Regional Clean Air Champion for Wales

Professor Paul Lewis 28th September 2021







Content

- Overview of SPF Clean Air Programme (CAP)
- CAP Funded Projects
- Clean Air Champions
- Challenges and Gaps in Wales?







The UKRI SPF Clean Air Programme

- The Strategic Priorities Fund (SPF) is an £830 million across 34 themes being led by UKRI
- The Clean Air Programme (CAP) is a £42.5m research and innovation investment supported through the UK Research and Innovation Strategic Priorities Fund (SPF) and is delivered across two waves of SPF funding.

CAP is jointly delivered by:



















SPF Clean Air Funding – Two Waves

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)







Wave 1 – Clean Air: Analysis & Solutions

- Develop solutions to air pollution to help policymakers and businesses protect health and work towards a cleaner economy
- Drive forward new multidisciplinary research and innovation
- Leverage existing UK investments and enable a challenge-focussed multidisciplinary community to work together for the first time
- inform implementation of the Clean Air Strategy and related strategies
- develop new solutions to reduce emissions and exposures and protect public health, whilst avoiding perverse consequences
- Clean Air Champions to maximise links across the programme, knowledge exchange, business convening, and links into international efforts, and start to refine the priorities for future investment.





Wave 1 Funded Projects

ANTICIPATE

QUANT

DREaM

APEx

OSCA

National
Physics
Laboratory

DIMEX-UK

MAQS-Health

DUKEMS

Food Transport Refrigeration with Engine Exhaust and Metal Hydride Reactors NERC

Clean Air Framework Lower troposphere
and boundary
layer
measurements

UK air quality reanalysis

Kilometre scale air quality model for the UK

Met Office

Auto-Align

CAGE

Cool Run

Food Transport
Refrigeration with Engine
Exhaust and Metal
Hydride Reactors

InnovateUK







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

Wave 2 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.

- Build a **new UK interdisciplinary community** at the interface of indoor/outdoor air quality emissions, exposure and health impacts.
- Deliver new knowledge that:
 - provides critical foresight on emerging air pollution challenges and associated health risks; and
 - enables us to better understand and quantify human behavioural change and practices and how to influence through communication and technology interventions in order to limit exposure routes and mitigate health risks at vulnerable stages of the life course.
- Provide consistent, evidence-based advice for stakeholders through open data and tools in order to stimulate policy and regulatory innovation.
- Stimulate business-led innovation for sustainable products and services to protect health at the indoor/outdoor interface and grow UK businesses





Wave 2 Funded Projects

Consortia

A new pollutant hazard platform

Air Quality and Urban Homes

Air Pollutants and Child Asthma

NERC

Networks

BioAirNet

TRANSITION
Clean Air
Network

HEICCAM)

TAPAS

Breathing City

CleanAir4V

Metrology Network







Clean Air Champions

Regional Champions

Professor Sir Stephen Holgate



Dr Jenny Baverstock



Dr Gary Fuller







Clean Air Champions

Clean Air Champions provide a solution-focused approach to air pollution research and its uptake

Clean Air Champions to maximise links across the programme, knowledge exchange, business convening, and links into international efforts, and start to refine the priorities for future investment

Strategy

- Map competences and dimensions of currently funded air pollution projects overlay these to identify effective activities or gaps to target.
- Unify key researchers and stakeholders around visionary missions using horizon. scanning, workshops, sandpit sessions to scenario simulations.
- Uncover and challenge barriers/obstacles and produce interdisciplinary solutions.
- Create an "opportunities ideas portfolio" leading to innovations to test.
- Translate ideas into practical interventions targeted at the right people.
- Develop a professional and public communications strategy using the best available evidence and exemplars.





Regional Clean Air Champions

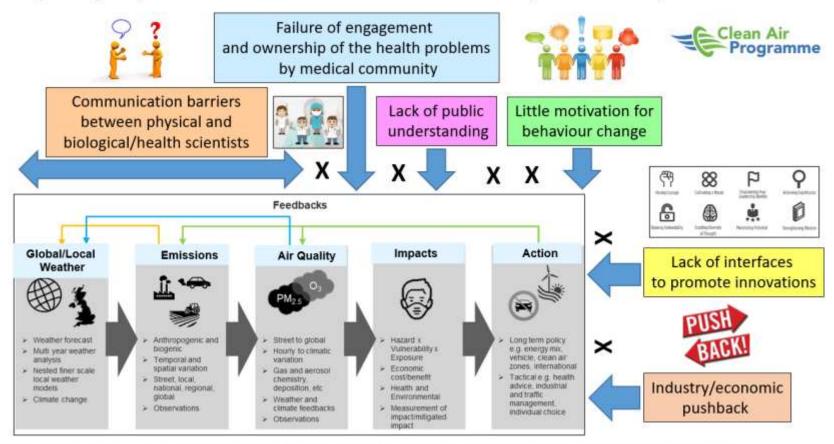
- Engage with the SPF Clean Air-funded researchers in their area to explore ways of promoting knowledge exchange between the programme and relevant research end-users, engaging local business, industry, health professionals, Local Authorities and the public.
- Gather intelligence on new local research, policy or industry developments and trends, which could help enhance or synergise with existing Programme activity.
- Help catalyse wider communication activities in their locality (e.g. Clean Air Day)
- Identify challenges and barriers to research and innovation in their local area and communicate these to the Programme.
- Come up with new ideas to enhance the effectiveness of the Programme.





Key barriers and hurdles to overcome

Air quality dependencies and basis for Clean Air systems analysis framework



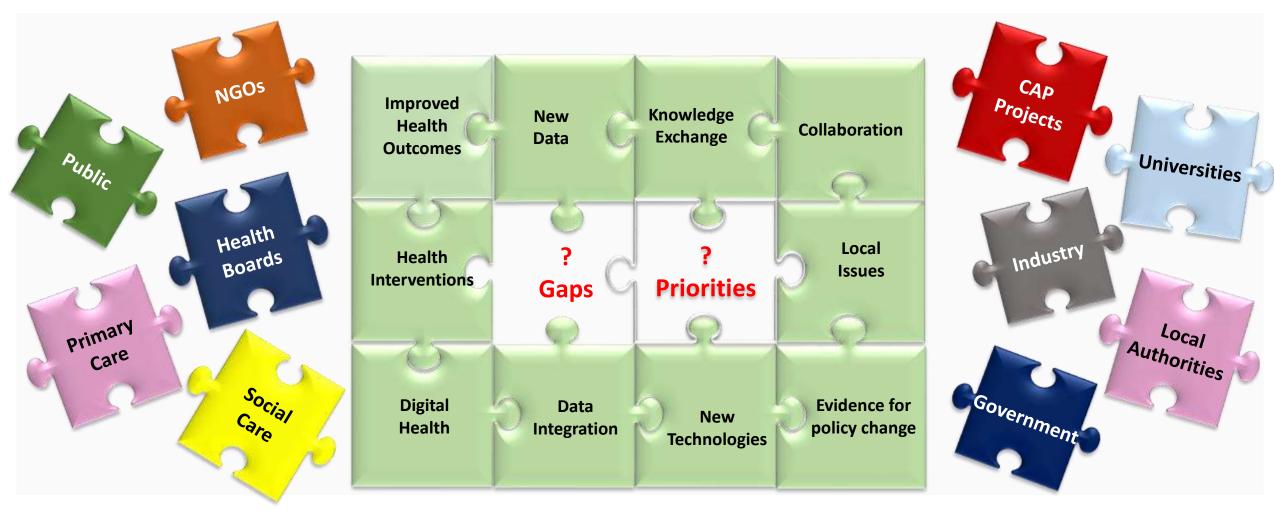
Capability/Linkages limited, fragmented and not aligned: Street - Global a particular challenge







Stakeholders, Challenges, Gaps and Collaboration in Wales









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