





Centre for
Sustainable
Delivery



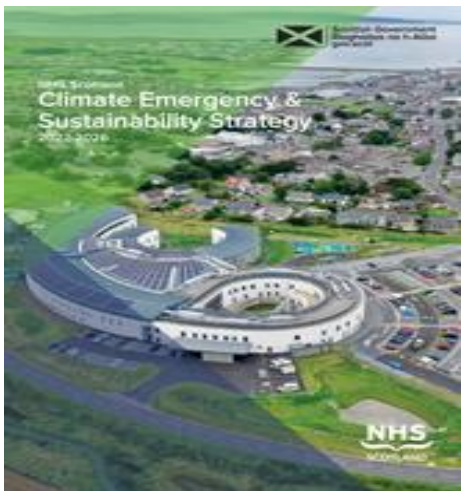
NHS
SCOTLAND



National Green Theatre Programme

Prògram Nàiseanta Lannsaireachd Uaine

Embedding sustainability into every clinical and managerial decision



Collaborate. Redesign. Innovate. Transform.

Current expansion



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Green Health Care Scotland
Cùram Slàinte Uaine na h-Alba



National Green Endoscopy Programme
Prògram Nàiseanta Endoscopy uaine



National Green Pathways
Prògram Nàiseanta slighean uaine



National Green Theatres Programme
Prògram Nàiseanta Lannsaireachd Uaine



National Green Renal Programme
Prògram Nàiseanta dubhaig uaine



National Green Laboratories Programme
Prògram Nàiseanta obair-lann uaine

Ideal Green Theatre



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Green dividend by switching off HVAC
(between 8pm and 6am and over weekend)

5000 - 6000 Tonnes CO2 / yr

£3.3 – 4M / yr





Pilot work

Successful pilot conducted at the Golden Jubilee within the Orthopaedic Department.

- RA-TKA surgery – reduction of over 30% in instruments and reduced number of trays from 5 to 4.
- Across the 5 month pilot a carbon reduction of 220kg Co2e was achieved.



Figure 1: Example of numbered surgical set

Instrument utilisation	Surgeon 1 response
1	Always used
2	Never used
3	Always used
4	Never used
5	Never used
6	Rarely used
7	Rarely used
8	Often used
9	Often used
10	Always used
11	Always used
12	Always used
13	Always used

Figure 2: Example poll/survey for colleagues



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The Guardian
News website of the year

News Opinion Sport Culture Lifestyle



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Environment

Microscopic plastics could raise risk of stroke and heart attack, study says

Scientists link tiny particles in blood vessels with substantially higher risk of death

Jan Sampaio, Science editor

Microplastics found in every human testicle in study

Scientists say discovery may be linked to decades-long decline in sperm counts in men around the world

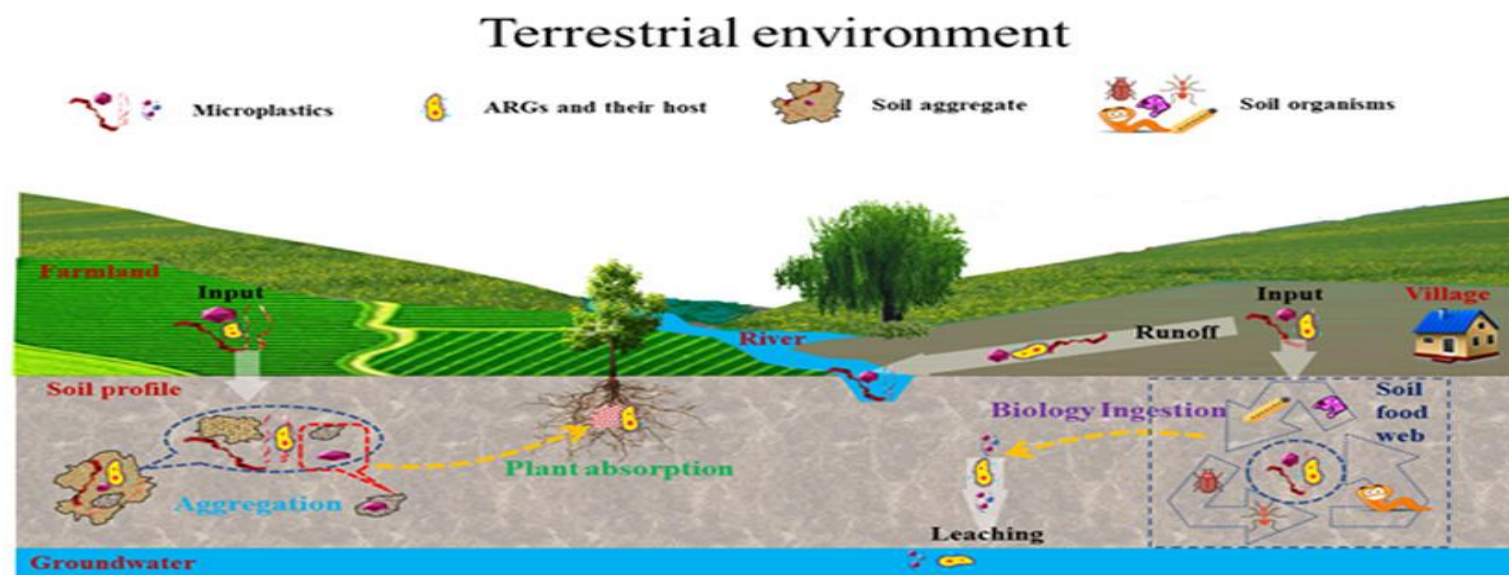
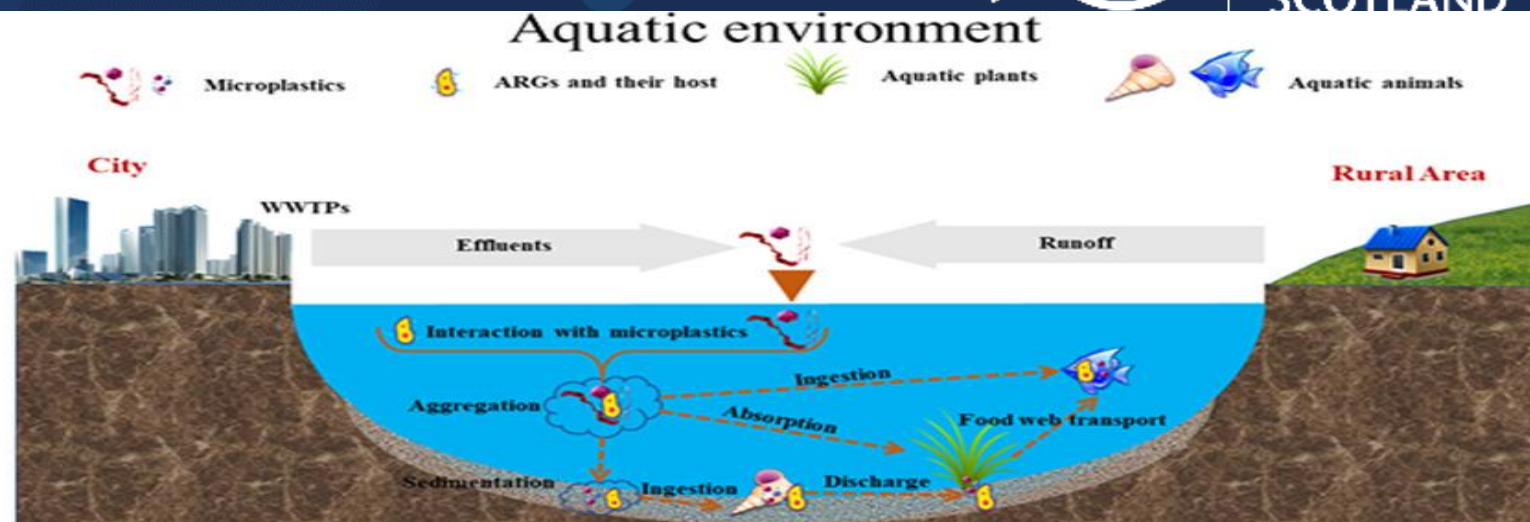
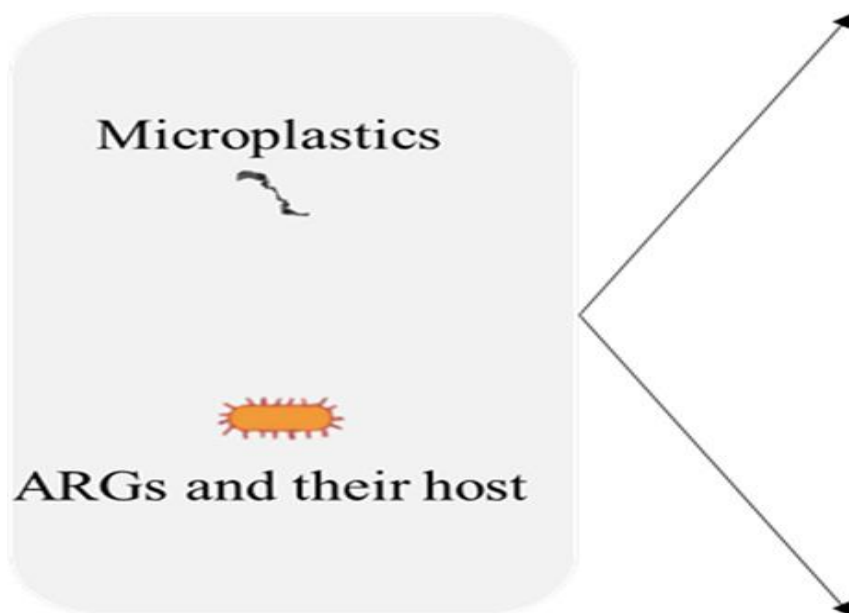


Microplastics and AMR

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Circularity -Back to the Future



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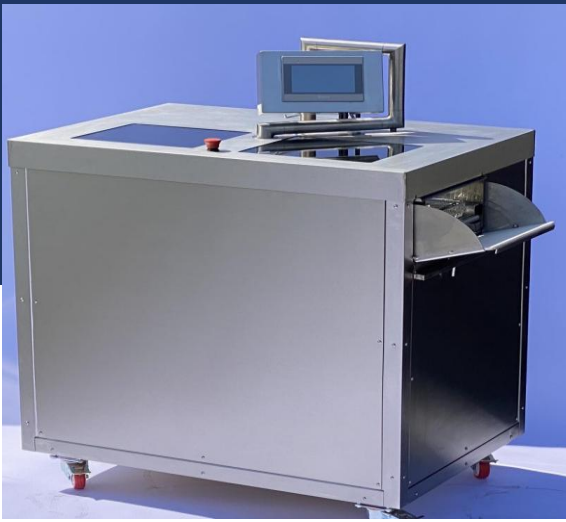


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- Refuse – “Gloves are Off”
- Re-manufacturing of instruments
- Reusable textiles
- Alternatives to single use plastics



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Risk & Innovation

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Purewater Intl

IF Water

Tiny Air

Revolution Zero

**Only Novus MVCD™
purifiers work differently**

These are the reasons why:

Efficient evaporative purification technology
High temperatures capture & destroy
No consumables for complete consistency



**Efficient evaporative
purification technology**
Novus purifiers compress
evaporated water vapour
through a vacuum pump.
The added pressure and
heat generated, then
reheats the system,
removing the need for a
heating element. The
system generates distilled
water 22X more energy
efficiently than traditional
methods.¹



**No consumable parts
for complete
consistency over time**
Novus purifiers have no
consumable filters or
membranes to wear out.
This means there is no
reduction in quality over
time; there are no
bacteria breeding
grounds; and the system
is cheaper to maintain.



**High temperatures
capture and destroy
contaminants**
The MVCD™
technology neutralises
all contaminants at
temperature over 100C.
Our vapour distillation
system continuously
destroys microbial
contaminants, vents
Volatile Organic
Compounds (VOC), and
leaves heavy
contaminants behind.



¹ Based on Thermodynamic calculations with the University of Edinburgh



MDMC

Medical Device Manufacturing Centre
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AMOC – a tipping point



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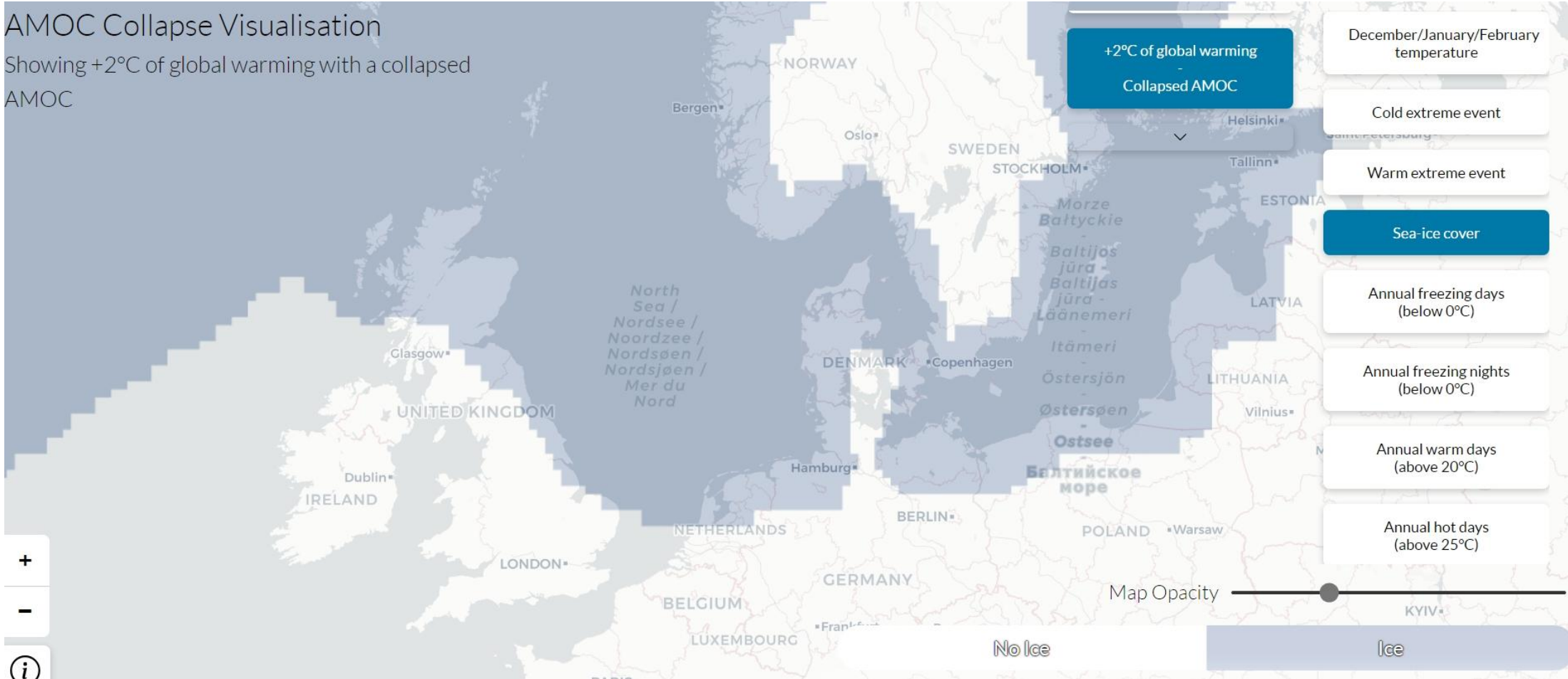


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AMOC with Global temp +2C



Barriers and opportunities



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- Clinical Autonomy
- Silo working
- Who is in charge?
- Finance
- Risk and Innovation

“Many jobs contribute a greater portion of a person’s carbon footprint than their home life or travel, so employees should **carry constructive climate activism to work**”



Collaborate.

brighton and sussex
medical school

CENTRE FOR
SUSTAINABLE
HEALTHCARE

UK Health Alliance
on Climate Change

First 2 years



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12 ACTIONS FOR
IMPLEMENTATION
PUBLISHED



£600,000
SPEND AVOIDED



12,200
TCO2E
SAVINGS
DELIVERED

15 HEALTH BOARDS ACTIVELY ENGAGED
IN THE MEASUREMENT FORUM



25

ACTIONS CURRENTLY
IN DEVELOPMENT



7

ACTIONS FOR
ADOPTION
PUBLISHED

1

VISIT HOSTED WITH
COLLEAGUES IN
GALICIA, NORTHERN
SPAIN



Projected savings of current actions –

20,000T CO2e

£6M spend avoided

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Mòran taining Thank you



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Clachan beaga, càrn mòr
Little stones, big cairn

[Intercollegiate Green Theatre Checklist | RCSEd](#)

[Green Surgery – UK Health Alliance on Climate Change](#)

[Home | Health Care Without Harm \(Europe\)](#)

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