

Living Labs

Introduction

Collaborative Living Lab (LL) projects can provide answers and guidance for operations and professional services staff, real-life learning opportunities for students and opportunities for research impact for academics. Originating in Europe, leading universities in America and the UK such as Yale, British Columbia, Oxford, Cambridge, Manchester, Leeds, Bristol, Queens Belfast and Edinburgh are now embracing this approach.

A Living Lab (LL) aims to tie together sustainability education, research and practice to provide significant advantages for all stakeholder groups of a university. This is achieved by opening the university's physical and administrative operations, as well as local engagement to education and research. A LL recognises the importance of involving and combining all the four major stakeholder groups (Academic Staff; Students; Professional Staff; Local Actors). The campus and its local town are considered a 'Living Laboratory' where academics and students collaborate with professional staff and local actors in various combinations to solve sustainability problems. All stakeholder groups are equal participants and beneficiaries of the LL, where none are expected to disproportionately contribute for benefit of others.

The LL is also an important and useful avenue for progressing research in universities, and an effective tool in overcoming barriers to practice-based and applied research.

Definition

The University of Edinburgh define their LL as an opportunity for "students, external stakeholders and the Directorate of Estates and Facilities to deploy and monitor new technologies and services in real world settings. This can also be extended to include local businesses and community settings."

A Living Lab project should aim to:

- Solve a real life problem
- Be based on a partnership among key stakeholders, often crossing disciplinary and/or sectoral boundaries
- Use existing and newly generated quantitative and qualitative data, embracing digital technologies where possible
- Trial and test ideas in real life settings – to further refine solutions proposed
- Share data and analysis generated openly, for the Living Lab to continue.

Stakeholders

A Living Lab requires strong relationships to be forged between all the key stakeholder groups, including:

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| <ul style="list-style-type: none"> • Estates & Campus Services • Finance • HR (particularly Health and Wellbeing) • External Relations (CSR & Communications & Marketing) • Research & Enterprise • Co-working group/DARO | | <ul style="list-style-type: none"> • Academics • ESD Forum • Engagement College leads • Student Development Service • Students Union • Existing community/business collaborators |
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Benefits

A LL circumvents the time, resource and cultural barriers most conventional sustainability initiatives face. Namely, it makes a business and common sense case for sustainability in the short-term by introducing the intellectual potential of academic staff and students into the equation. It also offers the tools for long-term change that can rebalance institutional decision-making processes to account for social and environmental

concerns as much as economic factors. It is a holistic approach to sustainability that targets all the major activities of an institution.

A Living Lab at Leicester

A Living Labs approach embraces every one of the core values that make up Leicester's strategic plan by:

Discovery-enabling Culture

- Identifying and developing the existing sustainability-related teaching, research and practice at Leicester
- Providing University-wide leadership to ensure sustainability is embedded throughout the institution
- Encouraging greater inter-disciplinarity
- Greater professional independence to challenge sustainability issues
- Improved staff and student engagement

Discovery-led Research

- a sustainable research network will enhance our interdisciplinary research and funding opportunities

Discovery-led Learning

- The 2016 NUS Sustainability Skills Survey found that over two-thirds of respondents consistently believe that SD should be incorporated into all university courses and over 60% of domestic students and three-quarters of international students would like to learn more about sustainable development.
- Skills development was also high on the agenda with over two-thirds of first-year respondents consistently agreeing that universities should be obliged to develop their sustainability skills as part of their course.
- The Leicester-specific results to this survey found that students felt that a combination of real world experience (such as placements) and building sustainability into existing course content and coursework would be the best way to help them to gain the sustainability skills they require.

Discovery-enabling Environment

- The University is essentially a small town covering over 95 hectares with 12% covered in buildings (most of them 'smart') and over 40% green space, including a diverse range of habitats. Therefore, developing the University's estate as both a classroom and laboratory will provide rich data for academics and students with 'real world' project experience.

Outputs

As well as the measurable benefits listed above, establishing a Living Labs approach will result in production of:

- A comprehensive database of research activities
- A publically accessible and user-friendly database of potential projects (Projects for Purpose)
- Collated accessible data (e.g. energy, waste, travel, etc.) as a searchable resource for project work

Example project

There is currently a third year Biological Sciences student who's dissertation has located hedgehogs at various sites across the University. Her findings have suggested implications for the University in terms of its horticultural practices and future site development. Estates have now located hedgehog boxes at several sites as a result.

This project is being built on by an intern, funded by the People's Trust for Endangered Species, as an investigation on whether warmer and wetter winters are affecting food sources for hedgehogs using the same trackers.

This project will end in May 2017 so there is scope, as a Living Labs project, to continue using the trackers to collate longitudinal data on hedgehog activity at our sites for future research projects and to inform future University practice.