



An Roinn Tithíochta, Pleanála,
Pobail agus Rialtais Áitiúil
Department of Housing, Planning,
Community and Local Government



Roinn Cumarsáide, Gníomhaithe
ar son na hAeráide & Comhshaoil
Department of Communications,
Climate Action & Environment

Environmental Services Training Group

LOCAL AUTHORITY ENVIRONMENT CONFERENCE 2018

Climate Change and the Environment A New Reality

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Climate Change and the Environment A New Reality

Air Quality Monitoring and the Role of Public Bodies

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Summary

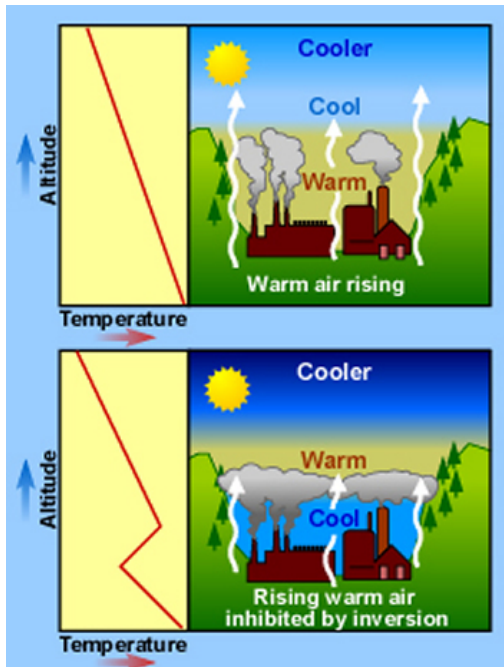
- ❑ History – how we got here
- ❑ Context in which the EPA works
- ❑ The new National Ambient Air Quality Monitoring Programme (AAMP)
- ❑ What will a new programme deliver?
- ❑ Implementation
- ❑ Next steps

History

- ❑ Pre-industrial times
 - Indoor air quality
- ❑ Industrial revolution
 - High density living
 - Factories
 - Coal
- ❑ Air pollution incidents highlighted the link between air quality and health

Meuse Valley, Belgium 1930

- ❑ December 1st – 5th
- ❑ 6000 ill
- ❑ 60 deaths



- SO_2 max of $25400 \mu\text{g}/\text{m}^3$
- EU public information alert threshold for SO_2 is $500 \mu\text{g}/\text{m}^3$ (for three consecutive hours)

Donora, Pennsylvania 1948

- ❑ 1 week in October
- ❑ 42.7% of population affected
- ❑ 20 deaths

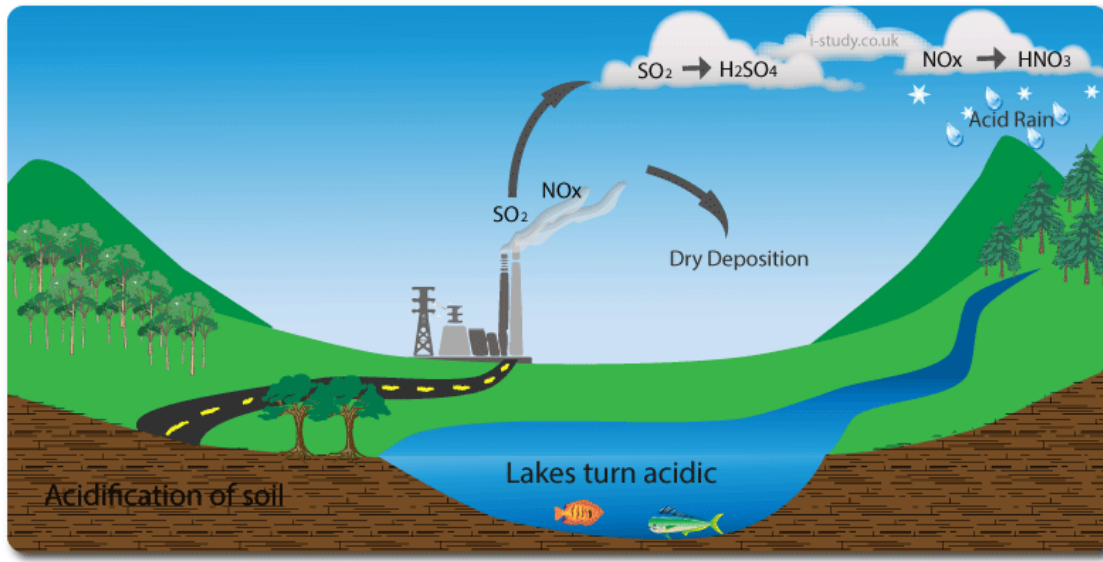


London smog 1952

- ❑ December 5th – 9th
- ❑ Official estimates of deaths 4,000
- ❑ Modern understanding deaths closer to 12,000



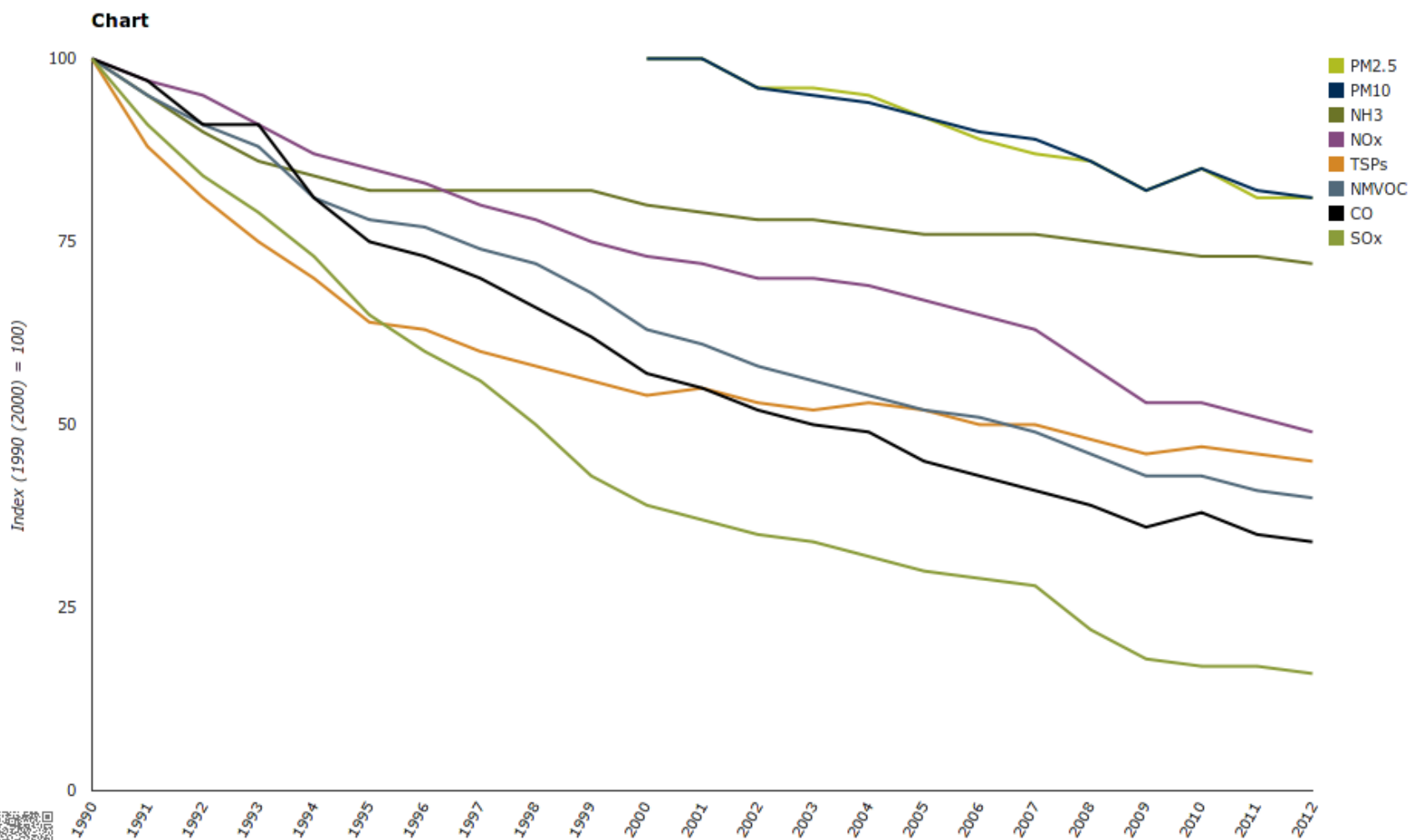
Acid Rain Scandinavia 1970's



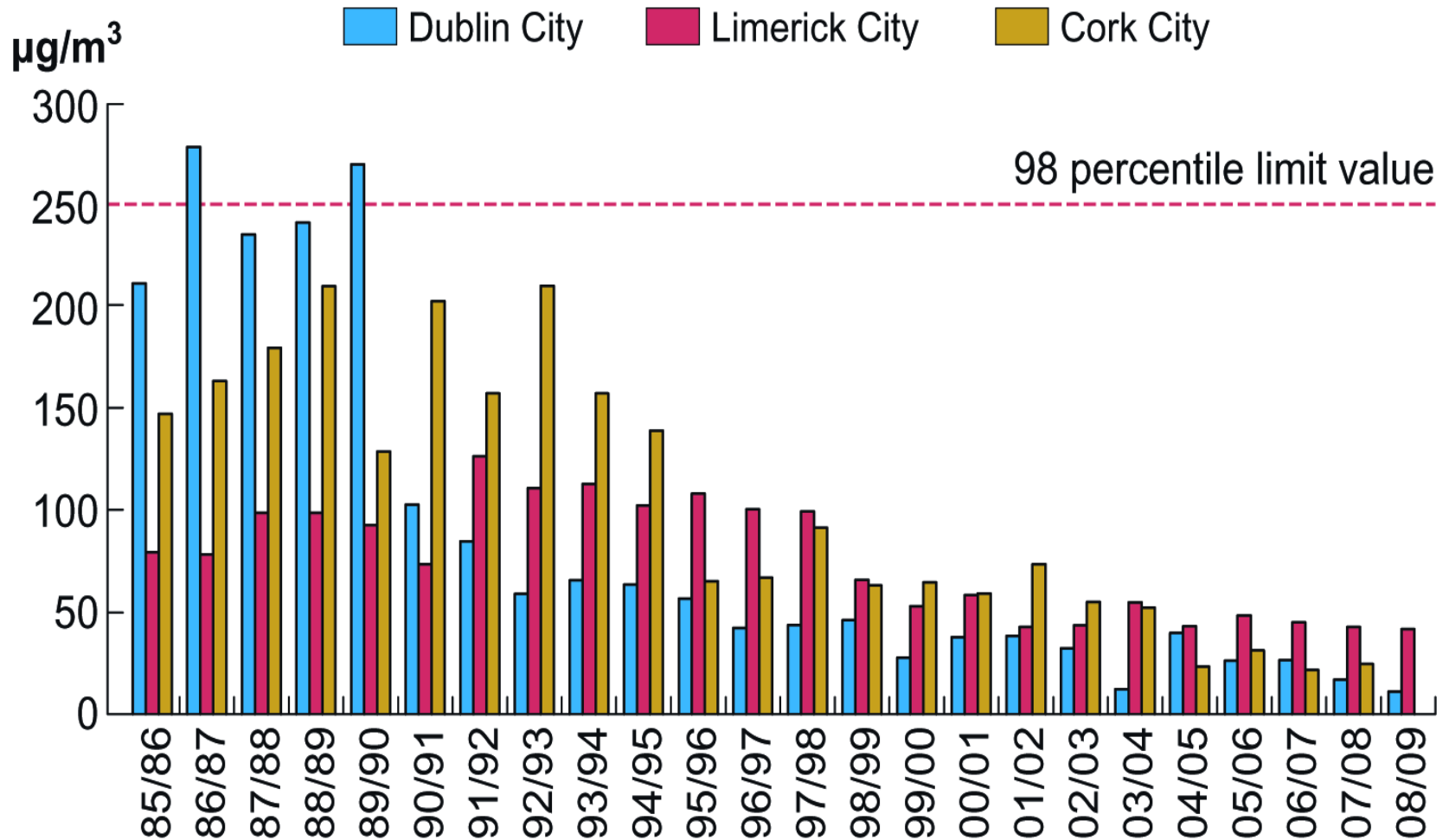
Legislation

- ❑ Air pollution control act of 1955, US
- ❑ Clean Air Act 1956, UK
- ❑ Clean Air Act 1970, US
- ❑ EC Directives, 1970's, EU
- ❑ Convention on Long-Range Transboundary Air Pollution (CLRTAP) 1979, EU
- ❑ EC Air Quality Directives 1980–1996, EU
- ❑ Air Pollution Act, 1987, Ireland
- ❑ Air Quality Framework Directive 1996, EU

Improvement

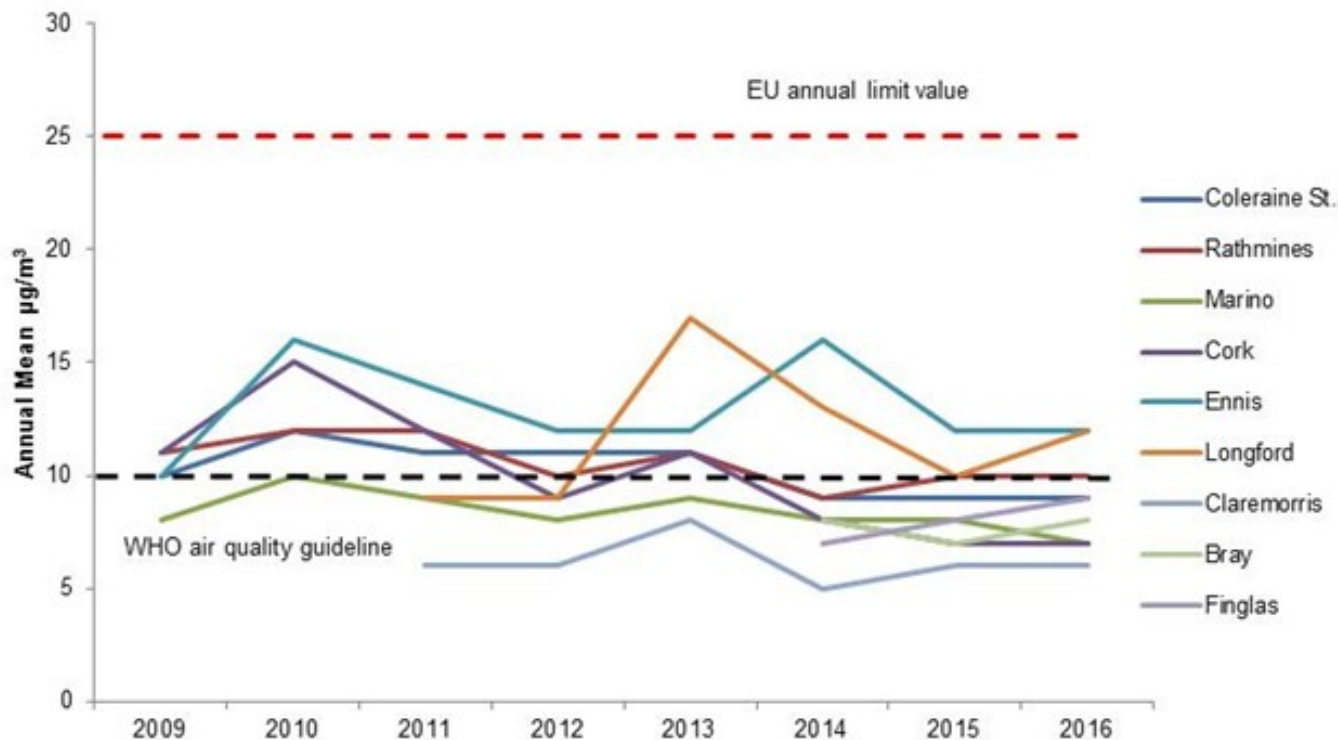


Improvement



Current Context

□ Clean Air for Europe Directive, CAFE (2008/50/EC)



Enhancement of AQ monitoring

- ❑ World Health Organisation – ‘no safe level of air pollution’
- ❑ Public demand for more and better AQ information
- ❑ Solid fuel burning and motor car pollution in urban areas

New 'AAMP'

- A new National Ambient Air Quality Monitoring Programme (AAMP) to be established under Section 65 of the EPA Act – to place air quality monitoring on a statutory footing

Why?

- Provide comprehensive air quality data. Inform environmental management policy. Improve health outcomes. Engage the public.

What is proposed?

- A new five year programme consisting of three main pillars
 - ❖ A greatly expanded national monitoring network in three tiers
 - ❖ Modelling and forecasting capability
 - ❖ Citizen science and citizen engagement initiatives

Comparison with other European networks

	Number of Stations	Population (millions)	Stations per million of population
Scotland	91	5.3	17 per million
Northern Ireland	19	1.8	11 per million
Wales	41	3	14 per million
London	113	9.8	12 per million
Norway	52	5	10 per million
Ireland	30	4.8	6 per million



What will a new programme deliver?

A greatly expanded national monitoring network with more than 68 automatic monitoring stations, supplemented by mobile trailers and local monitoring sites in three tiers

- ❑ Tier 1 – A core network of CAFE Directive monitoring stations upgraded to provide additional automatic real-time PM information
- ❑ Tier 2 – A greatly expanded Air Quality Index for Health (AQIH) network. This will consist of the existing CAFE network, the existing automatic EMEP network and a further **38** sites
- ❑ Tier 3 – Local air quality monitoring. To be progressed at an initial **15** sites

What will a new programme deliver?

Modelling and forecasting capability -

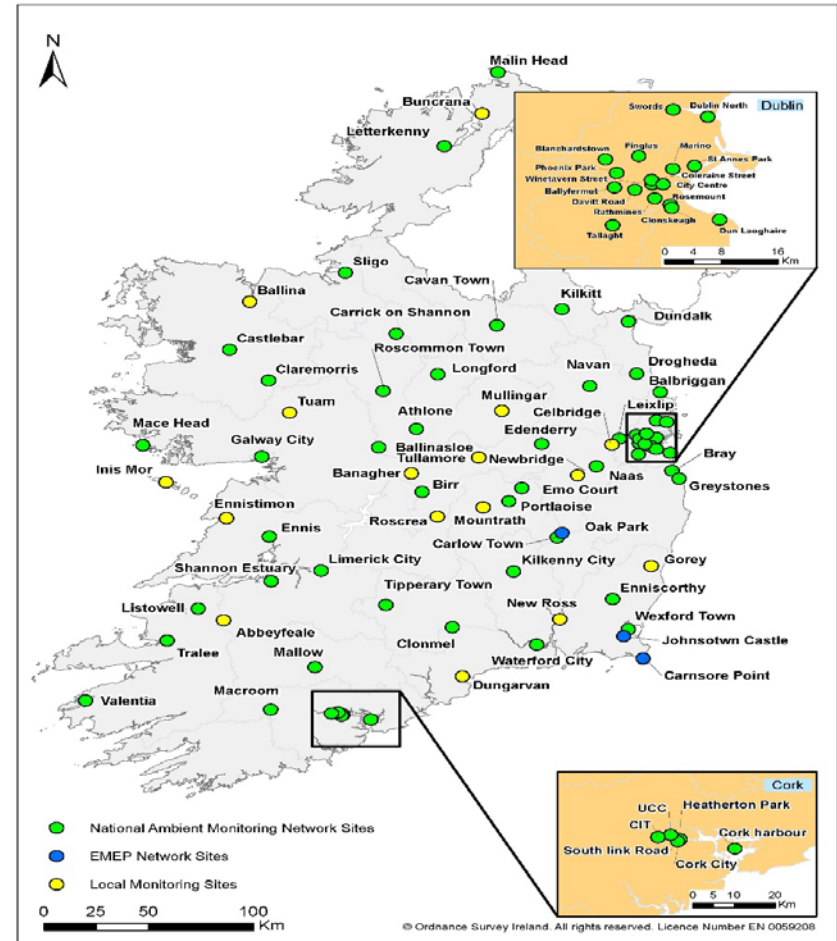
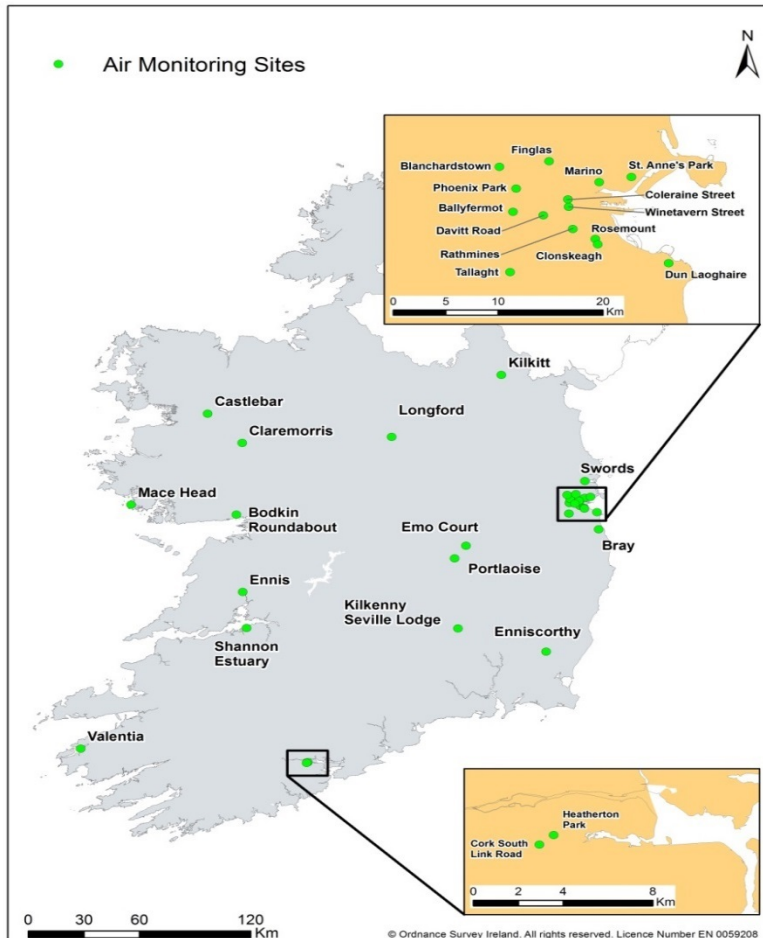
- ❑ An air quality forecast - 48 hours
- ❑ Ambient air quality models for Dublin and other urban centres – support/supplement monitoring and inform policy and local development choices

Citizen science and citizen engagement (CS/CE) initiatives –

- ❑ Low cost sensors?
- ❑ Provide added value to EPA data including review of local air quality data.
- ❑ Provide support to other agency CS/CE activities.

Current and Proposed Networks

– Post consultation



Ambient Air Monitoring Programme

– Governance Structure

- ❑ EPA as National Competent Authority and DCCAE to develop the National Ambient Air Monitoring Framework in consultation with the CCMA
- ❑ EPA lead role in air quality monitoring to continue
- ❑ Partnership of Local Authorities and other public bodies will be key to successful implementation
- ❑ Local Authorities using a regionalised approach to participate in national and local air quality monitoring



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Dublin City Council
Comhairle Cathrach Bhaile Átha Cliath



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

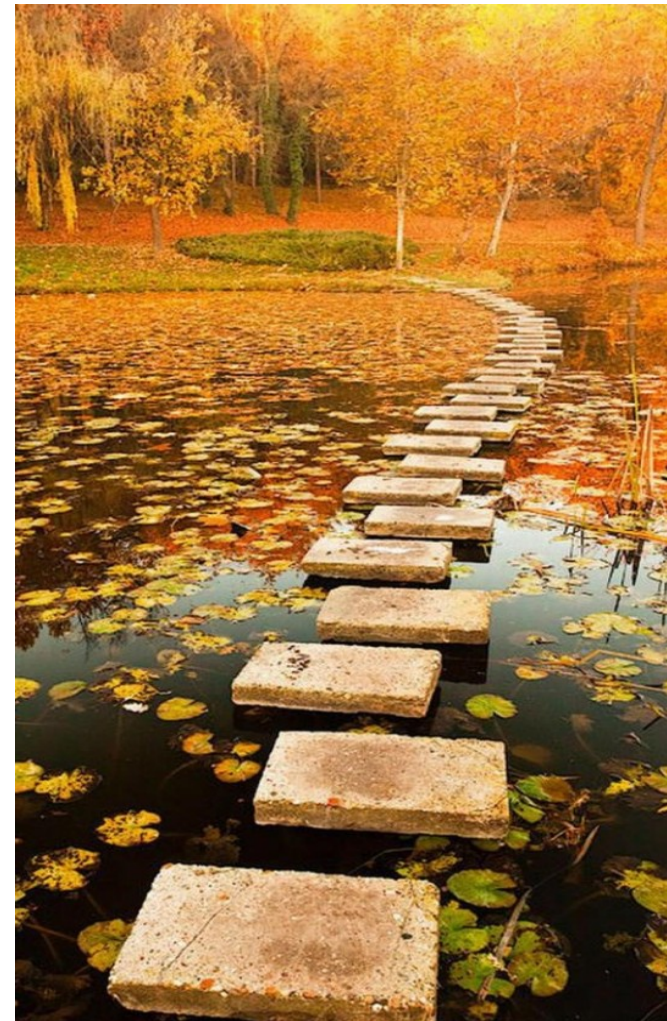


Comhairle Cathrach Chorcaí
Cork City Council



The road to implementation

- ❑ Capital of €5M over five years and personnel commitment given by Government
- ❑ Engagement with local authority partners
- ❑ Re-alignment of EPA resources
- ❑ Tendering and procurement
- ❑ Project planning and management
- ❑ Internal and external stakeholder communications
- ❑ Growing media engagement



Ambient Air Monitoring Programme

– next steps

- Programme was submitted under Section 65 of the EPA Act to the Minister for Communications, Climate Action and Environment in 2017 ✓
- AAMP document was published in November 2017 ✓
- Ongoing meetings, direct communication and active engagement with network partners
- Finalise programme planning
- Progress recruitment following sanction from DPER
- Roll-out of the local monitoring network

Roll out of local monitoring network



Tier 3 Banagher



Tier 3 Mountrath



Tier 1 upgrade Finglas

Implementation = Partnership



Thank You

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