

**Scottish Air Quality Database and Website Project
Annual Seminar - Glasgow
26th March 2014**

10:00	Welcome and Introduction	Andrew Taylor – Air Quality Policy Manager, the Scottish Government
10:15	Project Overview	Stuart Sneddon – SAQD Project Manager
10:50	Cardiovascular effects of air pollution	Professor David Newby - Centre for Cardiovascular Science University of Edinburgh
11:20	Tea/Coffee Break	
11:35	The New and Improved Air Quality in Scotland Database and Website	Paul Willis – SAQD Project Director
12:10	Developments in Air Quality Management in Glasgow	Vincent McNally – Environment and Strategy Glasgow City Council
12:40	Lunch (Practical Sessions)	
13:25	Media Developments on Air Quality Scotland	Alistair Dorman Smith – IT specialist Ricardo-AEA
13:55	Air Quality Sensor Rotation Programme	Drew Hill - Transport Scotland
14:25	Tea/Coffee Break	
14:55	PM with Height Study	Stephen Stratton – Monitoring Specialist, Ricardo-AEA
15:25	Secondary Schools Pilot Study	Jennifer Simpson – Senior Consultant, Ricardo-AEA
15:55	Question Time	
16:05	Close	

- Overview of the Scottish Air Quality Database and Website Project;
- Key tasks and components
- Monitoring sites and data – summary and update
- Recent Developments



www.mnn.com

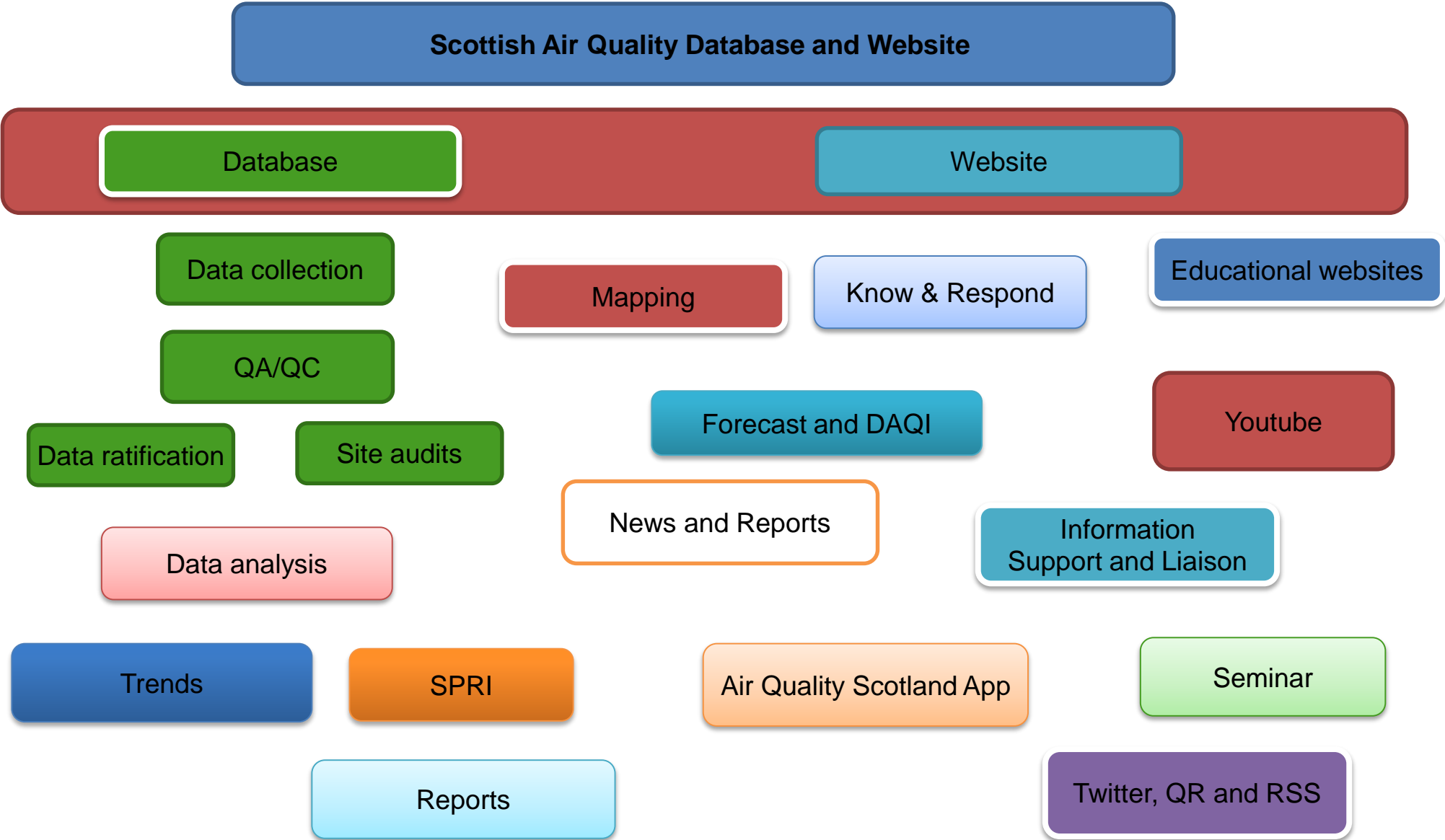
Illustration: Liu Rui/GT



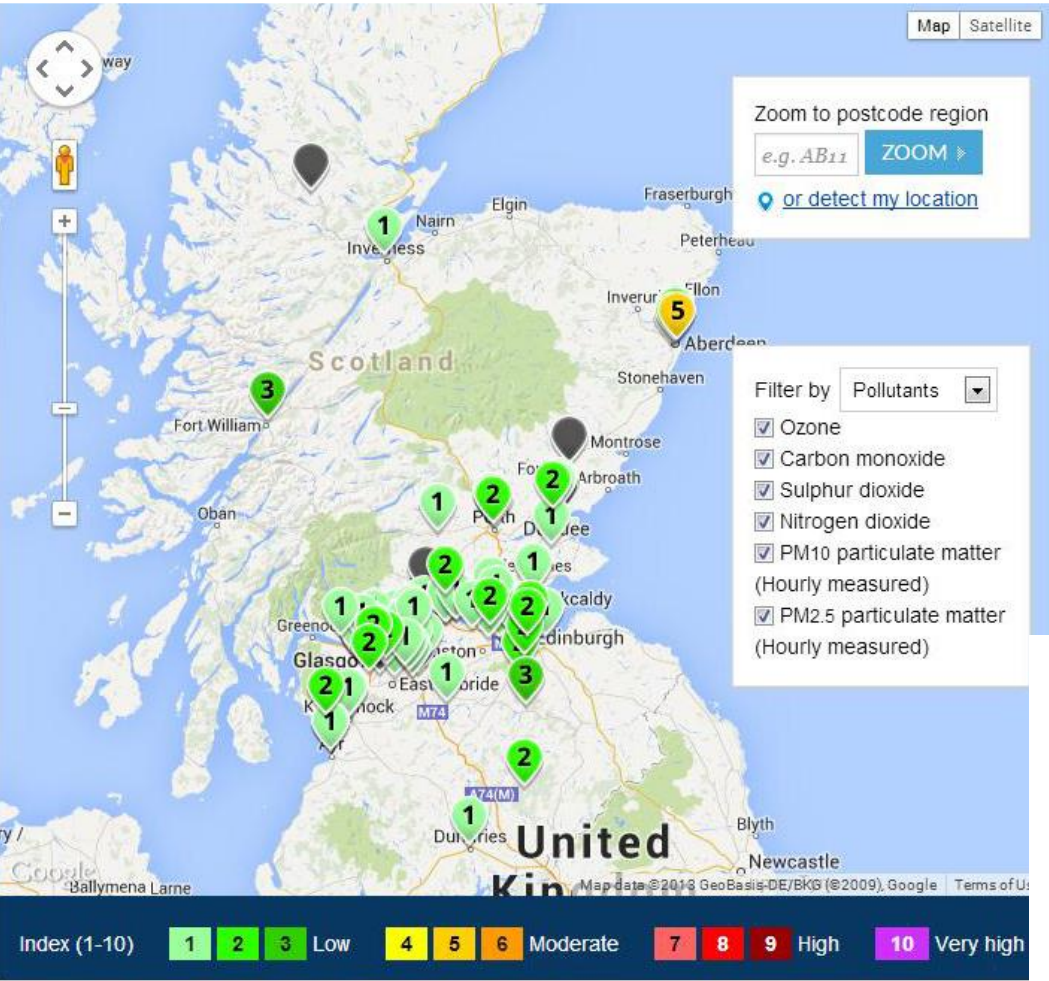
Air Quality Index (AQI) Values	Levels of Health Concern	Colors
When the AQI is in this range:	...air quality conditions are:	...as symbolized by this color:
0-50	Good	Green
51-100	Moderate	Yellow
101-150	Unhealthy for Sensitive Groups	Orange
151 to 200	Unhealthy	Red
201 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

- Pilot 2007
- New 3 year contract awarded January 2013
- Key aspects include:
 - Collection of data from various air quality monitoring sites across Scotland
 - QA/QC – e.g. site audits, data ratification, support to LSOs
 - Database and website
 - Compliance ‘background’ Mapping
 - Educational components of website
 - Know & Respond
 - Data analysis
 - Support to local authorities

Key components of the Scottish Air Quality Database and Website



Monitoring sites in the Scottish Air Quality Database



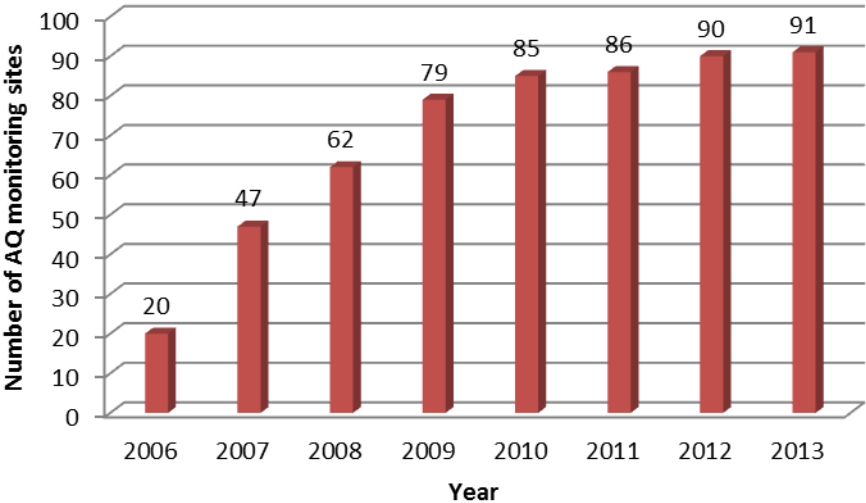
•91 LAQM Sites on Scottish Website

•16 AURN

•9 funded by Scottish Grant Scheme

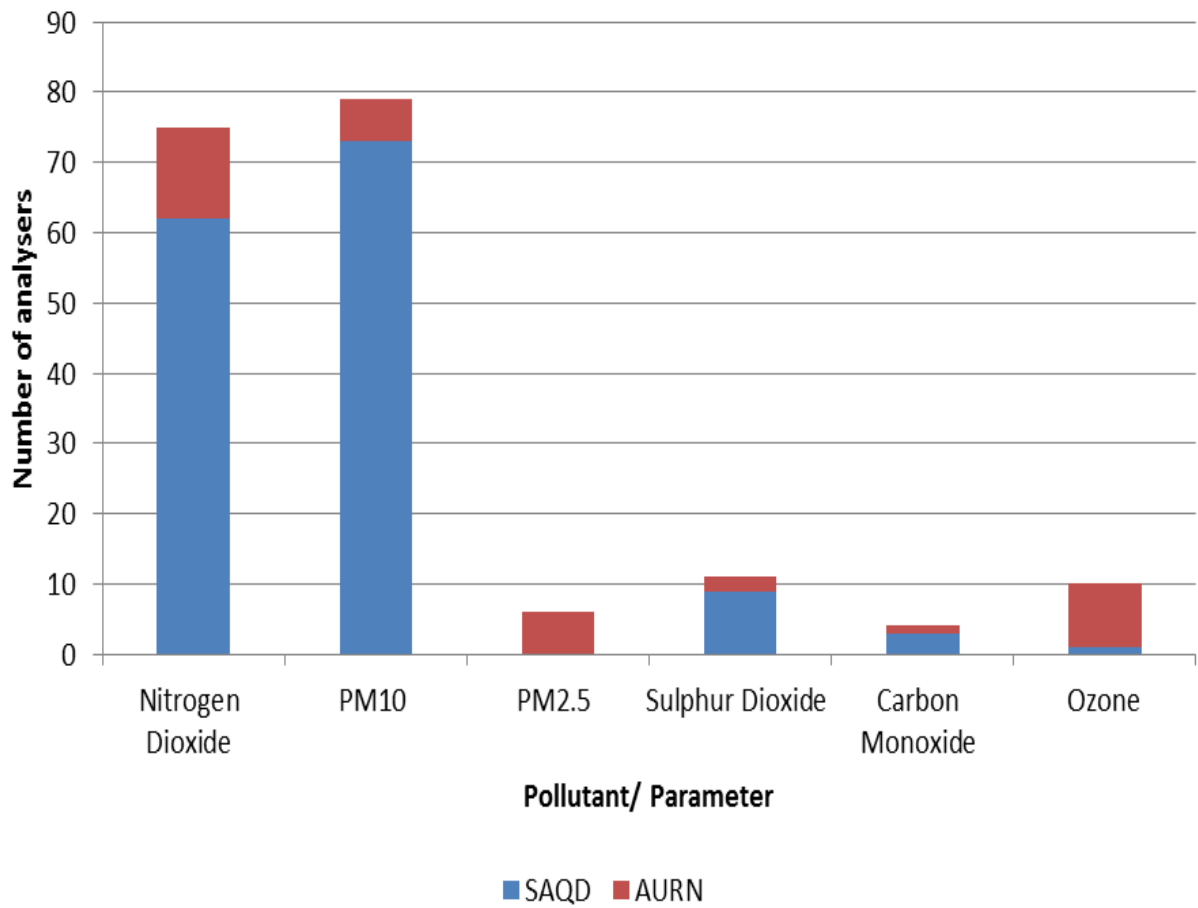
•69 sites operated under this project

•3 sites split between SAQD and AURN –
Lerwick, Aberdeen Union St and
Grangemouth Moray hence $68+9+16=93$



SAQD Monitoring Site Composition

AQM sites



Other networks:

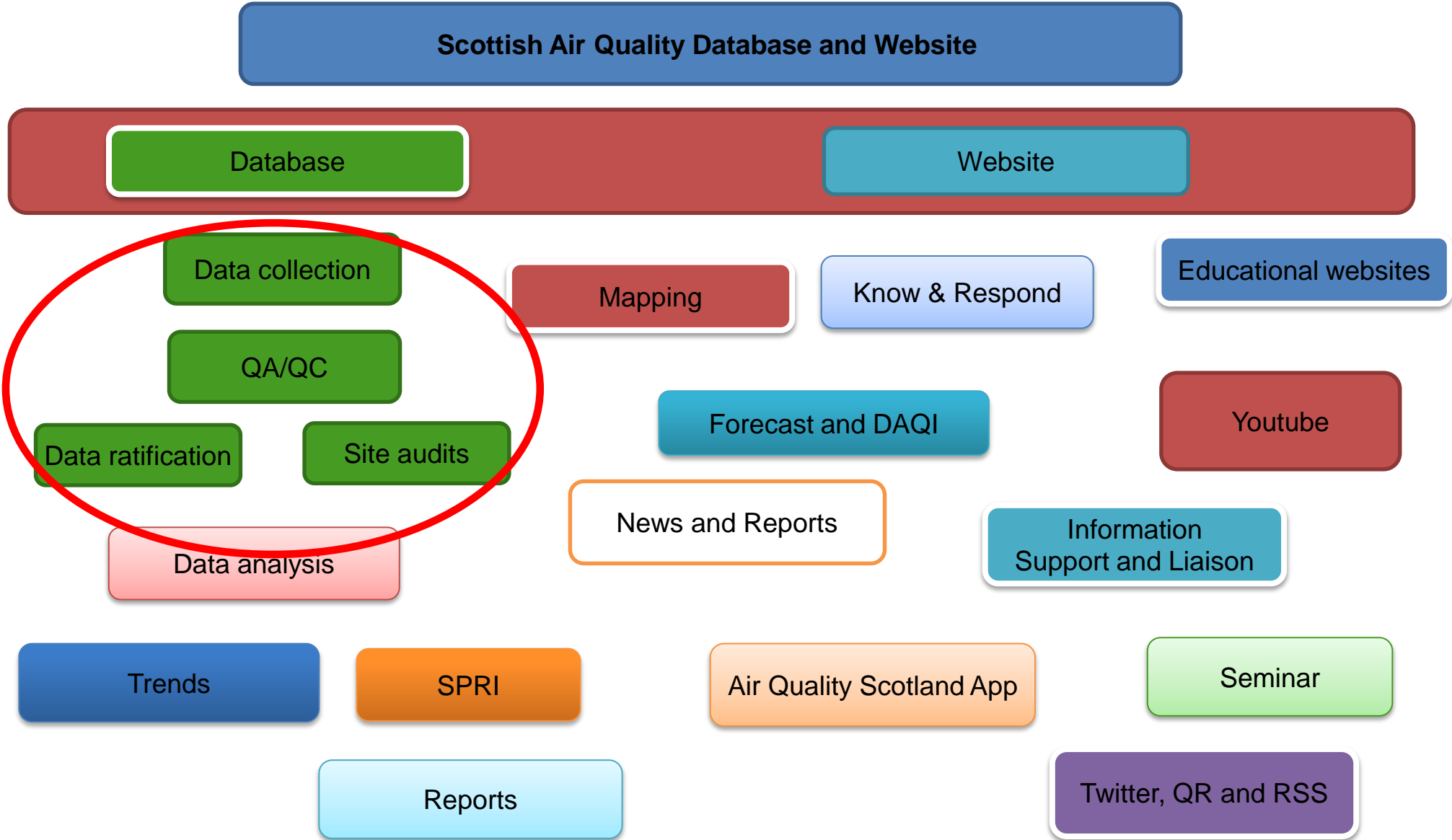
Automatic hydrocarbon – Auchencorth
Non-automatic hydrocarbon – 2 sites
PAH – 4 sites
TOMPs – Auchencorth
Black Carbon - Auchencorth
Urban heavy metals – 2 sites
Rural heavy metals – 2 sites
Particulates - Auchencorth
UKEAP sites – acid deposition
UKEAP – Acid gas and aerosol
UKEAP - Rural NO₂
UKEAP – National ammonia

Local authority diffusion tube data



Lab. 0401

Key components of the Scottish Air Quality Database and Website



Daily collection and checking of data from each site;
Scaling of data from last calibration results;
Update to website;
On-going data update as new information becomes available;

Site audits – ensures traceability;
Collection and storage of all calibrations and service records etc;

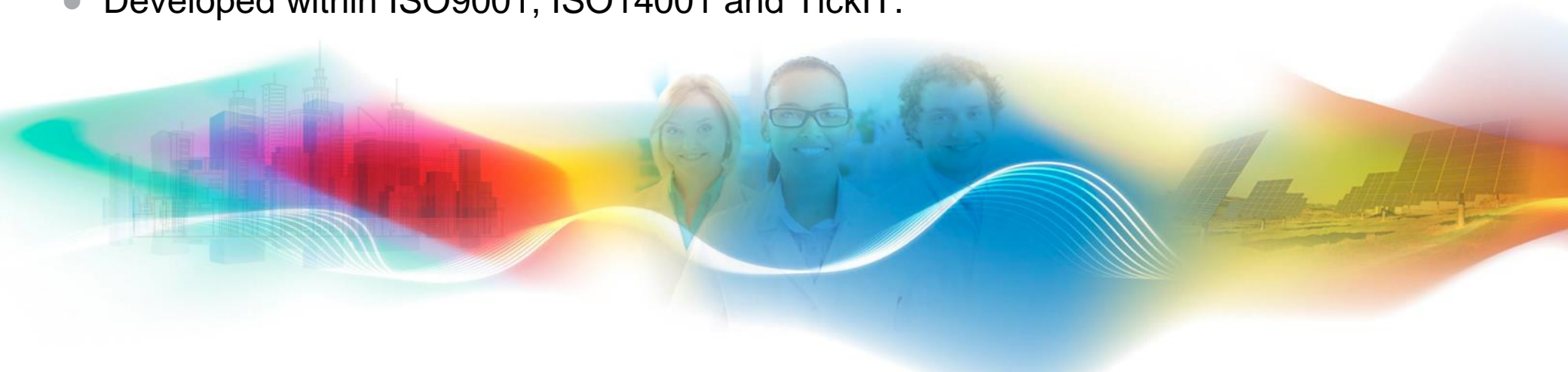
3-monthly data ratification;
Quality Circle data review;
Update of ratified data to the website;
Assistance to local authorities;

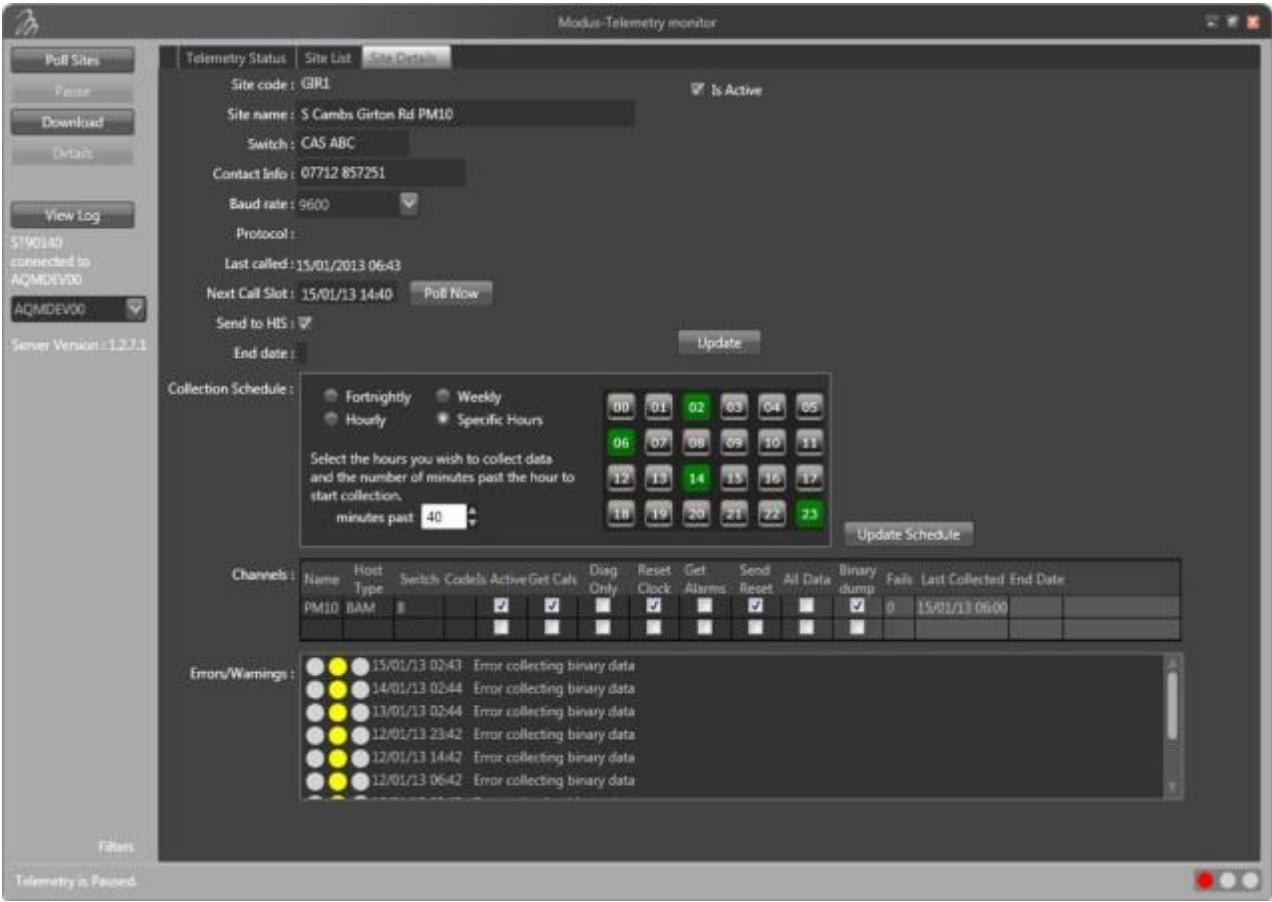


- Ricardo-AEA visits each site every 6-months to undertake the inter-calibration and site audit
 - Check analysers
 - Check calibration gases
 - Site infrastructure
 - Local Site Operator

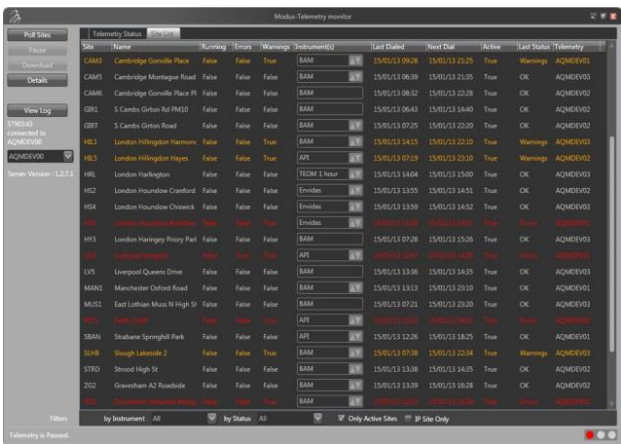


- Data management is designed to meet the requirements of EC Directive and LAQM reporting for the UK, as well as international monitoring programmes.
 - Reliable data collection
 - Calibration import, review & adjustment
 - AURN compatible data storage and uncertainty.
 - Graphing tools
 - Simple & rapid data edits
 - Real time reporting
- All commonly used AQ instruments and logger types have been incorporated and tested within the system. Data collection can be via MODEM or over IP (internet).
- Built-in protocols for checking and highlighting common data problems.
- Developed within ISO9001, ISO14001 and TickIT.

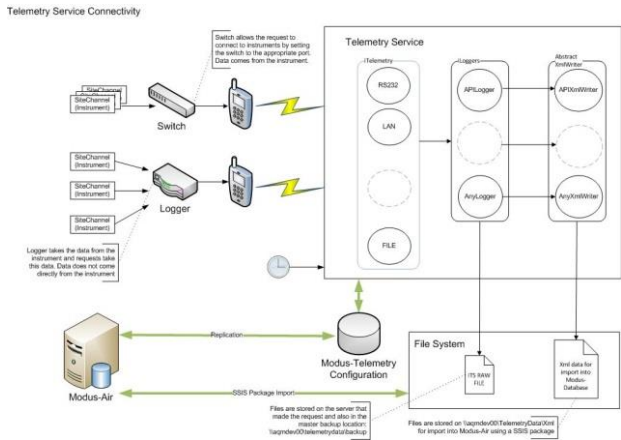




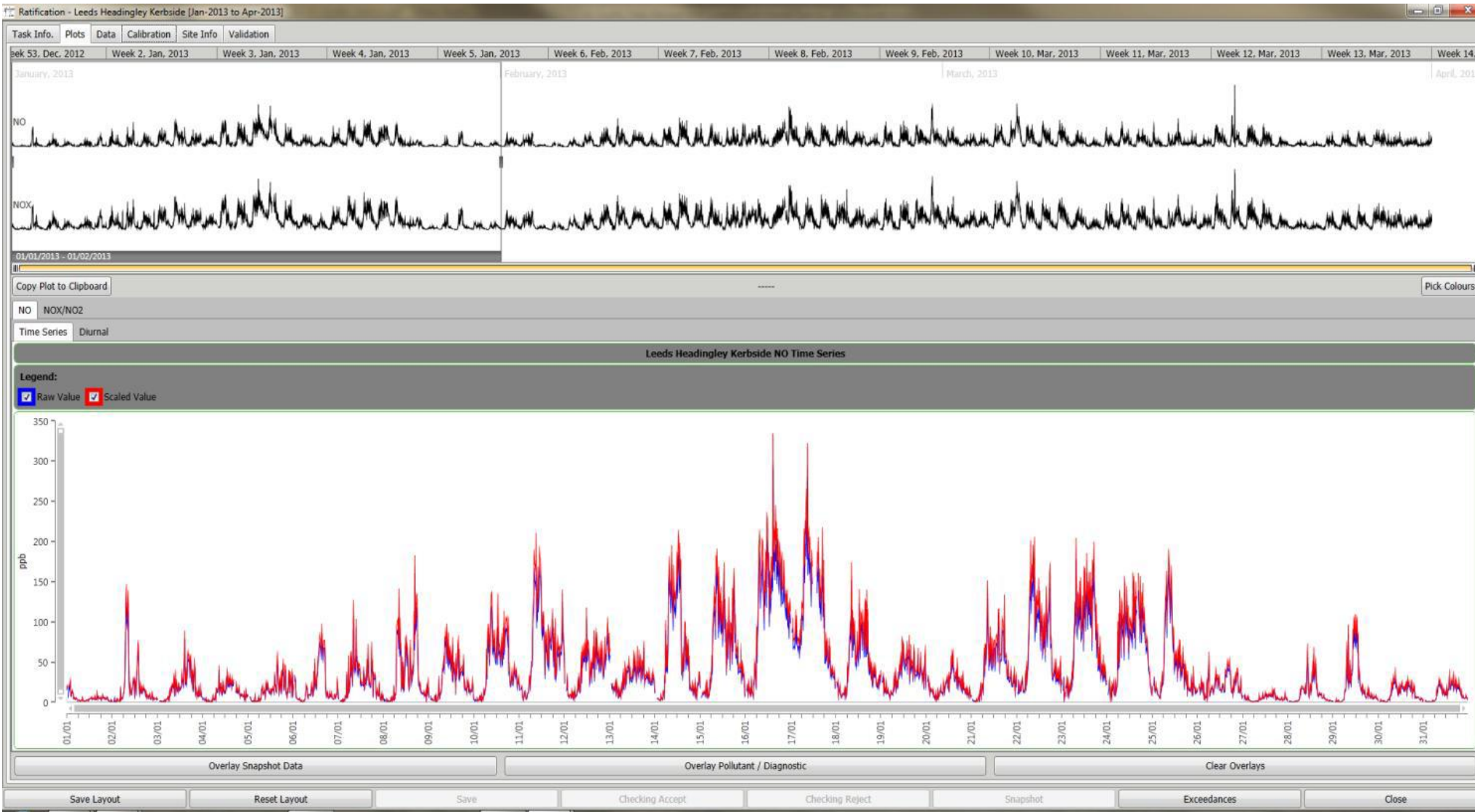
Scheduling screen

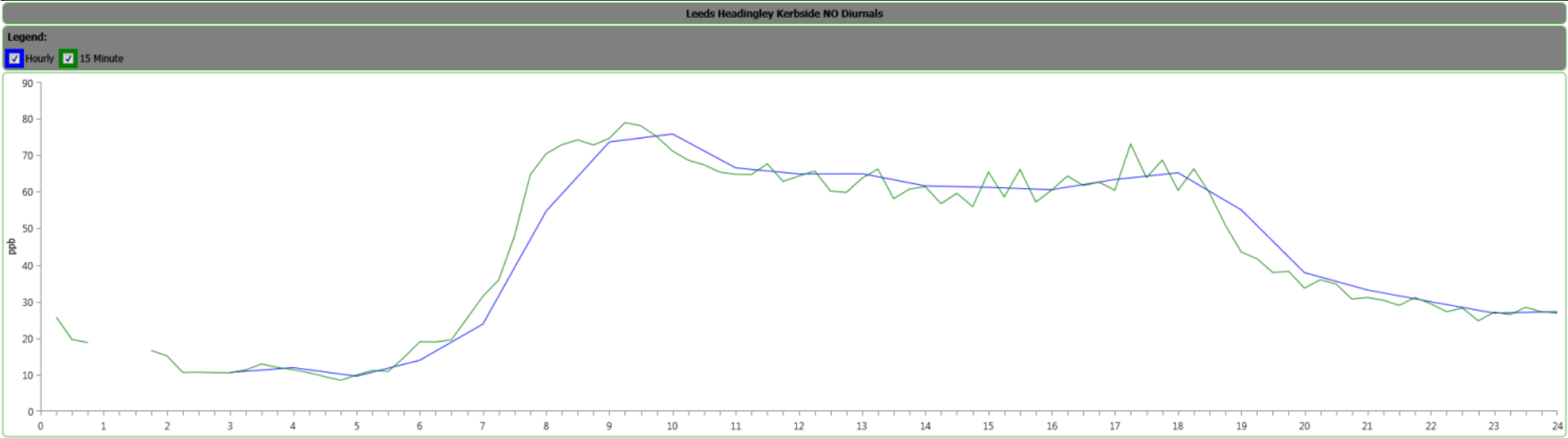
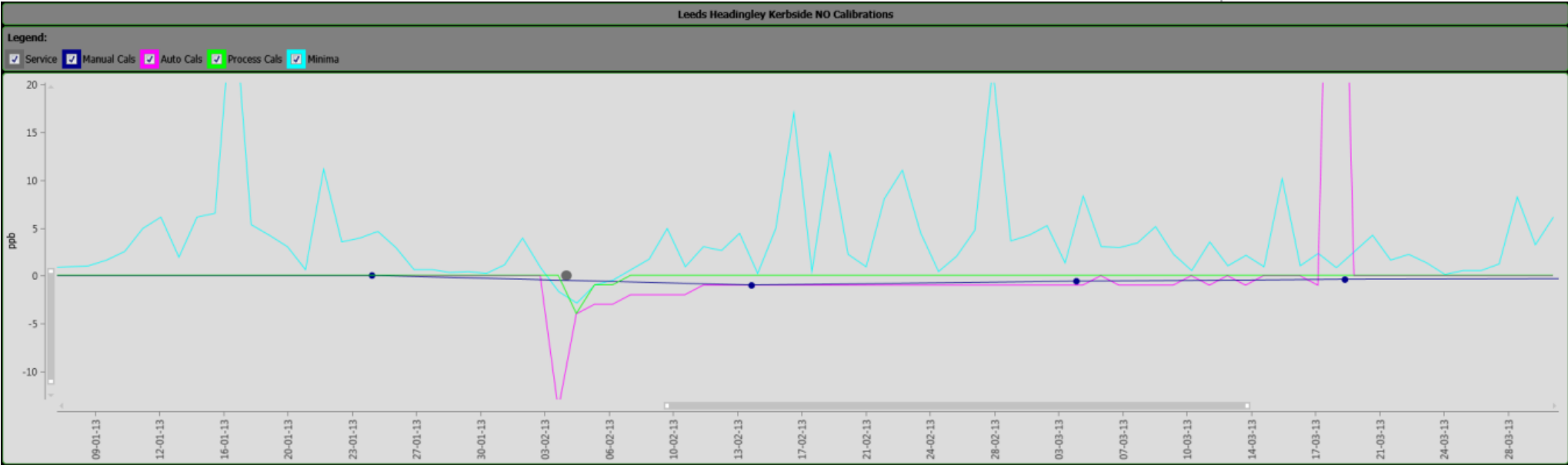


Collection overview



Supporting documentation





RICARDO-AEA NO₂ diffusion tube data submission system

Home

Latest & Forecasts

About air quality

What can I do?

Data & Maps

LAQM

News & Reports

Stay Informed

Know & Respond

Education

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Air Quality Management Areas

LAQM tools

Guidance

LBO Manual

LAQM tools and resources

This page provides links to a range of tools and resources designed to assist Scottish local authorities when undertaking LAQM Review and Assessment activities as prescribed under Part IV of the Environment Act 1995. In addition, links are also provided to several tools designed to support the assessment of the potential air quality impacts of developments and biomass boilers.

LAQM Reporting

LAQM Report Submission Website

Local Authorities are required to use the [LAQM Report Submission Website](#) for electronic submission of their Updating and Screening assessments, Progress Reports, Detailed Assessment and Further Assessments.

LAQM Report Templates

Standardised report templates are available to download for Scottish Local Authorities when completing their annual LAQM Progress Reports and Updating and Screening assessments. The latest versions of the templates should always be available for download by Local Authorities from the [LAQM Report Submission Website](#).

Report appraisal checklists

These checklists provide information on what is considered for the appraisal of Review and Assessment reports by the Scottish Government. These have been devised based on the current assessment methods described in the [Technical Guidance LAQM TGO09](#) and aim to judge the scientific validity of the report and its conclusions/recommendations.

Air Quality Action Planning

This Web-Based Data Entry System has been provided by Ricardo-AEA for collection of NO₂ diffusion tube data from the following:

- The Kent and Medway Air Quality Network
- Local Authorities in Scotland
- Local Authorities in Northern Ireland

A separate diffusion tube data entry system is provided as part of the Defra Local Authority Air Quality Support programme, for the use of [UK Local Authorities in England](#)

Username

Password

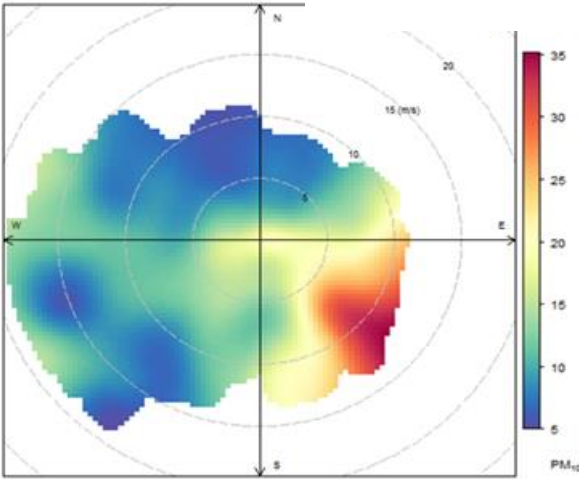
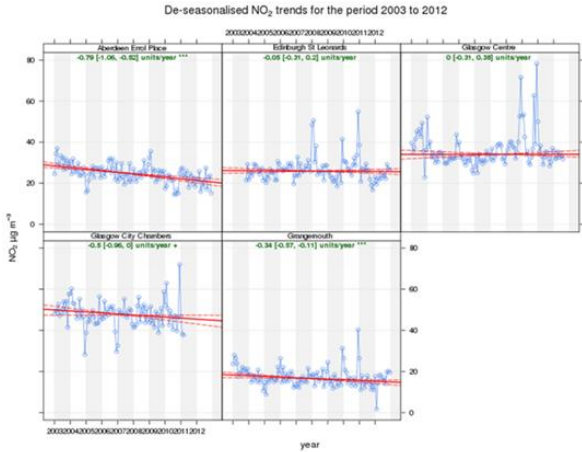
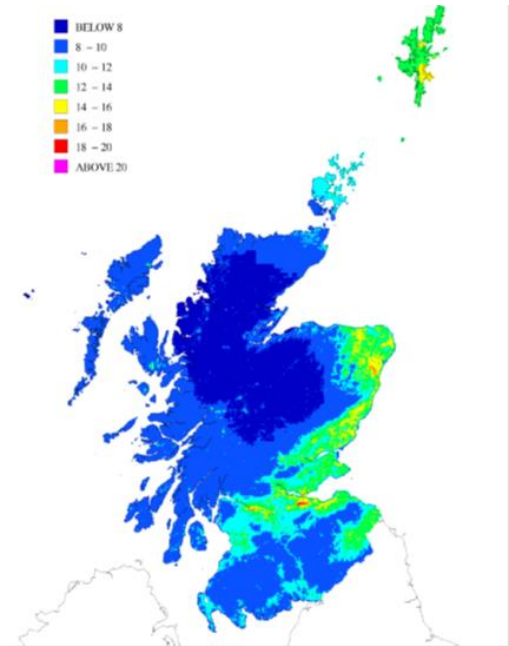
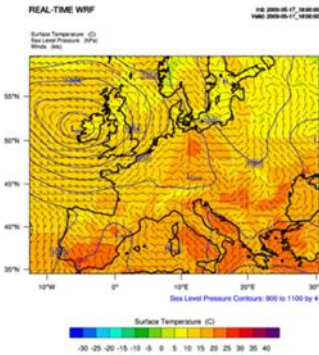
Log on

For the Instruction Manual for Web-Based Data Entry please [click here](#).

For 2014 monitoring calendar please [click here](#).

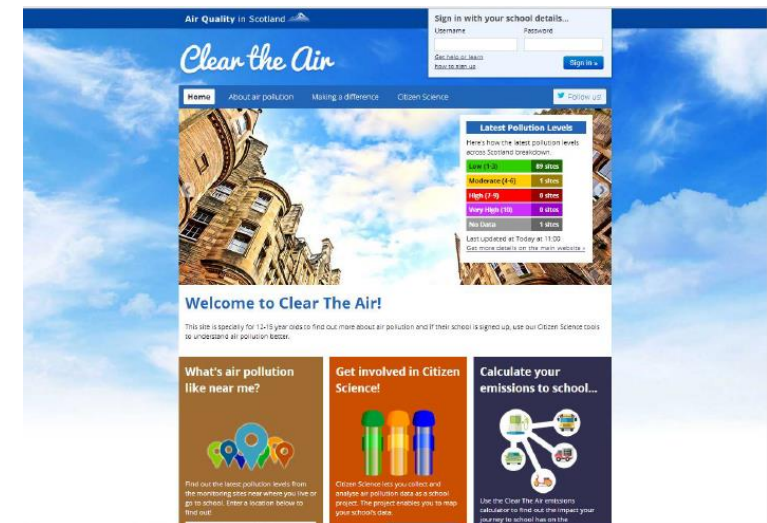
For revised 2013 monitoring calendar please [click here](#).

If you have forgotten or not received your username and password, please contact the [Administrator](#).





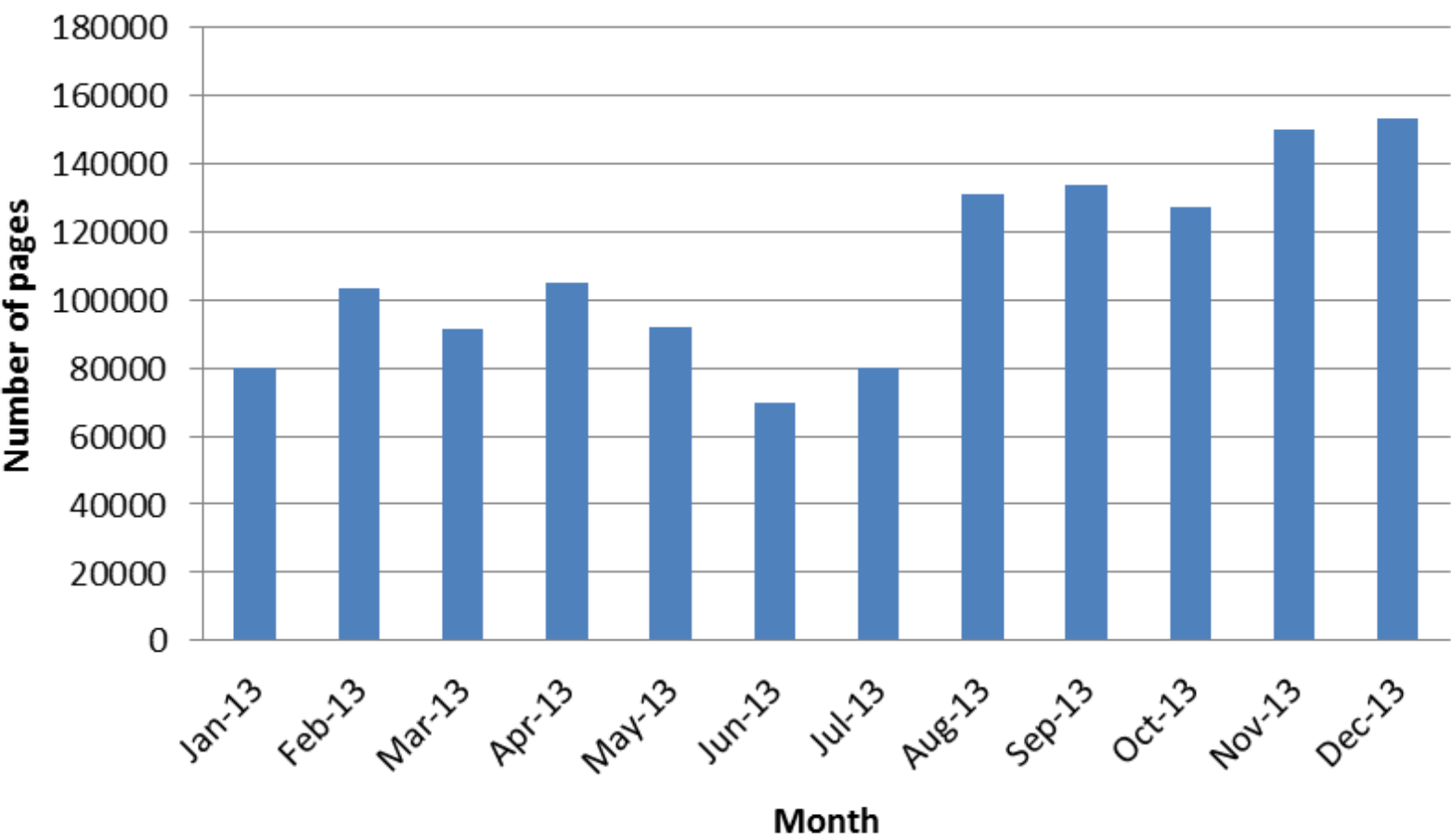
Highlands	>	In towns and cities near busier roads
North East Scotland	>	Moderate (Index 4)
Central Scotland	>	Elsewhere in towns and cities
Scottish Borders	>	Moderate (Index 4)
Edinburgh Urban Area	>	Rural Areas
Glasgow Urban Area	>	Low (Index 3)



- Full public access via website, database and email air quality bulletins;
- Local Air Quality Management – local authorities, SEPA, academics, public
- Reports;
- Students and members of the public asking for assistance;
- Cited as a data source in Key Scottish Environment Statistics;
- Daily Air Quality Index
- Know & Respond Service

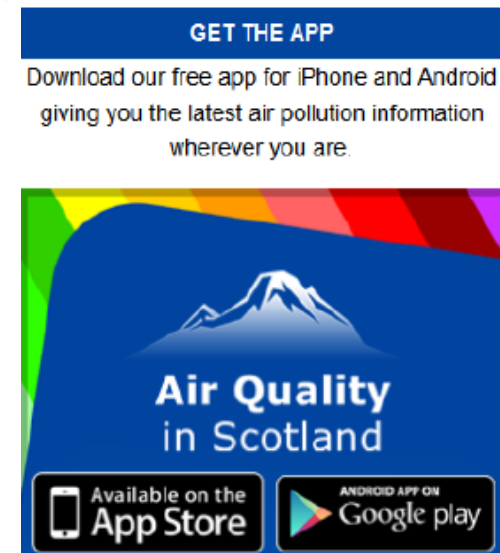


Number of pages viewed each month - 2013



Some Enhancements

- Addition of 'other' national network sites
- Data ratification – quarterly
- Website revamp/ refresh
- Air Quality in Scotland – App
- Secondary schools webpages
- Twitter
- QR-codes
- Youtube channel – training and support videos/ webinars



Comments/ Questions?

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