



EAUC-Scotland Conference

The Elephants in the Room

Tuesday 26 November 2019
The Lighthouse, Glasgow



@EAUCScotland
#EAUCS2019



Curriculum for the Future

Curriculum for the Future



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Curriculum for the Future



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Curriculum in Further and Higher Education in times of climate and ecological emergency

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November 2019



ACKNOWLEDGED BY



UNITED NATIONS
UNIVERSITY





Outline

What am I doing here?

Three sustainability emergencies

Sustainability (and other challenges) for FE and HE

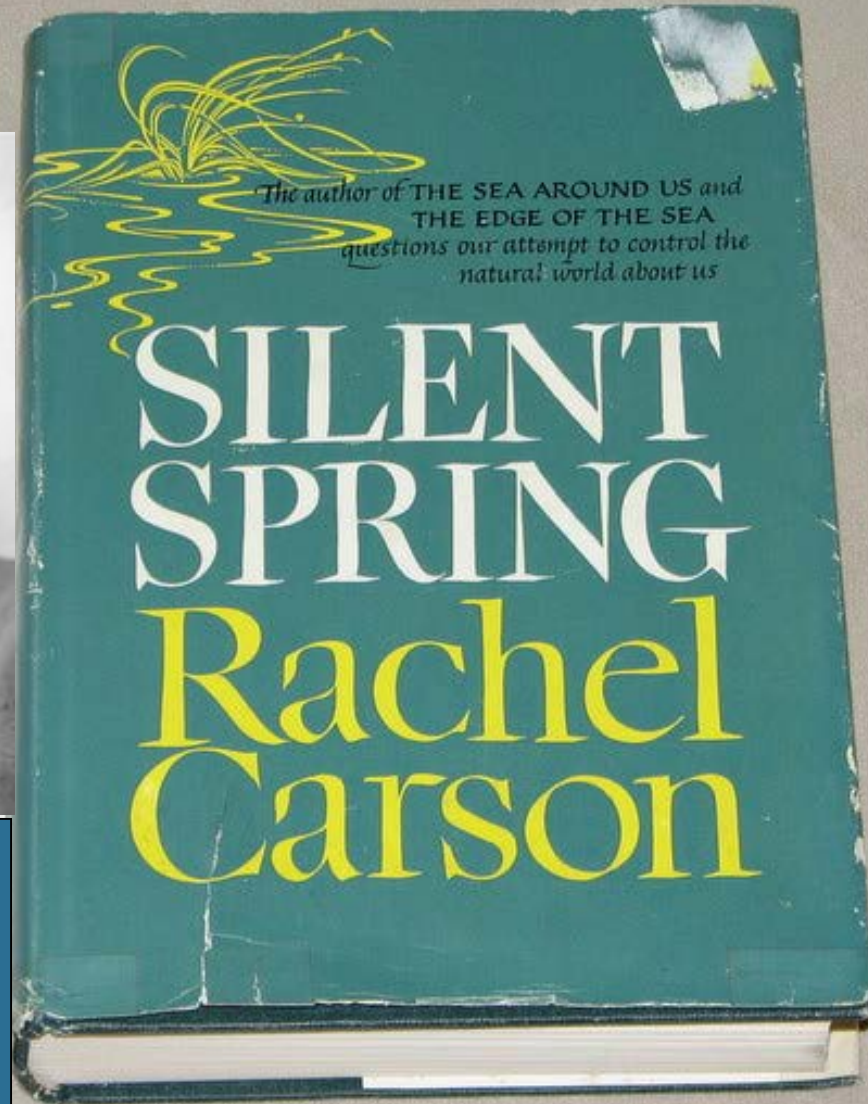
Sustainability, and the FE/HE curriculum of the future?





Rachel Carson
1907 - 1964

Silent Spring 1962



‘Science is part of the reality of living; it is the what, the how, and why of everything in our experience.’



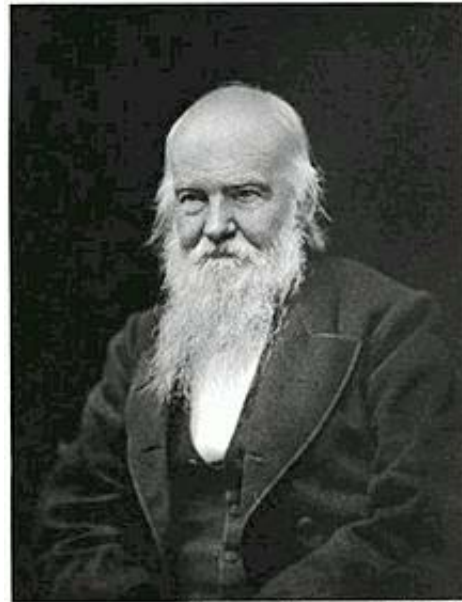
Three (yes three) sustainability emergencies

1. Global heating (and climate chaos)



Is Scotland to blame?

Many of the inventions that exploited coal and other fossil fuels came from Scotland



*Yours truly
James Young*



James Watt (1736-1819) - Steam engine

James Young (1811-1883) - Distilling paraffin from coal and oil shales

Deep-mined coal

Deep-sea oil exploitation

2. Not the Sixth Great Extinction – but the *‘First Great Extermination’*

(George Monbiot, 2019)

Humanity has wiped out 60% of animal populations since 1970, report finds

The huge loss is a tragedy in itself but also threatens the survival of civilisation, say the world’s leading scientists



Our oceans broke heat records in 2018 and the consequences are catastrophic

Rising temperatures can be charted back to the late 1950s, and the last five years were the five hottest on record



▲ Bleached coral in Guam. The heating of oceans is causing tremendous problems for sea life. Photograph: David Burdick/AP

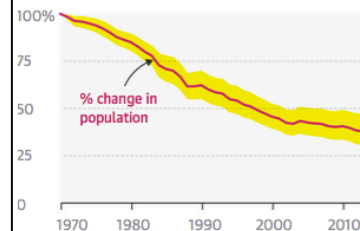
Insect collapse: ‘We are destroying our life support systems’

Scientist Brad Lister returned to Puerto Rican rainforest after 35 years to find 98% of ground insects had vanished

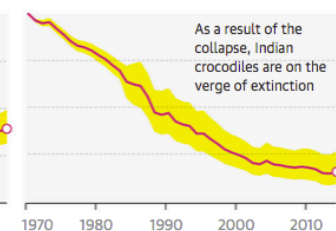


El Yunque national forest in Sierra de Luquillo, Puerto Rico. Photograph: Stuart Westmorland/Corbis/Getty Images

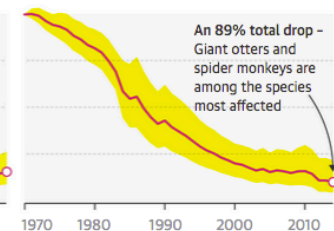
Since 1970, 60% of the world’s vertebrate animals have been wiped out



Freshwater habitats are the worst hit, with populations having collapsed by 83%



South and central America is the worst affected region globally



As a result of the collapse, Indian crocodiles are on the verge of extinction

An 89% total drop - Giant otters and spider monkeys are among the species most affected

Guardian graphic. Source: Living Planet index, WWF/ZSL. Note: shaded areas show the statistical uncertainty surrounding the trend



Climate chaos and biodiversity destruction are intimately connected - the future sustainability of our planet depends on protecting and restoring *carbon sinks* – we need ‘nature-rich climate solutions**’ ...**



3. 'Fake News' and the collapse of the 'information ecosystem' ... *what and who can you trust?*



The collapse of the information ecosystem poses profound risks for humanity

Lydia Polgreen

The viral spread of misinformation, widening news deserts and the proliferation of fake news will threaten life as we know it



▲ A Boston Globe front page with the headline THE CASE TO IMPEACH, FOR ALL TO HEAR posted at the Newseum on 13 November in Washington DC. Photograph: Mark Makela/Getty Images

Tories pretend to be factchecking service during leaders' debate

Party accused of misleading public by tweeting anti-Labour posts as 'factcheckUK'

● Follow the latest election news - live





So how did we get into this mess?

Maybe ...

We are 'disconnected' from the natural world

We don't see the consequences of our actions

We don't apply critical reasoning to the information we receive

We have simply given up believing we can act to bring about change



‘Shifting baseline syndrome’



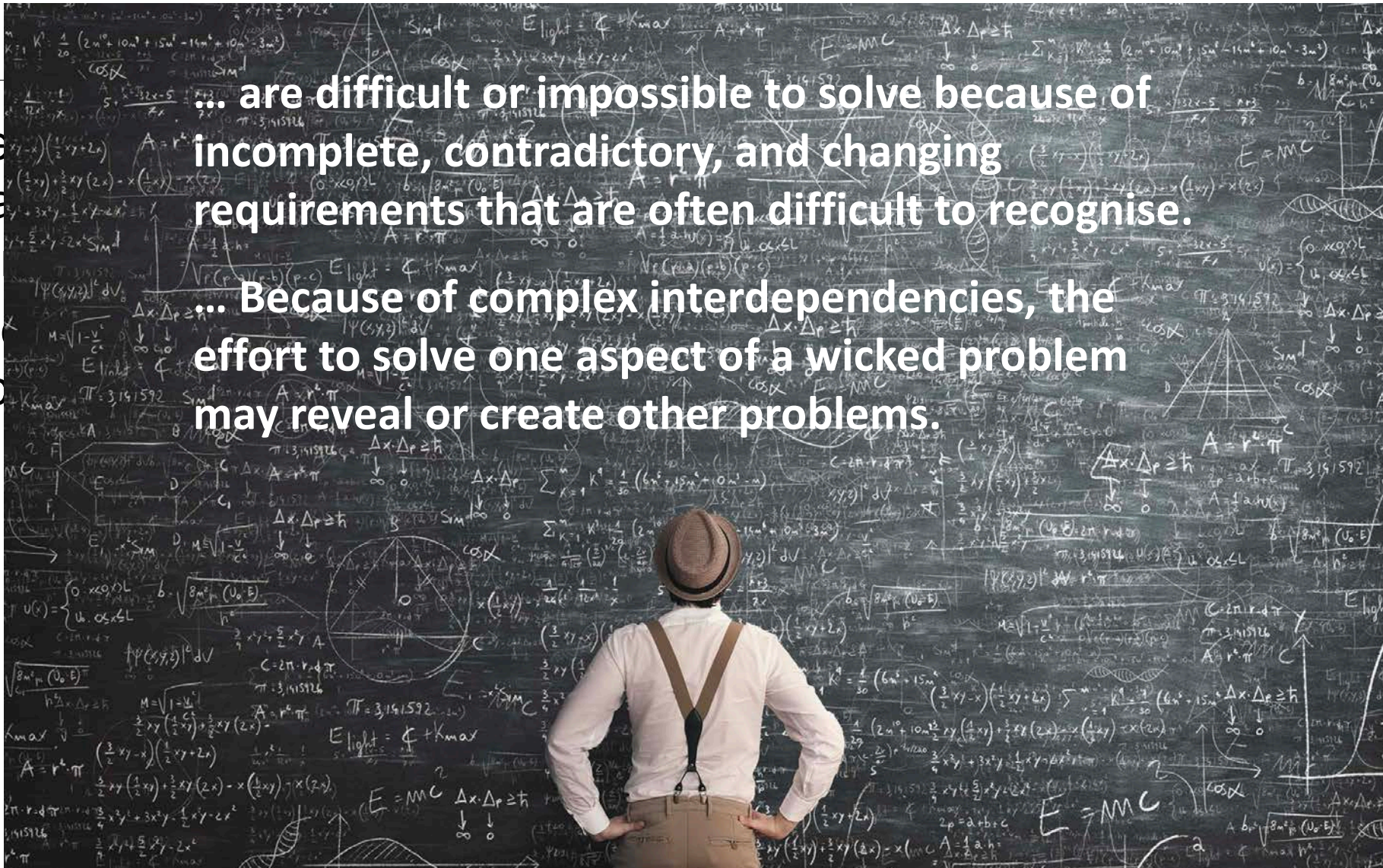
‘We transform the world – but we don’t remember it’.
(Daniel Pauly, 1995)

'Wicked' problems ...

... are
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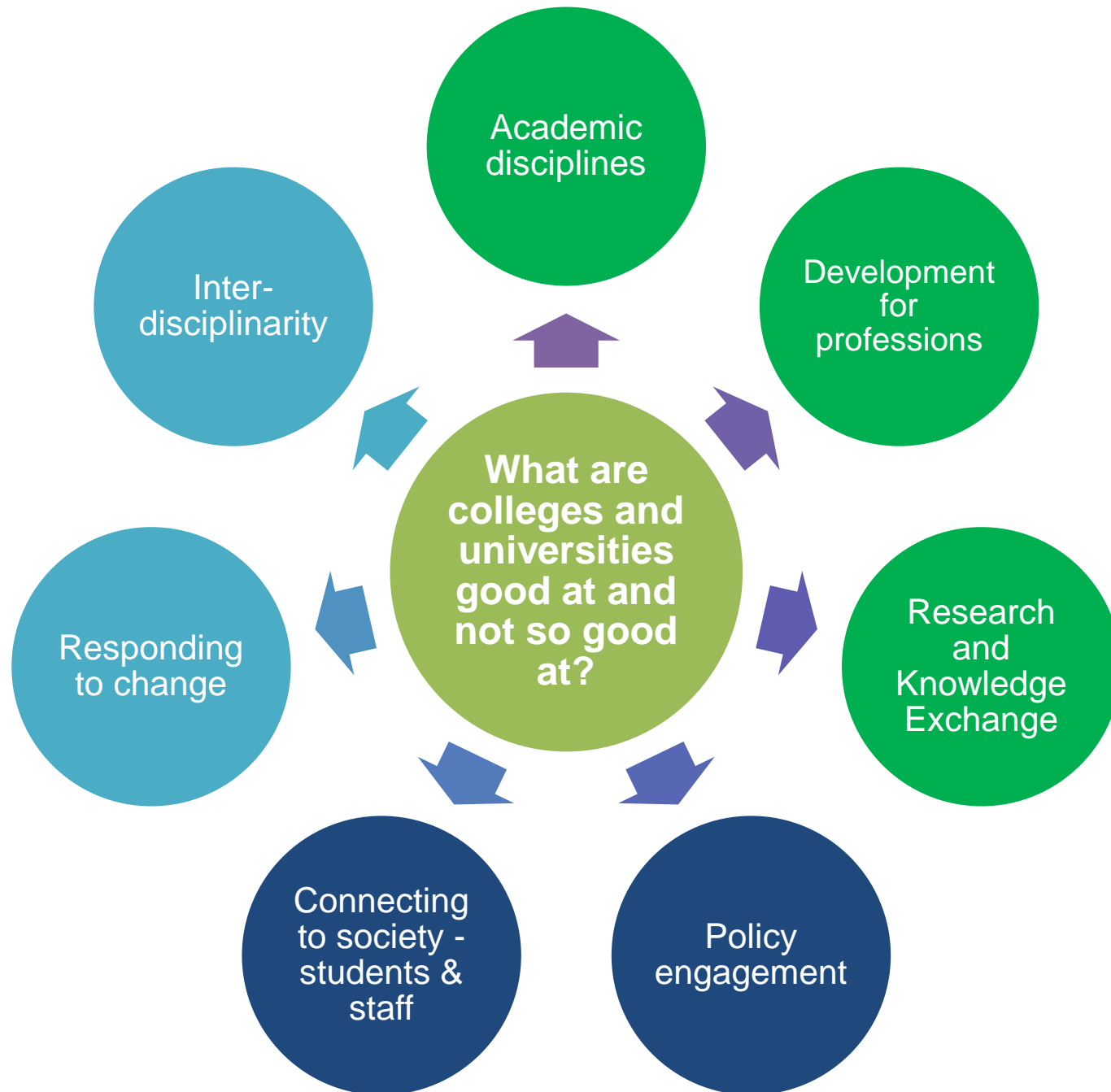
... are difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognise.

... Because of complex interdependencies, the effort to solve one aspect of a wicked problem may reveal or create other problems.

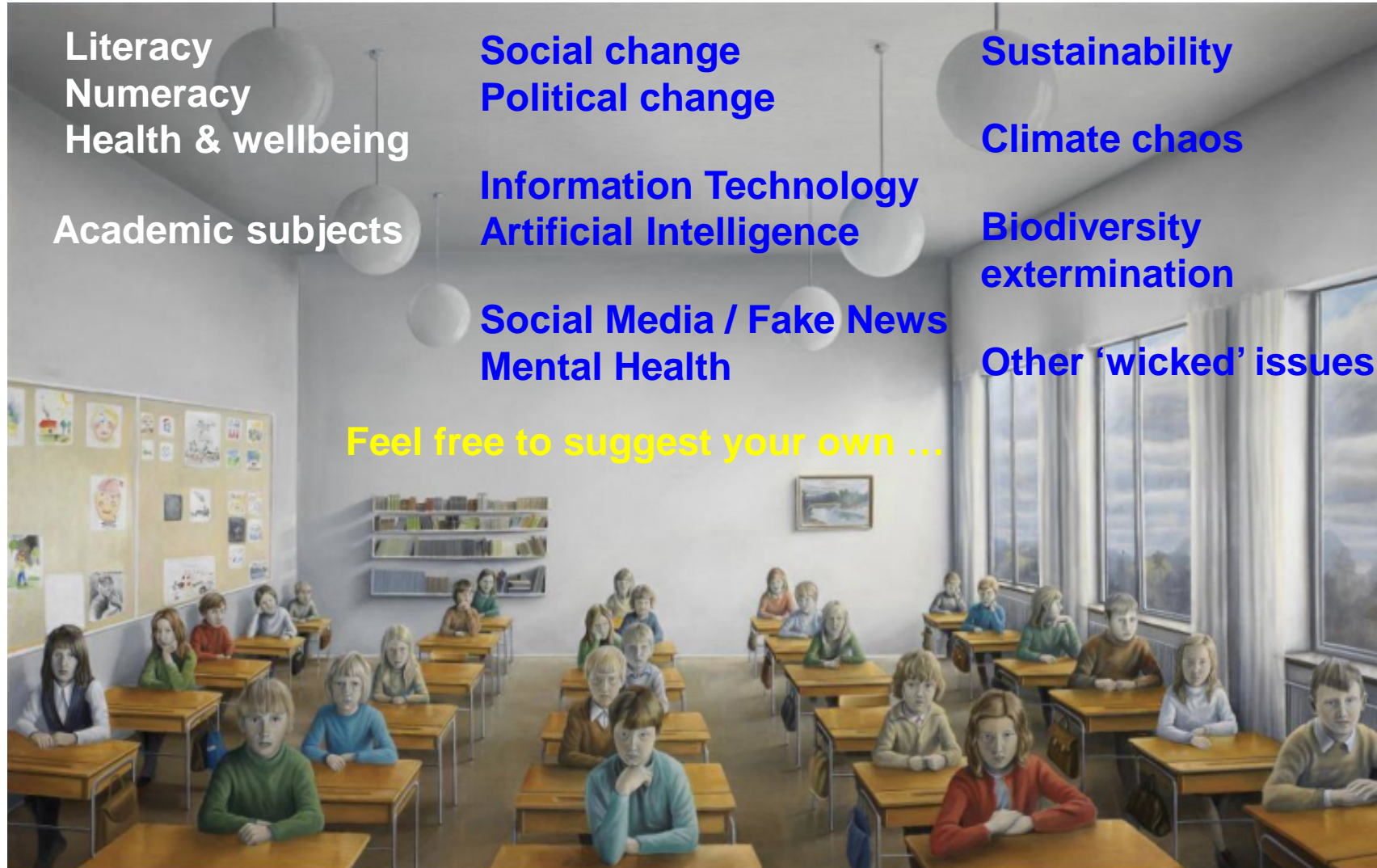




What are the sustainability (and other challenges) for FE and HE?



What will be the key issues for a school (or college or university) of the future?



The three curricula that all schools (and the rest of us) teach

- *Explicit* - what the school or organisation claims will be taught
- *Implicit* - what is conveyed to learners as a result of the characteristics of the learning environment
- *Null* - **what is *not* taught is as important as what is taught.** ('Ignorance is not a neutral void')

Eliot Eisner (1985)



Sustainability, and the FE/HE curriculum of the future?

Some Propositions

- The **education systems of the world will have to adapt** to prepare us to deal with complexity, uncertainty and change.
- Learners will need to be prepared in terms of knowledge and skills, critical awareness, attitudes, personal and social qualities, and **above all, the capacity to continue to learn.**

We need to help students (and staff)

- Understand how we are all dependent on planetary systems – ***a part of rather than apart from*** the environment.
- Develop ***respect*** for self, others (current and future generations; other species) and the environment
- Be ***confident in critique*** – of everything!
- Learn how to deal with ***complexity and change***
... and to do so with realism and optimism
- Learn how to ***contribute to our own development***
- Endeavour to ***pass on a lasting positive legacy*** to future generations

We also need to understand the power and beauty of the scientific paradigm ... and of course its limitations



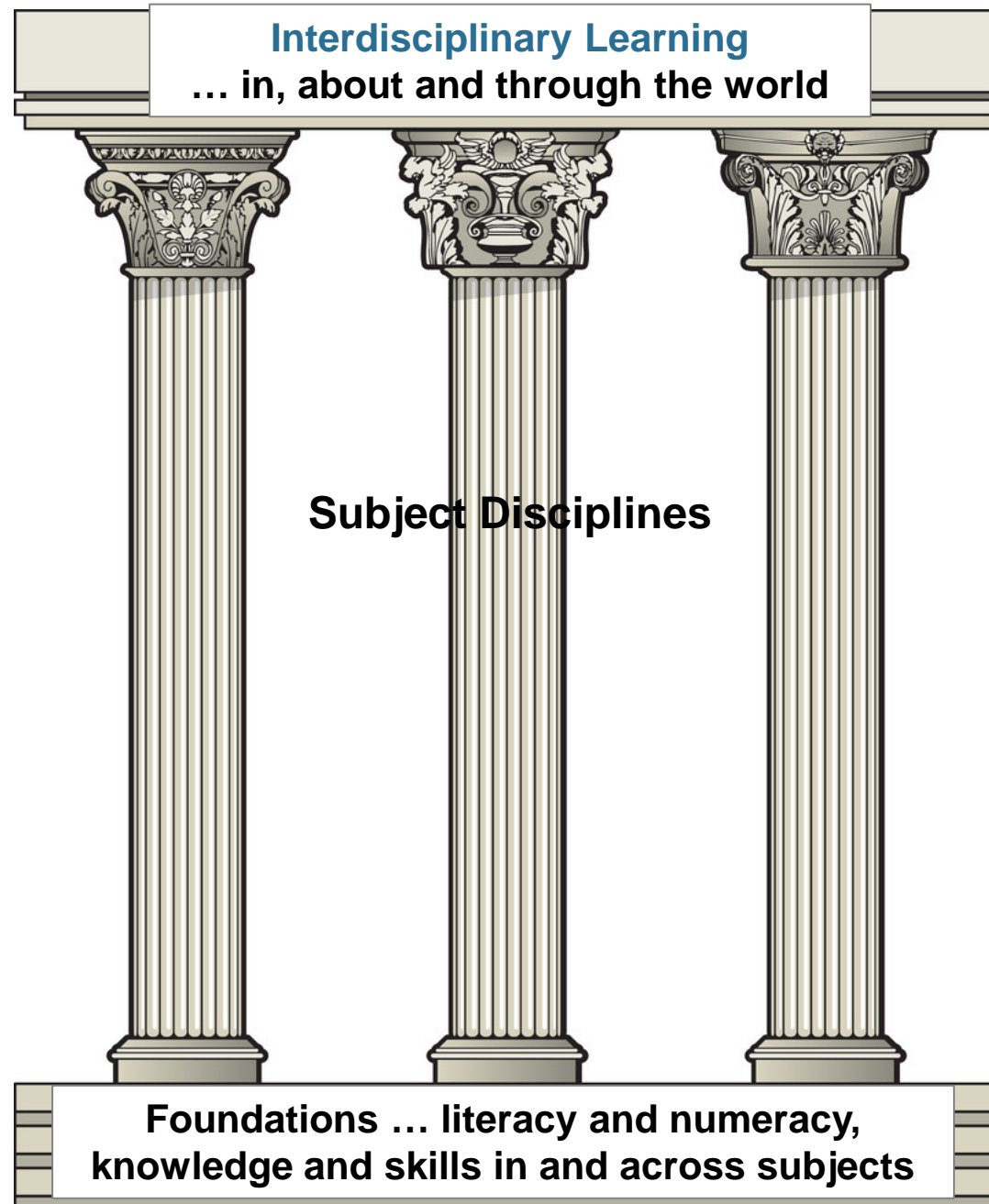
In science, being wrong
is only just second-best
to being right ...

(after Thomas Huxley 1825-1895)



We need graduates to help find 'solutions' to technical issues for a sustainable future. But that is not all ...





Pillars and Lintels of Interdisciplinary Learning (with acknowledgement to Colin Graham)



Maybe we need a curriculum for
the potato and the mobile phone



A high-angle, wide shot of a massive crowd of people, likely at a large outdoor event or festival. The crowd is densely packed and fills the entire frame, extending far into the background. The people are wearing a wide variety of colorful clothing, creating a mosaic of colors. The perspective is from directly above, looking down on the sea of heads and shoulders.

**There are many ‘wicked issues’ that
are not sustainability issues, but no
‘wicked’ or sustainability issues that
are not people issues**

We need a values and action-oriented approach, so maybe the Scottish Government definition of ***Learning for Sustainability*** will do the job ...

*... a whole school approach that enables the school and its wider community to build the **values, attitudes, knowledge, skills and confidence** needed to develop practices and **take decisions** which are compatible with a sustainable and more equitable future.*

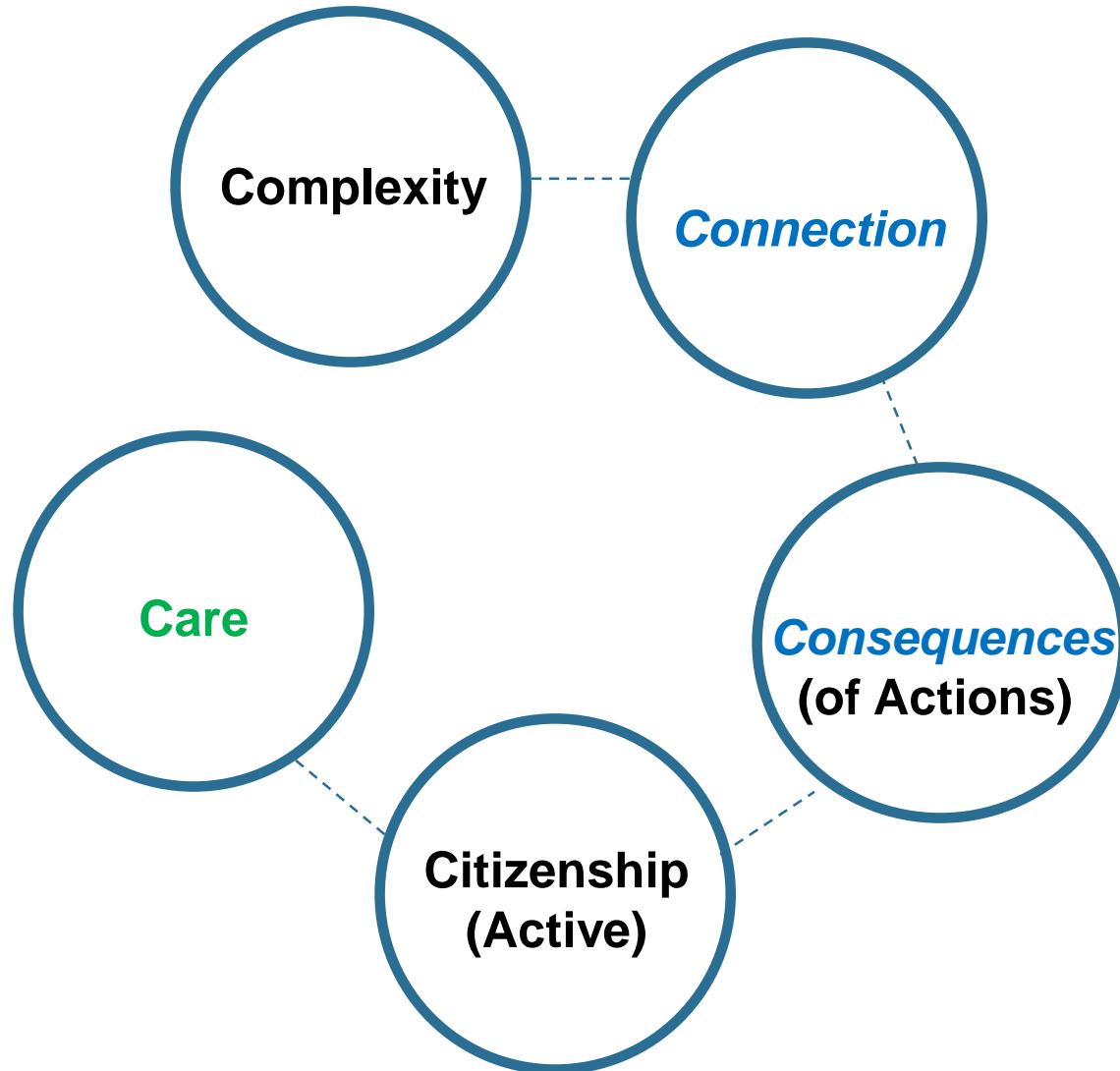
Integrates ... **‘Education for Sustainable Development’, ‘Global Citizenship’ and ‘Outdoor Learning’**

Scottish Government - *Learning for Sustainability Report* (2012)
Scottish Government - *Vision 2030+ Report* (2016)

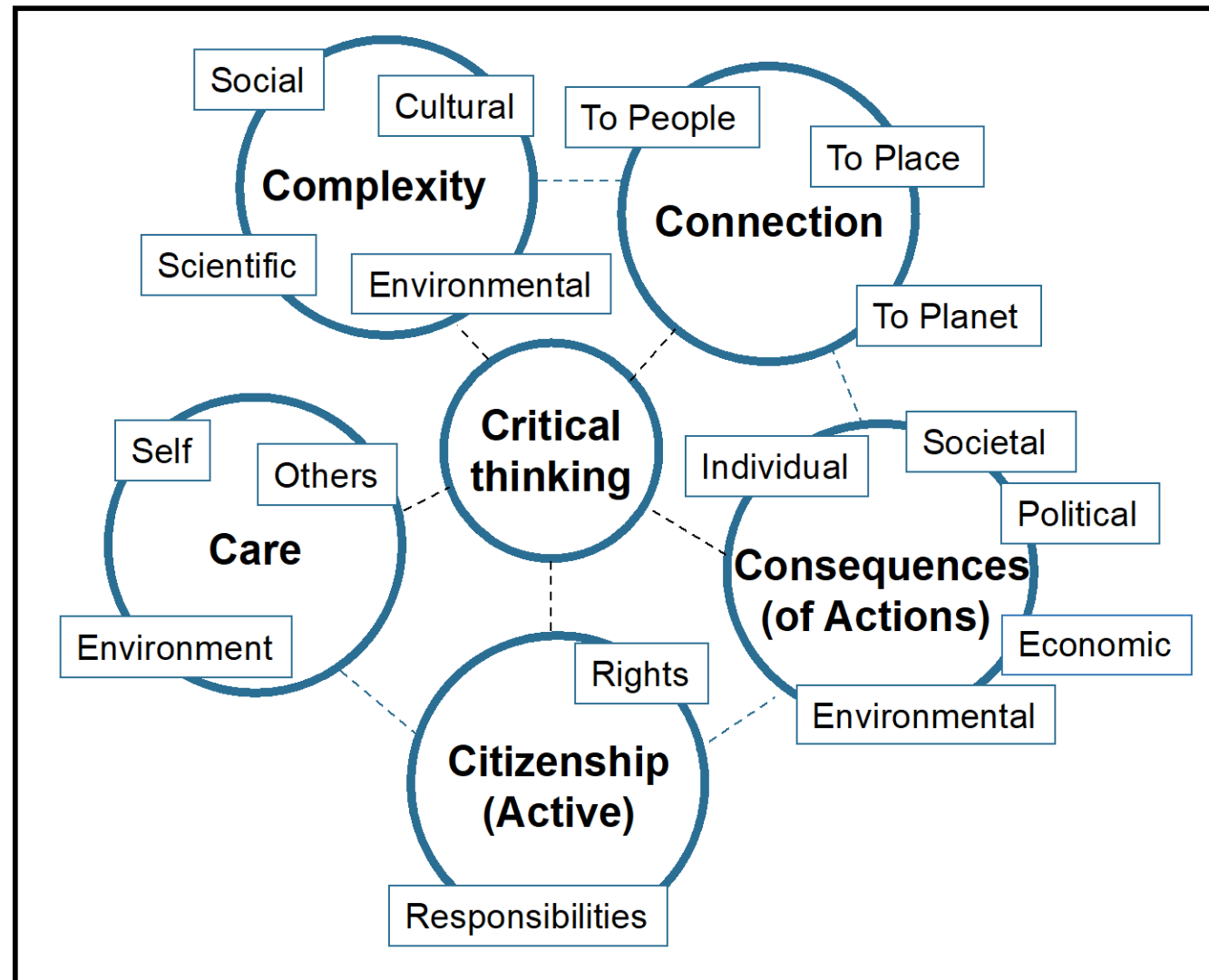
SUSTAINABLE DEVELOPMENT GOALS



So maybe we should help learners to **connect to**, and to **care for**
*the planet and its communities (human and other) and even its
biogeochemical systems (the ones that sustain life!)*



Connection, Consequence and an ethic of Care



The acid test ...

Would these young people want to study at our FE/HE institutions?

Are those already here happy that we are preparing them for the not-even-future world?



Never doubt that a small group of thoughtful,
committed citizens can change the world.
Indeed, it is the only thing that ever has.

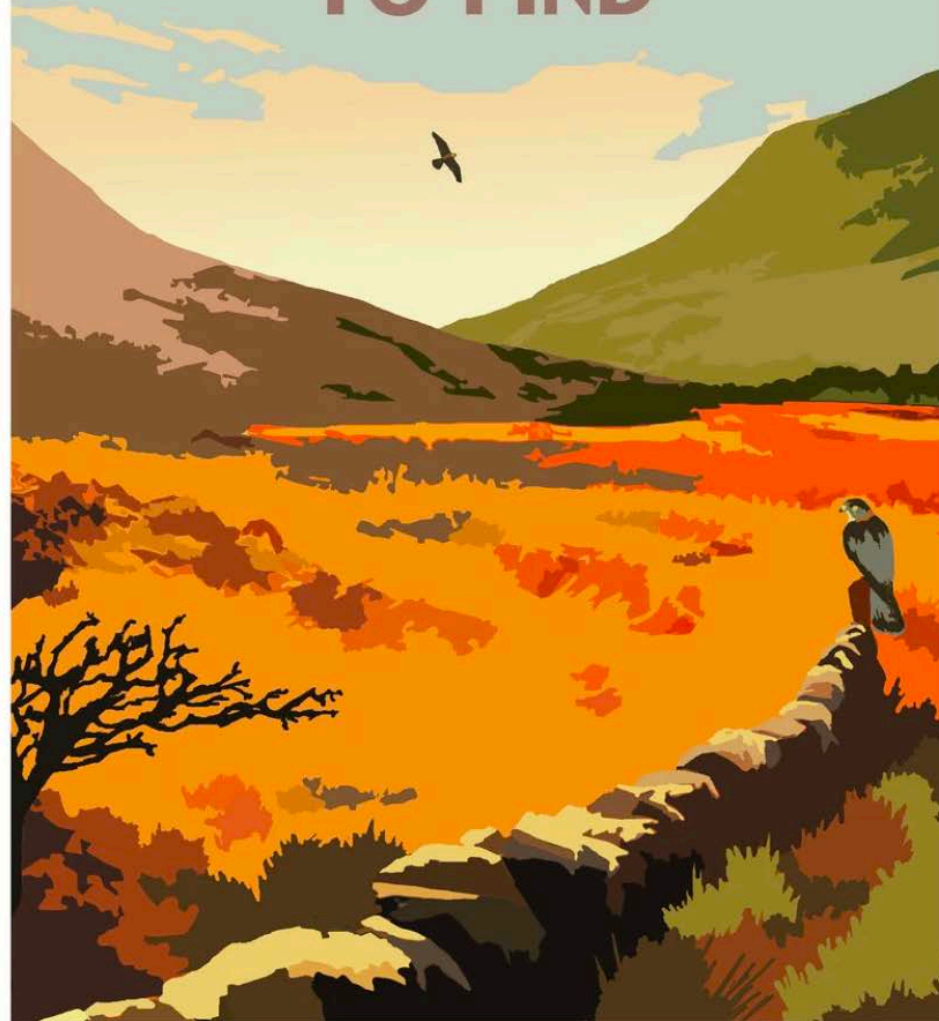
Margaret Mead (1901-1978)



The goal of education is to form the citizen. The
citizen is a person who, if need be, can re-found his
civilisation.

Eugen Rosenstock-Huessy (1888-1973)

GOOD PLANETS ARE HARD TO FIND



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Senior Lecturer

Glasgow Caledonian University
& PRME

Curriculum for the Future

Using the SDGs as an organizing framework

EAUC Scotland Conference Nov 26th 2019

"Let's contribute to Project Everyone"

<http://bit.ly/1PB06Xd>

Dr Alec Wersun
Glasgow School *for* Business and Society
Glasgow Caledonian University

Barriers to transforming the curriculum?

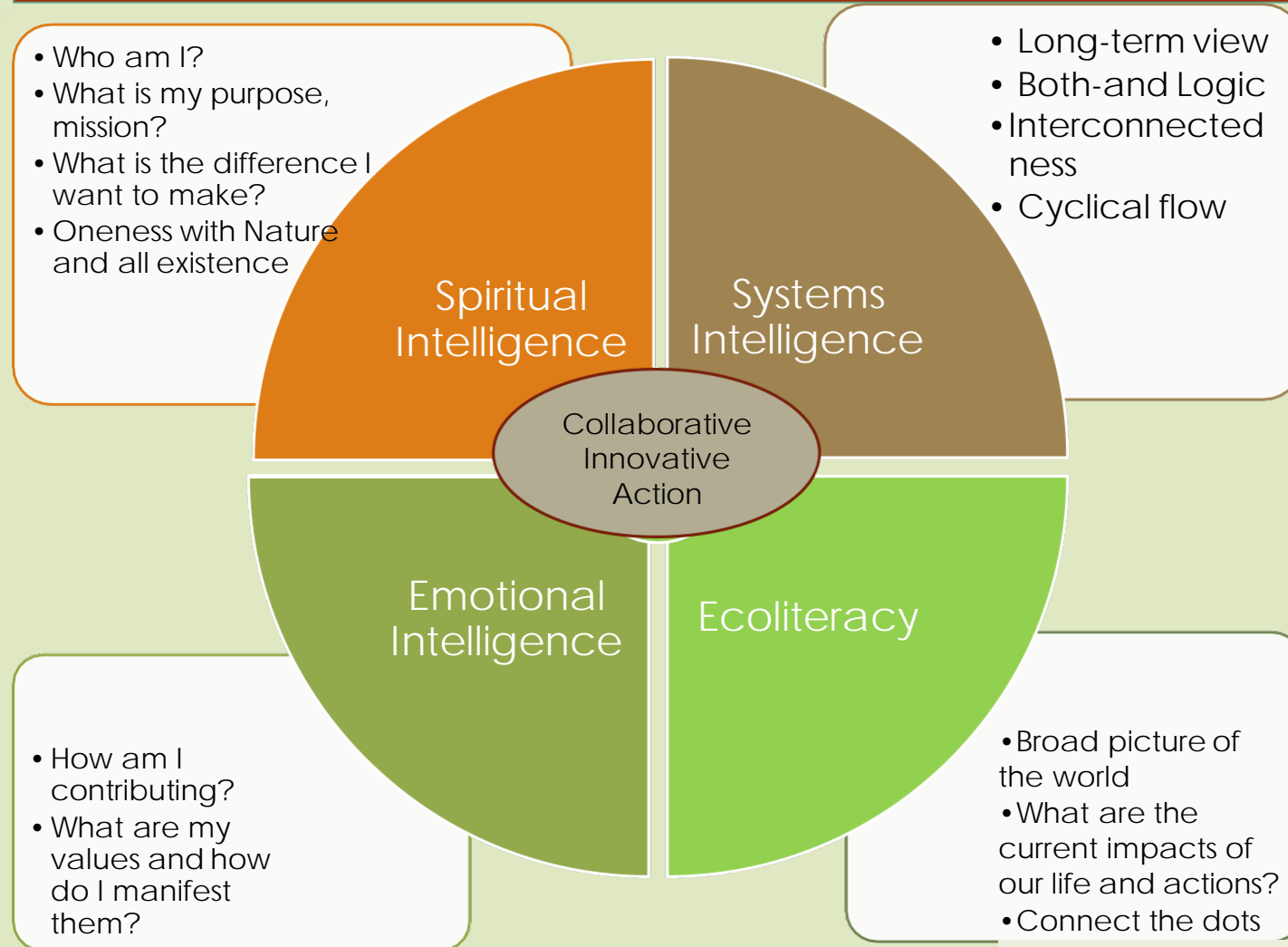
- Massification and standardisation in higher education
- Traditional learning and teaching approaches
 - Predominance of 'sage on the stage' approach
- Traditional methods of assessment
 - Academic essays, little 'real world' learning, time poor



Need to accelerate introduction of
innovation in the curriculum – but how?

Frame learning in terms of developing in all students a 'Sustainability Mindset': People, Profit, Planet

Develop different types of intelligence/knowing

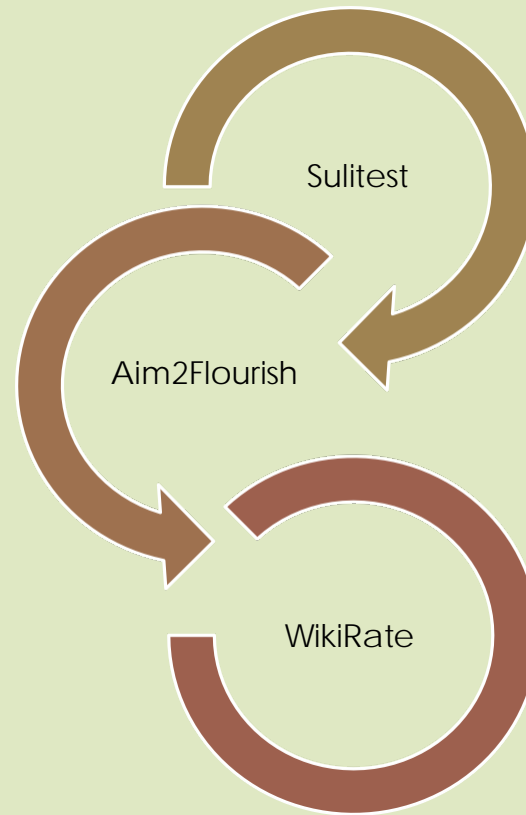


Use the UN Sustainable Development Goals to introduce real-world, experiential learning in to the classroom



Universities can help to achieve the SDGs' achieved by developing a Sustainability Mindset in our students.

Three open source platforms to enable educators to develop the sustainability mindset





Sulitest.org

Sustainability Literacy Tools & Community



EAUC Scotland Conference
November 2019

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*"Sustainability Literacy is the **knowledge, skills, and mindsets** that help compel an individual to become deeply committed to building a sustainable future and allow him or her to **make informed and effective decisions** to this end."*



- ✓ **On line MCQ**
- ✓ **International Core Module**
(10 languages)
- ✓ **Country-specific and SDG-specific modules**
- ✓ **Comprehensive scope of SD**
- ✓ **Customization & Gamification**

Sulitest Matrix

SKILLS
KNOWLEDGE
MINDSETS



4 Themes of Knowledge



*Sustainable humanity
& ecosystems
on planet Earth*



*Global & local
human-constructed
systems*



*Transitions towards
sustainability*



*We each have roles
to play to create and
maintain individual and
systemic changes*

3 Themes of Skills



- *Personal skills*
- *Working with others*
- *Think & act systemically*

Mindset



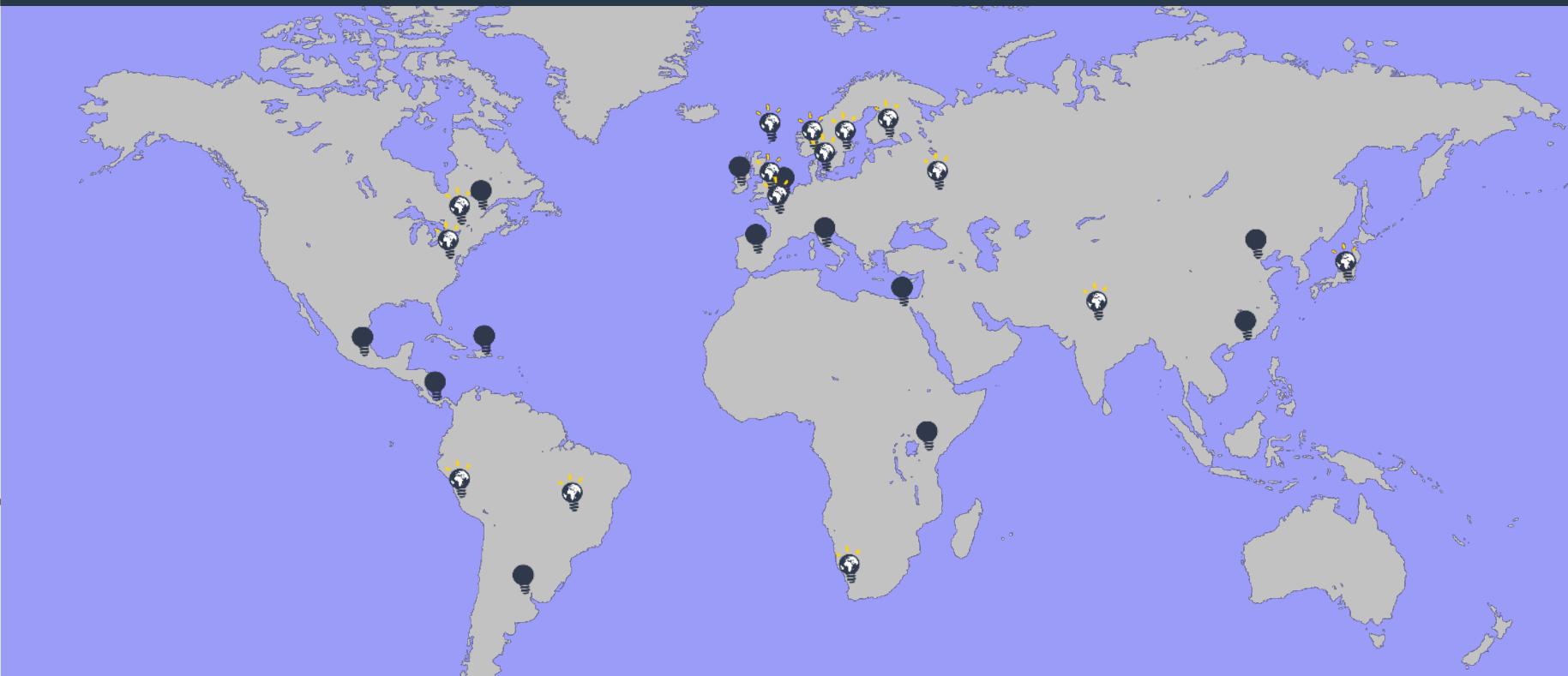
121,697

Tests taken in the world



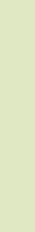
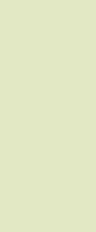
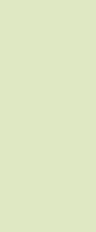
Sulitest.org

Sustainability Literacy Tools & Community



SENIOR ADVISORY BOARD

REGIONAL/NATIONAL EXPERT COMMITTEES





AIM2Flourish

Global Discovery of Business for Good

User and Story Metrics to end 2018



Executive Summary

405 professors around the world

7,036 community members

74 countries in our global community

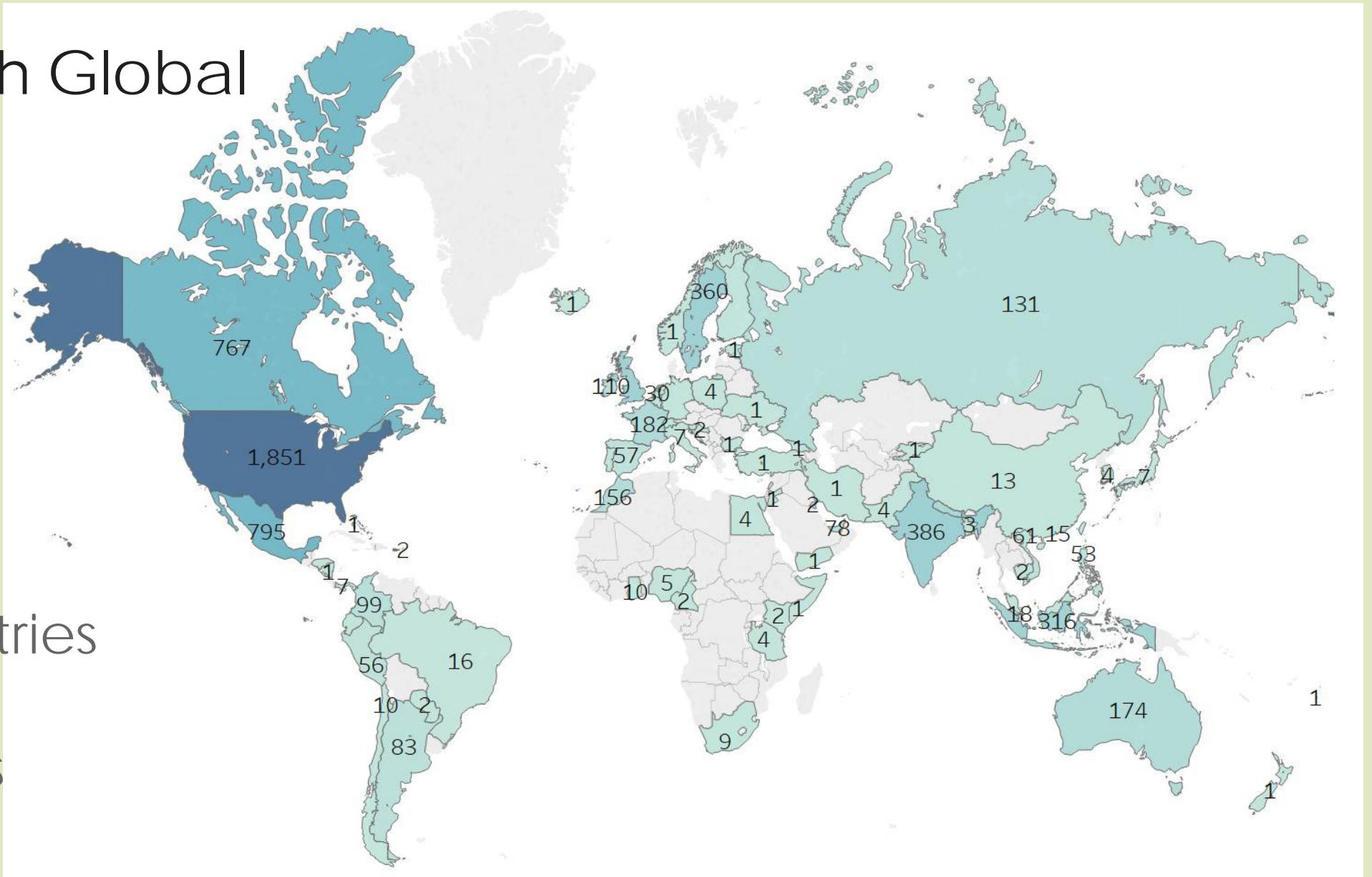
226 schools with members

1,424 published Global Goals innovation stories

77 institutions have used the AIM2Flourish assignment

78 professors with published stories

Ativiz Mem



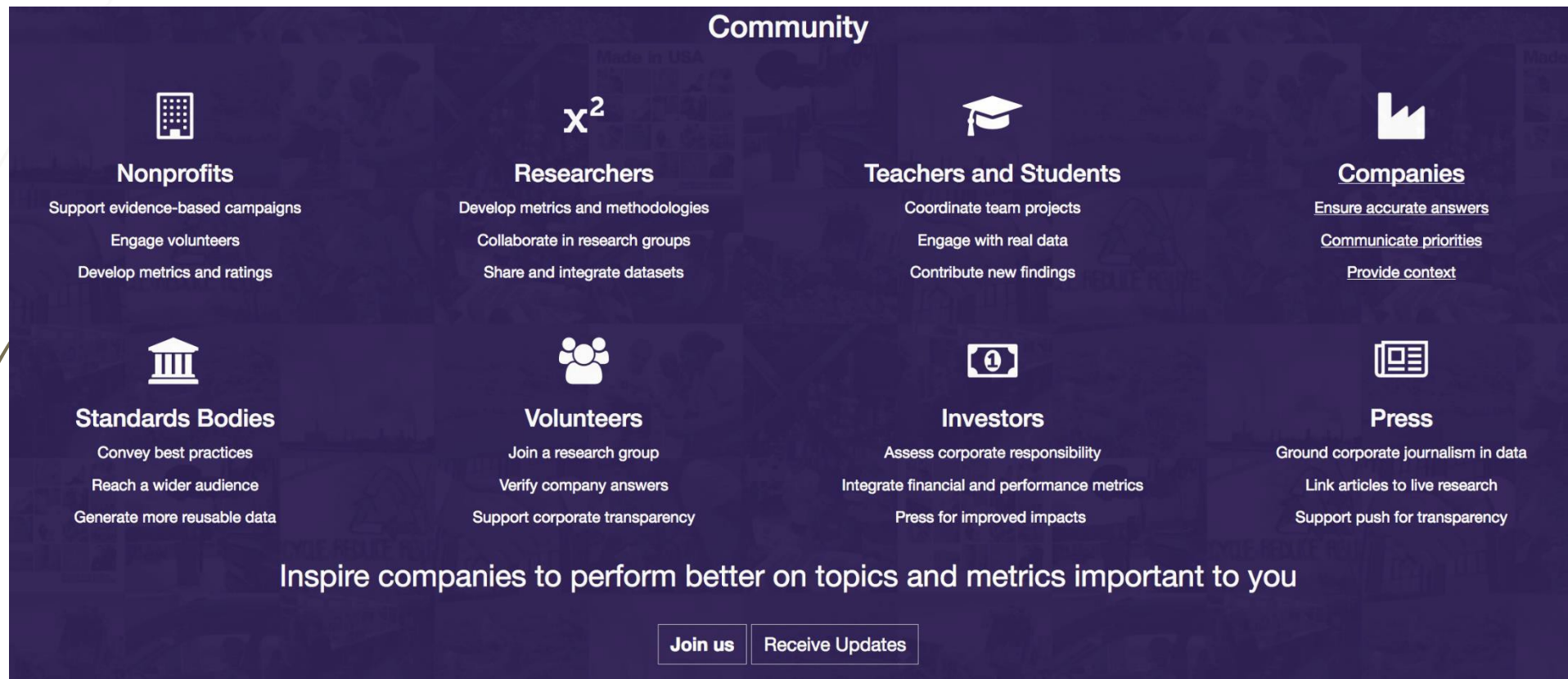
WikiRate

WikiRate's Mission is to spur corporations to be transparent and responsive by making data about their social and environmental impacts useful and available to all.

Gives business and management students an opportunity to do research and critically analyse how companies report on the triple bottom line: use for module and dissertation assessment ?



WikiRate: a multi-stakeholder community



Support from WikiRate and Global Compact

- Dedicated support team in Berlin
- Offer webinars, skype meetings and similar...
- Assist with whole WikiRate project set-up
 - lining up metrics that module wants to research
 - and sustainability / CR reports of companies
 - provide online user tutorials for faculty/students
- Provide Business School identity on WikiRate pages

PRME Pilot Projects



Wilfrid Laurier University - Researching Product Responsibility Practices

Active| organized by Wilfrid Laurier University, WLU Research Group

46 Companies, 54 Metrics | 22.8% 24.1% 32.3% 47.6%

G4-PR GRI SDGs



University of Western Australia - SDG5: Gender Equality

Active| organized by University of Western Australia - Business Ethics & Sustainability

73 Companies, 16 Metrics | 44.3% 35.1% 20.5% 79.4%

Gender equality SDGs SDG5: Gender Equality



Universidad EAFIT - Researching Corporate Performance - SDGs 8 & 16

Active| organized by Universidad EAFIT Research Group [5], Universidad EAFIT Research Group [1], Universi

131 Companies, 29 Metrics | 42.9% 11.5% 39.1% 60.8%

GRI SDGs SDG16: Peace, Justice and Strong Institutions SDG8: Decent Work and Economic Growth UNC



Glasgow School for Business & Society: SCoRE Module - Corporate En

Active| organized by GSBS: SCoRE - Seminar 1, GSBS: SCoRE - Seminar 2, GSBS: SCoRE - Semina

111 Companies, 61 Metrics | 35.0% 51.8% 3. 96.8%

Corporate Social Responsibility Environment SDGs



GIBS Cohort 3: Corporate Environmental Performance

Active| organized by GIBS 2017 - Demonstrating Leadership through Reporting

77 Companies, 30 Metrics | 41.6% 53.3% 4.9 95.0%

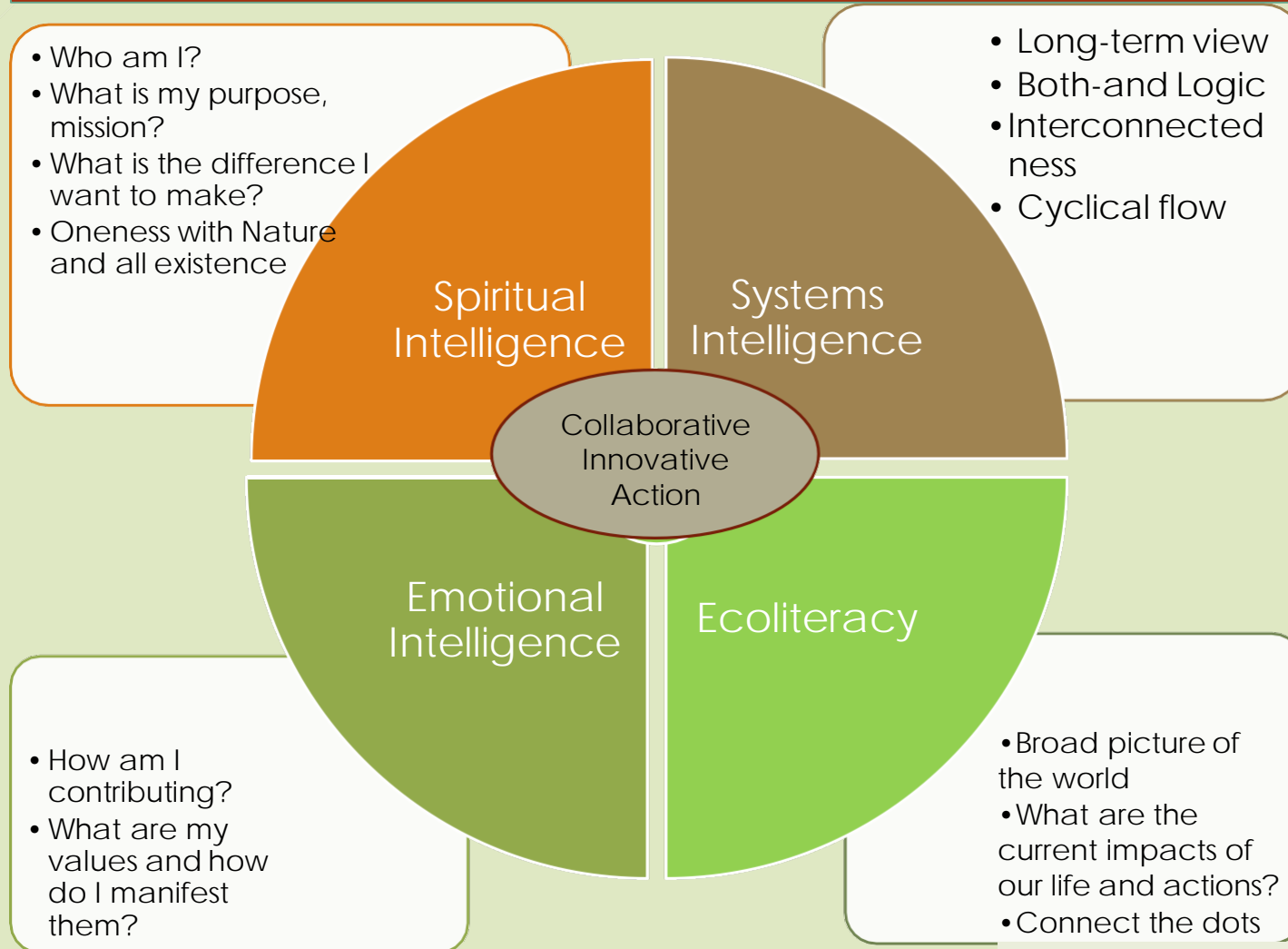
Africa Corporate Social Responsibility Environment SDGs

Project Outcomes

- GCU/GSBS Example: SCoRE Module...
- Student learning: SDG's/Metrics/Reporting
- Contribute to public data for further research
- Provides a basis to develop critical thinking
- Report on Pilots presented at PRME July 2017 Global Forum.....

LETS DISCUSS!

How does your teaching contribute to development of a 'Sustainability Mindset'?





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Telephone: 0141 3313414

Join me in transforming the curriculum!

