



**A Revolution for Post-16  
Education - Part 1**  
*A Case for the Living Lab*

**M Hassan Waheed**

# Foreword

EAUC Strategy 2017-2021 – a world with sustainability at its heart.

We exist to lead and empower the post-16 education sector to make sustainability ‘just good business’.

Goal 1: Strategic Alignment – greater influence and alignment at the institutional level

Goal 2: Advocacy – greater voice at the societal level

Goal 3: Research and Knowledge Exchange – greater innovation at the sector level

The EAUC recognises the transformational potential of Living Labs. We are committed to repositioning sustainability as ‘just good business’ and have launched a powerful new strategy to achieve this. In our emerging Living Labs Programme, we see all three of our strategic transformational goals - alignment, impact and innovation being realised. In one tool this is rare and very powerful.

Having led this globally leading research, we have come to further appreciate the dynamism and flexibility of the Living Lab. Regardless of an institution’s starting point, or the combination of interested stakeholders, Living Labs promise the opportunity of applied learning and employability skills for students, problem-solving for campus managers, a rich and real-world learning experience for academics and a redefined student experience and new levels of student retention and satisfaction for senior managers.

We have been delighted to see the interest in Living Labs within the EAUC community. However, to date, only a small number have successfully

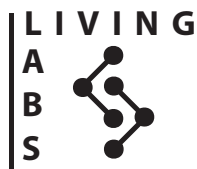
started long-term strategic initiatives. Although there is a positive trend favouring Living Labs, there is a need for considerably more work across all institutions. This is especially true when compared to leading Living Labs initiatives across North America and mainland Europe. The immense potential of Living Labs and their power to elicit change towards sustainability has been largely unexploited in the UK & Ireland. This is partly due to a lack of sound guidance, tools, and examples.

Beginning from this research, the EAUC aims to fulfil this gap nationally, with the potential for benefitting bodies and institutions internationally. While the report itself is oriented towards members in the UK & Ireland, the Living Lab Model is comprised of universally applicable guidance. As we move forward, the EAUC will continue to explore channels through which the international potential of the EAUC and our members’ progress can be maximised.

Iain Patton,  
CEO, EAUC

# A Revolution for Post-16 Education – Part 1

## A Case for the Living Lab



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### SAVE PAPER.

Please consider the impact of printing this report on our planet.

The EAUC hosts a Living Labs Community of Practice, which is open to all staff and students from EAUC member institutions. The community is a platform for exchanging knowledge and ideas about university and college Living Labs. To join the Community of Practice, simply email [info@eauc.org.uk](mailto:info@eauc.org.uk) with a request to be added to the JiscMail.

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# What is a Living Lab?

A Living Lab initiative hosts projects where participants from different backgrounds partner to collectively address real-world sustainability challenges and opportunities. In a Further and Higher Education (FHE) institution, Living Lab projects form bridges of collaboration between students, academics, professional staff and external stakeholders. This exchange is the unique characteristic, or 'selling point', of the Living Lab; it combines an institution's intellectual potential with practical sustainability challenges on- or off-campus. It dissolves boundaries between the traditionally segregated activities of education; research; external engagement; and operational & administrative practice. Projects organised through a Living Lab provide a powerful and immersive experience for all. They are a practical, meaningful and engaging way to connect the siloed stakeholder groups of an institution.

Living Labs projects deliver two main types of benefits. **Firstly**, they provide the opportunity for staff and students to collectively develop solutions that directly address the immediate real-world

sustainability problem or opportunity. These solutions provide socioeconomic and/or environmental sustainability benefits to the institution, its surroundings, and the public at large.

**Secondly**, Living Lab projects also contribute to several major priority agendas for the institution. For researchers, these benefits include research impact and access to a live test-bed for innovative research. For professional staff, the main benefit is intellectual and 'hands-on' support to practically address the priority operational and administrative challenges; this translates to financial savings, reputational benefits, and achieving sustainability outcomes. For external stakeholders, benefits include expertise and support to address issues that impact them, and strong partnership with an influential anchor institution. However, the most important benefit a Living Lab can provide is a powerful and immersive educational experience that has invaluable benefits in the shape of graduates who serve as effective agents of positive change globally.

A Living Lab can have a profound impact on the core areas of an institution's work by dynamically involving all the key stakeholder groups to pool resources and collectively solve common problems. The valuable outcomes include:

- Enriching educational outcomes and experience for students
- Impactful and innovative learning, teaching & research opportunities for academics
- Improvement of physical and administrative operations for professional staff
- Meaningful and mutually beneficial engagement with external stakeholders



# What is special about the Living Lab?

An active, productive and meaningful collaboration that links across silos is rare and difficult to implement in FHE institutions. The Living Lab addresses this barrier by capitalising on the best benefits each stakeholder group can offer, and fusing them in collaborative projects. As each stakeholder gives, they also gain. Importantly, the Living Lab does not require investments into significant additional resources; it simply identifies existing resources and channels them towards appropriate problems. Students and academics offer time, intellectual potential and hands-on support to address sustainability challenges. In exchange, professional staff and external stakeholders provide access to enhanced practical learning experiences necessary for meaningful education and research, that traditional academic methods cannot successfully provide.

Thus, Living Lab projects provide real benefits to all participants in a project. By aligning agendas, a Living Lab helps to reduce resources and time in accomplishing together what would have otherwise cost each participant more to do alone. In a way, a Living Lab is about innovatively using resources that surround the institution to solve its own problems. Students and academics address operational, administrative and external engagement issues. While professional staff and external stakeholders provide the project challenges, which help to enrich education and research outcomes while saving resources on expensive external consultancy.

Importantly, a large proportion of institutions will already have some Living Lab or Living Lab-related projects. These projects adapt a very similar approach to the Living Lab, but without being recognised as such. They are usually innovative, eye-catching and impactful projects which demonstrate the potential of connections. Crucially, a Living Lab can help consolidate these under one banner to capture and connect all correlated work taking place within the institution. Thereafter it can be more efficient and effective to find gaps, overlaps, and opportunities to systematically build on it.

This foundation-building process helps win support, bring people closer, encourage stakeholders to take ownership, reward innovation and collaboration, and increase the impact and legitimacy of the Living Lab approach. 'Branding' this connected work under an institution-wide collaborative theme or programme can draw attention and resources to further improve the reputation of the Living Lab. Furthermore, a Living Lab is highly complementary with existing sustainability programmes and objectives (e.g. energy/carbon savings, student engagement, waste, community engagement, wellbeing etc.). Living Lab projects can work symbiotically with these programmes by helping to implement them, or providing insights that can improve them. A Living Lab can serve as a flexible tool to invite fresh and readily available intellectual capacity and focus it on issues and themes of importance.

# How does the Living Lab benefit each stakeholder?

## Students

Living Lab projects offer a way for students to connect their degrees with the real world through new frontiers. A Living Lab assumes that the best way to train students for the 'real world' is by exposing them to it through their formal education, providing them with the opportunity to experience it first-hand, work in it, to physically change it, to learn from it, to prepare for it, and to live it. This results in a transformative educational experience that provides graduates not only the necessary professional and employability skills, but also the experience and values to become agents of change. A Living Lab can be a central part of the answer to the lack of innovative pedagogical practices, and ultimately become a key tool to boost student satisfaction, employability, and retention.

The benefits of a Living Lab for students include:

- grounded practical experiences to foster intellectual and personal development
- professional and employability skills for students to be successful in careers
- confidence of linking theory to practice, i.e. bringing classroom and academic research into the 'real-world'
- values and principles of sustainability incorporated into students as change agents that help develop a sustainable society
- greater engagement with other stakeholders and greater satisfaction
- supplementing current educational techniques with innovative new models

## Academics

Post-16 learning, teaching and research has profoundly influenced the world. It shapes practice within the public sector, businesses, NGOs and personal lives globally. More recently, there has been a commendable amount of work in institu-

tional education and research agendas to tackle the major global sustainability challenges. This has played an instrumental role in research and education that lucidly explains the globally declining state of social, economic and environmental affairs and what to do about it. However, there is a growing body of literature arguing that knowledge production and transfer is not sufficient to address the global sustainability challenges of our time<sup>i</sup>. There is a need for "a shift from knowledge production as an end in itself, to knowledge production as a means to trigger societal transformations"<sup>ii</sup>. The need for this shift is reinforced by the evolving social contract of universities & colleges that seeks better alignment of public institutions with the public challenges. The academics' remit is required to extend from just creating knowledge to taking leadership in applying it to create change.

The Living Lab is an innovative approach that has the potential to fulfil this necessary role with great effect. It can allow academics to conduct transdisciplinary projects that create highly innovative and publishable knowledge, but also positively impact institutions and their surroundings through more applicable research and education. Thus, a Living Lab is a crucial tool for practice-based and engaged research and teaching.

The benefits of a Living Lab for academics include:

- access to a live test-bed to conduct innovative transdisciplinary research and teaching
- a way to consolidate and ease tension between theory and practice
- increase in engagement, reputation, and public perception
- a positive bearing on their surroundings, adding to the impact agenda

<sup>i</sup> Trencher, G, et. al. (2015). *Student participation in the co-creation of knowledge and social experiments for advancing sustainability: experiences from the University of Tokyo*. *Current Opinion in Environmental Sustainability*, 16: 56-63. p 56.

<sup>ii</sup> König, A (2015). *Changing requisites to universities in the 21st century: organizing for transformative sustainability science for systemic change*. *Current Opinion in Environmental Sustainability*, 16: 105-111.

## Professional staff

While professional staff usually do not have the remit of participating in research or teaching activities, their input can be highly valuable. They are responsible for a diverse range of physical and administrative operations that can provide immersive learning opportunities for both students and academics. Professional staff are critical to campus-based Living Lab projects, since they provide the challenge. Similarly, Living Lab projects also provide significant direct and indirect benefits that make time and resource investments in a Living Lab highly attractive for professional staff. These include the immediate positive outcomes, such as positive practical transformations caused by the Living Lab project, knowledge exchange, and/or valuable research findings. Thus, a Living Lab can align professional staff's goals with those of students and academics, creating excitement and synergy on campus. This elevates the status of a Living Lab to an indispensable tool for a campus designed for the 21st century.

The benefits of a Living Lab for professional staff include:

- harnessing the institution's academic potential to address social, economic, and environmental challenges they face
- increasing public reputation for working on sustainability issues; increased internal reputation and profile among academics and students
- time and monetary savings through relevant and successful projects
- connection, positive impact, contribution toward an institution's research and/or education

## External stakeholders

An external actor is anyone from outside of the institution, whether it's a public, private, or third sector organisation, a community, individual or other entity. This group is the most diverse and with the greatest potential for Living Lab projects. Motivations and outcomes of external stakeholders can vary considerably, depending on their background, needs and purpose of engagement. However, the intellectual potential and/or exper-

tise offered by the institution will be the main reason for participating in Living Lab projects. A Living Lab can allow institutions to use this advantage to build partnerships, public reputation, and gain the diverse benefits that external stakeholders can offer. Additionally, by focussing on the local area, an institution can invigorate its neighbourhood, win support of the community, cause visible change, and meet its community engagement agenda. A Living Lab is one of the most powerful and fruitful tools for engaging externally.

The benefits of a Living Lab for external stakeholders include:

- intellectual resources (and expertise, in the case of professional staff and academics) to address social, economic and environmental challenges
- partnership with the 'anchor' institutions that have the potential to play a significant positive role within the community
- access to resources, spaces, and support from institutions



## Living Labs and the post-16 education sector

All stakeholder groups benefit from a Living Lab in numerous ways. Its purpose is to search for common ground among the different stakeholder groups and use that to connect people in partnerships to collectively establish and achieve common goals, and solve common problems. Through matching the **needs** and **services** of stakeholder groups in one equation, the Living Lab makes a 'common sense' case.

While offering short-term solutions, a Living Lab also serves as a vehicle for assisting long-term systemic shifts. The flexibility and potential of the Living Lab elevates its use beyond a small 'innovative' project in one corner of the institution. It can be utilised as a powerful institution-wide "gover-

nance tool that pragmatically links academic capacity with [sustainability] challenges" facing FHE institutions and their partners<sup>1</sup>.

As a Living Lab expands its impact and reveals this potential, the case for time and resource investment becomes stronger, while institutional barriers in its way become weaker. A Living Lab can eventually become a 'sensible' option from both the business and academic perspectives. Therefore, a Living Lab can be a valuable strategy to gradually enhance education, research, administration, operations, and/or external engagement activities, while integrating sustainability into them.

<sup>1</sup> König, A & Evans, J (2013). *Introduction: experimenting for sustainable development? Living laboratories, social learning and the role of the university*. In: König, A (ed.) (2013). *Regenerative Sustainable Development of Universities and Cities: The Role of Living Laboratories*. Cheltenham: Edward Elgar, pp. 1-26: p. 2



# The Business Case for the Living Lab

Above all, Living Labs are attractive due to their ability to operate within the current time and resource constrained environment of post-16 education institutions. A Living Lab certainly has time, resource and financial investment costs attached, if it is to be properly implemented. But these investments are worth making. This is mainly because Living Labs are highly effective at aligning with multiple priority institutional agendas.

The most worthwhile benefit a Living Lab can provide for educational outcomes is making students better agents of change, and more ready for the working world. As a result of this, students will be more capable of getting a job or creating their own enterprise opportunities to positively influence the world. Living Labs provide immersive and real-world experiences which provide these outcomes. Furthermore, during the course of their degrees, these outcomes also help improve retention, degree satisfaction and employability.

Living Lab projects on campus are a highly potent way to reduce costs, and meet operational and administrative outcomes more effectively and quickly. Institutions possess significant intellectual resources in the form of students and academics. Many of them are enthusiastic about practical work to help improve their institution, since they have a stake in its performance and reputation. They can help in diverse areas, including circular economy/waste, energy, environmental regulations, behaviour, HR and others. An investment to mobilise and guide this resource into the right direction will be returned several times over and in multiple areas. Further, a Living Lab is an energetic endeavour, showcasing which will boost the internal and external reputation of the institution.

Living Lab projects with external stakeholders have two major benefits. First, they provide significant reputational benefits among the community and external stakeholders. Second, Living Lab projects allow close collaboration on common goals with people and organisations from all backgrounds. This work has the potential to generate further economic benefit for the institution through partnerships with businesses, NGOs and government. Additionally, it also contributes to the long-term social, environmental, and economic improvement of the area, benefitting the institution further.

Living Labs allow academics access to an active test-bed to conduct innovative research and teaching with a high impact factor. With some support, academics can draw a significant amount of commercial interest through their research, and enthuse potential students with innovative and attractive learning opportunities.

Their ability to deliver on these priority areas, along with the sustainability outcomes, is what ultimately makes Living Labs crucial for institutions. Furthermore, a significant amount of interest for Living Labs has arisen internationally, a comparatively smaller number of UK and Irish institutions have invested in Living Labs nationally. Of those, relatively few have invested into their Living Labs as important long-term strategic initiatives. Although there is a positive trend favouring Living Labs, there is need for considerably more work across the sector in the UK and Ireland. The urgency of this work is amplified when compared to the number, size and impact of Living Lab initiatives across North America and mainland Europe. UK and Irish institutions are currently under the risk of losing global leadership over many key areas, where overseas institutions are advancing.

This research capitalises on recent attention gained by Living Labs to offer a timely and critical response to the UK and Irish sector's needs. It fills important gaps in the post-16 education Living Labs theory, concepts and guidance. There are two

parts to this research. **First**, this document provides the **rationale** for the Living Lab as an important part of post-16 education institutions' sustainability work. It argues that making time and resource investments in a Living Lab is not only worthwhile, but also crucial for post-16 education institutions at this stage. **Second**, the accompany-

ing publication<sup>i</sup> details the EAUC Living Lab model; i.e. it **informs** what the Living Lab is and the diverse ways in which it can operate. The EAUC's Living Labs efforts are built upon an understanding of their transformative potential and alignment with the EAUC Strategic Plan to make sustainability 'just good business'<sup>ii</sup>.

**If you want more information about developing a Living Lab please read Part 2 of our research here - How do Living Labs Work?**

**i** Waheed, MH (2017). *A Revolution for Post-16 Education – Part 2: How do Living Labs Work?* Environmental Association for Universities & Colleges (EAUC).

**ii** EAUC (2017). *Strategy To 2021*. EAUC [online]. Available at:

([http://www.eauc.org.uk/file\\_uploads/eauc\\_strategic\\_plan\\_2017\\_2021\\_board\\_approved.pdf](http://www.eauc.org.uk/file_uploads/eauc_strategic_plan_2017_2021_board_approved.pdf))



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