



Gweithdy cynaliadwyedd

Sustainability workshop

26/11/19

Dr Gwenith Elias
Prifysgol Bangor
Bangor University

Nod y sesiwn yw...

Cyflwyno cynaliadwyedd

Rhoi cyd-destun polisi

Perthnasu cynaliadwyedd i'ch hymchwil

This session aims to...

Introduce sustainability

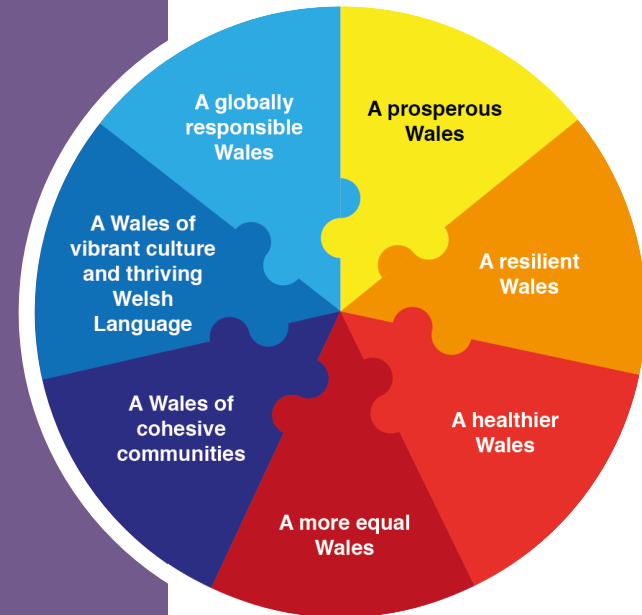
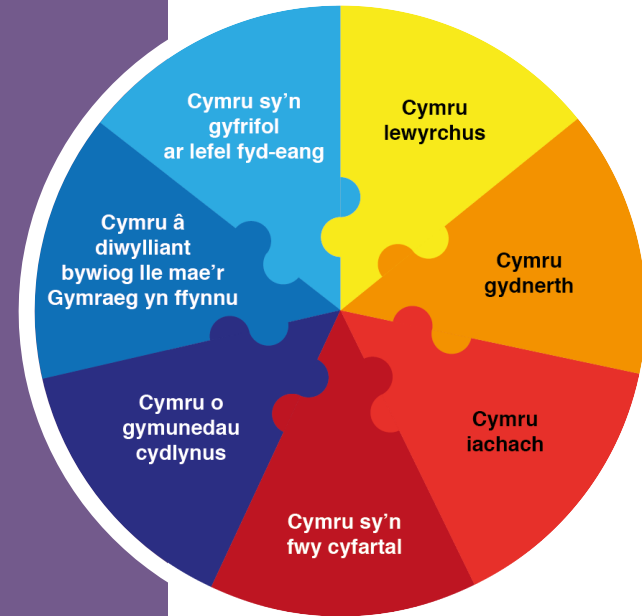
Provide a policy context

Relate sustainability to your research



Ystyried eich holl waith yng nghyd-destun
nodau llesiant Cymru

Frame everything you do in the context of
the Welsh well-being goals



Ac yng nghyd-destun Nodau Cynaliadwy y Cenhedloedd Unedig

And in the context of the UN
Sustainable Development
Goals

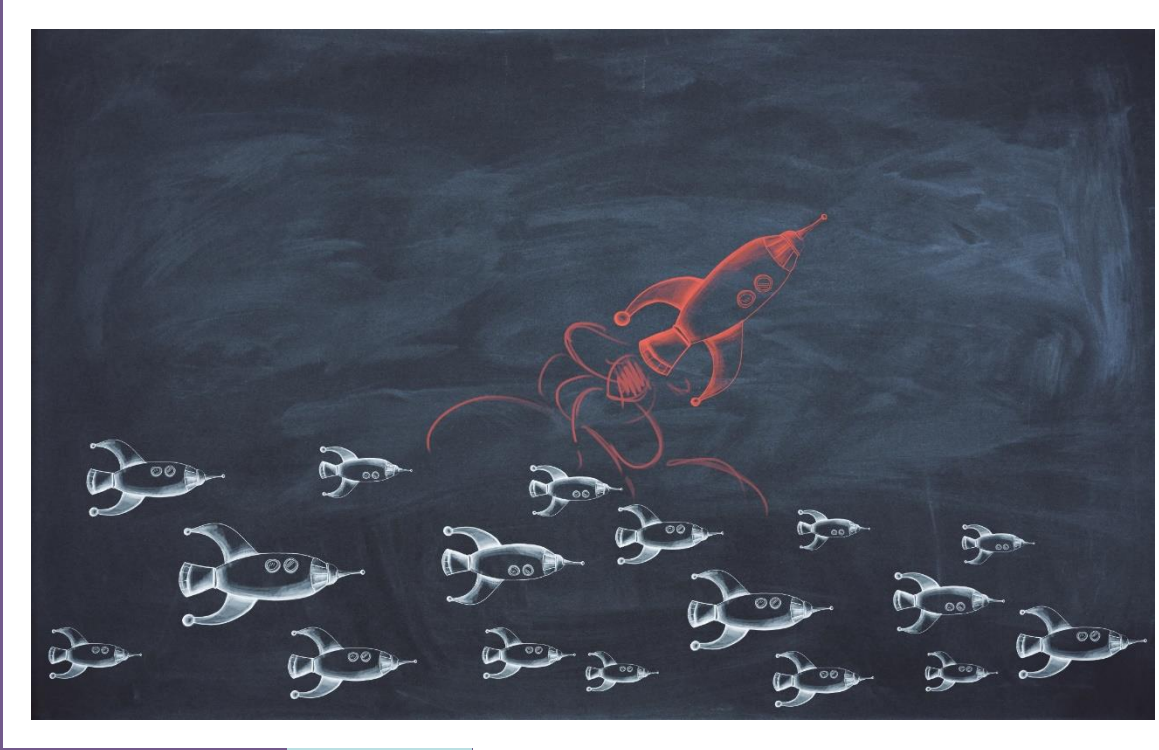


SUSTAINABLE DEVELOPMENT GOALS



Cynaliadwyedd a llesiant —
cyfle i wneud pethau'n wahanol

Sustainability and wellbeing —
an opportunity to do things
differently



**Mae Prifysgol Bangor wedi ymrwymo i
fod yn Brifysgol Gynaliadwy**

**Bangor University is committed to be a
Sustainable University**



PAM TRAFFERTHU?

Rheswm 1

Barn Myfyrwyr

WHY BOTHER?

1st reason

Student Opinion

1.4.5.7.17



Pam?
Why?

Barn myfyrwyr
gwledydd y DU

Students
opinion –
UK nations

EISIAU I BRIFYSGOLION FOD O
DDIFRIF AM GYNALIADWYEDD

WANT UNIVERSITIES TO TAKE
SUSTAINABILITY SERIOUSLY

85%



70%

EISIAU CYRSIAU SY'N GWNEUD
CYNALIADWYEDD YN BERTHNASOL
I'CH PWNC

WANT COURSES THAT APPLY
SUSTAINABILITY TO YOUR SUBJECT

DIDDORDEB PERSONOL GAN
DROS HANNER OHONOC

MORE THAN HALF OF YOU
WANT TO PERSONALLY TAKE
INTEREST

60%



NUS Survey 2018

1.4.5.7.17

Pam?

Barn myfyrwyr o bob cwr o'r byd

Why?

Student opinion from across the globe

NUS Survey 2018

91% WANT THEIR UNIVERSITIES TO PROMOTE SD ACROSS CAMPUS

81% WANT TO LEARN MORE

17% THINK THEIR UNIVERSITIES ARE 'VERY GOOD' AT REDUCING THE NEGATIVE IMPACTS ON THE ENVIRONMENT AND SOCIETY

70% WANT SD IN THEIR COURSES

25% CLAIM THAT THEIR COURSES DIDN'T MENTION SD

93% WANT GOVERNMENTS TO TACKLE CLIMATE CHANGE

25% SAY THEY'VE NEVER HEARD OF THE UN SD GOALS

1.4.5.7.17

PAM?

Dwi yma i ddweud, ma'n tŷ ni ar dân. Dwi isho i chi fynd ati fatha 'sa ni mewn argyfwng. Dwi isho i chi fynd ati fatha sa'ch tŷ chi ar dân. Achos ma'ch tŷ chi ar dân!

- Greta Thunberg

WHY?

I am here to say, our house is on fire. I want you to act as you would in a crisis. I want you to act as if your house is on fire. Because it is.

- Greta Thunberg

1.4.5.7.17



PAM TRAFFERTHU?
Rheswm 2
Barn Busnes

WHY BOTHER?
2nd reason
Business' opinion

1.4.5.7.17



**Busnesau a chyflogwyr yn
chwilio am atebion
cynaliadwy**

**Businesses and employers are
looking for sustainable
solutions**



Siliau pwysig ar gyfer datblygu busnesau cynaliadwy

Skills for sustainable development

Understand
people's
relationship to
nature

Act as a
responsible
citizen locally &
globally

Analyse using
many subjects

Use resources
efficiently

Plan for the long
term as well as
the short term

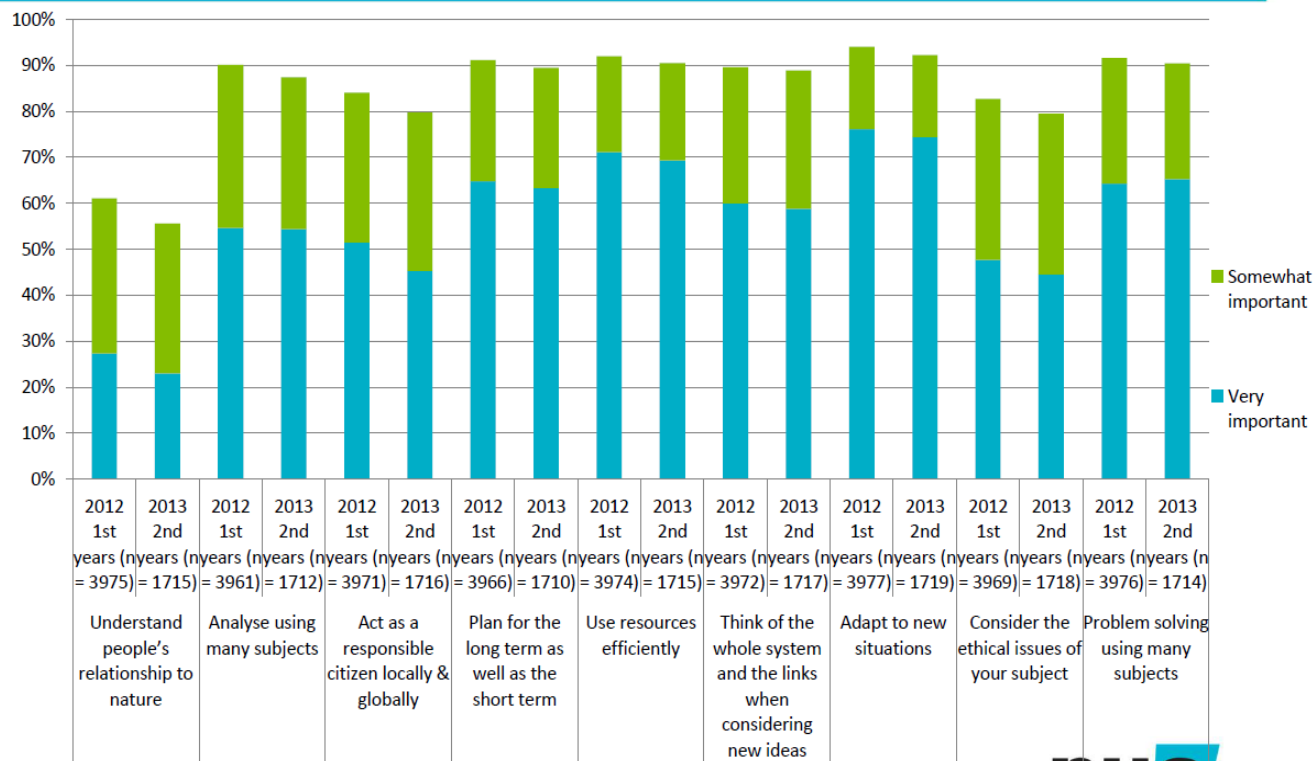
Consider the
ethical issues of
your subject

Adapt to new
situations

Think of the whole
system and the links
when considering
new ideas

Siliau pwysig i gyflogwyr

SD skills perceived as important to employers



Q. How important do you think the following skills are to your future employers?

Sgiliau mwy 'meddal'

- Sgiliau datrys problemau
- Meddwl creadigol a holistaidd
- Y gallu i adlewyrchu yn bersonol a phroffesiynol
- Gallu deall a mabwysiadu gwerthoedd moesegol
- Arwain a rheoli newid

'Softer' skills

- Problem-solving skills
- Creative and holistic thinking
- Personal and professional self-reflection
- Understand and adopt ethical values
- Initiate and manage change

Adnabod chi

Enw

Mres/PhD

Prosiect ymchwil

Getting to know you

Name

Mres/PhD

Research project



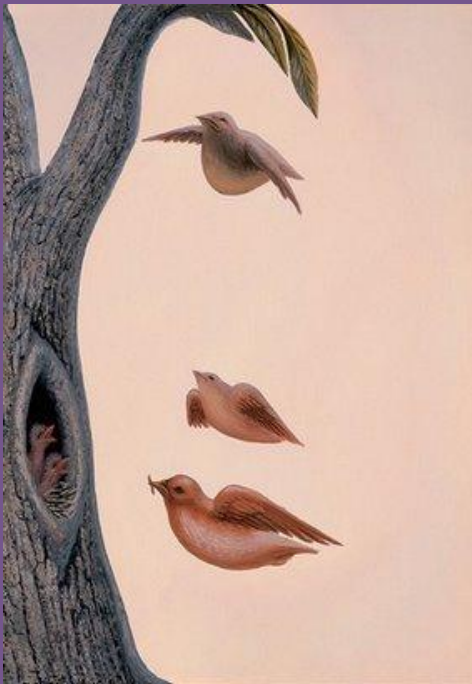
**Beth mae cynaliadwyedd yn ei
olygu i chi, eich partneriaid a'ch
hymchwil?**

**What does sustainability mean to
you, your partners and your
research?**



Beth ydych chi'n ei weld?

What do you see?



Cynaliadwyedd?

Sustainability?



Meddwl yn wahanol, meddwl tu
hwnt i wyrdd . . .

Thinking differently, thinking
beyond green . . .



#cryfach gyda'n gilydd
#togetherstronger



Yr her

The challenge



Bruntland (1987)

“Datblygu sy’n cwrdd ag anghenion a dyheadau’r genhedlaeth bresennol heb gyfaddawdu gallu’r cenedlaethau sy’n dilyn i gwrdd â’u hanghenion”

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Our Common Future: Report of the World Commission on Environment and Development



Cynaliadwyedd: y gallu i barhau i'r dyfodol pell
Datblygiad cynaliadwy: y broses o symud tuag at
gynaliadwyedd

Sustainability: the ability to last into the distant
future

Sustainable Development: the process of moving
towards sustainability



Beth yw 'cynaliadwyedd'?

What does 'sustainable' look like?



Beth yw 'cynaliadwyedd'?

Pobl

Planed

Gwneud arian

What does 'sustainable' look like?

People

Planet

Making money





Image: Matt Discombe



Image: Juan Barreto/AFP/Getty Images



Anghynaliadwy – pethau sydd ddim yn dderbyniol

Unsustainable – things that are really not OK

Dyletswydd cyfansoddiadol yng
Nghymru i ystyried llesiant pobl
heddiw a'r dyfodol

Constitutional duty in Wales to
consider the wellbeing of current
and future generations



Un Egwyddor Cynaliadwy

One Sustainable
Development Principle



Pedair Colofn

Economaidd
Cymdeithasol
Amgylcheddol
Diwylliannol

Four Pillars

Economic
Social
Environmental
Cultural



Y pump ffordd o weithio cynaliadwy

Five sustainable ways of working

Hirdymor



Long Term

Atal



Prevention

Integreiddio



Integration

Cydweithio



Collaboration

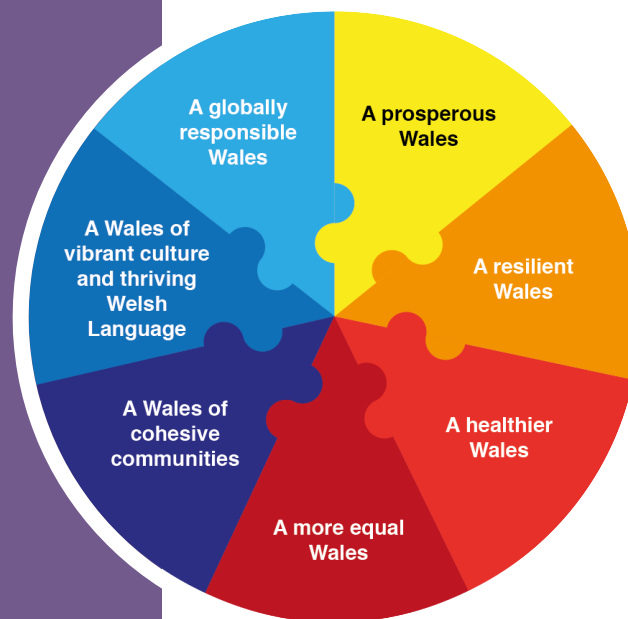
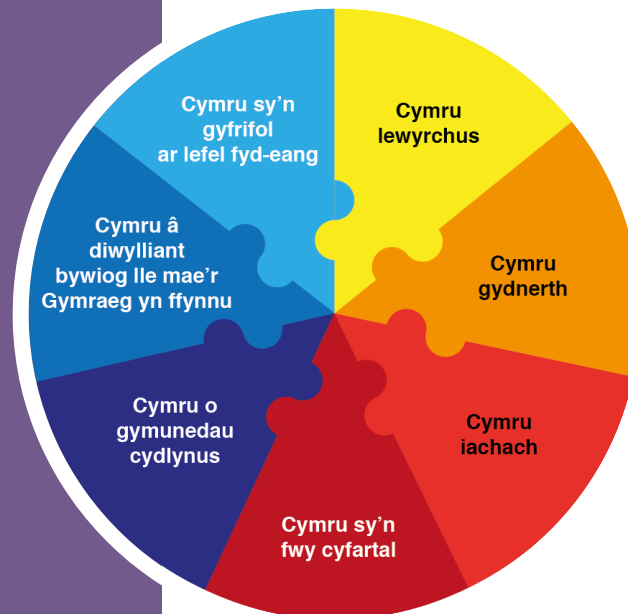
Cynnwys



Involvement

Saith nod llesiant

Seven wellbeing goals



Nodau Cynaliadwy y Cenhedloedd Unedig

UN Sustainable Development Goals



SUSTAINABLE DEVELOPMENT GOALS



46 Dangosydd Cenedlaethol

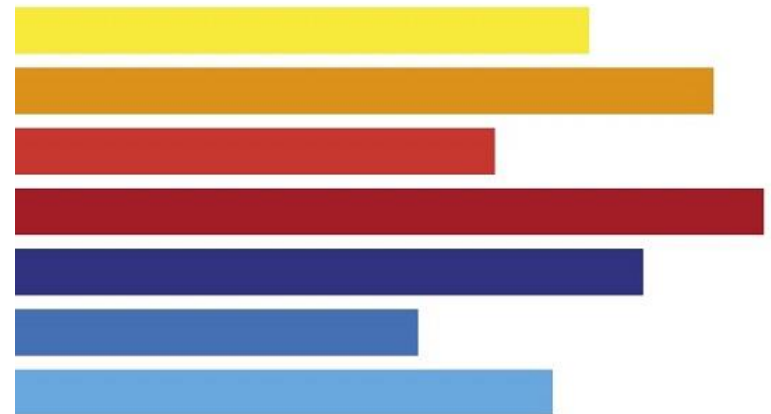
46 National Indicators



How to measure a nation's progress?

National indicators for Wales

National Indicators for Wales as required by section 10(1) of the Well-being of Future Generations (Wales) Act 2015.



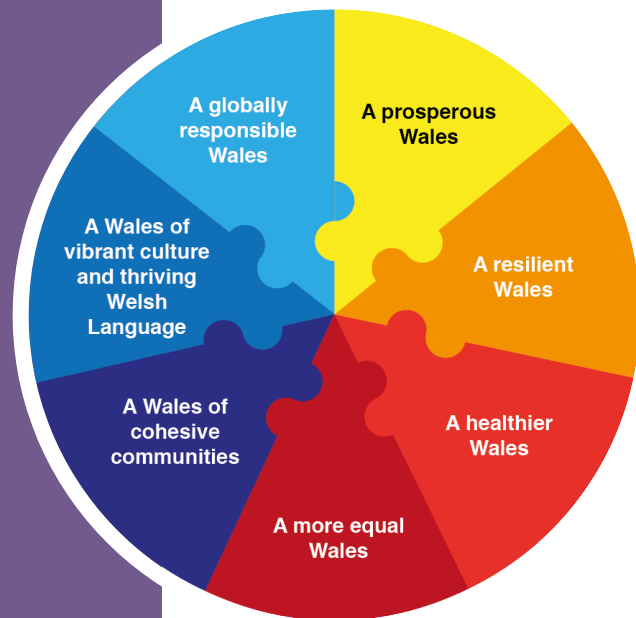
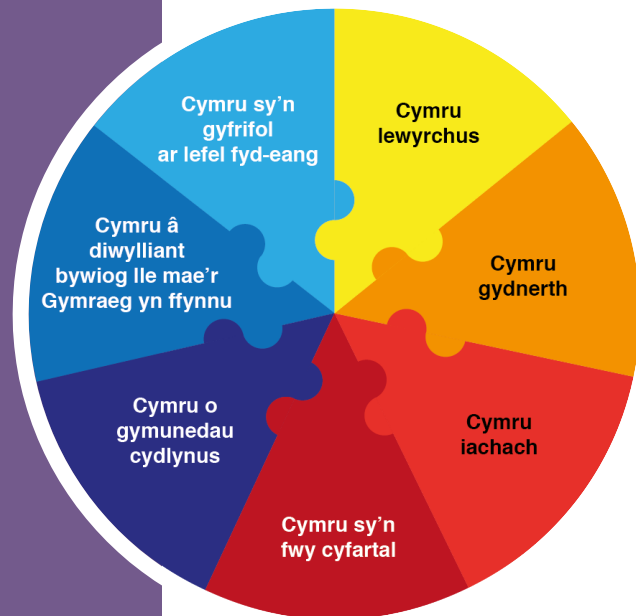
Laid before the National Assembly for Wales, 16 March 2016





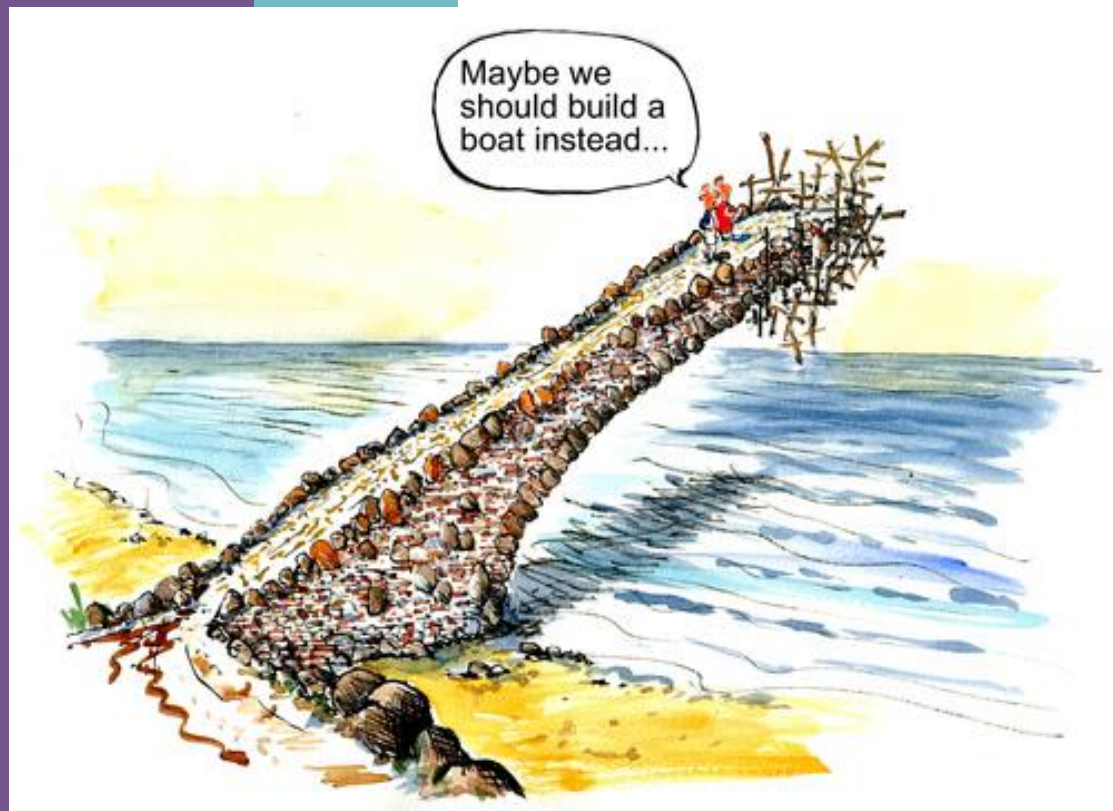
Eich hymchwil a'r saith nod llesiant

Your research and the seven wellbeing goals



Y pump ffordd o weithio cynaliadwy

Five sustainable ways of working



Y pump ffordd o weithio cynaliadwy a'ch hymchwil

Five sustainable ways of working and your research

Hirdymor



Long Term

Atal



Prevention

Integreiddio



Integration

Cydweithio



Collaboration

Cynnwys



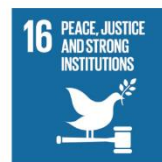
Involvement

Eich hymchwil a'r 17 nod Cynaliadwy y Cenhedloedd Unedig

Your research and the 17 UN Sustainable Development Goals



SUSTAINABLE DEVELOPMENT GOALS



Fframio'ch ymchwil yng
nghyd-destun Cymru a'r byd

Framing your research in a
Welsh and global context



DECHRAU WRTH EIN TRAED!

CARTREF

Y BRIFYSGOL A'R GYMUNED

GWYNEDD

CYMRU

PRYDAIN

EWROP

Y BYD

A STANDING START!

HOME

OUR UNIVERSITY/COMMUNITY

GWYNEDD

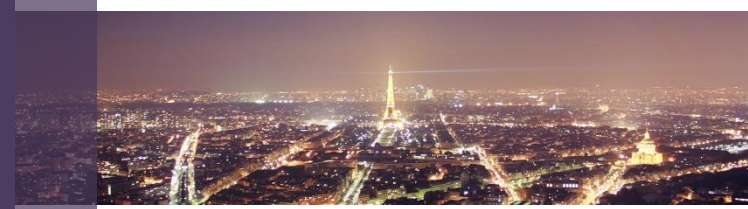
WALES

UK

EUROPE

THE WORLD

1.4.5.7.17



**Symud y rhwystrau
Cydraddoldeb, tegwch, bod yn
gynhwysol**

**Removing barriers
Equality, fairness and being
inclusive**



Taclo'r heriau mawr gyda'n gilydd

“We scientists don't know how to do that”

“I used to think the top environmental problems were biodiversity loss, ecosystem collapse and climate change.

I thought that with 30 years of good science we could address those problems.

But I was wrong.
The top environmental problems are selfishness, greed and apathy...

...and to deal with those we need a spiritual and cultural transformation

- and we scientists don't know how to do that.”

Gus Speth

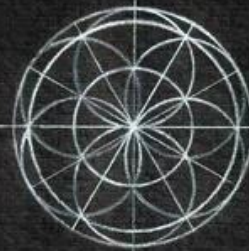
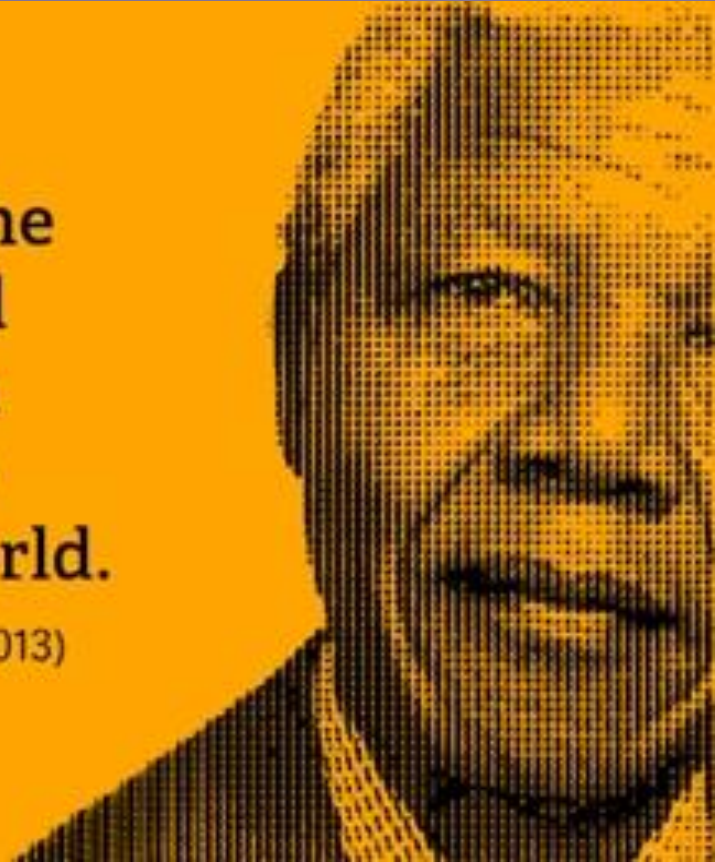


Addressing grand challenges together



Education is the
most powerful
weapon which
you can use to
change the world.

Nelson Mandela (1918 – 2013)



"Learn how to see. Realize that
everything connects to everything else."

Leonardo da Vinci

Cynaliadwyedd, Cydweithio, Cysylltu

Dathlu cysylltiadau
cymleth popeth a'r
nodau

Osgoi cyfyngu'r
meddwl mewn bocs

Recognise and
celebrate the
interconnectedness of
all things and all goals

Move away from silo
thinking



**Sustainability, Collaborating,
Connecting**

Adnoddau

[Deddf Llesiant Cenedlaethau'r Dyfodol \(Cymru\)](#)

[2015 a chrynodeb](#)

[The Wales We Want Report](#)

[Fframwaith Cenedlaethau'r Dyfodol](#)

Resources

[The Well-being of Future Generations \(Wales\)](#)

[Act 2015 & summary.](#)

[The Wales we Want Report](#)

[Future Generations Framework](#)



Barn y byd

What the world thinks

“The Wales Future Generations Act captures the spirit and essence of two decades of United Nations work in the area of sustainable development and serves as a model for other regions and countries... We hope that what Wales is doing today, the world will do tomorrow. Action more than words is the hope for our current and future generations.”

Nikhil Seth, UN Director of Sustainable Development



Grwp Ymchwil Llesiant Prifysgol Bangor

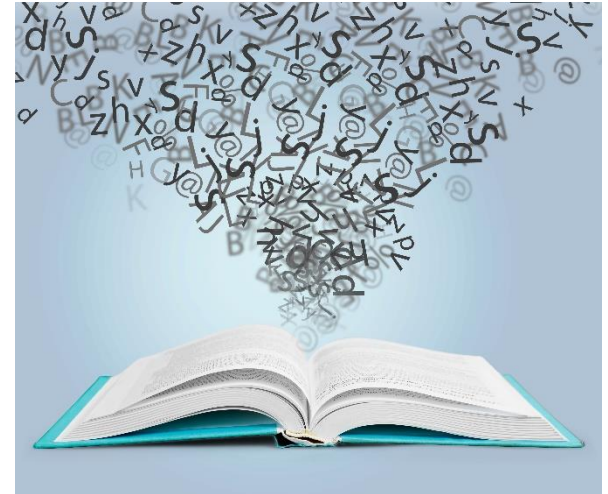
Bangor University Wellbeing Research Group

Andrew Rogers

hbpa5a@bangor.ac.uk

Liz Morris Webb

osp876@bangor.ac.uk



RHOI'R BYD YN EI LE

PUTTING THE WORLD TO RIGHTS



#CARNIFAL20

CHWEFROR
FEBRUARY





Diolch
Thank You

 S_LabBangor

 S.LabBangor

 TheSustainabilityLab

Dr Gwenith Elias
Prifysgol Bangor
Bangor University