

# UNIVERSITY INDUSTRY

## INNOVATION MAGAZINE

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## Universities Nurturing Local & Regional Growth

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Dear UIIM Reader,

The past decades of unprecedented social and economic opportunities have simultaneously contributed to the emergence of “globalised” challenges, such as environmental and human-capital depreciation, rapid and uncontrolled urbanisation, brain-drain and the notable decline in innovative activities in more modest regions, among others. As the key players in regional and local ecosystems, and active “knowledge creators”, universities are increasingly being called upon to step in as “knowledge translators” to address pressing challenges. Thus, contributing to the regional Smart Specialisation Agenda and implementing Sustainable Development Goals in the “quadruple helix” model, together with public authorities, local businesses and civic society as a whole.

Adopting this as a part of their “third mission”, alongside more traditional linear education and research, universities employ various modes, scales and scopes of engagement for regional and local development. In this special issue we aim to provide insights into the third mission activities of universities, ranging from community rejuvenation efforts to co-creation practices within and outside living labs in education and research.

Our guest authors from South Africa and Ireland discuss the role of universities in the effective regional ecosystems, while the contributors from the USA and the UK shed light on the issues of engagement and university impact in smaller markets and the rural environment. Furthermore, we provide examples of successful collaborative initiatives embracing multidisciplinary challenge-based learning or tackling local issues with an international learning platform originated in Finland and an example of an interdisciplinary programme in Slovenia. In the final part of the magazine, we dive into the exploration of collaborative living labs, bringing you the examples of a library living lab in Spain and urban vitality lab in the Netherlands, both progressively fuelled by universities. It is important to mention that this special issue has been inspired by the two of our Erasmus+ projects, which both address the need for interconnectivity and boosting university potential for local and regional development: [University-City Action Lab](#) and [RESTART+ Communities](#). Both projects provided great insight and selected articles for this issues and we would like to call your attention to them as the pinnacle of this publication.

Notwithstanding, while we are highlighting only a fraction of initiatives and models, we would love to gain your perspective and experience on this subject and bring your ideas to our community. We kindly invite you to share your perspectives via our social media channels, or contact us through [office@uiin.org](mailto:office@uiin.org).

We wish you a pleasant reading and many useful takeaways.

The managing editor,  
*Alexandra Zinovyeva*

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ENRICO JACOBS

# The Role of Higher Education in Effective Regional Development:

## the Collaborative Model of Belgium Campus ITVersity Pretoria, South Africa

*E*nterprise, employment, education, and innovation are the key levers for effective regional development. Education, particularly, is one of the few areas where both public and private investments reaches record high levels. However, “What is higher education’s regional engagement all about? What are its drivers, and barriers? What does it mean to the governance and management of higher education institutions (HEIs), and how does it fit with the pursuit of academic excellence? ►





From its inception, [Belgium Campus ITversity](#) (BC ITversity) has embraced a participatory approach to its core business of education and knowledge valorisation in the field of ICT and AI. Consequently, it is fully committed to an active role in South Africa's regional development evidenced by BC ITversity's achievements throughout its 20 years of existence. These include: 1. contributions to labour market upskilling made by highly skilled graduates apt to support new industries' emergence; 2. contributions to regional innovation networks in Gauteng, the "smart province"; 3. The creation of BC ITversity structures for steering and support graduates towards regional engagement; 4. advocacy in raising regional innovation strategy processes' quality by helping create collective innovation assets.

With economic, human and social costs, the COVID-19 outbreak, on top of an already rapidly changing world, has altered the global education landscape far beyond expectation. The complexity of the worldwide challenges forces us to think and act differently. We need to co-redefine issues and their solutions, we need co-creation, and multi-partner collaboration. Various development models mirror this complexity, e.g. the Planet-People-Profit model. There is a phenomenal technological acceleration in a globally connected world where the knowledge economy has become of paramount importance. At the same time, business and innovation models are being redefined to seek sustainability, unfortunately educational models still seem to be stuck in a bygone era.

Changes are swift, fast, and sometimes unpredictable. We have so-called black-swan events, which can be extremely disruptive. A prime example is the COVID-19 pandemic which causes the lockdown of public life and industry all over the world. This has given rise to novel trends, challenges and solutions, such as online or distance teaching and learning, remote working, and increasing on-line

commerce. The nature of technological, economic and social activities is disruptively changing, driven by the necessity to respond and adapt. The human experience keeps changing, with cultural implications. Just think of the effect of ubiquitous access to unlimited information, and social media and services.

One of the major tools and enablers of adaptation is the ICT, AI and Big Data complex, core of the fourth industrial revolution. This is the driving force behind a lot of new development, decision making and economic activities. It is the driver behind the development of the aforementioned human experience, including the culture and entertainment industries.

BC ITversity, as a strong advocate for change and regional development, has always understood the fundamental need for an ecosystem-centric approach to a smarter adaptation strategy by joining forces with the other actors in the ecosystem. The triple helix of higher education innovation (teaching, research and engagement/services) was the basis for the development of the quadruple and even quintuple helix. This is the set of interactions between academia, industry and government, to foster economic and social development. The quintuple helix underpins a win-win situation between ecology, knowledge and innovation, creating synergies between economy, society, and democracy. It places sustainability at the centre of the agenda in assuring a sustainable future for humankind and the planet. The challenges prompt us to collaborate in mastering the knowhow and the dynamics of co-operation, co-definition and co-creation in solution finding with the various regional stakeholders.

One important issue is the global talent deficit. A 2018 Korn Ferry study examined talent supply and demand in 20 economies across the world, and concluded that the biggest issue is the availability of enough human capital to fill the vacant jobs. Indeed, the study finds that by 2030, there will be a global human talent shortage of more than 85 million people. Left unchecked, in 2030

that talent shortage could result in about \$8.5 trillion in unrealized annual revenues.

For South Africa the current official unemployment rate is 29%. Having the available talent, would make the difference between having a recession or a growing economy. Governments, organizations and universities must make talent strategy a key priority and take the necessary steps now to educate, train, and upskill their existing workforces. Graduates need to be ready for immediate employment in industry, additionally, they have to be future-fit. This requires a number of additional skills, such as leadership, meta-cognitive insights and life skills. This is a field education largely still must include in their curriculum design, be it in the overt or hidden curriculum. Tacit or implicit knowledge of these skills is no longer sufficient.

BC ITversity calls it the Global Competence Skill Set: the knowledge, attitudes, skills, character and behaviour necessary to thrive in today's interconnected world. The tools and didactics that are specifically used differ somewhat from the traditional approaches and include action-based learning, student-to-student learning, co-creative and collaborative skill development, rapid prototyping, student engagement and internships, and the Learning Factory approach. These are key elements and they are always present in research, teaching and learning, knowledge valorisation and community

engagement. Also, it is not just a target as such, it is a process of creating continuous synergy and dynamic exchange.

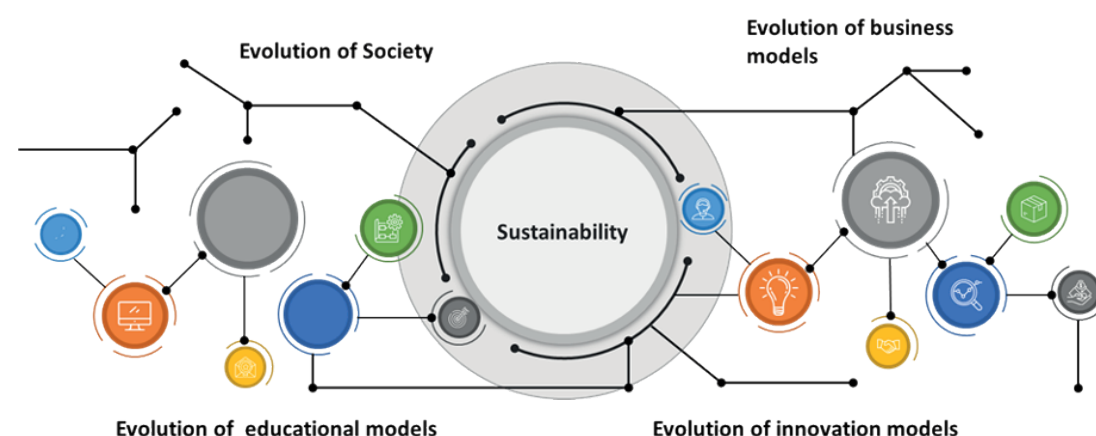
This constitutes an integrated innovation ecosystem. Given our expertise in ICT, BC ITversity focused its last academic year on concrete and integrated projects in the fields of renewable energy, agriculture, smart cities, educational design, mobile health, and aviation.

There is an active collaboration with 80+ companies, national and international, which include (Virtual) mobility programmes, (full) bursaries for 40 % of the students, special focus groups, and R&D funding. We also secure government funding for development co-operation projects.

This curriculum design has proven to be both very effective and efficient. All our graduates are employed, industry and community are involved and happy with both the process and the final results, and the students testify that the transition from learner to active employee and community member is very smooth and easy. ■

IMAGE CREDITS: Belgium Campus ITversity.

**ENRICO M. JACOBS** is the CEO and Co-Founder of Belgium Campus ITversity





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cover the are  
cam

WiSys<sup>®</sup>  
inspiring Wisconsin innovation



ARJUN SANGA

# Universities with Impact:

## 3 Strategies to Boost Innovation in Smaller Markets

***E**very university and every city has innovators—regardless of its size. To unleash their potential, you must identify them, think of activities to stimulate them and share resources to support them. With the right structural support, researchers, innovators and entrepreneurs at small- to medium-sized universities can have just as large of an impact as those at the world's top research universities. ►*





By working collaboratively with a nonprofit technology transfer and innovation accelerator organization known as WiSys, a group of 11 smaller public U.S. universities in the Midwest state of Wisconsin have shattered expectations and earned national and international recognition for their ability to innovate.

At these primarily undergraduate universities—UW-Eau Claire, UW-Green Bay, UW-La Crosse, UW-Oshkosh, UW-Parkside, UW-Platteville, UW-River Falls, UW-Stevens Point, UW-Stout, UW-Superior and UW-Whitewater—faculty have high teaching loads and a classroom-focused culture.

Building an innovation mindset, in partnership with member campuses, required a sustained commitment from university leaders as well as key faculty members. It also required a commitment to engaging each institution's most valuable asset: its students. WiSys challenged the perception of what is possible at these smaller institutions by embracing three long-term strategies:

#### 1. Putting innovators together to spark activity

Part of the role that WiSys serves is that of a facilitator, or convener, of creative and innovative people from the 11 universities. WiSys organizes events and activities such as the WiSys SPARK Symposium to bring together hundreds of faculty, hundreds of students and

key industry partners to share research, innovation and entrepreneurial ideas in all fields.

At the symposium, WiSys honors the best new innovations from the 11 universities through an innovation awards banquet. These awards allow for innovators to receive recognition among their peers but also promote the excellence of their institutions.

Student poster and innovation competitions and a faculty “open mic” encourage networking at the annual symposium, sparking thoughtful discussions and potential collaborations. Many new projects and positive outcomes among researchers from different universities have blossomed at the symposium throughout the years. While virtual events have been a necessary pivot during the pandemic, it is difficult to replace the valuable interactions and networking at an in-person symposium.

#### 2. Acting like an entrepreneur. Pilot. Pivot. Scale

WiSys has developed new programs and activities to identify talented students and faculty and engage their inner innovator. WiSys, however, can't execute every new program on all 11 campuses at once. When the organization develops a new program, it often tests it at one or two campuses first.

WiSys staff learn and adjust, based on experience

and feedback, before scaling the idea to the rest of the universities that it serves. This process can take several years, but in the end, it has been a very successful and effective pathway to adoption.

The WiSys Quick Pitch Program is one example. WiSys borrowed the elevator pitch idea that is very popular and familiar to entrepreneurs and applied it to undergraduate research. Student researchers learn to talk about their research to non-scientists in three minutes or less.

This program was incubated at one campus with only three participants in the first year. Three years later, by learning and expanding on what works, the program was embraced at all 11 universities. It now has participation from more than 100 students annually.

The WiSys Quick Pitch Program has become one of WiSys' most popular events and many faculty members recommend the program to their students.

#### 3. Sharing regionally. Engaging locally

WiSys is a shared service across 11 institutions. With so many regional institutions, it became clear that WiSys staff needed to have a physical presence at each campus to build relationships.

Therefore, WiSys instituted a Regional Associate

Program. Through the program, a technology transfer and innovation expert, or associate, is assigned to serve three to four campuses. These professionals meet with faculty and students on each of their campuses about once a week.

While WiSys experts have not been able to schedule in-person visits during the global pandemic, they've been able to continue their work fairly seamlessly in a virtual environment because of the relationships they've built up through years of one-on-one meetings, campus presentations and networking at local events.

The regional approach has built awareness of WiSys and WiSys programs on each campus. The increased visibility resulted in an almost threefold increase in the number of inventions disclosed to WiSys. This has innovators and their ideas that may never have been found had it not been for these efforts.

As a practical matter, individually, each of the 11 campuses would be challenged to hire the personnel and offer the research, innovation and entrepreneurship programs and services offered by WiSys. Collectively, the expertise and support is affordable. The shared service allows the group to be competitive on a national scale.

The WiSys group of universities was ranked as one of the most productive for innovation impact throughout the U.S., in a report released by the George W. Bush Institute in June 2020. The report ranked University of Wisconsin-WiSys second in the report's rankings for smaller research universities.

That's a huge achievement for a group of regional universities with a collective research output that is half that of the top university in their category and whose individual research outputs are approximately 5 percent of that top university.

It didn't happen overnight, and it isn't easy, but if you commit to the process, you can develop a culture of innovation anywhere. “Eureka isn't a moment. It's a process”.

IMAGE CREDITS: WiSys

**ARJUN SANGA** is the President of WiSys, the University of Wisconsin System.



MARIA SALOMAA

# Location, Location, Location – What Do We Know about University Engagement in Rural Regions?

A recent case study of the University of Lincoln (UK) suggests, that perhaps university engagement should be further studied in different regional contexts. Currently, the research literature is focused on a rather idealistic 'one-size-fits-all' approach to university engagement, which overlooks the importance of regional environment. However, we know that finding synergies with specific local conditions and universities' institutional responses can be problematic (e.g. Benneworth et al. 2016), so a particular regional context does matter. The case of Lincoln, examined through entrepreneurial architecture framework originally conceptualized by Vorley & Nelles (2009), can shed some light on the characteristics of university engagement in rural regions. ►





Delivering third stream activities in such sparse innovation ecosystem can be more complicated due to a diverse economic base, lower skills level, geographical remoteness (Charles, 2016) and weaker entrepreneurial traditions (Ofstedal & Foss, 2015). Another issue is that universities in rural regions tend to be smaller satellite campuses, so they struggle to respond to the local expectations often based on the capacity of full-range universities. However, universities in rural regions do their share: they contribute to regional development e.g. by increasing skills levels, offering local access to higher education and responding to regional educational needs (Charles, 2016). Often universities in rural environments can actually have a stronger regional focus; for example, their strategic choices can be more employer-led and largely based on regional priority sectors.

This is exactly the case with the University of Lincoln (UoL). It is located in a rural region of Lincolnshire in East Midlands and has expanded significantly in the first two decades of its existence. Therefore, it provided an interesting case for observing how a university can efficiently engage with local stakeholders in a rural region. UoL has strategically aimed to develop a set of structures to support the regional economy, especially to liaise more with local businesses. It has also tried to address the problem of retaining graduates in the area, for example, by offering graduates free services and small-scale grants to foster entrepreneurship. The establishment of these and other support activities as well as local large-scale business collaboration initiatives, including the Lincoln Science and Innovation Park, is considered as a concrete way to attract more companies to the region – though the activities are mostly located in the central Lincoln.

Many of the UoL's engagement activities, varying from offering state-of-the-art facilities to a range of business support services to local companies, often result from a tight collaboration with the regional stakeholders, in particular, with the local authorities. They expect the university to take action in the absence of other local knowledge institutions. These partnerships, typically on top management level, as well as demands of the local job market have influenced UoL's curricula design. As an example, the establishment of the UoL's new engineering school resulted from a long-term cooperation with Siemens Ltd. The local priority sectors, such as agriculture and food manufacturing, also steer UoL's research orientation towards serving local businesses.

These tentative findings from the case of UoL imply that universities located in rural regions have to deal with increased expectations and take leadership outside of academia. Top-level linkages with external stakeholders steer both the structures and the strategic choices towards serving the local job market and regional priority sectors. However, the engagement is linked

more to individuals than institutions, which makes it vulnerable to staff changes and quite complicated to manage. The implementation of engagement activities could be more effective if it did not rely on strong personal commitment of a few individuals, but on strategic institutional efforts to work more closely with external stakeholders. This gets us back to the starting point: what do we actually know about successful university engagement in different regional contexts? The case of UoL gave a glimpse of its features in rural regions, but if one-size-does-not-fit-all, the whole discussion around university engagement should become broader, taking different specific territorial characteristics affecting HEIs operational environment into account. ■



Find more details about the case of University of Lincoln in an article "Third mission and regional context: assessing universities' entrepreneurial architecture in rural regions", published in *Regional Studies, Regional Science*, Vol. 6, 2019, special issue on 'Universities, innovation and regional development.'

*This blog originally appeared at University Industry innovation Network (UIIN) website. The article can be accessed [here](#).*

IMAGE & LOGO CREDITS: University of Lincoln

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UNIVERSITY OF  
LINCOLN





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# Carving the Way to Community Regeneration with LYIT

*In the times of rapid transformation, some regions in the EU are further along the track for smart, sustainable and inclusive growth than others. Many communities in Ireland have faced challenges as investment in infrastructure and amenities has lagged behind the changing needs. With a cycle of under-investment, weak employment and a skills gap in relation to the labour market (especially for young people), many rural communities in Ireland have been especially hard hit by economic and social challenges. Business closures, a decline in agriculture, the demise of public services, bank, post offices; and poor connectivity has left communities isolated and a deficit in key infrastructure. ►*





**Importance of community organisations**

Supported by local authorities and development agencies, community organisations work on the front-line, helping individuals affected by these issues. However, their actions have been curtailed by a reduction in funding and underlying structural challenges. Thus, high levels of small community decline challenge us to understand what causes failure and find innovative approaches to growth.

At Letterkenny Institute of Technology (LYIT) we believe that our role as a local knowledge provider is to contribute to the transformative changes in community regeneration by improving knowledge, skills, confidence and connections in areas such as community leadership, cross-sector collaboration, social enterprise, investment, cultural heritage, impact evaluation. Within the Erasmus+ funded project [RESTART+](#) we engaged with community groups and stakeholders in Donegal, Ireland, to create innovative learning tools and resources to equip local leaders with the knowledge and skills to adopt a transformative approach to community reactivation. The project aimed to increase investment and return on that investment in community regeneration projects.

Rural Ireland has witnessed dramatic changes in the last number of decades. However, one aspect of rural life that remains unwavering, irrespective of decline or growth, is the contribution and impact of voluntary work. Voluntary and community organisations form a core part of civil society, and have allowed Irish rural communities to continue to build capacity, develop economic structures and enhance quality of life. Community development is fundamentally concerned with learning and change, both on an individual level, and in order to develop collective capacity.

Support from government and local authorities is vital for community focused enterprises and once the participatory process is established, the benefits of community-based development include increased efficiency and cost effectiveness.

Furthermore, partnerships with government and/or governing bodies has led to an increase in ‘professionalism’ in the community sector making it more bureaucratised, which pressurises community workers to maintain those partnerships as opposed to serving the community directly.

**Community development methodology**

To better understand the needs of Donegal local communities and how our institute can better support it, we engaged in the research exercise. In this research, a case study methodology was used to explore understanding, practice, motivations, behaviours and attitudes in relation to community development. The project involved the creation of a collaborative body, called an ‘alliance’

which brought together 12 members of public, private and non-profit organisations. Participants shared knowledge and identified best practice support structures and training objectives.

Community development was explored using four themes: 1) key issues in the communities; 2) formation of the community group; 3) group operations; and 4) key lessons. During a second set of focus groups, issues were refined and key challenges that alliance members had overcome were focused on, as well as their biggest future challenges. Focus groups were made up of volunteers and professionals, and aided in learning more about the communities themselves.

**Major learnings**

In the first part of the focus groups we worked to identify key issues. Surprisingly, the traditional issue of funding was not the biggest concern, but it was still present. Numerous additional issues highlighted by the focus group, such as: difficulty recruiting staff; apathy among the community; lack of time and skills; dealing with government agencies and the significant increase in regulation and compliance requirements and general fatigue.

In the second part, it was found that groups were mostly formed to support a large-scale project which aimed to address community needs. Subsequent development and existence was linked to a continuation of funding and the need to “maintain” the original project. Overall community groups were mainly found to be formed in order to build a reputation; create a management structure; to obtain funding; form steering groups and facilitate public meetings.

The key operational challenges of renewal among the communities was highlighted and many felt constrained by an inability to recruit new members, which hindered progress and strategic and operational planning. In general, the challenges mirrored the issues that were faced, and additional topics included project management and strategic planning.

In the final stage, groups felt that much could be learnt from their experiences. The overarching challenge was related to obtaining new members and how best to achieve a connection between the experience of existing members and of those who are needed to bring the groups forward. A second theme was the need to “stand-up” to funders and regulators to improve the experience of all groups and to ensure sustainability and effectiveness. Other lessons related to lack of skills, generating income, strategic planning, renewal, governance codes and mission drift.

**Conclusions**

The post-recession economic climate has presented community organisations, development agencies

and local authorities with a radically changed working environment and rising demand for social service provision. However, there is still a significant gap which is amplified by the restrictive terms and conditions associated with most funding calls. The difficulties organisations face in meeting requirements of accountability means that their capacity for innovation is significantly reduced. Furthermore, many community organisations suffer from inertia and apathy within their communities. This creates significant challenges for their sustainability and renewal.

For this reason, these regional alliances form a key part of our strategy, providing knowledge sharing and peer learning and mutual support. This research indicates that our community leaders will not benefit from generic training – they already have significant experience and so training must cover gaps in their knowledge, but also build on their existing skills and allow for greater personalisation of learning according to their strengths. We, together with the RESTART+ project partners, have developed a training programme and a set of open educational resources for the community leaders to fill in the gap. The resources are available [here](#).



lyit

Institiúid Teicneolaíochta  
Leitir Ceanáinn  
Letterkenny Institute  
of Technology

*This article is based on a study originally authored by Aisling Bonner, Karen McCormick, Dr. Isobel Cunningham and Dr. Simon Stephens from the Letterkenny Institute of Technology. The paper available in full [here](#).*

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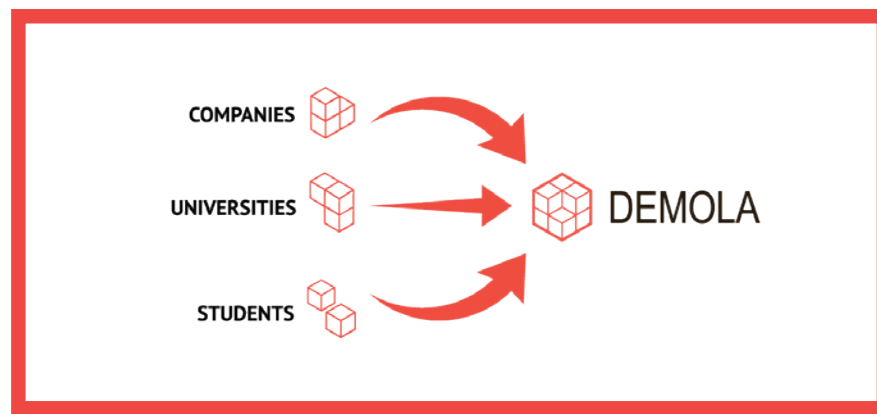
FARLEY SAWYER & TODD DAVEY

# Demola – What Drives Your Future?

*Demola is a co-creation programme between students and external organizations to deliver challenge-oriented ideas. It was created in 2008 within the innovation ecosystem of Tampere, Finland, thanks to the collaboration of municipality, local universities and the private sector. Building on a question or concept brought forward by the organization, Demola makes use of its extensive network of universities to select a multidisciplinary team of students that will complement the company's current expertise. ►*







Demola offers the externalization of facilitation functions to access a larger collaborative network. Present in 17 countries and with over 50 universities being part of the framework, it can benefit organizations by delivering highly effective co-creative projects with multidisciplinary groups that improve the quality of the research. For students, it allows them to experience high pressured environments, with the added recognition in the form of university credits.

Demola embraces the need for multidisciplinary approaches for the educational community as well as public and private enterprises. Evolving around the concept of global megatrends, Demola reckons no organization can succeed without connected thinking. One of the priorities for Demola is to provide a co-creative ecosystem that is fair and reasonable for students. In order to achieve that, proposals from the challenges belong to the team, with the possibility for organizations to invest in the development of those concepts. The succession of feedback and internal assessment culminated in the development of New Factory in 2012, which operates as a hub for open innovation activity and Demola's local co-creation centre.

#### Objectives and impacts

The structure designed by the Demola team presents clear roles of students and organizations through the process. The nature of this framework protects the engagement of students and enhances the impact of their input in the project. By encouraging this equality in the dynamics within the group, Demola creates an environment that optimizes outcome via lack of hierarchy.

For example, enterprises have the opportunity to purchase exclusive usage rights to the results of the project. This distribution of ownership reinforces the direct relationship between students and organizations, with Demola providing a framework to regulate their negotiation for the usage of intellectual property.

The Demola program is a unique and innovative initiative connecting students with organizations in order to find creative solutions through collaborative partnerships. Some of the program objectives are:

- Offer professional facilitation for companies to participate in co-creative activities, encouraging existing employees of public and private enterprises to experiment through co-creation with university students.
- Develop a wider understanding of complex urban challenges, exposing the municipality to different perspectives and diversifying their approach through innovative thinking.
- Offer a structure for students to access development opportunities outside the standard channels offered by their institutions, including new work methods and a different range of professional expertise, in order to cultivate skillsets that will equip them for their future career.
- Provide a platform that connects the interests of companies and universities, allowing employees of enterprises to grow their skills while enhancing the teaching activities of the HEI.

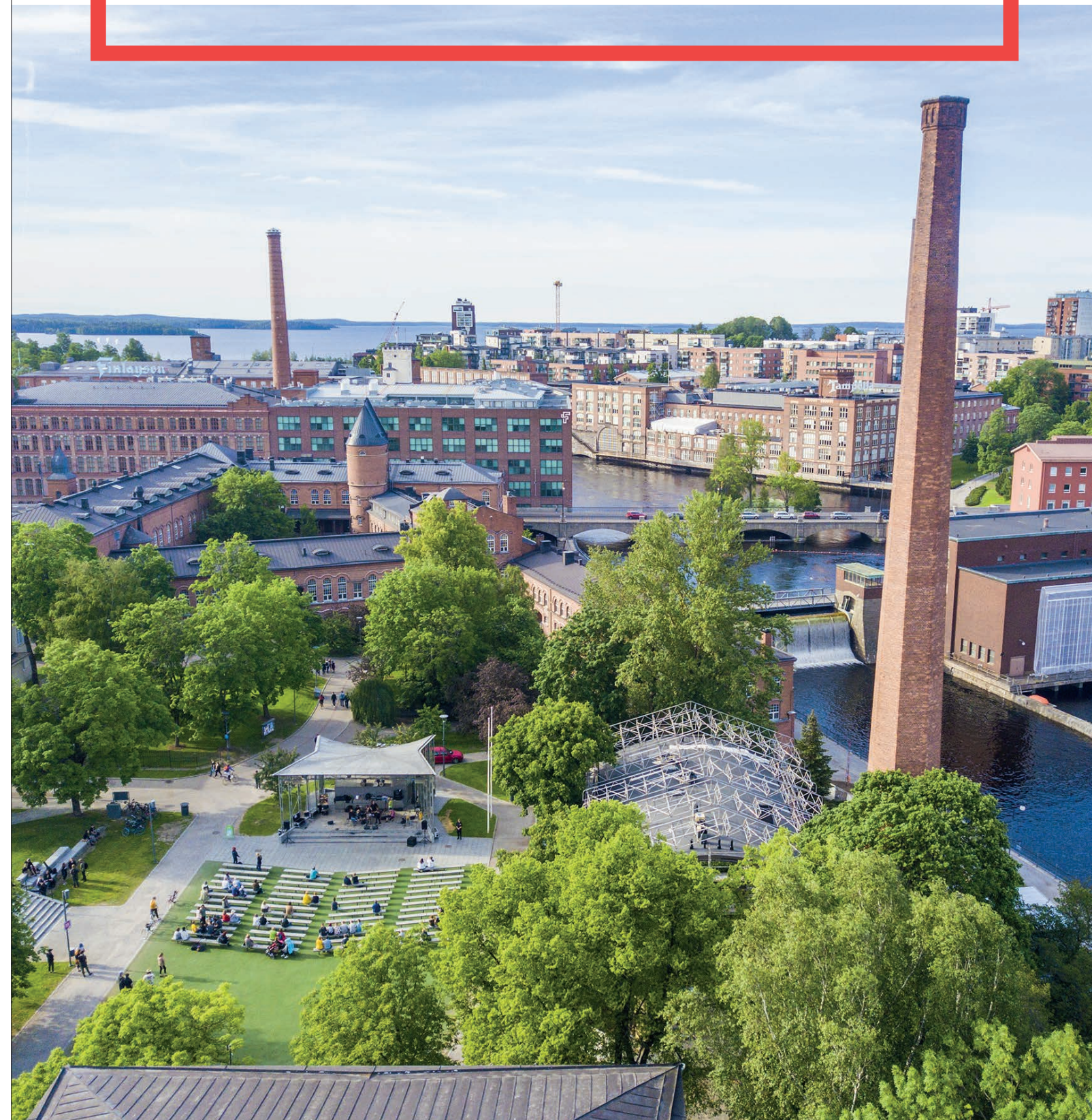
Demola's approach to collaboration sets itself apart thanks to the priority given to the relationship between students and organizations. This direct communication facilitates a greater focus on the specific challenge proposed by the partner. The Demola Alliance and its international reach allows companies to access a much larger pool of talent. The externalization of facilitation services provides a homogeneous co-creative process, optimized to the expectations of municipalities and businesses. The multifaceted, supportive, and expansive ecosystem created can be a valuable reference point for similar initiatives in the future. ■

*This article is written with reference to a good [practice case study report](#) prepared as part of the Erasmus+ University City Action Lab (UCITYLAB) Project.*

LOGO CREDITS: DEMOLA, Tampere City, Hermia Group, Nokia.

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SARA ARKO

# RUARDI: A Creative Path to Knowledge

*D*egraded industrial regions – such as Zasavje in Slovenia with its former coal mines – are faced with social, economic and environmental challenges, such as unemployment, pollution and brain drain. To prosper, these areas need fresh ideas, bold visions and industrial restructuring, developed in partnership with local industry, community and citizens. ►





RUARDI established cross-disciplinary and multi-stakeholder cooperation between different Faculties and research institutes of the University of Ljubljana, the city of Zagorje ob Savi (Slovenia), its local industry representatives (company Aereform), and local communities. The key aim was to conduct an interdisciplinary study which would provide recommendations for enlargement, optimization and integration of the existing city airport into the local industrial environment, community and everyday life of citizens. The long-term vision was to establish an aeronautic entrepreneurial hub for high-tech innovation and multiplication of regional social-economic development.

#### Small research projects that bring valuable experience

The Creative Path to Knowledge programme, supported by the Slovenian Ministry of Education, Science and Sports and the European Social Fund, enhances cooperation between higher education institutions and industry, businesses, or other non-academic organisations in short-term research & development projects. The participating students thus get the opportunity to work on real-life challenges, gaining practical experience, additional knowledge, as well as competences and skills that are increasingly important for entering the job market.

The current programme (2016-2020) value is 10.625.000,00 EUR and aims to involve at least 2700 undergraduate and graduate students, as well as 1400 non-academic experts. The programme co-finances projects that are carried out in groups of 4 to 8 students co-mentored by academic and industry/non-academic mentors, and encourages the exchange of knowledge, experience and good practices. The projects can last from 3 to 5 months. University and non-academic partners have to apply for funding – if successful, the academic mentors recruit a team of students to work on the project.

#### Revitalising a degraded urban area

Zasavje is one of the most affected Slovenian regions – in the time of economic crisis, the unemployment rate in the region has grown considerably. Traditional industrial sectors are labour intensive and characterized by high levels of manual work and low levels of automation. In the past years, the production was globally moving to areas with cheaper labour force. These events have further aggravated the economic situation in Zasavje, causing

serious economic problems, i.e. low standard of living, low income, dependence on the social welfare system, long-term unemployment etc. These kinds of areas can benefit by introducing positive visions and by enhancing new solutions and development strategies incorporating local heritage and involving their citizens as co-creators.

Air mobility and aeronautic industry can present key integrators and drivers having positive effects on the development of environment, region, local community and entrepreneurship. The RUARDI project aimed to provide a holistic solution of expanding and integrating the existing city airport into the local community's everyday life. Three non-academic mentors from industry and research (Aereform and IRI UL), four academic mentors (University of Ljubljana), and eight students from four different Faculties within the University of Ljubljana (Faculty of civil engineering, Faculty of architecture, Faculty of social sciences and Faculty of mathematics and physics) commenced work on the RUARDI project in January 2015.

The core of the project was the students' research and development of solutions. Among other activities, the project team had to identify the relevant stakeholders and actors within the local community, develop the concept and mapping, conduct research and analysis, evaluate results and provide development recommendations, disseminate results and participate in multi-stakeholder meetings. During this process, the students acquired new competences and an elaborate vision of the airfield, while the collaboration between industry and university partners supported the exchange of knowledge and best practices. The interdisciplinary study resulted in a detailed, 153 pages long study report, written by the participating students and their academic and industry mentors, and has provided concrete recommendations that were later included in the city's development strategy.

#### Developing skills and competences

The learning outcomes were assessed for each student individually by the involved academic mentors, based on the activities undertaken by the student within the project and their performance. The individual assessments had to be included in the final project report, required by the funding programme. One of the most important outcomes of the collaborative project were the skills and competences developed by the involved students,

including creative thinking; solving practical challenges with the solutions being feasible technically, socially, as well as financially; communication across disciplines and stakeholder groups; ability to set, formulate and implement a research process that has clear objectives and performance indicators; as well as organizational competences of working in an interdisciplinary team.

*This article is written with reference to a good practice case study report prepared as part of the Erasmus+ University City Action Lab (UCITYLAB) Project.*

IMAGE CREDITS: University of Ljubljana

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KONSTANTINOS KORKOUTAS &amp; FERNANDO VILLARIÑO

# Living Labs as Instrument for Implementing Open Innovation and Responsible Research Policies

**T**he potential of Living Labs as research tools have been of interest for the Universitat Autònoma de Barcelona (UAB) since 2014 when the university actively joined the European Network of Living Labs (ENoLL) and got further exposure to the wide variety of application and experiences initiated on a European and International level. This exposure fortified the initial faith that living labs could provide the adequate platforms for setting up local ecosystems of innovation around thematic axes and for implementing the strategic vision of the university with respect to its territorial mission and Responsible Research and Innovation (RRI) policies. The case of the Library Living Lab is an demonstrative example of how collaboration among different societal agents can produce initiatives rich in innovation and potential social impact.

In trying to define what the Library Living Lab really is, it can be described essentially as a space of experiences. It is a place where one can explore how technology transforms the way we enjoy and experience culture and cultural content in general. This question is addressed within the frame of open social innovation, where the Public Library provides the context of a meeting point for diverse users with different perspectives. In this sense, the Library Living Lab sought to transform a library space into a place in which all the stakeholders, and most-importantly the end-users, the Library users, are invited and encouraged to participate in the definition and design cycle of new services and of an innovative experience. The outcome is a laboratory where it is possible to co-design prototypes of new tools and services, but also a social innovation laboratory where active research and observation is carried out on the dynamics and processes that lead to such innovation to take place. In the specific case of the Library Living Lab, there are two fundamental pillars, namely: i) The exploration of technology as a disruptive factor that makes possible new experiences and adds transformative value to existing services. ii) An on-going research on the role of public space in contemporary society, as a stage for open innovation where all citizens are potential actors.

## A project born from the citizens' initiative

The Library of Living Lab project is a successful example of a grassroots initiative that has taken the combined efforts of all participants, and that is born as a social demand, based on the push of local residents of the municipality of Volpelleres in Sant Cugat del Vallès, Barcelona. Due to strong demand for Housing in Sant Cugat in the late nineties, the Council agreed to the development of the northern part of municipality, creating the neighbourhood of Volpelleres and thus from 2000 to 2006 the first 3,352 planned dwellings were constructed. The district then had already accumulated a population full of vitality, young in average age and familiarized with the information technology and communications, in a well-connected area, with of a major concentration of universities and research centres, and major companies. Some neighbours decided to organize themselves and founded AVBV, in their Catalan acronym.

In that context within Sant Cugat's main plan for its municipal libraries was planned the construction of a public library, although in an undetermined date at that moment. This possibility was taken forward by the Association of Residents of the Neighbourhood of Volpelleres (AVBV), which began to work on a proposal for orienting this potential future library towards a technological profile and direction. This initiative / petition arrived at the Computer Vision Centre (CVC-UAB), a joint partnership of the Government of Catalonia and the Autonomous University of Barcelona (UAB). The CVC is a research center leader in image

analysis and video, with a strong commitment to local and international projects in different fields of application. At that time, the CVC was in the process of implementing a strategic step oriented towards the application of its core technologies on the field of culture, while questioning novel paradigms of rapid transfer of research knowledge to the public.

These two realities were face to face, and when the neighbours AVBV explained to CVC that they wanted something innovative for the new public library, the CVC proposed to create the first Library Living Lab. The proposal was crafted in 2011 and it was jointly submitted by AVBV to the mayor of Sant Cugat, who received it positively and gave it its institutional support and as a result the Volpelleres Library project was prioritised by the municipality. UAB took this project as part of its strategic plan, and immediately a task force was constituted within a work group including representatives from the municipality, provincial government, CVC, UAB and AVBV (definition phase). In 2014 the agreements for the implementation of the project were signed, and the Library opened doors in May 2015 (implementation phase). In the summer of that same year the Library Living Lab was accepted in the European Network of Living Labs (ENoLL) and in October the same year the neighbours themselves would make the presentation of the activities to the library users in an event that was a great opening party. This pilot run until 2018, when the final model of governance was defined, and the sustainability model was agreed by all partners (consolidation phase).

## A new model of inter-institutional collaboration with all relevant stakeholders

The launch of the Library Living Lab has involved the definition of its own dynamics around a permanent working group, in which several mechanisms of inter-institutional collaboration have been deployed. The aim of the working group was the alignment of all these various objectives for the definition of the master lines of work. The group was gathered during three years in bimonthly meetings and its first task, and perhaps the most important one, was the definition of a common language between all institutions, by learning to talk between all members, fixing terminology and procedures, and defining a new field of common knowledge. The Permanent Working Group (Figure 1) has been the engine of the specific definition of the project, and it brought together representatives of the five participating institutions, each one with different roles, plans of action and objectives and interests in participating:

- City of Sant Cugat del Vallès: The City of Sant Cugat del Vallès won a new innovative space for its residents, a meeting place and a space where cultural projects with the participation of all the social segments of the city can occur. It allows



the city government to experiment and advance on the design of new models of governance with an special focus on citizen participation.

- Provincial Council of Barcelona (Manager of the Network of Libraries): The LLL endows the Library Network of Provincial Council of Barcelona with a testbed to locate and identify the challenges that arise on a day-to-day basis, to explore fitted solutions, to test prototype proposals and to propose answers and solutions, all by-with-and-for the users. The scalability of the solutions produced is guaranteed by transferring the validated ones obtained in the LLL to the rest of the libraries of the network.
- Universitat Autònoma de Barcelona (UAB): The LLL serves as a physical extension of the university to its adjacent territory. The Universitat Autònoma de Barcelona implements through the LLL its own policy of RRI in the territory, and at the same time provides its scientific community with a space to work with citizen science.
- Computer Vision Center (CVC-UAB): (Research Center).. The Computer Vision Centre gets a place of experimentation and validation of technologies with a high added value, and an implementation space for rapid technology transfer to society though fast prototyping.
- Association of Neighbours of Volpelleres: Are the final recipients of services and the instigators of the initiative. The Association achieves a strong revitalization and dynamization of the neighbourhood, a collection of innovative activities, and a place to enjoy culture through the latest technological tools.

#### **The transformative value of the Living Lab within a public library**

The existence of the Living Lab enriches the day-to-day activity of the library. The continued presence of people with various profiles -scientists, artists, entrepreneurs, ... all of them also "new" library users- provide novel entry points of knowledge and potential opportunities for multidisciplinary interchange among all participants, starting by the library users and finishing with the professionals who provide the services. On the other hand, there is a direct impact in terms of inclusion: the new range of experiences broadens the scope of the library users, even by attracting people who otherwise would not visit the library, and by increasing the possibility of user interaction and active participation in joint projects with diverse and qualified profiles.

At an institutional level, the articulation of a genuine innovation ecosystem helps to effectively advocate the role of public spaces (such as a Public Library) as an open meeting place for all societal stakeholders. This

fosters the attraction of small and larger companies to the public and cultural sphere and promotes their participation in public-led initiatives. On another level, the local library expands its area of action and activity and this allows multiple projects of not only local but also regional and international reach to occur within its premises. The library is thus transformed into a place where many things can happen, not as a result of abstract improvisation but because of a collaborative work and open and flexible models of organization.

One example of how the LLL experience has served as inspiration, and a catalyst at the same time, for new initiatives to emerge is the recent initiative promoted by the UAB named "ISC2: BiblioLab of social innovation and citizen participation". In this case, the UAB, the CVC-UAB and three public libraries from towns within the campus' vicinity (Vapor Badia in Sabadell, the Cerdanyola Main Library and the Miquel Batllori Library in Sant Cugat) have come together to launch this project, with the objective of adapting public libraries to the cultural and social changes brought about digital social innovation, thus favouring the creation of collaborative and participative environments open to everyone (Labs ISC2). The project is part of the Barcelona Provincial Council's initiative BiblioLabs, which seeks to promote the role of libraries as drivers of social transformations. The pilot programme will be applied with a first initiative involving secondary school students and how to incorporate concepts of responsible research and innovation (RRI) into their research projects, a subject around which many transformation processes can be conducted through the library labs. Later, other initiatives such as encouraging a vocation of science and digital skills in young people will also be offered with the aim of transforming libraries into spaces which foster learning, science, innovation and technology.

#### **Future challenges**

The Library Living Lab implementation approach has also permitted us to identify and highlight some of the most relevant near-future challenges arising in the context such innovation endeavours. These challenges serve as a starting point for a reflexion on the "Library of the Future" and they have been selected to be part of the white book for the main directives on Future Public Libraries of the Barcelona Provincial Council:

- The Library of Living Lab was a result of citizen initiative. It will be important to implement social adequate monitoring tools to identify such kind of initiatives, and to accompany them with dynamic policy instruments. The current processes of public administrations are not adapted to the flexibility needed and it is necessary to develop new methodologies of inter-disciplinary and inter-institutional character, with an obligatory citizen participation and this needs to be revised /

updated.

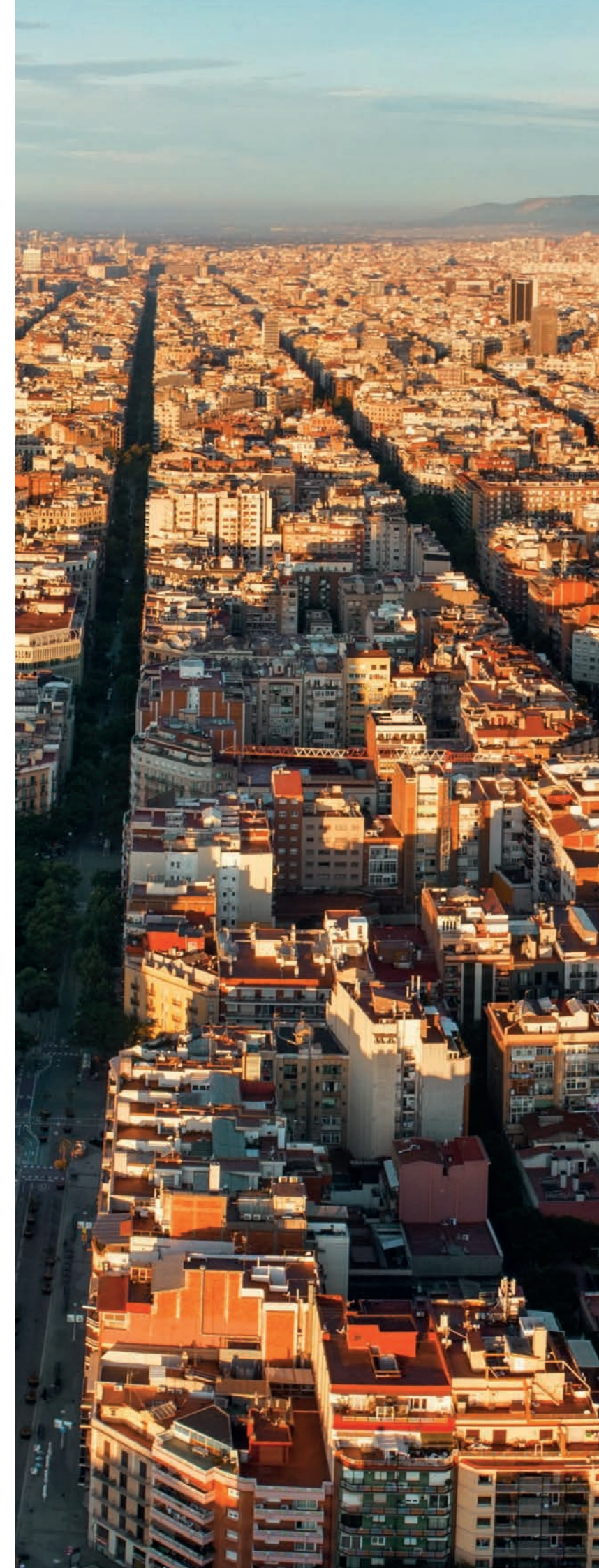
- In the medium term, the design of public spaces should be tackled as community projects: social actors must be able to participate in the design process in order to make it their own. Participation in the process of defining spaces not only guarantees a technical optimization based on a good design, but also fundamentally integrates a project space within the community.
- New paradigms of collaboration among all actors of society necessarily imply the need for specific models of economic sustainability. Novel instruments for co-financing /patronage / sponsorship in the quadruple helix scheme must be investigated to enable quick response at the budgetary action level for innovation projects.
- Citizen participation in innovation processes opens up many questions related to the management of intellectual property rights and the potential exploitation of emerging innovations. These issues can only be solved, given its high complexities and peculiarities, on a case-to-case base. We must therefore identify monitoring and protection mechanisms of the innovation outcomes, which must play a paramount role in the innovation processes.

In short, one of the key challenges for innovation spaces such as the Library Living Lab is to facilitate an efficient way for citizens to have a direct contribution in the processes of defining and implementing new services and activities. This added value can only be achieved through the participation of all stakeholders, and through the meticulous definition of processes and effective policy-making. In the upcoming future technology will undeniably play a very strong role as an enabling and disruptive factor, so it lays upon society -and respective mechanisms of individual and inter-institutional collaboration- to face successfully the most significant societal challenges that will be emerging in the following years. Only in this way, the society will be able to obtain a positive transformative socio-economic impact from the innovative contributions arising from collaborative innovation processes such as the ones proposed by the Library Living Lab and the emerging technological paradigm. ■

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ALINA MELOYAN & HACER TERCANLI

# Urban Vitality Research Programme and AMSTELhuis Living Lab

*The* dismal statistics indicates that almost half of Amsterdam adults feel lonely. The data collected by the municipal health service GGD states that it comes down to 300 thousand lonely people in the Dutch capital, 80 thousand of whom feel extremely lonely. The tendency has stricken the elderly population as well. To alleviate the problem, Amsterdam University of Applied Sciences (AUAS) has joined forces with AMASTELhuis, a residential facility for senior citizens, and launched the [Urban Vitality Programme](#) in 2015. The programme made social inclusion of elderly people, along with their activities and nutrition, a cornerstone of AUAS and AMSTELhuis' cooperative efforts. ►



### Amsterdam: combatting loneliness and becoming an age-friendly city

Amsterdam is perceived to be one of the most inspiring and inclusive cities in Europe. Every year, it welcomes more and more expats from all over the world. Yet, the ever-rising population do not promote better socialization. Loneliness is getting recognized as a public health threat, and the city invests 1 million euros per year for tackling the issue of loneliness among its citizens. Apart from that, in 2015, Amsterdam joined the [WHO Global Network for Age-friendly Cities and Communities](#) to advance the well-being of elderly citizens through a number of programmes. Via the Urban Vitality Programme, the AMSTELhuis and AUAS share a common ambition to organize the space for elderly citizens so that they can live an independent life that is meaningful and enriched with a variety of informal social activities.

### Urban Vitality: improving senior citizens' well-being

The activities carried out in the AMSTELhuis within the Urban Vitality research programme are majorly framed into the projects. The ongoing projects are centered around three main themes: fall prevention, healthy nutrition and social inclusion.

Exercise Therapy students give weekly lessons in fall prevention. Prior that, a study on fall prediction was performed. The purpose of both activities is to prevent and predict falls, what will allow for quicker action of the support staff in the future and make elderly people feel more confident in terms of their postural stability.

Healthy nutrition for the seniors is a frequent subject in research and advice. As part of the AUAS Food Lab, Nutrition & Dietetics students carry out research on the subject as well. Together with the residents' club of the Amstelhuis, the Food Lab organises tasting events when residents can try sustainable and vegetarian food. What is more, the Food Lab carries out research on marketing the Amstelhuis restaurant and making it more attractive for elderly people living in the neighbourhood.

For supporting AMSTELhuis residents' well-being, it is important they have a solid social network of co-residents, family and friends. The research done by Occupational Therapy students shows that some new residents find it difficult to connect with others when moving into the Amstelhuis. Students and researchers are trying to see what assistance is needed to help and strengthen the social network of new residents upon their arrival and further on.

The projects are being carried out with the support from the AMSTELhuis administration and supervised by the researchers who collaborate with their students in interdisciplinary teams.

### What makes Urban Vitality a success?

Efficient collaboration of the AUAS and the AMSTELhuis is ensured by several factors. First, both vision and ambition are shared and supported by the management, employees of the AMSTELhuis along with the researchers and students from the AUAS. All involved parties have a common understanding that the AMSTELhuis residents, their comfort and safety are of primary concern. As confided by Ellen Budde, senior project manager of the Urban Vitality programme, a significantly important component of the programme success is related to the willingness and active participation of the aforementioned stakeholders to learn together and speak to one another respecting each other's views, as well as to practice new behaviour expressed by all involved stakeholders, including residents themselves, their families, carers, etc. Clear leadership and steering mechanisms bring more structure and order to the management processes. And the crowning element of the programme success is, undeniably, the applicability of the research results that improve the well-being of the AMSTELhuis residents. ■

IMAGE CREDITS: AMSTELhuis

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The **University-City Action Lab (UCITYLAB)** project aims to strengthen the links between HEIs and the city stakeholders by having students solve city issues through a series of challenge projects in Paris, Barcelona, Porto and Ljubljana. It will do so by facilitating knowledge exchange and flow of resources, enhancing societal relevance of HEI curriculum via civic engagement, helping develop relevant skills among students, empowering universities in increasing their knowledge and practice in establishing urban partnerships, and fostering adoption of city engagement models in European HEIs.

Here we will present the 5 Intellectual Outputs that have derived from this project:

## OUR OBJECTIVES

### Case Studies Report (IO1)

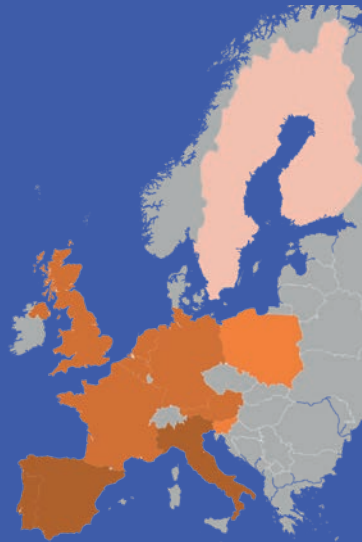
The report includes presentations and analyses of cases of good practices in the area of university-city cooperation.

**27**  
case studies

**25**  
European

**2**  
International

**16**  
countries



### Challenge Teaching Toolkit (IO3)

Provides guidance for university lecturers and study programme managers to implement a hands-on, real-life, and problem-based course module in cooperation with city stakeholders.



### Pilot Implementation (IO4)

Our partner universities have been taking different pathways to implement the pilot-test of the project.



### Network Roadmap (IO2)

Intended to support the planning and creation of a network of stakeholders for the development of urban sustainability challenge-based projects. It's used as a:

- A.** Description and explanation of concepts and ideas
- B.** Guidance step by step
- C.** Resources for Replication

### Learning Platform (IO5)

A course for the educators to learn how to help develop social and environmental responsibility, innovative mindset and social entrepreneurship skills among their students. Currently under development.



increase knowledge and understanding of HEIs in establishing urban partnerships



support societal relevance of HEI curriculum and enhance connectivity with the civic community



develop relevant skills among students by exposing them to real-life societal problems



strengthen links among the stakeholders of the urban community, including HEIs, and to facilitate knowledge exchange and a better flow of resources for urban development



disseminate results to foster adoption of city engagement practices in European HEIs



## Our goal

The Erasmus+ project, RESTART+ Communities draws upon the findings and results of its successor RESTART Entrepreneurship project, which aimed at supporting second-time entrepreneurs. In its second edition, RESTART+ Communities steps forward to build the regional alliances of practice to equip community leaders with knowledge, resources and training opportunities to facilitate smart, sustainable and inclusive community growth.



### WE BUILD

regional alliances for community growth



### WE TRAIN

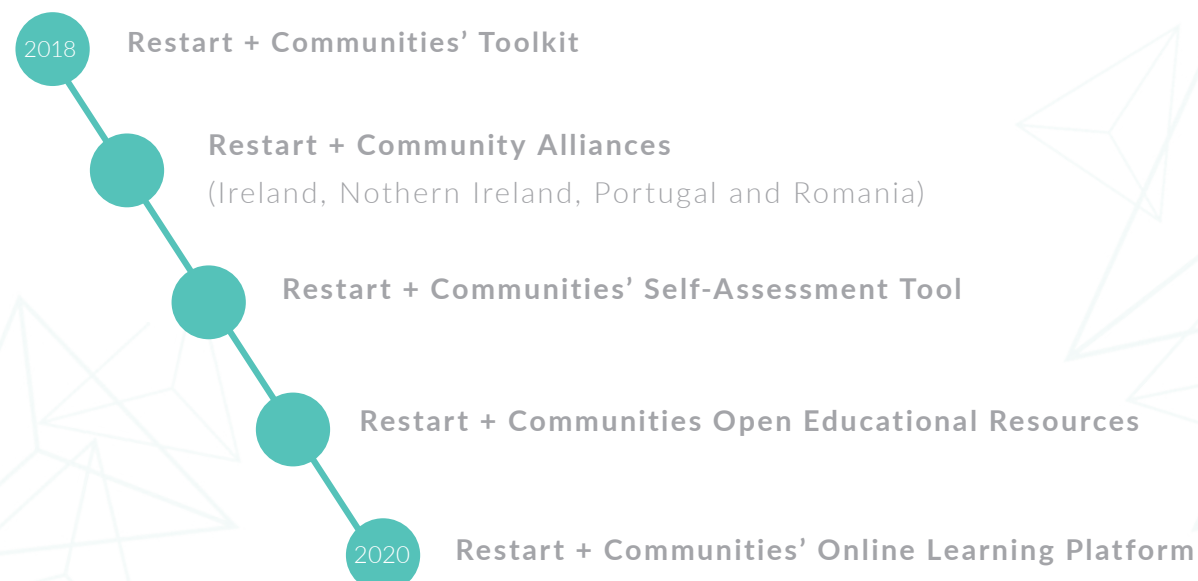
the facilitators of transformative community regeneration



### WE PROMOTE

self-learning through open education resources

We achieve our goal by creating intellectual outputs:



We established  
**RESTART+Communities Alliances**  
in Ireland, Northern Ireland,  
Portugal and Romania

Drawn from public, private and non-profit sectors, each of 7 RESTART+ Communities consortium partner will bring valuable knowledge and networks which will contribute to the project aims







**WE THANK OUR ORGANISATIONAL MEMBERS FOR  
THEIR CONTINUOUS SUPPORT!**

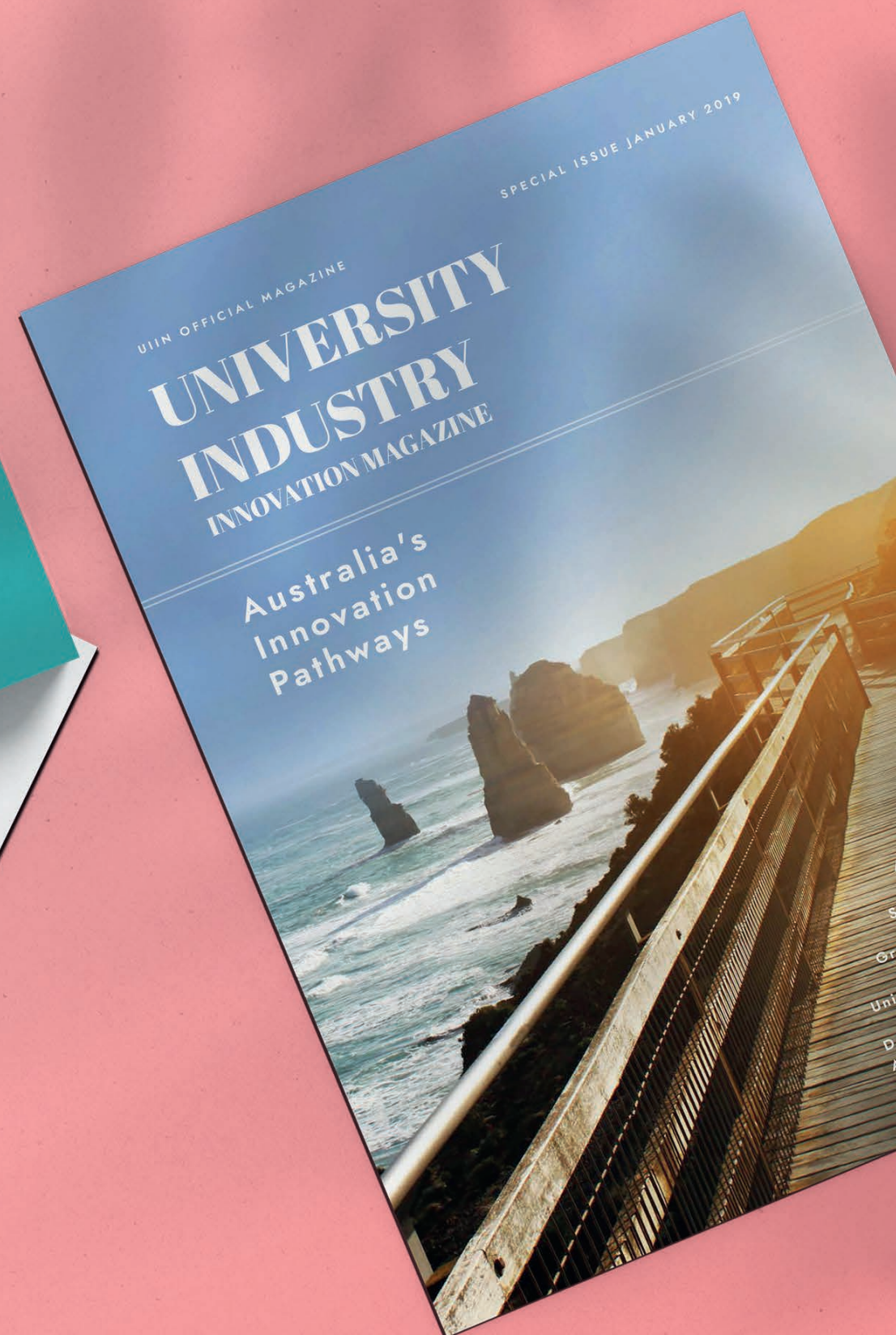
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