by teachers and students while participating in the EDUTECH STEAM lab activities, emphasizing co-creation, innovation and the application of digital tools. Nevertheless, it was important to assess how current and future teachers would see their role and participation if a STEAM lab were created in their schools.

Applied Methods: A mixed-methods case study was conducted to assess the effectiveness of the EDUTECH STEAM Lab's Living Lab model. The study involved 63 participants (students and teachers) who actively engaged in the lab's activities and completed a survey to evaluate their experiences. Additionally, a focus group interview (with 27 teachers) was conducted to gather qualitative insights on collaborative learning, pedagogical innovation, and digital tool integration. Observations of digital tools were also carried out to assess their usability and impact on learning processes.

Most important achievements so far: Current research covers the case study of Klaipėda, Lithuania area. However, the results are valuable for the whole country and any other similar region. One of the most important achievements was the opportunity to practically try out educational technologies and immediately understand how to apply them in lessons. The main challenges teachers faced included a lack of information, language barriers, and difficulties preparing lessons independently. The activities at the EDUTECH STEAM lab helped overcome these challenges by providing clear examples and opportunities for collaboration. In the future, deeper integration of technologies into education and continued support for teachers is anticipated.

Core challenges met: Main challenges which were identified were the organisational and documentation work, in order to create the EDUTECH STEAM Lab at Klaipėda University. However, after these challenges were overcome the activities of the Lab went very smoothly and a great interest of participants was seen

Conclusion/Future foresight: The EDUTECH STEAM Lab has demonstrated significant potential in transforming teacher education through hands-on innovation and collaborative practices. Looking ahead, the lab aims to expand its network, scale its successful practices to other regions, and further integrate AI and adaptive technologies into teaching. Continued investment in teacher support and inter-institutional collaboration will be essential to sustaining long-term impact and educational innovation.

Keywords: Living Lab, EDUTECH STEAM Lab, teacher training, digital pedagogy, participatory learning.

General information about Living Lab under presentation:

Title of the Living Lab: *Klaipėda University, Faculty of Social and Humanities Sciences, Department of Pedagogy, EDUTECH STEAM Laboratory.*

Type of Living Lab: *user-driven.*

Geographical coverage: *regional.*

Areas of Work/Action: *The EDUTECH STEAM Lab, established at the Department of Pedagogy, Faculty of Social Sciences and Humanities, Klaipeda University, serves as an integral component of teacher training by implementing the principles of a "Living lab" - a user-centered, open innovation ecosystem that fosters collaboration between educators, researchers, and technology developers.*

Main Expertise to share:

The activities of the laboratory include:

- ***Teacher training and professional development:*** *The lab organizes training sessions and seminars for both pre-service and in-service teachers, aiming to enhance their ability to use modern technologies and STEAM methodologies in the educational process.*
- ***Research activities:*** *Research is conducted to develop, test, and evaluate the effectiveness of new educational technologies and methods in teaching and learning processes.*
- ***Collaboration with international networks:*** *The laboratory participates in international projects and initiatives, aiming to exchange best practices and adapt innovative teaching methods within the Lithuanian education system.*

Contacts/more info*:*

EDUTECH STEAM Laboratory
Department of Pedagogy, Faculty of Social and Humanities Sciences, Klaipėda University
Address: S. Neries St. 5, LT-92294 Klaipėda, Lithuania
Room: 215
Phone: +370 46 398 624
Email: edutechsteam@ku.lt
Website: https://shmf.ku.lt
Head of the Lab: Assoc. Prof. Dr. Gražina Šmitienė
Email: grazina.smitiene@ku.lt

Exploring Living Labs Approach: a Case Study of CATALISI Project

Prof. dr. Eglė Butkevičienė

Kaunas University of Technology, Lithuania

E-mail: egle.butkeviciene@ktu.lt

Background and aim: The Living Lab (LL) at KTU has been created when implementing Horizon Europe project "CATALYSI: Catalysation of institutional transformations of Higher Education Institutions through the adoption of acceleration services". The core idea of CATALISI project is to develop a university as an open and inclusive participant in the innovation ecosystem, addressing societal challenges. CATALISI is to help and support Higher Education Institutions to successfully implement a strategy and individual pathway for institutional transformation through the adoption of acceleration services. One of the acceleration services is a support to create the Living Lab at the institution.

Applied Methods: This presentation is based on reflections of Living Lab event, that took place in Kaunas, in June 2023. The reflections have been collected from stakeholders representing all Quadruple Helix actors.

Most important achievements so far: KTU-LL includes the representatives from all quadruple helix actors and is aimed at assessing the mutual needs and expectations for the institutional change as well as related values and concerns. Enacting LL serves as a factor to promote the idea that university should serve as a flagman bridging science and society, helping to shape the values via the study programs and research, that would reflect the challenges and concerns of contemporary societies. The stakeholders provided insights on 3 CATALISI project intervention areas: (1) Human capital: Supporting talent circulation/mobility (goal: first - time international mobility of staff); (2) Human capital: Strengthening of human capital (goal - Strengthening services for academic writing in KTU); and (3) Research modus operandi: Public engagement with and outreach to society to solve social challenges (goal: Strengthening activities of citizen science hub).

Core challenges met: The core challenges in the LL implementation included (1) availability of relevant stakeholders and (2) motivation of stakeholders to participate in LL. It was difficult to attract representatives from business sector and civil society, as they indicated lack of time during the work day when the workshops were organized.

Conclusion / Future foresight: The CATALISI project ensured the co-design and implementation of Acting-LL. In general, all stakeholders provided a positive feedback regarding the participation in the LL event and recommendations on LL further development.

Keywords: Living Lab; Stakeholders; Quadruple Helix; Acceleration Services

---

General information about Living Lab under presentation:

Title of the Living Lab: *Living Lab for Public Engagement in Social Sciences.*

Type of Living Lab*: project-based, Horizon Europe project CATALISI (https://cordis.europa.eu/project/id/101094917).*

***Geographical coverage**: local.*

***Areas of Work/Action:** Social sciences.*

***Main Expertise to share:** Involvement of quadruple helix stakeholders.*

***Contacts/more info**: egle.butkeviciene@ktu.lt.*

A Living Lab Framework for Promoting Student Well-Being in Lithuanian General Education

Dr. Renata Kudukytė-Gasperė

Lithuanian University of Health Sciences (LSMU), Vice dean of the Faculty of Public Health, Lecturer at the Department of Preventive Medicine, and Assistant at the Department of Family Medicine at LSMU Medical Academy, Lithuania.

E-mail: renata.kudukyte-gaspere@lsmu.lt

Background and aim: The Living Lab for the Implementation of a Holistic Health Education System in Schools (Healthy School Living Lab (HSLL) is the implementation of student-centered health education and health literacy improvement innovations carried out in a real school environment. The main goal is to involve students, their ideas, experiences, and needs in the creation of health education and health literacy improvement measures and their implementation process. The Living Lab methodology, adapted to the school environment, provides a unique opportunity for students (the end-user) to actively participate in creating a healthier school community and increasing health literacy.

Applied Methods: The initiative utilizes the Living Lab methodology and has been in operation at LSMU Gymnasium since September 2024. Its implementation follows a systematic, multi-stage approach designed to pinpoint critical issues, develop innovative responses, and refine interventions through continuous real-world testing and feedback.

To gain a comprehensive understanding of the existing context and evaluate the impact of proposed strategies, a mixed-methods research design is applied. Quantitative data is collected through the Health Behaviour in School-aged Children (HBSC) survey, which assesses students' health knowledge, behaviours, and well-being, alongside Physical Activity Assessments that provide insights into students' fitness levels. Complementing this, qualitative methods—such as interviews, focus groups, observations—are employed to explore student participation, engagement, and behavioural patterns in greater depth.

Most important achievements so far: A team of specialists responsible for health promotion activities and increasing health literacy has been formed at the school; a preliminary action plan and activity content have been prepared; the entire school community is involved in the activities; after each step, the entire school community is informed of the results.

Core challenges met: the understanding that, students must become the important creators and participants in public health promotion activities.

Future foresight: Creating engaging public health intervention content and tools for students - in student workshops; Evaluation of adaptation possibilities within the stakeholder working group; Risk management - potential resistance from students' parents to activities, teacher involvement in health promotion activities, changing perceptions.

Keywords: Living Lab, health literacy, public health interventions, school health promotion.

General information about Living Lab under presentation:

Title of the Living Lab: *Healthy School Living Lab.*

***Type of Living Lab**: The local initiative of the Faculty of Public Health at the Lithuanian University of Health Sciences to apply the Living Lab methodology in general education schools.*

***Geographical coverage:** local.*

***Areas of Work/Action:** Public health activities and interventions implemented in general education schools, health literacy enhancement, healthy lifestyle education, involvement, social responsibility.*

***Main Expertise to share:** Application of the living labs methodology in general education institutions, stakeholder involvement, co-creation.*

***Contacts/more info**: renata.kudukyte-gaspere@lsmu.lt, +370 619 64656, LinkedIn, Facebook.*

Socially Sensitive Challenges in the Implementation of Living Labs for Oncological and Schizophrenia Prevention: The LSMU Experience

Irina Kolomiiets

Lithuanian University of Health Sciences (LSMU), Lithuania

E-mail: irina.kolomiiets@lsmu.lt

Background and aim: At LSMU, three EU-funded projects — ONCODIR, ONCOSCREEN, and VOLABIOS — apply the Living Lab approach to co-create tools for colorectal cancer prevention and schizophrenia risk reduction. These open innovation ecosystems engage patients, clinicians, and policymakers, but also reveal challenges like stigma, ethical concerns, and the gap between innovation and society, where tools risk limited impact without trust or inclusion.

This presentation explores:

1. Key social and ethical challenges in implementing Living Labs in oncological and schizophrenia prevention.
2. The role of hackathons in accelerating innovation and fostering interdisciplinary problem-solving.
3. Strategies for ensuring sustainable, inclusive, and ethical healthcare innovation in Living Labs.

Applied Methods:

Each project at LSMU applies tailored Living Lab methodologies:

- ONCOSCREEN:
  Stakeholder mapping, co-creation workshops, co-design sessions, citizen and patient engagement, hackathons, digital prototyping, and preparation for clinical trials.
- ONCODIR:
  Quadruple Helix-based stakeholder mapping,semi-structured interviews and focus groups, co-creation sessions, and iterative co-design processes focused on colorectal cancer risk prediction.
- VOLABIOS:
  Stakeholder mapping, hackathons, co-creation, and co-design using Quadruple Helix approach

These diverse approaches reflect each project's context while promoting inclusive, innovation-driven healthcare development.

Most important achievements so far:

- Established a multi-stakeholder ecosystem, integrating oncologists, mental health professionals, AI developers, and policymakers.
- Conducted healthcare hackathons, generating rapid, innovative prototypes for personalized disease prevention tools.
- Developed digital health interventions co-designed with patients to enhance accessibility and usability.

- Initiated discussions on scaling Living Lab solutions, focusing on policy alignment and sustainable funding.

Core challenges met:

- Ethical and Legal Barriers: Balancing informed consent, data security, and ethical AI deployment.
- Social Stigma: Addressing negative perceptions surrounding mental health and oncology participation in preventive initiatives.
- Health Equity and Digital Divide: Ensuring marginalized groups are not excluded from digital health solutions.
- Sustainability of Living Labs: Moving from hackathon-generated prototypes to long-term healthcare integration.

Conclusion/Future foresight:

Integrating Living Labs and hackathons in oncological and schizophrenia prevention fosters agile, interdisciplinary innovation. However, success requires addressing social, ethical, and systemic challenges to ensure patient-centric, scalable, and sustainable solutions.

Future directions include:

- Strengthening digital health literacy to enhance patient and caregiver engagement.
- Expanding the hackathon model within Living Labs to facilitate rapid solution prototyping.
- Bridging innovation with policy to ensure long-term integration into healthcare systems.
- Enhancing participatory methodologies for more inclusive, community-driven health interventions.

By combining Living Labs with hackathon methodologies, we can create a dynamic, responsive, and socially responsible ecosystem for patient-centered healthcare transformation.

Keywords: Living Labs; hackathons; healthcare innovation; co-creation; ethical AI.

General information about Living Lab under presentation:

Title of the Living Lab *(area of intervention):*

- *Oncological Living lab with the focus on colorectal cancer;*
- *Mental Health with the focus on schizophrenia living lab.*

Type of Living Lab*: Project based Living Labs.*

Geographical coverage *: multi-level.*

Areas of Work/Action: *interdisciplinary innovation in healthcare.*

Main Expertise to share: *Hackathon methodologies in the healthcare field, co-creation session in a socially sensitive topics.*

Contacts/more info: *irina.kolomiiets@lsmu.lt , +37060231382.*

Evidence-Based Living Laboratory in the Context of Urban Green Space Co-development: A Perceived Ecosystem Service Value Approach

Assoc. prof. Milda Damkuvienė, Assoc. prof. Jurgita Joniškienė, Junior Researcher Sigitas Balčiūnas, Assoc. prof. Jūratė Valuckienė, Assoc. prof. Evandželina Petukienė, Assoc. prof. Martynas Kazlauskas, Assoc. prof. Ingrida Šaulienė, student Kipras Merkelis, student Darija Bučienė*

Vilnius University Šiauliai Academy, Lithuania

**Corresponding author e-mail: milda.damkuviene@sa.vu.lt*

Background and aim: Urban green spaces (UGS) are critical for enhancing environmental sustainability, human well-being, and biodiversity in rapidly urbanizing areas. However, traditional urban planning approaches often fail to incorporate multistakeholder, evidence-based insights into urban green space development. The Living Laboratory (LL) offers a participatory approach to integrating scientific research-based evidence for urban green space co-development decisions and fostering co-creation between researchers, policymakers, and local communities. The aim is to present the idea and first steps of an evidence-based LL approach for urban green spaces co-development, specifically focusing on perceived ecosystem service value (PESV) as a key decision-making factor. Data on perceived ecosystem service value will allow to collaboratively discuss and get insights about human-nature balanced decisions of more sustainable and inclusive green spaces.

Applied Methods: A mixed-methods research design will be employed, combining quantitative and qualitative approaches. Empirical data collection will include surveys and participatory workshops involving Šiauliai city residents, NGO representatives, planners, and policymakers. To measure PESV and Šiauliai city residents' engagement intentions in UGS co-development decisions, a survey questionnaire is being developed based on the Theory of Planned Behavior (TPB) and Service-Dominant Logic (SDL).

Most important achievements so far: 1) development of a theoretical framework integrating PESV into UGS co-development and designing a survey questionnaire to measure perceived ecosystem service value and citizen engagement intentions.

Core challenges met: alignment of interdisciplinary (social sciences and natural sciences) knowledge and methodological approaches.

Conclusion/Future foresight: By aligning participatory methods with empirical assessments, LLs could provide a framework for co-created, sustainable urban ecosystems. The most challenging question so far is how to ensure that LLs incorporate research evidence.

Keywords: Living Lab, urban green spaces, ecosystem services, stakeholder participation, sustainable urban planning.

General information about Living Lab under presentation:

Title of the Living Lab: *MIESTOlabas.*

***Type of Living Lab**: project-based.*

***Geographical coverage**: local.*

***Areas of Work/Action:** Urban Green Spaces Living Lab.*

***Main Expertise to share:** perceived ecosystem service value, citizens' participation, engagement.*

***Contacts/more info**: milda.damkuviene@sa.vu.lt .*

Living Labs as a Tool for Sustainable Society Progress Integrating Biodiversity Conservation, Adaptation to Climate Change and Education in Forest Ecosystems: eco2adapt and eNaBlS Project Experience

Prof. dr. Gediminas Brazaitis, prof.dr. Vitas Marozas*

Vytautas Magnus University Agriculture Academy, Faculty of Forest Sciences and Ecology, Lithuania

**Corresponding author e-mail: gediminas.brazaitis@vdu.lt*

Living Labs are getting core tool for society progress. Living labs are integrating co-creation into innovation and scientific research enabling multi-stakeholder participatory. The tool looks very promising and powerful in democratic societies; however, the success depends on many aspects. Recent years in the Faculty of Forest Sciences and Ecology were initiated two Living Labs. Not surprisingly, it associated with forest ecosystem management, biodiversity conservation and higher education.

The Horizon Europe project "Ecosystem-Based Adaptation to Enhance Forest Resilience" (eco2adapt, 2022-2027) develops the ecosystem-based adaptation framework derived from nature-based solutions and work in Living Labs located in climate hotspots in Europe and China. Dzūkija National Park Living Lab was established among 15 Living Labs, 10 of them situated in Europe and represents high geographical gradient – from Finland to Greece, from Lithuania to Spain. Activities of Living Lab includes all year round study in forest gaps how wildlife are limiting forest regeneration and by thus affects forest structure resilience to climate change. We employ citizen science to map invasive species. Lots of attention is dedicated to tree species, future adaptation to climate change by LandClim modelling. The network of rhizotrons is aiming to study relations of tree roots, mycorrhizas and bacteria in pure pine and birch stands and their mixture. Project eco2adapt also integrates LIFE-IP project Naturalit EU protected forest habitat management experiments started since 2018, including inland dune opening, prescribe burning, gaps opening, forest floor elimination experiments and species translocation.

The living lab "Education and Green Infrastructure at VMU Campus [BeWell]" is one out of seven living labs established by the Horizon Europe project "Education and Nature-Based Solutions: Enable Society to Bend the Curve for Biodiversity" (eNaBlS, 2024-2026). The project enhances transdisciplinary dialogue within universities, TVET institutions, professionals and stakeholders. We aim to understanding current biodiversity and Nature Based Solutions, its role in current higher education and TVET curricula, and by transdisciplinary dialogue to seek integration more knowledge and experiences about Nature Based Solutions into education. Living Lab BeWell have selected campus of VMU Agricultural Academy as a perfect bases for demonstration and discussion Nature Based Solutions. Our activities cover Agricultural Academy Dendropark, green areas and neighbourhood communities.

Society participation and active involvement of stakeholders and local people into decision making process is essential part of every Living Lab. It's a long-lasting process require empathy and patience, dialogue between professionals and outsiders, idea testing on real time and resources. We need understand the success of Living Lab often are not measured by successfully applied innovation or modernization, however dialogue among different society representatives often have a value itself.

Keywords: Forest, nature based solution; biodiversity, climate change.

General information about Living Lab under presentation:

Title of the Living Lab: *Dzūkija National Park Living Lab [DNP LL]; Enhancing Biodiversity and Human Well-being: Education and Green Infrastructure at VMU Campus [BeWell].*

Type of Living Lab*: eco2adapt and eNaBlS projects.*

Geographical coverage*: regional.*

Areas of Work/Action: *eco2adapt – adaptation climate change and biodiversity conservation in forest management; eNaBlS – integration Nature Based Solutions in higher education curriculum.*

Main Expertise to share: *nature-based solutions.*

Contacts/more info*: gediminas.brazaitis@vdu.lt, https://www.eco2adapt.eu/; vitas.marozas@vdu.lt, https://enabls.eu/.*

Practices of Stakeholder Engagement Aiming at Advancing the Blue(Bio)Economy in the Klaipeda Region

Eglė Stonkė [1], Dr. Viktorija Vaitkevičienė[2], Dr. Zita Rasuolė Gasiūnaitė[2], Dr. Evelina Grinienė[2]*

[1]Faculty of Social Sciences and Humanity, Klaipėda University, [2]Marine Research Institute, Klaipėda University, Lithuania

**Corresponding author e-mail: egle.stonke@ku.lt*

Background and aim: The blue (bio)economy sector is an emerging sector relevant and important especially for coastal area's regional ecosystem represented by various players of quadruple helix model.

The quadruple helix is built on four pillars – business, government, academia, and society - which cooperate and play important roles in a dynamic regional ecosystem. The government provides a cooperation framework and aims to initiate and facilitate ongoing dialogues and promote cooperation. Business becomes a platform to maintain and foster collaboration, while academia provides knowledge and transfers it to different areas and practical approaches. The society acts as a litmus test for regional innovations and developments.

For Klaipeda Region's case, all these processes and dynamics combine in a regional specialization strategy. The strategy is developed based on a co-creation process that strengthens the ecosystem's collaboration and creates joint values. Different interactions become joint regional benefits, where existing resources transform into valuable output on local and regional levels. The role of Klaipeda University is focused on expertise in R&D&I activities for this particular sector, also KU plays an important role in the regional innovation ecosystem aiming at fostering sustainability transition.

Applied Methods. In this presentation, methods applied will be described from the academic perspective highlighting that the process is inseparable from academia collaboration with stakeholders and society. Generally speaking, academic fellows apply both individual and collective practices to engage stakeholders into their activities and to maintain relationship with them. These practices are based on both personal and collective identities and their symbiosis. The methods of collective practices aiming at region's transition towards sustainability will be analyzed integrating particular aspects of sustainability: economic, environmental and social.

The application of the Communities of Practices (CoP) method to achieve progress in the blue (bio)economy is one of the cases (BBC project) which will be presented.

Focus on environmental and socioeconomical aspects related to marine ecosystems will be demonstrated by EU Horizon MARINE SABRES and MARBEFES projects. The EU Horizon projects MARINE SABRES and MARBEFES focus on understanding and addressing the environmental and socio-economic challenges faced by marine ecosystems, aiming to promote sustainable practices for the benefit of both ecosystems and coastal communities.

All these cases will be analyzed from the perspective of LL, trying to find out methodological aspects of LL which might help to improve the partnership of various stakeholders aiming at acceleration of sustainable transition.

Also, the development of the Klaipeda region specialization strategy as a co-creation process where regional stakeholders voluntarily joined together to strengthen the region's economic potential and competitiveness will be introduced as is a unique successful case in Lithuania.

Most important achievements so far. Lithuania's first regional specialization strategy was developed and launched in Klaipeda Region with major contribution of various stakeholders' groups including academia. The development process has been enhanced by applied collective co-creation practices which continue in the implementation phase.

From the perspective of Klaipeda University, participation in the co-creation process has contributed to the institutional capacity building and has strengthened the recognition of institutional expertise.

Core challenges met:

- Methodological aspects, similarities and differences of various collective practice methods.
- Lack of cooperation skills and experience; regional policies weakly oriented towards fostering partnership and co-creation in regions.
- Lack of trust between the different quadruple helix parties.

Conclusion/Future foresight. Application of collective co-creation methods enhance interaction among quadrupole helix model's players aiming at the common sustainability goal to contribute in solving or reducing the impact of global social challenges.

Keywords: regional ecosystem, co-creation, blue bioeconomy, sustainability transition, stakeholders' engagement.

General information about Living Lab under presentation:

Title of the Living Lab: *(prospective area, not established yet): marine bio resources.*

Type of Living Lab *(project-based or other, please specify): other.*

Geographical coverage: *regional.*

Areas of Work/Action: *marine bio resources.*

Main Expertise to share: *marine bio resources.*

Contacts/more info*: egle.stonke@ku.lt.*

Experience of Raising Awareness among Potential Applicants to Establish Soil Health Living Labs

Erika Mankutė

Head of Marketing Department, Lithuanian Agricultural Advisory Service, Lithuania

E-mail: erika.mankute@lzukt.lt

Background and aim: Lithuanian Agricultural Advisory Service (LAAS) participated in a project NATI00NS under the Horizon Europe programme. The project is actively contributing to the EU Mission "A Soil Deal for Europe" by empowering stakeholders across Europe to apply for and implement soil health living labs. As LAAS provides consultations on plant production and soil health is a topic of high priority, it actively contributed to the implementation of project activities. Furthermore, living labs are quite new phenomenon in Lithuania therefore, it was a great opportunity to raise awareness of living labs among Lithuanian farmers, advisors, researchers, and other stakeholders.

Applied Methods: A suite of complementary activities was planned to inform, engage, and support potential applicants in EU member states. One of these activities was national engagement events organized in member states. Awareness among national and regional stakeholders was raised through national engagement events.

Most important achievements so far: LAAS organized engagement events in Lithuania. LAAS in collaboration with project partners from Latvia and Estonia organized engagement events in their countries as well. The target audience of the engagement events was provided with information about the EU mission "A Soil Deal for Europe", development of Living Labs proposals, and establishment of living labs. Reasoned discussions about soil health challenges were initiated among stakeholders during the engagement events.

A video about the project and soil health living labs was made by LAAS' team. The video was made after the visit of specialists of LAAS to Serbia. The aim of the video was to communicate about the project, its objectives, anticipated results, and soil health living labs.

Core challenges met: The major challenge was the language barrier. Therefore, material for engagement events organized in Lithuania was translated into Lithuanian. The decision was made to reach a wider target audience and avoid the language barrier for potential participants of the events. The same was applied for engagement events organized in Latvia and Estonia.

Conclusion/Future foresight: Awareness among national and regional stakeholders was raised through national engagement events providing access to capacity-building materials and information with the aim of achieving cooperation of national groups of stakeholders as potential applicants for regional soil health living labs Open Calls funded by EU Mission Soil.

Keywords: living lab, soil health, awareness, engagement event.

General information about Living Lab under presentation:

Title of the Living Lab: *No living lab was established yet. Engagement events were organized providing information about the establishment of living labs.*

Type of Living Lab *(project-based or other, please specify): -*

***Geographical coverage**: multi-level.*

***Areas of Work/Action:** organization of events, preparation of material for the events, translation of the material, invitation of the stakeholders, initiation and moderation of discussions.*

***Main Expertise to share:** As a concept of living labs is quite new, very detailed information has to be provided for the target audience. Furthermore, examples from other countries cannot always be directly applicable because of different legal basis and national regulations.*

***Contacts/more info** : erika.mankute@lzuk.lt, +370 610 34983*

https://nati00ns.eu/

https://www.lzukt.lt/naujienos/tarptautinio-projekto-nati00ns-partneriu-akiratyje-es-dirvozemio-misija/

https://www.lzukt.lt/naujienos/estijoje-pristatytas-tarptautinis-projektas-nations/

https://www.lzukt.lt/naujienos/dirvozemio-sveikatai-gerinti-tarptautines-pastangos/

https://www.lzukt.lt/naujienos/gyvosios-dirvozemio-laboratorijos-kas-tai/.

DroneLab - LivingLab as Part of the CODECS Project

Vineta Gailite, Junior Research Fellow in Environmental Protection,*

Raul Sampaio de Lima, Appointed Research Fellow in Remote Sensing,

Kaupo Kokamägi, Appointed Junior Research Fellow in Environmental Sciences and Applied Biology

Estonian University of Life Sciences, Estonia

**Corresponding author e-mail: vineta@emu.ee*

Background and aim: DroneLab is a team dedicated to education, offering services, and remote sensing research for environmental protection and landscape management applications. A recent key research objective is grassland ecosystem modelling to evaluate habitat vulnerability due to global change and to devise conservation strategies.

Applied Methods: UAV-based (drone) remote sensing is carried out in multiple stages (1) orthophotographic, surface temperature and multispectral mapping, plus 3d modelling; (2) collecting biota ground control points/samples; (3) customised index creation; (4) dissemination of results for stakeholders to receive feedback, asses impact and plan remote sensing advancement in ecosystem modeling.

Most important achievements so far: Creation of a LivingLab as part of the Codecs project (core objective: maximising the CO-benefits of agricultural Digitalisation through conducive digital EcoSystems). Latvian livestock farmers invited remote sensing researchers to co-develop user-friendly drone applications in semi-natural grassland management and conservation planning. This allowed DroneLab to enhance the remote sensing with citizen science methods. The multi-actor approach to research design fast-tracked feedback on digital innovations concerning conservation agriculture development. The impact of UAV-based remote sensing research was optimised within a LivingLab, since the drone-derived data were promptly used in grassland management planning.

Core challenges met: The on-farm experimentation with drone tech enabled the remote sensing team to develop LivingLab's methodology and identify the diverse applications of drone tech in conservation agriculture. To facilitate the digitisation of agriculture, farms involved in the CODECS LivingLab were provided with geographic information system (GIS) data, including digital maps and aerial imagery depicting farm ecosystems, allowing for further analysis and grassland habitat assessment. Moreover, it was demonstrated that such multilayered geopackages are simple to comprehend and can be used in communication materials for public awareness and as educational resources for farmers and agricultural consultants.

Conclusion/Future foresight: The increase of small and medium-sized regenerative and conservation agriculture and efforts in nature restoration will have an accumulative effect on the overall EU environmental goals for 2030. At the same time, UAV-based remote sensing can provide hyperdetailed and multilayered geospatial ecosystem analysis. Drone hardware, as well as GIS software, is part of the exponential development of tech due to the advancements in AI. To unite conservation agriculture and remote sensing research with the goal of nature restoration, there is a need for a systematic approach, case-by-case studies and ecosystem modelling that can benefit biota sampling in a dynamic ecosystem such as a working farm. The LivingLab approach can provide such an environment. However, there is a need to increase reciprocal knowledge transfer between the farmer and research communities and public actors.

Keywords: *UAV* remote sensing, ecosystem modelling, conservation agriculture, landscape analyses, semi-natural grasslands.

General information about Living Lab under presentation:

Title of the Living Lab: *DroneLab: semi-natural grassland ecosystem modelling (provisional title).*

Type of Living Lab*: While the university's involvement in the LivingLab is project-based to be able to fund research, for the community/citizen scientists involved in semi-natural grassland preservation and restoration process are continuous independently, whether their efforts are coordinated as a LivingLab or not.*

Geographical coverage*: Latvia/Estonia.*

Areas of Work/Action: *nature restoration, particularly concentrating on semi-natural grassland conservation and restoring degraded habitats; supporting small and medium-sized farmers' efforts in regenerative and conservation agriculture.*

Main Expertise to share: *drone-based remote sensing service: multilayered geopacages as a product; ecosystem modelling and assessment; GIS knowledge transfer and research dissemination; citizen science method: designing multistakeholder workshops.*

Contacts/more info*: vineta@emu.ee +37253958886 https://pk.emu.ee/en/chair-of-environmental-protection-and-landscape-management*

DemoFarm virtual tour (work in progress) https://virtualtours.hutton.ac.uk/codecs-estonia/.

From Fields to Futures: Empowering Women Through Agricultural Innovation Processes in a Living Lab

Dr. Vida Dabkienė, scientific researcher, dr. Tomas Baležentis, principal researcher*

Lithuanian Centre for Social Sciences, Institute of Economics and Rural Development, Lithuania

*Corresponding author e-mail: vida.dabkiene@ekvi.lt

Background and aim: The Lithuanian Living Lab is one of nine national cases within the GRASS Ceiling project, a Horizon Europe-funded initiative (2023–2025) implemented across Ireland, the Netherlands, Norway, Lithuania, Croatia, Spain, Sweden, Italy, and Scotland. The project aims to advance gender equality in rural and agricultural innovation systems by fostering inclusive innovation pathways for women.

Applied Methods: The methodological design of the Lithuanian Living Lab was grounded in a six-phase innovation process adapted from human-centred design frameworks, consisting of: (1) Explore, (2) Reframe, (3) Ideate, (4) Prototype, (5) Test, and (6) Empower. Each phase was operationalized through dedicated workshops, aligned with the overarching Living Lab framework developed within the GRASS Ceiling project's Work Package 3, which ensures methodological coherence across all participating countries.

The implementation employed a range of structured design and co-creation tools, including empathy mapping, Point of View formulations, brainstorming sessions, the SCAMPER technique, storyboarding, low-fidelity prototyping, and structured feedback grids.

Facilitation was carried out by a dual leadership team composed of academic researchers and practice-based mentors (LL co-leads), ensuring both theoretical rigor and contextual sensitivity. The process emphasized experiential learning, deep problem reframing, solution conceptualization and testing, and the real-life application of innovation outputs, supported by continuous mentoring and peer reflection.

Most important achievements so far: All participants successfully progressed through the structured innovation process and developed context-specific solutions, representing a diverse spectrum of innovation types—including product, service, business model, branding, incremental, architectural, and sustaining innovations. Their entrepreneurial initiatives were rooted in a wide range of agricultural domains, including berry farming and juice production, cereal farming and cold-pressed oils, milk processing, horticulture and floriculture, vegetable and herb farming, beekeeping, and viticulture. Innovations pursued by the women focused on areas such as the introduction of new growing technologies, the creation of added-value products, diversification of sales channels, and the development of sustainable and ecological approaches to farming.

The learning process fostered the development of an entrepreneurial mindset, increased confidence, and strengthened participants' sense of agency and identity as innovators. The women gained national media attention and public recognition, becoming visible representatives of inclusive agricultural innovation in Lithuania. Their stories and innovation journeys were further disseminated in international contexts, particularly during the GRASS Ceiling project's Showcase Event, where one woman from each participating country presented her farm, innovation path, and product developments. These narratives were amplified via a transnational communication ecosystem encompassing the project's official website, YouTube vlog content, and various social media platforms (e.g., X, Facebook, Instagram, and LinkedIn). These channels significantly

contributed to broader visibility, peer engagement, and cross-national inspiration within the nine-country consortium.

Core challenges met: Challenges faced in the Lithuanian Living Lab can be grouped into external and internal dimensions. Externally, women balanced farming with caregiving and, in some cases, off-farm work, making long-term participation demanding. Nonetheless, all eight participants remained engaged throughout the three-year process. Internally, remote sessions were less effective for engagement and content delivery, and standardized training tools were not always suited to small-scale farmers' practical needs. More advanced participants found some tasks too basic, while beginners struggled with abstract concepts.

Conclusion/Future foresight: This Living Lab demonstrated that rural women can be key actors in agricultural innovation when supported through structured, participatory processes. Future actions should focus on more flexible, tailored mentoring and strengthening cross-country collaboration to scale successful approaches.

Keywords: living lab, innovation process, women in agriculture, rural entrepreneurship.

General information about Living Lab under presentation:

Title of the Living Lab: *GRASS CEILING project Living Lab of women innovators in agriculture.*

Type of Living Lab*: project-based.*

Geographical coverage*:* national. *The Lithuanian Living Lab is part of a comparative multi-country study conducted across nine European countries within the GRASS Ceiling project. However, this abstract presents insights and outcomes specifically from the Lithuanian case.*

Areas of Work/Action: *Empowerment of women farmers; rural entrepreneurship; agricultural innovation; inclusive co-creation processes; participatory training methodologies.*

Main Expertise to share: *Design and facilitation of Living Labs focused on female-led innovation in agriculture; implementation of human-centered innovation processes in rural settings.*

Contacts/more info*: vida.dabiene@ekvi.lt*.

Cooperation of Small And Medium-Sized Farms as a Tool to Enhance Participation in Public Procurement

Dr. Nelė Jurkėnaitė, senior researcher

Lithuanian Centre for Social Sciences, Institute of Economics and Rural Development, Lithuania

**Corresponding author e-mail: nele.jurkenaite@ekvi.lt*

Background and aim: The main aim of the research is to investigate the key challenges, hindering the development of public procurement distribution channels that connect local small and medium-sized farmers and contracting authorities in Lithuania, and to develop and verify an organizational model that allows local farmers to participate in public procurement. Nurseries, other pre-school establishments, primary and secondary schools are recognised as important segments of the market that allow to promote healthy and sustainable diets as well as sustainable food systems. The project targets the aforementioned public procurement niche and establishes the network of short supply chains that deliver local food products.

Applied methods: An experiment was carried out in one municipality in order to test the innovative organizational cooperation model. Results of the experiment were introduced in a case study that investigated economic, environmental, and social aspects of public procurement distribution channel.

Most important achievements so far: The cooperative continues the activity after the end of the project. The experiment allowed to provide recommendations for the improvement of small and medium-sized farms' participation in public procurement.

Core challenges met: The project developed an innovative organizational cooperation model that allowed small and medium-sized farmers to participate in joint public procurement. The core challenge was the empowerment of the cooperation between small and medium-sized farmers, representatives of the municipality, and contracting authorities.

Conclusion/Future foresight: The success of the innovative model depends on the sharing of common values that focus on the establishment of the resilient and sustainable food system and the effective involvement of all actors. The research shows the vulnerability of the economic dimension of business sustainability on farms that rely on local public procurement distribution channels as the sole source of the entrepreneurial income. The case study discusses possible solutions to overcome this problem. The experiment also demonstrated environmental benefits of this innovative cooperation model. However, behavioural changes of contracting authorities and the selection of road vehicle for delivery of products play a paramount role and determine the environmental impact. The innovative cooperation model diversifies farmers' income and creates new jobs. Therefore, it contributes to the alleviation of poverty in municipalities.

Keywords: public procurement, short supply chain, small and medium-sized farms, sustainable food system.

General information about Living Lab under presentation:

Title of the Living Lab: *(prospective area) collaboration between science, public, and private sectors.*

***Type of Living Lab**: project-based The European Innovation Partnership project "Development and implementation of a system of short supply chains using local agricultural products in the public sector" has received funding from the European Agricultural Fund for Rural Development under the Grant Agreement No. 35BV-KK-20-1-11413-PR001. The leader of the project is the Chamber of Agriculture of the Republic of Lithuania.*

***Geographical coverage**: local; national.*

***Areas of Work/Action:** cooperation between rural and urban area.*

***Main Expertise to share:** The innovative cooperation model that enhances the establishment of short supply chains and empowers the participation of small and medium-sized farmers in public procurement.*

***Contacts/more info**: nele.jurkenaite@ekvi.lt.*

LIRA lab - Living Innovations for Regional Advancement: AI-empowered Diagnostics and Co-creation for Society

Dr. Rita Lankauskienė, principal researcher

Lithuanian Centre for Social Sciences, Institute of Economics and Rural Development, Chair of the Commission on Methodology and PhD Studies in Economics, Head of LIRA Living Lab at the Innovation Transfer Centre, Lithuania

E-mail: rita.lankauskiene@ekvi.lt

Background and aim: The concept for LIRA Lab was inspired by insights gathered at OpenLivingLab Days 2024**,** the global event of the European Network of Living Labs (ENoLL) held in Timișoara, Romania. This annual gathering brings together researchers, policymakers, entrepreneurs, and innovators from across the world to exchange best practices in user-driven innovation. During the event, a vision was formed to consolidate existing research and experimental development expertise and channel it into effective innovation transfer - ensuring that outcomes developed within EKVI reach both the general public and specific stakeholder communities. LIRA Lab aims to amplify the socio-economic impact of R&D by bridging the gap between knowledge creation and real-world application. Its broader vision is to become a leading diagnostic and co-creation hub, dedicated to delivering the value of innovation ecosystem methodologies and tools to diverse stakeholders.

Applied Methods: The Participatory Innovation Building Tool developed by LIRA Lab integrates several methods and tools with a threefold purpose:

1. To lay the groundwork for effective stakeholder engagement in the innovation design process;
2. To establish shared objectives and a common vision among diverse stakeholders for the innovation under development;
3. To support needs assessment and prioritization throughout the innovation cycle.

This tool combines three interrelated methodologies: (1) the 6-step Delphi method, (2) the Quadruple Helix approach, and (3) the Stakeholder Salience Model.

Since 2017, the governance model of LIRA Lab has been firmly rooted in the principles of the Quadruple Helix innovation approach (Carayannis & Rakhmatullin, 2014; González-Martinez et al., 2023). Organizations engaged in governance and strategic decision-making within the Living Lab operate across key sectors such as the circular bioeconomy, agriculture and rural development, social economy, social innovation, and innovation transfer. The Living Lab actively involves a wide range of stakeholder groups, including government representatives, citizen/user communities, NGOs, schools, researchers, and business enterprises.

Most important achievements so far: Between 2017 and 2025, LIRA Lab has implemented Living Lab-like activities by participating in several international projects under the INTERREG and Horizon programmes. The Lab's journey began in 2017, when researchers from LCSS EKVI, Department of Business Ecosystems, joined the INTERREG project LARS. With guidance from leading Finnish partners - recognized as advanced innovators by the European Innovation Scoreboard (EIS) - the team adopted the Quadruple Helix innovation approach in establishing Living Labs across the Baltic Sea Region. The first national Living Lab at LCSS, initially named *CBioLit – Circular Bioeconomy Lithuania*, operated within the LARS project (2017–2020), and

continued its evolution through GRETA (2020–2021), alongside SHERPA (2019–2023), and is currently active within ESIRA since 2023. The methodologies and governance developed across these projects have been consolidated into LIRA Lab's current model, integrating SHERPA's systemic logic and, more recently, expanding to include a new service-oriented direction.

Core challenges met: LIRA Lab faced several challenges during implementation, particularly in sustaining stakeholder engagement through the entire project period. As funding neared its end, maintaining commitment became more difficult, highlighting the limitations of time-bound financial support. The replication and scaling of developed methods across different contexts also proved complex, requiring careful coordination to maintain consistency. Additionally, despite producing evidence-based recommendations, there was limited interest from policymakers in applying these insights to real policy processes. This disconnect hindered the broader impact of the Lab's work. These challenges underscore the need for long-term engagement strategies, diversified funding, and stronger links between innovation and policy-making.

Conclusion/Future foresight: To increase its impact and relevance, LIRA Lab has developed a forward-looking strategy centered on deeper stakeholder engagement. The Lab will promote a culture of co-creation through participatory workshops, open dialogue, and real-time digital communication. To improve knowledge sharing, it will launch an online repository, host interdisciplinary seminars, and strengthen its presence on platforms like LinkedIn and Facebook. Capacity-building efforts will be expanded and tailored to external audiences, offering targeted training in Living Lab methodologies and sustainability practices. Looking ahead, LIRA Lab plans to enhance its impact assessment tools and broaden partnerships - engaging industry leaders, involving Ph.D. students, and building strong public-private collaborations to ensure long-term growth and resilience.

Keywords: LIRA lab, stakeholder modelling, methods and tools, regional policy, business modelling.

General information about Living Lab under presentation:

Title of the Living Lab: *LIRA lab - Living Innovations for Regional Advancement.*

Type of Living Lab *(project-based or other, please specify): Living Lab of the Innovation Transfer Centre at the Institute of Economics and Rural Development, Lithuanian Centre for Social Sciences.*

Geographical coverage: *multi-level.*

Areas of Work/Action: *social sciences (economics and management): regional ecosystems, AI-based models, stakeholder modelling, commercialization.*

Main Expertise to share: *regional policy modelling, AI-based modelling, stakeholder engagement modelling, research & development, business model development in the fields of circular bioeconomy; agriculture and rural development; social economy; social innovations; innovation transfer.*

Contacts/more info*: rita.lankauskiene@ekvi.lt; https://www.ekvi.lt/en/lira-lab.*

About the LLLNet – National Network of Living Labs of Lithuania

LLLNet

National Network of Living Labs

We welcome new members who believe that together we can do more!

About LLLNet

LLLNet, the National Network of Living Labs of Lithuania, is a non-profit association that brings together living labs across the country. The initiative began to take shape in the autumn of 2024, following inspiration from Open Living Lab Days 2024, organized by the European Network of Living Labs (ENoLL). At this event, Lithuania was represented by a delegation of researchers and innovators from nine different institutions, including universities and research centers, who became the founding team of LLLNet.

LLLNet seeks to foster a culture of collaboration among scientists and diverse stakeholders engaged in living labs across Lithuania. The network is dedicated to enhancing the visibility and competencies of researchers, scientists, and innovators through knowledge exchange, co-creation, and the development of new ideas and partnerships. In doing so, ***LLLNet aims*** *to contribute to improving quality of life and strengthening the country's socio-economic and environmental resilience. The network places particular emphasis on promoting social responsibility and advancing a healthier future for multiple stakeholders and society at large.*

Living labs are recognized as open innovation ecosystems, often without strict physical boundaries, embedded in real-life environments. They operate based on a systematic user co-creation approach, integrating research and innovation activities within community-driven and multilateral settings. Central to this process is the active involvement of citizens and end users, ensuring that innovation is deeply aligned with societal needs.

LLLNet connects innovators involved in the development, evolution, or active operation of living labs, as well as those engaged in other collaborative initiatives that align with the living lab methodology. These initiatives span various fields, including healthcare, public health, scientific research, rural and urban development, and community-based projects, all within the geographical context of Lithuania.

Membership in LLLNet reflects a *strong commitment* to interdisciplinary collaboration in scientific research and experimental development. By facilitating the exchange of best practices and success stories from both national and international living labs, LLLNet promotes open science and co-creation, ultimately fostering a more socially responsible and healthier future for all stakeholders and society as a whole.

LLLNet Membership Benefits

- *Enhancing Visibility*. Gain recognition for your living lab's unique contributions by joining LLLNet. Enhance your visibility through active participation in the co-creation and implementation of long-term strategic initiatives aimed at disseminating the achievements of Lithuanian scientists and innovators. Contribute to the systematic accumulation and advancement of national competencies in the living lab ecosystem.
- *Opportunities for Collaboration*. Become part of a dynamic and interdisciplinary community of living labs at both national and international levels. Engage in collaborative projects spanning diverse fields and leverage the collective expertise of fellow members to amplify the impact of your initiatives.
- *Competence Development*. Strengthen your expertise and skillset by working within the evolving landscape of living labs. Advance your co-creation competencies through targeted training, knowledge exchange, and best practice sharing. Stay at the forefront of emerging trends, innovative methodologies, and cutting-edge developments, equipping yourself to navigate challenges and seize new opportunities.
- *Expanding Professional Networks*. Establish and cultivate valuable connections with organizations and innovators across Lithuania and beyond. Engage in networking opportunities through conferences, thematic sessions, workshops, specialized training programs, and other LLLNet events designed to foster meaningful partnerships and interdisciplinary collaboration.

How to become a member?

Become a member of LLLNet by completing the membership application form - send your request by email: asociacija@lllnet.lt .

Tell others about the uniqueness, mission and achievements of your living lab by featuring your lab in the next issue of the Booklet Collection "*Living Labs of Lithuania"*.

Folow us in LinkedIn: https://www.linkedin.com/company/lllnet .