

Reducing Single-Use Plastic and Waste in Labs

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Reducing Single-Use Plastic and Waste in Labs

Problem Statement:

Globally, labs produced **5.5 millions tonnes of plastic waste in 2014**. Single-use plastic and waste generated in the labs is having a negative impact on climate change.

In 2016, as much as **24% of all deaths worldwide** were attributable to the **environment** – this is roughly **13.7 million deaths a year**.



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Aim:

By November 2025, we will have saved 1,400kg tonnes of CO₂ annually.

This is the equivalent of **442,105 pipette tips**.

At this rate of expansion this will equate to saving 1 life a year by Nov 2030!

4,432 tonnes of CO₂ is the equivalent carbon emissions of saving one life a year.

(Equivalent to 1 million 400 pipette tips)



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Achievements

Addressing Single-Use Plastic and Waste in
PHW's Microbiology Labs – April 2024

Green Lab Champions Group

Reused single-use plastic sample bag (Cardiff)
Annual saving: 29,952 bags, 29 tonnes CO₂

Recycling Pipette
tip boxes (Swansea)
100 boxes = 0.2
tonnes CO₂

30 tonnes CO₂ saved...
30 flights from Paris to
New York!

LIMS Printing (Swansea)
Annual saving: 156,000 sheets of paper, 0.7 tonnes CO₂)



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Achievements

Procurement

NHS Wales Waste in labs Collaboration group

Baseline - sustainability projects and initiatives

Pathology Self-Assessment tool

Sustainability a standing agenda item at **Pathology Operational Managers Group & Pathology Programme National Group** meetings



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Enablers

Collaboration:

- Welsh Government
- Procurement
- Decision makers

Enthusiasm & passion for engagement and action

Decarbonisation Action Plans



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Barriers

Culture

- **Commitment** to sustainability at a senior level
- **Lack of funding/ budgets** to support actions
- **Capacity** to deliver sustainability actions

Lack of **named person leading on sustainability**



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What we need to progress

Culture shift – focus on Sustainability

- **Sustainable Lab Champion** in every lab in Wales (0.5 day/ week dedicated to work on sustainability)
- **Funding/ budgets/ resources**

What mechanisms do you have to help coordinate this work across Wales?



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Thank you...

Any Questions

Health & Sustainability Hub
publichealth.sustainability@wales.nhs.uk

Every single piece of plastic ever made still exists!

Globally over 5 million toothbrushes are thrown away annually.

Every toothbrush you ever owned is out there somewhere – in landfill or the sea!



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