

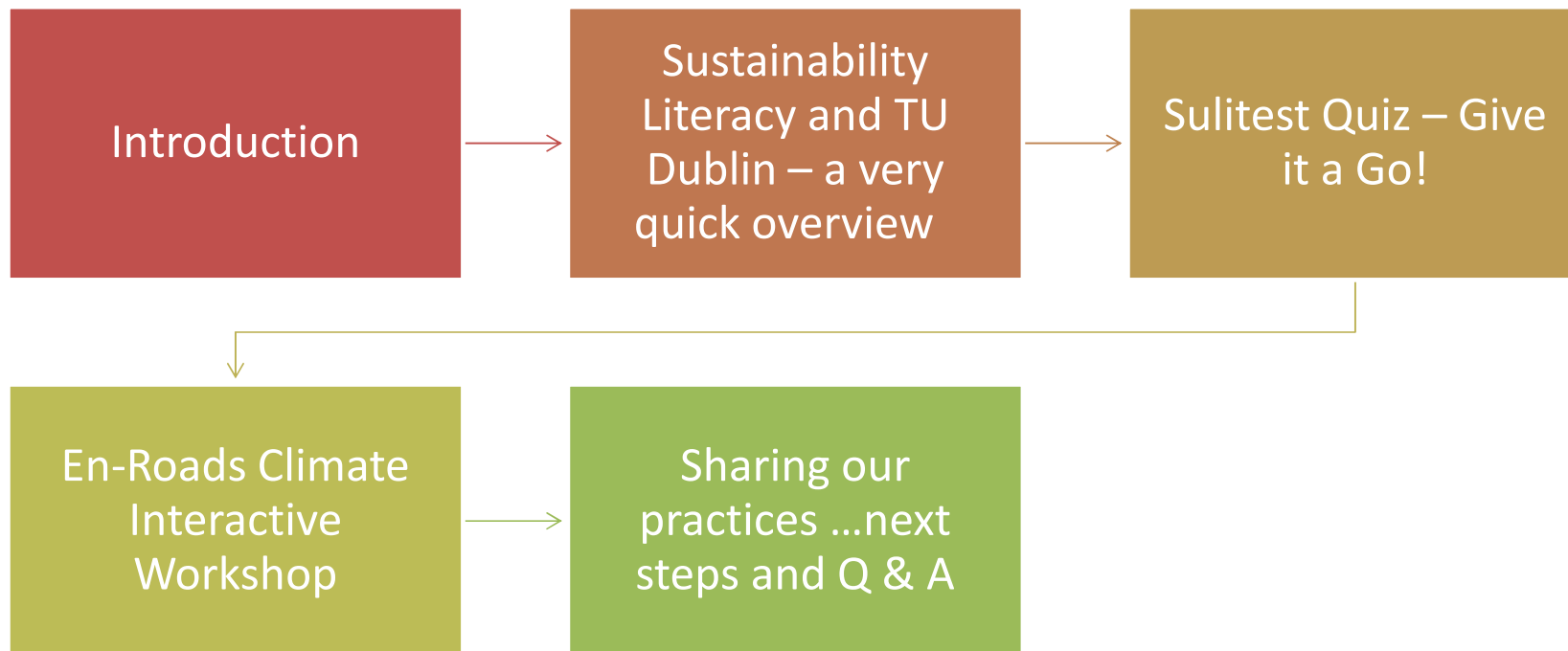
Féidearthachtaí as Cuimse
Infinite Possibilities

Sustainability Literacy and Climate Literacy

... Examples from TU Dublin



Workshop Overview



Developing Sustainability Literate Graduates

People

Fostering Individual Talents in an Ever Changing World

- we intend to ignite the imagination of students, staff and partners and support people to explore their abilities and reach their full potential



Planet

A Powerhouse for Living & Breathing Sustainability

- we intend to address the challenges facing the world and impact positively on the planet and people, with 'education' as the engine



Partnership

Delivering Shared Impact

- we intend to develop the most connected university; cultivating a network of discoverers, creators and entrepreneurs; engaging with people that make things happen



Developing Responsible Global Citizens

We are committed to facilitating learning & knowledge-creation, fostering ambition and passion for sustainability



All programmes will have sustainability as a learning outcome and every learner will engage in practice-based research

Sustainability Literacy Defined

How do we ensure that we inspire and empower our students to visualise a better future?

Can we turn feelings of anger and anxiety into hope and action?

ESD empowers Learners (UNESCO, 2019)

Sustainability literacy is defined as the knowledge, skills, and mind-sets that help compel an individual to become deeply committed to building a sustainable future and allow them to make informed and effective decisions to this end (Décamps et

al., 2017, p.141).



Developing Sustainability Literate Graduates

Three Related Initiatives at TU Dublin



Sustainability Literacy



Climate Literacy



Community of Practice



Tangible implementation of



One of the 17 featured initiatives of UN partnerships for



[ABOUT
SULITEST](#)

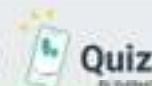
[SULITEST
TOOLS](#)

[HOW TO
USE IT?](#)

[BE PART
OF IT!](#)

[NEWS & REPORTS
& MATERIALS](#)

[LOG IN](#) [SIGN UP](#)



BUILDING A SUSTAINABLE FUTURE TOGETHER



For a sustainable future, we need a world full of people with sustainability awareness and core literacy.



PRME

Year	Users
2018	3
2019	150
2020	519
2021	2637
2022	4121

According to the ILO (International Labor Organization), 215 million children (5-17 years old) were affected by child labour worldwide in 2008, in agriculture (70%), industry (10%) and services other than domestic (20%).

How had the number of children affected by child labor evolved in 2016?



- A** It remained stable
- B** It increased significantly
- C** It dropped significantly
- D** Child labour has been eradicated
- E** I'm not sure

✘ You did not choose the expected answer.

Comment : According to the ILO (International Labor Organization), the concept of "child labor" encompasses all work that deprives children of their childhood, their potential and their dignity, and that is harmful to their schooling, health as well as their physical and mental development. The number of children affected by child labor dropped significantly from 215 million in 2008 to 152 million in 2016 according to the International Labor Organization. Nevertheless, in certain areas in the world like sub-Saharan Africa, an estimated one child out of 5 is involved in child labor, and one out of ten in highly hazardous activities referred to as "worst forms of child labor".

Sources and further information:

[ILO Definition of Child Labor](#)

[ILO 2012-16 Trends Report](#)



Our Approach to Authentic Assessment & Enhancing SDG Literacy & Global Citizenship



Step 1 - Take Sulitest (no grade)

D describe what happened



I interpret the events



E evaluate the effectiveness



P plan for the future



Step 2 – DIEP Reflection (graded)



Step 3 – Discipline/module specific authentic piece (graded)

Integrated Sulitest-based authentic assessment

Programme: BSc in Business & Management & Business & Law, Yr3

Modules: International Management (core, 174 students) – Dr. Lucia Walsh
Supply Chain Management (option, 50 students) – Alacoque McAlpine

Sulitest + Reflection
(all students)

+

**LinkedIn video &
written piece**
(International
Management)

**Written piece, video
& activism action**
(Supply Chain
Management)



Example from International Management Module Assignment designed by

Dr Lucia Walsh

Brief:
Individual assignment (30% grade) - Sulitest reflection (30%) + LinkedIn video & written piece (70%)

- Focus on 1 SDG related issue arising from Sulitest & Reflection
- Create a 3 minute video aimed at international managers focusing on 3 areas:
 - Concept/issue (e.g. gender inequality)
 - Connect issue to specific industry (e.g. construction industry)
 - Call to action – 3 actionable recommendations
- Share on LinkedIn to create awareness & instigate change
- Reflect on engagement & impact





Sulitest

Supply Chain Management Module

SDGs & SCM Assessment 40%

1. Discuss the implications of the SDGs for SCM.
2. Examine who responsibility for the SDGs lies with.
3. Take some action:

Engage a TD to ask them to use their position to fight for policies that matter to you in relation to an SDG

or

*Engage a brand on improving their SC's
and to share information on their commitments to the SDGs*

4. Video on SDGs & SCM (on steps 1-3)



Activism



Department of
Agriculture,
Environment and Rural
Affairs

Government department



Missguided
Retail company



green
party
comhaontas glas



Rialtas na hÉireann
Government of Ireland

The Scale of the Challenge ...

Climate Change in Numbers



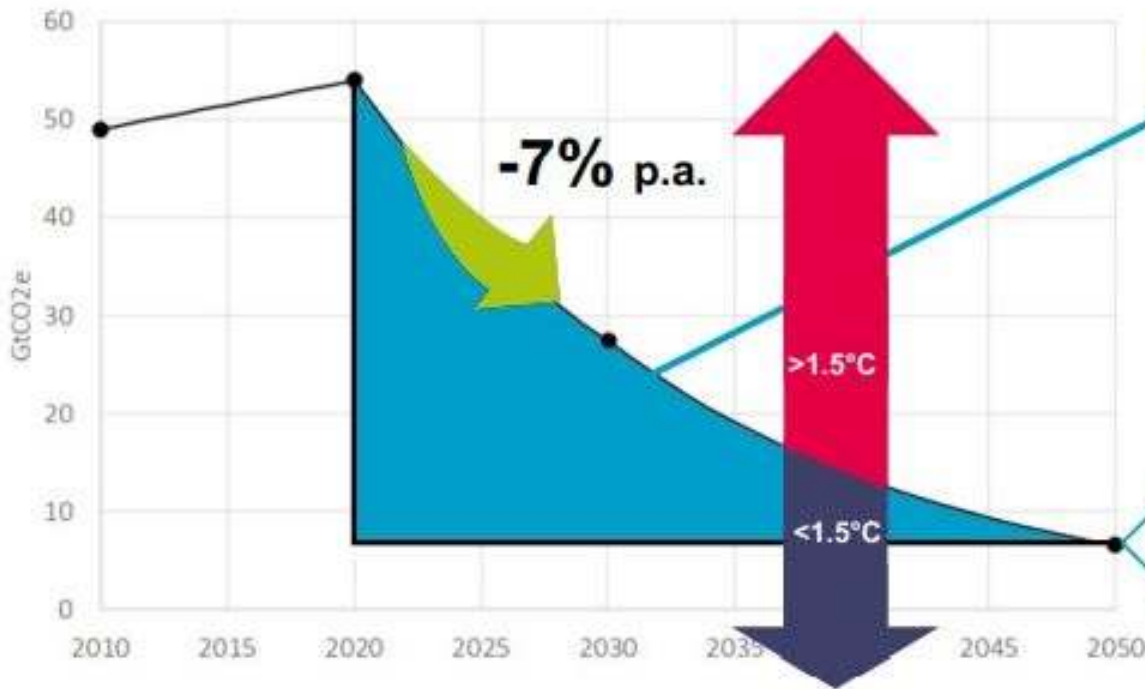
2°C Celsius

565 Gigatonnes CO₂ (budget)

2795 Gigatonnes (current trajectory)

[Global Warming's Terrifying New Math - Rolling Stone](#)

Worldwide GHG emissions trajectory - the pathway to decarbonisation¹
 Required yearly decarbonisation rate of -7%



- ▶ We have a remaining carbon budget of 500 GtCO₂e**
- ▶ We currently emit around 43 GtCO₂ per year²
- ▶ Therefore, at our current rate, we will exhaust the budget in ~11.5 years
- ▶ A decarbonisation rate of -7% per annum is required to put us on track to net zero by 2050

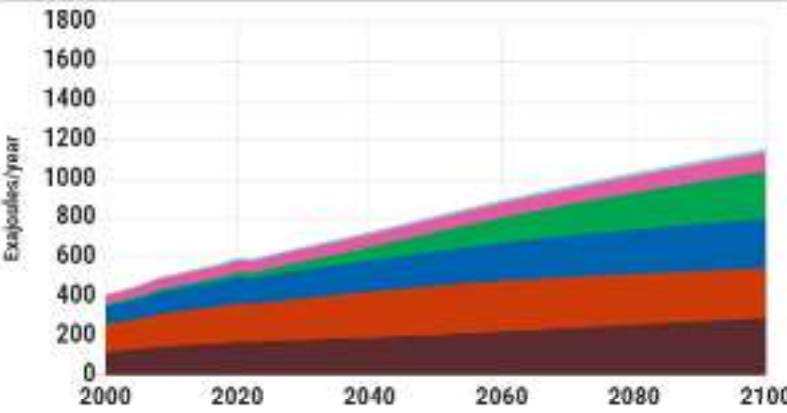
The goal:
 Net zero by 2050
 Consistent with the 1.5°C warming scenario

¹Source: EU Technical Expert Group on Sustainable Finance, based on data from IPCC AR5 Climate Change 2014 Synthesis Report, IPCC SR15 report Chapter 2 and Global Carbon Budget, 2018. *Gross emissions would still be more than zero (offset by carbon dioxide removals).

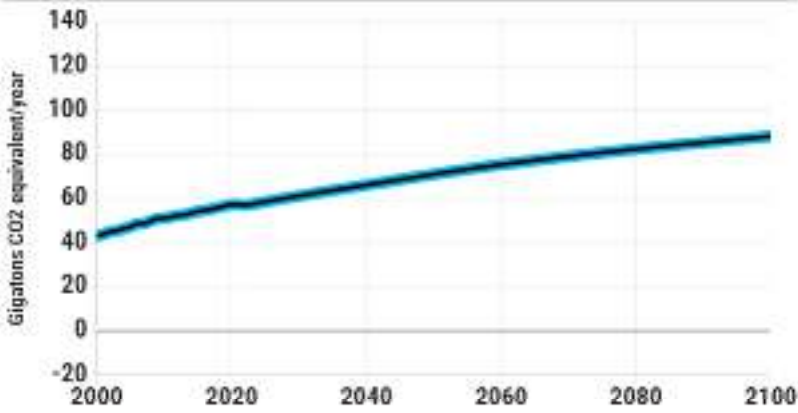
²Source: Carbon Brief, 2019.

**From end of 2019, with a 50% likelihood of limiting global warming to 1.5°C temperature limit.

Global Sources of Primary Energy



Greenhouse Gas Net Emissions



+3.6°C

+6.4°F

Temperature Increase by 2100

COAL OIL GAS RENEWABLES BIOENERGY NUCLEAR NEW ZERO BASELINE CURRENT SCENARIO

Energy Supply

Coal	Renewables
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>
Oil	Nuclear
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>
Natural Gas	New Zero-Carbon
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>
Bioenergy	Carbon Price
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>

Transport

Energy Efficiency	Electrification
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>

Buildings and Industry

Energy Efficiency	Electrification
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>

Growth

Population	Economic Growth
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>

Land and Industry Emissions

Deforestation	Methane & Other Gases
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>

Carbon Removal

Afforestation	Technological
<input type="range" value="status quo"/>	<input type="range" value="status quo"/>



Register Your EN-ROADS Event

Developing Sustainability Literate Graduates

Freeman, Olivia; Duffy, Deirdre; McAlpine, Alacoque; Nolan, Ciara Dr; McMahon, Cormac; and Walsh, Lucia (2021) "Exploring the impact of authentic assessment on sustainability literacy through reflective and action-oriented tasks: A roundtable podcast," *Irish Journal of Academic Practice*: Vol. 9: Iss. 2, Article 7.
doi:<https://doi.org/10.21427/CSYC-2271>
Available at:

<https://arrow.tudublin.ie/ijap/vol9/iss2/7>

[IJAP Roundtable Podcast](#)

