



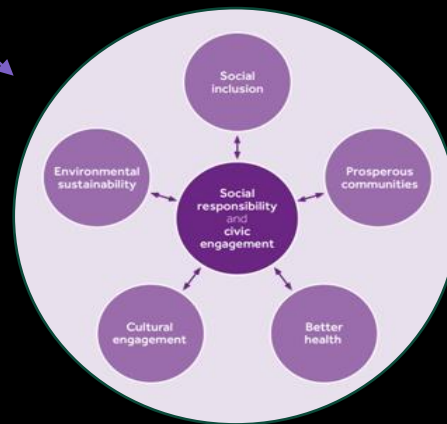
Sustainability Teaching and Learning at the University of Manchester, UK

Jen O'Brien

Jennifer.obrien@manchester.ac.uk



Today's format



?

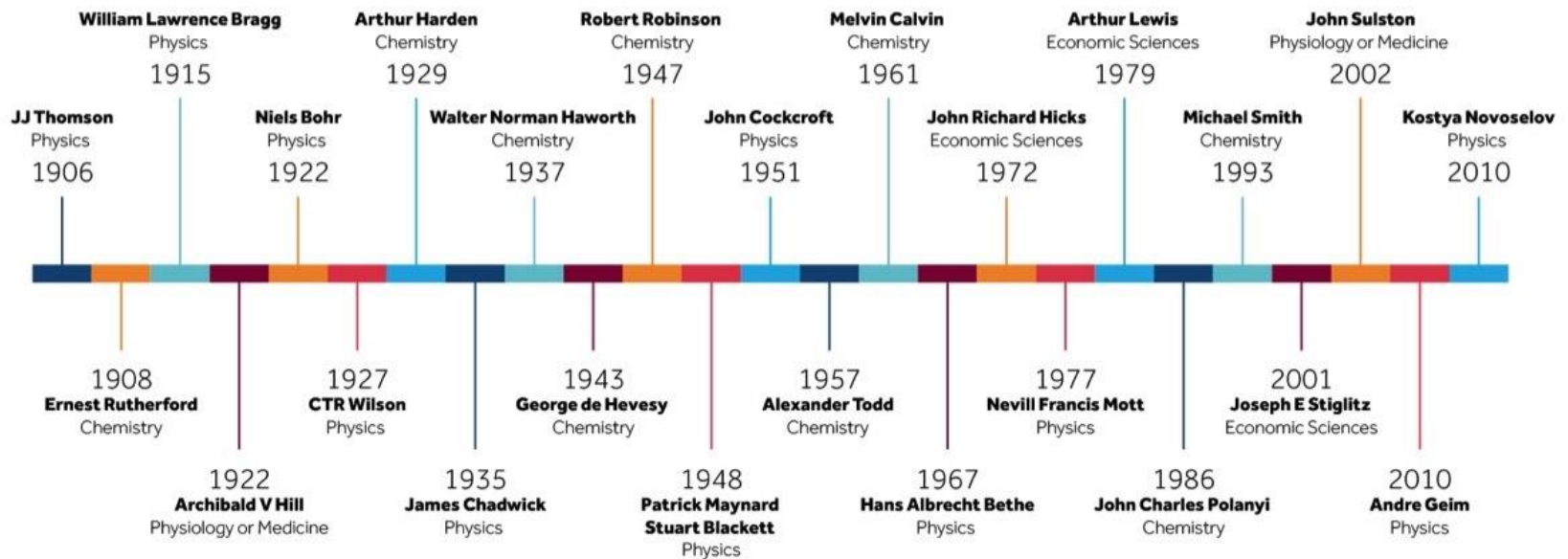
"A rose by any
other name
would
smell as sweet"

How would you define
sustainability?





Our academic heritage



25 Nobel Prize winners among our current and former staff and students

32

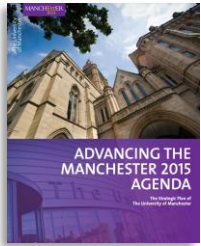
QS world university
rankings

41

Academic
Ranking of World
Universities

2

in the world for
social and
environmental
impact



Purpose: our core goals



1

**Research and
Discovery**

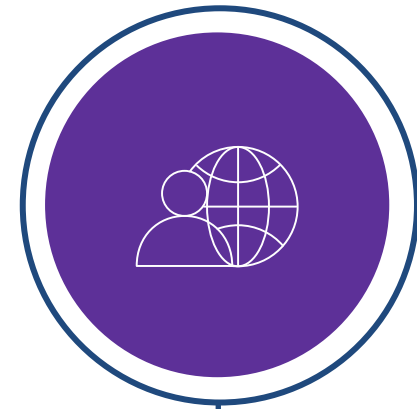
Cognitio
(knowledge)



2

**Teaching and
Learning**

Sapientia
(wisdom)



3

**Social
Responsibility**

Humanitas
(humanity)

Purpose: how we deliver social responsibility

Social responsibility is the contribution we make to society and the environment through our four core functions of research, learning, engagement and operations.

Social responsibility is both:

- a set of **values and a unifying theme** that give us purpose
- a set of **practical and measurable activities**



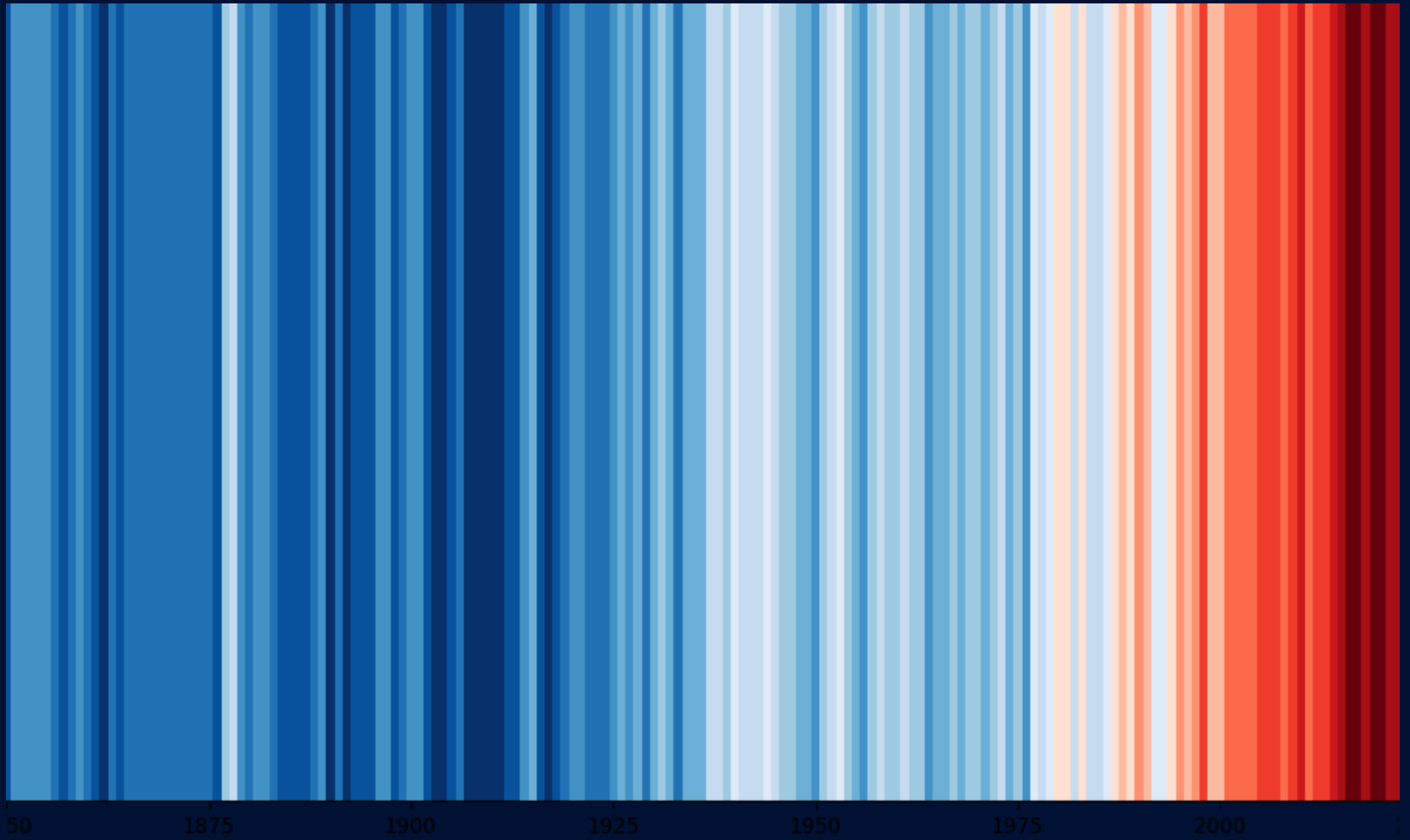
Priorities

Five overall priorities for social responsibility and civic engagement

These five priorities are underpinned by a focus on

- Partnerships
- People
- Processes





What did you do, when you knew?



Meeting student expectations & needs

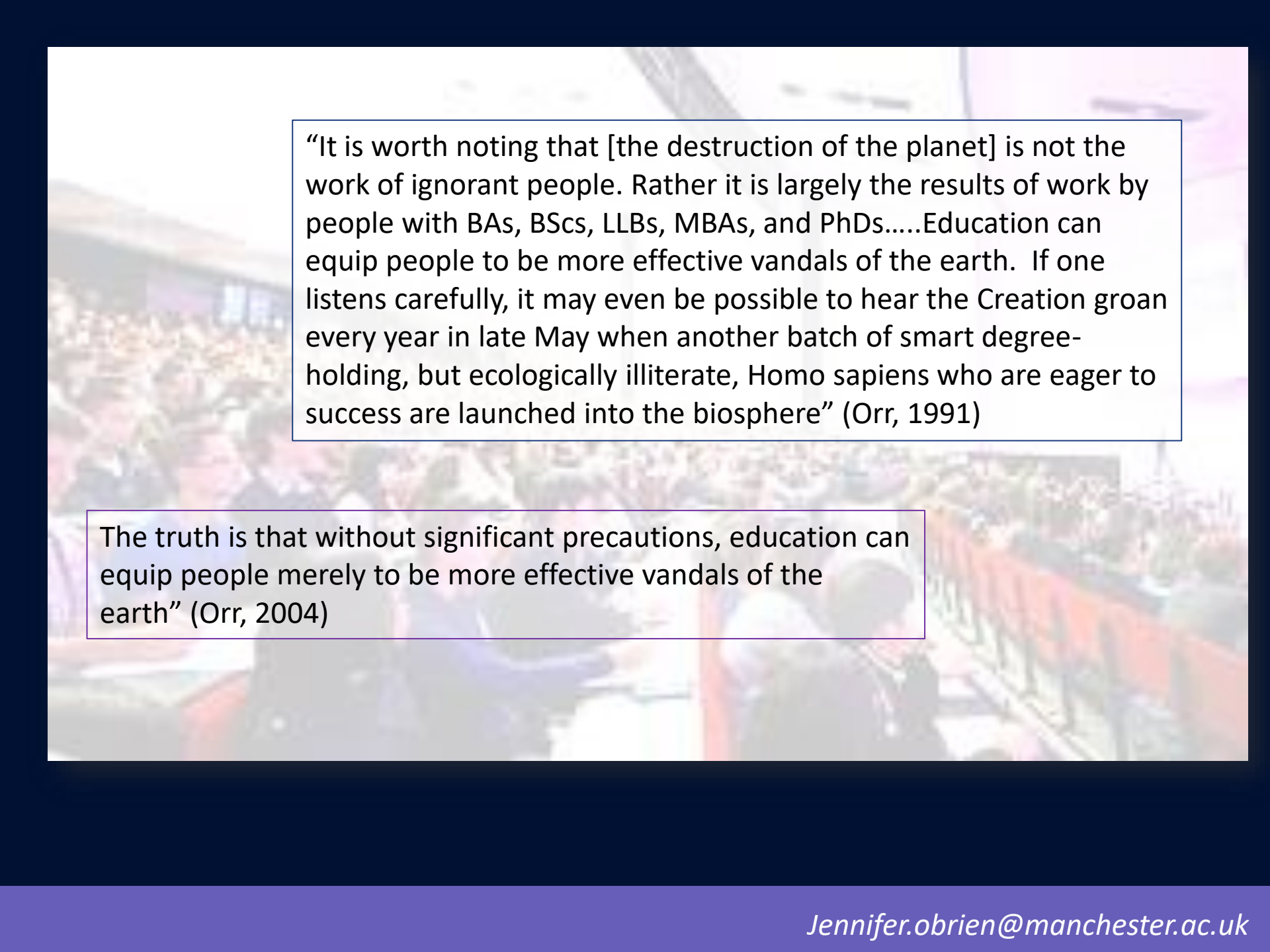


'Students complain that our curriculums and syllabuses represent a rear-view mirror on climate risk and opportunity. They protest their endowments' exposure to the fossil fuel economy and they strike on Fridays. They're right. They need to be readied for the world that they will lead, a world of work shaped by digitalization but also decarbonisation and one where the velocity of change is unprecedented.'



*Rachel Kyte CMG, Dean of the Fletcher School of Law and Diplomacy, Tufts University.
What did you do when you knew climate change threatened our world? Boston Globe. 24 Feb 2020.*

'Climate change places a new lens on every field of study, requiring this and the next generation to ask: What did you do when you knew?'



“It is worth noting that [the destruction of the planet] is not the work of ignorant people. Rather it is largely the results of work by people with BAs, BScs, LLBs, MBAs, and PhDs.....Education can equip people to be more effective vandals of the earth. If one listens carefully, it may even be possible to hear the Creation groan every year in late May when another batch of smart degree-holding, but ecologically illiterate, Homo sapiens who are eager to success are launched into the biosphere” (Orr, 1991)

The truth is that without significant precautions, education can equip people merely to be more effective vandals of the earth” (Orr, 2004)

“No one discipline can claim education for sustainable development for its own, but all disciplines can contribute”

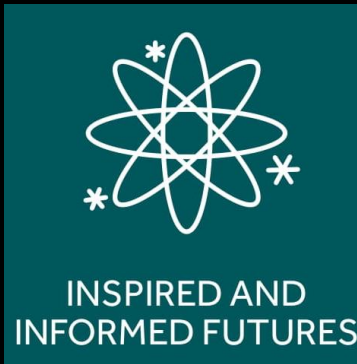
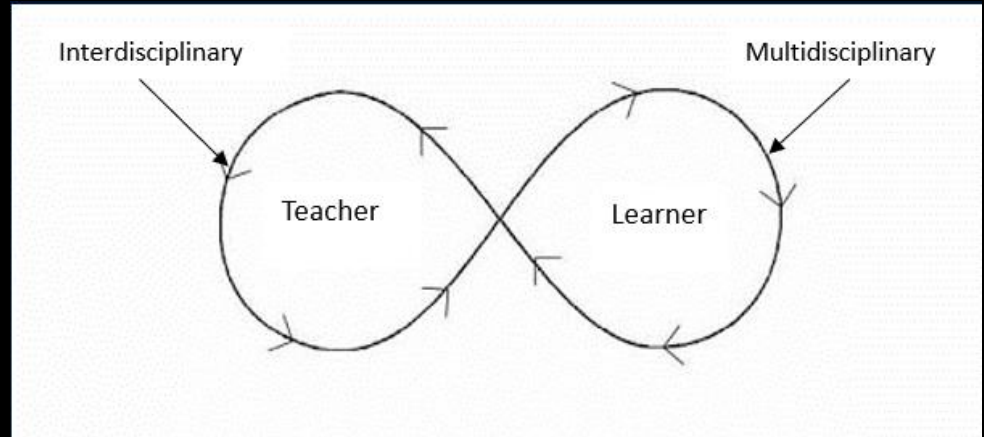
(UNESCO, 2005:31)





“No one discipline can claim education for sustainable development for its own, but all disciplines can contribute”

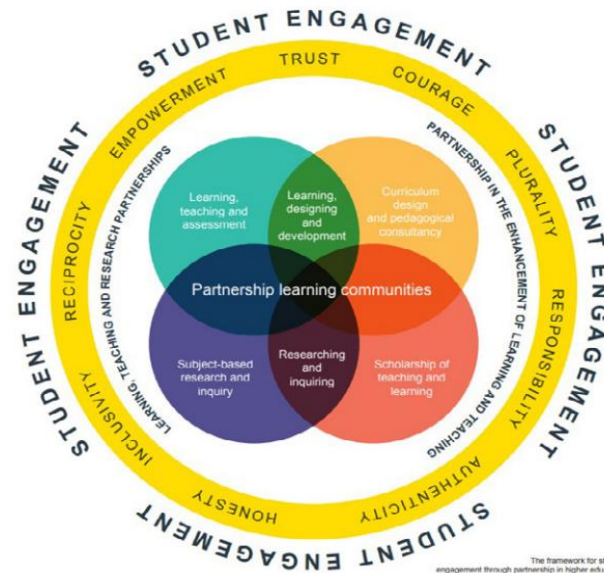
(UNESCO, 2005:31)



Sustainable Futures ([link](#))



Figure 1. The framework for student engagement through partnership in higher education (Advance HE, 2019)



The framework for student engagement through partnership in higher education © Advance HE 2019. All rights reserved.

“the extent to which students are motivated, passionate and curious about their programme of study, the HE provider community they live and work within and its immediate environs” (Peart *et al.*, 2023)

Education for Sustainable Development (ESD)

“ESD gives learners of all ages the **knowledge, skills, values and agency** to address interconnected global challenges including climate change, loss of biodiversity, unsustainable use of resources and inequality. It empowers learners of all ages to make informed decision and take individual and collection action to engage society and care for the planet. ESD is a **lifelong learning process** and an integral part of quality education. It enhances the cognitive, socio-emotional and behavioural dimensions of learning and encompasses **learning content and outcomes, pedagogy and the learning environment itself**”

UNESCO (2023)

Advance HE [Guidance](#)





Eight UNESCO competencies for sustainability

Ways of thinking – systems thinking, future thinking, and critical thinking

Ways of practising – strategic, collaborative and integrated problem solving

Ways of being – self aware and normative

Gap between concept and practice (Acosta Castellanos and Queiruga-Dios, 2021)

Need to integrate into University curricula (Lozano *et al.*, 2017)

4 key methods to embed ESD:

- Covering “environmental” material in the courses,
- Adding a specific ESD course
- Incorporating ESD within existing courses,
- Specialising in ESD within academic facilities



(Drayson, 2015; Vogel *et al.*, 2023)

Creating a Sustainable World: 21st Century Challenges and the SDGs



University College for
Interdisciplinary Learning
(UCIL)

UG and PGT.

Credit bearing unit

[Link](#)



The Stellify Award



Stellify Award for Undergraduates

[Read more >](#)



Stellify Award for Masters Students

[Read more >](#)



Understand the issues that matter

[Read more >](#)



Make a difference

[Read more >](#)



Step up and lead

[Read more >](#)

Complete at least two Ethical Grand Challenge activities:

Sustainability Challenge
(Year 1)

Social Justice Challenge
(Year 2)

Workplace Ethics Challenge
(Year 3, final year)

Complete 25 hours of volunteering which benefits the wider community:

Find a volunteering opportunity on [Volunteer Hub](#) or find your own.

You must record all your own volunteering activity on Volunteer Hub to count towards the award.

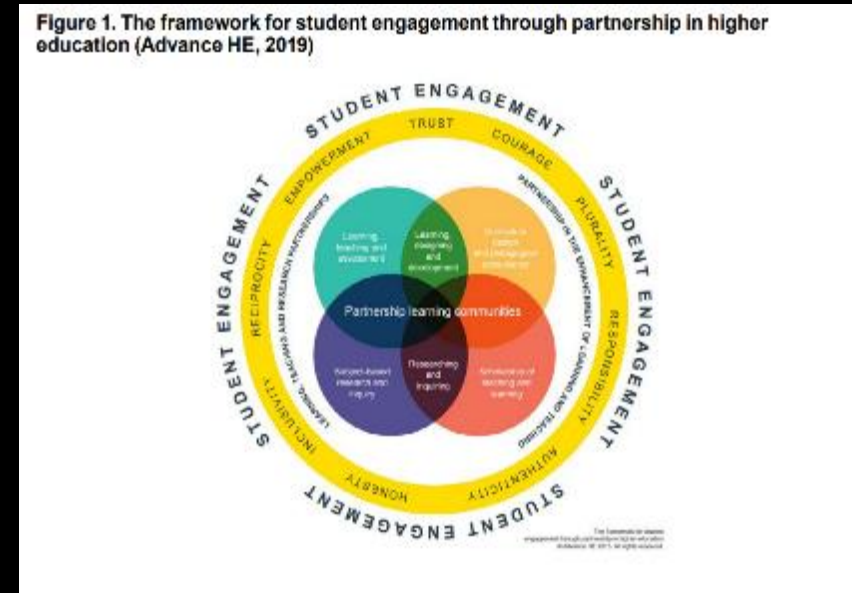
Complete two approved leadership roles (or one role for two years):

View our list of approved leadership roles and how to apply on the link above.

Living Lab approach



Figure 1. The framework for student engagement through partnership in higher education (Advance HE, 2019)



University focused

A **university or college Living Lab** is a means to address real-world **institutional problems** [real-world sustainability challenges] using a dynamic **partnerships** between all the institution's stakeholder groups. It facilitates **collaborations** that liberate intellectual potential and **address practical challenges**. Surprisingly, a Lab does not necessarily demand significant additional resources, it simply helps identify existing ones and redirects them to the right areas. (EAUC – Environmental Association for Universities and Colleges Living Lab Community of Practice)



Universitylivinglab.org

Organisations need research. Students need to do assessment.

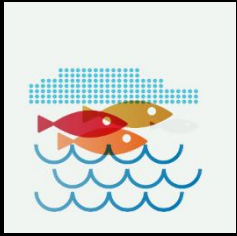
Why not do something useful? (O'Brien *et al.*, 2021)

Our University Living Lab links applied research between organisations and our students to affect change.

43,000 students

=

7.5 million hours of research time



1.
Organisation
sets the
research that
they need to
affect change
for
sustainable
development.
Framed
around SDGs

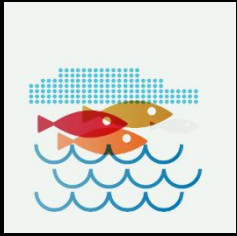
SDGs ▼

1 - 20 / 138

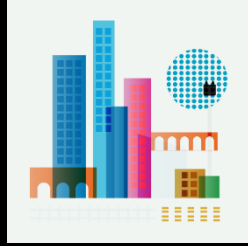
SDGs	Project name	Project description	Organisation	Download
4, 5, 10	Challenges for Educational Participation in Rural Uganda	This project should aim to identify and explore the challenges facing rural education in Uganda.	St. Veronica Charity Organisation	Click here
11,9,10	App development for wayfinding	How might technology be utilised to promote accessible pedestrian routes on the Oxford Road corridor?	Corridor Manchester	Click here
13, 3, 11	University parking overflow in residential areas	How to mitigate the problem of University staff members parking in surrounding residential areas	Carbon Action Group, University of Manchester	Click here
11,12,17	Analysing the success of Libraries of Things	Explore existing LoT models to identify effective ways to achieve sustained community engagement.	Manchester Library of Things	Click here
1,4,9	How vocational training in Zambia contributes towards breaking the cycle of poverty and improving social mobility.	This project asks for insight into how vocational training in Zambia contributes towards breaking the cycle of poverty and improving social mobility to support impact framing and funding applications	Zambia Orphans Aid UK	Click here
1,4,9	Do gender and disability affect the experience of Zambian vocational students and graduates	ZOA have invested in vocational training for orphans in Zambia for 10 years. This project asks for the specific focus of how gender and disability affect the experience of Zambian vocational students and graduates	Zambia Orphans Aid UK	Click here
1,4,9	Employability of Zambian graduates with vocational qualifications	ZOA have invested in vocational training for orphans in Zambia for 10 years. This project asks for a literature review on whether vocational graduates in Zambia are able to access jobs and earn an income when they graduate than their peers (those who study non-vocational subjects at tertiary level).	Zambia Orphans Aid UK	Click here
1,4,9	Return on investment of vocational training	ZOA have invested in vocational training for orphans in Zambia for 10 years. This project would identify the return on investment of funding the training of a teacher or healthcare worker in Zambia. For example, you may wish to consider financial and social returns. Please include accessible and engaging visual materials in your work.	Zambia Orphans Aid UK	Click here
3 5 10	Improving Access to Women's Health Services in Restricted	Explore and evaluate approaches towards enabling safe access to	Population Services International	Click here

Database of projects.

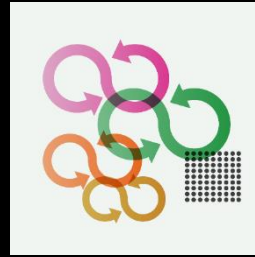
- Can be 'dropped in' as assessment within a Unit.
- Can be inspiration for dissertations, coursework and so forth – we will close the feedback loop.



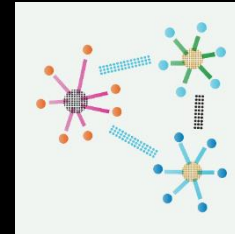
1. Organisation sets the research that they need to affect change for sustainable development. Framed around SDGs



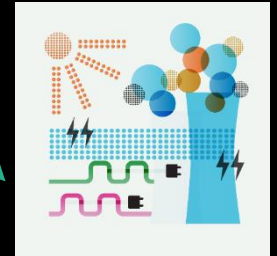
2. Students chose the research and adapt from disciplinary perspective for their degree



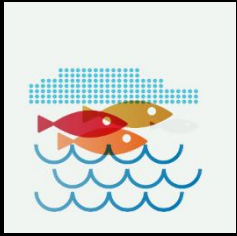
3. Students undertake the research which is marked by their course leader



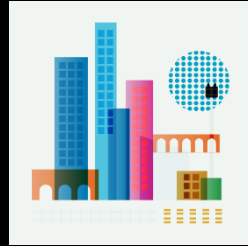
4. We return the research report to the organisation



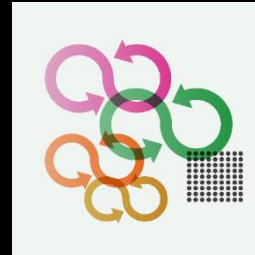
5. The organisation shares **impact** of the research which we return to the student



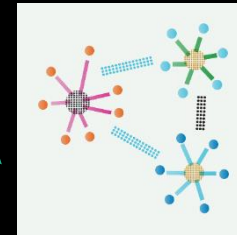
1. Organisation sets the research that they need to affect change for sustainable development. Framed around SDGs



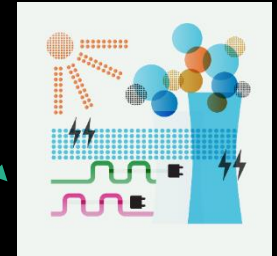
2. Students chose the research and adapt from disciplinary perspective for their degree



3. Students undertake the research which is marked by their course leader



4. We return the research report to the organisation



5. The organisation shares **impact** of the research which we return to the student

Employability and student experience in light touch way that has impact



Student feedback:

“I am a research intern and I think that without the research skills I gained during the project **I wouldn't have been able to get this position.**”

Student feedback:

“The assessment style is the best I have had yet, it challenges 21st century challenges with the learning, and lets you interact with these challenges alongside a business - **learning feels useful when it is put into real-world contexts**”

Student feedback:

*“I valued the value they place on us.....This course felt different, it tackles immediate problems to the world and the coordinators have set up this unit to **make our voices feel important and valued.**”*

“Just wanted to share a very cool little win on the back of your report.

We've commissioned 2 ground Bubble Beehives for our new development.... I've attached some illustrations for our developers”





It's finding solutions to our own problems

Alexis Puerta Landaeta

Student of Politics and Founder of Empowering Volta Home



Manchester Community Central
Supporting our voluntary and community sector

Home	Support for groups	Spirit of Manchester	Policy, influence and collaboration	News, events, training and jobs	Volunteer Centre Manchester
Manchester's community stories	Cost of living crisis	Emergency response: Afghanistan, Pakistan and Ukraine			

[Home](#) » [Tackling Period Poverty in Greater Manchester – Public consultation questionnaire](#)

Tackling Period Poverty in Greater Manchester – Public consultation questionnaire

6 Mar 2020 - 11:39 by michelle foster

This project is run alongside Manchester City Council, by two 3rd year Geography students as part of the 'Governing Urban Transformations' module at the University of Manchester.

The project is looking at generating a strategy and report for tackling period poverty in Greater Manchester, which has some really exciting opportunities to be taken seriously by officials, with some of the policy recommendations potentially being implemented within the city.

As part of the report, they are collecting primary research through a public consultation questionnaire on people's lived experiences and understanding of period poverty.

The survey is open for everyone (including men), and to create the most robust policy suggestions, they would like as many responses as possible. The survey should take no longer than 10 minutes to complete and will be open until Monday 16 March.

Complete the survey [here](#)

News Type:
[Sector News](#)



Student feedback: “The idea that we can directly influence University policy is amazing.”

Student feedback: “I have never considered myself as a **change maker** for sustainability before”

“helped to shift how we see the University as a partner, enabling us to work far more closely together to benefit from their expertise and capacity. I have seen value and impacts that will encourage me to continue to look for further collaboration opportunities with the University”.

Manchester City Council



Royal Geographical Society with IBG

<https://www.rgs.org/research/higher-education-resources/fieldprinciples/>



Values:
Responsible
fieldwork RGS 5
Principles

- 1: Learning in the field
- 2: Sustainable fieldwork
- 3: Safe, responsible and ethical fieldwork
- 4: Accessible and inclusive fieldwork
- 5: Staff in the field



- Systems approach of values and activities
- Partnership/living lab approach brings together our research, teaching and operations for 'sustainability'
- A number of signature programmes – Living Lab is an open offer of partnership



- Acosta Castellanos, P M and Queiruga-Dios, A (2021) 'Current state of knowledge of ESD in environmental engineering professors in Colombia', in SEFI (European Society for Engineering Education) Proceedings of SEFI 2021: 49th annual conference: blended learning in engineering education. Berlin, Germany, 13-16 September. Brussels: SEFI, pp 35-44. Available at: www.sefi.be/wp-content/uploads/2021/12/SEFI49th-Proceedings-final.pdf [accessed 17 September 2023].
- Advance HE and Quality Assurance Agency (2021) Education for sustainable development guidance. York: Advance HE; and Gloucester: The Quality Assurance Agency for Higher Education.
- Cook-Sather A (2016) Creating brave spaces within and through student-faculty pedagogical partnerships. Teach Learn Together High Educ 1:1
- Evans, J, Jones, R, Karvonen, A, Millard, L & Wendler, J (2015), 'Living labs and co-production: university campuses as platforms for sustainability science', Current Opinion in Environmental Sustainability, vol. 16, pp. 1-6.
- Healey, M and Healey, R L (2019) Student engagement through partnership: A guide and update to the Advance HE framework. York: Advance HE. Available at: mickhealey.co.uk/devtest/wp-content/uploads/2020/02/SaP-Guide-Updated.pdf
- Lozano, R, Merrill, M, Sammalisto, K, Ceulemans, K and Lozano, F (2017) 'Connecting competences and pedagogical approaches for sustainable development in higher education: a literature review and framework proposal', Sustainability, 9 (10): 1889.
- O'Brien, J., Evans, J., Karvonen, A., Millard, L., Wendler, J., Blakey, J. and Jones, R. (2021). Brokering applied research between students and organisations to affect change for sustainable development. COP26 Universities Network Case Study (online) available at: https://www.gla.ac.uk/media/Media_814636_smxx.pdf
- O'Brien, J., (2019) Empowering students to create a sustainable world University of Manchester Magazine (online) available at: <https://www.manchester.ac.uk/discover/magazine/opinion/empowering-students/> accessed 12/01/2022
- Orr, D., (1991) Ecological literacy: Education and the transition to a postmodern world. New York: Suny Press
- Orr, D., (1994) Environmental Literacy: Education as if the Earth Mattered. <https://www.sfsf.com.au/Education.As.If.The.Earth.Mattered.pdf>
- Peart, D., Rumbold, P., Fukar, E., (2023) Student Engagement through Partnership: a literature review. Advance HE
- Vogel, M., Parker, L., Porter, J., O'Hara, M., Tebbs, E., Gard, R., He, X., Gallimore J-B., (2023) Education for Sustainable Development a review of the literature 2015-2022 Advance HE
- Winks, L. (2018). Discomfort, Challenge and Brave Spaces in Higher Education. In: Leal Filho, W. (eds) Implementing Sustainability in the Curriculum of Universities. World Sustainability Series. Springer, Cham