10th April 2024

Smashing the Sustainability Ceiling…

Tim Clarke

Professor of Practice

Institute of Science and Environment

University of
Cumbria
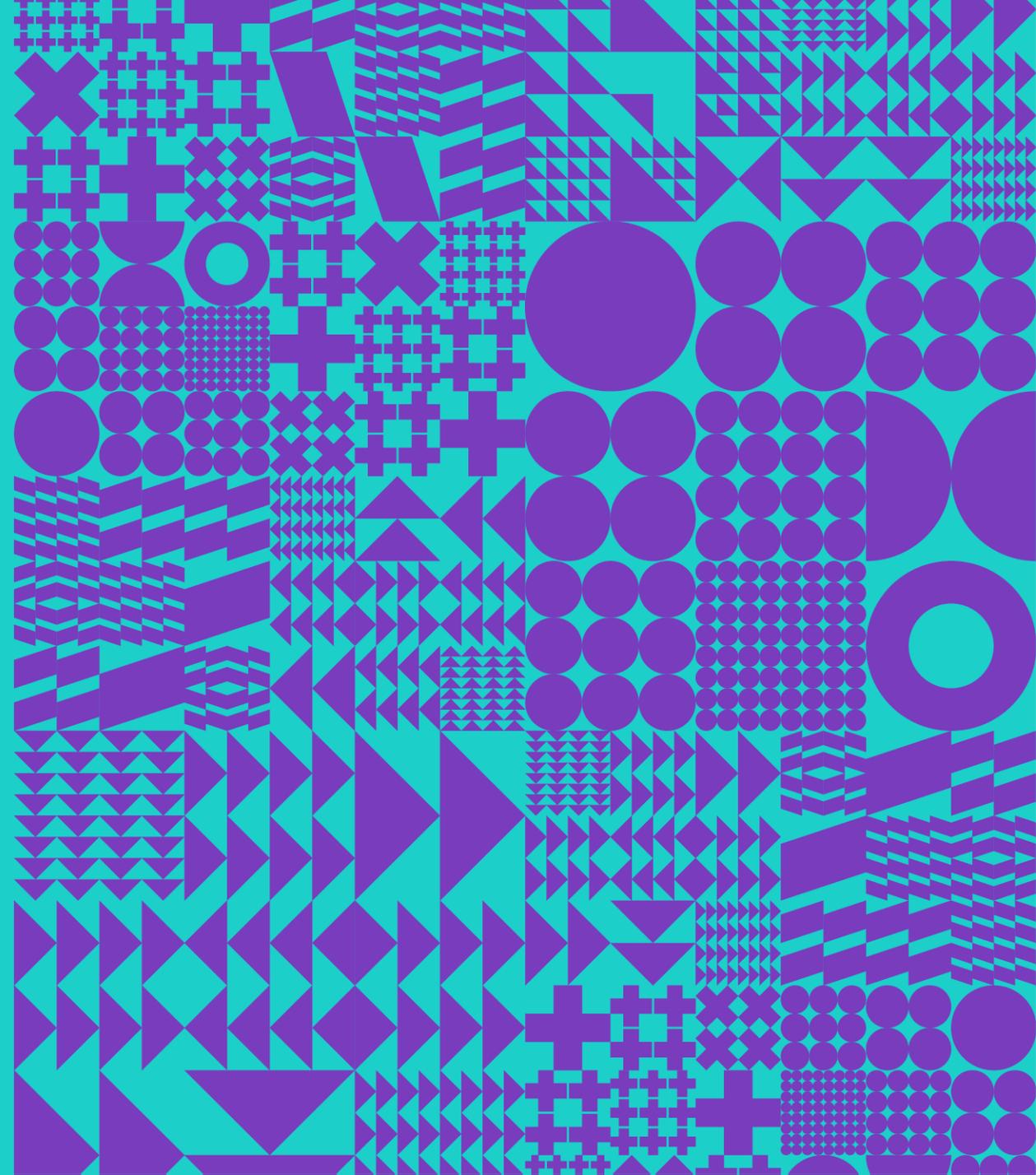
Achieving Sustainability is not for the faint-hearted – it's hard work

There are no short cuts …
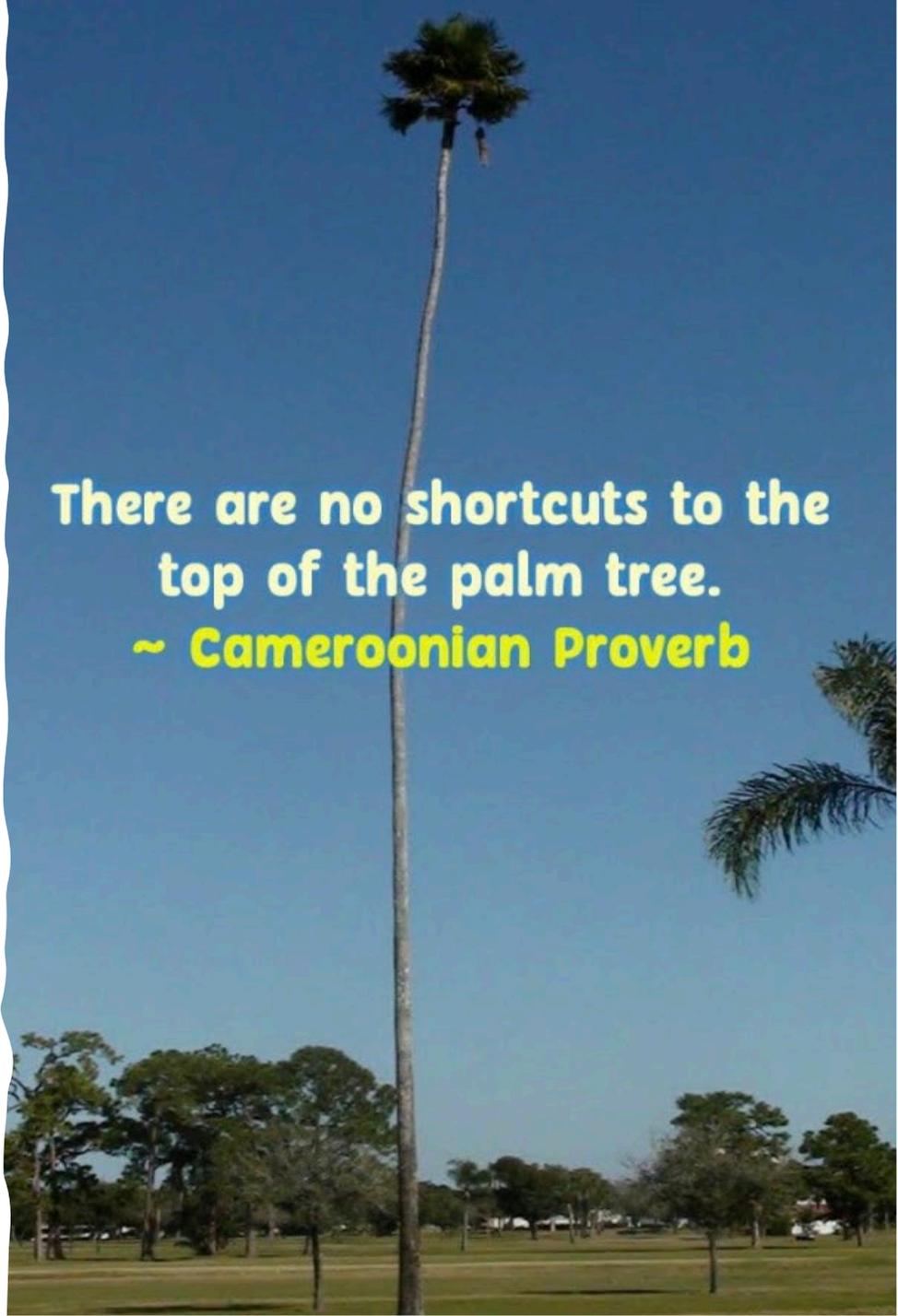
There are no shortcuts to the top of the palm tree.
~ Cameroonian Proverb

Overview

- Historical context: The Sustainability debate

- My involvement in this debate

- Sustainability at an Individual, Community, City, and National level

- The Sustainability challenge for Universities

- UoC – rising to the challenge: can we smash the Sustainability ceiling?

What route should Cumbria University take to Sustainability?

- The UoC hosted the Institute for Leadership and Sustainability

- Cumbria had pioneering leaders on Sustainability 200 years ago (before the word even existed in common parlance) (Wordsworth, Ruskin, Potter, Mason)

- A Sustainability reflection was launched in Jan 2024 by the University: aiming for a Board recommendation in May. What should it say?

- Options: 'Business as Usual', Aim High, Be the Best ?

A PATH TO SUSTAINABILITY

The Value Of Being More Sustainable

It's all about Choices ….for different target audiences

- For the University **as an Institution**, linked to achieving its Towards 2030 Strategy and Vision, nurturing its vital interest and roles (education, learning, training, research, innovation, knowledge, aspirational, reputational, credibility, etc)

- For its **academic staff**

- For its **students (local and international)**

- For the **region, Cumbria and local Councils**

- For the **local communities and civil society**

- For **Businesses and Enterprises**
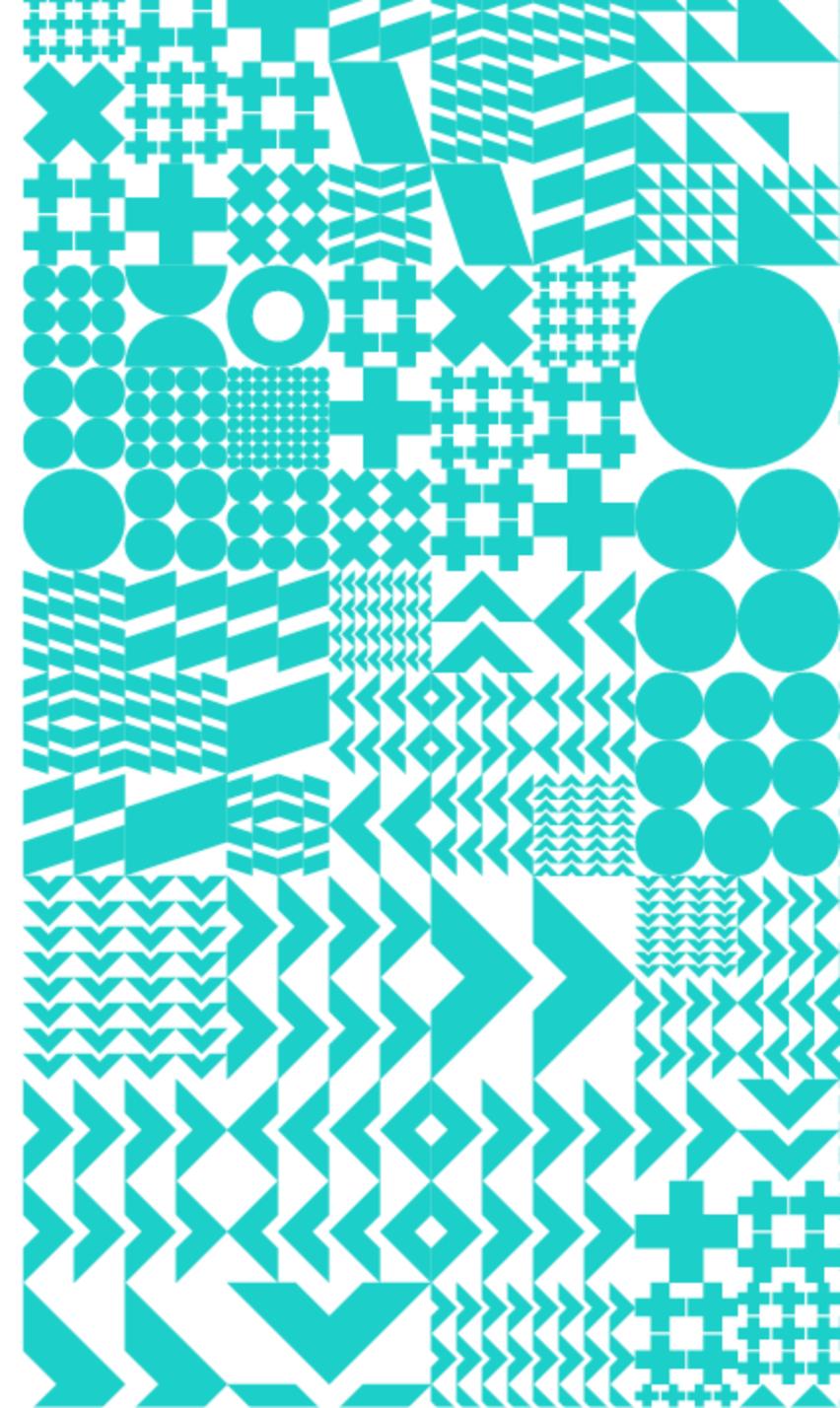
My personal role as Professor of Practice

- Bring my personal experience of this topic, that goes back 50 years, to the table, as requested when appointed by the VC

- Provoke discussion, engagement, ambition, motivation and the PURSUIT OF EXCELLENCE

- Plan for CHANGE – in order to meet challenges, that may, at this time, be completely unknown

- Seek TRANSFORMATIVE solutions

- Promote Policies and Practices to keep UoC AHEAD OF THE CURVE
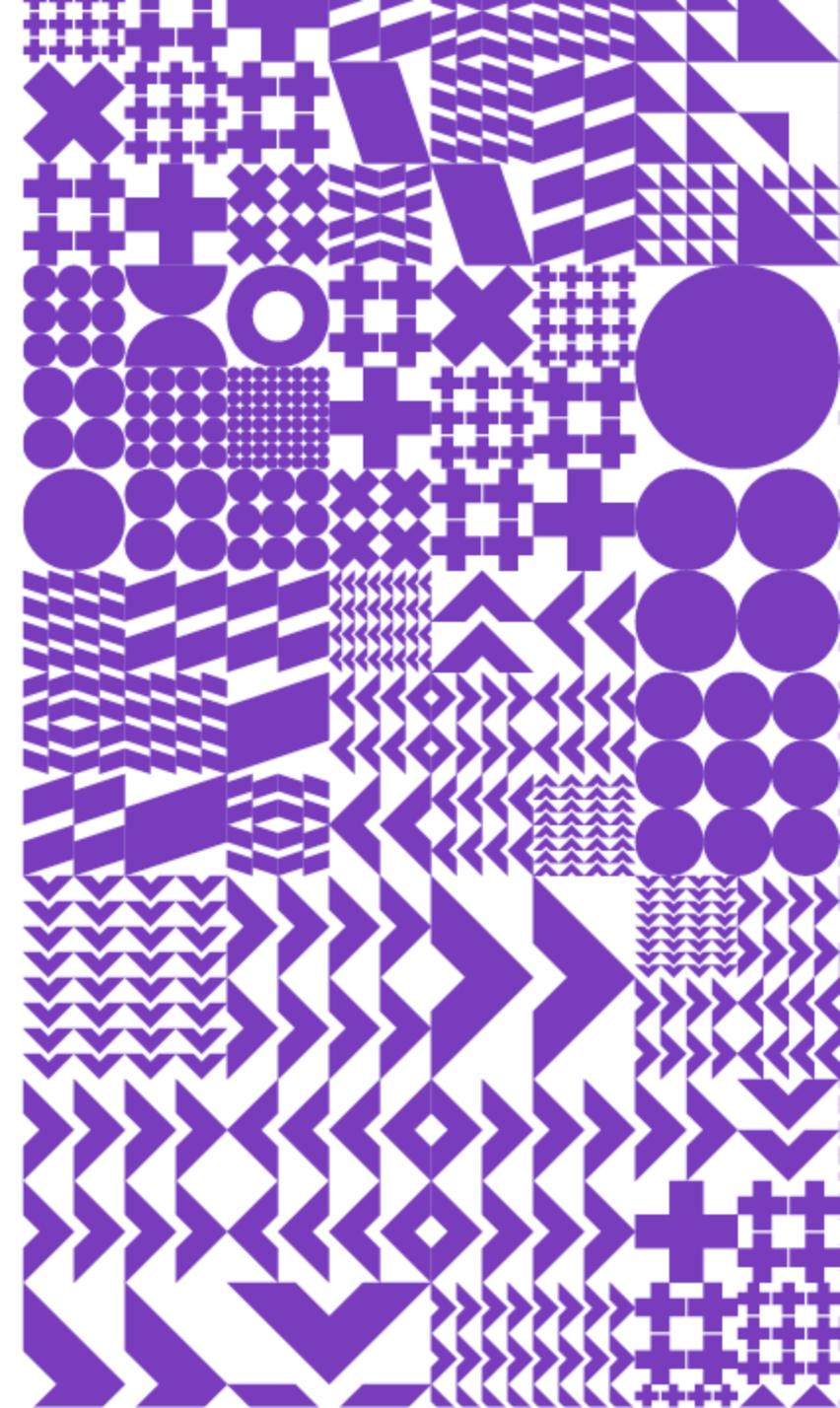
The Metrics going the wrong way

Melting of Arctic Sea Ice

Average Monthly Arctic Sea Ice Extent
January 1979 - 2018
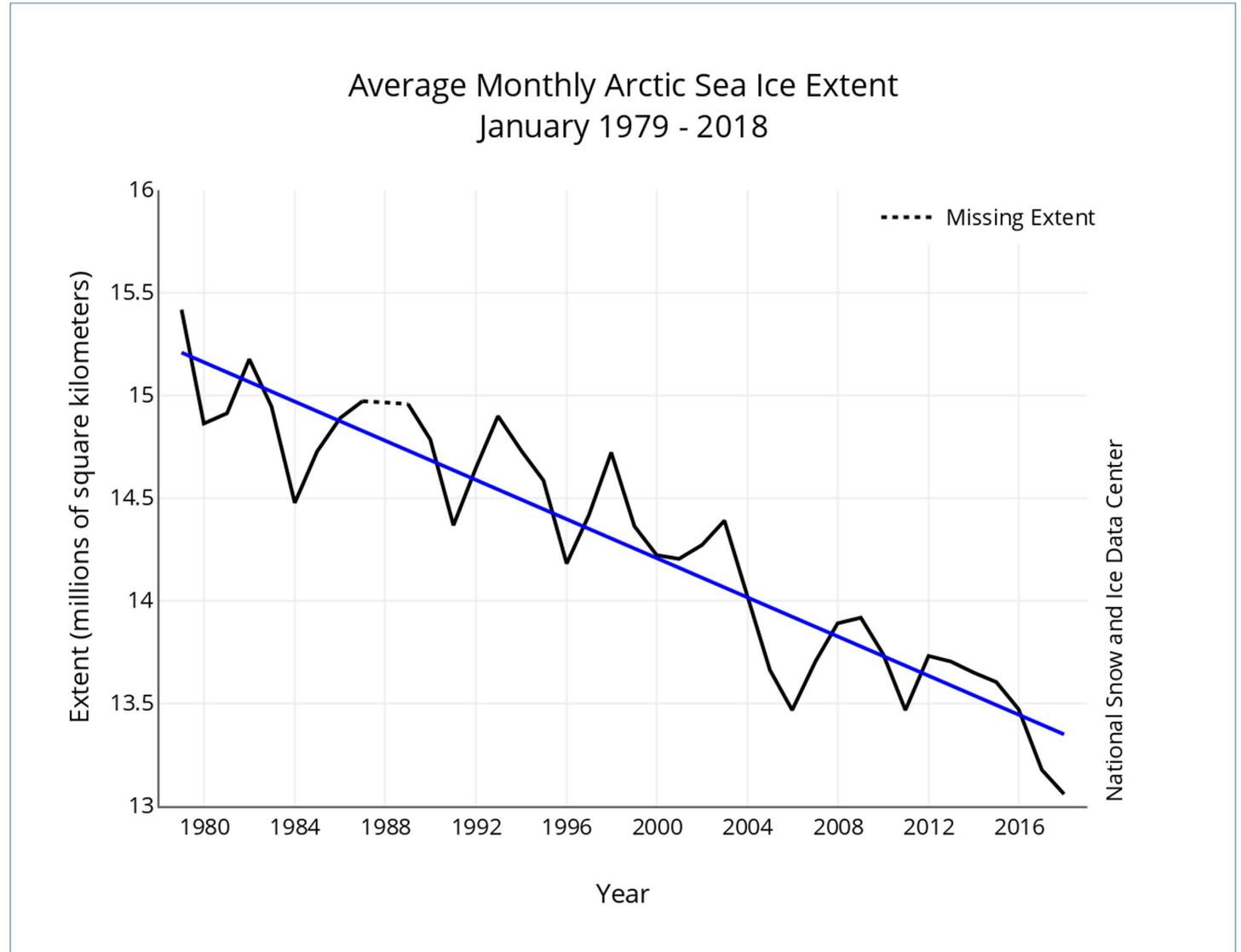
Global Temperature rise

The stats today are actually worse than this graph shows

Historical and Projected Climate Change

(In degrees Celsius)   (In degrees Fahrenheit)

Average Global Temperature, Relative to 1981–2000 Average
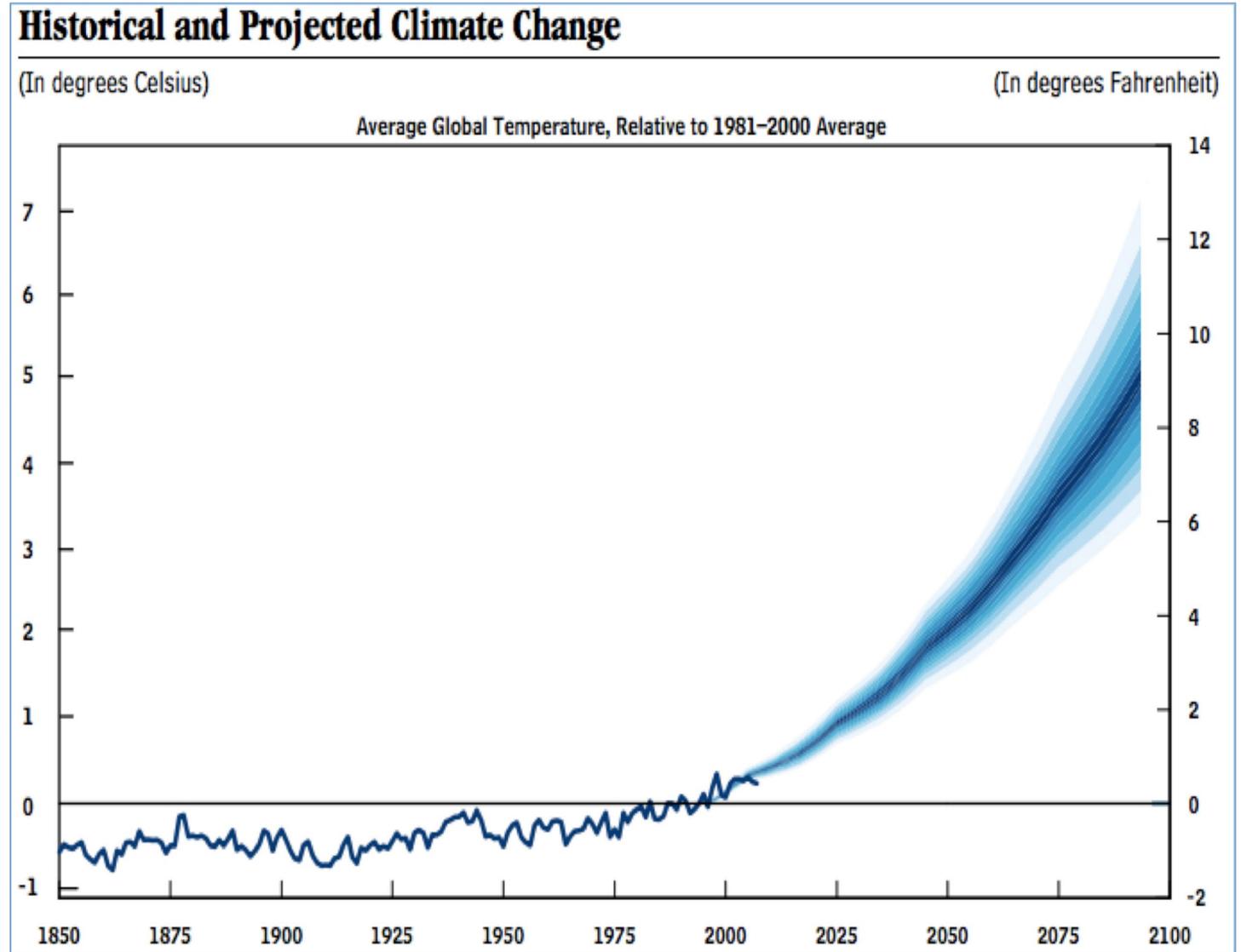
Earth overshoot

If everyone lived like us we would need 2.3 Earths

(this is an old graph but the message is still valid)

1960-2008
- ■ Ecological Footprint

2008-2050, Scenarios
- ■ Moderate business-as-usual
- ■ Rapid reduction
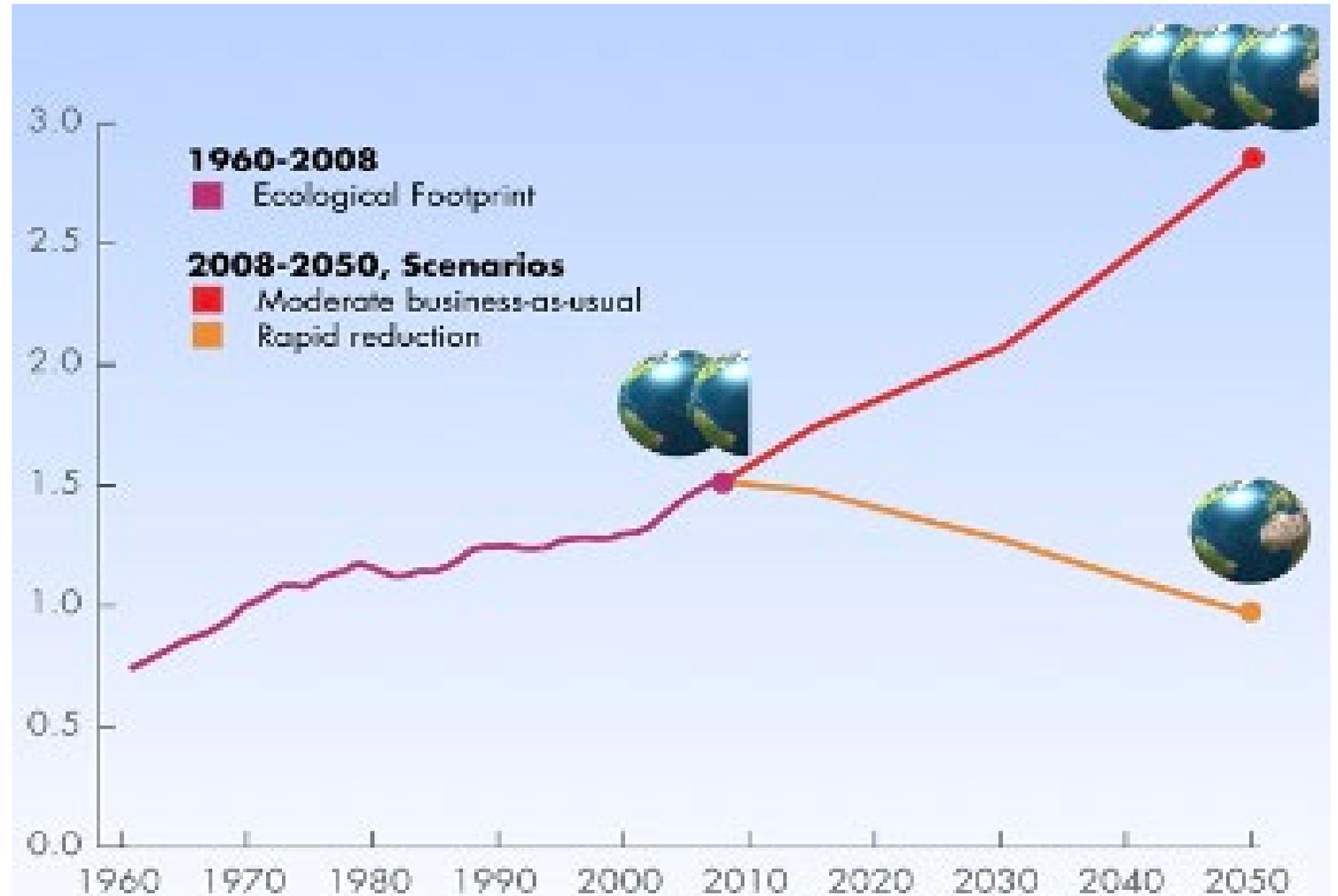
y-axis: number of planet earths, x-axis: years

Limits to Growth
Club of Rome

In 1972 Donella Meadows published:
"A Report for the Club of Rome's Project on the Predicament of Mankind."

The Limits to Growth.

It studied the patterns and dynamics of human presence on earth and predicted environmental and economic collapse within a century if "business as usual" continued.
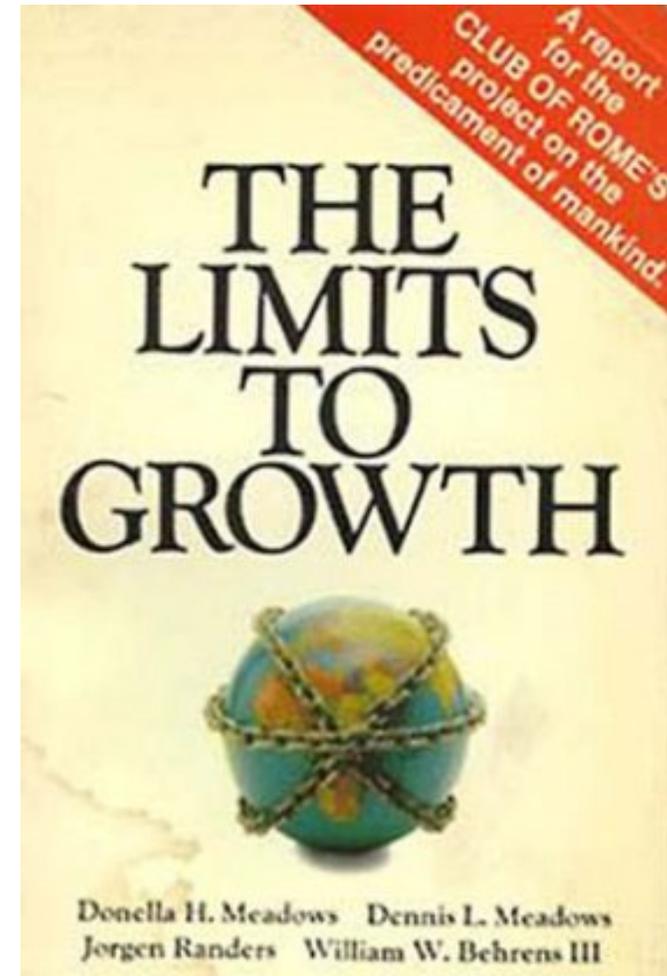
Gro Harlem Bruntland
October 1987

- Former Norwegian PM

- Chair of the World Commission on Environment and Development

- Produced a report - 'Our Common Future' - that became known as the Bruntland Report

- Defined Sustainability for the first time

- Big International impact
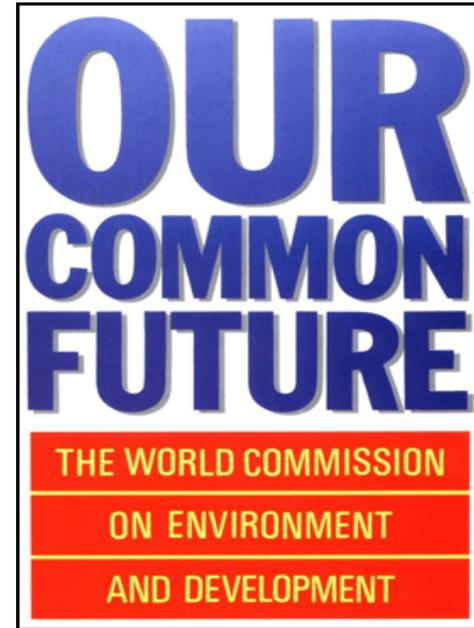
What is Sustainability(1)?

There is no simple answer.

Bruntland's definition is the most widely- used today and is still as relevant as it was 40 years ago:

"Development which meets the needs of the present without compromising the ability of future generations to meet their own needs"

What is Sustainability(2)?

These are some others:

- To create and maintain the conditions under which humans and nature can exist in productive harmony

- An inclusive way, encompassing human and ecological health, social injustice, secure livelihoods, and a better world for future generations

- The need to ensure a better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems

- Does/Should the UoC have its own definition?
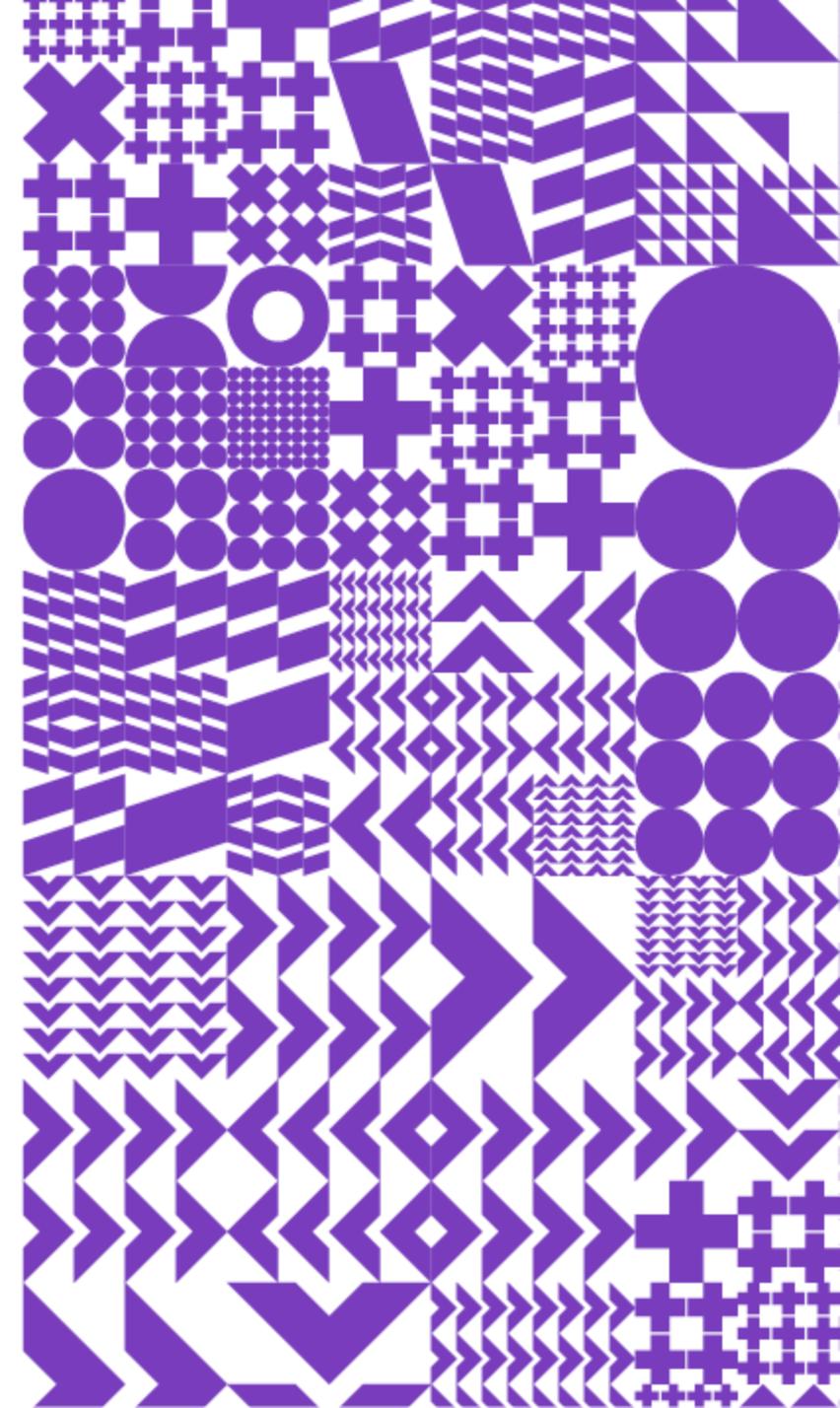
International Movement

'Limits to Growth' had a profound impact. As did Barbara Ward's book in 1972 : "Only One Earth: The Care and Maintenance of a Small Planet". She founded IIED.

A series of UN Conferences followed:

- 1972: Stockholm.

- 1992: Rio, Earth Summit. 178 World leaders. Agreed Agenda 21/Local Agenda 21s.

- 1995 Berlin. First Climate COP on Climate Change.

- 2000: Millenium Summit. New York. Defined 8 MDGs, to be achieved by 2015

- 2015. New York. Agreed 17 SDGs, to be achieved by 2030. (Climate Action is no 13).

- Attended COP15 in Paris in 2021. Milestone decision

My personal Earth Pledge at Rio, 1992

- I represented the European Commission as their Environment and Development specialist .

- Worked in a container from 06.30 to 21.00 every day, hammering out text on the 0.7% GNP Aid obligation

- I think the Pledge is still at UNEP in Nairobi
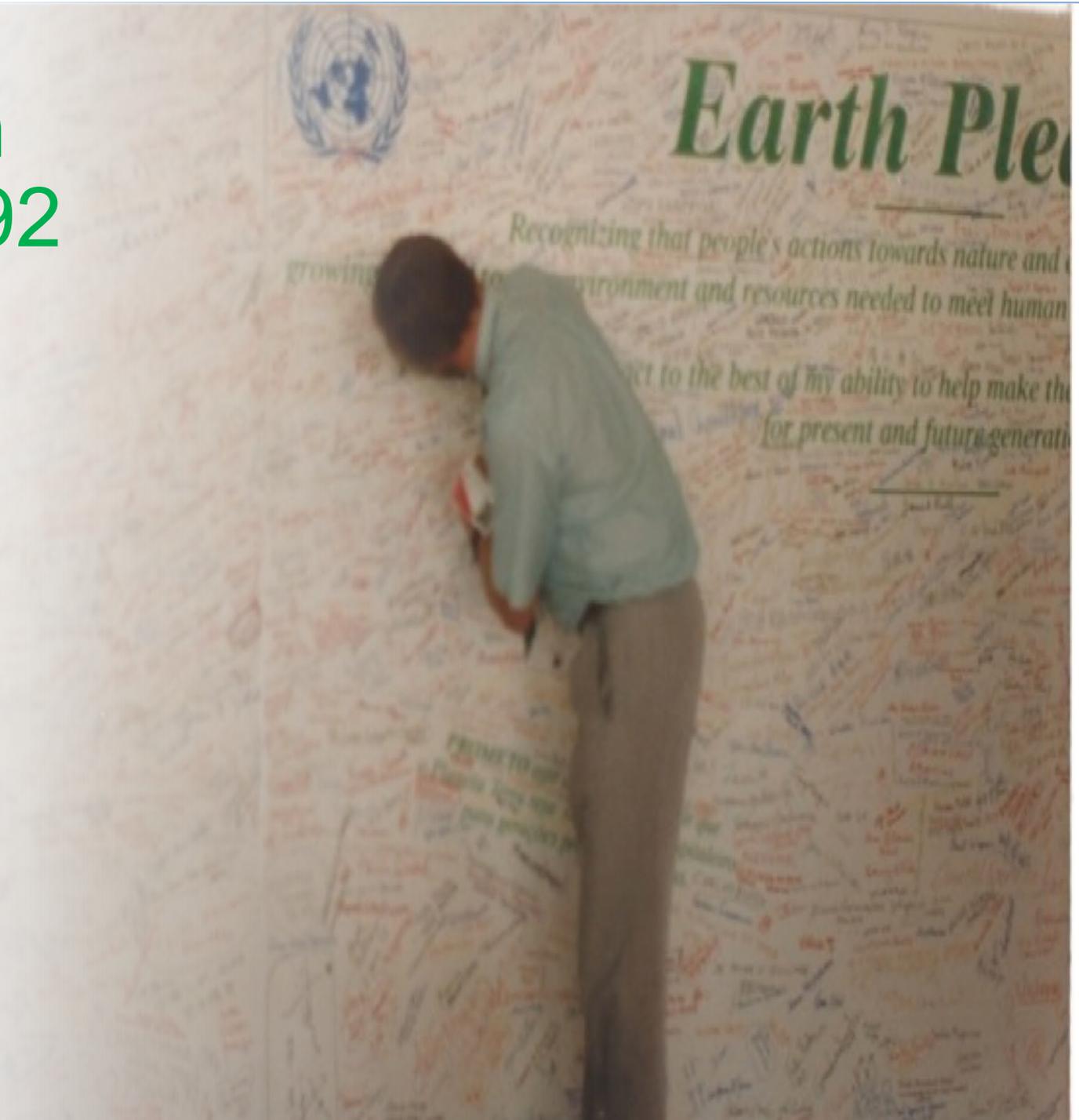
Rio +20

Building Our Common Future

Assessment of progress over 20 years

Millenium Development Goals

- UN Millenium Summit. 2000

- Targeted achievement of 8 MDGs by September 2015. These included:

- Eradicate Extreme Poverty and Hunger

- Achieve Universal Primary Education

- Promote Gender Equality etc.

Global Sustainable Development Report 2023

- Followed by definition of 17 SDGs, to be achieved by 2030
- Latest UN report on the state of execution of the SDGs produced in 2023.

TIMES OF CRISIS, TIMES OF CHANGE
SCIENCE FOR ACCELERATING TRANSFORMATIONS TO SUSTAINABLE DEVELOPMENT
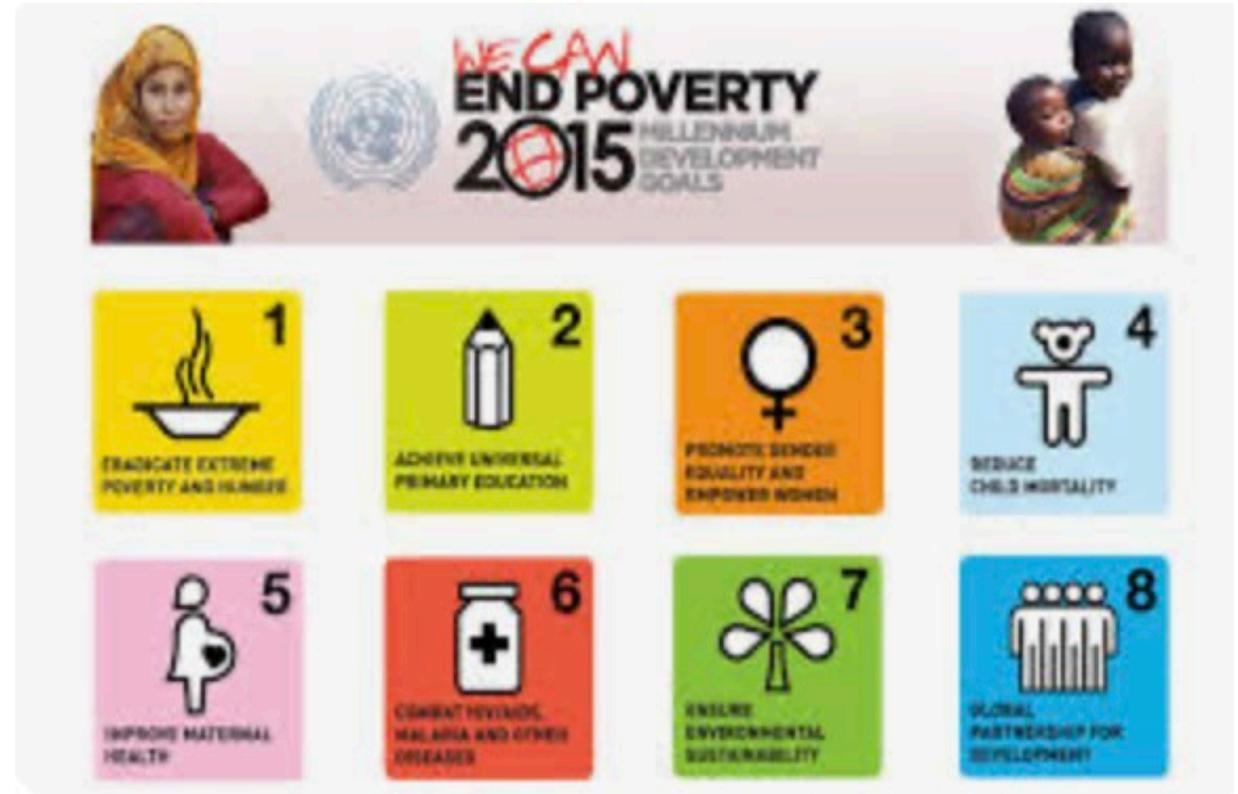
GLOBAL SUSTAINABLE DEVELOPMENT REPORT 2023
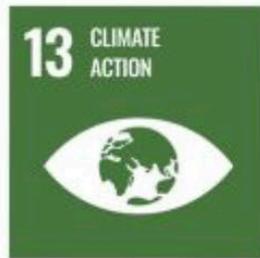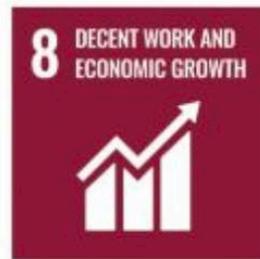
The report paints a rather depressing picture of where we are, in terms of hitting 2030 SDG targets

Green= On track
Orange = Partly on track
Red = Off track

CURRENT STATE OF PROGRESS TOWARD THE SUSTAINABLE DEVELOPMENT GOALS BASED ON SELECT TARGETS

The Plundered Planet

In May 2010 Paul Collier produced a highly charged analysis, questioning how to reconcile the unchecked profiteering and corruption - by individuals, corporations and governments - that posed existential threats- to human survival.
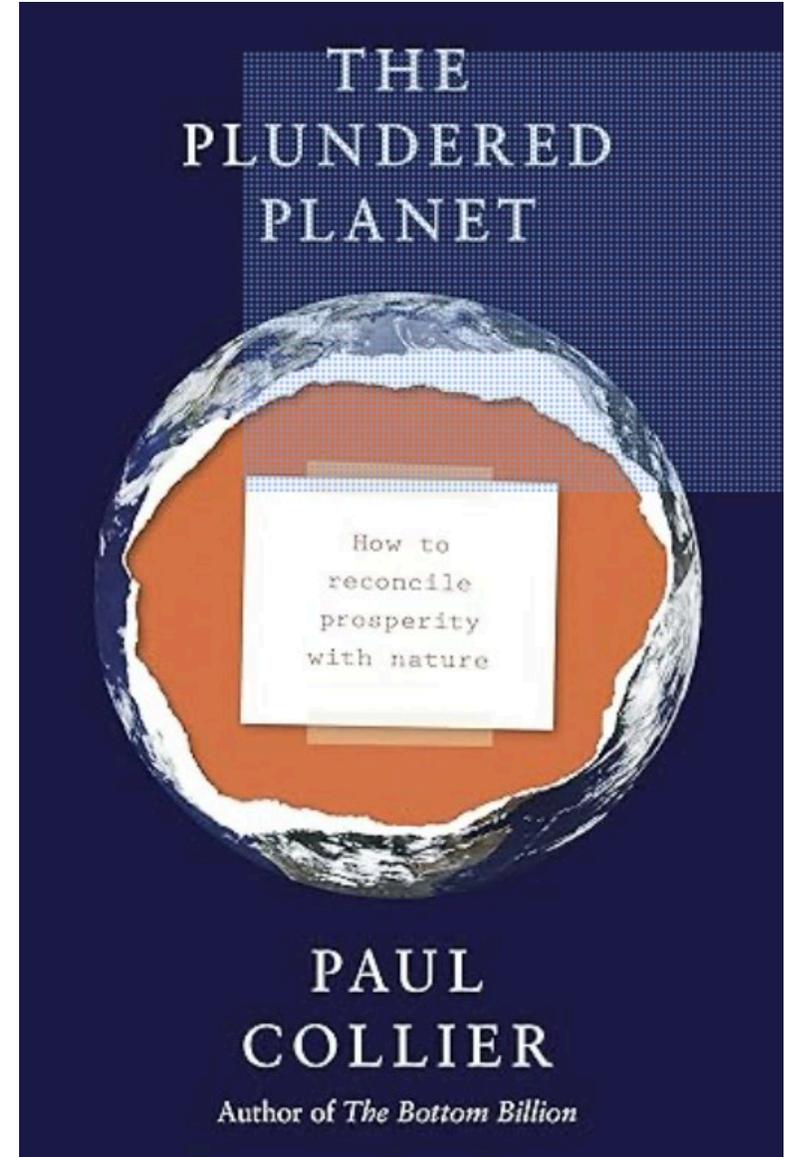
The War Below

- Published Jan 2024
- Shows major issue of availability of precious metals needed for modern technology

'Takes readers on an extraordinary journey from the bottom of the world's deepest mines to the commanding heights of the world's energy system ... essential reading' Chris Miller, author of *Chip War: The Fight for the World's Most Critical Technology*

THE WAR BELOW

Lithium, Copper, and the Global Battle to Power Our Lives

ERNEST SCHEYDER
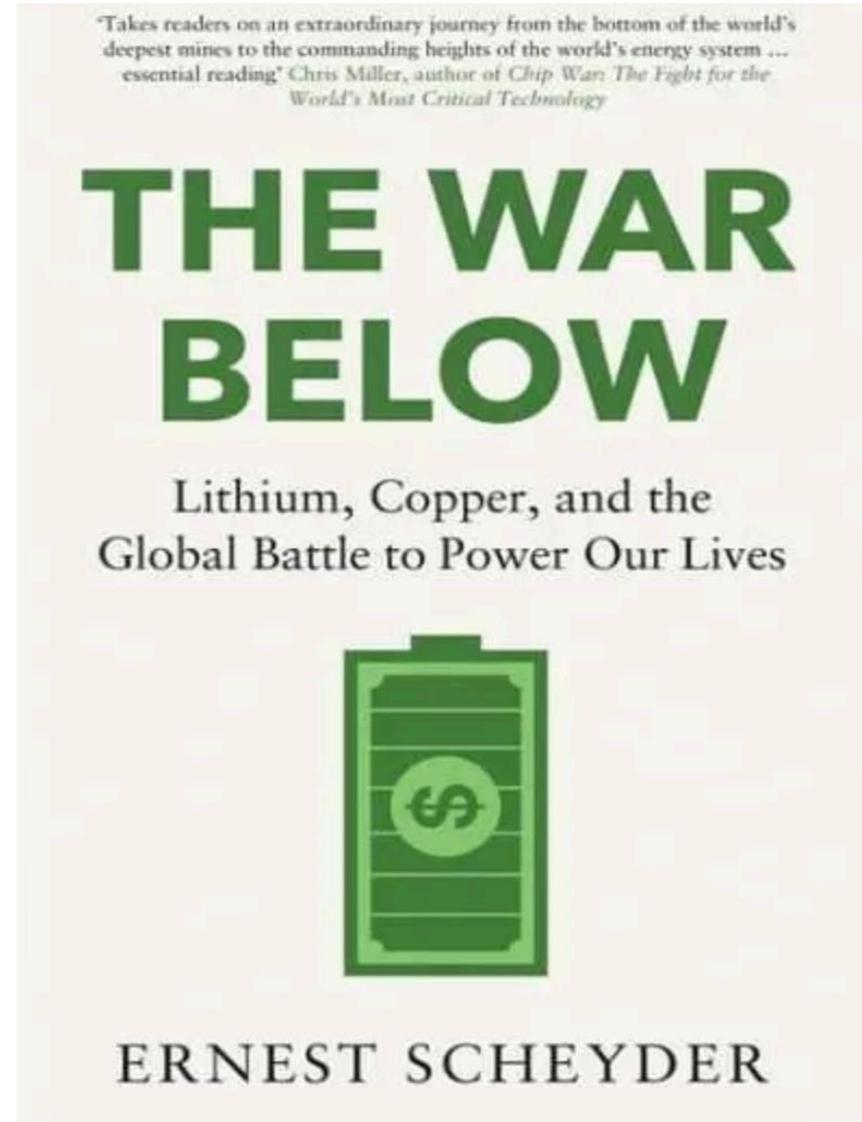
World Business Council on Sustainability

- Meeting their President & CEO (since 2012) Peter Bakker in Geneva

- Over 225 major businesses have signed up

- Unilever's former boss, Paul Polman, has been one of the key players, in COP and other debates

- In practice, little obvious impact, mainly advisory

Where do I fit into the Sustainability story?

- Passionate supporter of sustainability since University days. It's in my blood and my DNA. Ecologist

- Personal icons: Rachel Carson, Fritz Schumacher, Nelson Mandela

- Primary interests: Europe, Africa, Environment

- Wildlife Campaigner for Friends of the Earth. 1978-1980

- Fisheries Adviser European Commission (EC).1980-1986

- Environment Focal Point EC 1990-1993

- Human Rights, Governance, Civil Society 1998-2004

- EU Ambassador to the AU, Ethiopia, Tanzania, IGAD, EAC, Djibouti. 2004-2011. Lived in Africa 12 yrs, visited 45 states.

- 'Retired' 2013
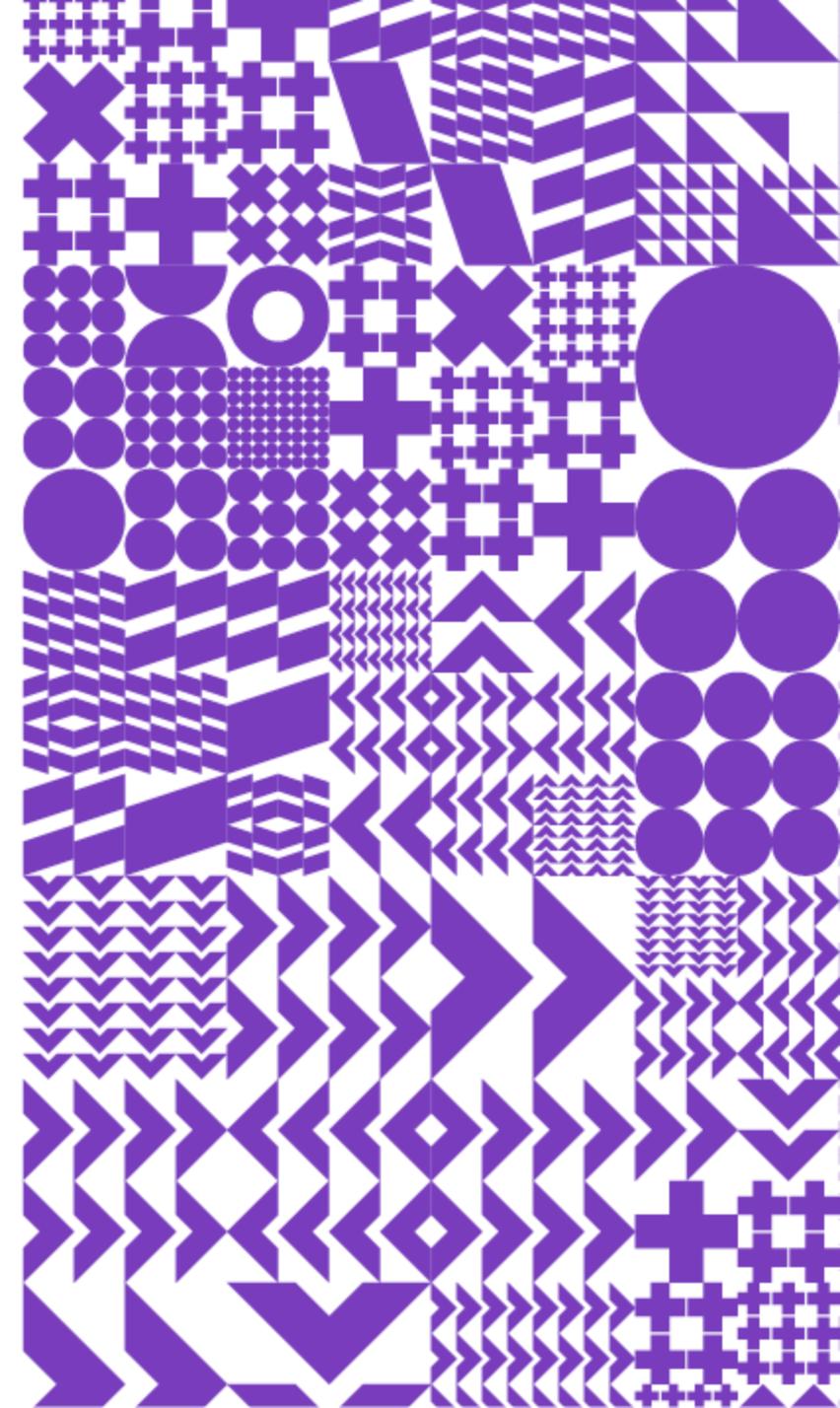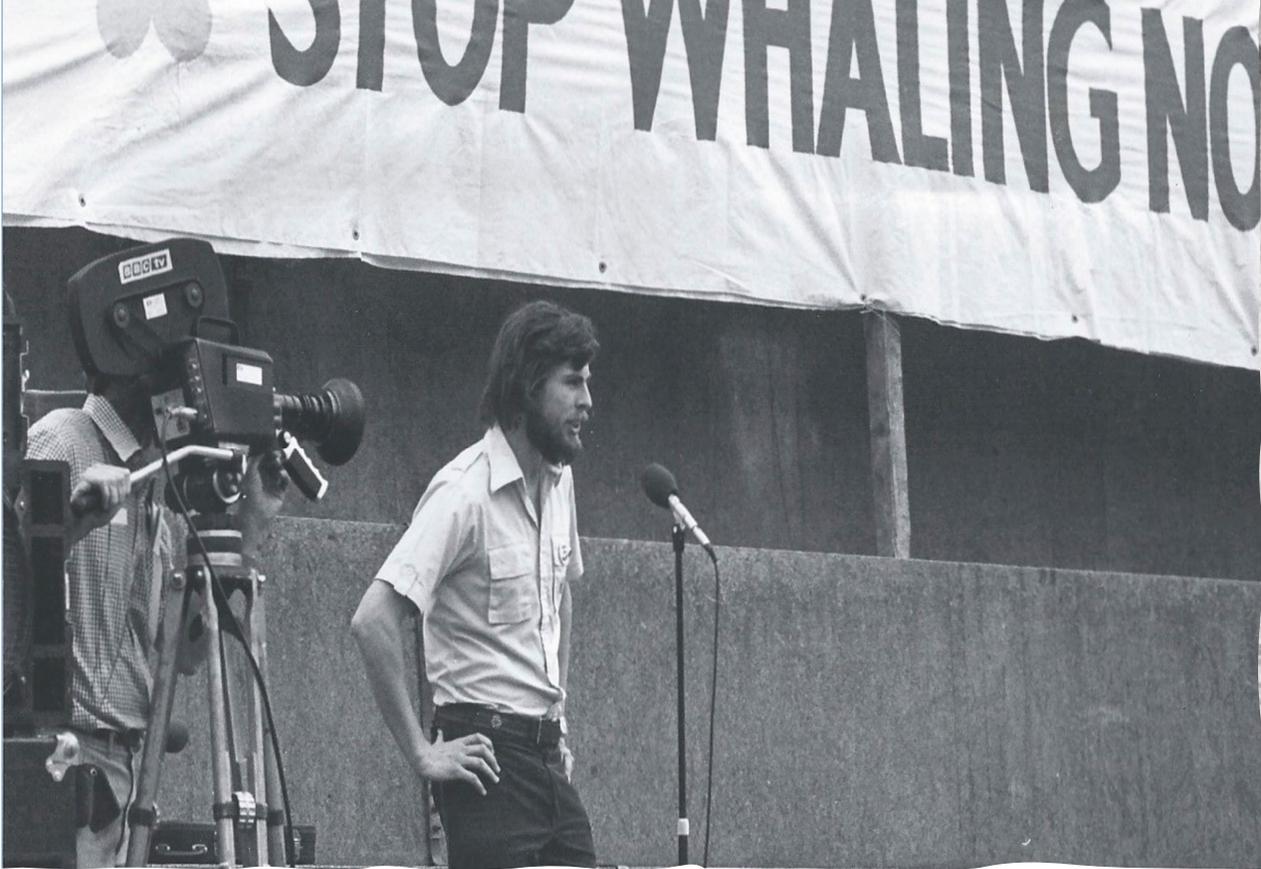
Save the Whales

- FoE Wildlife Campaigner

- Whale Rally in Trafalgar Square (Bob Geldof, Joanna Lumley etc)

- Whale 'Demonstration' on behalf of Whales, Brighton. Lobbying the International Whaling Commission

- Campaigning on Habitats and Endangered species

Iconic campaigner against the use of pesticides (DDT)

Small is Beautiful

- Economist at the UK Coal Board

- Iconic leader of the Small is Beautiful Movement movement
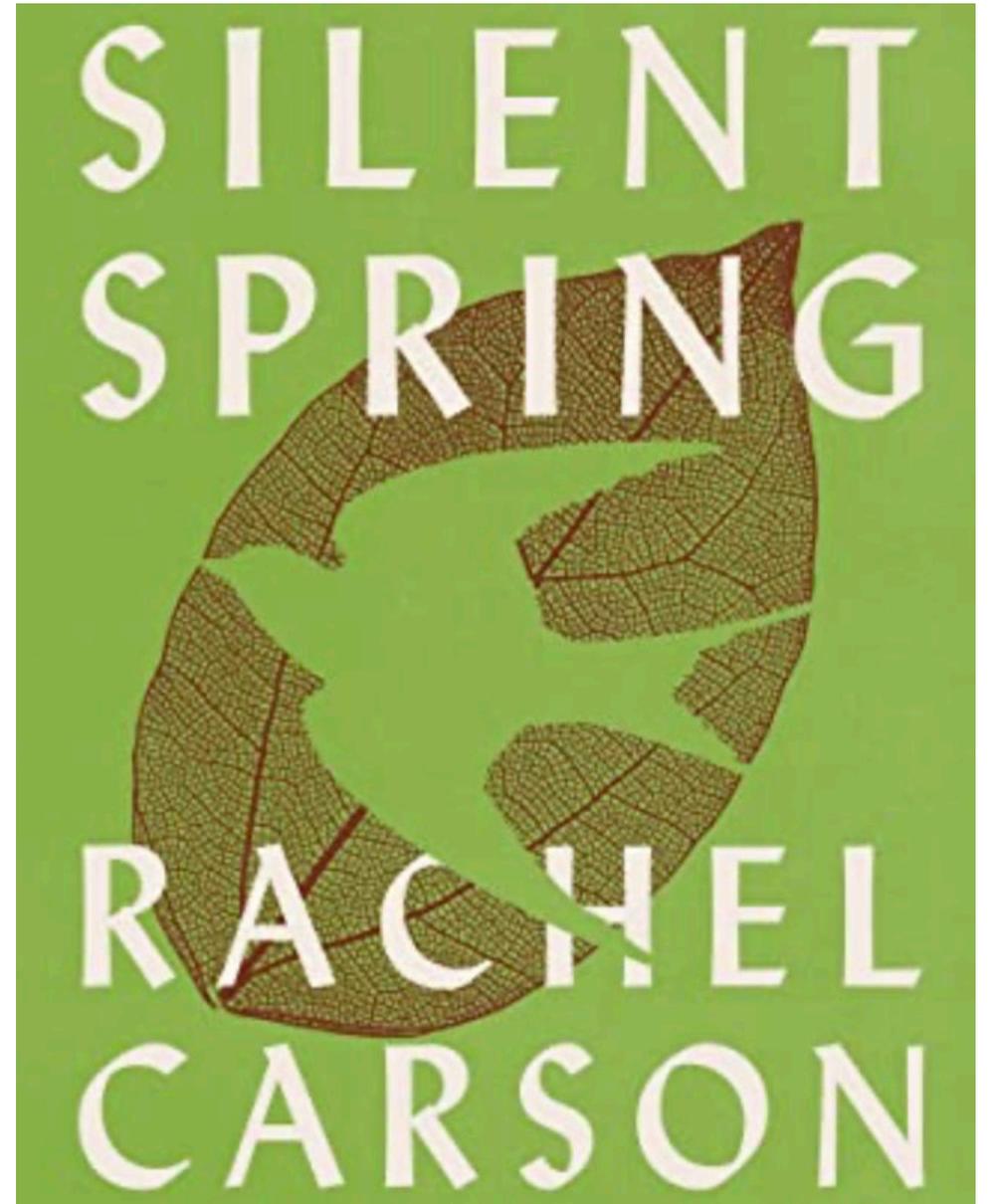
- NB his reference to 'A study of Economics *as if people mattered*'

- Appropriate technology

Nelson Mandela

Iconic, Inspirational African leader

This photo is on my laptop screen saver

Prof Mike Berners-Lee
There is No Planet B

Lancaster–based researcher who has dedicated his life to changing the attitudes of industry, notably the fossil-fuel industries, and businesses

Amy Bray

Founder of Another Way

Cumbrian Woman of the Year at the age of 16

A personal mission dedicated to changing people's attitudes to waste, consumerism, food, energy

Her Vision: A united world in which communities are inspired to live sustainably

You'll hear from her in a minute

Current Activities

- Volunteer, *pro bono* work for NGOs and universities

- Main interests: sustainability; climate change; biodiversity; heritage; empowerment of women; culture; ……and grandchildren

- Ullswater Valley's Heritage, Community, Conservation

- Try to help build a Sustainability reflex across the University of Cumbria

- Create with 13 African Universities, the Africa SDG Centre and GAIA Education, an Africa Climate Change and SDG MOOC – hopefully to be ultimately rolled out by most African universities and reach 20 million students. Concept launched COP28, Dubai.

New paradigms?
Doughnut Economics?
Circular Economics?

Kate Raworth's inspirational attempt to try to change the 'classic' capitalist paradigm

The concept envisages sustainable development as representing 'a safe and just space for humanity' between planetary and social boundaries.

Doughnut economics

This diagram illustrates where the boundaries are being broken, potentially in an irreversible way
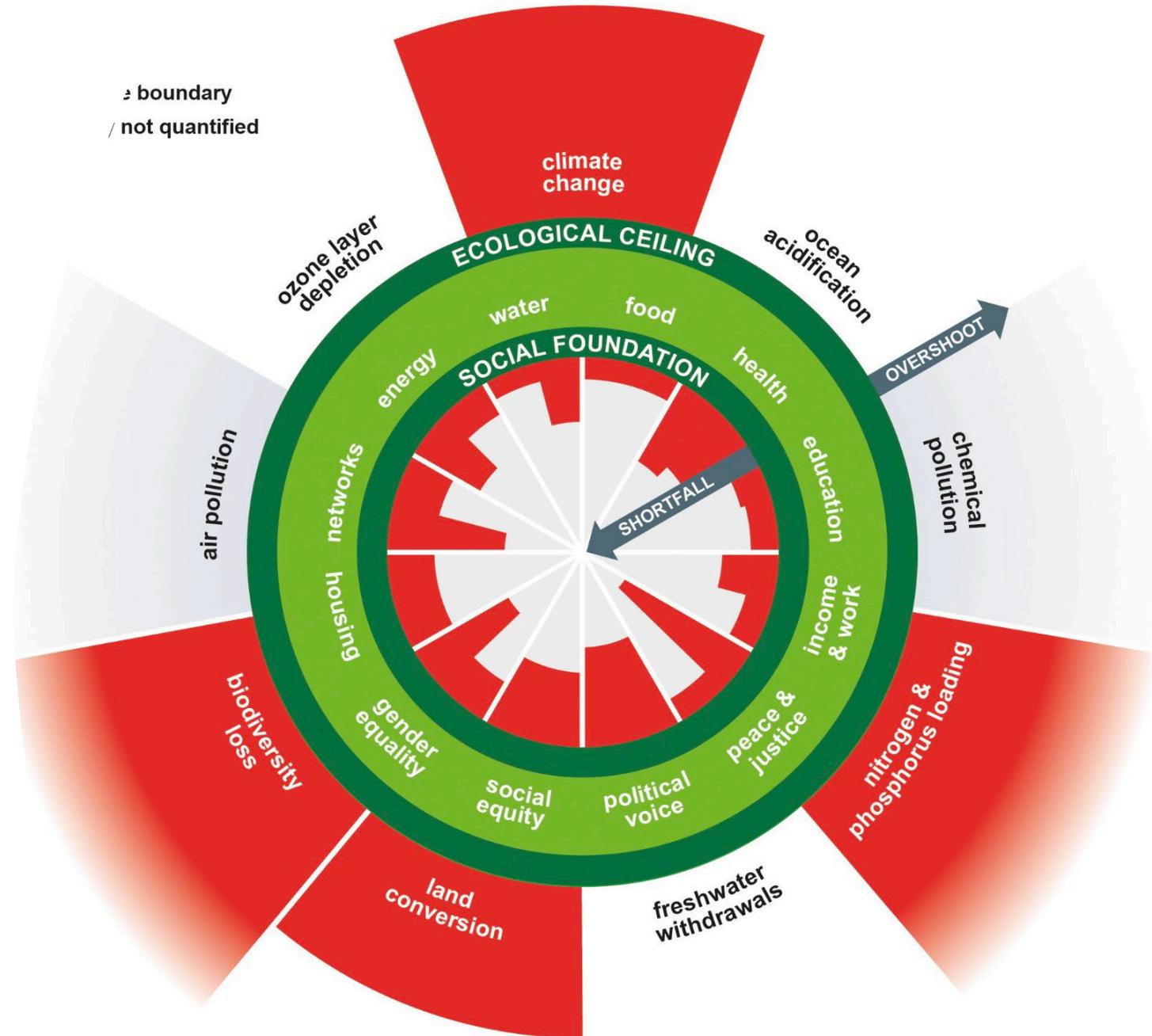
It's time for a circular economy

Through design, we can eliminate waste and pollution, circulate products and materials, and regenerate nature, creating an economy that benefits people, business, and the natural world.

Promoting the Circular Economy

Hugely impressive efforts led by the EU and some NGOs such as the Ellen MacArthur Institute, to completely change current paradigms.

A Circular economy is regenerative, reduces demand for raw materials, promotes re-use and recycling and eliminates waste.

The Czech car producer Škoda has already achieved the feat of ensuring 95% recyclable and reusable materials in their cars.

Living Sustainably –
some individual attempts to 'walk the talk'

- Reduce WASTE. Recycle

- Reduce WATER use

- Use SOLAR Power.

- Insulate

- Make COMPOST

- Grow your own FOOD

- Cut down MEAT – at least 95% Vegetarian
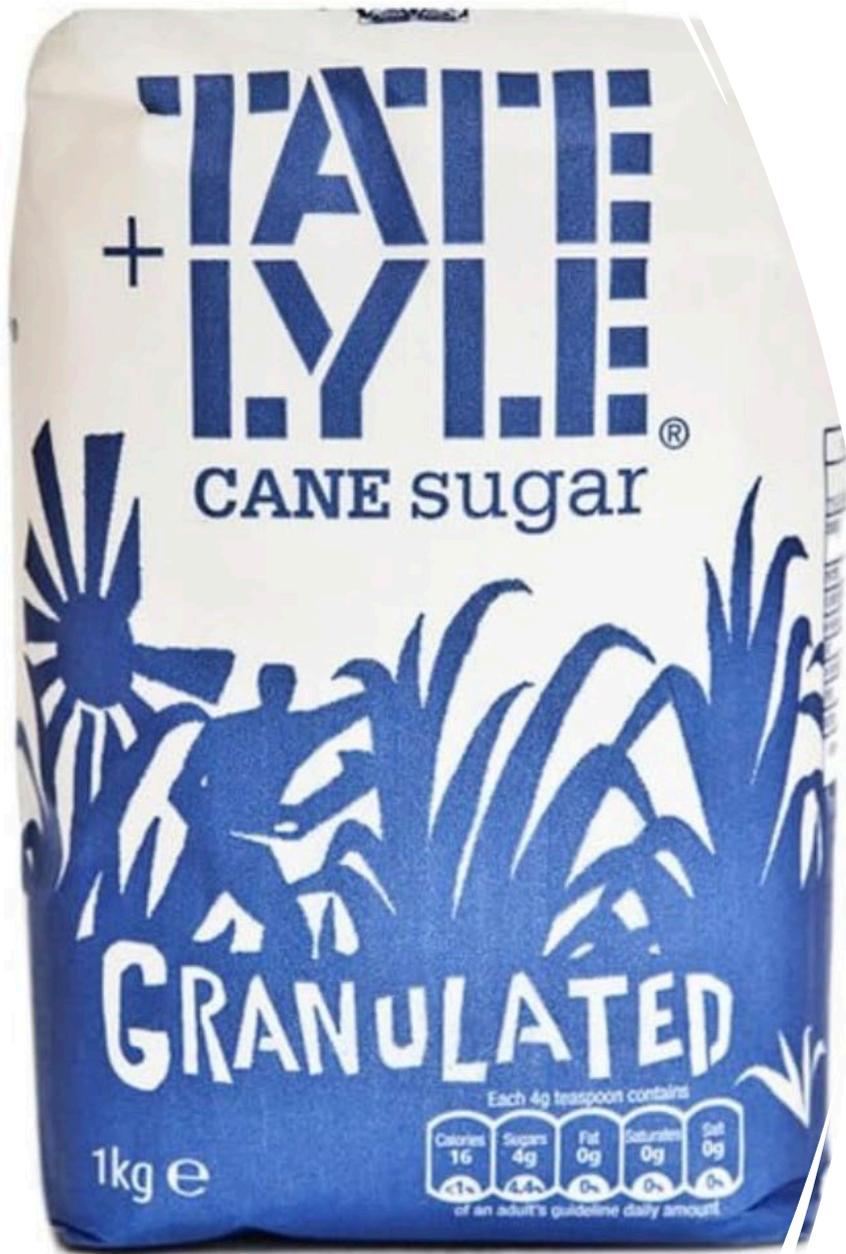
Waste not, want not

- I throw away to landfill 1 kg/week. (equivalent to this bag of sugar). The rest is recycled, composted etc

- The average production of waste/person in Cumbria is 420kg/yr – x 8 this figure

One cubic metre of water saved per week

- As a family of 4 in Brussels we saved 1 cubic metre of water per week

- Where I live in Patterdale there is no water metre so it is difficult to measure usage.

- Average water us /person in Cumbria is 141 litres/day i.e. Cumbrian target is to reduce it to 100 litres/day

- An average of 12litres of water/person/day is lost brushing teeth

- A 10 min shower uses about 100 litres of water

Make Compost - it's not hard

My compost heaps.

Nothing very grand.

Massive numbers of worms, without really trying

Courgettes are easy pickings for non-gardeners

Solar power

- Installed March 2022

- I measure kWh production every day. Varies from 0 kWh/day to 46 kWh/day. To date, have produced 9,500 kWh

- Average use about 16 kWh/day

- Pay back period 3 years - much faster than I expected.

New EV in March

- Nice to run a car on your own Solar power.

- Fully charged should do 225 miles, about 10 hours charging from zero

- Cost – very cheap about £1 for 30 miles

Recycling

- I recycle paper, plastic, cans, glass

- No real idea what the commune does with it all. Having seen the state of the Council recycling containers I seriously wonder what gets dumped directly in landfill.

I too had a dream – my Martin Luther King Moment.

In a tiny, destitute Tanzanian village I dreamt of creating eco-community projects based on sustainable development.

Led to the launch of an Ecovillage project in 5 villages in 2011, a first for the EU in Africa - and globally.

I Have A Dream
Martin Luther King, Jr.

"EVERYBODY CAN BE GREAT...BECAUSE ANYBODY CAN SERVE. YOU DON'T HAVE TO HAVE A COLLEGE DEGREE TO SERVE. YOU DON'T HAVE TO MAKE YOUR SUBJECT AND VERB AGREE TO SERVE. YOU ONLY NEED A HEART FULL OF GRACE. A SOUL GENERATED BY LOVE."

- DR. MARTIN LUTHER KING JR.
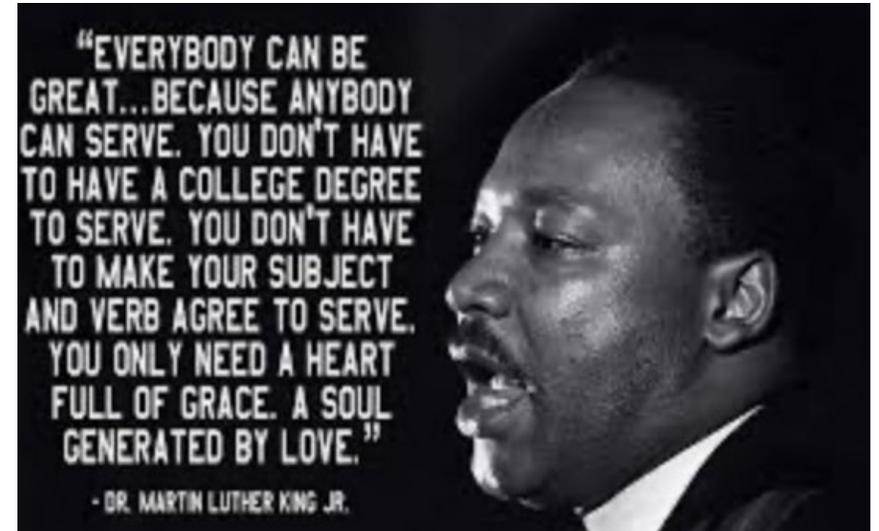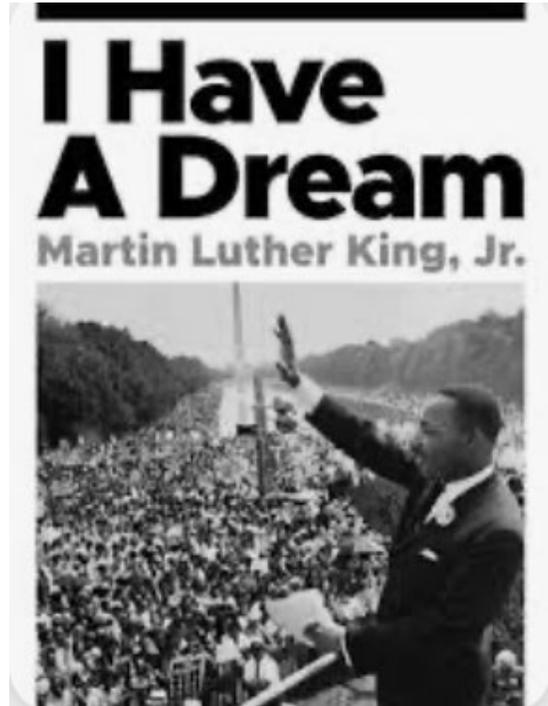
Sustainability at Community level

Examples from Africa and the UK

- 2 examples from Tanzania: Chololo, Chumbe Island. I have many, many more

- Findhorn, Scotland

- Great local examples in the Ullswater valley
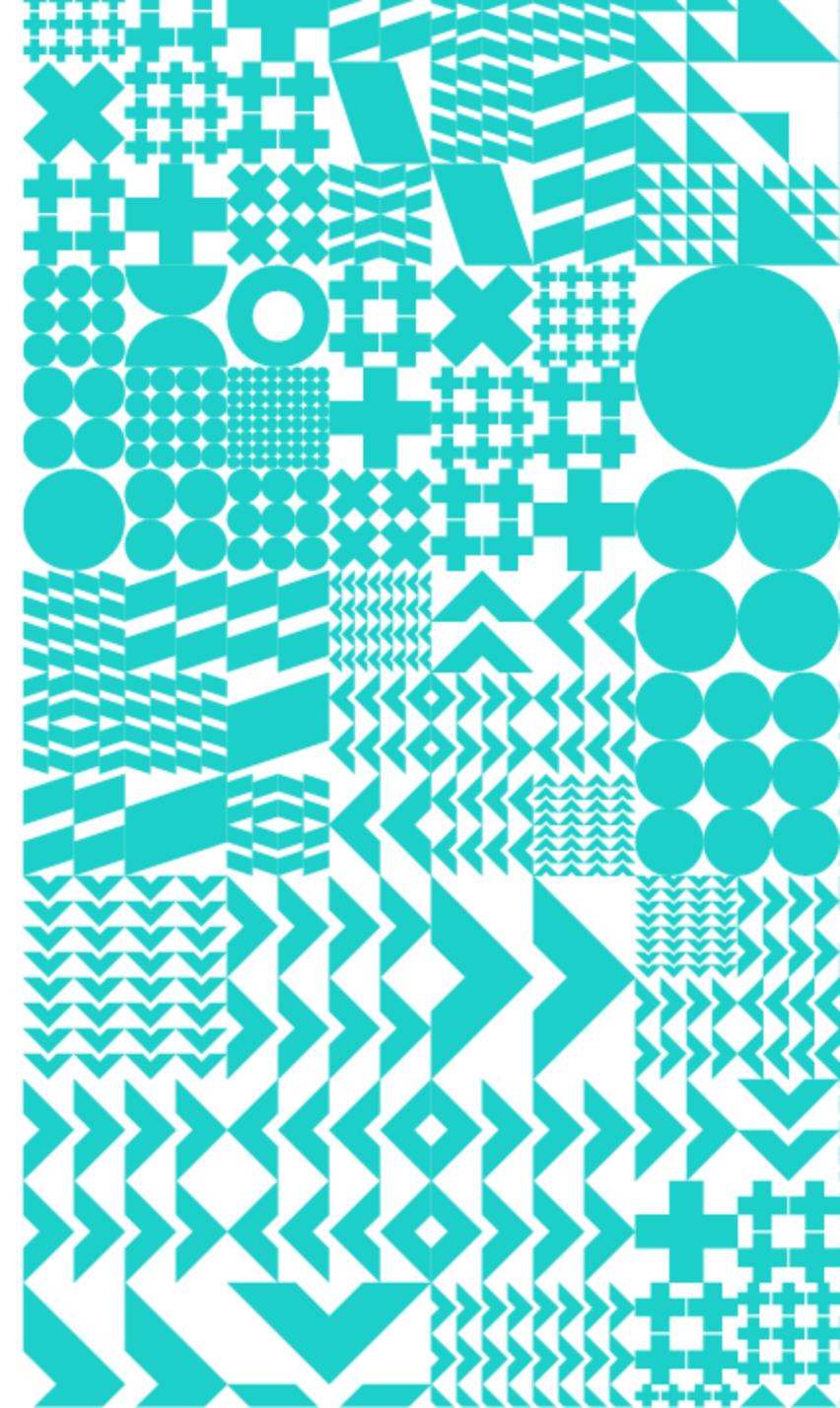
Tanzania Ecovillage programme

- Chololo, Pemba, Morogoro, Usambaras

- Aimed at the poorest of the poor, living in the most difficult and deprived conditions

Banner text: UZINDUZI WA MRADI WA KUKABILIANA NA ATHARI ZA MABADILIKO YA TABIA NCHI CHOLOLO-TAREHE 21 10 2011
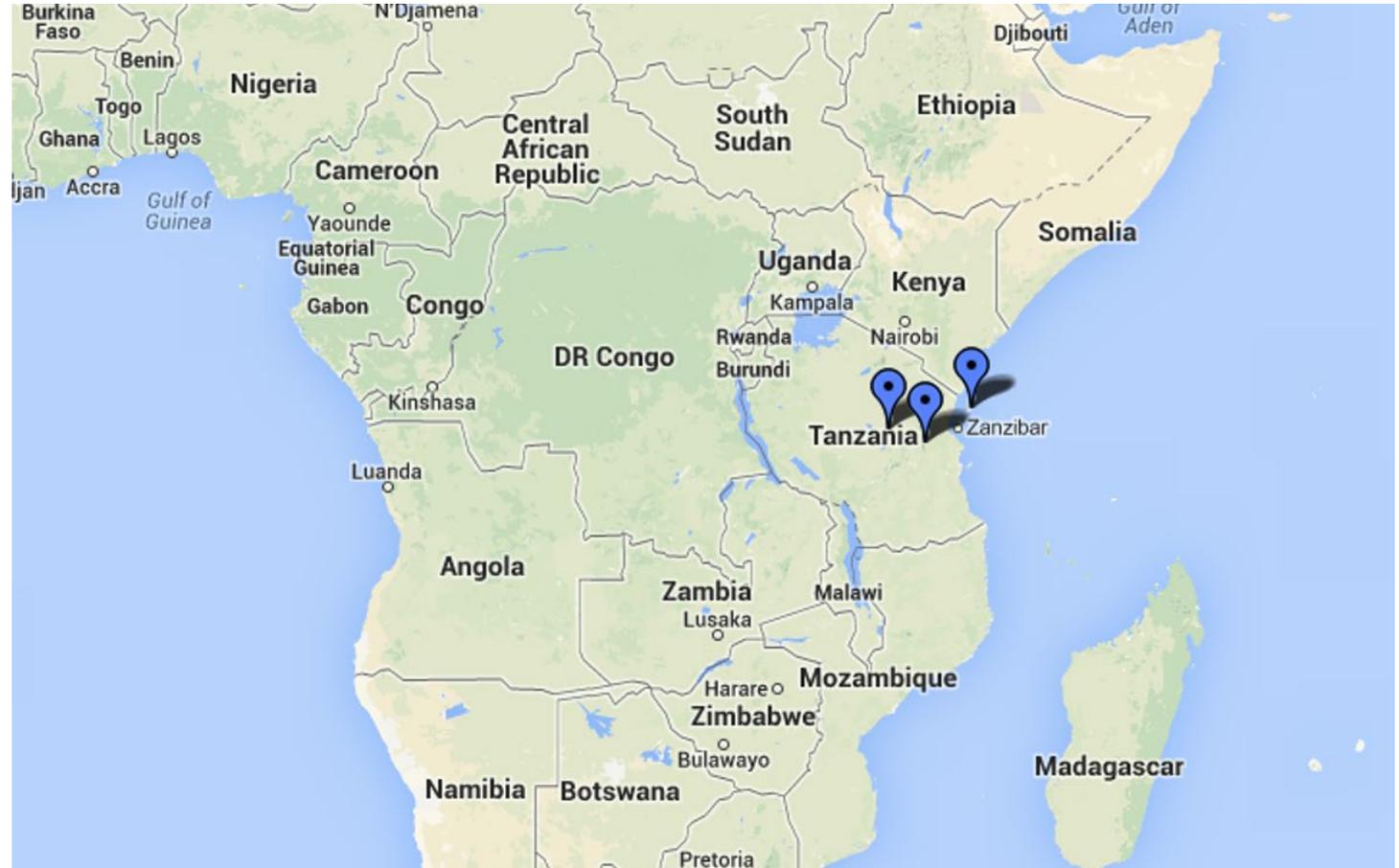
Chololo Ecovillage

A+++ project located in one of the driest and poorest areas of Tanzania.

Over 20 new technologies introduced to build sustainable livelihoods – water harvesting and storage, solar, improved breeds of goats etc

Biogas from cows

- Has proved very successful. Fuel piped directly to her home – no deforestation, no back-breaking work carrying fuel wood

- Extra whammy: compost

- NB Highly innovative projects of this sort introduced by Finnish aid in Ethiopia – biogas from human excrement in prisons, hospitals etc

Chololo water storage underground and water harvesting

- 60,000 litre capacity tanks made by villagers themselves

- Water harvested from run off from schools and all public buildings

- Has revolutionized health care

CHUMBE ISLAND

World's First Privately Managed Marine Protected Area

Chumbe is an internationally acclaimed conservation area with a fully protected Coral Reef Sanctuary and Forest Reserve.

We are a not-for-profit enterprise established in 1992. 100% of the money visitors pay to the island is used to support our three pillars. Thanks to your support, we are the first financially self-sustaining protected area in the world.

Chumbe ni eneo la uhifadhi linalosifiwa kimataifa, kuhifadhi miamba na msitu iliyolindwa kikamilifu.

Sisi ni biashara isiyo ya faida iliyoanzishwa mwaka wa 1992. Asili mia 100 ya pesa zinazolipwa na wageni wanaokuja kisiwani hutumika kuunga mkono Nguzo zetu Tatu. Asante kwa kutuunga mkono, sisi tumekuwa ndio eneo la kwanza lenye ulinzi wa kujikimu kiuchumi duniani.

OUR THREE PILLARS

Conservation

The Chumbe Marine Protected Area (MPA) is considered as the most effectively managed area, with a unique refuge in Africa. Host to rare and endangered species vital for persevering biodiversity. Through the Chumbe Team's successful long-term engagement in collaboration with the Government of Zanzibar, the island is formally regulated with The International Union for Conservation of Nature (ICUN).

Education

Our extensive Environmental Education programme provides training to school students, community members and government staff. Operational for ~30 years to inspire stewardship over Zanzibar's natural heritage and empower society to address local and global environmental challenges.

Ecotourism

Our award-winning operations embody true ecotourism principles—engaging local communities, ensuring that tourism has no environmental impact, and providing an authentic back-to-nature experience.

NGUZO ZETU TATU

Uhifadhi

Eneo la bahari ya chumbe Lililolindwa (MPA) linasifiwa kama eneo lenye ufanisi wa hali ya juu linalosimamia bionuwai kwa ufanisi zaidi barani Afrika. Ni mwenyeji wa spishi adimu na zilizo hatarini kutoweka, Muhimu kwa kuhifadhi bioanuwai. Kupitia usimamizi wa muda mrefu wa Timu ya Chumbe kwa ushirikiano na Serikali ya Zanzibar, kisiwa hiki kimesajiliwa rasmi na Umoja wa Kimataifa wa Uhifadhi wa Mazingira (IUCN).

Elimu

Mpango wetu mpana wa Elimu ya Mazingira hutoa mafunzo kwa wanafunzi wa shule, wanajamii na wafanyakazi wa serikali. Programu yetu imekuwa ikifanya kazi kwa zaidi ya – miaka 30 ili kuhamasisha uwakili juu ya urithi wa asili wa Zanzibar na kuwezesha jamii kushughulikia changamoto za kimazingira za ndani na kimataifa.

Utalii wa mazingira

Shughuli zetu ambazo zimeshinda tuzo zinajumuisha kanuni za kweli za utalii wa ikolojia-kushirikisha jamii, kuhakikisha ahughuli za kitalii hazina athari! kubwa kwenye mazingira kukaribia asilimia 0%, na kutoa uzoefu halisi wa asili.

CONSERVATION · EDUCATION · ECOTOURISM

THE CHUMBE CONCEPT

Chumbe is a project for local people, by local people.

The brainchild of Social Entrepreneur and CHICOP Founder and Director Sibylle Riedmiller, a former German aid worker, her intent is to protect the island's biodiversity for present and future generations and support environmental education across the region. Supported by British-born conservationists Eleanor Carter (Co-Director), they developed participative partnerships with nearby communities and engaged local people in the project's design, development and establishment.

We recruit staff from nearby communities, including rangers and educators (mostly former fishers). Their tireless outreach and training efforts ensure wider society is aware of the benefits of protecting biodiversity. Village leaders, elders, government and local academics are engaged in management planning through an Advisory Committee, and the project generates income opportunities for local farmers, fishers, artisans and craftspeople.

Many of our team who you will meet on the island have been with Chumbe since the early years.

Chumbe ni mradi wa watu wa ndani, kwa watu wa ndani.

Mradi huu ulikuwa chimbuko la Mjasiriamali wa Kijamii na Mwanzilishi na CHICOP na Mkurugenzi Sibylle Riedmiller, mfanyakazi wa zamani wa kijerumani wa kazi za misaada. Nia yake ni kulinda bioanuwai ya kisiwa hicho kwa vizazi vya sasa na vijavyo na kuasidia elimu ya mazingira katika eneo lote. Wakiungwa mkono na mhifadhi mzaliwa wa Uingereza Eleanor Carter (Mkurugenzi-Mwenza), walianzisha ushirikiano shirikishi na jumuiya za karibu na kuwashirikisha wenyeji katika kubuni, maendeleo na uanzishaji wa mradi.

Tunaajiri wafanyakazi kutoka kwa jamii zilizo karibu, pamoja na walinzi na waelimishaji (hasa wavuvi wa zamani). Juhudi zao za uhamasishaji na mafunzo bila kuchoka huhakikisha jamii pana inafahamu manufaa ya kulinda viumbe hai. Viongozi wa vijiji, wazee, wasomi wa serikali na wenyeji wanajishughulisha na mipango ya usimamizi kupitia Kamati ya Ushauri, na mradi hutoa fursa za mapato kwa wakulima wa ndani, wavuvi, wasanii na wechongaji.

Watu wengi wa timu yetu ambao utakutana nao kisiwani wamekuwa na Chumbe tangu miaka ya mwanzoni.

ENVIRONMENTAL INTEGRITY

The Chumbe MPA is a Learning Center of Environmental Excellence for local visitors and domestic and international tourists. All operations and infrastructure are ecologically sustainable to preserve the MPA environment and educate visitors about responsible and promote sustainable living.

WATER is collected from rainfall, with the eco-bungalows' and Education Centre's large surface areas maximizing catch. The rainwater is channeled and cleaned through natural filters and stored in large cisterns to provide water for the bathroom taps and shower units throughout the year (heated by solar panels).

WASTE is carefully managed through the supply chain. We avoid non-recyclable packaging and use reusable, locally made bags and baskets to transport goods. Our non-organic waste (e.g., bottles and jars) is recycled or repurposed, and organic waste is composted.

WASTEWATER is channelled through slow-release sprinkler systems into enclosed, clay-lined 'gardens' where the plants absorb phosphates and nitrates through evapo-transpiration. Advanced composting toilets ensure no human waste enters the environment.

ENERGY is 100% renewable, provided by photovoltaic solar panels with energy-saving systems. Building design optimizes the through-flow of sea breezes to negate the need for air conditioners.

MPA ya Chumbe ni Kituo cha chenye ubora wa Kujifunzia Mazingira kwa wageni na watalii wa ndani na wa kimataifa. Shughuli zote na miundombinu ni endelevu kiikolojia ili kuhifadhi mazingira ya MPA na kuelimisha wageni kuhusu na kukuza maisha endelevu.

MAJI hukusanywa kutokana na mvua, pia kuna Maeneo makubwa ya Vibanda vya kiekolojia na Kituo cha Elimu yanaongeza upatikanaji wa maji. Maji ya mvua huelekezwa na kusafishwa kupitia vichungi vya asili na kuhifadhiwa kwenye mahodhi makubwa ili kutoa maji kwa bomba la bafuni na sehemu za kuoga kwa muda mzima (maji hupashwa moto na paneli za jua).

TAKA hudhibitiwa kwa uangalifu kupitia mnyororo wa usambazaji. Tunaepuka vifungashio visivyoweza kutumika tena, tunatumia mikoba na vikapu vilivyotengenezwa nchini kusafirisha bidhaa. Taka zetu zisizo za kikaboni (k.m., chupa na mitungi) hurejeshwa au kutumika tena, na taka za kikaboni hutungwa mboji.

MAJI MACHAFU hupitishwa kupitia mifumo ya vinyunyiziaji inayotolewa polepole hadi kwenye 'bustani' zilizofunikwa na udongo ambapo mimea hufyonza fosfeti na nitrojeni kupitia mvuke. Vyoo vya hali ya juu vya kutengeneza mboji huhakikisha kuwa hakuna kinyesi cha binadamu kinachoingia kwenye mazingira.

NISHATI inawezs kutumiwa upya kwa asilimia 100, inayotolewa na paneli za jua za photovoltaic zenye mifumo ya kuokoa nishati. Muundo wa jengo huboresha mtiririko wa upepo wa baharini ili kupunguza mahitaji ya matuizi ya viyoyozi.

Global Tourism Plastics Initiative

As part of our commitment and management to eliminate, innovate and circulate plastic use, we are a signatory to international sustainable tourism campaigns. This includes the Global Tourism Plastics Initiative (GTPI), led by the UN Environment Programme and World Tourism Organization, in collaboration with the Ellen MacArthur Foundation.

CULTURAL INTEGRITY

We support and promote traditional cultural heritage and practices of the vibrant East African Swahili culture.

The eco-bungalows and other structures were built and decorated by local artisans using traditional Zanzibari materials.

Our restaurant serves the 'best' Swahili fare inspired by recipes traditionally associated with cultural celebrations.

We work with local agencies to maintain the historical monuments on the island (Lighthouse, Keeper's House and Mosque).

We draw upon our religion and culture as educators, using excerpts from the Koran and key Swahili phrases related to protecting the environment and the stewardship of nature.

We protect plant and animal species with medicinal, religious and cultural values, and share this knowledge with visitors.

Our boutique features local arts and crafts from women cooperatives, recycling initiatives and small businesses.

Tunaunga mkono na kukuza urithi wa kitamaduni na desturi za utamaduni mahiri wa Waswahili wa Afrika Mashariki.

Vibanda vya kiekolojia na Majengo mengine yalijengwa na kupambwa na mafundi wa ndani kwa kutumia nyenzo za utamaduni wa Kizanzibari.

Mkahawa wetu huhudumia chakula 'bora zaidi' cha Kiswahili kinachotokana na mapishi ya kitamaduni yanayohusishwa na sherehe za kitamaduni.

Tunafanya kazi na mashirika ya ndani ili kudumisha mnarai wa kihistoria kwenye kisiwa (Nyumba ya taa, Nyumba ya Walinzi na Msikiti).

Tunatumia dini na tamaduni zetu kama waelimishaji, kwa kutumia nukuu za Korani na misemo kuu ya Kiswahili inayohusiana na kulinda mazingira na utunzaji wa asili.

Tunalinda spishi za mimea na wanyama kwa maadili ya kidini, kidini na kitamaduni, na kushiriki maarifa haya na wageni.

Duka letu kwenye kisiwa line sanaa za ndani na ufundi kutoka kwa vyama vya ushirika vya wanawake, mipango ya kuchakata na biashara ndogo ndogo.

Chumbe through Time

Year	Event
2022	Team celebrate CHICOP's 30-year anniversary
2018	Certified Global Ocean Refuge
2009	Government of Zanzibar Awards Chumbe for Achievements in Environmental Conservation and Awareness Raising
2000	United Nations Global Laureate
1998	Ecolodge opened
1997	Environmental Education Programme began
1994	Reef Sanctuary and Forest Reserve gazetted as Protected Areas
1992	Chumbe Island Coral Park established
1991	Identified as important site for biodiversity
1964	Island abandoned (Zanzibar Revolution)
1904–06	Lighthouse, Keeper's House and Mosque built
Pre-1904	Uninhabited

Chumbe island, Zanzibar.
The 6 'R's

- Photo on wall of Community education centre:

- Recycle, Re-think, Refuse, Reduce, Re-use, Repair

- Amazing biodiversity of the reefs – 100 % protection of fish and coral species

- 100 % sustainability.

Findhorn Scottish Ecovillage

- For decades has been an international centre on sustainable practices

- Hosts the Global Ecovillage Network (GEN) – thought to be as many as 10,000 ecovillages across the world

- Hosts GAIA Education. Trustee for 8 years
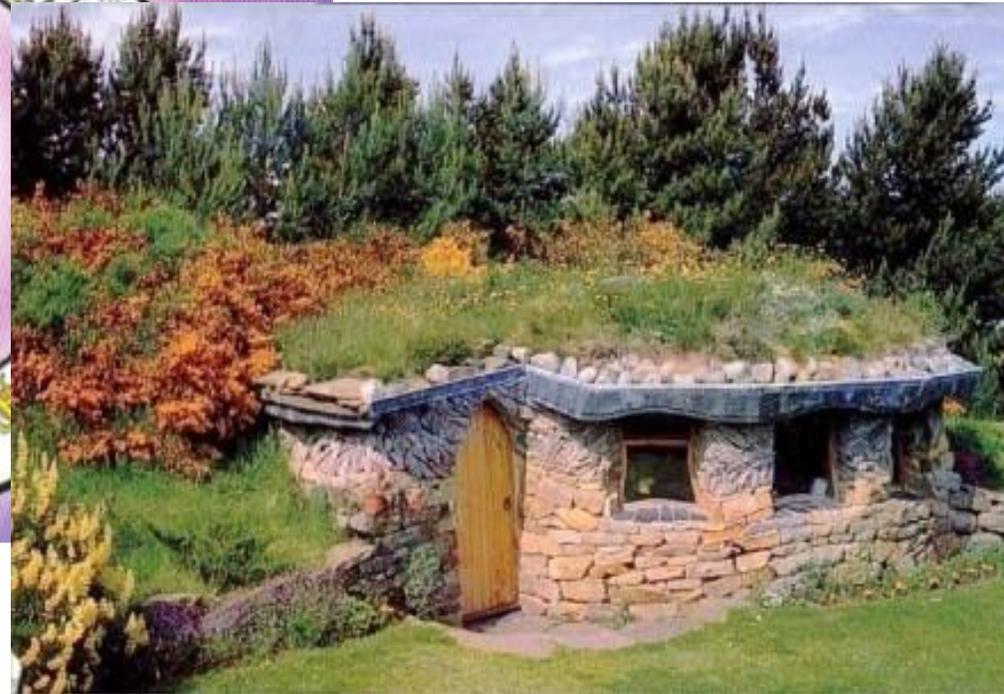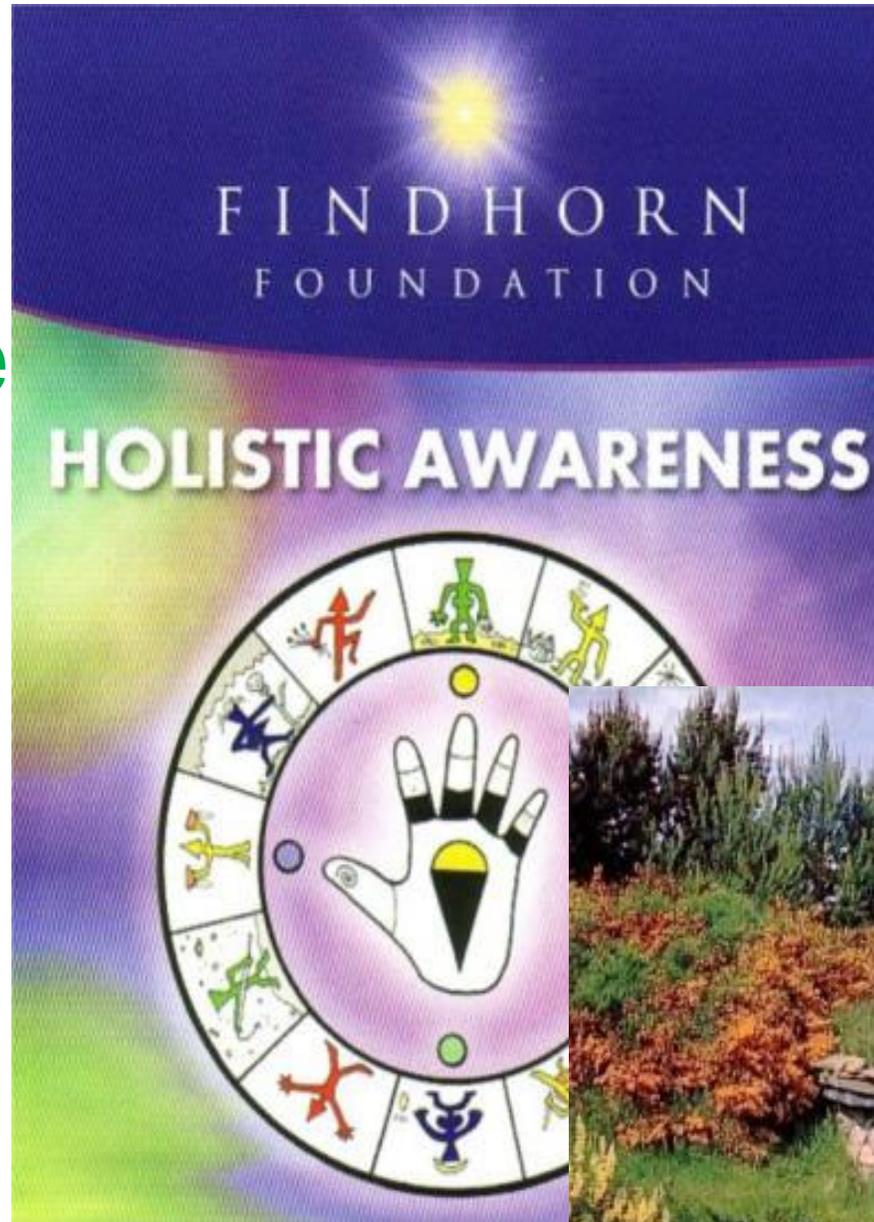
Cumbria- work of ZCC and CaFS. How to tackle transport?

Zero Carbon Cumbria Report in March 2024

- Transport responsible for 40% of Carbon emissions in Cumbria (plus pollution etc)

- To achieve Net Zero Carbon Target by 2037 need to reduce transport by:

- 13%/yr from 2024 to 2030 and

- 20 %/yr from 2031 to 2037.

- The best achieved so far, (during COVID) was 6.4% year

- Mission Impossible?

- No ! Need Innovative, Green solutions

Ullswater's Sustainable Transport (SITU) group

- Major successes

- Creation in 2023 of the Eamont Way linking Penrith Railway station and Pooley Bridge. 3 years of planning.

- Hopper Bus in partnership with Stagecoach, local businesses and NGOs

Sustainable and Integrated Transport for Ullswater

Eamont Way

Ullswater Hopper Bus

Quiet Site Ullswater
Daniel Holder – 'Green Champion'

- UK's Greenest Park 2024

- AA UK Campsite of the Year, England and Overall Winner 2023/4

- Green Tourism GOLD Award 2023

- European Sustainability and Environmental Award 2024 (finalist)

- Queens Award for Sustainable Development 2020

SOLAR THERMAL PANELS

BATTERY

ELECTRICITY (ONLY SUSTAINABLE)

NATIONAL GRID

LOCAL FIRE WOOD FOR BAR + PIZZA. OVEN

TREE PLANTING

LOCAL WOOD

HEAT

HEAT

ELECTRICITY

GROUND SOURCE HEAT PUMP

HEAT

BIOMASS BOILER

HEAT

THE Quiet Site

GUESTS

memorable Sustainable holidays

NATURE HABITAT

RAIN WATER

MAINS WATER

HEAT TO ENERGY EFFICIENT ACCOMODATIONS + SITE SERVICES.

DIRTY WATER

FROGS NEWTS   SWANS   DUCKS   OTTERS

RECYCLED

600m into GROUND

WC FLUSH WATER

4 x REED BEDS

WATER

SHOP + BAR STOCK

WASTE + RECYCLING

ELECTRIC

Sustainability at a City level

Mayors in C40 cities:

- leading efforts to use an inclusive, science-based and collaborative approach to cut their share of emissions in half by 2030, and build healthy, equitable and resilient communities.

- About 100 cities are members of the C40 club (created in 2005 in London) that has set Leadership Standards (2021-2024) to meet sustainability and carbon targets.

C40 Cities

Sustainability at a City level

- Example of planning at Community level in Brussels

- Dar es Salaam

- Groningen in NL

- Amsterdam, Copenhagen and Johannesburg are all world leaders in this movement
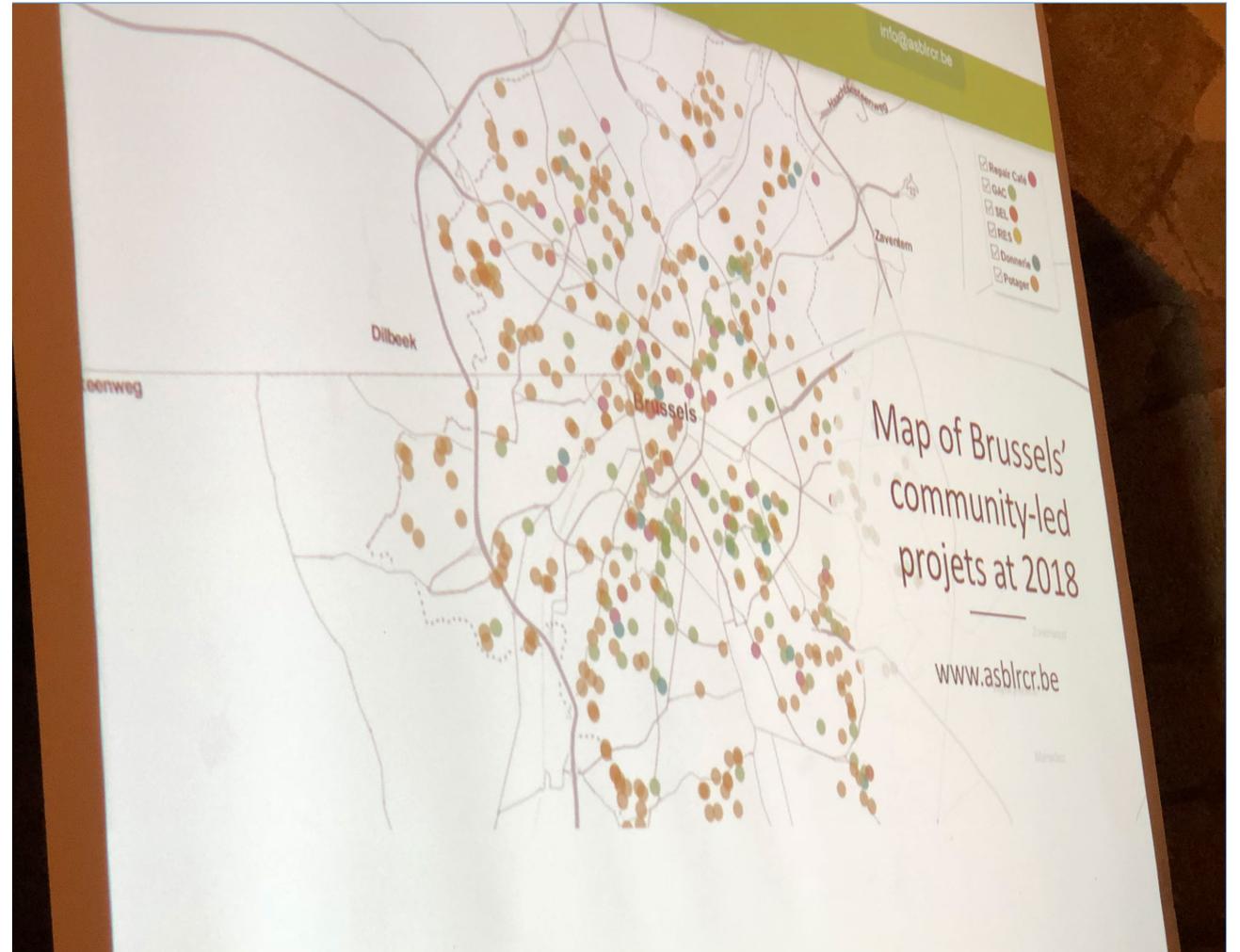
Cycle power, Dar es Salaam

- Encouraging the Minister of Infrastructure to support pedal power

- The Mayor closed a central part of Dar (population 7 million) to allow pedestrians and cyclists to 'take back control' of the streets

- Is now an annual event

Groningen

- Population 220,000
- Initiative in 2018 to develop a sustainable, circular economy vision for the city.
- Retro-fitting all public infrastructure: housing, roads, public spaces
- Aims to become Waste neutral by 2030
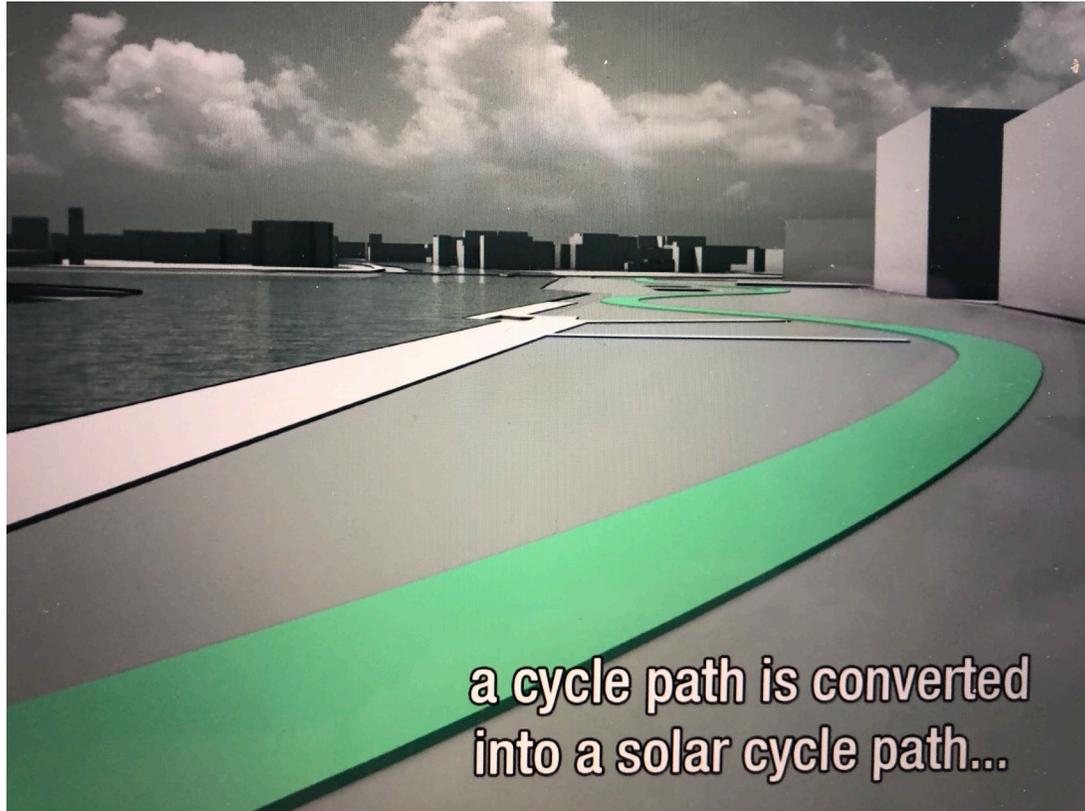
a cycle path is converted into a solar cycle path...
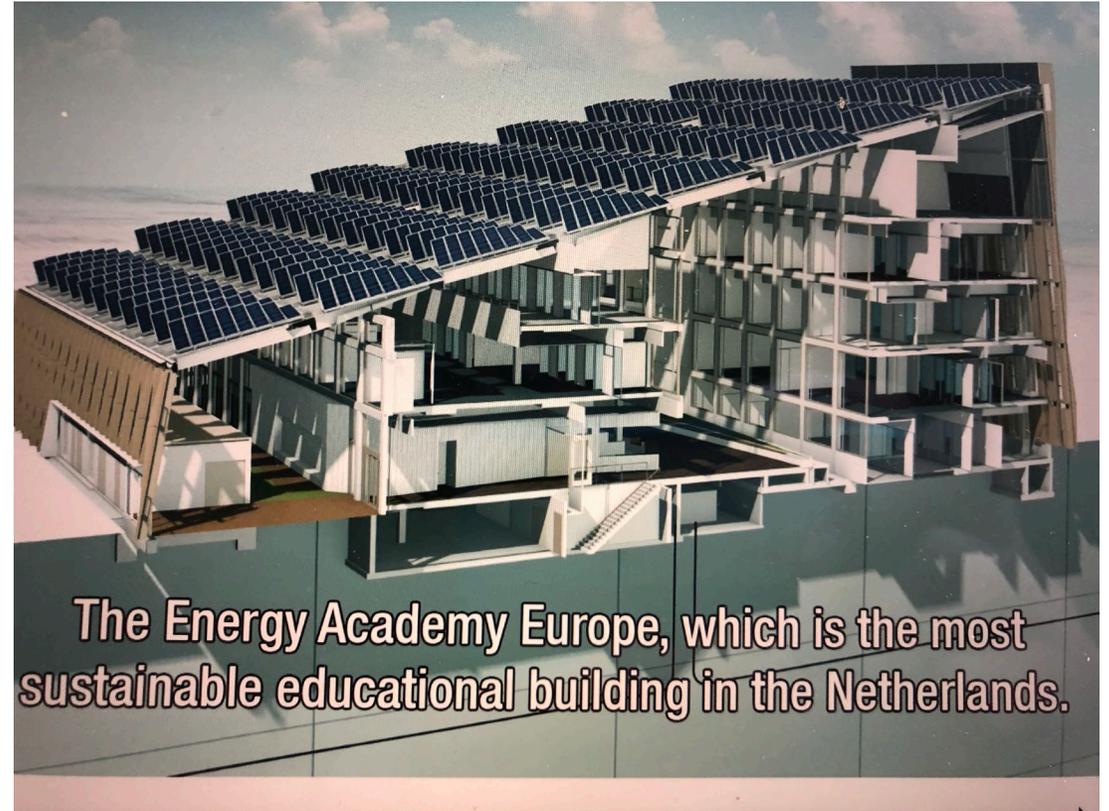
The Energy Academy Europe, which is the most sustainable educational building in the Netherlands.

Groningen

Cycle paths converted to generate power, Creation of the Energy Academy Europe, the most sustainable Education building in the Netherlands

university of groningen

Education ▾   Research ▾   Society/business ▾   Alumni ▾   News ▾   About us ▾   ⌕ Search

⌄ Projects

Projects

Sustainable business travel policy

Sustainable Literacy Test (Sulitest)

Green Growth course

Sustainable Experience City Map

Student Consultancy

Sustainable Experience City Map

For our project the "Sustainable Experience" we have mapped all the sustainable initiatives in Groningen. This map gives an overview of the sustainable shops, restaurants, lunchrooms and supermarkets in Groningen. We focus on initiatives and companies that have sustainability on the top of their agenda, that are local or that contribute to sustainability in some other way. They may offer biological and local food or a broad variety of vegetarian and vegan food. The result of this project is a city map with information about sustainable initiatives or companies and information on where you can find them. The first edition was created in 2018. The current version is an online Google Maps city map that can be kept up to date more easilty.

Interactive sustainable map ▸

Do you think we forgot to include something? Let us know via greenoffice@rug.nl!

- 📱 Free Your Stuff Groningen
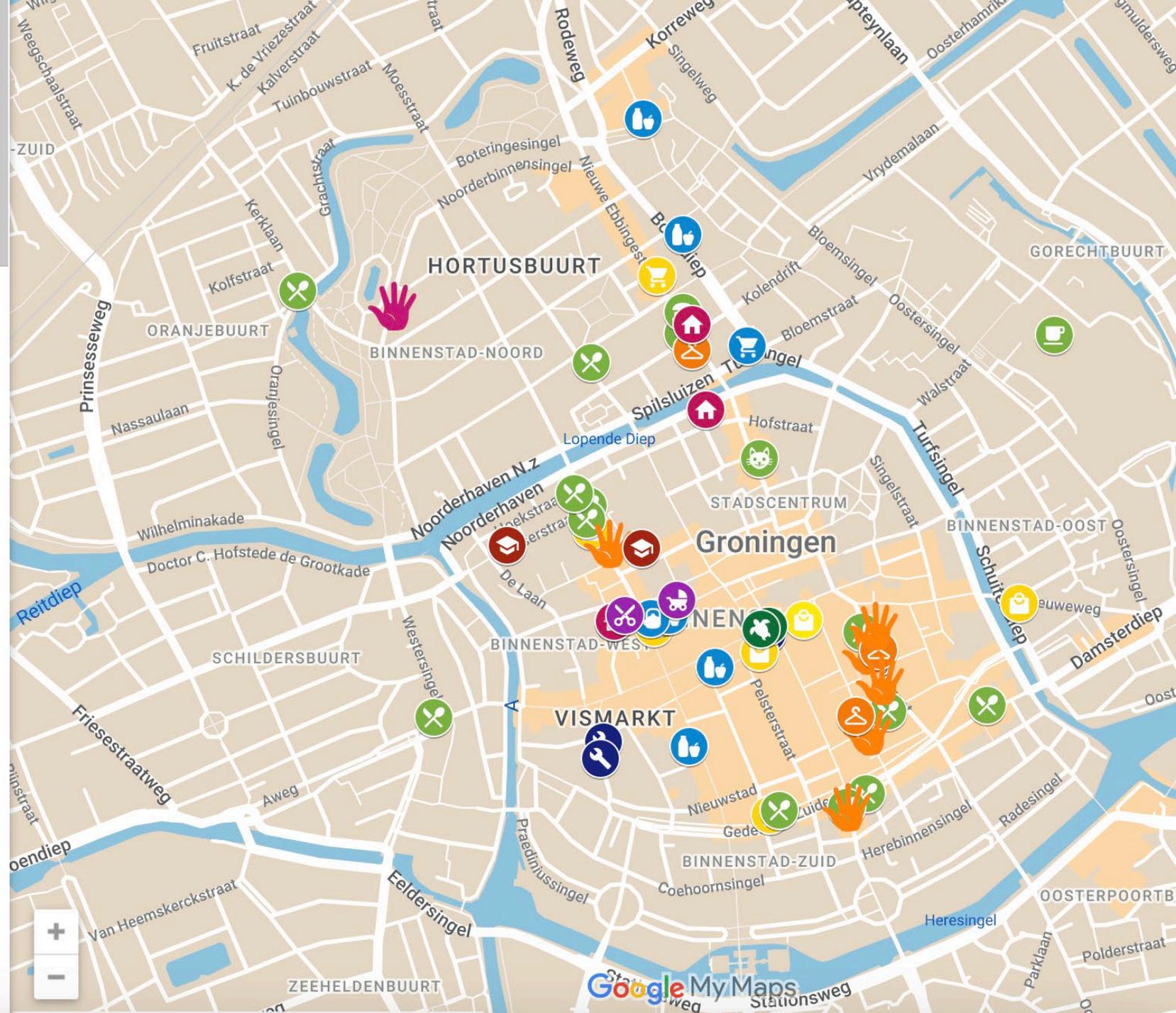- 📱 Too Good To Go

---

☑ **Shops with a large variety of products**

- ⌄
- 🟡 De Nieuwe Weg 🏫
- 🟡 De Stadsakker 🍱
- 🟡 Dille & Kamille 🏫
- 🟡 Ekoplaza North 🏫 Student Discount!
  ... 4 more

☑ **Cafés & Restaurants**

- ⌄
- 🟢 Bagels & Beans 🍀
- 🟢 Gezonde Planeet 🍀
- 🟢 Het Bakkerscafé by Palazzo 🍀
- 🟢 Achterwerk 🍀 - 100% Vegan
  ... 16 more

☑ **Clothes (new & second-hand)**

- ⌄
- 🖐 Noni & Willy
- 🖐 Appel & Ei - Buy & Sell

Google My Maps

1. Introduction and Goal

This report has been written in assignment from Green Office, an organizational unit of the University of Groningen (RUG). Green Office has been established in 2014 and coordinates and initiates projects related to sustainability at the University of Groningen.

Its goals are developing the sustainability awareness and inform students and staff on sustainability efforts of the UG, increase awareness and an understanding regarding sustainable life environment and foster implementation of sustainable knowledge as a lifestyle. Green Office originates from student movement and in general is run by 5 student employees and two senior employees head Dick Jager and sustainable education coordinator Marijke Nieborg. It also engages people on voluntarily base under "Sustainability ambassadors" concept. The ambassadors are supporting the Green Office voluntarily and help with organizing events, networking and being a part of the community. The ultimate goal is to have "sustainability in University's DNA" as the head of Green Office Dick Jager told us. Green office is supported by Advisory Board consisting of academic and non-academic employees of different faculties at RUG. The board meets once per month to help by providing feedback and advise to Green Office in its operations and initiatives.

The Green office plays an important role in this concept of the sustainable university and is working next to the task force with the focus on people, planet and profit (performance) (Gusc and Heijes, 2018). Inspired by UN Sustainable Development Goals Green Office developed Roadmap 2015–2020 consisting of 14 ambitions (see Figure 1).

Sulitest

- UN Initiative, aligned to Higher Education Sustainability Initiatives (HESI)

- Groningen is part of Sulitest Network (121 Academic partners: 14 in the UK (e.g. Plymouth, Nottingham, Glasgow, Cambridge, UCL, etc)

- Platform to 'support expanded sustainability knowledge, skills and mindset that motivates individuals to become deeply committed to building a sustainable future and to making informed and effective decisions'

Sulitest.org

ADVANCING SUSTAINABILITY LITERACY FOR THE GLOBAL GOALS

2023 Report from the Sulitest Movement, a tangible implementation of the HESI & a contributor to the review of the 2030 Agenda

HIGH-LEVEL POLITICAL FORUM ON SUSTAINABLE DEVELOPMENT
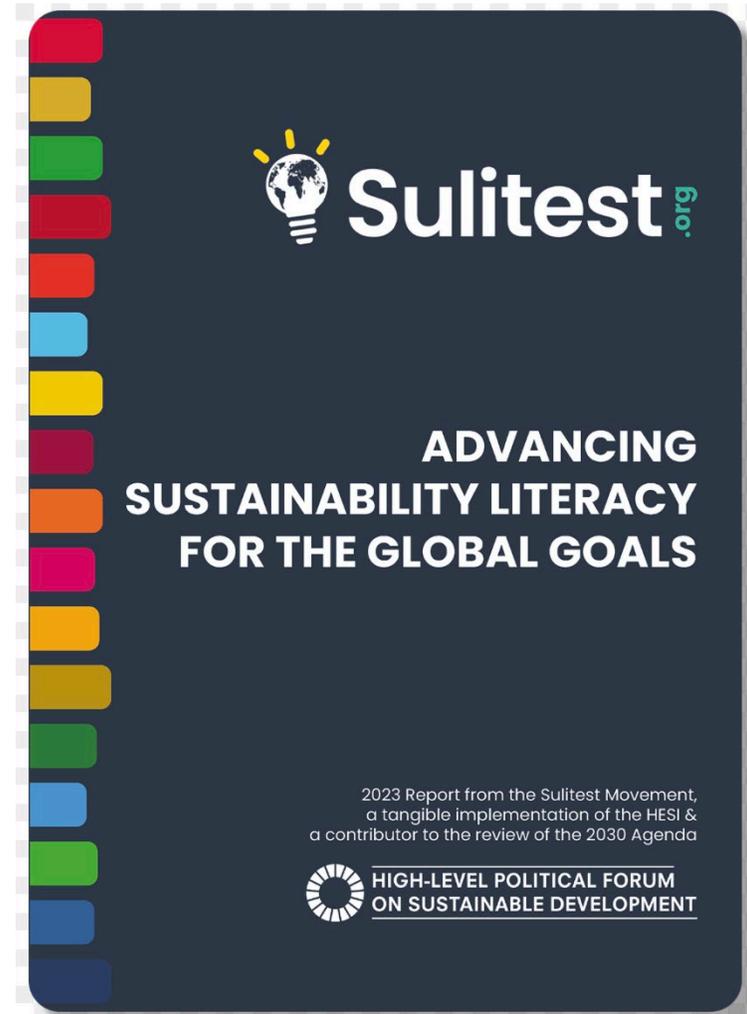
Sustainability at a National level

- The Nordic countries are the stars of Sustainability - Sweden, Norway, Denmark, Finland

- Interesting coincidence that the countries that tend to top the World Happiness Index (2023) are also those that promote Sustainability

Greenest Countries in the World

Most Green	Least Green
1. Sweden	1. Qatar
2. Denmark	2. Iran
3. United Kingdom	3. Turkey
4. Finland	4. China
5. Switzerland	5. Saudi Arabia
6. France	6. Vietnam
7. Costa Rica	7. Indonesia
8. Iceland	8. Malaysia
9. Norway	9. Algeria
10. Ireland	10. Kuwait

GREENMATCH

GreenMatch
The World's Greenest Countries 2024 ...

Sustainablity at National Level: Senegal

- The only country in the world to have a national Ecovillage programme

- Resulted from an edict from the President who was passionately interested in bottom-up community development as a means of empowering rural communities. Sustainability and eradicating poverty were the two key issues.

- State-dominated – ultimately collapsed – not driven by communities

University of Cumbria (1)

- What is the relevance of all this for UoC?

- Where are we in the Sustainability debate? Is this important to us/our families/communities – and their children: future generations?

- What is our history/heritage/culture?

- What should be the role of our University?

- What do we want our campuses to look like in 5,15,30 years? Has anyone painted a picture?

- Is Sustainability fully articulated into UoC's current Vision Towards 2030?. Role of Well-Being?

University of Cumbria (2)

- Have we defined how it will 'feel' in each campus - for staff, students, visitors, other university 'competitors', wider society?

- Do we have any idea of 'value' of Sustainability to staff and students? Are we collectively proud of what we in UoC are currently doing to achieve Sustainablity targets?

- Have we identified resources (leadership and other responsibilities, staff/student time, funds etc) to achieve sustainability goals ?

No quick fixes, no 'right' answers

Experience elsewhere, in other institutions, is that to achieve a genuine Sustainability 'reflex' is very tough.

It needs:

- Total clarity on the Vision driving the process

- Strong leadership – from the bottom as well as the top

- Collective agreement on process, targets, outcomes

- Genuine open participation by all relevant parties

- Rigorous debate/discussion. Laser–like attention to detail

- Some sort of 'scaffolding' to structure the debate

- Earmarked resources (people, funding).

- Capacity-Building. Training. Awareness. M&E

- External support can help unblock barriers
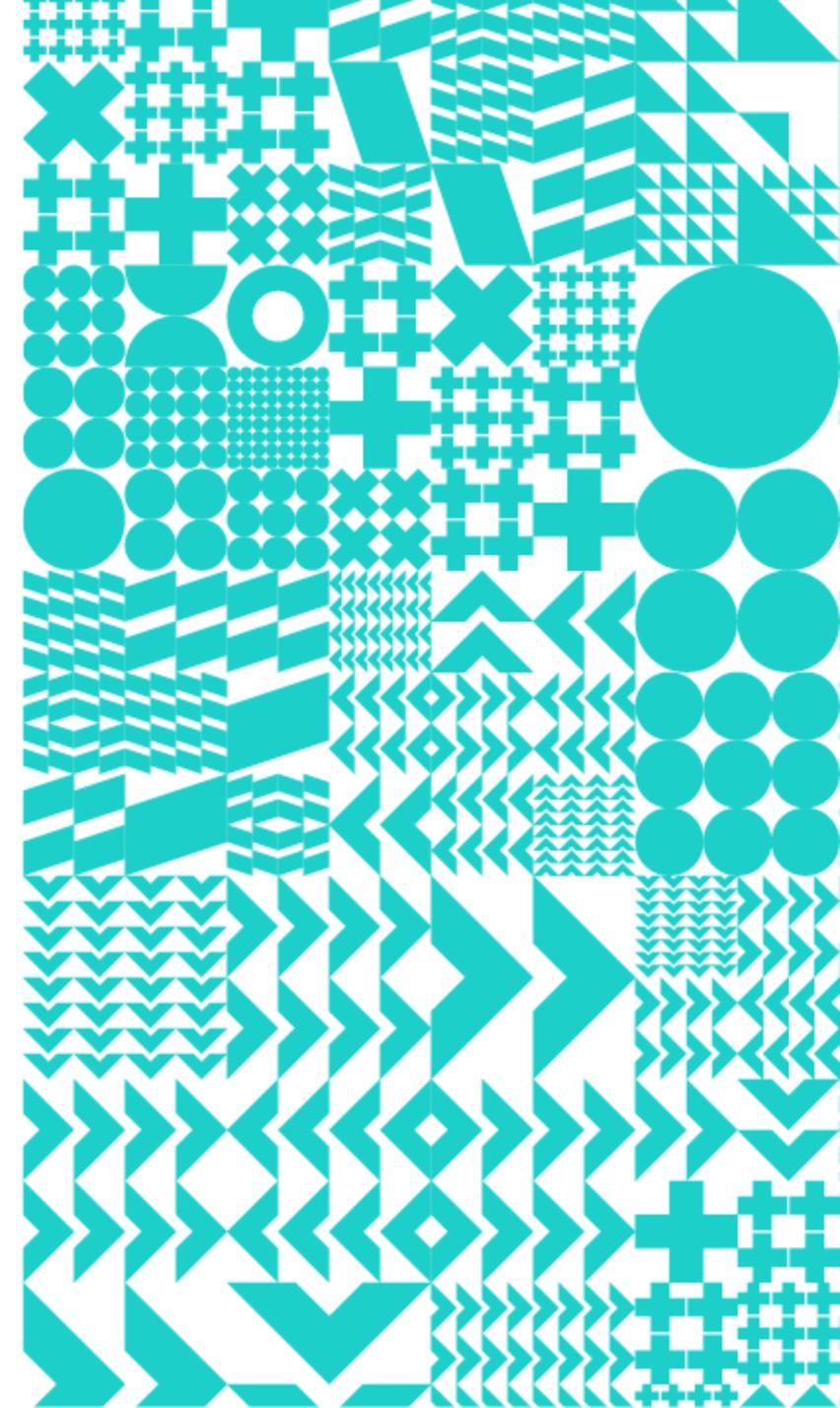
Cumbria has an abundance of expertise on this topic.

- Individuals: e.g. Prof Mike Berners Lee, as well as UoC's own academic staff

- Companies: IMPACT International (HQ in Ambleside, Founder and CEO trained at Charlotte Mason College). They were heavily involved in creating the Institute for Leadership and Sustainability at Ambleside. They have a massive international outreach, with alumni who could help.

- Relevant organisations/partners: LDNPA, Zero Carbon Cumbria, CAfS, FBA, local MPs

- Civil society and community groups that could be encouraged to be part of the process

Many national/ international bodies could be called on to help

- **The Environmental Association for Universities and Colleges (EAUC)**: It is a sustainability-focused organization for UK universities and colleges in the UK. They undertake peer reviews and assessments of sustainability policies and reports. NB Their 2023 Flagship report on Climate Change, and **Sustainability Exchange** an online platform that provides resources and case studies on sustainability in higher education.

- **The Higher Education Sustainability Initiative (HESI)**: A global platform that promotes sustainability in higher education institutions. They are hosting **at the UN in New York a Global Forum on Sustainability on 17th July**

- **Students Organising for Sustainability (SOS UK),** and their **Green Impact and Futures Planning** that support sustainability initiatives within UK universities and colleges. Extensive support on capacity building, undertaking University Annual Sustainability Audits.
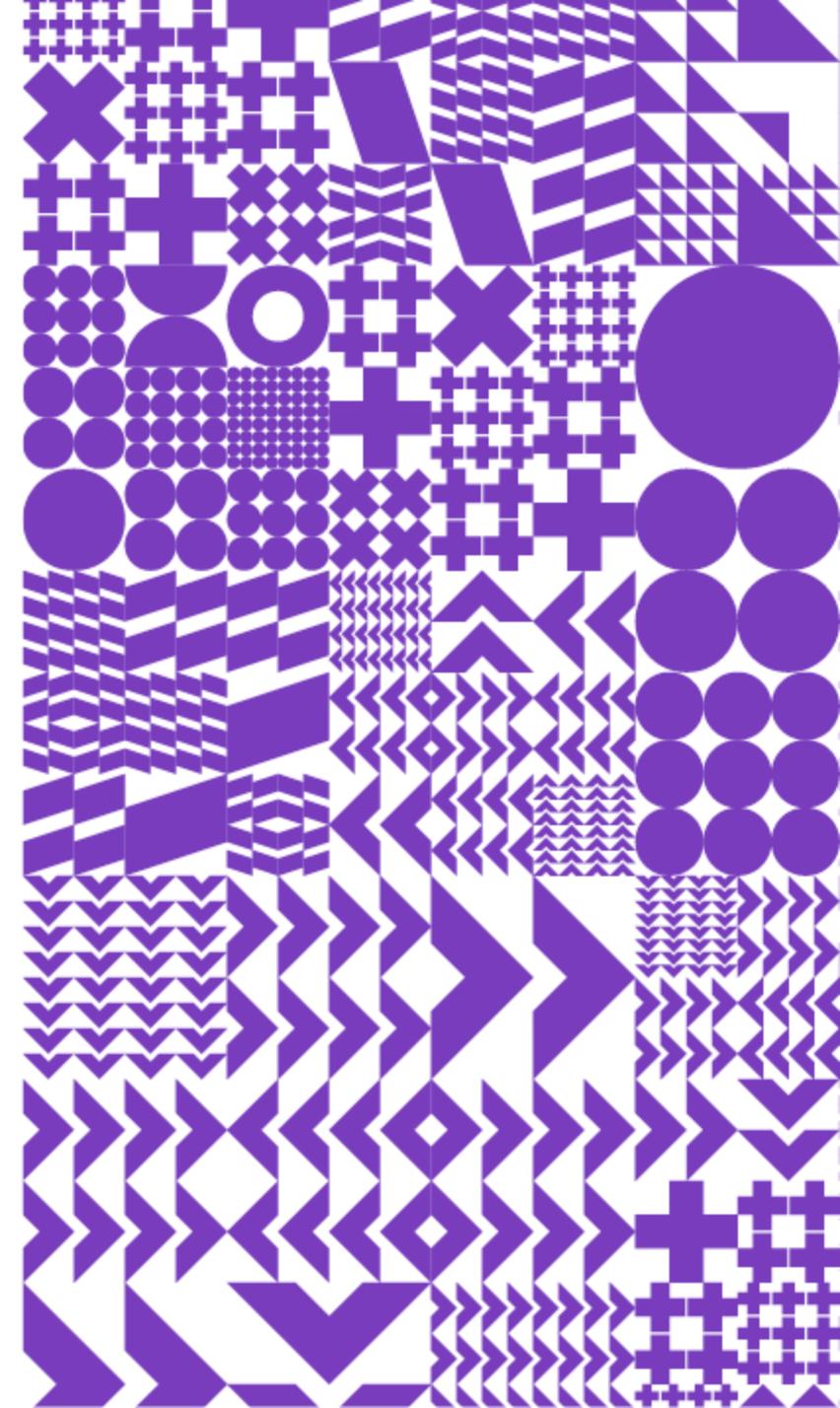
Empowering Universities to achieve their sustainability goals

A Times Higher Education (THE) Dashboard – designed to 'enable universities to decode and analyse the data behind the SDGs…..and support Universities' sustainability efforts'

The Times Higher Education SDG Impact ranking 2030

- These are the top 5 Universities on SDGs globally (Manchester is ranked no 2 !!)

- No entry for UoC….

- But UoC was top in the UK for SDG4 (Quality in Education) in 2020, and 8th globally!

Rank	Name	Best scores by rank				Overall
1	Western Sydney University ⚲ Australia	5 — 80.3	12 — 93.4	15 — 96.7	17 — 98.8	99.4
2	University of Manchester ⚲ United Kingdom Explore	15 — 97.4	12 — 92.9	11 — 92.2	17 — 94.8	97.5
3	Queen's University ⚲ Canada Explore	2 — 90.6	16 — 93.4	11 — 91.0	17 — 92.6	97.2
4	Universiti Sains Malaysia ⚲ Malaysia	16 — 94.1	2 — 86.4	1 — 84.9	17 — 97.8	96.9
5	University of Tasmania ⚲ Australia	13 — 92.8	15 — 96.2	14 — 95.1	17 — 96.3	96.6

People & Planet University League 2023/4

Some Universities have made great efforts to promote Sustainability:

These are the Top 5, Ranked in the 1st Class category

- Reading
- Manchester
- Bedfordshire
- University of the Arts, London
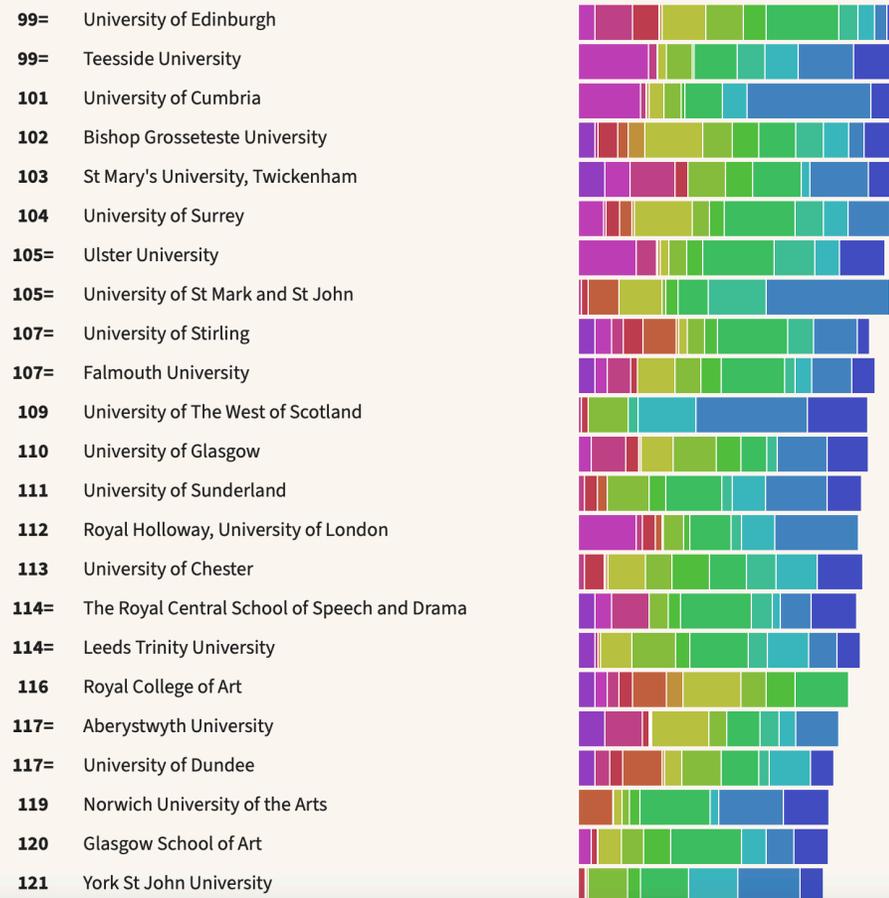- Kings College London
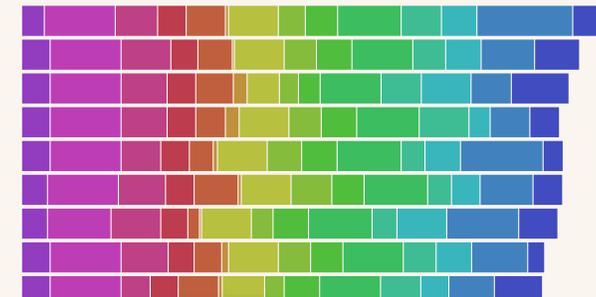
People & Planet University League 2023/4

UoC ranked 101st in the 3rd Class Category, behind Edinburgh and Teeside

(shows perhaps the bizarre nature of the league table)

3rd Class Universities

Rank	University
99=	University of Edinburgh
99=	Teesside University
101	University of Cumbria
102	Bishop Grosseteste University
103	St Mary's University, Twickenham
104	University of Surrey
105=	Ulster University
105=	University of St Mark and St John
107=	University of Stirling
107=	Falmouth University
109	University of The West of Scotland
110	University of Glasgow
111	University of Sunderland
112	Royal Holloway, University of London
113	University of Chester
114=	The Royal Central School of Speech and Drama
114=	Leeds Trinity University
116	Royal College of Art
117=	Aberystwyth University
117=	University of Dundee
119	Norwich University of the Arts
120	Glasgow School of Art
121	York St John University

Ambleside Sustainability Working Group (Work in Progress)

The ASWG was established in Jan 2024 under the authority of Pro VC Jonathan Eaton (Learning and Teaching).

The Overall Goals are set out

Seven Workstreams identified and teams nominated to work on them in time for the presentation of this material to the Board.

The Ambleside Sustainability Project will contribute directly to the delivery of the following elements of the Towards 2030 Strategy:

- To establish Ambleside as an internationally recognised place of scholarly excellence for sustainable practices and the natural environment, bringing Scale How and Hill Top back into use.

- To facilitate significant learning opportunities for all our students and staff to gain a deeper understanding about their role in the global challenges of making our planet more sustainable.

- To ensure our breadth of curricula appropriately reflects the UN 17 SDGs

- To contribute to the growing evidence and research base around sustainability and carbon reduction and capitalise on our Centre for National Parks and Protected Areas Research Centre

- To be a role model in our society, utilising students and staff to educate and inform those around us

Objectives and Activities of the ASWG

The main purpose is to develop a 3 year Workplan for approval by the VC by the end of May 2024, aligned to the 2024/2025 planning round

The terms of reference of an External Advisory Committee will be established and put in place by September.

Whilst there is an initial Ambleside focus the intention is to roll out initiatives across the whole university

A Planning workshop is being scheduled for May.

In order to contribute effectively to the elements of the Towards 2030 Strategy outlined above both at Ambleside and across the University, the project will:

- Outline immediate actions, leads and initial resource requirements for approval by the University Executive by the end of January 2024.

- Develop an ambitious, achievable three year workplan (identifying clear goals, SMART objectives, roles/responsibilities, appropriate monitoring and any required resource), for approval by VCE by the end of May 2024, in alignment with the 2024/25 planning round.

- Undertake a brief scoping exercise to define which features of the anticipated project outcomes could genuinely be considered to be world-beating and potentially elevate the status of the UoC / Ambleside campus at national or international levels through established grading systems, with the scoping exercise to be completed by August 2024

- Through relationships held by the University, Institutes or Group Members, engage with key external stakeholders to potentially broaden the impact and visibility of the project and its intended outcomes by September 2024

- Establish an external advisory panel to draw together expertise, insight and partners to inform and challenge University thinking and practice by September 2024.

From June 2024, the definition of project objectives and activities will be captured within the approved three year rolling action plan. The Plan will, *inter alia,* define to what extent the initiatives taken on the Ambleside campus may be rolled out across all the other University campuses and, whilst seeking to maintain a consistent institutional approach wherever possible, may potentially require the definition of actions tailor-made to each campus where considered appropriate to do so.

# The UoC reflection is underway, with important decisions expected during this year

Time will tell what level of ambition is being sought by both staff and students, and how quickly concrete actions, both in terms of curricula and physical changes on each campus can be introduced.

These could include biodiversity Green flag initiatives, Green gown awards, capacity-building and training, EV charging points, analysis of catering supply chains, renewable energy installations, re-cycling waste, etc etc. Each campus will have its own, unique tailor-made actions.
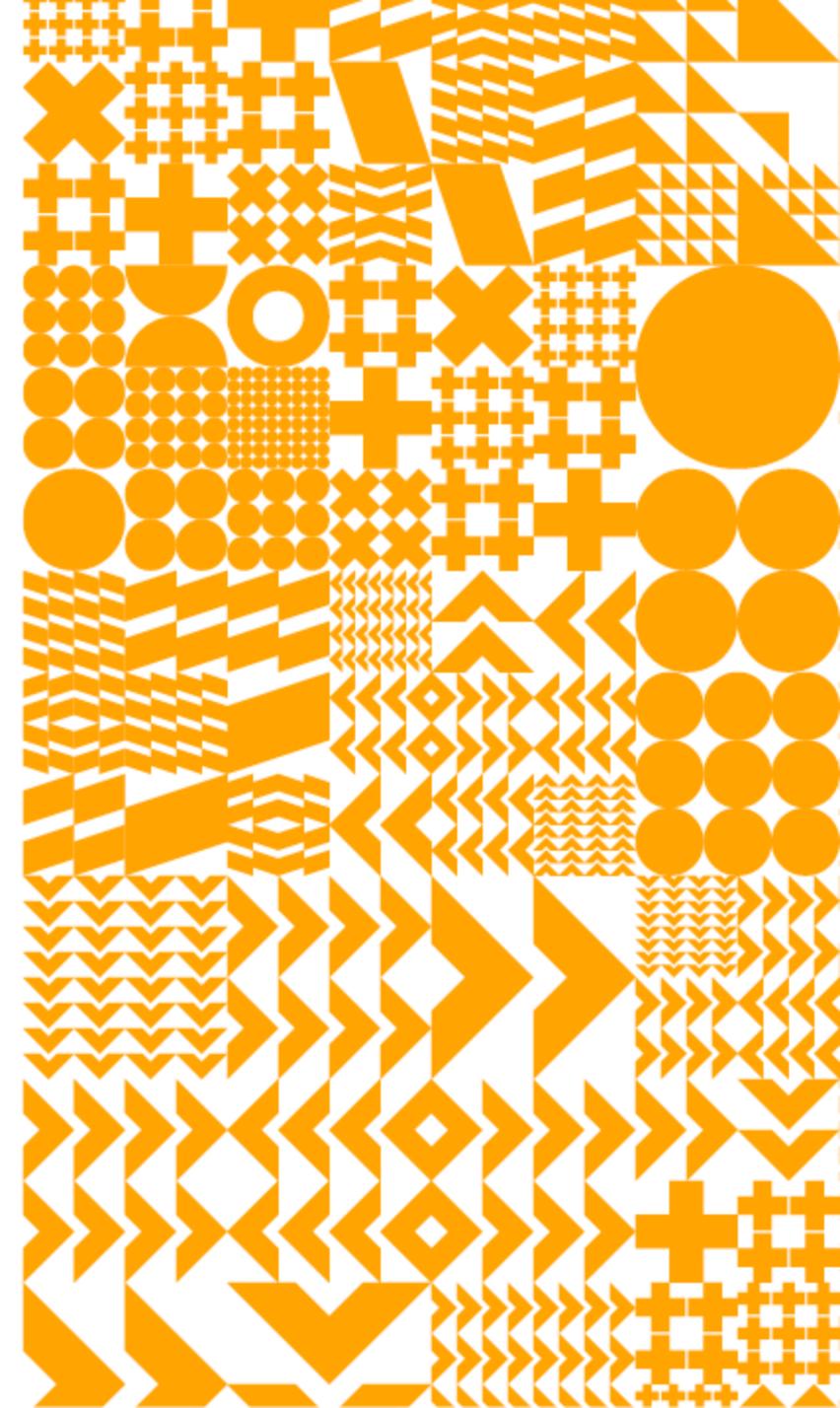
Key steps to smashing the Sustainability ceiling in UoC

1. Seek consensus amongst staff, students, and the Board on a Vision for Sustainability for the UoC

2. Agree achievable Sustainability Goals/targets in a fixed timeframe, including 'quick wins'.

3. Collaborate with SOS UK, HESI, EUAC and enlist support from key Cumbrian individuals/organisations: ZCC, CaFS, IMPACT International etc, to accompany this journey.

4. Collect data (SOS UK uses 50 indicators) to produce a benchmark Sustainability Audit for the University in year 1.

5. Establish a verifiable M & E programme to inform progress. Adjust targets accordingly.

6. Celebrate, and publicise Achievements.
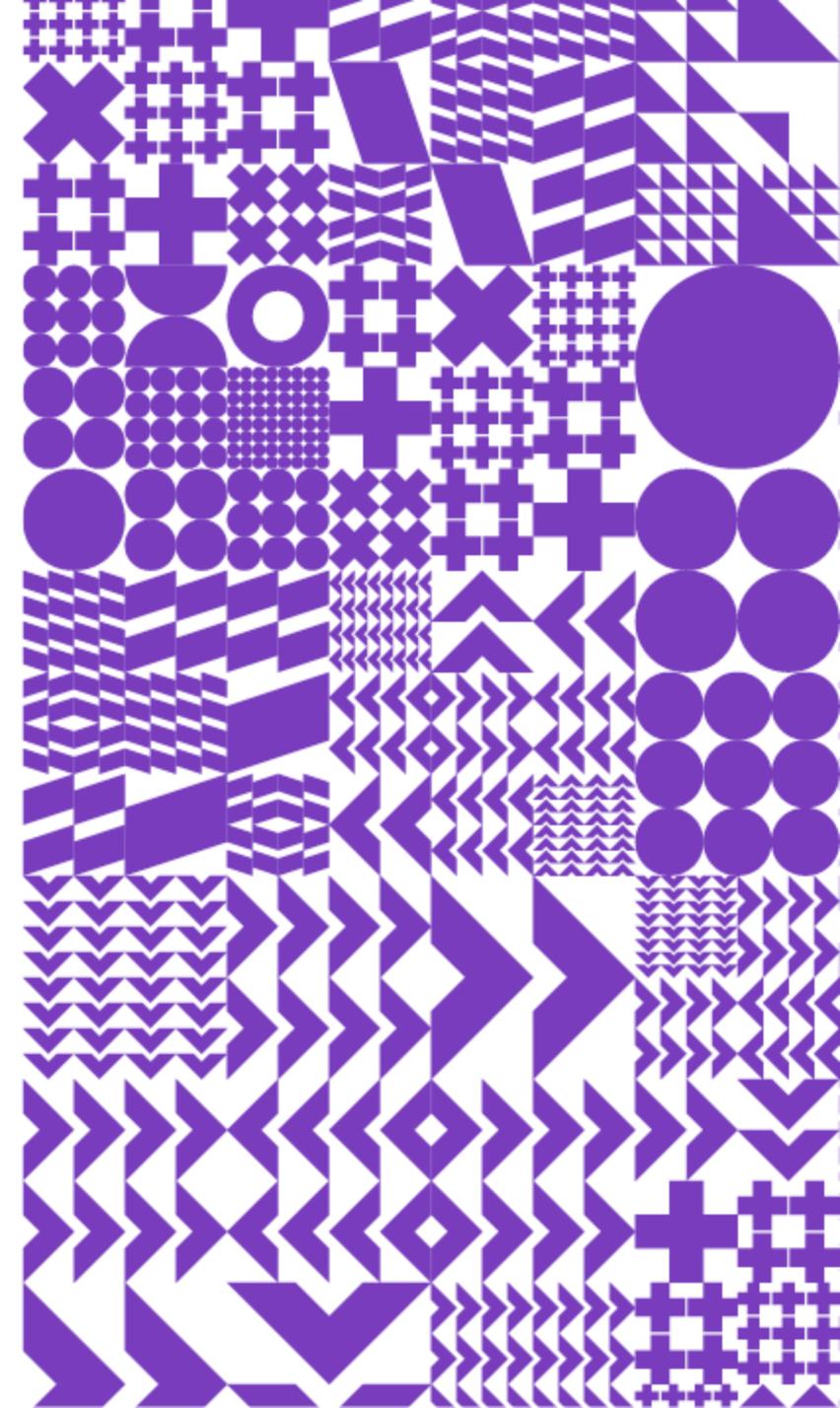
# World Earth Day 2024 April 22nd
## Is UoC going to do something ?

Conclusions

- The challenge of genuinely introducing a cross-the-board Sustainability reflex within UoC is significant. The effort to achieve this should not be underestimated. It needs everyone to pull together and aim high.

- In my experience, key factors are: the level of Leadership at all levels, collective Motivation, Engagement, Commitment, Passion and Energy. They will determine whether the initiative launched in 2024 will ultimately succeed.

- Breaking the 'normal' resistance to change is the biggest challenge. Every individual can – and should – be encouraged to make a difference.

- Mobilisation of Resources is an important, but is not a necessary, condition of success. Willpower is!
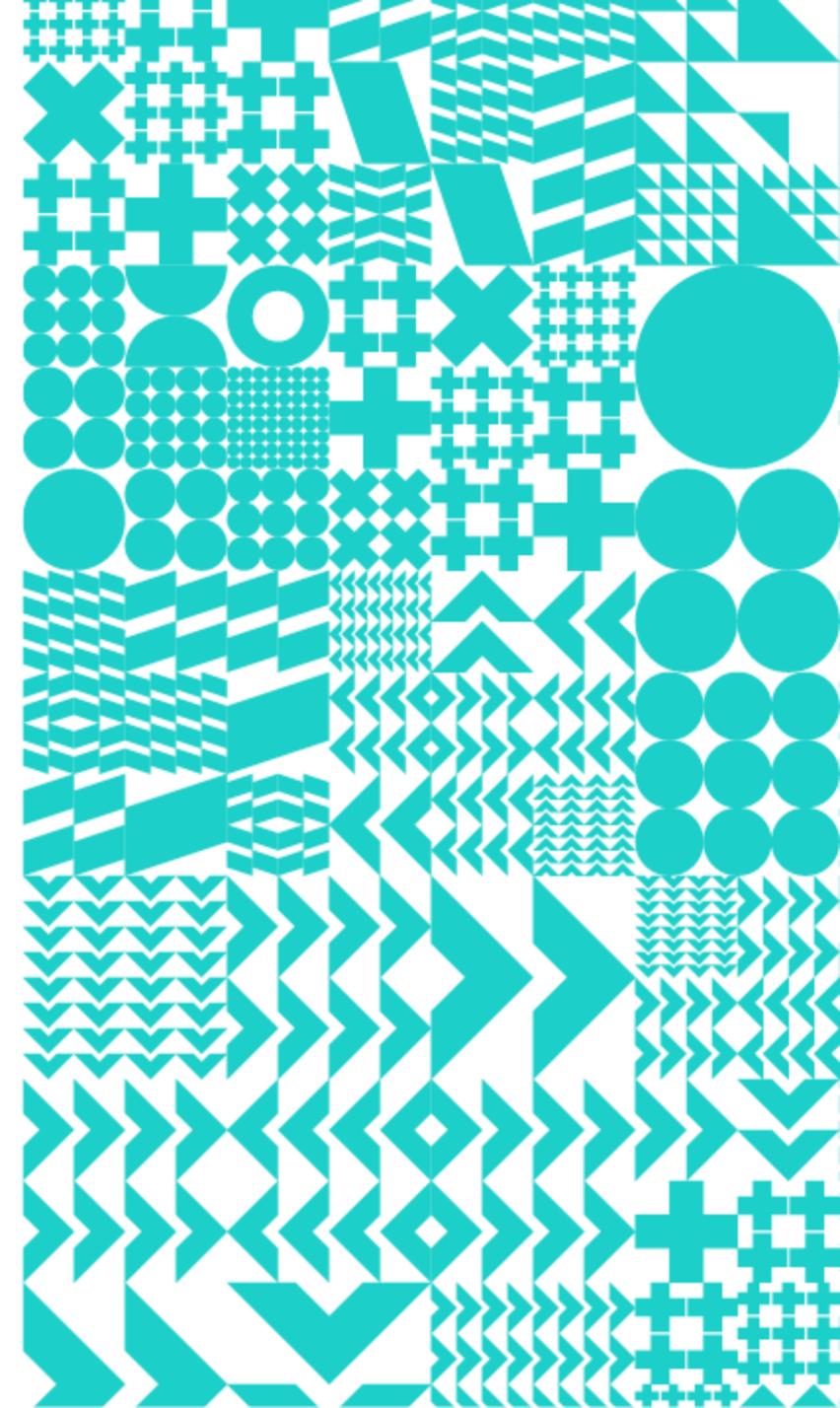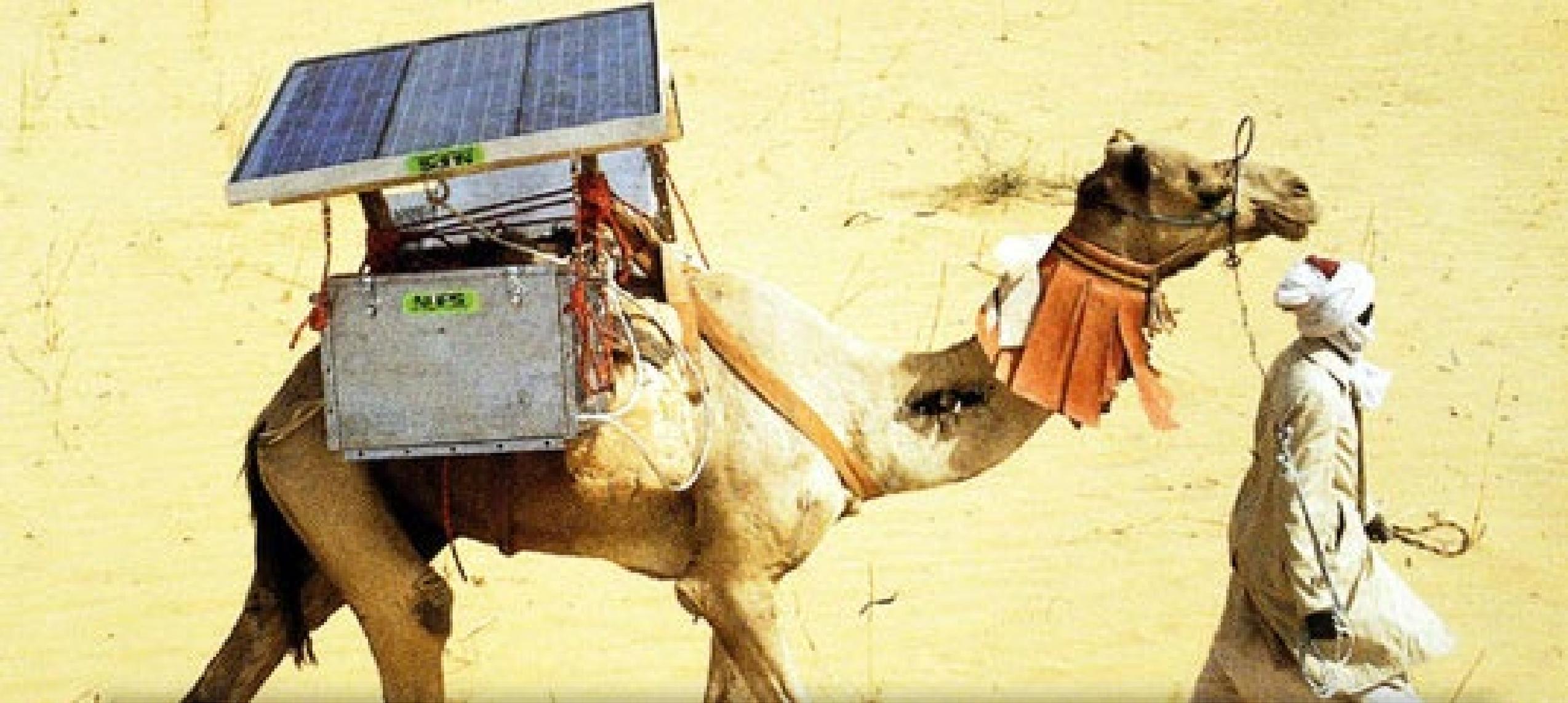
Don't be frightened to improvise and innovate
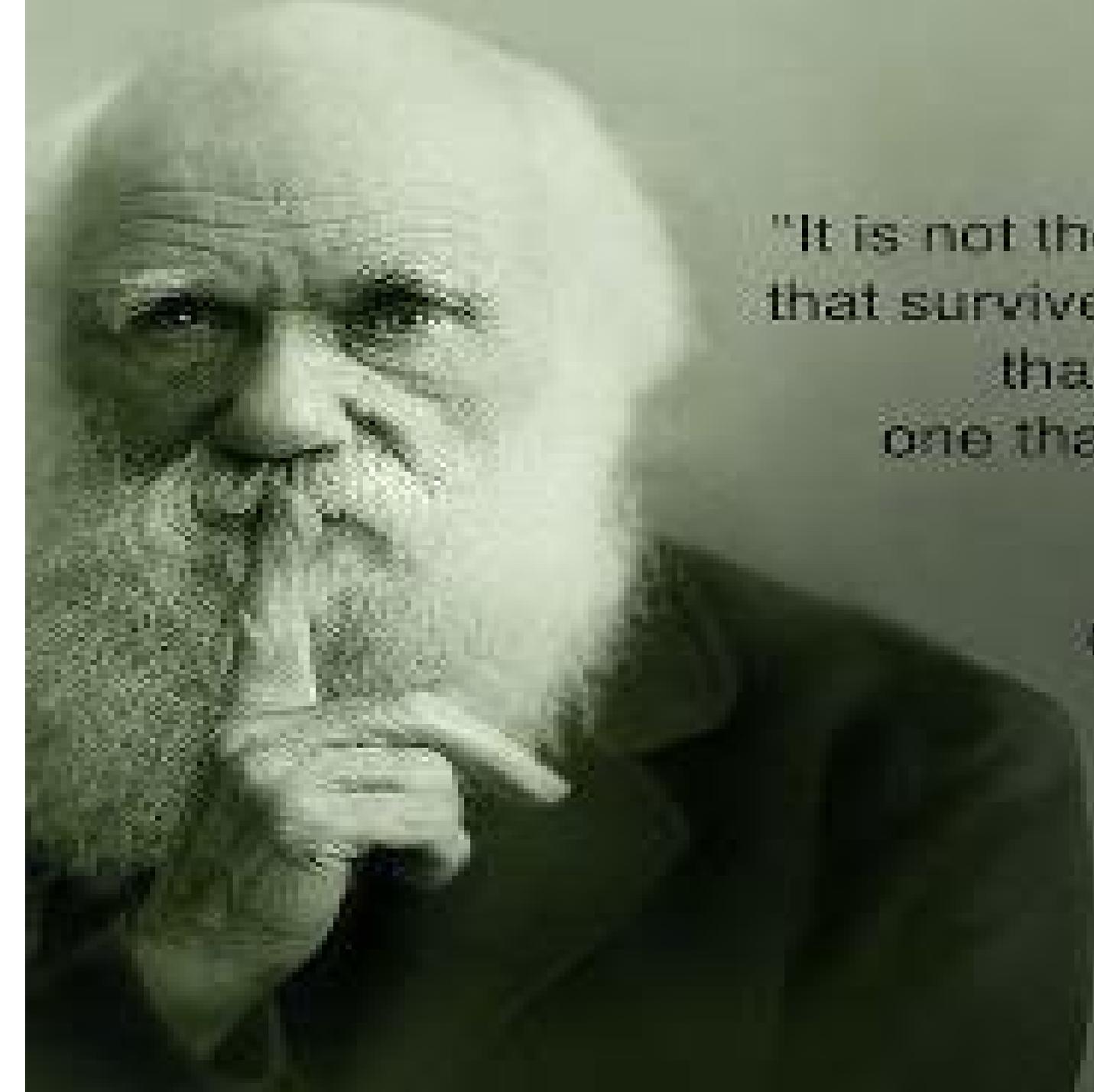
"It is not the strongest of the species that survives. nor the most intelligent that survives. It is the one that is most adaptable to change".

Charles Darwin

I pass the floor to Amy who will dazzle you with concrete ideas on how to make the UoC campuses sustainable