A whole-institution approach to embedding sustainable development at University College Cork, Europe's first STARS® Gold University

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A TRADITION OF INDEPENDENT THINKING

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

University College Cork

- Founded in 1845: Ancient Heritage, Modern Focus

- Comprehensive research-based university

- 21,000 registered students, 3000 staff, 180,000 alumni

- Ranked in the top 50 in Europe for quality of teaching and learning (THES)

- World's first "Green Flag" university

- More students educated/kWh than any other Irish university

- THES Global Impact Ranking: No 21

- THES Global Impact Ranking: UN SDG 12: No 1

- Vision: "Tradition of Independent Thinking"

- Mission: Creating, understanding and sharing knowledge and applying it for the good of all
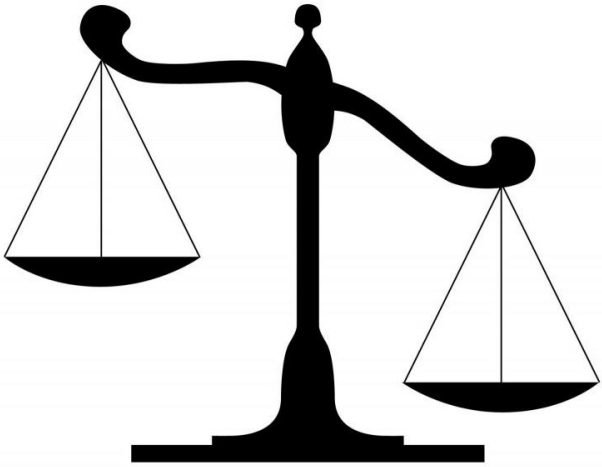
- Connected University

UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

The Sustainable Development Goals

"Integrated and Indivisible"

The Impact of Higher Education

- Size of a small town/city

- Expanding, particularly research activities

- Outputs
  - ➢ New knowledge
  - ➢ Students
  - ➢ "creation, education, delivery"

- Global Citizens

- Leading by example

- Demonstrating best practice

- Connecting

A Sustainable University?

- Our journey
- Frameworks used
- Governance structure
- Key enablers
- Sustainability "Ecosystem"
- A Living "University"

UCC Sustainability Journey

2006
UCC Students voice concerns over waste practices on campus.

2010/11
First Green Flag awarded
UI Green Metric #2
ISO 50001 certification

2016
Sustainability Strategy launched
Sustainability module piloted
Transdisciplinary perspectives book launch.

2018
Gold STAR Award.
First Annual Sustainability Report
Plastic free UCC

2007
UCC Green Campus Committee established
Pilot programme initiated.

2013/14
UCC Green Forum established
CUH First Green Flag hospital campus
Academic outputs

2017
Sustainability Officer employed
"Saver Saves" Scheme launch

Reidy et. al. (2014)

Innovation: The Green Flag Programme

- Developed by the International Foundation for Environmental Education
- "Eco-Label" for primary and secondary schools working to be more environmentally sustainable
- Operated in 67 countries worldwide
- UCC Global Pilot for university adaptation
    - Now in operation in 14 countries
- Requires commitment and engagement of all stakeholders
- Seven-step programme of continual improvement across themes
- Simple framework
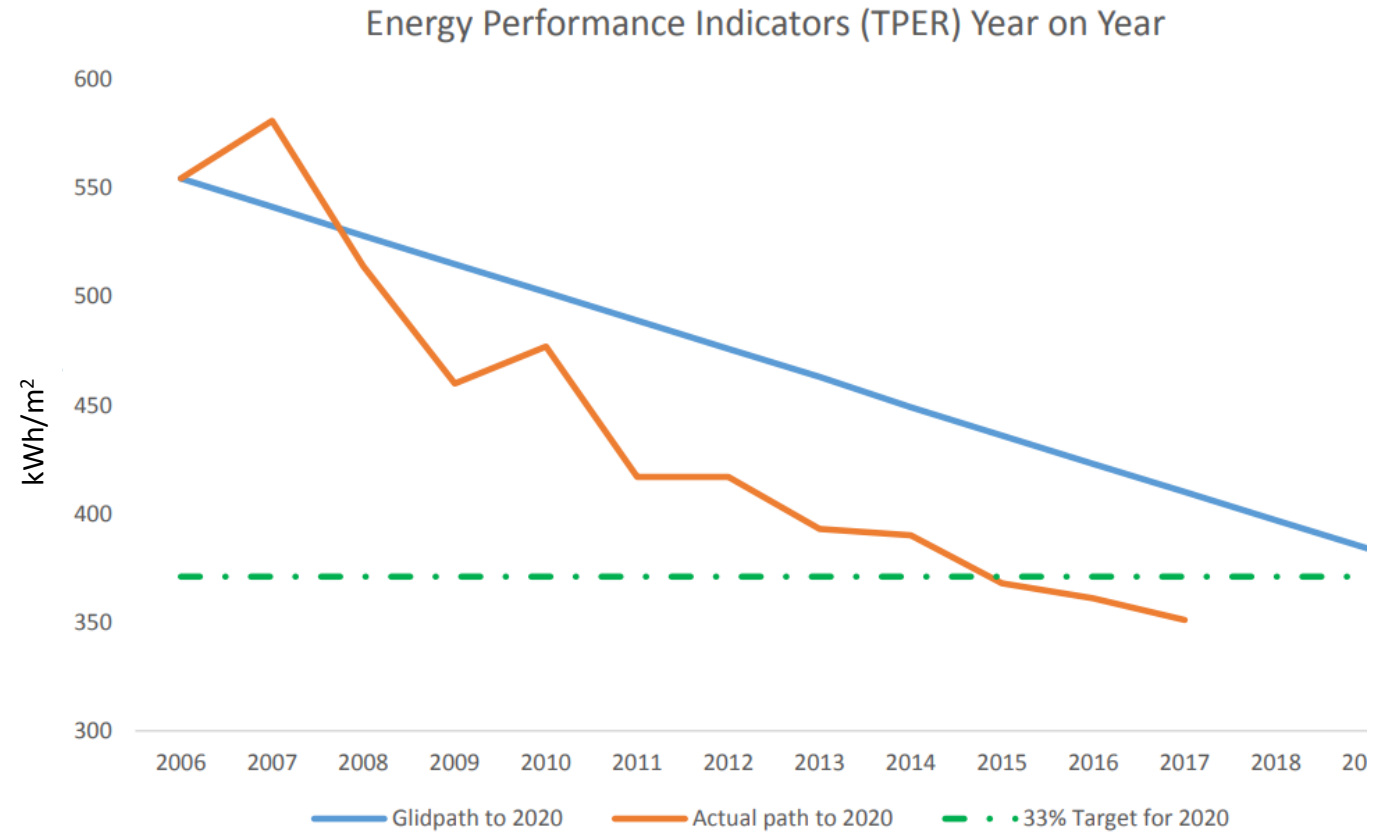
The Green Flag Programme

A Seven Step programme

- Form a **Committee**
- Carry out an **Environmental Review**
- Develop an **Action Plan**
- **Monitor and Evaluate** progress
- Link to the Curr**iculum**
- **Inform** and **Involve** the community
- Develop a **Green Charter**

- Thematic approach
- Flexible

ISO50001 Framework

- First university in the world to be certified to ISO 50001.

- "Saver Saves" scheme.
  - Devolving Power and Responsibility
  - Green Energy Teams formed in SEUs.
  - Support from Energy Manager to assess how the buildings "live".
  - Monetary savings remain with the department/building: Revolving Fund.

Energy Performance Indicators (TPER) Year on Year

Legend: Glidpath to 2020 | Actual path to 2020 | 33% Target for 2020

36% reduction in energy use 2017-2020

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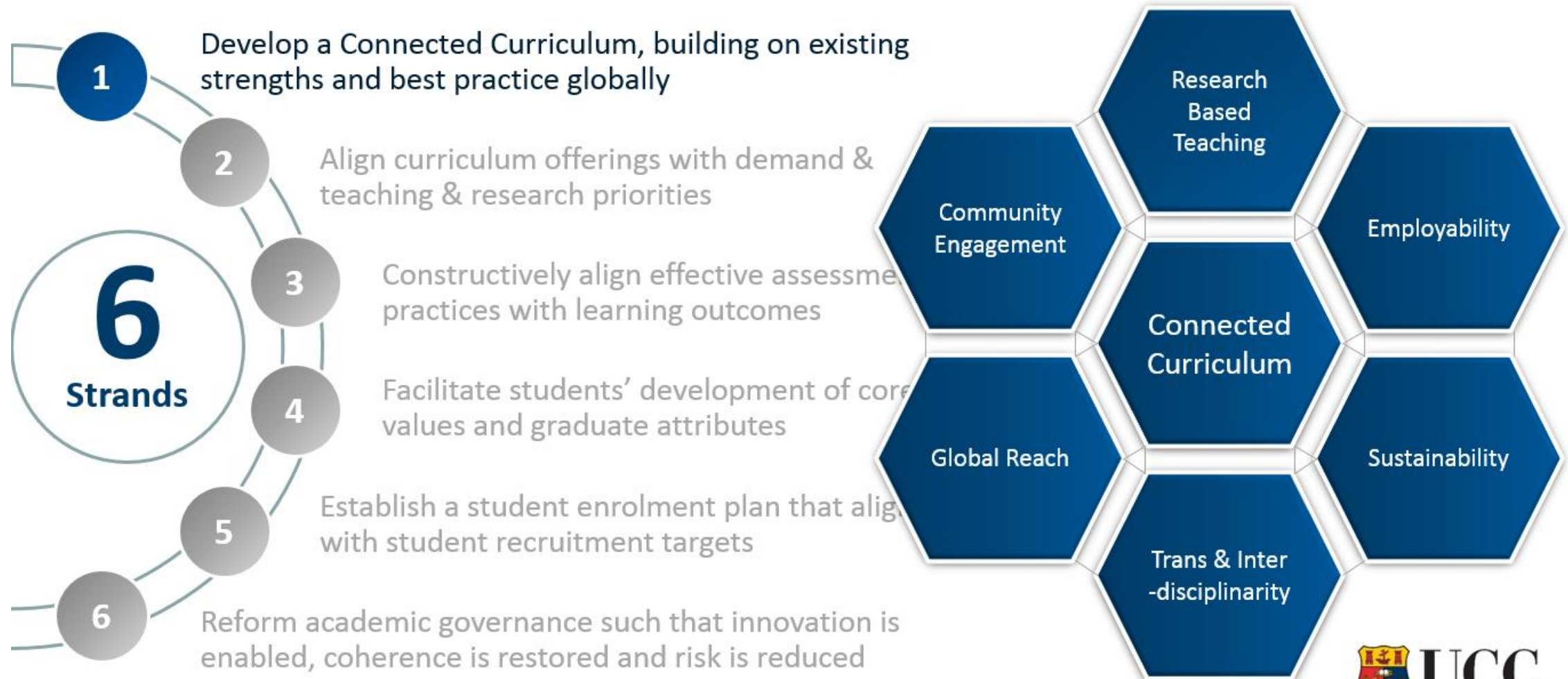**2017**
Sustainability Officer employed

STARS assessment tool

- Most comprehensive assessment of sustainability in higher education (Kosta and Waheed, 2017).

- UCC scored highly across engagement, coordination and innovation categories
  - Green Campus
  - Green Teams

- Differences between jurisdictions provides "mobile benchmarks".

- Provides a gap analysis as well as a rating.

Academic Strategy 2018 - 2022

1 Develop a Connected Curriculum, building on existing strengths and best practice globally

6 Strands

2 Align curriculum offerings with demand & teaching & research priorities

3 Constructively align effective assessme[nt] practices with learning outcomes

4 Facilitate students' development of cor[e] values and graduate attributes

5 Establish a student enrolment plan that alig[n] with student recruitment targets

6 Reform academic governance such that innovation is enabled, coherence is restored and risk is reduced

Research Based Teaching

Community Engagement

Employability

Connected Curriculum

Global Reach

Sustainability

Trans & Inter-disciplinarity

UCC
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Café with appetite for change at UCC

Tuesday, November 13, 2018 - 12:00 AM

Ellie O'Byrne has lunch at UCC's Bio Green Café, where there are no single-use plastic u or plastic packaging.

It looks like a normal, deli-style café, with its pastries, salads, soups and rolls, coffee ma and drinks fridge.

But Bio Green Café is part of a revolution. The café, in UCC's Biosciences Institute, is a pl free zone. A progressive pilot project for catering company KSG, the café has no single-u plastic, either in the kitchen or on offer to customers.

Ellie O'Byrne eating in the new Bio Green Café, in the bioscience building at UCC. The cafe does no single-use, plastic utensils. Picture: Denis Minihane.

Everything from bread to cooked meats to salad leaves arrives from local suppliers in re

High Impact Area: Sustainability in Procurement

Sustainability is one of 6 Principles of UCC Procurement Strategy.

Sustainability Officer sits on University's Restaurant Committee.

Catering manager is member of Green Forum.

Key to many of the bigger "impact" projects.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

UCC Sustainability Journey

- "Student-led, research-informed, practice-focused"

- Institutional transformation inspired by students, enabled by leadership

- Supported by guiding Frameworks:
    - ➢ Green Flag (2010)
    - ➢ ISO50001 (2011)

- Connection, collaboration, coordination

- Recognition in international Metrics
    - ➢ UI Green Metric (2011)
    - ➢ STARS (2018)
    - ➢ THE Impact Ranking (2019)

Key Enablers

- People
- Maintaining bottom-up "activism"
- Leading by committing
- Linking with learning, research and teaching
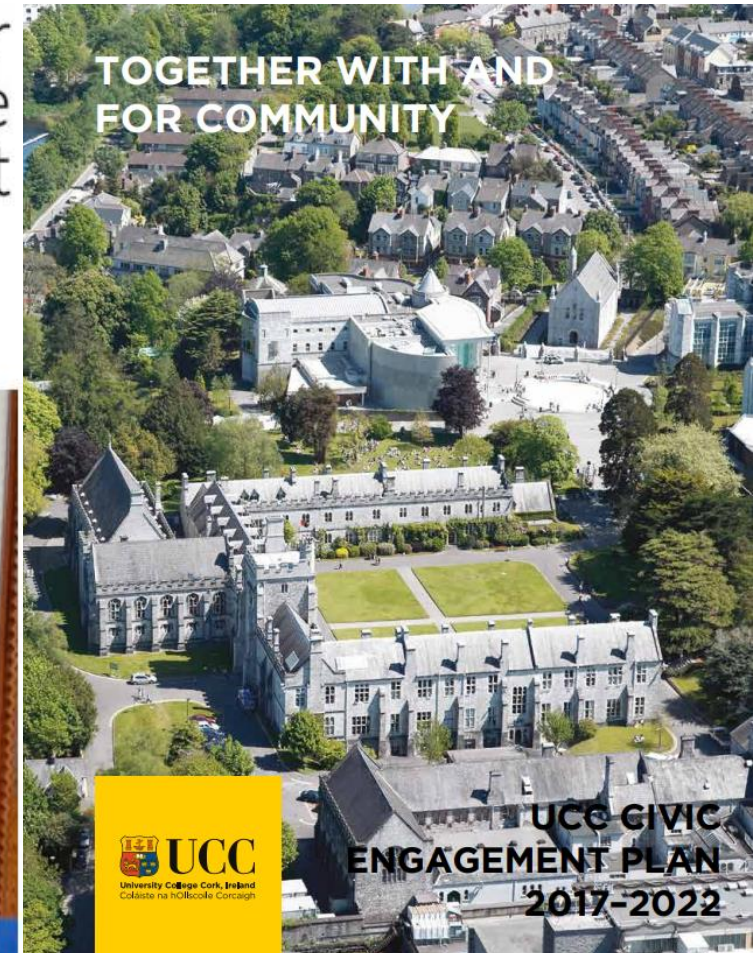- Finding new entry points

Key Enabler 2: Maintaining bottom-up "activism"

Key Enabler 3. Leading by Committing

- Sustainability included in all university policies and strategies

- Greater than "green"

- Divestment from fossil fuels

- University of "Sanctuary"

- Athena Swan

- Gender Identity Policy

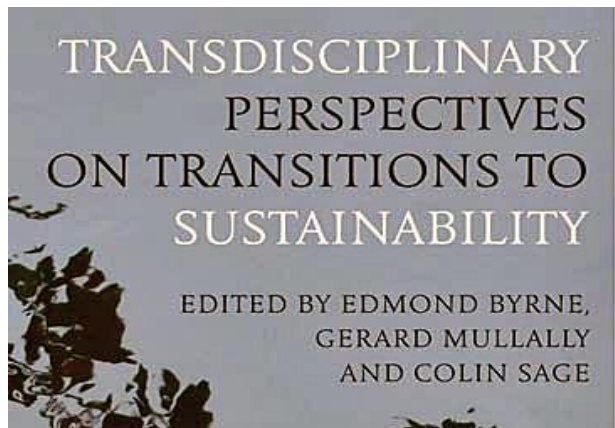# Key Enabler 4. Linking with learning, teaching and research

Sustainability Literacy: The ability to 'read' and 'write' one's relations to the rest of human and non-human nature. Includes technical, cultural and social science elements to explore what is possible, appropriate, morally and politically right (Huckle, 2014).

- *Core Curriculum*: "Business as usual" organized along college, disciplinary or externally validated programmes (e.g. Engineering, Environmental Science)

- *Hidden curriculum*: The values and beliefs of the institution or the individual lecturers which are unconsciously transmitted to the student, or impact on the institutional environment, thereby affecting student learning (e.g. green campus events, Green campus app)

- *Co-curriculum*: optional modules outside the usual programme of study enabling students to experience teaching by academics from outside their discipline, estates staff or other students. (University wide module)
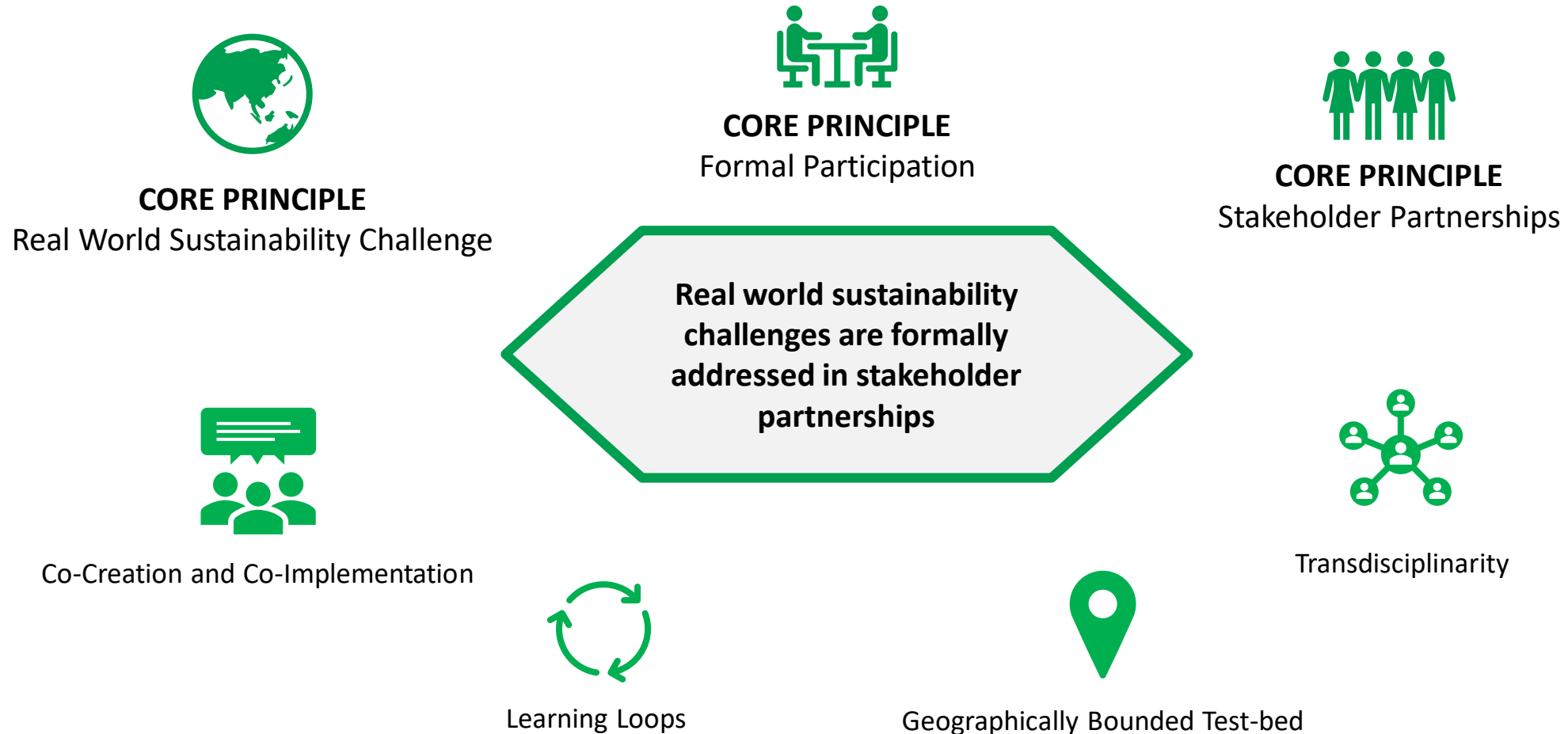
University Wide Module in Sustainability

- January 2016: UCC launched pilot University Wide Module in Sustainability
- Ethos: Cultivating 'sustainability citizenship', within and outside UCC.
- Blended learning approach that integrates conventional in-class delivery, structured debate and on-line resources and exchange.
- The module is co-constructed, genuinely interdisciplinary and adopts a transdisciplinary approach to sustainability
  - Integrates perspectives of the participants drawn from staff members, students and members of the public in the on-going refinement, re-design and the ultimately in the provision of content.
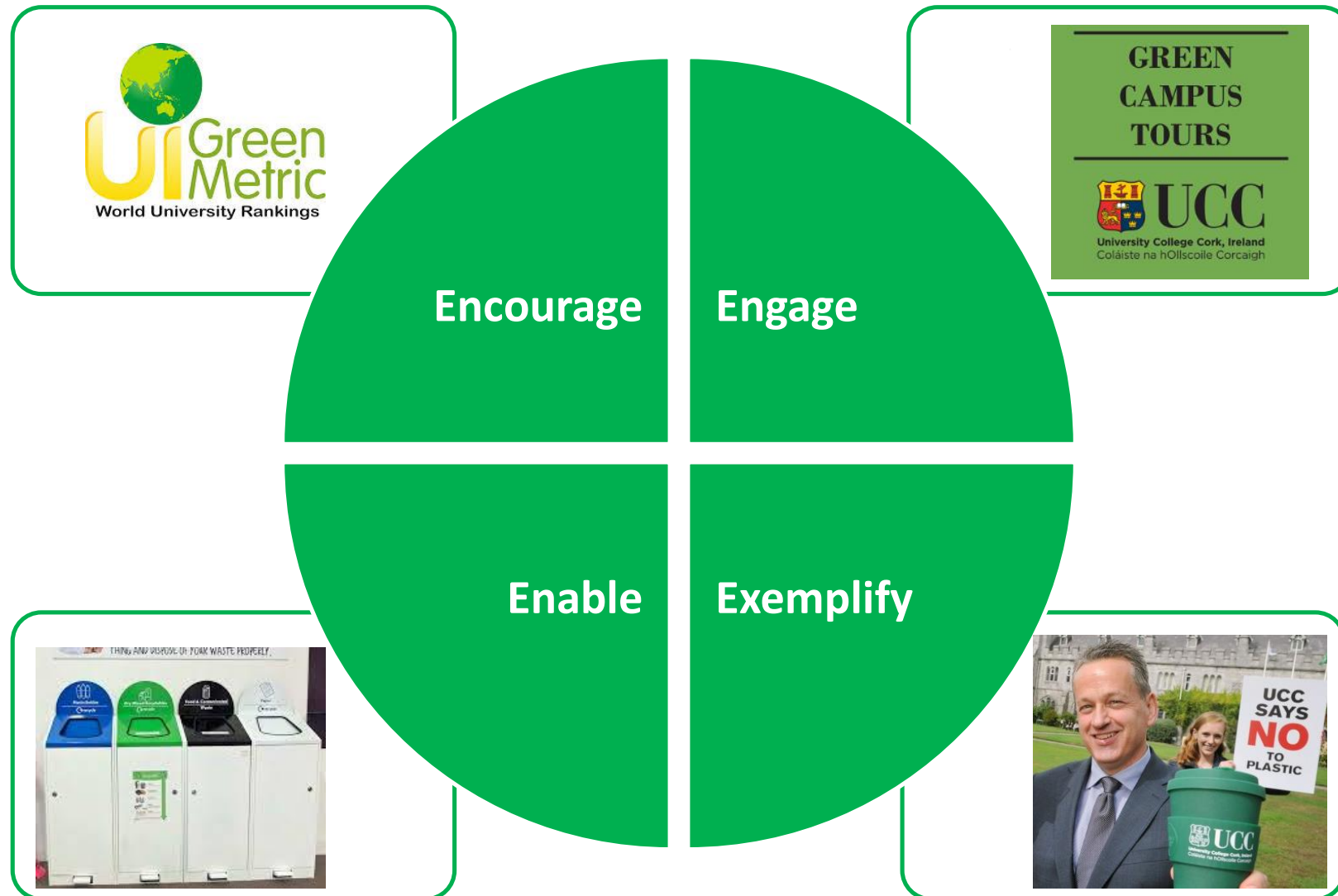- Not a MOOC.

Key Enabler 5. Finding New Entry Points

A "Living University" for Sustainable Solutions

CORE PRINCIPLE
Formal Participation

CORE PRINCIPLE
Real World Sustainability Challenge

CORE PRINCIPLE
Stakeholder Partnerships

Real world sustainability challenges are formally addressed in stakeholder partnerships

Co-Creation and Co-Implementation

Transdisciplinarity

Learning Loops

Geographically Bounded Test-bed

Adapted from EAUC (2017)

Outcome: Individual Behavioural Change

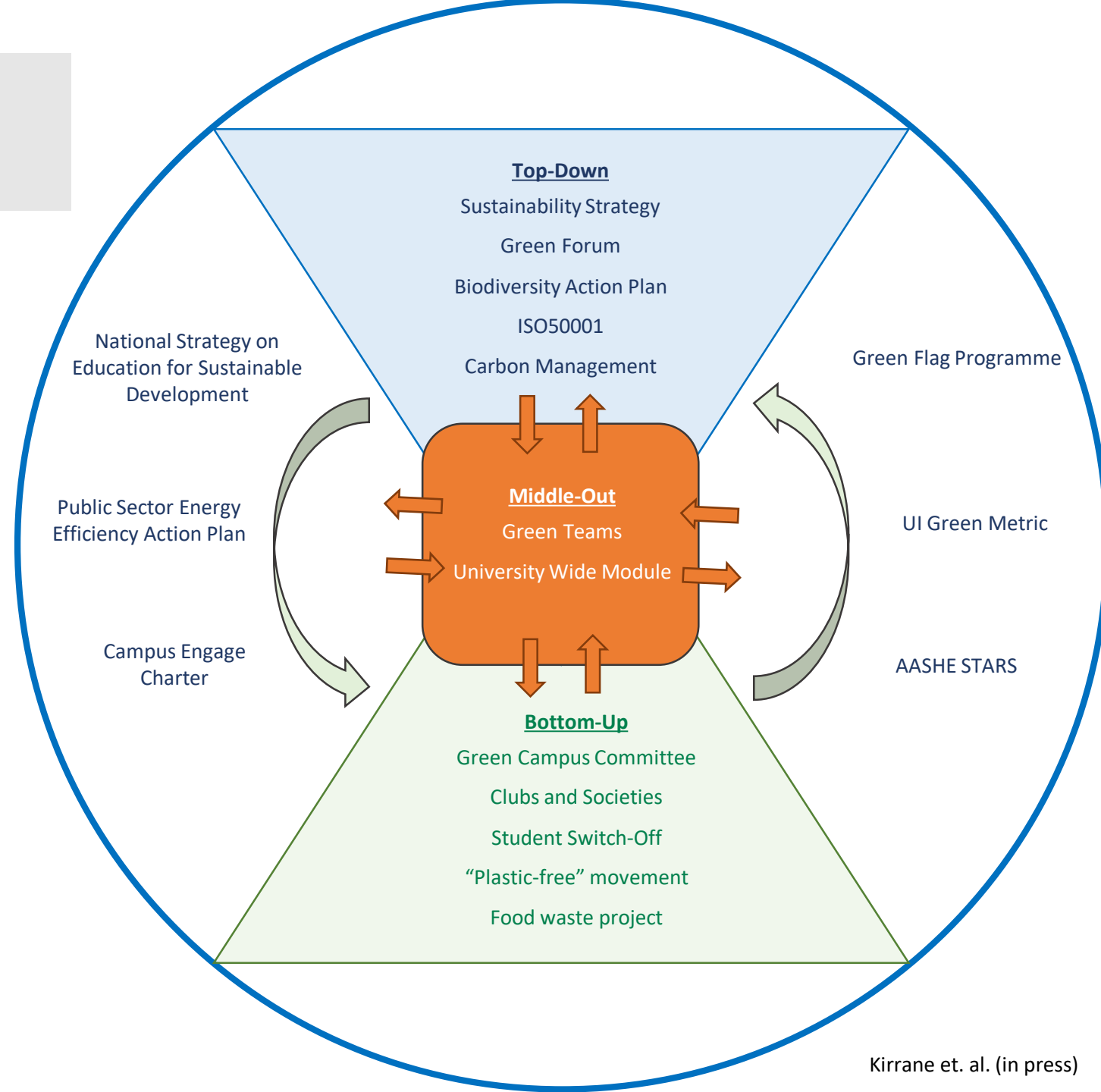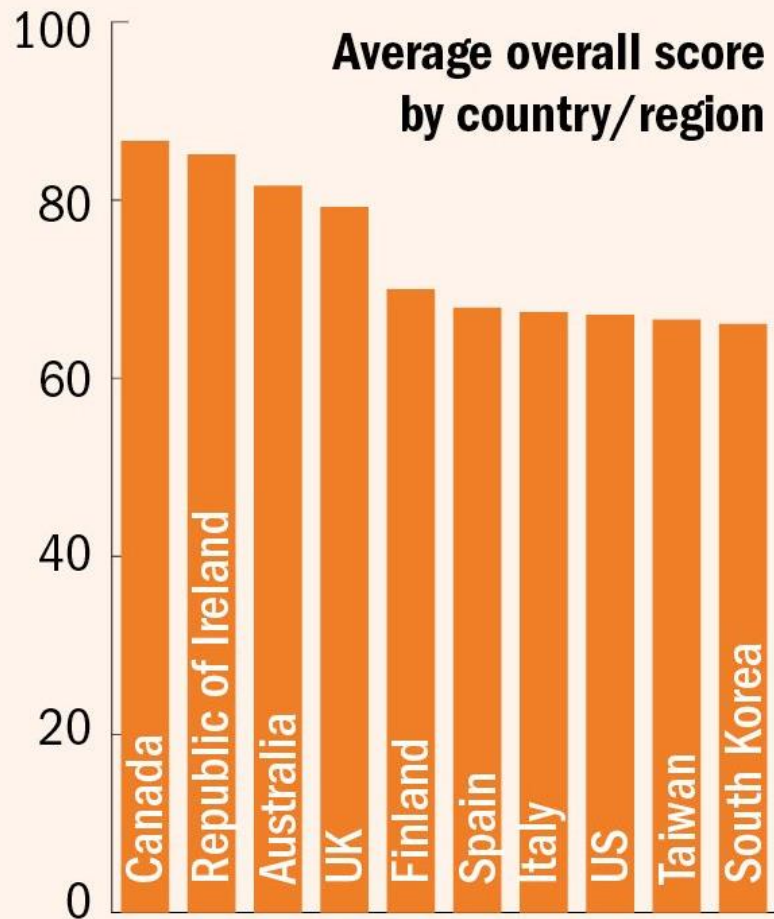Adapted from DEFRA (2011)

Outcome: Institutional Sustainability Ecosystem

- Top-down and bottom-up approaches

- All stakeholders on campus represented
  - Horizontal and vertical.

- "Middle-out" phenomenon (Parag, 2013).

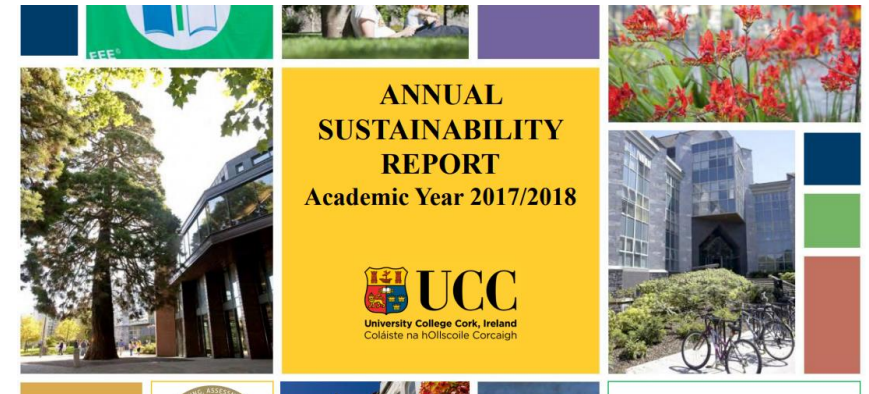- Continually evolving.

- Coordination increases impact.

Top-Down
Sustainability Strategy
Green Forum
Biodiversity Action Plan
ISO50001
Carbon Management

National Strategy on Education for Sustainable Development

Green Flag Programme

Public Sector Energy Efficiency Action Plan

Middle-Out
Green Teams
University Wide Module

UI Green Metric

Campus Engage Charter

AASHE STARS

Bottom-Up
Green Campus Committee
Clubs and Societies
Student Switch-Off
"Plastic-free" movement
Food waste project

Kirrane et. al. (in press)

Average overall score by country/region

Source: *THE* Impact Rankings. Excludes territories with fewer than five institutions in ranking.

Conclusion:
The Green Flag Programme as Framework

- Bottom up approach to embedding sustainability in higher education

- Flexible framework based on continual improvement

- Involvement of all stakeholders is key

- Linking to community and learning on and off campus….

- Entirely voluntary leading to "organic" change across member institutions.

Conclusion: Embedding Sustainability

- Embedding Sustainability in an organisation

  - Evolving dynamic

  - Requires flexible approach

  - University values and mission

- Assessments and rating

  - Provide a gap analysis to inform future plans, but care must be taken that this remains best practice.

  - Engagement and continual improvement process of Green Flag programme fits well with STARS reporting framework.

Conclusion:
The Connected University and the SDGs

- People, place, partnership, prosperity, peace
- Local and global connections
- Engaged students
  - Independent thinking
  - Freedom of expression
  - Practical action
- Institutional response
  - Ethical
  - Moral
  - Financial…
- Personal and collective actions and benefits

Students lead green revolution: UCC sets environmental standard

Thursday, April 04, 2019 - 12:00 AM

If University College Cork was a country — say, Ireland — we would be considered one of the most environmentally responsible nations on earth.

In the region of 300,000 people a day would cycle to work, aided by around 250,000 bicycle racks, making us fitter and healthier while reducing C02 levels.

We would save €7.5m a year in waste management costs, reduce waste to landfill by around one million tonnes, and conserve almost enough water to fill Lough Derg.

Such is the scale of the achievement at UCC, under its Green Campus programme, that it is little wonder it has been ranked number one in the world for its work in assisting the UN goal of 'responsible consumption and production'.