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Re-imaging education
for a just, sustainable
and peaceful world....

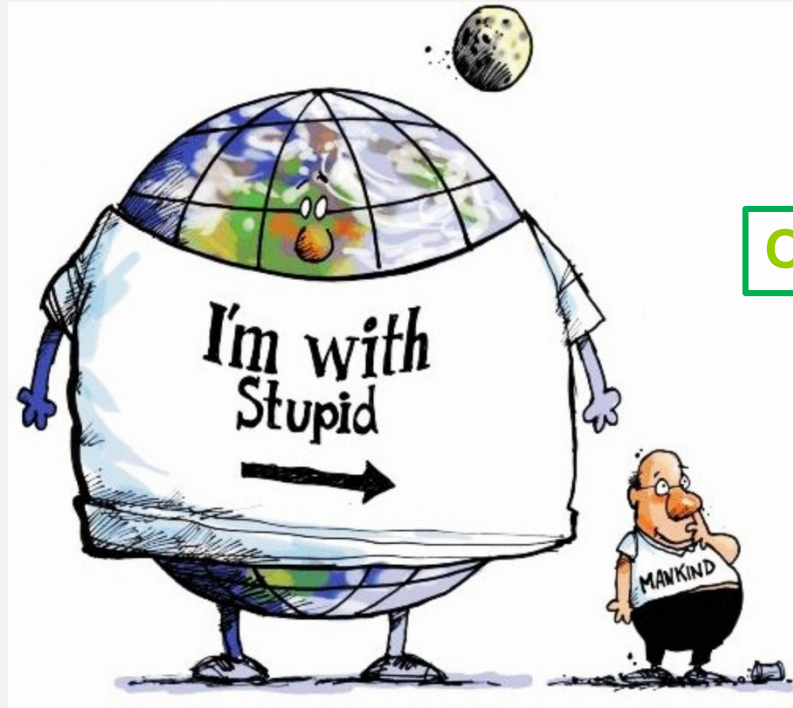
Ian Coleman and Andrew Reeves
22nd September 2022

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Earthrise photo taken by astronaut
William Anders, December 24th 1968



Choosing the future



<http://blog.cartoonmovement.com/2017/04/earth-day-in-10->

OR

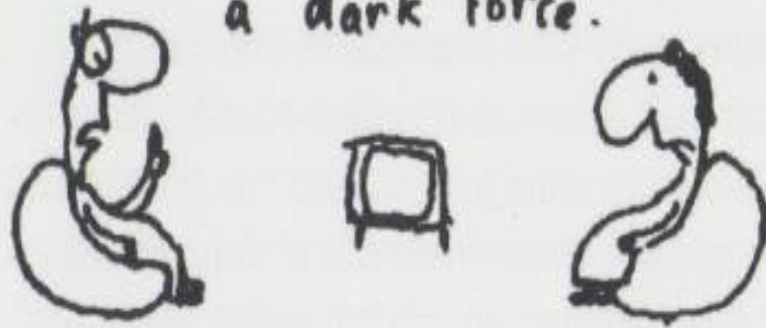


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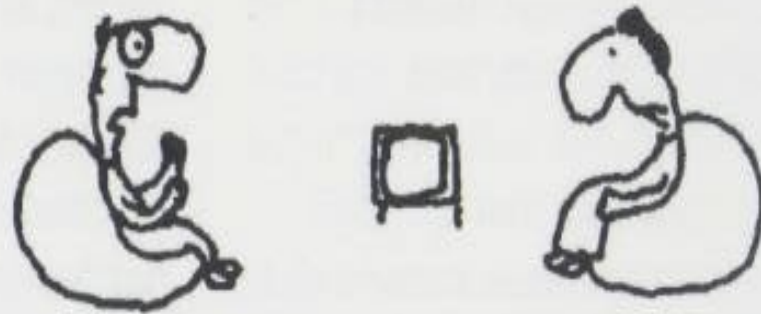
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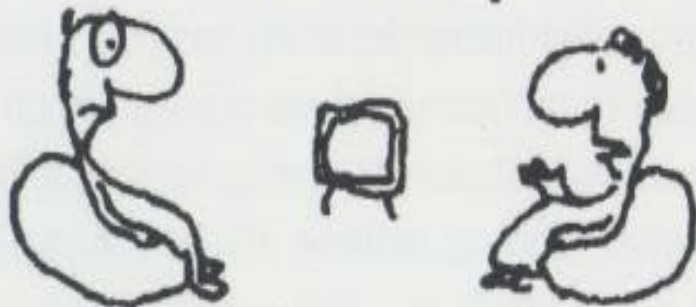
our way of life is
being threatened by
a dark force.



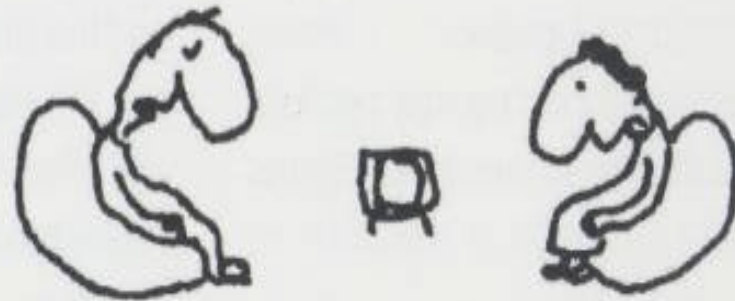
we must defend our
way of life.



WHAT IS THIS
DARK FORCE WHICH
THREATENS OUR WAY
OF LIFE?

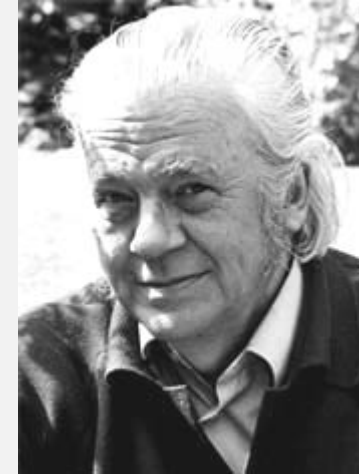


it's our way
of life...



‘Education of a different kind’

‘The volume of education has increased and continues to increase, yet so do pollution, exhaustion of resources, and the dangers of ecological catastrophe.’



If still more education is to save us, it would have to be education of a different kind: an education that takes us into the depth of things.’

E F Schumacher (written 1974, published 1997)

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A higher calling

‘HEIs are serving a failing system in need of reinvention and are losing the capacity to engage in critical reflection and advance ways of thinking and acting that go beyond their immediate mandates.

In an increasingly individualistic and consumerist society, social responsibility gets lost in the noise of markets, financial metrics, rankings, and competition.’

-*A Higher Calling for Higher Education*, Cristina

Escrigas, 2016, Tellus Institute

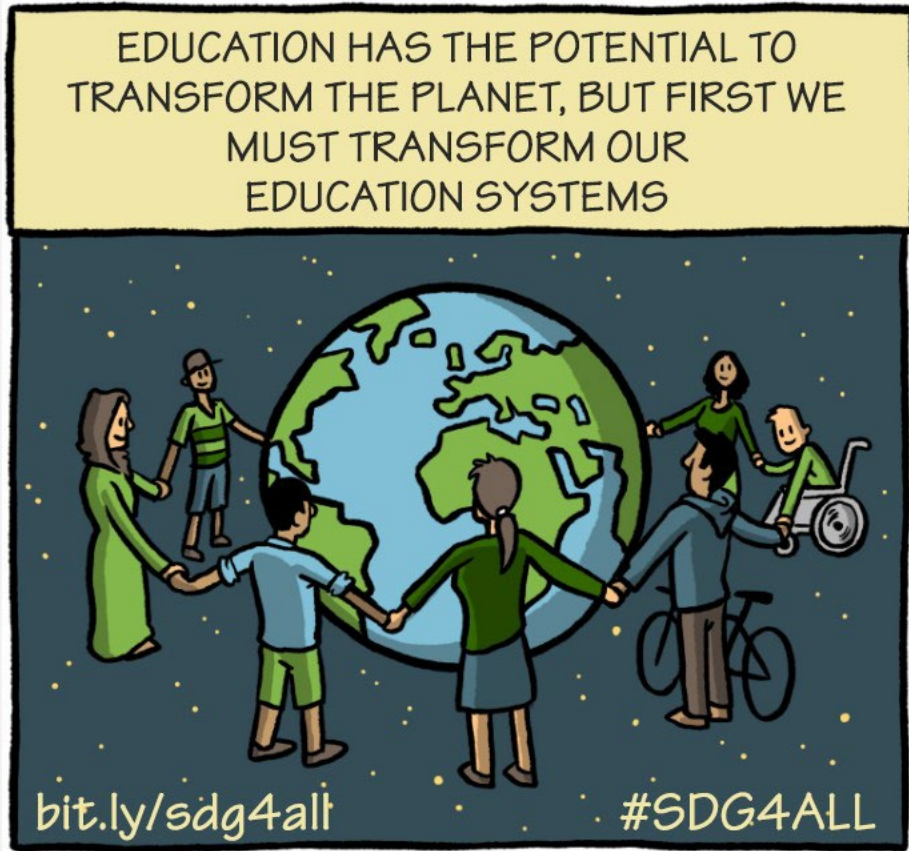


<http://www.tellus.org/tellus/publication/a-higher-calling-for-higher-education>

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UNESCO and education for transformation



UNESCO (2016) *Education for People and Planet: Creating sustainable futures for all*

<https://en.unesco.org/gem-report/report/2016/education-people-and-planet-creating-sustainable-futures-all>

‘We must change the way we think and act as individuals and societies. So, in turn, **education must change** to create a peaceful and sustainable world for the survival and prosperity of current and future generations.’

‘We are increasingly asking if what people learn is truly relevant to their lives, if what they learn helps to ensure the survival of our planet’

– Stefania Giannini, Assistant Director-General for Education, UNESCO, 2020

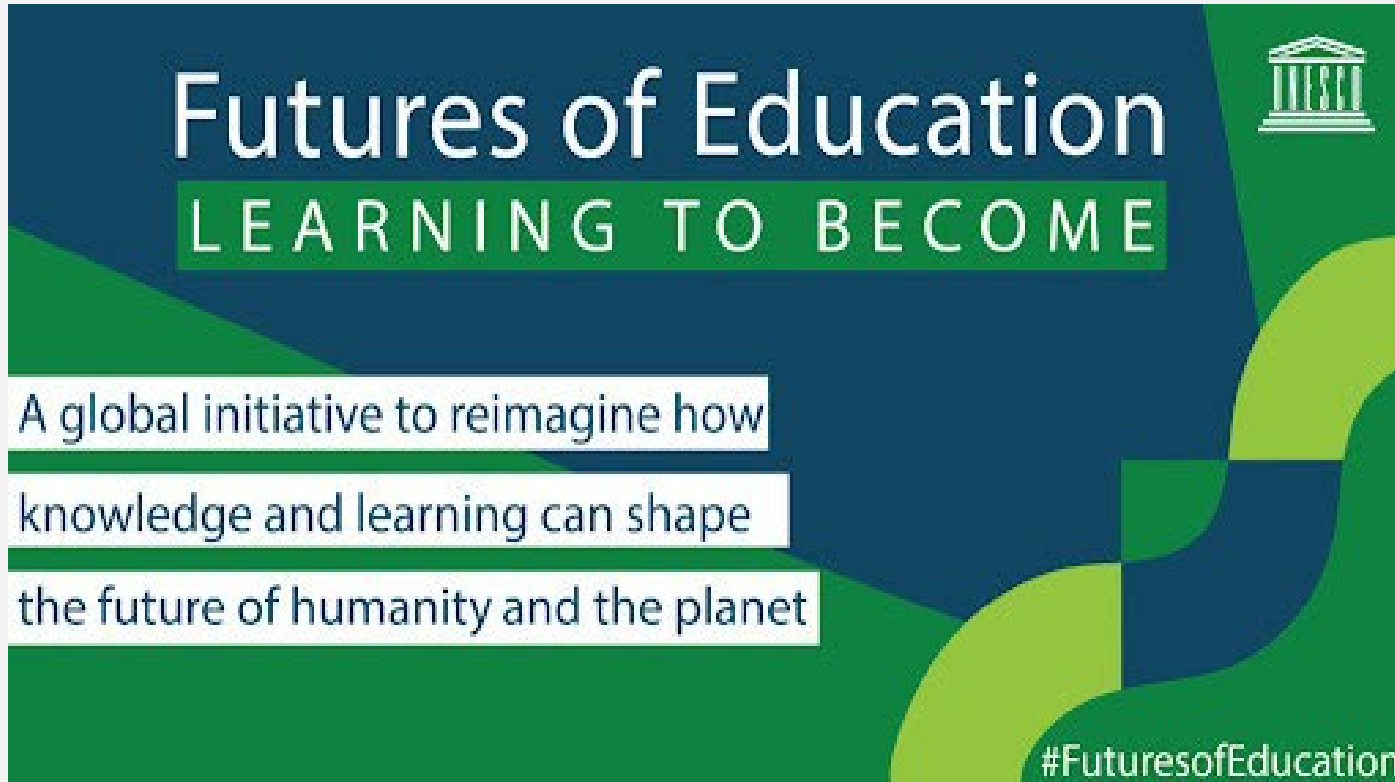


<https://unesdoc.unesco.org/ark:/48223/pf000374802>

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UNESCO International Commission



‘For too long, education has been based on a growth-focused modernist development paradigm. Moving towards a new ecologically oriented understanding of humanity that integrates our ways of relating to Earth, requires an urgent rethinking of education in the 2050 horizon.’

- Interim Report (ICFE 2021, March 2021 p.8).

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Key question

How should – and how can – education and learning be re-thought and re-configured...

...to make a significant and central contribution to achieving a liveable, more sustainable and just world?

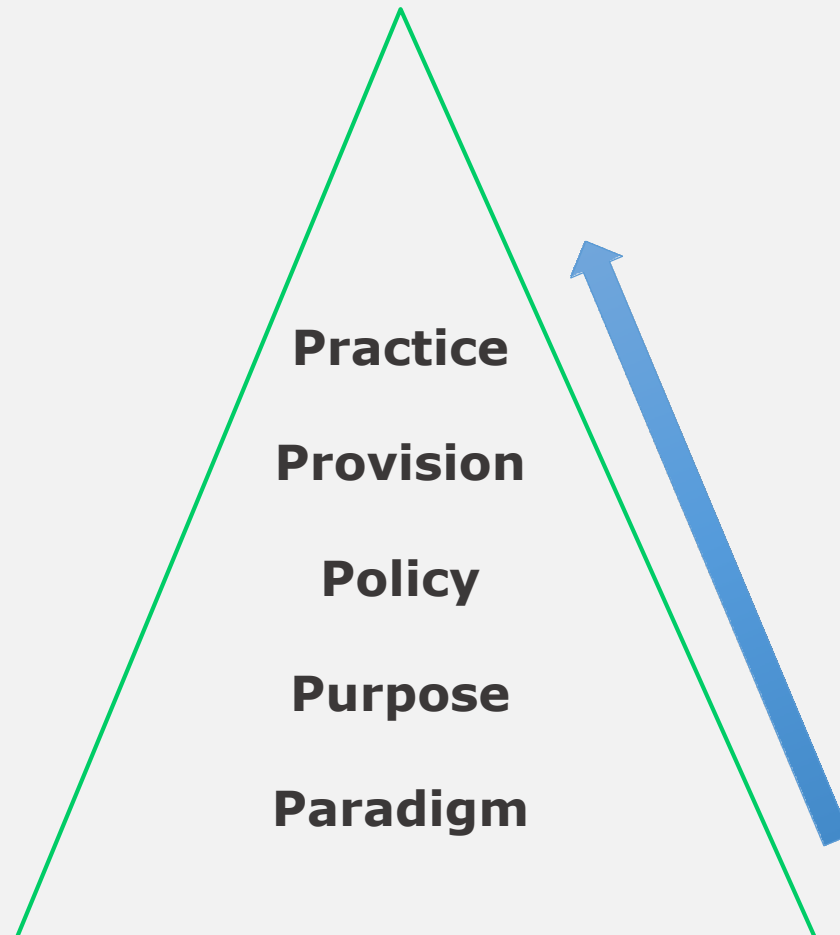


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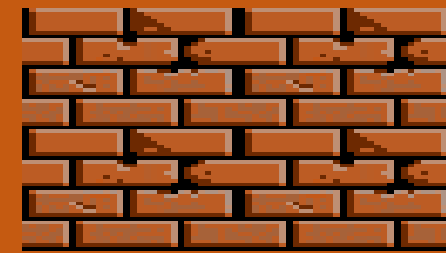
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Organisational and educational culture:

levels of manifestation



**UNSUPPORTIVE
FOUNDATIONS?**



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What is education *for?*



1. Socialisation Function

—to replicate society
and culture

2. Vocational Function

—to
prepare people for
employment

3. Liberal Humanist Function

—to develop the
potential of individuals

4. Transformative

Function —to facilitate
change towards a better
and liveable world
(*socio-ecological
wellbeing for all*)

S. Sterling (2002): 25

Shifts with regard to curriculum and pedagogy

FROM:

- Curriculum as top-down 'product'
- Fixed knowledge
- Disciplinarity
- Abstract knowledge
- Teaching/instruction
- Few learning styles
- Passive learning

TOWARDS:

- Curriculum as experience/situated learning
- Provisional knowledge
- Inter- and transdisciplinarity
- Real world knowledge & problems
- Participatory learning
- Systems thinking
- Embracing non-Western ways of knowing

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Some key websites

- UNESCO Futures of Education report

<https://en.unesco.org/futuresofeducation/news/launch>

- Learning Planet

<https://www.learning-planet.org/en>

- Sustainable Development Solutions Network (SDSN) - Youth

<https://www.unsdsn.org/youth>

- Great Transition Initiative <https://greattransition.org/gti-forum/pedagogy-transition>

- Global Alliance of Tertiary Education and Student Sustainability Networks

https://www.eauc.org.uk/global_alliance

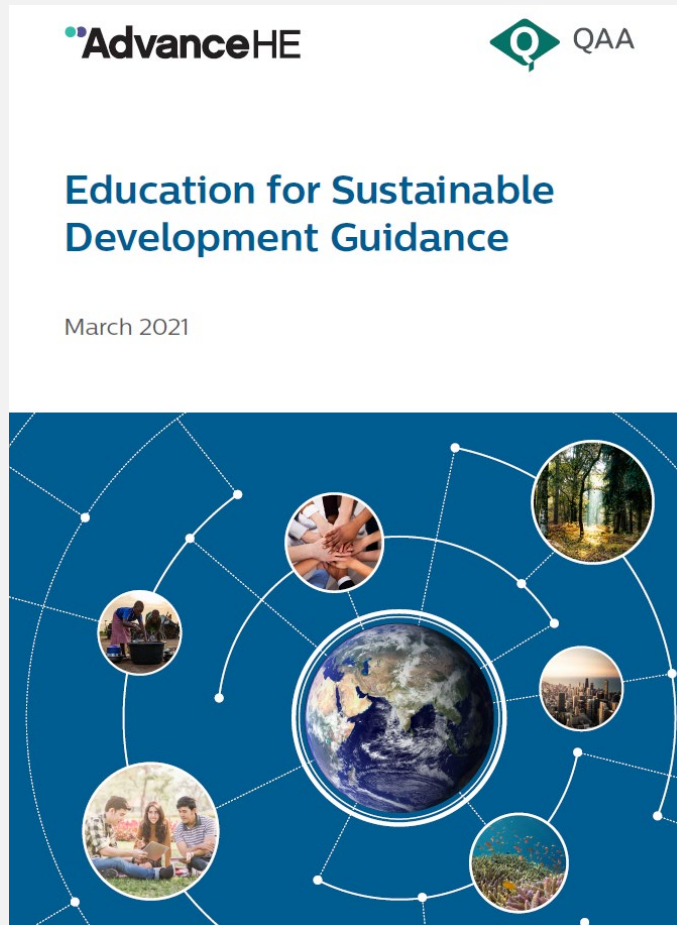
- Frontiers in Sustainability – Research Topic

<https://www.frontiersin.org/research-topics/14778/re-purposing-universities-for-sustainable-human-progress#articles>

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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 decisions and take individual and collective action to change 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)

See AdvanceHE/QAA guidance for the sector:

<https://www.qaa.ac.uk/quality-code/education-for-sustainable-development>

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ESD: The sort of thing we're aiming for...

Saja's Story (Textile Design, 2019)



Inspired and supported by lecturers. Seized opportunity by co-curricular session. Has gone on to work on sustainability projects and in community groups and write on sustainable fashion in the context of the middle east.

"Sustainability is something that my course tutors spoke quite a lot about during my time at DMU and I was really interested to take it further. There was a talk that was arranged at DMU by Solitarie Townsend, co-founder of a leading sustainable communication agency.... I managed to get her business card and I emailed her asking about whether I can undertake an internship after I finished my studies..."

Aroob's Story (Energy and Sustainable Development, 2021)

Completed course with strong focus on developing personal values and professional competencies. Short-term role on DMULocal+ project following on from MSc Energy and Sustainable Development.

"I've received a couple of jobs offers only because of my role at DMU as a climate emergency research assistant. I will never forget how useful this opportunity was for me. It made me more confident during the job interview because I knew what I'm doing."

Why is ESD relevant to me?

- Most students [expect this from their programmes](#)
- Civic Contribution: <https://civicuniversitynetwork.co.uk/>
- DMU's commitment to Sustainability and UN SDGs and future 'Net Zero' operations
- Policy: [UK Sustainability and climate change strategy](#)
 - Net Zero operations; preparing for a world impacted by climate change
- Current or emerging requirements for disciplines and accrediting bodies
 - <https://www.advance-he.ac.uk/teaching-and-learning/education-sustainable-development-higher-education>

ESD in Practice

- Key part of new DMU strategy
 - Sustainability and SDGs a cross-cutting theme
 - *All activities*, not just taught courses
- Guidance, Resources
 - <https://esdg.our.dmu.ac.uk>
- External recognition:
 - School of Fashion and Textiles, Centre for English Language Learning, Global...

“We will equip students and staff with an understanding of the challenges of sustainability and sustainable development, and will approach learning, teaching and assessment mindful of the opportunities to contribute locally and globally to the public good and environmental futures as well as of our impact on a resource-limited world.”

DMU 2018 Teaching and Learning Strategy

ESD In Education 2030 - guidance

See <https://dmu.ac.uk/staff-toolkit>

- 1: How do all students **learn explicitly** about sustainability and the SDGs within the programme and the relevant links to the subject area?
- 2: How is learning about sustainability and the SDGs reflected **in assessment** for all learners on the programme?
- 3: What opportunities exist **to contribute** to sustainability and the SDGs, both within the course and through co-curricular activities/events?

“meaningful engagement with sustainable development issues” to be “actively incorporated and promoted”

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ESD in Education 2030 – common themes

Context of discipline

- Value for society
- Negative impacts (e.g. resource, equality)

Partnerships

- Experiential learning
- Guest talks

Values and Ethics

- Discipline-related
- Personal reflection

External Drivers

- QAA Guidance for discipline
- Employer needs, accrediting bodies

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ESD in Education 2030 – position statements

*Within DMU's School of Engineering and Sustainable Development our focus in taught programmes is on using the professional **skills of engineering to address many of the world's contemporary sustainable development challenges**, such as designing renewable energy systems and providing electric vehicle infrastructure.*

*Our engineering programmes are **accredited by the IET (Institution of Engineering Technology) AND IMEchE (Institute of Mechanical Engineers)** and as a result, are designed to promote sustainable development and to develop engineers who consider the environmental and sustainability-related constraints within design projects.*

*A key strength of the school is our engagement with real-world projects and challenges. **Engineering students have participated for many years in the Engineering for People design challenge, run with the NGO 'Engineers without Borders'.** Through the competition, groups of students on the 2nd year Project Management module develop engineering-based solutions for specific sustainable development challenges in overseas communities. Past projects have included topics such as rainwater harvesting and access to sanitation facilities. DMU students have been finalists every year since 2014.*

*In addition teams of DMU students can engage with the **'Formula Student' competition** through which they develop a car for racing against other student teams from UK universities. The competition has recently switched over to all-electric vehicles, providing valuable learning opportunities around the technical issues involved in transitioning to electric cars and vans to help address climate change.*

*At Masters level, the school has been running sector-leading Masters programmes for several decades addressing practical solutions to sustainable energy, energy efficient buildings and sustainable lifestyles with students from all over the world. In recent years, the school's programmes in **Engineering Management and Energy Engineering have forged important links between the core skills of engineering and the key professions** in which engineering insight is required to address the sustainable development agenda.*

*Overall, as the school's name suggests, sustainable development is at the heart of how engineering is taught, with the aim of **developing graduates well-placed to design the sustainable systems of the future.***

Discussion – relationship to your programme

Guidance

- Make explicit
- Assess for all
- Experiential learning
- Real-world contribution

Common Themes

- Societal Value of Discipline
- Negative impacts
- Partnerships
- Values and Ethics
- External Requirements

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Upcoming activities

QAA Collaborative Enhancement Project on ESD

- Programme review process
- Course reps and student feedback

Sustainability Advocates

- Co-curricular student training and network

Events

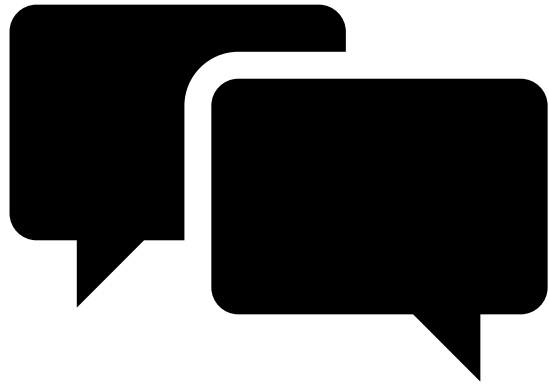
- DMU COP27 (Nov 2022)
- SDG Teach-in (February 2023)

ESD Academic Innovation Programme

- Cohort with taught sessions and mentoring

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Q&A

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and...

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