Air Quality Vision for Scotland – and getting there together

Dr Heather Price
UKRI Regional Clean Air Champion for Scotland





Air quality vision for Scotland - and getting there together

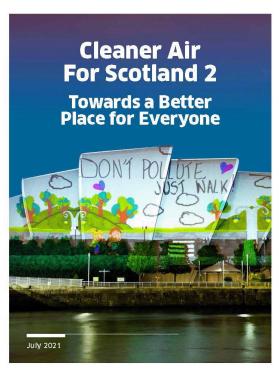
Dr Heather Price

Senior Lecturer in Environmental Geography UKRI Regional Clean Air Champion for Scotland

BE THE DIFFERENCE

Where do we want to go?



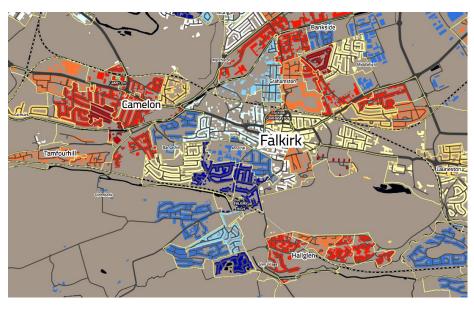


"Our vision is for Scotland to have the cleanest air in Europe"

Future air quality challenges for Scotland include:







+ new challenges in the future that we cannot currently predict

What is the key question?



Defra/UKHSA Air Quality Information Systems review

- Complexity of air pollution reduces engagement at an individual level
- Air pollution seen as intangible and widespread, with individual actions having limited impacts
- Technical language limits engagement and current engagement methods assume that everyone has a high degree of scientific literacy

Communicating effectively?

Latest Air Quality Forecast

Today:

Low air pollution is expected across Scotland.

Tomorrow:

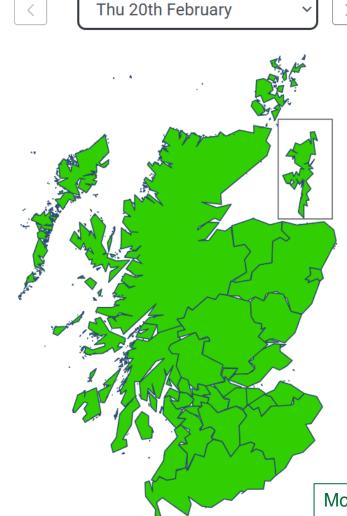
Low air pollution is expected across Scotland.

Outlook:

Low air pollution is expected across Scotland.

Last updated: 12:01 AM on Thu 20th February 2025

<u>Latest weather forecast information.</u>
<u>Forecast 5-day summary</u>



"For instance, today, if I look at this website, the whole country's green. Yeah. Does that mean that there's no pollution anywhere in Scotland? Probably not"

McCarron et al. (in review) Public engagement approaches to raise air quality awareness in rural communities

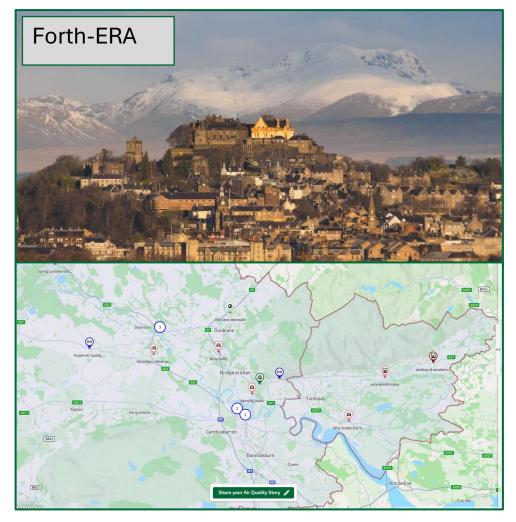
https://www.scottishairquality.scot/

Making it easy





- Enhanced spatial resolution of data
- Offer huge opportunity for:
 - Personalising air quality information and supporting public awareness (McCarron et al., 2022)
 - Better understanding differentials in air pollution exposure across communities
 - Testing the effectiveness of interventions
- However, data quality needs to be 'fit for purpose'





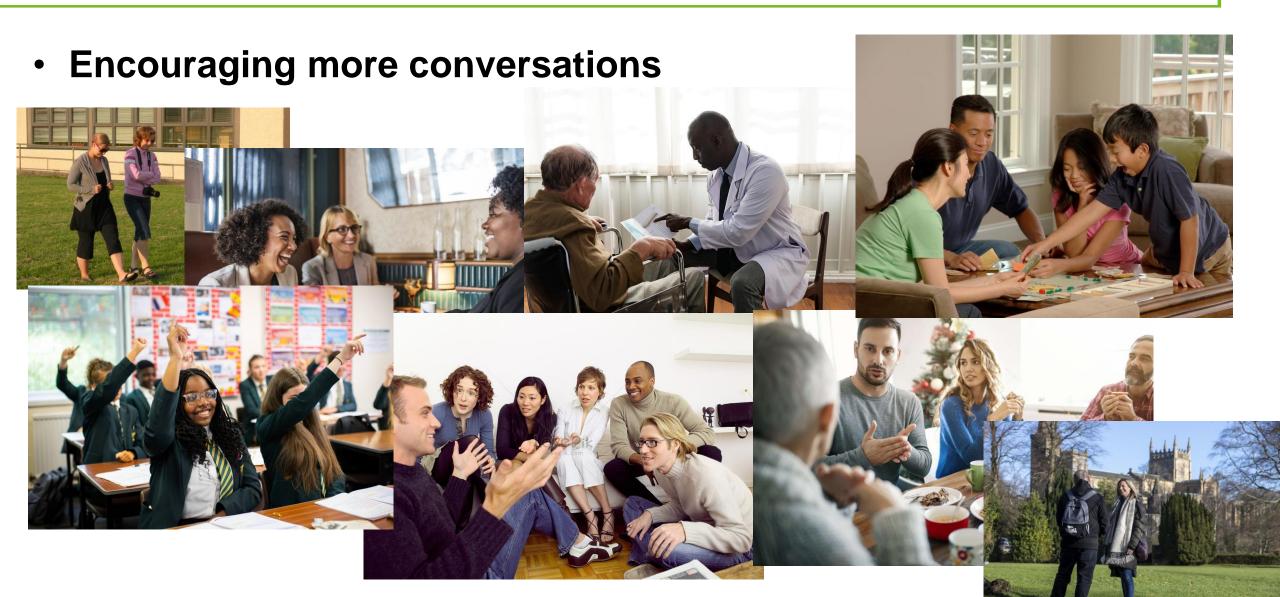




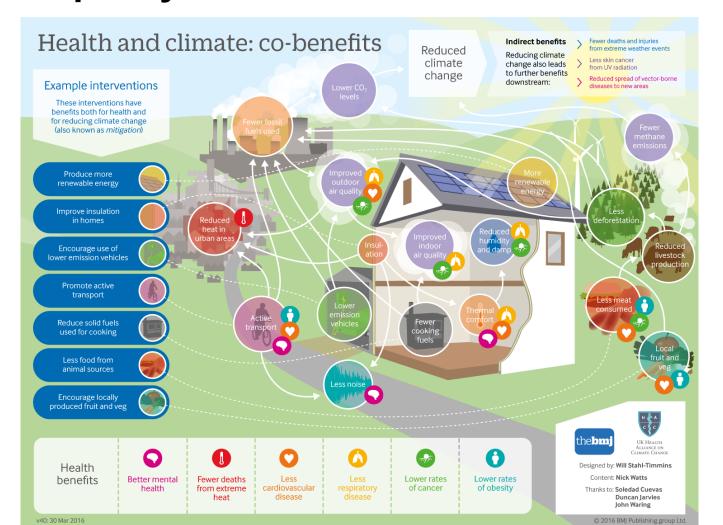








Improved air quality as a co-benefit of other measures



Co-creating a vision of a positive future



https://www.bigissue.com/news/environment/in-pictures-what-does-a-car-free-city-look-like/

UKRI's Clean Air Programme

Wave 1 - Clean Air: Analysis & Solutions

Developing solutions to air pollution to help policymakers and businesses protect health and work towards a cleaner economy (£20.5m)









Wave 2 - Clean Air: Addressing the Challenge of the **Indoor/Outdoor Continuum**

The programme aims to equip the UK to proactively tackle new air quality challenges related to changing emissions and exposure patterns, in order to protect human health and support clean growth (£22m)





















UKRI Wave 2 CAP projects

- **RESPIRE** (Led by: Prof Cathy Thornton, Swansea University): Relating Environment-use Scenarios in Pregnancy/Infanthood and Resulting airborne material Exposures to child health outcomes
- **HIP-Tox** (Led by: Professor Gordon McFiggans, The University of Manchester): Hazard Identification Platform to Assess the Health Impacts from Indoor and Outdoor Air Pollutant Exposures, through Mechanistic Toxicology
- INGENIOUS (Led by: Professor Nic Carlsaw, University of York): Understanding the sources, transformations and fates of indoor air pollutants
- WellHome (Led by: Professor Frank Kelly, Imperial College London): West London Healthy Home and Environment Study





Staying in touch with the Clean Air Programme

- Website
- Twitter/X
- Linkedin
- Newsletter
- Upcoming knowledge exchange workshops
 - ECR Networking and Careers Event at Imperial College London
 - Low Emission Zones Knowledge Exchange Workshop, Belfast
 - Sensor Networks Knowledge Exchange workshop, Stirling
- UKRI Clean Air Conference London June 2025
- Via Regional Clean Air Champions







UKRI Clean Air Programme Stirling workshop

- Sensor Networks Knowledge Exchange Workshop
 - From sensor selection to public engagement and data innovation
- Who is it for? Local authorities, researchers, other air quality stakeholders
- Timing: Late June/ early July 2025
- Interested? Email heather.price@stir.ac.uk or keep an eye on the UKRI Clean Air Programme website

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SHAPE





- Scottish ResearcH Partnership For Air Pollution Health Effects
- Interdisciplinary academic air quality community from 11 Scottish universities and research organisations
- Aim: Develop a vibrant network of multi-disciplinary academics and non-academic stakeholders that are poised to tackle emerging air quality issues in Scotland through collaborative working and future grant applications.

Thank you!



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