Chapter 2: A new framework for embedding sustainability into the business school curriculum
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We strongly recommend using the United Nations' Sustainable Development Goals (SDGs) as a unifying theme for embedding sustainability into a business or management school. Below you will find a summary how we have integrated the SDGs in our business school – Nottingham Business School (NBS), a faculty within Nottingham Trent University (NTU) in the UK. Please contact us at Green.Academy@ntu.ac.uk or petra.molthan-hill@ntu.ac.uk if you would like to have further information.

Curriculum Refresh

A university wide project that will assess all of the 420 courses (programmes) offered at NTU (both undergraduate and taught postgraduate), over a period of 3 years and started in spring 2016. All courses will need to demonstrate how they align with elements of NTU's strategic plan, of which sustainability is a key component by adhering to a set of 'references'. 7 of these references are centred on Education for Sustainable Development (ESD) and the 'Future Thinking' concept (http://www.qaa.ac.uk/en/Publications/Documents/Education-sustainable-development-Guidance-June-14.pdf)

aiming to foster students' abilities to understand and contribute in meaningful ways towards current and future challenges in the area of sustainable development.

One of these references explicitly asks that students explore how aspects of the discipline contribute to one or more of the SDGs. This provides an exciting opportunity for course/programme leaders to address the sustainable development agenda in their teaching. Hence ESD no longer needs to be an afterthought when it comes to curriculum content and instead allows it to be an easily achievable priority for course leaders across all academic departments.

- **The ESD: Future Thinking Learning Room (ESD)**

The NTU Green Academy, a permanent department at NTU, working to engage students with sustainability through the curriculum as well as through extracurricular activities, developed the 'Future Thinking Learning Room' as a support for staff going through the 'Curriculum Refresh' process. Ultimately the learning room will increase the sustainability content in the curriculum, meeting student demand for a greater sustainable development focus.

The learning room is updated daily and currently holds over 1000 hand-picked resources. The resources featured represent all three strands of sustainable development – economic, environmental and social (within the context of future thinking as per the QAA Guidelines 2014, link above), and include such items as journal articles, websites, suggested books and films, ideas for tutorials, YouTube playlists, and information on how to access physical learning resources such as games and other activity based resources.

As well as being categorised by the 8 academic schools/faculties, with subcategories relating to the different courses in each of the schools the resources are also mapped against the SDGs. There is a section on the learning room dedicated to the SDGs, focussing on how to link all 17 goals to the curriculum. The section consists of some general background information about the Sustainable Development Agenda and a subsection for each Goal with resources relating to the specified goal.

- **The Estate and Community Case Studies**

The learning room also exhibits 24 newly created case studies relating to NTU based projects that have been designed for teaching purposes. The case studies focus on both community volunteering projects and innovative environmental work happening on the NTU estate. Each of the case studies contains a short summary, contact details of how to find out more about the project and how the project relates to the SDGs. The resources are multi-disciplinary and are intended for use across a wide range of courses, throughout all 8 schools.

Estate Case Studies as Learning Resources

Please complete form and email to Food4Thought@NTU.ac.uk. Any queries please contact the Green Academy on the same email address.

Which of the Sustainable Development Goals does this relate to?
(tick all that are relevant, or leave for Green Academy to complete if unsure)

Goal		Goal		Goal	
1 NO POVERTY	☑	2 ZERO HUNGER	☑	3 GOOD HEALTH AND WELL-BEING	☑
4 QUALITY EDUCATION	☑	5 GENDER EQUALITY	☐	6 CLEAN WATER AND SANITATION	☐
7 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	☐		

Project Summary:

Project title: Sustainable Catering

Summary of activities:
Embed sustainability in the food and drink offering in all NTU owned cafes and refectories. NTU has held Fairtrade status since 2008, and the first Sustainable Food Policy was published in 2011, driven by the People and Planet Green League. Commitment in the Catering team was a driving force in pushing forward sustainable catering at NTU. Catering has wide reaching impacts and is able to address sustainability issues in a number of areas including energy use, transport, sustainable sourcing and community partnerships.

See page 2 for more details about the project and a list of data/drawings available.

Contact details for project:

Contact name: Ivan Hopkins

Email address: ivan.hopkins@ntu.ac.uk

Especially suitable for: *(tick all that are relevant, or leave for Green Academy to complete if unsure)*

- ☑ School of Animal, Rural and Environmental Science
- ☐ School of Architecture Design and Built Environment
- ☐ School of Art and Design
- ☐ School of Art and Humanities
- ☐ School of Education
- ☑ Nottingham Business School
- ☐ Nottingham Law School
- ☑ School of Science and Technology
- ☑ School of Social Sciences

Teaching Ideas: *(to be completed by the Green Academy):*

- **SDGs in Staff Development**

    The Green Academy run a series of monthly workshops for Course Leaders, or those looking to integrate ESD across a whole course/programme in line with the Curriculum Refresh framework. The sessions explore aligning discipline-specific information that can be easily embedded into existing course content. The workshops include an introduction to the SDGs whereby staff are invited to take a quiz and then use their results as a starting off point for exploring how they can embed the SDGs in their teaching.

- **Student Engagement with the SDGs**

    The Green Academy are working closely with NTSU – Nottingham Trent's Student's Union to help provide access to information about the SDG's via the website. Throughout the next academic year the Green Academy will also be consulting with the Executive Student Forum about how to further engage students with the goals as well as working closely with the Academic Reps to obtain student feedback on how well elements of the various SDGs are reflected upon in the curriculum.

    The Green Academy team has also developed a blog which showcases the various ways in which NTU, in line with its new Strategic Plan is dedicated to working towards achieving the SDGs. Run by the Green Academy Team this is a collaborative project with blog posts written by NTU students across all 8 academic schools and professional and academic staff from a wide variety of departments: https://ntu-sdgs.blog/

    During the next academic year the Green Academy are offering students the opportunity to becoming a 'Green Academy Volunteer'. This will be a flexible experience allowing students to shape their involvement and even spark new change making ideas. Current projects that students will be able to contribute to include; helping to facilitate discussions on

the Sustainability in Practice Certificate online discussion forums, assisting with the running of Sustainability in Practice Challenge Days, writing sustainability related blog posts showing how NTU is working towards the SDG's . More info please contact petra.molthan-hill@ntu.ac.uk.

After having conducted an audit in 2013-2014 by analysing documents, we decided in January 2017 to run a more detailed audit by asking all colleagues at NBS in departmental meetings how they address the SDGs in their teaching, research and beyond. The form we used for this exercise is presented on the next page and can be used to assess in your business school how the SDGs are addressed.

PLEASE insert pdf provided separately

Below you will find other useful resources for embedding sustainability into your business school. If you would like more information on any of these, please contact the authors of this chapter:

For more information on the Sustainable Literacy Test see http://sulitest.org/en/

The so-called 'Sulitest' comprises knowledge-based multiple choice questions covering a range of , economic , social and environmental issues. The module takes approximately 30 minutes and includes a random selection of 50 questions (30 international and 20 regional). The test can be taken in learning mode as well as assessment mode. Recent developments include a short Suli Quiz (of 10 questions) that is very useful as a way of engaging students in teams before they take the full Sulitest. Importantly modules for specific Sustainable Development Goals (SDGs) are also now available.

PRME (Principles for Responsible Management Education)

PRME Working Groups are an excellent source for materials, resources and collaborations on specific topics/areas of interest, see http://www.unprme.org/working-groups/index.php

PRME book on approaches to teaching and learning with inputs from both academics and business practitioners 'Educating for Responsible Management: Putting Theory into Practice'. https://www.greenleaf-publishing.com/educating-for-responsible-management

10th Anniversary PRME Special Issue of the International Journal of Management Education (July 2017).

PRME Working Papers:

Embedding PRME in differing contexts

Inspirational Guide: Implementing the PRME in Executive Degree Programs http://www.unprme.org/resource-docs/InspirationalGuideImplementingthePRMEinExecutiveDegreePrograms.pdf

Guide: Embedding the PRME in Business Law Classes http://www.na-businesspress.com/JHETP/VerbosAK_Web16_4_.pdf

Transformational Model For PRME Implementation, see in particular pages 16-26 http://www.unprme.org/resource-docs/PRMETransformationalWeb.pdf

PRiME-Time Blog:

PRiME-Time provides an extensive and growing database of examples from schools around the world on how to embed sustainability, ethics and the Sustainable Development Goals (SDGs) into management education as well as tips on how to move forward. See in particular:

2016 Good Practices in Responsible Management Education (Parts 1 and 2)

https://primetime.unprme.org/2017/01/03/2016-good-practices-in-responsible-management-education-part-1/

https://primetime.unprme.org/2017/01/04/2016-good-practices-in-responsible-management-education-part-2/

A Selection of MOOCs on Sustainability and Ethics for Winter 2017 (Part 1 and 2)

https://primetime.unprme.org/2017/01/10/a-selection-of-moocs-on-sustainability-and-ethics-for-winter-2017-part-1/

https://primetime.unprme.org/2017/01/12/a-selection-of-moocs-on-sustainability-and-ethics-for-winter-2017-part-2/

See also: GOWI provides a range of free online courses around the Sustainable Development Goals delivered via email that take 2-5 minutes to read. http://gowiu.com

The Principles for Responsible Management Education (PRME) Book Series:

The Greenleaf/PRME Book Series: https://www.greenleaf-publishing.com/series/prme

Inspirational Guide for the Implementation of PRME UK & Ireland Edition (2014)

https://www.greenleaf-publishing.com/inspirational-guide-for-the-implementation-of-prme-2

Laasch O., Conaway, R., (2016) Responsible Business: The Textbook for Management Learning, Competence and Innovation, Second Edition, Greenleaf / PRME; Saltaire.

MOOCs on Sustainability and Ethics: From PRiME Time Blog Post:

Every year there is an increase in the number of MOOCs (Massive Open Online Courses) available on sustainability topics. These courses are available for free online and open to anyone with an interest in the topic, lasting between three and fourteen weeks and taking three to eight hours per week to complete. Below is a selection of such courses offered this winter 2017 from PRME as well as some non-signatory schools:

Social Issues

Principles of Designing for Humans: This course surveys theories and findings from the social sciences with special attention to how these concepts influence the way we design for human interaction. It will cover how people perceive and process information, motor capabilities and limitations, decision-making and problem solving, and how emotion and social factors impact user experience. From University of Michigan

Top 10 Social Issues for the President's First 100 Days: A collaborative learning project which taps into the knowledge and ideas of University of Pennsylvania's School of Social Policy and Practice faculty to examine the most pressing social justice issues facing the United States.

Social Norms Social Change: This course explores social norms, the rules that glue societies together. It teaches how to diagnose social norms, and how to distinguish them from other social constructs, like customs or conventions. These distinctions are crucial for effective policy interventions aimed to create new, beneficial norms or eliminate harmful ones. From University of Pennsylvania and UNICEF

Human Rights: This course focuses on human rights as a multidisciplinary field from history to activism, development and more. From Curtin University

International Human Rights Law: This course looks at how an individual's human rights are protected from both public and private power by international laws. From Universite Catholique de Louvain.

Anthropology of Current World Issues: This course uses anthropological ideas to see the world from a range of perspectives and points of view. From The University of Queensland Australia

Reconciliation through Indigenous Education: This course explores how indigenous histories, perspectives, worldviews, and approaches to learning can be made part of the work done in classrooms, organisations, communities, and everyday experiences in ways that are thoughtful and respectful. From The University of British Columbia

Readings in Global Health: This course explores the most pressing issues in global health through a series of reviews and interviews with leading experts. From Harvard University Education in a Changing World: This courses looks at education as a social institution charged with communicating the knowledge, skills and cultural values that society considers most important. It looks at how the aims of education have changed over time in response to changing and competing views and what is considered a 'good society' and 'good person' as well as changes that come from new understandings of a constantly changing world. From Open2Study

Environmental Issues

Water in a Thirsty World: This course explores the journey of water – how it began, and its availability today in light of global warming and urbanization. It explores the natural environment is reaching a threshold and the impact that it has for us and for the water supplies that we rely on.

Agriculture and the World We Live in: This course looks at the world's population and the crucial role of agriculture in feeding the steadily increasing number of people. It focuses on how climate and soil dictates the types of farms we see in different regions and countries. From Massey University

Global Environmental Management: This course explores the best environmental technologies for a sustainable development and how they are managed in various settings around the world. It covers global trends that influence our environment and the living conditions and how different management systems and approaches that are used around the world to management the environment. From Technical University of Denmark

Contemporary Issues in Ocean Governance: This course considers the nature of how the world's oceans are regulated. It will go through how ocean governance has evolved through time and how it actually works. From University of Wollongong

Climate Change: This course explores how climate change will affect us, why we should care about it, and what solutions we can employ. From Macquarie University

Our Energy Future: This course introduces students to the issues of energy in the 21st century – including food and fuels – which are inseparably linked – and will discuss energy production and utilisation from the biology, engineering, economics, climate sciences, and social science perspectives. From University of California San Diego.

Economic Issues

Citizen Engagement A Game Changer for Development: This course explores citizen engagement and the role citizens can play in actively shaping public policy. Students will learn about cutting edge research and theories related to citizen engagement, and examples of ways citizens and governments are working together in new ways to improve their societies. From the World Bank Group – starts February 7.

Foundations of Development Policy: Advanced Development Economics: This course uses economic theory and data analysis, explore the economic lives of the poor, and the ways to design and implement effective development policy. From Massachusetts Institute of Technology – starts February 6.

From Poverty to Prosperity Understanding Economic Development: The course explores the role of government and the key political, social and economic processes that elevate any society from poverty to prosperity. From the University of Oxford – stats February 1.

Greening the Economy Sustainable Cities: This course explores sustainable cities as engines for greening the economy including sustainable urban transformation and the ways to effectively direct urban development toward ambitious sustainability and climate goals. From Lund University – starts January 9.

Subsistence Marketplace: This course explores unique synergies between pioneering research, teaching, and social initiatives through the Subsistence Marketplace Initiative. Unique to this approach is a bottom-up understanding of the intersection of poverty and the marketplace. From University of Illinois at Urbana-Champaign – starts now.

Greening the Economy Lessons from Scandinavia: This course explores greening the economy on four levels – individual, business, city and nation including the relationships between these levels. From Lund University – starts January 9.

Business Specific

Communicating Corporate Social Responsibility: This course explores what corporate social responsibility is, what does it mean and what does it involve? Do stakeholders really care, and if they do, how should companies communicate with them? Universite Catholique de Louvain.

Strategy and Sustainability: This course explores the topic of business and sustainability focuses on filtering out the noise and making choices in a hard nosed and clear eyed way. From IESE.

Practicing Substantiality, Responsibility and Ethics: This course explores to process to engage in changing practices to make the more sustainable, responsible and ethical. It starts with exploring the trends of responsible management practices From University of Manchester

Become a Social Entrepreneur: This course teaches students how to create societal impact through social entrepreneurship: the discovery and sustainable exploration of opportunities to create social change. It includes teamwork to explore a problematic issue and learn more about the source of the problem. Including creating a business plan. From Copenhagen Business School

Social Impact Strategy Tools for Entrepreneurs and Innovators: This course offers an introduction to social impact strategy and social entrepreneurship, including key concepts, an overview of the field, and tools to get started as a changemaker. From University of Pennsylvania.

New Models of Business of Society: This course discusses the emergence of a new story about business which locates business within a social framework. It explores how almost every business creates or destroys value for customers, suppliers, employees, communities and society and how to create a business that makes money and makes the world a better place. From University of Virginia