

# The impact of climate policy on air quality professionals

*The results of a survey of air quality management professionals.*

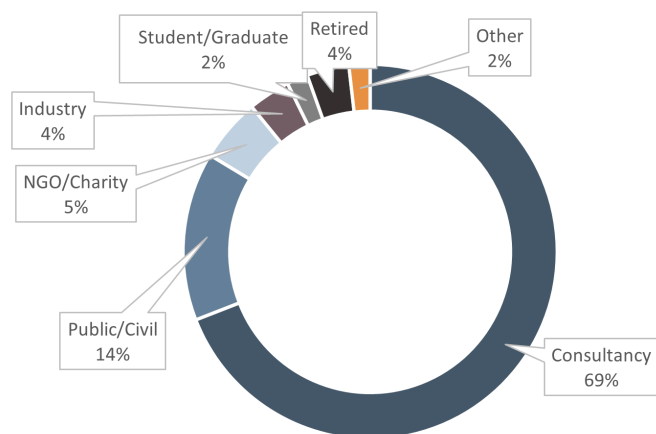
➤ Greenhouse gas emissions and air pollutant limits are currently treated separately, with goals and targets governed by different legislation and subject to different timescales in the UK. Carbon emissions are legislated to reach net zero by 2050, with the 6<sup>th</sup> Carbon Budget Committee setting out plans for 11 sectors of the economy to support this target.

Under the National Emissions Ceiling Directive and the Gothenburg Protocol of the UNECE Convention on the Long-Range Transport of Air Pollution, national emissions of ammonia, nitrogen oxides, primary PM<sub>2.5</sub> and sulphur dioxide should meet certain annual limits by 2030. Moreover, an important aspect of the Environment Bill, currently going through Parliament, is the power to set long-term, legally-binding environmental targets. This requires government to set at least one target in four priority areas: air quality, biodiversity, water, and resource efficiency and waste reduction, as well as a target for fine particulate matter (PM<sub>2.5</sub>).

This survey sought to determine IAQM member views on the future direction of UK policy on greenhouse gas emissions and air pollutants, prior to the COP26 Conference in Glasgow. This survey also seeks to understand how IAQM members will be affected by climate policy and the transition to a net zero economy, and the potential areas where the IAQM could provide support.

## Who responded to the survey?

The survey was open to all IAQM members at different membership grades. In total 55 people took part in the survey. The survey contained logic-based questions, meaning that not all those who took the survey completed all questions. The majority of respondents (69%) work primarily in consultancy, followed by public/civil organisations (see **Figure 1**).



**Figure 1. The percentage of respondents from each sector**

## How ambitious should emission targets be for air quality and/or greenhouse gases?

Two thirds (68%) of respondents agreed or strongly agreed that emission targets should be the main strategic policy driver to ensure atmospheric environmental standards are met in the UK and that more targets should be set for air quality and/or greenhouse gas emissions.

A large majority of respondents (85%) agreed or strongly agreed that air quality and greenhouse gas emission targets should be more ambitious than those currently set and there was strong support (76%) that penalties should be enforced if emissions diverge from the planned path towards emission reductions of greenhouse gases and air quality emissions.

Two thirds of respondents (67%) agreed or strongly agreed that greenhouse gas emissions targets should be stricter than a 78% reduction by 2035 and net zero by 2050, and a large majority (80%) of respondents agreed or strongly agreed that air quality emissions targets, as required in the Environment Bill, should be set sooner than the timescales for meeting greenhouse gas emissions targets.

Less than half (45%) of respondents agreed or strongly agreed that greenhouse gas emissions targets have a large influence on their day-to-day work.

## Should more targets be set for air quality and/or greenhouse gas emissions?

69% of respondents agreed that more targets should be set for air quality and/or greenhouse gas emissions and, of those, the responses regarding the type of targets were diverse.

Many respondents referred to the conventional pollutants dealt with by air quality management, such as PM<sub>10</sub> and PM<sub>2.5</sub> particulates, NO<sub>2</sub>, NMVOCs, ammonia, BaP, heavy metals and ozone, and wished to see stricter standards.

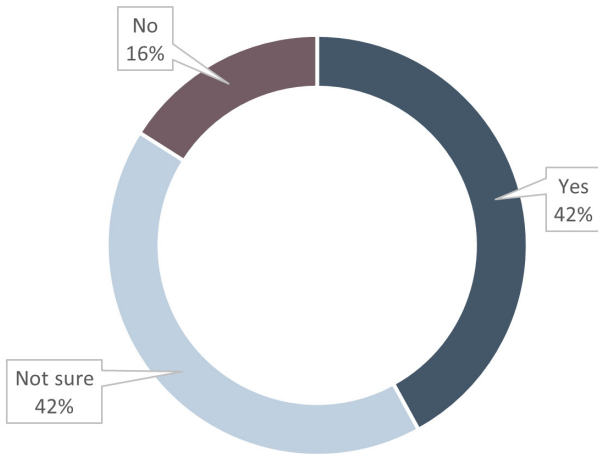
However, interesting new possible targets were mentioned primarily concerning indoor air quality, including formaldehyde and mould. Other new targets for methane and nanoparticles, specifically plastics, were suggested with targets set for specific sectors, not just nationwide, implemented through the planning process with a requirement for continuous improvement.

## Taxes on individuals and companies have been used as a policy tool to meet carbon emissions targets. In your view should more or higher taxation be introduced to reduce carbon emissions?

42% of respondents believed that more or higher taxes should be introduced to individuals and companies to reduce carbon

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emissions, with the same number unsure of whether this was the right course of action and 16% said it was not (see **Figure 2**).

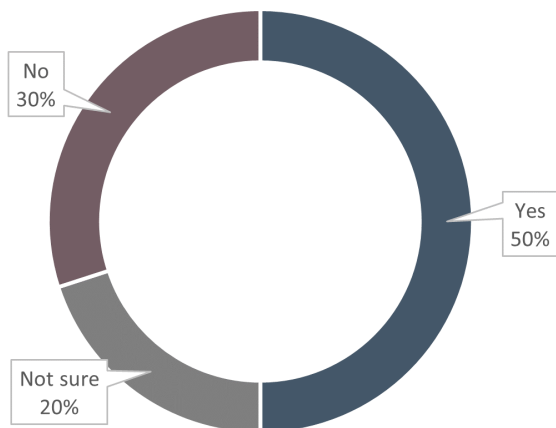


**Figure 2.** The percentage of respondents who answered yes, no or not sure to the question: *In your view should more or higher taxation be introduced to reduce carbon emissions?*

In accompanying comments, reservations were raised as to how taxation should be implemented so that fiscal incentives were both fair and equitable. Moreover, many respondents raised the point that information about taxes would need to be communicated clearly and income should be ring-fenced to support environmental improvements.

## Should more or higher charges be introduced to reduce air quality emissions?

50% of respondents were in favour of introducing more or higher charges to reduce air quality emissions (see **Figure 3**).



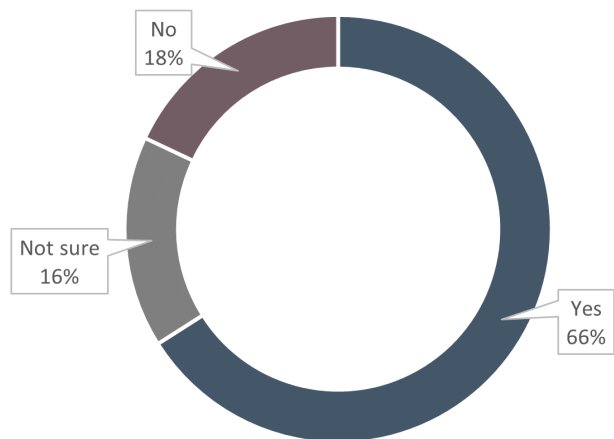
**Figure 3.** The percentage of respondents who answered yes, no or not sure to the question: *Should more or higher charges be introduced to reduce air quality emissions?*

Again, in comments, respondents felt that fiscal incentives need to be realistic, fair and just, avoiding inequalities, with suitable alternatives available so that people have the opportunity to make improvements without being penalised. Some respondents suggested that money raised from charging car usage could be used to improve public transport.

A particular case study was raised that could be adopted in England: the penalty notice system for Scottish Low Emission Zones whereby, the charge escalates with repeat offences to encourage a change in behaviour.

## In your view should stricter regulation be introduced to reduce carbon and/or air quality emissions?

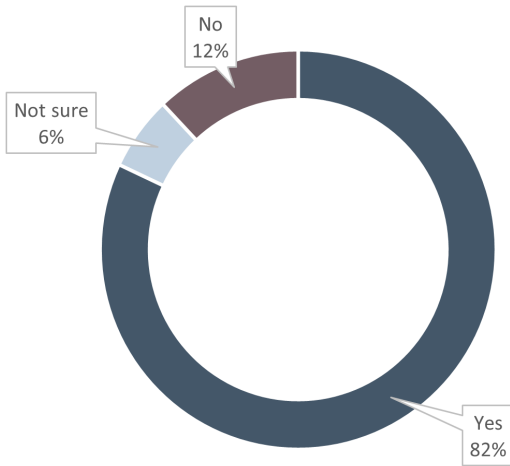
There was majority support for stricter regulation to reduce carbon emissions (see **Figure 4**). Some respondents saw the need for more ambitious targets over shorter time scales, but again questions of equity and social justice were raised. Alternatives to the internal combustion engine need to be affordable to all and the long-term life cycle of electric vehicles considered e.g. the recycling of batteries.



**Figure 4.** The percentage of respondents who answered yes, no or not sure to the question: *In your view should stricter regulation be introduced to reduce carbon emissions?*

A large majority of respondents agreed that stricter regulation should be brought in to reduce air quality emissions (see **Figure 5**). Respondents widely agreed that Government needs to take the lead on improving both indoor and outdoor air quality by introducing new/tougher regulations. It was raised that regulation should be done on a sector-by-sector basis to ensure that it is done fairly and in a just way that does not disproportionately affect those from a lower socioeconomic background. It was also noted that increased regulation needs to go hand in hand with more support to local authorities in terms of enforcement and resourcing.

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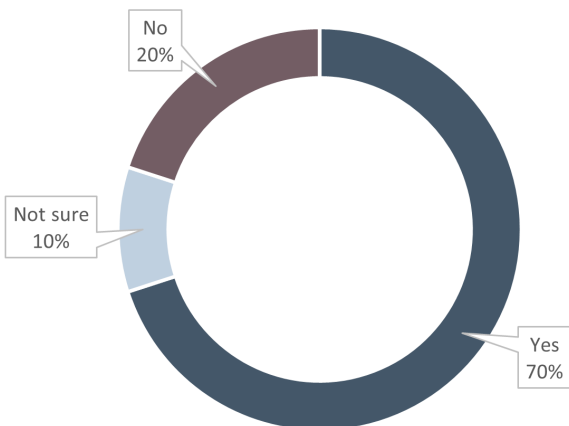


**Figure 5.** The percentage of respondents who answered yes, no or not sure to the question: *In your view should stricter regulation be introduced to reduce air pollution emissions?*

Particular areas raised as important to target with regulation was the use of woodburning stoves and open bonfires. The issue of enforcement was also highlighted, as it can be very difficult to enforce certain regulations.

## Should greenhouse gas and air quality targets should be framed within an international context?

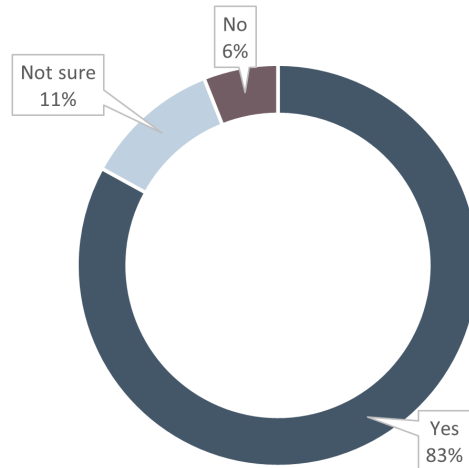
The majority of respondents agreed that greenhouse gas and air quality targets should be framed in an international context (see **Figure 6**). However, respondents expressed the view that this may be difficult to do, both technically, because emissions to air and climate change do not always recognise international boundaries, and politically, because of the requirement to get international agreement. The technical implementation of international agreements was thought to require detailed and reliable modelling and measurements.



**Figure 6.** The percentage of respondents who answered yes, no or not sure to the question: *Should greenhouse gas and air quality targets be framed within an international context?*

## Should air quality policy and climate policy be more closely integrated?

The vast majority of respondents agreed that air quality and climate policy should be more closely integrated (see **Figure 7**). However there were some reservations about how this could be done. It was accepted that they are closely connected e.g. troublesome emissions are energy related. However, it was pointed out that there are differences between them and actions on CO<sub>2</sub> are not always beneficial to air quality and vice versa, for instance, wood-burning. The respondents showed that they were well aware of the conflicts arising from tackling one without considering the other. They broadly hoped that policies would be realistic and considered in an integrated way to avoid unintended consequences.

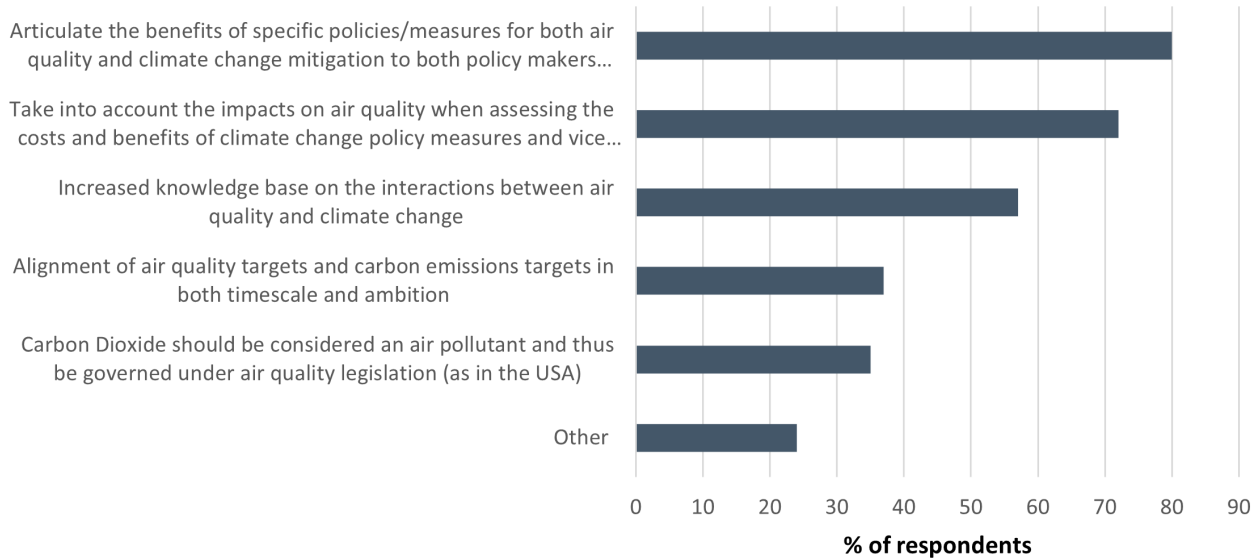


**Figure 7.** The percentage of respondents who answered yes, no or not sure to the question: *Should air quality and climate policy be more closely integrated?*

## In your opinion, which of the following do you think would be effective at achieving greater integration?

Of the options presented to achieve greater integration, the majority agreed that articulating the benefits of specific policies/measures in terms of both air quality and climate change mitigation to policy makers and the public should be the key consideration (see **Figure 8**). The other options raised by respondents included the importance of considering the emissions arising over the lifetime of a product (for example electric cars are good for air quality but accessing raw materials and their manufacture can cause emissions at other stages). Respondents also suggested that articulating multiple benefits of policies beyond just air quality and climate mitigation could also be useful, i.e. quality of life, economic benefits etc. It was also noted that targets should only be implemented for those where it makes sense and would be useful, and that it is also important to highlight the conflicts between certain policies, i.e. those which are good for carbon emissions but have poor air quality effects.

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**Figure 8.** The percentage of respondents who chose the options above as effective at achieving greater integration between air quality and climate policy.

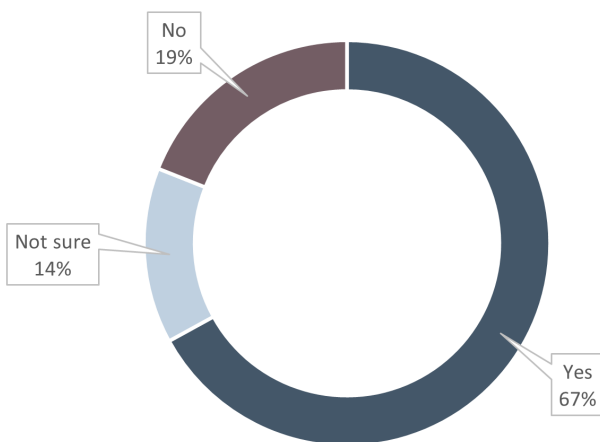
## Will the air quality profession be significantly affected by the transition to a net zero economy?

One third of respondents thought that their work would be significantly affected by the transition to net zero economy (see **Figure 9**). Respondents' views on how the air quality profession would be affected were varied. Some thought that the focus would shift to new pollutants, such as those from brake and tyre wear and biomass emissions. Some respondents thought there would be fewer air quality assessments, because there would be fewer polluting energy plants and vehicles. Some thought there would be a shift in the focus of work towards

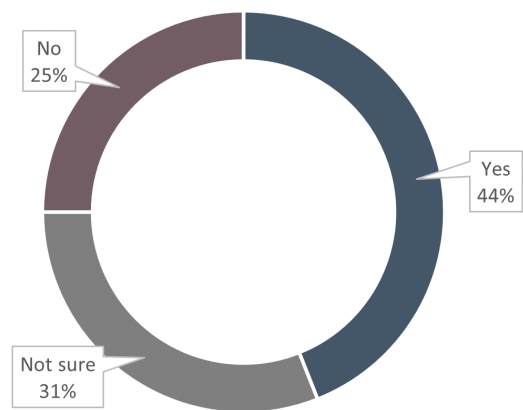
other areas, such as indoor air quality, advice on sustainability, how to decarbonise, how to improve energy efficiency and on carbon capture plant assessments etc. In particular, it was raised that skills previously used by air quality professionals to quantify emissions would be transferred to those working on carbon emissions.

## Do you feel you have the right skills to meet the needs of a net zero economy?

The majority of respondents did not feel they had the skills to meet net zero ambitions or weren't sure (56%, see **Figure 10**).



**Figure 9.** The percentage of respondents who answered yes, no or not sure to the question: *Will the air quality profession be significantly affected by the transition to a net zero economy?*



**Figure 10.** The percentage of respondents who answered yes, no or not sure to the question: *Do you feel you have the right skills to meet the needs of the next zero economy?*

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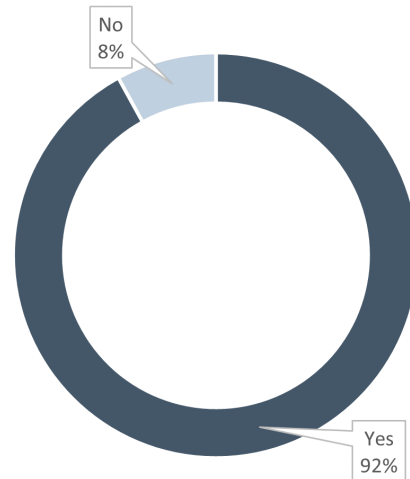
Areas mentioned where more skills need to be developed included mitigation of carbon emissions, green technologies, climate-related financial issues including better understanding as to how business sectors will respond to regulation and energy modelling.

## Do you think the IAQM should provide more support/guidance to support air quality professionals in integrating their work into the wider climate agenda?

The respondents overwhelmingly feel that the IAQM should be doing more in this area (see **Figure 11**). Suggestions include more publications, such as position statements and guidance, hosting seminars and training involving case studies of successful projects which meet targets, especially in new areas, such as low carbon solutions e.g. carbon capture and hydrogen plant, and more webinars including accessing advice from government. Air quality professionals should not be left out of tackling the challenges raised by transitioning to a net zero economy, due to a lack of suitable skills etc.

### Next steps

The IAQM will be using the results of this survey to inform future membership services in order to support out members in meeting climate and net zero ambitions.



**Figure 11.** The percentage of respondents who answered yes or no to the question: *Should the IAQM provide more support/guidance to support air quality professionals in integrating their work into the wider climate agenda?*

### About the Institute of Air Quality Management (IAQM)

The IAQM aims to be the authoritative voice for air quality by maintaining, enhancing and promoting the highest standards of working practices in the field and for the professional development of those who undertake this work. Membership of the IAQM is mainly drawn from practising air quality professionals working within the fields of air quality science, air quality assessment and air quality management.

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