



University of  
St Andrews

Learning for  
Sustainability  
SCOTLAND

Ag Ionnsachadh airson  
Seasmhachd ALBA

*Education for  
the future:  
critiquing,  
sharing and  
implementing  
the SDGs at  
FE and HE*

Rehema White

School of Geography and  
Sustainable Development

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# Introduction

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# Aims

- To introduce the UN Sustainable Development Goals
- To explore the relevance of the SDGs for the HE and FE sectors
- To share experiences of integration of the SDGs into practice

# The UN Sustainable Development Goals

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# Emergence of SDGs

- The **2012 UN Conference on SD** (Rio+20) prompted the SDG launch.
- A 3 year process involving 1000s of actors from UN Member States and 83 surveys engaging over 7 million people make the goals ***heavily negotiated, with broad legitimacy.***
- The **2030 Agenda for SD** drives an aspirational world transformation
- In September 2015, **17 goals and 169 targets** were adopted across complex and holistic interlinked social and environmental challenges.
- The UN Secretary General developed a 5Ps Framework around ***Planet, People, Prosperity, Partnership and Peace.***
- The SDGs build on the **Millennium Development Goals** (MDGs) but are designed to be ***universal***
- SDGs aim to promote a paradigm shift of financing ***beyond 'development aid'***, with multi-stakeholder partnerships, social investment and ethical trade.

# Transforming our world: the 2030 Agenda for Sustainable Development

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- <https://sustainabledevelopment.un.org/post2015/transformingourworld>
- Sets forth a vision, an aspiration, an ambition of interconnected activity
- Also highlights indicators

GEM report

UN DESD and  
GAP





# SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



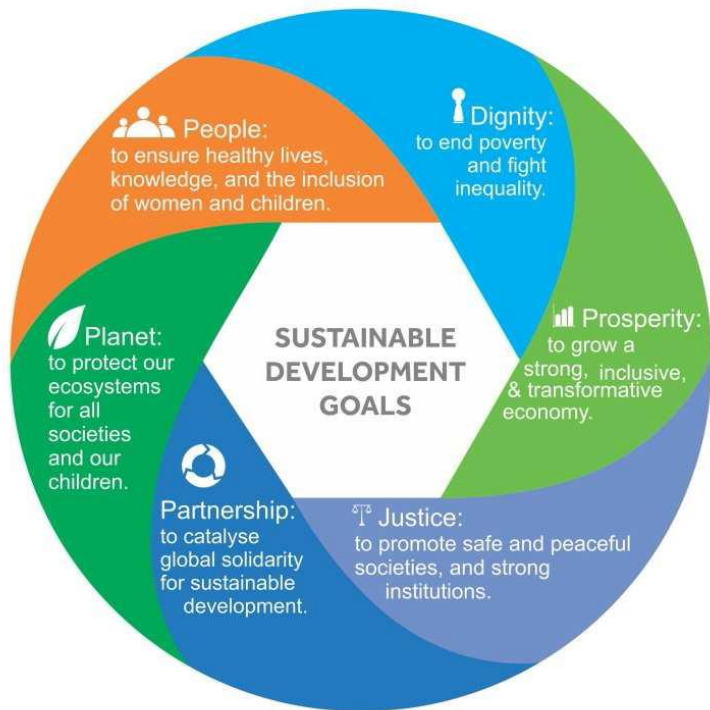
17 PARTNERSHIPS FOR THE GOALS



SUSTAINABLE DEVELOPMENT GOALS



# Key points



- Combines vision with targets
- Universal - domestic as well as international
- ‘Partnership’
- All sectors implicated
- A responsibility and an opportunity for sectors
- Highlights interconnected nature of SD
- Rejoins environmental and social justice aspects of sustainable development
- **Scotland** is well placed to play a lead on the implementation of the SDGs

# Partnerships

Scale

Balance of  
action and  
accountability

International

Nation

Region

Community  
of interest

Individual

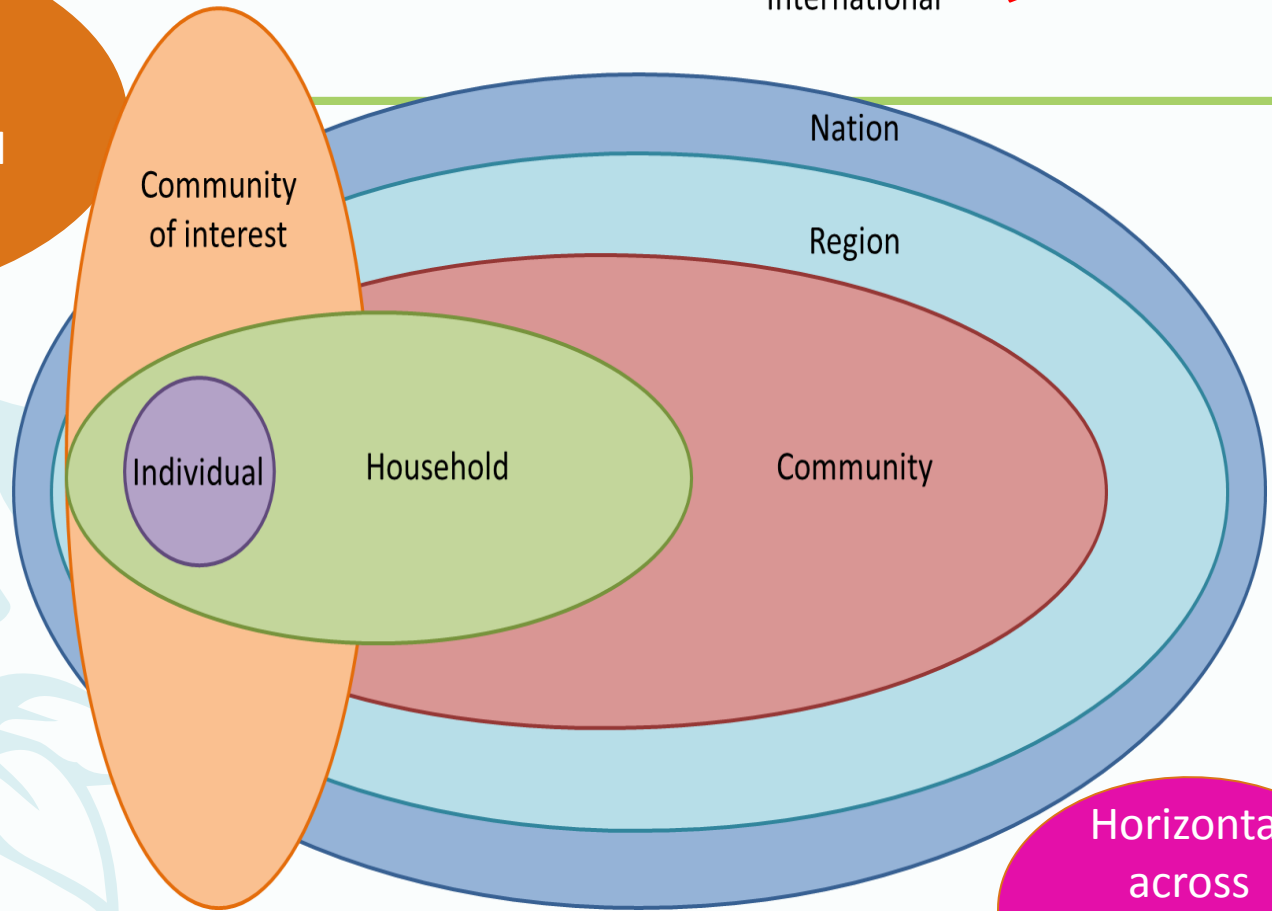
Household

Community

Vertical working  
across international,  
national, regional and  
local spheres


Learning  
whilst doing  
together

Horizontal  
across  
sectors and  
SDGs



# Meaningful teaching and learning

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*“The key to creating a more sustainable and peaceable world is learning. It is the change of mind on which change towards sustainability depends; the difference of thinking that stands between a sustainable or chaotic future.”*

*Sterling (2001: p12)*

***“Education is the most powerful weapon which you can use to change the world”***

***(Nelson Mandela, 16<sup>th</sup> July 2003)***



In small groups:

*What are the purposes of Higher  
Education and Further Education?*

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*What is meaningful teaching and  
learning?*

# What is education *for*?

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- **Socialisation**

- To replicate society and culture, promoting citizenship

- **Vocational**

- To train people for *employment*

- **Liberal**

- To develop the individual to their potential

- **Transformative**

- To encourage change towards a better society and a fairer world

Sterling (2001)

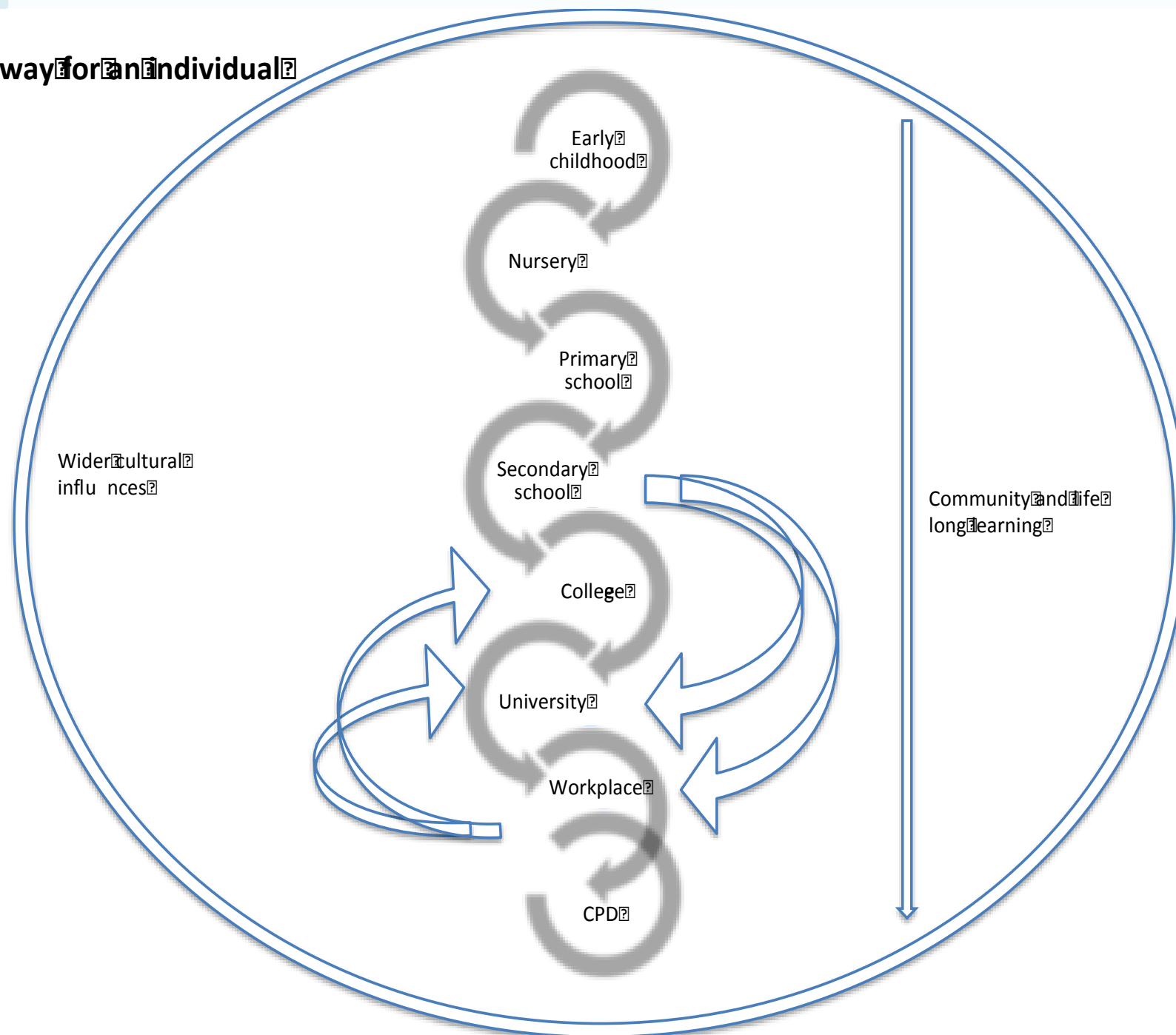


*Learning for sustainability enables visioning of sustainable futures and planning of the journey towards these aspirations.*

*These futures would be **culturally specific and contextualised** within place, enabling different visions to be realised with a spirit of collaboration. This learning strives to create a **fair and flourishing society** and enable empowerment, particularly of the currently disempowered, whilst ensuring we live within **ecological limits**.*

*Ultimately such learning uses **innovative pedagogies** and **relevant curricula** that enable a **process of ongoing reflection** to support **specific skills** as well as **personal and community resilience** within our changing world. It encourages people to reflect on values and may lead to escape from a market based, competitive and consumerist dominated worldview.*

## Pathway for an individual





# Re-visioning learning and change

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- Most learning is currently functional or informational and is reinforced by the neoliberal educational systems of the West
- Education reflects a broad social and cultural paradigm which is mechanistic and reductionist
- Yet the world is complex and formed of interdependent systems
- A shift from **transmissive** to **transformative** learning – a paradigm shift – is required

Sterling (2001)

# Problems of the current educational paradigm

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Myth 1 - Ignorance is solvable

Myth 2 - With enough technology we can manage planet earth

Myth 3 – Knowledge is increasing  
(information explosion  $\neq$  wisdom)

Myth 4 – We deliver a holistic education

Myth 5 – Education is provided to give students upwards mobility and increased ‘success’

Myth 6 – Our culture is the best to date



Orr, 2004

# Rethinking education: David Orr's six principles

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- 1) All education is environmental education
  - 2) Master yourself, not the subject
  - 3) With the acquisition of knowledge comes responsibility
  - 4) What will be the impacts of a particular form of 'knowledge' ?
  - 5) Educational institutions should be exemplars!
  - 6) Learning process is as important as content
- Orr (2004)

# Relevance of the SDGs to HE/FE

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# Transformative agenda?

- A shift from **transmissive** to **transformative** learning – a paradigm shift – is required (Sterling 2001)
  - Who are we transforming?
  - Are we dictating the form of transformation?
  - Or are we offering opportunities for transformation?



# Visionary but SMART

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- Maintaining our values and aspirations
- *“Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” Agenda2030*
- Yet focusing on achieving indicators
- *“4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university ...*
- *4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development “*

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- *“4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all*
  - *4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries “ Agenda 2030*



# Holistic education / systems thinking

- Myth 4: we deliver a holistic education (Orr 2004)
- *“The Sustainable Development Goals and targets are integrated and indivisible”* Agenda2030





# Curriculum: what is sustainable development?

## Contemporary sustainability issues matrix

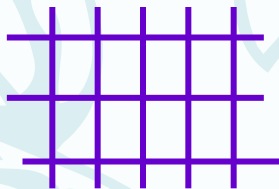


### Topics:

- Poverty
- Health and wellbeing
- Water and sanitation
- Climate change and energy
- Prosperity and responsible consumption and production
- Sustainable communities and cities
- Biodiversity and ecosystems

### Cross cutting themes:

- Knowledge for research, learning and practice
- Policy, decision making and governance
- Partnership and diversity
- Sustainable behaviours
- Values, philosophies and ethics
- Equity and Gender



# Pedagogy: how do we teach sustainable development?

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- How can we bring the SDGs to life?
  - Can we use them to link theory to practice?
  - Retaining meaning, emotional engagement for students.....



# Plurality of perspectives

## Mngazi estuary, Transkei

- “We recognize that there are different approaches, visions, models and tools available to each country”  
Agenda2030
- Stakeholder views; cultural differences; contextualisation of approaches
- Eg use of role play and of epistemologies



The  
Economist

# Critique paradoxes: Capitalism at all costs - or poverty eradication?

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*“The truth is that many things on which your future health and prosperity depend are in dire jeopardy: climate stability, the resilience and productivity of natural systems, the beauty of the natural world, and biological diversity.*

*It is worth noting that this is not the work of ignorant people. It is, rather, largely the result of work by people with BAs, BSs, LLBs, MBAs, and PhDs.”*

*“We recognize that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development.”*

– Opening statement of the UN Agenda 2030

# Partnership: with organisations, national and international level directives

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Shift in focus from a small section to a principle  
goal of HE

<http://www.heacademy.ac.uk/ourwork/teachingandlearning/sustainability>

2008 Review of ESD in HE in Scotland

– [http://www.heacademy.ac.uk/projects/detail/esd/esd\\_SFCreview08](http://www.heacademy.ac.uk/projects/detail/esd/esd_SFCreview08)

2014 UK QAA Guidelines for ESD in HE

2016 UNESCO GAP and SDG 4



# Educational institutions should be exemplars!

(Orr 2004)



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UNIVERSITY OF  
STIRLING



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



# Towards a sustainable university? University of St Andrews



Teaching



Estates



Governance



Research



Students



Community

White 2013; White and Harder  
2013; White 2014



# Towards a sustainable university? University of St Andrews



Teaching



Estates



Research



Transition UStA



Governance



Students

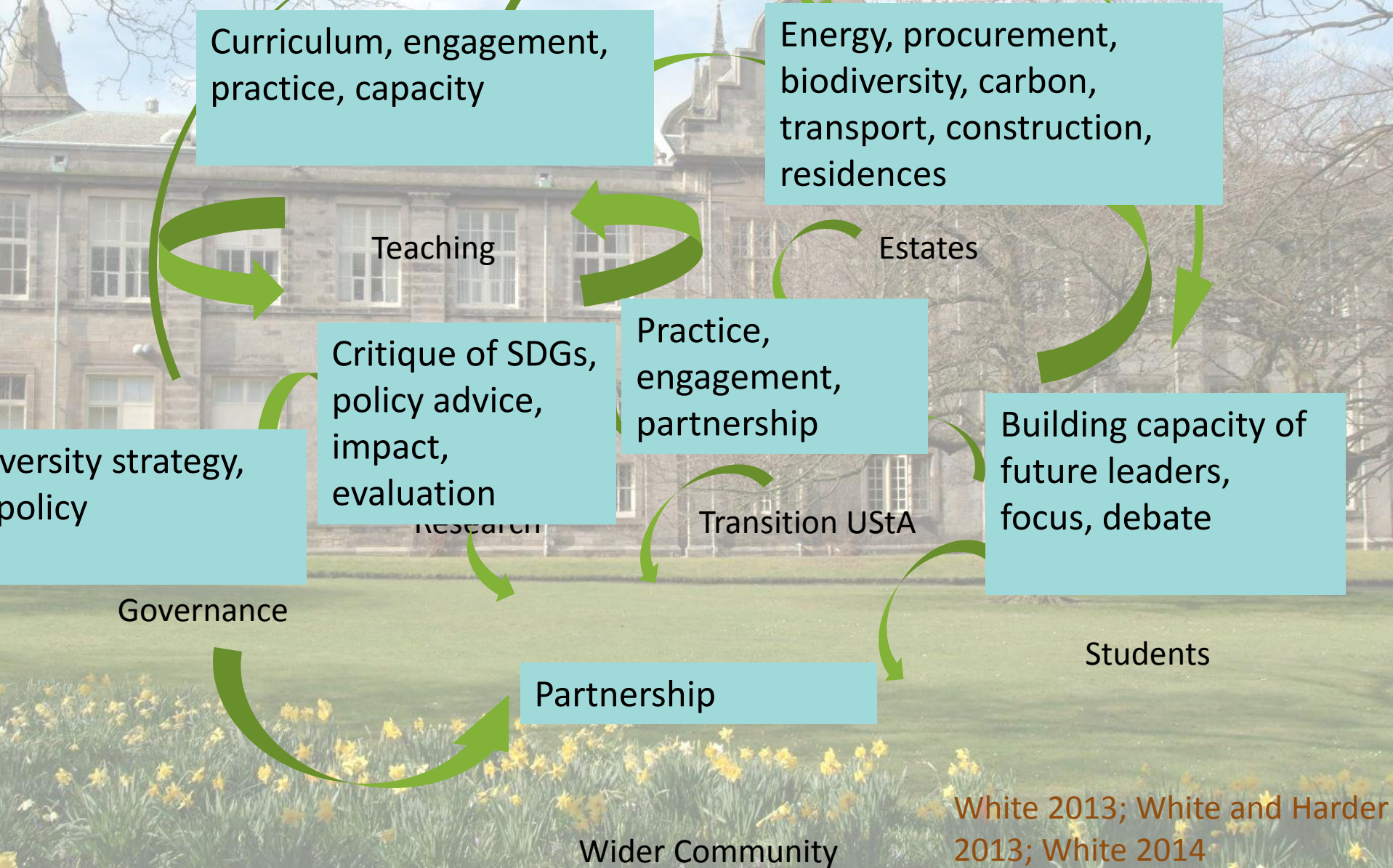


Wider Community

White 2013; White and Harder  
2013; White 2014

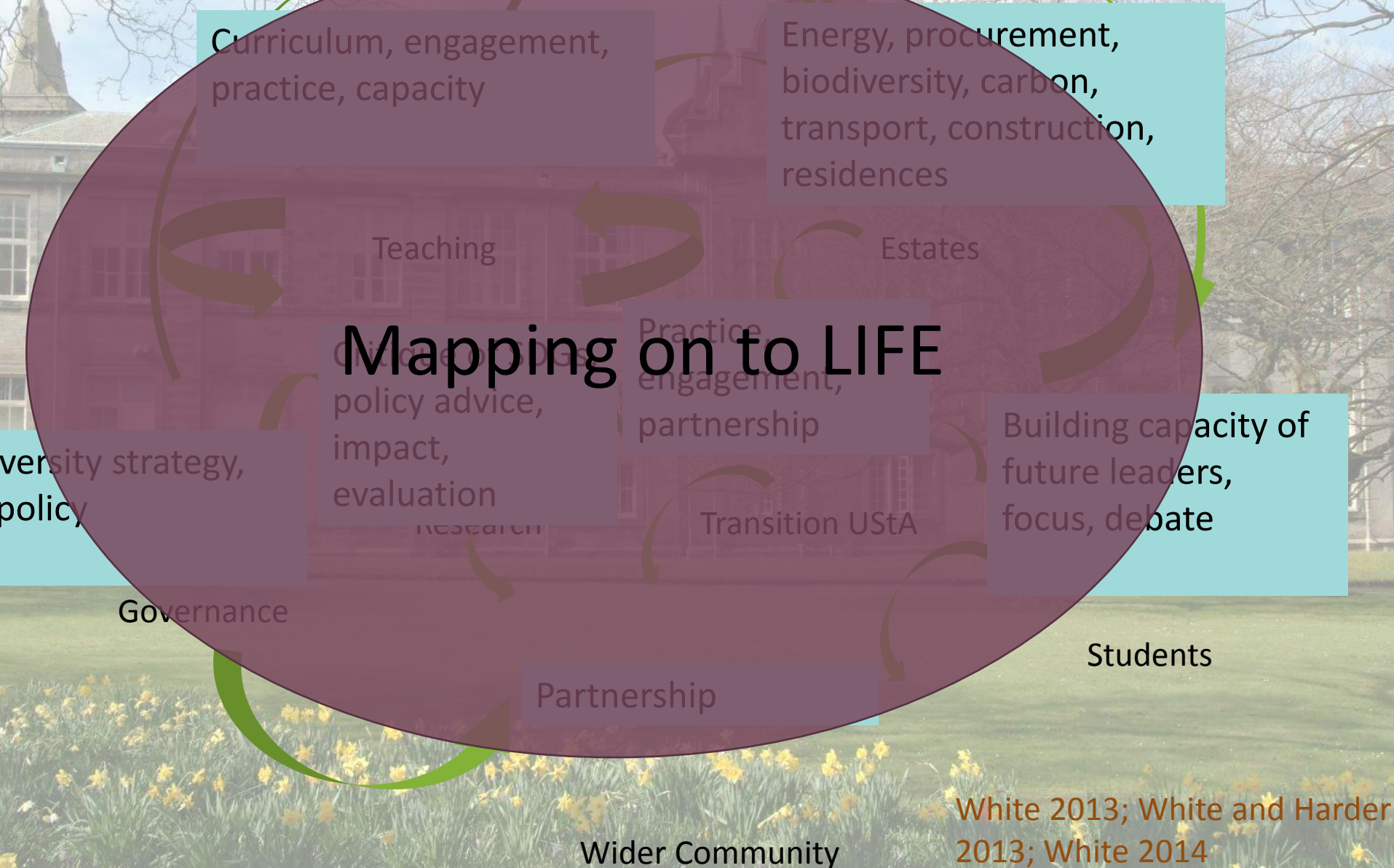


# Towards a sustainable university? University of St Andrews





# Towards a sustainable university? University of St Andrews







# Conclusions

- The SDGs offer an aspiration and a set of indicators
- The return to an interconnected, combined development and environmental agenda requires us to conceptualise SD widely
- The SDGs allow us to reflect on transformation, curriculum, pedagogy, systems thinking, plurality, partnership and possible paradoxes
- Our institutions have a responsibility to be individual exemplars and to contribute to sector and local agendas for SD
- We should use them to inspire and support our scholarship and fulfil the purpose of learning for sustainability
- BUT we should also retain a critical stance!

+ Access the full report  
at:

[http://learningforsustai  
nabilityscotland.org/wp](http://learningforsustainabilityscotland.org/wp)

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[content/uploads/2016/  
05/ReflectionSDGsScotl  
and\\_15April2016.pdf](#)



## Acknowledgements

May East

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