



Queen Mary
University of London

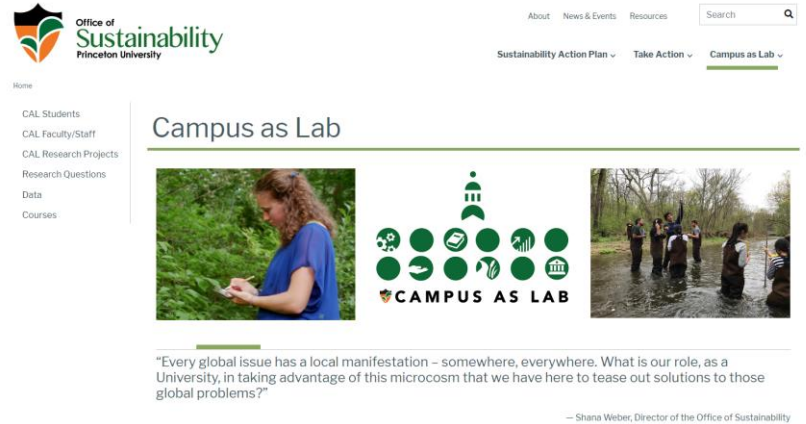
The Campus as a Living Laboratory

Lisa Belyea (Geography) / Sustainability Committee, 25/10/2021

The Living Lab concept – What?

The campus as lab

- Education, research, operations, outreach
- Examples from other universities:
 - Cambridge: [‘Living Laboratory for Sustainability’](#)
 - Manchester: [‘University Living Lab’](#)
 - Princeton: [‘Campus as Lab’](#)
 - UBC: [‘Campus as a Living Lab’](#)
 - TU Delft: [‘The Green Village’](#)
 - MIT/Tsinghua: [‘China Future City Lab’](#)



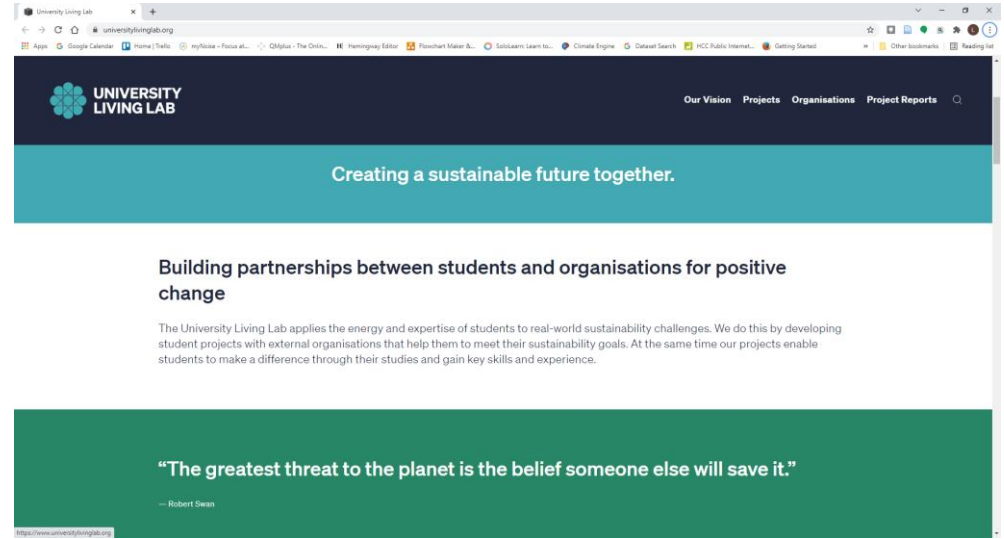
The screenshot shows the homepage for Princeton University's 'Campus as Lab' program. At the top left is the 'Office of Sustainability Princeton University' logo. To the right are navigation links for 'About', 'News & Events', 'Resources', and a search bar. Below these are dropdown menus for 'Sustainability Action Plan', 'Take Action', and 'Campus as Lab'. A left sidebar lists 'Home', 'CAL Students', 'CAL Faculty/Staff', 'CAL Research Projects', 'Research Questions', 'Data', and 'Courses'. The main content area features the title 'Campus as Lab' above a grid of images: a woman examining plants, a 'CAMPUS AS LAB' logo with icons for sustainability, and a group of people in a field. Below the images is a quote: "Every global issue has a local manifestation – somewhere, everywhere. What is our role, as a University, in taking advantage of this microcosm that we have here to tease out solutions to those global problems?" attributed to Shana Weber, Director of the Office of Sustainability.

Homepage for Princeton University's 'Campus as Lab' programme

The Living Lab concept – Example

Manchester University

- Student projects with external organisations
 - Real-world problems linked to UN SDGs
- Academics contribute projects as part of module assessment
 - Dissertation, essay, assignment

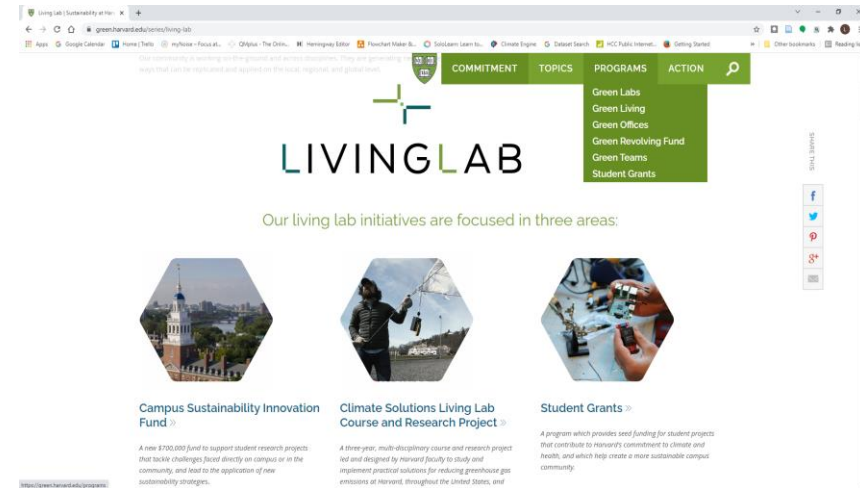


Source: <https://www.universitylivinglab.org/>

The Living Lab concept – Example

Harvard University

- Campus Sustainability Innovation Fund
 - Faculty + student + PS staff
 - USD 10,000-50,000
- Climate Solutions Living Lab Course and Research Project
 - Interdisciplinary course
 - Problem-based learning
- Student grants
 - USD 100-5000



Source:
<https://green.harvard.edu/series/living-lab>

The Living Lab concept – Why?

- **Outcomes for institution**

- Students: enriching education and experience
- Academics: opportunities for impactful and innovative teaching, research
- Professional Services staff: improvement of physical and administrative operations
- External stakeholders: meaningful and mutually beneficial engagement

Source: EAUC Living Labs Brief,
https://www.eauc.org.uk/launch_of_eauc_living_lab_programme

The Living Lab concept – Who?

- **Stakeholders – pool resources, solve common problems**
 - Students
 - Academics
 - Professional Services staff
 - External stakeholders

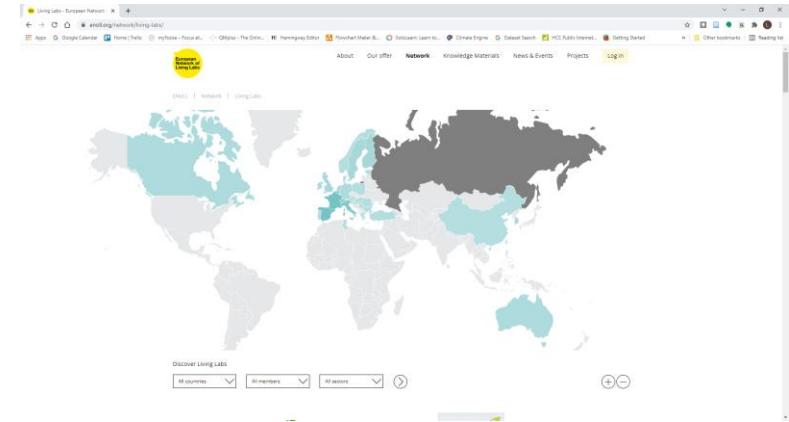
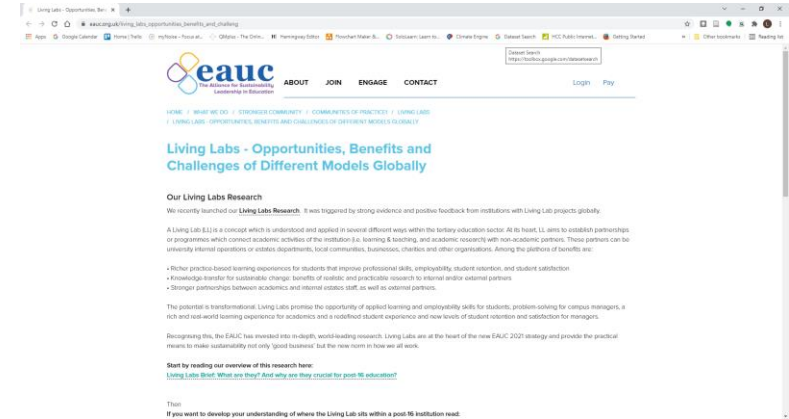


Source: EAUC Living Labs Brief,
https://www.eauc.org.uk/launch_of_eauc_living_lab_programme

The Living Lab concept – Who?

Wider networks

- EAUC Living Lab Community of Practice
 - Strategic alignment, advocacy, research and knowledge exchange
- European Network of Living Labs
 - 475+ members
 - Knowledge exchange, joint actions, project partnerships



The Living Lab concept – How?

- **Core principle: Real-world sustainability challenges**
 - Any area of sustainable development
 - E.g., UN SDGs
 - Real-world challenges and opportunities put forward by PS staff and/or external actors
 - Link theoretical knowledge to real-world applications



Source:
<https://www.un.org/development/desa/disabilities/envision2030.html>

Source: EAUC How do Living Labs Work?
https://www.eauc.org.uk/launch_of_eauc_living_lab_programme

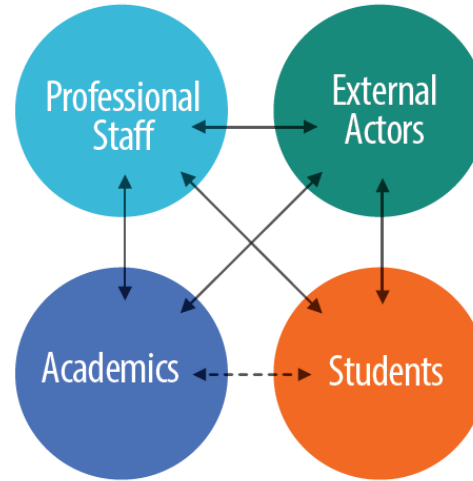
The Living Lab concept – How?

- **Core principle: Formal participation**
 - Students: part of curricular or formal extra-curricular programmes
 - E.g., dissertation, coursework, internship, summer school, job placement
 - Academics: part of teaching and research activity
 - PS staff: through formal responsibilities
 - External actors: relevant; through paid work, if possible

Source: EAUC How do Living Labs Work?
https://www.eauc.org.uk/launch_of_eauc_living_lab_programme

The Living Lab concept – How?

- **Core principle: Stakeholder partnerships**
 - Create valued experiences and outcomes for all participants



↑
↓
An arrow between stakeholder groups represents a project relation, i.e. they are directly involved through the project.

↑
↓
A dashed arrow represents a **supportive role**ⁱ

Source: EAUC How do Living Labs Work?
https://www.eauc.org.uk/launch_of_eauc_living_lab_programme

Queen Mary Living Lab – Green shoots

Westfield Fund for Enhancing the Student Experience

- Environmental sensor network to monitor weather variables, air quality
- Addresses inter-linked challenges of climate change, urban air quality
- Curricular & extra-curricular activities
- Academics (Geography, EECS), Estates & Facilities staff, Students' Union rep

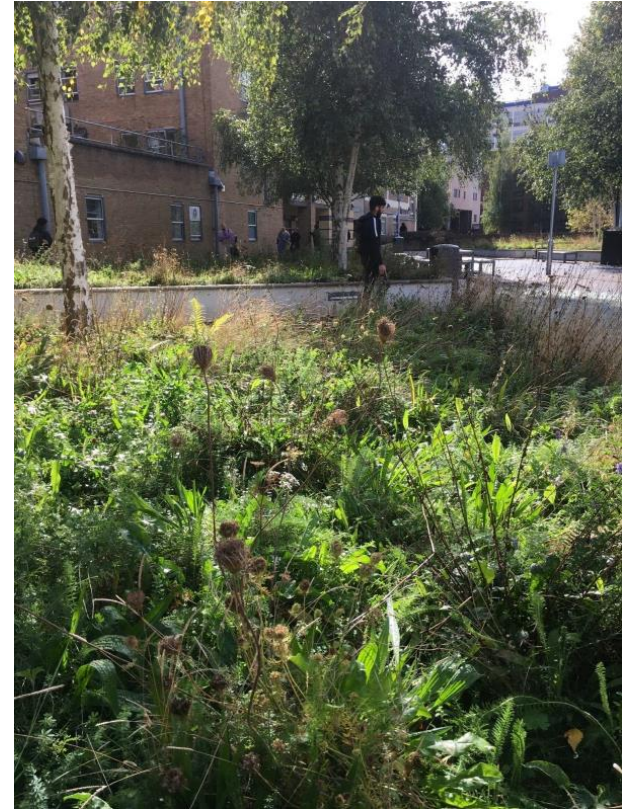


Source:
<https://sensor.community/en/sensors/airrohr/>

Queen Mary Living Lab – Green shoots

Wider interest across QM

- All three Faculties
 - Humanities & Social Sciences
 - Science & Engineering
 - Medicine & Dentistry
- Estates & Facilities
- Library
- Centre for Public Engagement



Credit: Geraldene Wharton

Queen Mary Living Lab – Challenges

Top three challenges (according to EAUC)

- Resources
 - Funding (long-term/core and for specific projects)
- Communication and engagement
 - Internal & external
- Operational
 - Priorities, timescales, reporting

Source: EAUC How do Living Labs Work?
https://www.eauc.org.uk/launch_of_eauc_living_lab_programme

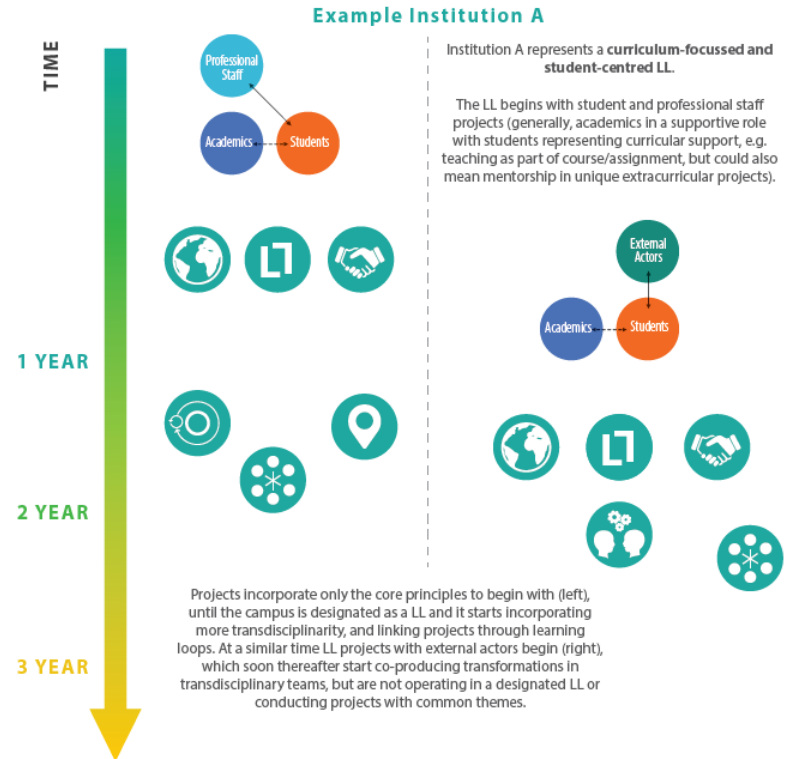


Credit: Kate Heppell

Queen Mary Living Lab – Next steps?

How to take it forward:

- University-level commitment
- Coordination
- Scaling up
 - Number and scope of projects
 - Range of internal and external stakeholders



Source: EAUC How do Living Labs Work?
https://www.eauc.org.uk/launch_of_eauc_living_lab_programme



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