Oxfordshire Air Quality Website:
development scoping

December 2021

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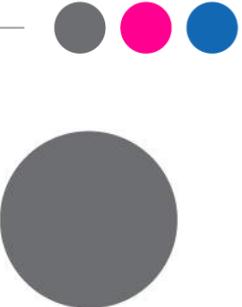
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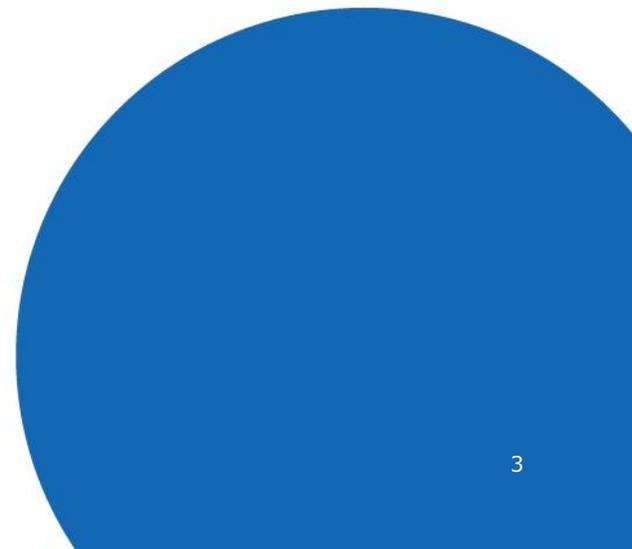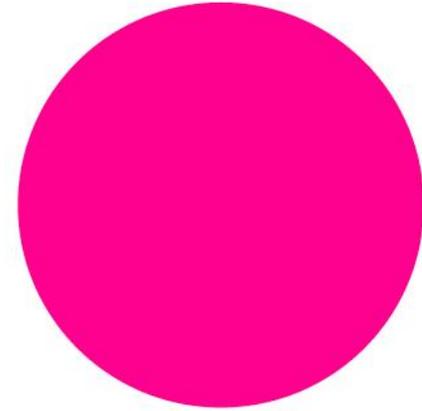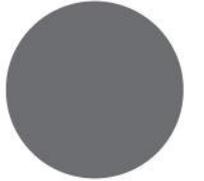
Headline Summary

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- Given that the impact of air quality on Oxfordshire Residents appears to be very significant, and that three-fifths of Residents currently look for some form of information about air quality in Oxfordshire, the development of an Oxfordshire Air Quality website is likely to be both welcomed and used by residents of Oxfordshire. This will also tackle the perception amongst Residents that air quality information is not disseminated adequately.

- The high levels of interest expressed for the proposed free air quality bulletins and the free air quality app supports the launch of both of these services.

- In terms of presenting air quality information online, the survey findings indicate that the use of interactive maps is the most effective way of doing this, with an element of drop-down interactive charts and graphs being a suitable method of supplementing the interactive maps.

- The search engine for the Oxfordshire Air Quality website will be most useful for website users looking for air quality readings if it is searchable by postcode.

- Based on the findings from both the Residents and User groups surveys, the key content of the Oxfordshire Air Quality website should enable users to easily find out:
  - 'Information on current air pollution levels where I live';
  - 'The long-term situation for my local area/region';
  - 'Specific information about the types of air pollutants I am exposed to'; and
  - ''The long-term situation for my local area/region'.

- Based on the findings from both the Residents and User groups surveys, air quality tools and functionality should focus on providing:
  - 'A map of Oxfordshire with the locations where air quality is monitored';
  - 'Air pollution forecast tools';
  - 'Access to historic air quality data, statistics and access to interactive air pollution data and charts';
  - 'The ability to download all relevant air quality data and documents produced by your local authority'; and
  - 'A repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire County Council'.

Background & Methodology
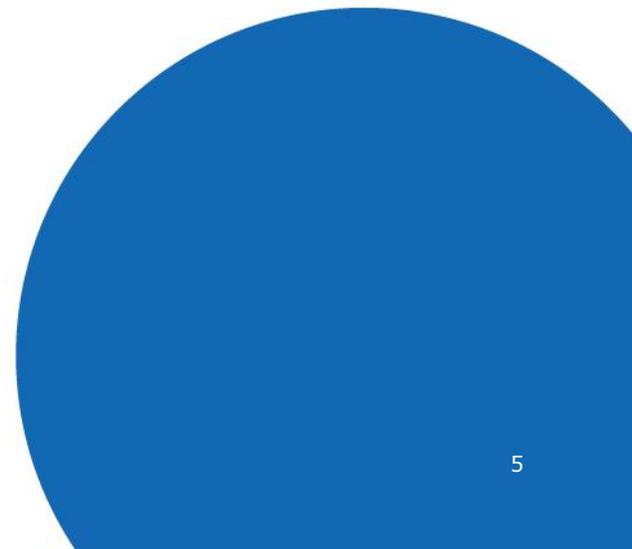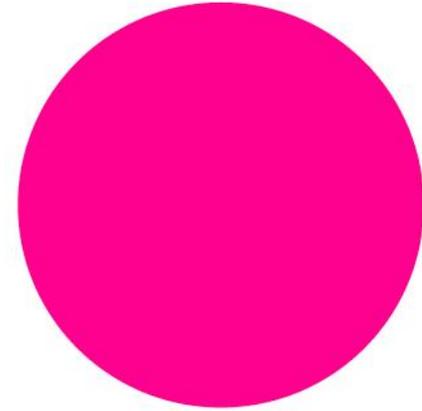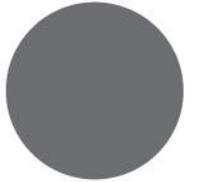
Background: context & objectives

Oxfordshire, in common with many other regions in the UK, is subject to poor air pollution levels. In order to aid Oxfordshire County Council's ambitious delivery of the Oxford Zero Emission Zone and Connecting Oxford schemes to tackle air pollution, the five local Authorities in Oxfordshire have been awarded a DEFRA air quality grant to develop an innovative air quality website for Oxfordshire. The website is expected to be designed in such a way that it can facilitate the positive behavioural changes that are required for the successful implementation of current and future major transport and air quality schemes, and to be used as a long term tool and platform to adequately inform, communicate and raise awareness of air pollution across the County.

As a first step for the delivery of this project, **Oxford City Council want to gather useful information from potential future users of the air quality website with regards to what they consider to be the most useful information and tools to include in the new website.**

What are the potential air quality interests and information needs of Oxfordshire residents?

What type of air quality website contents and air quality tools would potentially make the biggest difference to their user needs?

How to reduce the gap between user needs and what the service aims to offer?

Methodology

In addition to a quantitative online consultation survey conducted by Oxford City Council, we undertook a semi-structured qualitative approach to capture more in-depth feedback from a selection of stakeholders who will be some of the most important regular future users of the new website.

An Online Survey

'Public Consultation'

- In order to ensure reach to the wider community of Oxfordshire residents and businesses, the Council encouraged feedback through an online survey that was accessible on the Oxfordshire County Council website from 5th July to 5th September 2021

- A total of 300 completed responses were received

Telephone Semi-Structured Interviews

'Users Research'

- In order to explore the user needs of nine potential groups which the Councils have identified as some of the most important potential users of the new website, semi-structured interviews (lasting 20 to 30 minutes) were conducted by DJS Research from 22nd October to 26th November 2021.

- A total of 53 interviews were completed

Sample Detail – Public Consultation (Residents) Survey

	Total
Total	**300**
Male	49%
Female	49%
In another way	1%
Prefer not to say	3%
Not answered	2%
16-19	1%
20-24	1%
25-34	10%
35-44	16%
45-54	19%
55-59	9%
60-64	10%
65-74	19%
75+	10%
Prefer not to say	3%
Not answered	2%

	Total
Total	**300**
White	87%
Asian or Asian British	2%
Mixed / multiple ethnic groups	1%
Chinese	1%
Black, African/Caribbean or Black British	0%
Arab	0%
Other ethnic group	0%
Ethnic minority (net)	*4%*
Prefer not to say	7%
Not answered	2%
No disability	76%
Disability – limited a little	16%
Disability – limited a lot	5%
Prefer not to say	2%
Not answered	1%

	Total
Total	**300**
Local Authority Area:	
Oxford	27%
Vale of White Horse	23%
South Oxfordshire	20%
West Oxfordshire	16%
Cherwell	12%
Outside Oxfordshire	2%
Not answered	9%
Capacity in Which Responding:	
Resident living in Oxfordshire	90%
Resident living outside Oxfordshire	4%
Local councillor	5%
Representative of an organisation	1%
Representative of a business	0%
Not answered	0%

Sample Detail – Public Consultation (Residents) Survey

More than two fifths of Resident survey respondents use a car as their main mode of transport for local journeys, with more than a quarter (28%) walking and a fifth (20%) using a bicycle.

Nearly all online survey respondents (98%) have some form of access to digital devices in order to regularly access online information.

Main mode of transport for local journeys

Mode	%
Car (to my final destination)	43%
Walk	28%
Bicycle	20%
Bus	3%
Motorbike	1%
Park & Ride (Bus)	1%
Train	0%
Taxi	0%
Park & Cycle	0%
Other	3%
Not Answered	0%

Access to digital devices to regularly access online information

Device	%
Yes - smart phone	61%
Yes - laptop/desktop	29%
Yes - tablet	8%
No regular access to the internet	2%
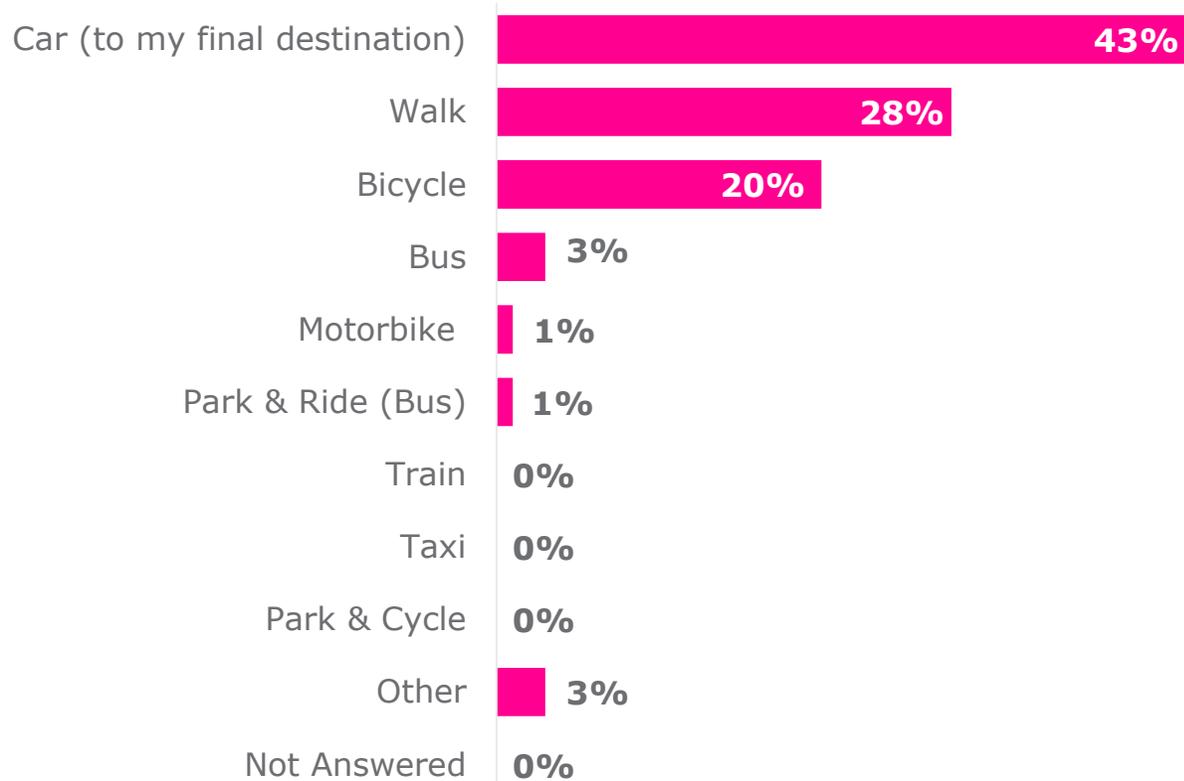
Q4. What do you use as your main mode of transport for local journeys? If you use more than one, please tick the one you use most often.
**Base:** Residents Total (300)
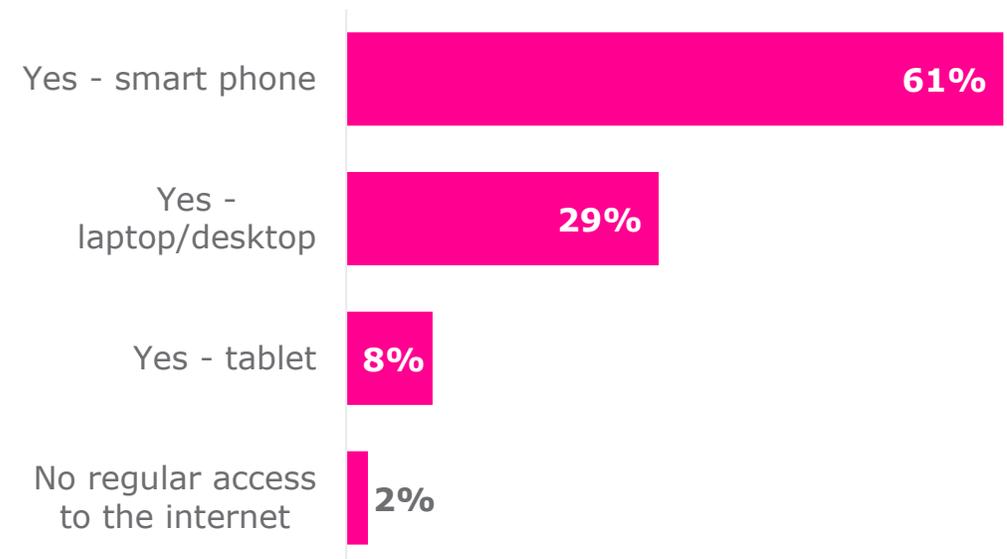
Q5. Do you have access to any digital device to regularly access online information?
Base: Residents Total (300)

Sample Detail – Semi-Structured (Users) Research

	Total	
Total	**53**	
I Consultants/researchers/government	11	21%
II Public health	6	11%
III Schools	4	8%
IV Charities / campaigning / community	11	21%
V Councilors / council staff	17	32%
VI Residents (low income communities)	4	8%

Which of these would you be likely to use an air quality website for?

|	Total		I Consultants/ Researchers/ Government		II Public Health		III Schools		IV Charities/ Campaigning/ Community		V Council		VI Residents	
Total	**53**	*%*	**11**	*%*	**6**	*%*	**4**	*%*	**11**	*%*	**17**	*%*	**4**	*%*
For work purposes	17	32%	4	36%	1	17%	1	25%	4	36%	7	41%	0	0%
As a resident (for personal purposes)	6	11%	0	0%	2	33%	0	0%	1	9%	0	0%	3	75%
Both work and personal purposes	30	57%	7	64%	3	50%	3	75%	6	55%	10	59%	1	25%
Neither – wouldn't use it	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

The Impact of Air Quality on Oxfordshire Residents
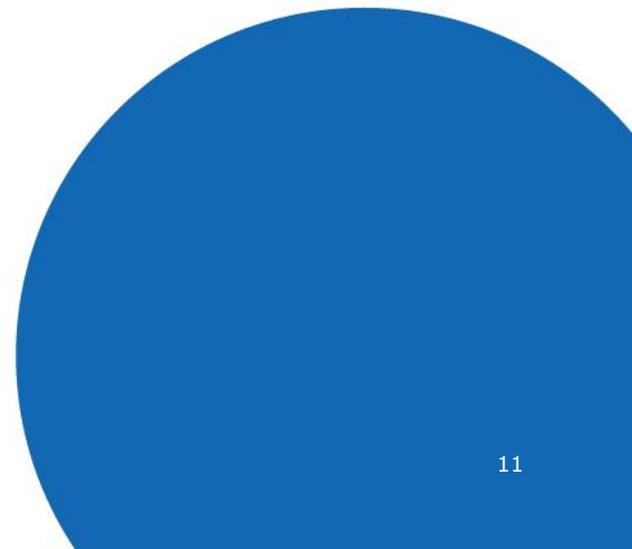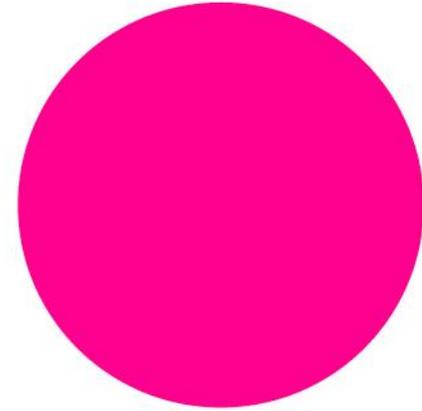
Residents express high levels of concern about air quality and its impact on day-to-day activities

More than nine tenths of Residents (91%) indicate that they are concerned about air quality to some degree, with 45% saying that they are 'always' concerned about the issue. Approaching three quarters (73%) of Residents believe that air quality impacts on their day-to-day activities to some extent, with more than a quarter (27%) feeling that it impacts them regularly (most days or every day) and 40% being impacted at least once a week.

Whether concerned about air quality

Category	Value
Yes - mainly in my local area	37%
Yes - mainly whilst travelling	9%
Always	45%
Rarely	7%
Never	2%
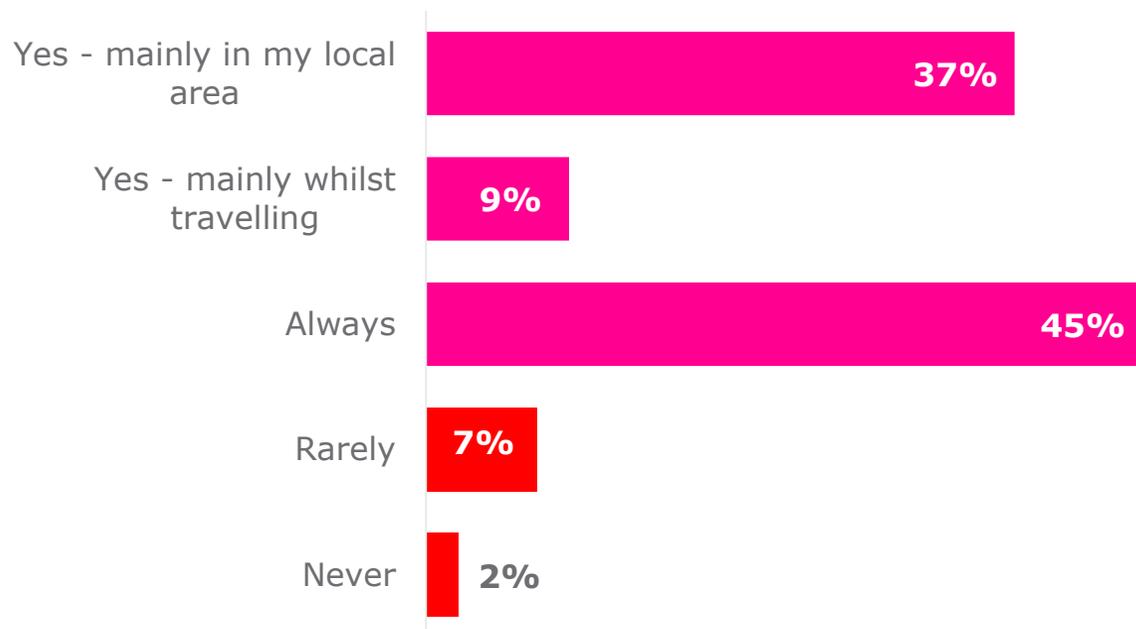
Whether air quality impacts day-to-day activities
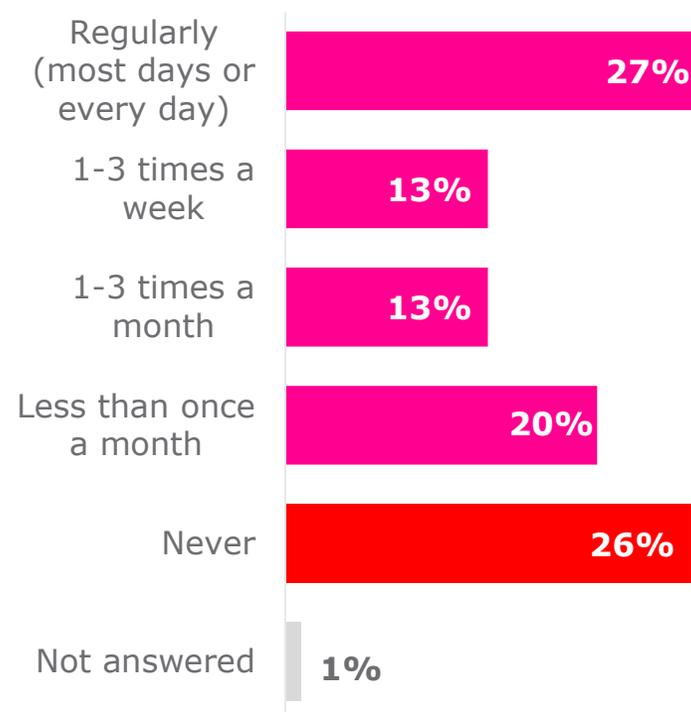
Category	Value
Regularly (most days or every day)	27%
1-3 times a week	13%
1-3 times a month	13%
Less than once a month	20%
Never	26%
Not answered	1%

Current Ways of Looking for Air Quality Information
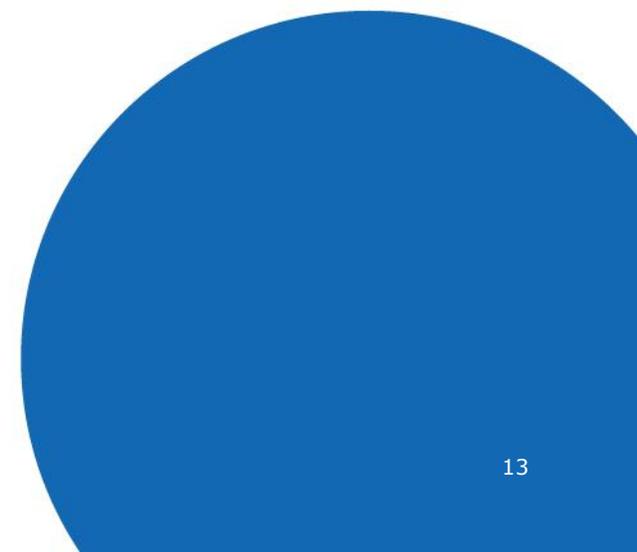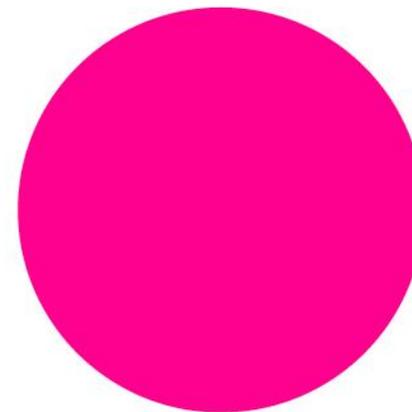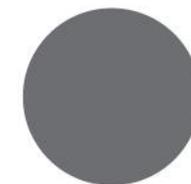
Three fifths of Residents who responded look for some form of information about air quality in Oxfordshire

Methods of finding out air quality information for different areas of the County

Method	Percentage
Internet search engines	35%
Governmental webpages	19%
Local media	9%
Social media	6%
Asking a friend	1%
Other	12%
I don't ever look for information about air quality	37%
Not answered	3%
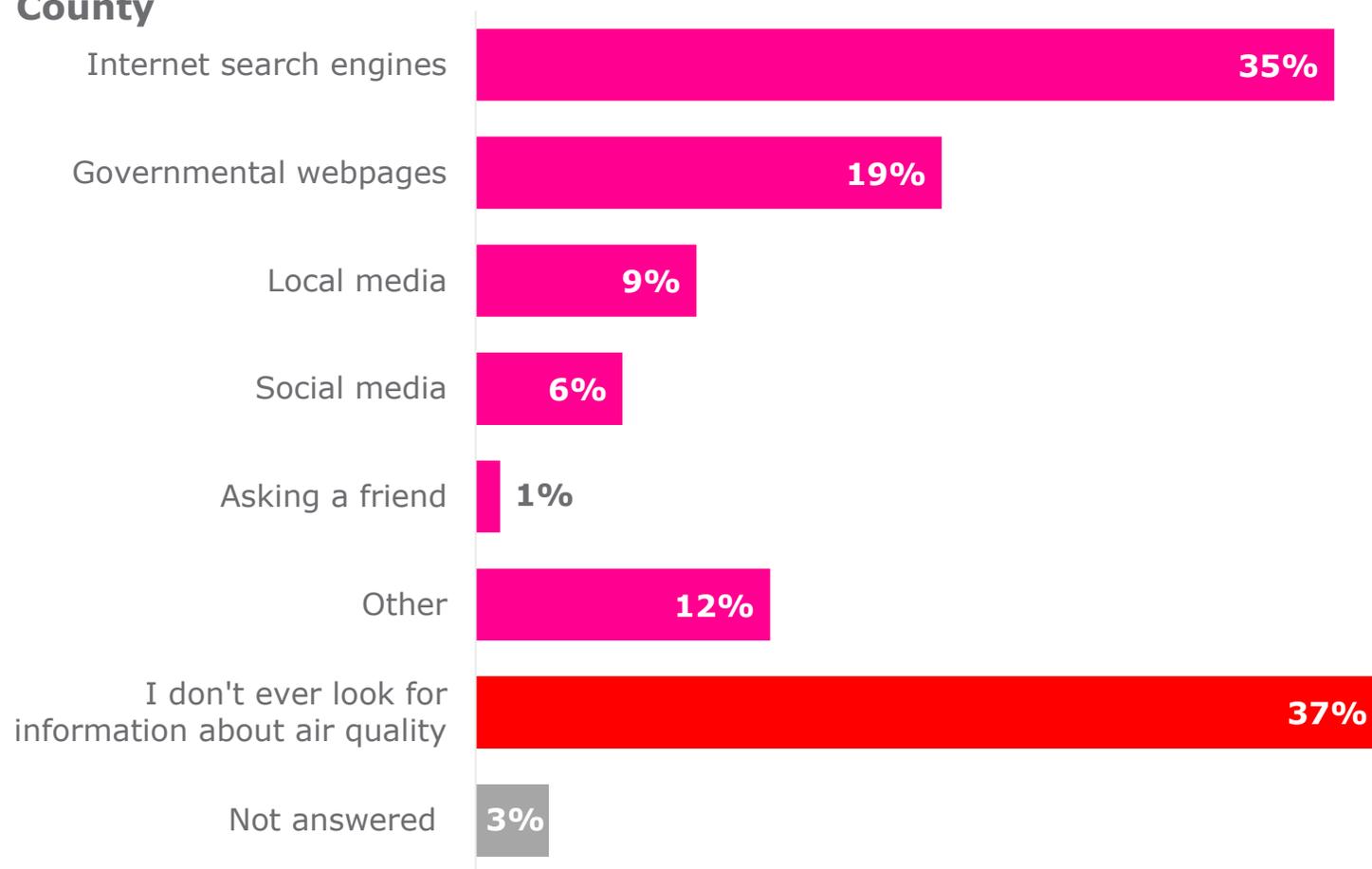
Three fifths of Residents (60%) use at least one method of finding out information about air quality for different areas of the County.

More than a third (35%) use internet search engines, with nearly a fifth (19%) using governmental webpages.

Less than a tenth use either local media (9%) or social media (6%) to look for air quality information for the County.

More than a tenth (12%) use another method to find out air quality information for different areas of the County – the most common 'other' ways are to use a dedicated weather app/website or a dedicated air quality app/website.

However, approaching two fifths (37%) say they never look for information about air quality.

Q8. Where do you go to find out information about air quality for different areas of the County?
Base: Residents Total (300)

Clear scope for improvement to current methods of disseminating air quality information to Residents

Nearly four fifths (78%) of Residents agree to some extent that 'air quality information is not disseminated adequately', while just over three fifths agree that 'there is a lack of coherence/consistency in the way air quality information is communicated' (61%) and that 'air quality information exists but it is not relevant to my local area (60%). The statement recording the highest level of negativity is 'air quality information exists but is not relevant to my local area' (26%).

% Positive

Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know	% Positive
Air quality information is not disseminated adequately	39%	39%	11%	3%	3%	6%	78%
There is lack of coherence/consistency in the way air quality information is communicated	23%	38%	21%	3%		13%	61%
Air quality information exists, but is spread across a multitude of sources, making it very difficult to locate	20%	40%	14%	7%		18%	60%
Air quality information is quite complex and the message is not easily understood	22%	36%	18%	10%	5%	10%	58%
Air quality information is scarce	20%	36%	17%	12%	5%	10%	56%
Air quality information is often not adequate to my user needs	19%	30%	21%	11%	3%	16%	49%
Air quality information exists, but is not relevant to my local area	13%	27%	19%	18%	8%	15%	40%
Air quality information is out of date	16%	21%	28%	7%	3%	26%	37%

■ Strongly agree ■ Agree ■ Neither agree nor disagree ■ Disagree ■ Strongly disagree ▢ Don't know

Q9. Communicating information about air quality can be challenging at times. Why do you think that is?
Base: Residents Total (300) **NB:** Data label not shown if <3%.

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Some Residents mention other challenges in communicating information about air quality, mainly relating to other aspects of monitoring quality and a degree of public apathy

Quality of monitoring/measuring needs to be improved	Not enough advertising of air quality information generally	Lack of interest in air quality information generally	Authorities don't know how to best use/communicate air quality data
	There is an 'out of sight, out of mind' perception regarding air quality information.	Some feel that another challenge is that people simply aren't very interested in air quality information.	A couple of comments are made about air quality data not being actioned, or not being seen to be actioned, by those with the power to act upon it.

"Air quality is not measured effectively enough e.g. in real time across sufficient gases and particulates." (Local Councillor)

"Air quality monitors are in the wrong place and mostly not working, rendering data useless." (Oxfordshire Resident)

"It should include risk levels for those with respiratory illness, a bit like the pollen count." (Oxfordshire Resident)

"There are not a lot of tools deployed that adequately measure air quality in local areas. As it is with CCTVs, so should it be with air quality. With more housing developments cropping up, more vehicles clog roads which did not use to be that busy. Along with these developments, air quality monitoring systems need to evolve too." (Oxfordshire Resident)

"I don't know what information is available for Oxford. I have previously used air quality information, when resident in another City, and it was very clear and easy to use." (Oxfordshire Resident)

"Air quality cannot be seen (unlike traffic, littering, recycling bins) so 'out of sight' might be 'out of mind' for some people." (Oxfordshire Resident)

"Air quality information should be communicated in local social media groups like Facebook/Twitter/TikTok in an easy to understand way." (Oxfordshire Resident)

"People do not view it as something they need to be concerned about." (Oxfordshire Resident)

"Oxfordshire is a huge mainly rural county. Air pollution tends to be perceived as more of an urban/trunk road problem. Not sure for how many people this is a real and immediate problem. Lack of decent rural buses is possibly more important?." (Representative of an organisation)

"It's made available but no one seems to use the data to address the issues." (Oxfordshire Resident)

"Not knowing what to do with the information is an issue." (Oxfordshire Resident)

Q9. Communicating information about air quality can be challenging at times. Why do you think that is? If you think there are other reasons that help explaining this, please specify.
Residents Online Survey

Interest in Air Quality Bulletins & Air Quality App
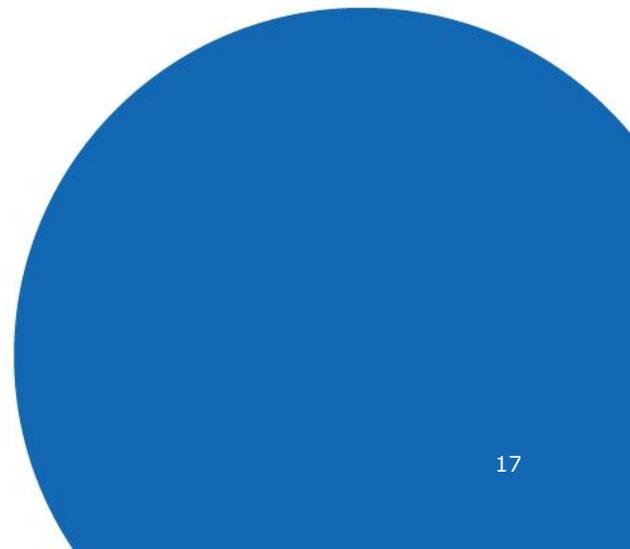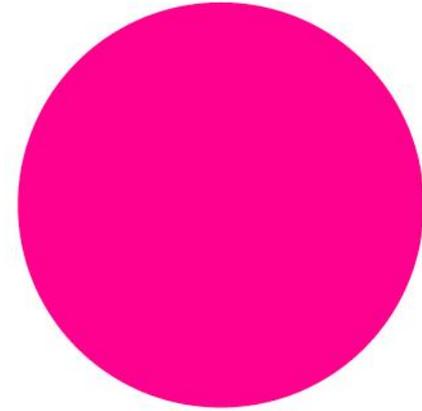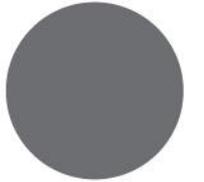
High interest levels for the free air quality bulletins and the free air quality app

More than four fifths of Residents (82%) and Users (80%) express an interest in at least one of the two air quality information tools which could provide up to date information on air quality. In total, more than three fifths of Residents (62%) indicate an interest in subscribing to free air quality bulletins, while over half of Residents (55%) are interested in downloading and using a free air quality app. However, approaching a fifth (18% of Residents and 19% of Users) say they are not interested in either the free air quality bulletins or the free air quality app.

Interest in subscribing to various air quality information tools
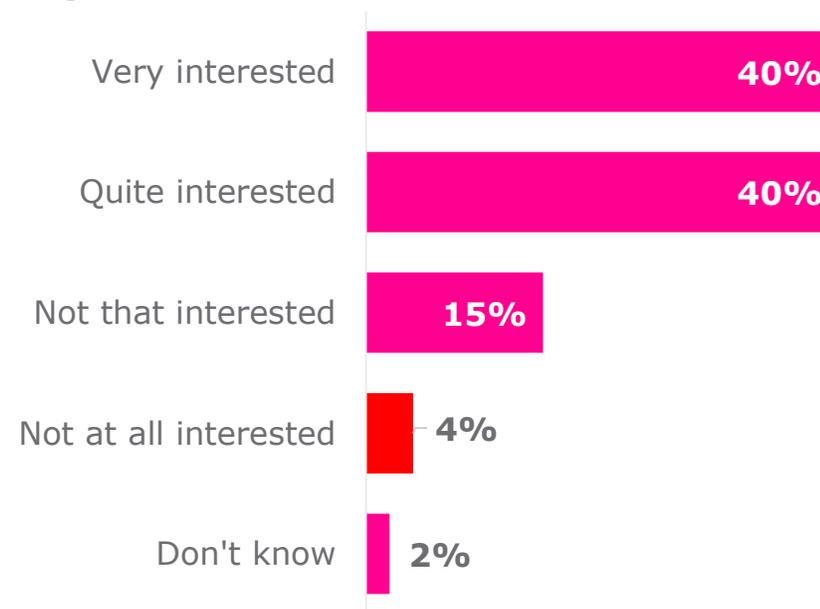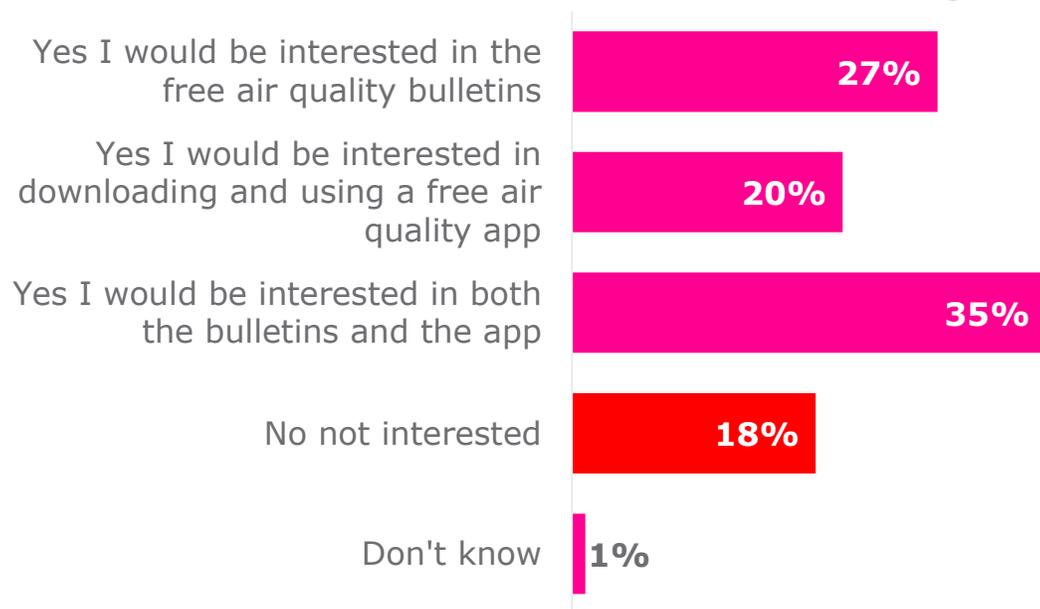
Yes I would be interested in the free air quality bulletins	27%
Yes I would be interested in downloading and using a free air quality app	20%
Yes I would be interested in both the bulletins and the app	35%
No not interested	18%
Don't know	1%

|	
Very interested	40%
Quite interested	40%
Not that interested	15%
Not at all interested	4%
Don't know	2%

Key air quality bulletin content preferences include how the Council is actioning issues and showing different pollutant levels

Further comments made by User groups relating to the content that they would like to see in air quality bulletins mainly focus on communication of actions that the Council and other bodies are taking on air quality issues and information about the ongoing levels of different pollutant types. However, there is some preference for an app (with alerts) over a bulletin.

Specific content that people would like to see in air quality bulletins (additional comments made relating to this potential feature)

Information on how the Council is acting on the latest findings

"I'd be interested in what the data is it showing, how does it translate into actions for the Council and the public to take and what do councils want people to do?" (Charities/Campaigning/Community)

"It needs good granularity. You want public health warnings and advice on what you should do and maybe a link to official advice." (Council)

"What's happening in the community and what are the policies that are being launched around the country." (Public Health)

Information broken down by different pollutant types

"(Show it by) the four main pollutants (NOx, Carbon Monoxide levels Ozone, and PM10 and PM2.5) and how they are impacting pollution levels." (Council)

"The bulletins need to have clear information on what the different levels mean and significance of the different pollutants as well as the immediate and long-term risks." (Schools)

Comparative data summaries

"Bulletins could show respective data and comparisons." (Council)

"Concise daily data with the average for key locations and any significant national news." (Charities/Campaigning/Community)

BUT: High interest in alerts (to mobile phones) rather than bulletins

"Maybe alerts should only ping when pollution is above a certain level in your area. Do not bombard people with information, just 'bad day' stats." (Consultant/Researcher/Government)

BUT: App preferred over bulletins

"I wouldn't go for bulletins (especially if they are filled with lots of information). I just want a simple app where I can access the numbers and then move on." (Resident)

"Personalised alerts by postcode or travel routes. I'm not interested in bulletins." (Public Health)

"I am not interested in free bulletins, I'm already overwhelmed with them. I am however interested in an app, showing me similar information to the website. Design the website so I can view it on my phone." (Schools)

Q43. Is there anything specific that you would like to see included in air quality bulletins?
Base: Users - Total (53)

Potential Website Content
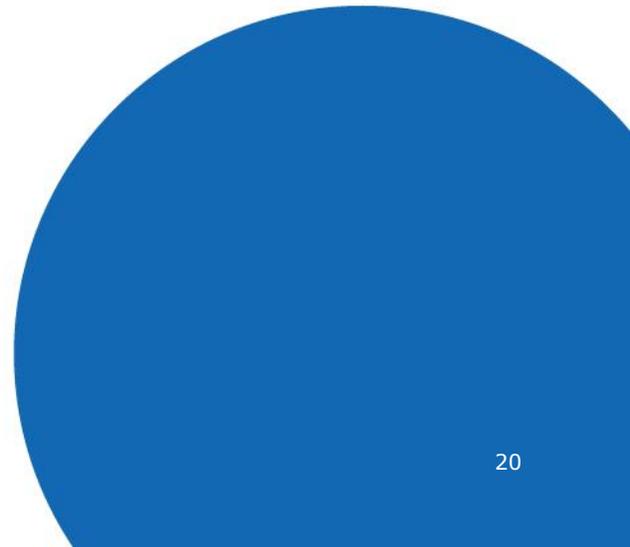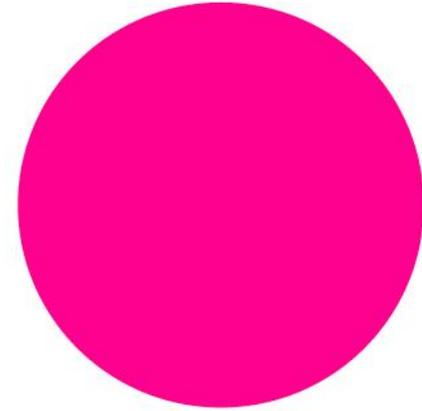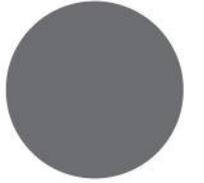
Those in the 'Consultant/Researcher/Government' User group would most like to see daily air quality readings, access to in-depth data and 'best practice' for changing daily behaviours

When asked the question spontaneously, those in the 'Consultant/Researcher/Government' User group would most like to see good local air quality information (such as access to daily air quality readings), the ability to access in-depth data (such as being able to download data tables for data exploration purposes) and information about what people can do to minimise their own air polluting activities. Some example verbatim comments, which include these issues as well as other issues raised by the Consultant/Researcher/Government User group, are shown below.

Types of information and content would like to see available on an air quality website
'Consultant/Researcher/Government' User Group

Access to in-depth data		Access to local daily air quality readings	Information on what people can do to minimise their own air polluting
"Professionally I'd be interested in local authority reports and monitoring data. Most local authorities provide annual air quality reporting data which would be useful in my role. I'd also like a see a map which shows the concentration of pollutants and pollution levels in the different areas. I'd like it to include basic information with links to direct me to the data I need, like maps and reports. As a member of the public I'd be more interested in the immediate air quality data - so if I was going to the city centre for instance, I'd like to know 'how does the air quality look today?'." (Consultant/Researcher/Government)	"To be able to understand air quality in my location and shown how to use this information and having the ability to download it. Also, to have an understanding of the provenance of the information and the ways it's been used. And to have any upcoming news and practical ways I can use the information - such as if I am buying a house – and how I can contribute to improving air quality." (Consultant/Researcher/Government)	"It's important not to duplicate things that are already out there. It would be more useful to have stuff from a local context as I currently find it hard to get information for my area, so the more local and bespoke the information can be the better. It should also include information on educating people on why air pollution is bad for them - and show them easy ways they can start to change their behaviours." (Consultant/Researcher/Government) "I would like to know what the air quality is in the city or Local Authority and what actions are being taken to improve air quality. I want information that will help me change my behaviours." (Consultant/Researcher/Government)	"I'd like to see information about current air quality in real-time. A repository of past data I can access. As an individual - educational information on good and bad air quality, the main contributors and causes of pollution. There are already websites that deal with this so they must not reinvent the wheel. There's a role for the website to provide more awareness and education and it should include more basic stuff for the public. From a public perspective it should raise awareness and help people understand the relative contributions to the problem - such as wood burning stoves." (Consultant/Researcher/Government)

Q1. What types of information and content would you like to see available on an air quality website? (Unprompted question)
Base: Users – 'Consultant/Researcher/Government' User group (11)

Those in the 'Public Health' User group would most like to see general pollutant/air quality background information, specific health effects and an interactive map

When asked the question spontaneously, those in the 'Public Health' User group would most like to see general background information on pollutants and air quality, a demonstration of the health effects of poor air quality and information displayed on an interactive map. Some example verbatim comments, which include these key issues, as well as other issues raised by the Public Health User group, are shown below.

Types of information and content would like to see available on an air quality website
'Public Health' User Group

Background information on pollutants in general	**Show the health effects of poor air quality**	**Display information on a map (interactive)**
"I'd like to be able to understand the relative types of air quality and the severity of clean air vs polluted air. I'd like this presented at street level resolution so I can see where there's a potential health risk in particular parts of towns and cities. I want high resolution data for professional purposes. I also want to see the key pollutants that relate to human health as this would help underpin our policy approach. I would like to see the key sensitive sensors and have them mapped by primary schools, care homes, hospitals and SEN (Special Educational Needs) settings as well. I also want to see the cumulative burden of relative air quality metrics in a seasonal and /or monthly basis to measure the burden of impact on health." (Public Health)	"Real time data by as small a geography as possible. Historic trends - I would like to see information cross-referenced with health conditions to see what the pollution source is (cars, factory, homes etc.) and broken down by area - if say buying a house. The ability to download air quality data by date - so if someone was looking at hospital admissions over a period of time they could establish what the air quality was like at that time. Data extraction - can I break down this data by month and by pollutant? It would be helpful if I could." (Public Health)	"An active map with up-to-date air quality readings. However, I would need to know that this is being regularly updated. Average readings in key areas with good or bad pollution levels. General information about air quality research. Air quality issues and causes - what does it mean for me and what choices are impacted or not impacted by this. Something schools can use that can tie into the school curriculum. Information on where major pollution is coming from and who is causing it. Something like a "polluters map" will give people the ability to make choices. They could write to their MP or lobby their local transport authority for instance. However, it needs to be a very factual tool. Carbon pollution also needs to be included and information offered on how to reduce it. A carbon calculator and air pollution footprint calculator would be essential. People can enter information regarding their car, their burning stoves and see how much they are polluting. This would be a great tool for schools and families." (Public Health)

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Q1. What types of information and content would you like to see available on an air quality website? (Unprompted question)
Base: Users – 'Public Health' User group (6)

Those in the 'Charities/Campaigning/Community' User group would most like to access specific particulate data, daily air quality readings and historic/comparative air quality data

When asked the question spontaneously, those in the 'Charities/Campaigning/Community' User group would most like to see specific information about the types of pollutants being monitored, the provision of good local air quality information (such as access to daily air quality readings) and the provision of historic air quality data for current comparisons. Some example verbatim comments, which include these key issues, as well as other issues raised by the Schools User group, are shown below.

Types of information and content would like to see available on an air quality website
'Charities/Campaigning/Community' User Group

Include specific measurements/what is being monitored (e.g particulates, NOx figures)	Provide good local air quality information (e.g. access to daily air quality readings)	Useful for historic data to be available/be compared
"A description of the different types of air pollution - so NOx and particulate matter. The monitoring systems the council has set up - is it real-time monitoring or data that represents the vast data points? Maps across the city - I want them to be clear about what they are monitoring and the types of monitors they have set up." (Charities/Campaigning/Community)	"I work with a variety of community groups including a cycle campaign group as well as Low Carbon Oxford North. All of these groups are trying to make the city and environment a better place to live. It has to be easy to navigate. I want to start with a map with current and historical information for a particular location. I want to have the ability to zoom in on this map. It should also contain information and data around fine particulate air pollution with PM2, PM10, P1, PM 2.5 readings. I also want it to have information about hotspots outside places like schools. It would also be useful to have pages on the impact of pollution on human health and the sources of pollution in Oxford and Oxfordshire." (Charities/Campaigning/Community)	"Essentially air pollution levels over geography and time and different degrees of time so it could include variations over the years, then a point in the year and then over days. Local geographic information about places in particular hotspots - like schools - will be important. An explanation of what is modelled and what is actual data would be important as well." (Charities/Campaigning/Community)
"It needs to have lots of different sections including: The facts about air pollution from a national perspective - the types (i.e. NOx, PM2.5),the causes and the impacts on human health Local information on monitoring and how to access the information and data. Allow access to annual status reports produced by the council, which are currently very hard to find online. Information regarding independent organisations that already provide air quality information - like PurpleAir monitoring schemes. Sections on what individuals can do to protect themselves from air pollution - like changing their walking and cycling routes. What people can do to reduce their own emissions An Interactive element - getting involvement from the community by posting their own experiences. My main interest is schools and how they can be made less polluting." (Charities/Campaigning/Community)		

Q1. What types of information and content would you like to see available on an air quality website? (Unprompted question)
Base: Users – 'Charities/Campaigning/Community' User group (11)

Those in the 'Schools' User group would most like to access daily air quality readings with data shown in real-time and to be able to access information about the health effects of poor air quality

When asked the question spontaneously, those in the 'Schools' User group would most like to see good local air quality information (such as access to daily air quality readings), real-time data/information and information on the health effects of poor air quality, in particular linked to specific school locations. Some example verbatim comments, which include these key issues, as well as other issues raised by the Schools User group, are shown below.

Types of information and content would like to see available on an air quality website
'Schools' User Group

Provide good local air quality information (e.g. access to daily air quality readings)	Real-time data/information	Show the health effects of poor air quality (especially in relation to specific school locations)
"I am interested in air quality surrounding the school. We currently have a monitor near the school which we regularly check. The information needs to accessible so children can understand it. I want to be able to see and compare the air quality at different times of the day." (Schools)	"Live air quality data. Trackers showing carbon emissions within an area from a climate point of view. Information on clean and healthy travel routes. Stats regarding health implications as related to air pollution." (Schools)	"I would like to know where the hotspots are and which areas are significantly worse. Anything about how to raise awareness about the impact of idling cars outside schools and the link to asthma, would also be useful." (Schools)
	"Background information on what it is, how it's measured and why it's important. A map with historic and real-time information on air quality. Actions I can take if I'm worried about air quality. Some things I can do or encourage my community do to improve air quality." (Schools)	

Q1. What types of information and content would you like to see available on an air quality website? (Unprompted question)
Base: Users – 'Schools' User group (4)

Those in the 'Council' User group would most like to access specific particulate data, daily air quality readings and to identify areas where air quality is poorest and what is causing it

When asked the question spontaneously, those in the 'Council' User group would most like to see specific information about the types of pollutants being monitored, the provision of good local air quality information (such as access to daily air quality readings) and highlighting areas where air quality is poorest and the reasons for this. Some example verbatim comments, which include these key issues, as well as other issues raised by the Council User group, are shown below.

Types of information and content would like to see available on an air quality website
'Councillors' User Group

Include specific measurements/what is being monitored (e.g particulates, NOx figures)	Provide good local air quality information (e.g. access to daily air quality readings)	Showing areas/locations where air quality is poorest (and why)
"I would like to see tracking of PM2.5, PM10, Ozone, NOx, humidity, and Sulphur Dioxide levels throughout the county. They should also include wet-bulb temperature readings." (Council)	"I need to know what the levels of the various dangerous pollutants are and the different places they occur. I want to see information on a localised basis. The information must be regularly updated." (Council)	"I used to teach pollution measurement and control so real time information on NOx , Carbon Monoxide levels, Ozone, and PM10 and 2.5, at key locations like busy roads, low traffic areas Carfax and other neighbourhoods." (Council)
"Information about the most commonly-worried-about air pollutants and what they do to our health and the planet. Easily findable headline figures about the trends. Day-to-day readings and levels. Information on the link between traffic and air pollution e.g. during school holidays there is a reduction in air pollution. Ability to drill down to detailed data through links on the front page." (Council)	"I would like to see a dashboard for the County, with the ability to zoom into particular areas to get a picture of the air quality quality in that particular area. For example, my area is Witney, and being able to compare the data a year or 2 back would be a great help. I would also like the ability to zoom into areas of concern. I want to see a broad picture of the Air Quality Management Area for Oxford on a granular level. It's important that this type of information equates to something that is meaningful. In our management area they have switched the air quality monitors off because they say they already know that the readings are poor so what's the point of leaving them on? This is the wrong way to go about things. Readings, however bad, still need to be monitored and reported. I also want to be able to look at changes over time. For instance, what the readings looked like in 2019, what they looked like during Pandemic and what they look like now. I also want to also see what the air quality readings are like during the different seasons and during the school holidays." (Councillors)	"I want to understand the NOx levels on a particular day or time. The most important for me is information on particulates - we need to understand the levels and in which areas." (Council)

Q1. What types of information and content would you like to see available on an air quality website? (Unprompted question)
**Base:** Users – 'Council' User group (17)

Those in the 'Residents' User group would most like to access specific particulate data, daily air quality readings and to be able to view national and international air quality data

When asked the question spontaneously, those in the 'Residents' User group would most like to see would most like to see specific information about the types of pollutants being monitored, the provision of good local air quality information (such as access to daily air quality readings) and access to national and international air quality data. Some example verbatim comments, which include these key issues, as well as other issues raised by the Residents User group, are shown below.

Types of information and content would like to see available on an air quality website
'Residents' User Group

Include specific measurements/what is being monitored (e.g particulates, NOx figures)	Provide good local air quality information (e.g. access to daily air quality readings)	Access to national & international air quality data (e.g. UK. WHO)
"The things I would want to see would be things like the NOx and small and particle (PM2.5) levels in particular locations, especially where these levels were high. It would be sensible to know this information. I would also like to know how they are measured. Sometimes they use diffusion tubes which give an average reading for the time the diffusion tube is exposed. So doesn't give you peaks, just an average, which is not as useful. It's better to have peak readings." (Residents)	"I need it to be available on my mobile phone and accessible and on social media. I would like to know a simple air pollution metric and a simple explanation of what it means. I want to know air quality readings for where I live and would also be interested in seeing what air quality is like in other parts of the country." (Residents)	"I want to know the overall annual mean as that' is what all national targets are set by. I also want to see information on high levels on a short-term basis. I don't how current air pollution levels compare to air pollution levels in the past, so information on that would be useful. I'd also like to know how the UK compares to other places in the word like Delhi - including the degrees of difference - and the ability to contextualise this information." (Residents)
	"Pollutions levels in my locality - types of pollutants. Which areas the air quality is poor and the air quality in different areas. Regular updates to enable mapping over time. Feedback from people regarding their concerns for air quality. Air quality readings at different times of the day e.g. when children are driven to school and during the different seasons." (Residents)	

Q1. What types of information and content would you like to see available on an air quality website? (Unprompted question)
Base: Users – 'Residents' User group (4)

Interactive maps ranked as the most useful method of presenting air quality information online

Of the four methods presented to respondents, almost three quarters of Residents (73%) and more than four fifths (85%) of Users rank 'interactive maps' as the most useful method of presenting air quality information online. Only a tenth of Residents, and a slightly smaller proportion of Users, rank 'interactive charts and graphs' and 'tables with detailed data' as their most preferred method, while only small minorities rank 'reports' as their main preference.

Mean:

	Chart	Mean
Interactive maps – Residents	73% / 12% / 5% / 6% / 4%	3.5
Interactive maps – Users	85% / 8% / 8%	3.8
Interactive charts and graphs – Residents	10% / 51% / 21% / 12% / 6%	2.5
Interactive charts and graphs – Users	6% / 70% / 19% / 6%	2.8
Tables with detailed data – Residents	10% / 15% / 43% / 26% / 6%	2.0
Tables with detailed data – Users	8% / 17% / 55% / 21%	2.1
Reports – Residents	5% / 16% / 24% / 49% / 6%	1.6
Reports - Users	6% / 19% / 74%	1.4
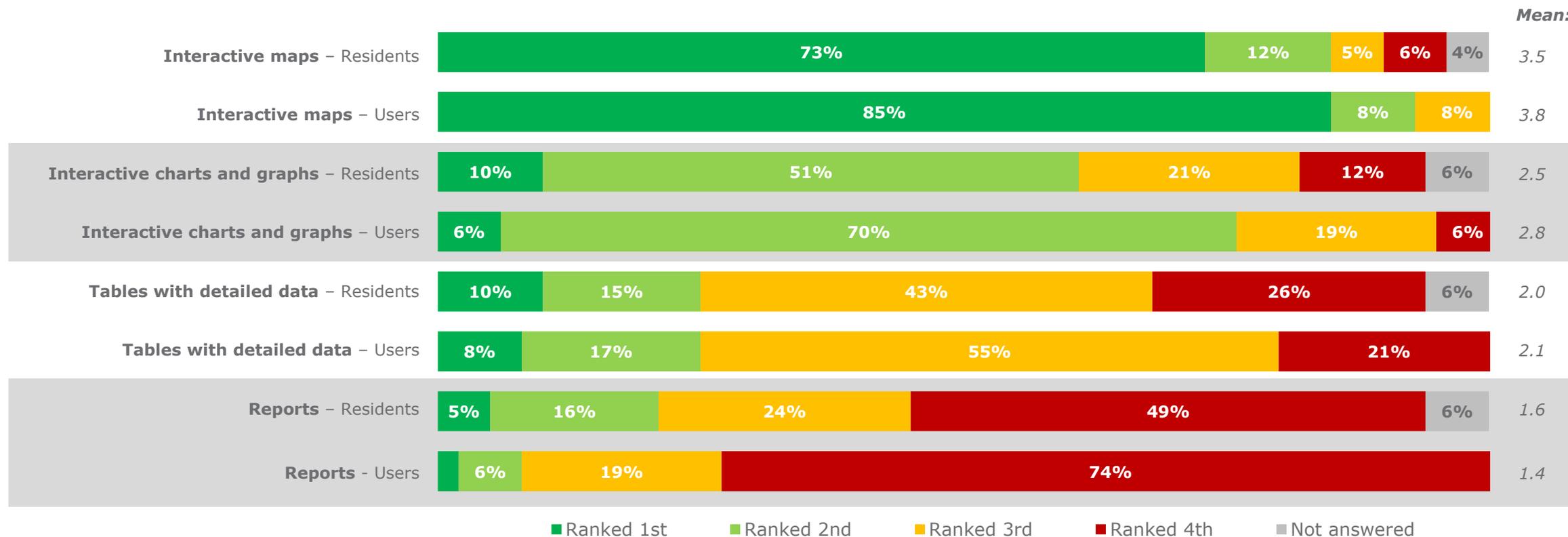
■ Ranked 1st ■ Ranked 2nd ■ Ranked 3rd ■ Ranked 4th ■ Not answered

Q10. Which of the following methods would you find most useful when presenting air quality information online? (Please rank all items in priority order, with 1 being the most useful to you)
Base: Residents Total (300), Users Total (53). **NB:** Data label not shown if <3%.

Other methods mentioned by Residents for presenting air quality online mentioned include app-based information and using other already-established sites/services.

Via an app	Use other commercial sites to display this information instead	Street/postcode finder function on the website	Use live streaming (e.g. of/at specific locations)
	• e.g. integrate the information into BBC services, Council websites and general weather services.	Some feel this would be a good way of easily pinpointing specific air quality information to their immediate locality.	Interactive use of live streaming and presenting live data 'in situ' at certain locations are also thought by a few to be a beneficial way of communicating air quality information.

"An app that can estimate the air quality based on your current position/route." (Oxfordshire Resident)

"An interactive map on an app has worked really well, but I appreciate only if you have a smart phone." (Oxfordshire Resident)

"I would like an app so I can check air quality like I check UV levels - that way I know when to stay indoors." (Oxfordshire Resident)

"Sensors in local areas with a live update feed that can be viewed on an app." (Oxfordshire Resident)

"Deliver a daily summary chart to BBC Oxford every evening at 18:00." (Oxfordshire Resident)

"I think that it should be included in weather apps/bulletins also the option to sign up for alerts in a similar way to flood alerts" (Oxfordshire Resident)

"Interactive maps are rarely useful online and are hard to manipulate…vague. I think each area of Oxfordshire, broken down by roads, alphabetically, would be the easiest way to view information online." (Oxfordshire Resident)

"Put in the name of a road or area and then the nearest place it is being monitored shows you the level of the air quality on that day. Live information and show relevance as to whether it is higher than is safe." (Oxfordshire Resident)

"You give an address and it tells you the air quality for that area." (Oxfordshire Resident)

"Physical dashboards on the street so we can actually see how bad it is while we are out." (Oxfordshire Resident)

"Present it on a map next to the roadworks, traffic lights and roadblocks that you've implemented so we can see that they actually contribute to air pollution." (Oxfordshire Resident)

"Videos (of reports?), live podcasts/streaming." (Oxfordshire Resident)

Q10. Which of the following methods would you find most useful when presenting air quality information online? If you think there are other reasons that help explaining this, please specify.
Base: Residents Total (300),

The ability to both simplify information for the layperson and to allow 'drill down' using all methods are key issues for User groups

The need to simplify headline information for the casual user is the most-mentioned theme across most User groups when considering how best to present air quality information online. However, striking the right balance between 'headlines' and the ability for air quality specialists being able to drill down deeper into the website data is perhaps the key consideration.

Simplify information for the 'layperson'		Allow unlimited manipulation of data by website users	
"It needs to be clear and not too complicated. I like the interactive idea, but the overall interface has to be user friendly and not too technical." (Schools)	"Simple headline numbers right at the front and on top of the home page. Click to links on what these numbers mean, and then further links to reports, tables and research." (Resident)	"Being able to drill down into information and download more information if you wish. The ability to click on a chart and get a table of data underneath it. The interactive stuff is what people use most. People like the ability to drill down and get the data, reports etc. they need." (Consultant/Researcher/Government)	"The front screen should be an interactive map which allows the user to click on different areas. There has to be a hierarchy - so when you click on a map you should get a table and then be able to drill down to charts, and reports etc. Make it colour-coded." (Council)
"It needs to be relatable, human-centred rather than facts and figures. It needs to be local place-based with pictures and maps of Oxford and integrated with other initiatives, like School Streets. Have stories of success of tackling the issue and make the relationship to climate change explicit." (Charities/Campaigning/Community)	"They need to know that it's not an "either" or "either" scenario or something that has to be either really complex or really simple. The key is to combine complexity with simplicity as this way it works for people who want all the detail and people who don't." (Council)	"Just to reiterate that charts and tabular data are all important if looking at concentration data or spatial concentration data and model outputs. In all of these things it is essential that the user/viewer can download what they are viewing and work on it locally. It needs to be linked - in terms of a monitoring station for instance - and link back to specific data and charts etc. in a transparent and persistent way. It also needs to be well managed. Air Quality UK does some of this already." (Consultant/Researcher/Government)	"The ability to click on a map and a chart pops up. Then click on a button to download the chart as a graphic and download the data as a CSV or excel spreadsheet." (Charities/Campaigning/Community)
"It's got to be fun and look interesting. We need input from a professional designer." (Council)	"Need to get across the main causes of pollution and how they can be lessened - rather than "don't go out" if its a particular level". Educating people is the key." (Resident)		

Q22. Which of the following methods would you find most useful for presenting air quality information online? If you think there are other reasons that help explaining this, please specify.
Base: Users Total (53)

Using learnings from other websites/services and the use of real time data are also important considerations for User groups

A few respondents across the User groups feel that much can be made of linkages to, and learnings from, other websites and services, and that there is no need to 'reinvent the wheel'. Availability of 'real time' data on the website would be very useful, particularly to air quality consultants and researchers.

Integrate/link to/use other existing websites/services		Availability of 'real time' data

"It would be amazing if an API could be added, so people can pull data from the website and use it for other purposes. The National Grid have a great API and people use the National Grid data to develop apps and for research purposes." (Schools)

"They should use the media i.e. radio to broadcast air quality bulletins - that could be Oxford or BBC Radio. It is important to stress that everyone understands information in different ways - so pictures, graphs, videos, or even something like a catchy tune or song for children, would be useful." (Council)

"The information needs to be up to date and ideally real-time. Maybe they could also think of having a scheme that involves fitting sensors to buses and cycles to see what the real quality is like when moving around the city. It should also clearly show how close a particular area is to breaching limits and could be colour-coded accordingly." (Consultant/Researcher/Government)

"They need to move beyond what's been done already and do something novel; raise the bar. Why do we need another interactive map when the Oxfordshire website has had one for 10 years? There are a lot of other mechanisms out there to make the website groundbreaking, so why recreate the wheel and stay stuck in time? Listen to the empirical information on how people engage with air quality information and act on that." (Consultant/Researcher/Government)

"Having something like the London air website is a good basis to start. londonair.org has a model for the whole of London. Oxford can do a similar thing so people can see areas where pollution is high, places to avoid, and it can point them to actions to make things better." (Charities/Campaigning/Community)

"It should be an interactive map and also be a map with a timeline on it. Google Maps allows you to see the current state of traffic in a particular area and then scroll through and see results for different days and different times of the day. A similar tool for air quality would be really useful. People can have fun working out if its the traffic or wood burning stoves that are causing it and finding out when the peak time are -but it needs to be time-sensitive and day-sensitive." (Council)

"The Covid incidence website set up by the Council is very good. Oxfordshire County Council have found good ways to display Covid data and they should use the lessons learned from that, here." (Council)

"A link on house buying sites - like Boomin - to direct people to the site, or a link on GP websites or local Wikipedia content. Bus companies can advertise the website…make the site visible to people." (Public Health)

Q22. Which of the following methods would you find most useful for presenting air quality information online? If you think there are other reasons that help explaining this, please specify.
Base: Users Total (53).

Clear preference overall for air quality search engine tool to be searchable by postcode

Preference for air quality reading search engine tool functionality

Post code
- Residents: **72%**
- Users: **75%**

City/town
- Residents: **17%**
- Users: **19%**

District Council
- Residents: **3%**
- Users: **2%**

I won't be interested in using this tool
- Residents: **6%**
- Users: **2%**

Don't know
- Residents: **1%**
- Users: **2%**

Legend:
- ■ Residents
- ■ Users

More than seven tenths of Residents (72%) and Users (75%) would like to look for air quality readings on a search engine tool organised by post code.

Other ways of organising this feature prove to be less popular - around a sixth of Residents (17%) and nearly a fifth of Users (19%) indicate that they would like this feature to be organised by city/town, while only 3% and 2% respectively would prefer to search by District Council.

Only a small minority (6% of Residents and 2% of Users) say that they would not be interested in using a search engine tool that would allow users to look for air quality ratings.

Q12. We are interested in developing a search engine tool that allows users to look for air quality readings. Would you like this feature to be organised by…?
**Base:** Residents Total (300), Users Total (53).

Current local air pollution levels and local long-term situation ranked as most desirable website content

Of the nine options presented to Residents, more than nine tenths (91%) rank 'information on current air pollution levels where I live' as one of their top five website content options, with seven tenths (70%) ranking this as their number one option. 'The long-term situation for my local area/region' is chosen as one of the top five options by seven tenths (71%), with more than three fifths (62%) ranking 'specific information about the types of air pollutants I am exposed to' as one of their top five website content options.

Mean:

Content option	Ranked 1st	Ranked 2nd	Ranked 3rd	Ranked 4th	Ranked 5th	Not ranked in Top 5	Mean
Information on current air pollution levels where I live (e.g. the day-to-day air pollution changes)	70%	12%	3%	3%	3%	9%	4.1
The long-term situation (e.g. annual trends and figures) for my local area/region	8%	28%	16%	10%	9%	29%	2.3
Specific information about the types of air pollutants I am exposed to	5%	15%	19%	15%	8%	38%	1.8
Information on how I can reduce my exposure to air pollution	3%	12%	13%	14%	10%	48%	1.5
Summary information on today's pollution levels in the UK	3%	10%	14%	12%	12%	49%	1.3
Health advice and information on the impacts of air pollution on human health	3%	5%	10%	10%	13%	59%	1.0
Access to regular news about air quality projects being delivered in the County and/or my local area		6%	8%	11%	13%	60%	0.9
Information about what I can do to help address the issue	3%	6%		11%	12%	66%	0.7
Information on latest research and air quality studies				5%	10%	80%	0.4

■ Ranked 1st ■ Ranked 2nd ■ Ranked 3rd ■ Ranked 4th ■ Ranked 5th ■ Not ranked in Top 5

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Q13. We would like you to help us shape the content of the website. From the list of contents below, please can you select and rank your top five options in priority order, with 1 being the most useful to you?
Base: Residents Total (300) **NB:** Data label not shown if <3%.

Current local air pollution levels and local long-term situation ranked as most desirable website content

Of the ten options presented to User groups, all think that 'information on current air pollution levels where you live' would be useful to them (89% find this 'very useful'). More than nine tenths feel that several of the other options are useful to some degree but particularly 'the long-term situation for my local area/region' and 'information on how I can reduce my exposure to air pollution', which are both rated as either quite useful or very useful by 94% of Users. 'Summary information on today's pollution levels in the UK' is rated as the least useful of the options.

Mean:

Content	Very useful (4)	Quite useful (3)	Not that useful (2)	Not at all useful (1)	Don't know	Mean
Information on current air pollution levels where I live (e.g. the day to day air pollution changes)	89%	11%				*3.9*
Information about what you can do to help address the issue	68%	23%	9%			*3.6*
The long- term situation (e.g. annual trends and figures) for my local area/region	66%	28%	6%			*3.6*
Health advice and information on the impacts of air pollution on human health	62%	30%	8%			*3.5*
Specific information about the types of air pollutants you are exposed to	62%	28%	8%			*3.5*
Information on how I can reduce my exposure to air pollution	58%	34%	6%			*3.5*
Resources for schools – e.g. a free toolkit with curriculum-linked lesson plans and resources etc.	58%	30%	9%			*3.5*
Access to regular news about air quality projects being delivered in County and/or your local area	47%	42%	11%			*3.4*
Information on the latest research and air quality studies	26%	47%	23%			*3.0*
Summary information on today's pollution levels in the UK	17%	45%	34%	4%		*2.8*

■ Very useful (4)   ■ Quite useful (3)   ■ Not that useful (2)   ■ Not at all useful (1)   ■ Don't know

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Q2-Q20. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be.
Base: Users Total (53) **NB:** Data label not shown if <3%.

'Information on current air pollution levels where I live' most useful when simplified for all but also allows deeper interrogation

Further comments made by User groups relating to the potential content of 'information on current air pollution levels where I live' centre around the key issue of making information as simple and accessible as possible for all potential users – from the casual headline-reader to specialists who need a much greater depth of information.

**'Information on current air pollution levels where I live (e.g. the day-to-day air pollution changes)'
(additional comments made relating to this potential feature)**

Simplify headline information for the 'layperson'	Make information easily accessible for all	Use of drill-down visual mapping to show this information	Include specific measurements of exactly what is being monitored
"The information should be displayed like a food hygiene rating - one to five - so everyone can grasp the concept and know where to go and where to avoid." (Public Health)	"The most important thing is ensuring that the information is accessible and presented in different formats (e.g. a colourful simple infographic would be good). It needs to ensure that someone who has comprehension barriers i.e. learning disabilities can access it, as well as a screen reader for someone who is visually impaired. I am learning that a lot of individuals rely on getting their information from their smartphone or tablet - so the website software must be compatible with all of these formats." (Charities/Campaigning/Community)	"I'd like it displayed in a map showing all geographical areas so if I go for a walk, say, I can move around and remove myself or avoid hotspots. It would be useful if the map was color coded - green amber and red - with red being the worst affected areas and green being the least affected." (Consultant/Researcher/Government)	"The display should be a geospatial context with an easy search facility and then overlay the key information. It's best to see it all on the same page. Have key information on different pollutants such as Ozone, Co2, NOx, PM2.5. Provide an overlay of a heat map so you can see the County as a whole and see which areas are doing well and not so well. Include a time slider so you can look at past and current levels." (Consultant/Researcher/Government)
"It needs to be displayed in a way that's comprehensible to non-scientists." (Council)		"A map would be helpful. Where I live is less important than where the hotspots are. A lot of this would predicate on the fact the city only has two air quality measuring stations. It would also be a matter of separating out the different types of data. I would like a figure for air and the figure for particulates with the figure for the actual limit right next to it. It'd also be useful if it showed where this data is displayed from." (Charities/Campaigning/Community)	
"I only want to know either very high or very low levels, with an explanation of why those levels are so." (Residents)			"I want information on particulates and all the other pollutants that are being measured. I want them to explain how it's being measured and what technology is being used." (Council)

Use of colour-coding and real-time information for 'information on current air pollution levels where I live' seen as important by Users

Other main issues to consider when designing how to impart 'information on current air pollution levels where I live' include the use of colour-coding to highlight key information, using real-time air pollution readings that can be displayed down to postcode level and allowing current levels to be contextualised with historic data.

'Information on current air pollution levels where I live (e.g. the day-to-day air pollution changes)'
(additional comments made relating to this potential feature)

Prominent use of colour-coding (e.g. a traffic light system)	Use of real-time information	Easily-accessible way of finding out postcode-specific air pollution levels	Make historic data available for comparison with current levels

"Diagrams are very useful, as well as maps and charts graphs. We'd like to see readings graded by different colours. The map can be changed from week to week." (Resident)

"Rather than just air quality data they need to think of some way of displaying the information that shows me the types of air pollutants that are bad for my health and separate the dangerous particulates/pollution from the non health-threatening ones. Something like a traffic light indicator would work well, something that tells me the levels and the types of particulates. I want to see something that has detailed information but is simple to view." (Council)

"To find on one page the real time data of air pollution in and around Oxfordshire. A simple method to show air quality e.g. using a 'smiley face' or 'sad face' to indicate the pollution hotspots or safe areas. A graph that can be updated in real time with colour coding - green, amber and red." (Consultant/Researcher/Government)

"Anything shown in real time is useful. Air quality changes during the day would be useful to people. They should consider the ease of access and make sure the information is decipherable." (Charities/Campaigning/Community)

"The ability to put in your home address or school address and get information on the air quality in those areas." (Council)

"It needs to be more specific than the places you live - it needs to be a finer demographic resolution. It would be valuable to get information from Oxford's residents of their understanding of the term "the places where you live." (Consultant/Researcher/Government)

"It would be useful to see it in graphical form and be able to see the day-to-day changes. Also a historic perspective of changes in air pollution over time." (Council)

"With a map and estimated or modelled areas so information can be shown over time. It is useful to have historic data built up so people can see how it has changed." (Charities/Campaigning/Community)

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

Map-based linkage of annual trends and figures to other available information seen as useful across many User groups

Further comments made by User groups relating to the potential content of 'the long-term situation for my local area/region' mainly focus on the usefulness of being able to link annual trends and figures to other available information (e.g. commonly-measured pollutant units) and for specialists to be able to download the data in an easy way.

'The long-term situation (e.g. annual trends and figures) for my local area/region'
(additional comments made relating to this potential feature)

Trend information seen as very useful – especially when linked to other information	Information to be shown on a map – with 'drop downs' to enable further explorations	Allow downloadable tables of data/allow manipulation of data by users
"It would be interesting to know if annual trends differ when we put mitigating things in the mix, like Greenwall or green planting. What impact do these initiatives have in lessening air pollution in the areas they have been introduced?" (Council)	"A simple interactive map form that enables the user to switch between right now or previous readings, with simple clear links to additional content. The ap needs to be clean and clear and I want the ability to zoom in and out." (Public Health)	"I'd like it displayed in graphical form. I want to be able to download the data and define the time envelope I want to view on screen and download that information as well. I'd also like the download file to be in CSV format and be linked to metadata from the monitoring station or monitoring site I'm viewing. There needs to be a specific link between the data and monitoring stations. Traditionally, this is something that's not been done well on air quality websites. Transparency of data is also key." (Consultant/Researcher/Government)
"Long term trends tend to use averages. It's far better to see the peaks and troughs." (Charities/Campaigning/Community)	"I'd like to see it displayed in a map so we can see the data; and displayed in a graphical way if the data is discussing a trend. There should also be a tool which allows the user to export that data and use it offline if necessary." (Consultant/Researcher/Government)	
		Include specific measurements/what is being monitored (e.g. particulates, NOx figures)
"Display year-on-year readings. Also, if there is any information that can be gathered on the main sources of these pollutants - i.e. what's causing the pollution? That would be very useful." (Charities/Campaigning/Community)	"A map would be useful. It would be great to be able to click on a location and see the year-on-year trend for that location, the variations, the different types of pollutants - such as NOx, PM2.5 and PM10 - and the ability to determine if the situation is getting better or worse." (Charities/Campaigning/Community)	"This would be fantastic for my job, if all the things I mentioned previously (PM2.5, PM10, Ozone, NOx, humidity, and Sulphur Dioxide, wet-bulb tracking) are included." (Council)

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

Specific air pollution information needs to range from the broad to the specific to accommodate different user types

Further comments made by User groups relating to the potential content of 'specific information about the types of air pollutants I am exposed to' largely focus on making information as easy to understand as possible by providing key background information about air pollutants generally – a sentiment expressed by specialists as well as the 'layperson'.

'Specific information about the types of air pollutants I am exposed to'
(additional comments made relating to this potential feature)

Offer full background/general information on pollutants for the 'layperson'		Ensure information is easily understood by all user groups	Include specific measurements/what is being monitored (e.g. particulates, NOx figures)
"Wood burners are an area of interest in the city. Even toasters are problematic. People need full information to allow for a reasoned response." (Schools)	"So far transport has been a major focus but it needs to be acknowledged there are other things, like wood burners in homes and their contribution to particulates. People need to understand how bad wood burners are. Nationally, only 4% households have wood burners but they contribute to more pollution than transport. Farming has a significant impact on air quality when what ammonia farms generate moves from farms across Oxford. Ploughing of farmland causes air pollution so perhaps some information on alternative food sources." (Charities/Campaigning/Community)	"Graphics are great to use as they capture all the information in one go." (Consultant/Researcher/Government)	"They key ones are NOx, Carbon Monoxide levels, Ozone, and PM10 and 2.5." (Council)
"Information on the story of where each pollutant comes from." (Charities/Campaigning/Community)		"It would be useful as a non-professional. Perhaps just an entry level first page with the basic information with a choice to get further detailed information on subsequent pages." (Consultant/Researcher/Government)	"I want to see information on the different types of particulate matter. Because it's carbon neutral people think it's good to use wood burning stoves in their homes but the opposite is true as they account for 43% of particulate matter nationally. People need to learn this and look to alternative methods of heating. We need 'nice' scare tactics so people make better choices. Driving behaviours should also be covered. NO2 is harder to tackle - but people are more aware of the pollution caused by cars and need to be encouraged to change their habits." (Consultant/Researcher/Government)
"It helps if it can simplify what's bad for human health and what isn't." (Council)			
"Information on the law regarding air pollution. The types of fuel people can burn and what types they shouldn't be burning, as a lot of people are not aware that certain types of fuel can be worse than others. A questionnaire asking people what they burn. It would be good to do a survey to see the number of residents with open fires and wood burners for instance." (Resident)		"I don't want it too basic or too highbrow. I want a balance between a summary and good background information. It must not be not dumbed down." (Resident)	

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

User groups would like 'information on how to reduce personal exposure to air pollution' to help residents plan their own journeys

Further comments made by User groups relating to the potential content of 'information on how I can reduce my exposure to air pollution' relate largely to enabling the website user to be able to plot their daily journeys around areas of higher pollution, as well as focusing on how people can both avoid high pollution areas and help to reduce to it by their own actions.

'Information on how I can reduce my exposure to air pollution' (additional comments made relating to this potential feature)

Offer functionality to users to choose routes to avoid high pollution areas	Simplify headline information for the 'layperson'	Getting the balance/tone right
"Some form of mapping tool that shows the user how to get from A to B whilst minimising their exposure to pollution." (Consultant/Researcher/ Government)	"In order to be useful to be useful its needs to encompass all different parts of society and all different needs - so keep it as broad as possible and make no assumptions about who will be reading this information." (Charities/Campaigning/Community)	"It needs to be balanced, accurate and easy to understand, but not vacuous - getting this bit right is critical. It needs to be practical and have practical and actionable tips that are worthwhile. They could actually outsource this part to a local agency rather than do it themselves, find a really good communications agency and give them autonomy to get on with it." (Consultant/Researcher/Government)

"This is top of my list. Broken down by groups of people e.g. vulnerable people, and specifically about children with a focus on schools and how they might get to school." (Charities/Campaigning/Community)

"Simple, clear and uncluttered, with links to more complex content. It must be suitable for all users. Infographics would be useful showing things like 'this is where you need to wear a mask' or 'this is a better walking/cycling route' etc. Also, information on what you can do if you are in a pollution hotspot, what do you do or where can you go to get help and 'what are my options?'" (Public Health)

"It wants to be on a separate page. It needs to be situational and show things like the best cycle routes to take to avoid high pollution levels if you are cycling, for instance. Not just tell you that cycling is the right thing." (Charities/Campaigning/Community)

"I want it to be simple, basic and user friendly with bullet point summaries. It needs to be in an easy format that people will understand." (Public Health)

"The educational element should be emphasised. Use words graphics and mini videos to give explanations. Graphics are particularly are good for conveying a message." (Consultant/Researcher/Government)

"As a professional I will like to know how to pick areas and reduce exposure by avoiding roads and areas with bad air quality. It could tell me if it would be better to walk through the park, for instance." (Consultant/Researcher/ Government)

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

User groups view 'summary information on today's pollution levels in the UK' as a 'nice to have' rather than an 'essential'

Further comments made by User groups relating to the potential website feature of 'summary information on today's pollution levels in the UK' reveal this as a 'nice to have' rather than an 'essential' in comparison to some of the other potential features. However, the main benefits would lie in journey planning and linking with other information providers.

'Summary information on today's pollution levels in the UK'
(additional comments made relating to this potential feature)

Seen as a 'nice to have' as opposed to an 'essential' element		Offer functionality to users to choose routes to avoid high pollution areas	National comparisons need to be 'like-for-like'
"I don't think it will hurt to have that as well. I think people will appreciate a comparative element." (Consultant/Researcher/ Government)	"Quite useful, because I feel that on a national level that's the remit of DEFRA to do that and they already have websites to do that. So the City Council should just provide a lightweight summary, with a link to more detailed information provided by another organisation like DEFRA or Ricardo. Ricardo have an air quality website that hosts another level of information so links between the two would be good. Also linkages to the work the other Local Authorities in Oxfordshire are doing would be useful." (Consultant/Researcher/ Government)	"This would make it easier for students and residents who travel around the UK to find out where the air quality is okay and where it isn't so good." (Public Health)	"This could lull people into a false sense of security if it is not displayed right. The information can be displayed in a minimalist way with the opportunity to dig deeper as necessary. It should provide the ability for users to aggregate similar areas across the country to their own locale. For instance, the ability to compare the air quality of a village in Oxford with a similar sized village in a market town in a different part of the country. A like-for-like comparison tool would be useful." (Consultant/Researcher/Government)
"Broken down so we can see which are the most dangerous pollutants to health and what steps are being taken across the UK to improve things. Also be useful to see how we compare to countries around the world." (Public Health)		"Some of our members who have breathing issues would find it useful as they can decide if they should go out today, or what it's going to be like through the day." (Charities/Campaigning/Community)	
"For the data to be useful we need to know if whether it's real-time and I would want a breakdown of the different pollutants." (Charities/Campaigning/Community)		"If you're a traveller you need to know." (Council)	"The ability to contextualise the levels in parts of Oxfordshire compared to other areas of the UK." (Schools)

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

User groups see 'health advice and information on the impacts of air pollution on human health' as being often available elsewhere

Further comments made by User groups relating to the potential website feature of 'health advice and information on the impacts of air pollution on human health' focus on ensuring that the information is as easily digestible as possible and highlights specific health conditions where possible. However, some Users feel that this feature could be 'reinventing the wheel'.

'Health advice and information on the impacts of air pollution on human health' (additional comments made relating to this potential feature)

Simplified information for the 'layperson'	Highlight specific health issues linked with air pollution	Integrate into other websites/services	BUT: Be careful about the messaging
"It would be useful for the public to know how they are affected - nothing too complex but graphs showing how bad air quality can be and how it can reduce life expectancy. This can be substantiated with strong images maybe." (Consultant/Researcher/ Government)	"Information that explains that if you are in a vulnerable situation with your health then you need to be aware of the impacts; with suggestions on how you can make it safer for yourself." (Resident)	"It's important to inform people of this but it's a difficult balance as there are other organisations like the DoH and Public Health England, the British Heart Foundation and Asthma UK who already do this. The balance needs to be right so maybe have a summary of the information that links to these organisations, who already have a legal obligation/ responsibility to provide this information." (Consultant/Researcher/ Government)	"There's evidence that providing highly medicalised information can actually end up alienating people and instituting a fear response. This sort of thing is anxiety-producing. That's why I waiver between 'quite useful' and 'not that useful'. Public health people would find it useful but for an individual who doesn't know about the health impacts it could be alienating. If this sort of information is to be included, they need to draw on research on how to present this information correctly. There are ways and strategies to present this information without alienating people." (Consultant/Researcher/ Government)
"Whoever writes this has a real challenge because people who produce this type of information generally tend to use normal ranges, which are inadequate. When you use the "bell curve", coming up with suggestions for people at either end of the curve is too hard, so they should keep the information generic so that people can get a gist of the general impacts." (Council)	"This is a hard one to quantify as a lot of the health impacts are not immediate or cumulative unless you already have an underlying respiratory condition. Putting someone having a stroke down to bad air quality is hard to quantify…but this information is still useful in terms of shaping public health policy." (Public Health)	"Linking off to other sites for this kind of information is preferable, otherwise you end up with limited funds trying to be the NHS or a research institution. Use their information instead." (Council)	
"Plain English would be essential, while also avoiding simplification. It's a challenge to present this information for people to see the health impacts, without them having to understand the science behind it." (Charities/Campaigning/ Community)			

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be.
Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

User groups would like 'access to regular news about County-wide air quality projects' – but not seen as a priority feature by many

Further comments made by User groups relating to the potential website feature of 'access to regular news about air quality projects being delivered in the County and/or my local area' suggest that a 'news feed/side bar' functionality could work well for users but deeper-dive content is still required by specialists, as is evidence of Council actions post-projects.

'Access to regular news about air quality projects being delivered in the County and/or my local area' (additional comments made relating to this potential feature)

A good way of informing the public about Council actions and results	Use of 'news feed' feature on the website	The 'specifics' are needed by some	BUT: Ensure projects are followed through
"It would be handy for me as a politician to sign post people to that and tell them this is what we are trying to do about it." (Council)	"It has to be regularly updated, at least monthly. It needs commitment and resource behind it to keep it up-to-date, otherwise what's the point? A news feed would also be useful." (Public Health)	"I would want to know the details of what is being done, where measurements are taken and what techniques are being used to take these measurements." (Resident)	"We do have access to these things already. Things like this that start as a great idea reduce in effectiveness over time, I've seen this time and again. For instance, the Council had an idea for a street emission zone which garnered a lot of press attention at the time. However, over time, that initiative and its effectiveness started to wane which has been really disappointing, particularly in view of all the press attention it initially received. It is also the case that initiatives like this mislead people into thinking that something is being done and things are better than they really are, when really these initiates become less and less effective over time. Information on projects on this newsfeed need to be realistic rather than mislead people into a false sense of security." (Consultant/Researcher/Government)
"Being very clear about which groups are undertaking these activities. Where and what they are looking at, who are they and where they are located and how to contact them." (Charities/Campaigning/Community)	"People want to feel that something is happening or they get anxious if they think no one is dealing with the issue. In my experience many people in the community don't know it's being dealt with. So something based on a Twitter feed, down the side of the page, would be very useful." (Charities/Campaigning/Community)	"That's useful, particularly at a local level. Also include information on how people contribute to air pollution; for instance, how a 2-mile car journey causes pollution." (Public Health)	
"Knowing what's being done. For the public to know something's being done to tackle a long term problem and show ways the public can participate - i.e. move to electric cars, knowing where charging points are etc." (Consultant/Researcher/Government)		"It would be very useful but only if it's linked to useful metrics. They need to establish a baseline so that they can be judged and held accountable to that baseline. Information about local projects, just for the for the sake of it, is useless. These projects must be accountable and show what their success can be measured against." (Public Health)	

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

'Information about what people can do to help address the issue of air pollution' should 'empower' and 'nudge', not 'preach'

Further comments made by User groups relating to the potential website feature of 'information about what I can do to help address the issue' largely relate to providing an easy-to-understand summary of key things citizens can do to reduce air pollution in order to empower them to take action on a personal level – but using a 'nudge' as opposed to 'preaching'.

'Information about what I can do to help address the issue' (additional comments made relating to this potential feature)

Provide a 'handy summary' of things to do generally	Provide information that empowers users to take action themselves	Provide specific transport-reducing information/advice	BUT: Messaging needs to be clear and simple
"You could go for the immediate term and long term - things to do right now and how you could modify your behaviour in the long term." (Residents)	"An air pollution footprint calculator so you know what you are doing yourself. Then information on how to write to your MP, contact your local councillor or contact local businesses. Tie it in to School Streets projects. Show examples of good practice to make it positive and vibrant. Offer links to community groups that already engage in this area." (Public Health)	"Air quality is linked with transport and traffic so something that provides alternatives to travelling by car. It could tell people how to get a bus ticket or inform them about cycling schemes and provide links so the public can find alternatives to driving." (Consultant/Researcher/Government)	"It's about making this information meaningful and simple. There's so much we can do to address the issue but a lot of these things will be things that people don't want to do, like using their cars less. It's all well and good saying 'don't get in your car' but to be credible they could link that suggestion to a route planner to make it easier for people to take on board that suggestion. If they make a suggestion they should make the alternative easy for people to follow." (Consultant/Researcher/Government)
"People would like a list of the top 5 things they can do - from easy to hard." (Council)			
"It would be really useful for people to see what they themselves are doing to create air pollution and how they can reduce the emissions themselves. Include the means for people to find out what their actual emissions are and what they can do to reduce them - an emissions calculator perhaps." (Council)	"Make it child friendly. Perhaps have a section specifically for children with information that is tailored to children - for instance, ways they can influence their parents to drive their cars less." (Schools)	"Infographics and some way of entering your lifestyle information, such as what you do in terms of travel - car, cycle, etc. Then there would be a page that pops up with tailored information just for you." (Consultant/Researcher/Government)	"Trying to get people to change behaviour on the basis of a website would be an uphill struggle." (Charities/Campaigning/Community)
"It's really important that any actions are achievable and it's something I can do." (Schools)			

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

'Information on latest research and air quality studies' appeals more to experts but summary information for others can be useful

Further comments made by User groups relating to the potential website feature of 'information on latest research and air quality studies' tend to focus more on the issue of this information holding greater appeal for specialists than the general public, rather than on actual functionality.

'Information on latest research and air quality studies'
(additional comments made relating to this potential feature)

Bring the information alive for the non-specialist	BUT: Beware of duplicating information already available elsewhere	BUT: A feeling that this tool would be more useful to specialists than the general public
"Include interesting facts people don't know, such as recent reports about car tyres and how they contribute to air pollution. I had no idea they were so bad." (Public Health) "For me it would be useful to have a graph and bullet point conclusions to clarify what's being said. Pictorial stuff makes a big impact to on the public - so something that catches the eye." (Council)	"It depends on the audience and how the website is going to be presented or partitioned, it could become a rabbit hole as there's a lot of information out there, there are so many websites already. Does this need to be like those or is this specifically Oxfordshire's website? There's already so much duplication of information so this should be an opportunity to trial something novel and do something different to engage people in a new and novel way." (Consultant/Researcher/Government)	"It's useful for professionals so that kind of information can be more hidden away. It shouldn't be on the tires first page, maybe just a link to other pages." (Council) "From a University perspective it would be useful but less so from a public perspective." (Consultant/Researcher/Government)
"Citizen information - encouraging people to make their own minds up from the research that is available." (Schools) "This information will only be useful if just the key points of the research were summarised, rather than having all the research on the site." (Schools)		
"You could saturate the site with too much information so they need to find a way to simplify it." (Consultant/Researcher/Government)	"It would be very useful but there's a less popular need for this type of information. The people who want the detail are detail people so it should appear on a separate page with links to the different information points- i.e. air quality information around schools. Links to other groups and bodies who publish this information would also be very helpful. This could help keep this type of information fresh and these groups and bodies would continually update it themselves.." (Charities/Campaigning/Community)	

Q3-Q21. I am going to read out some different types of potential content the website could include.
For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
Base: Users Total (53)

'Resources for schools' seen as a positive initiative – as long as any youth engagement is backed up by the Council acting upon it

Further comments made by User groups relating to the potential website feature of 'resources for schools' threw up a few ideas on how resources could be targeted and tailored. However, some feel that caution needs to be taken in encouraging youth input unless they can see tangible actions being taken by the Council as a direct result.

**'Resources for schools – e.g. a free toolkit with curriculum-linked lesson plans and resources etc.'
(additional comments made relating to this potential feature)**

| Provide initiatives that empower children to take action themselves | BUT: Ensure any school initiatives are followed through with actions | BUT: Beware of duplicating information already available elsewhere |

Provide initiatives that empower children to take action themselves

"It needs to be fun and practical so for instance they could be given pledge points - if they do activities to reduce pollution they can receive points. Kids are competitive and they like receiving points and stars etc."
(Consultant/Researcher/ Government)

"An ability to loan out air quality monitors to schools. An air pollution footprint calculator."
(Public Health)

"There have to be practical applications, things that children can do easily do. For instance, most schools have an Eco-Schools group. In our schools Eco group, we had children using test tubes to monitor air quality and the nitrates in the air outside the school. The children really linked into this project because it was really practical and gave us and the children information we could use."
(Schools)

"They could have a section on "What can I really do and how can I make a difference?" Then group it for different types of kids - i.e. playground extroverts, the quiet kids, the sporty kids - something that appeals to the different mindsets. Schools could be given a small budget encourage pupils to submit their ideas for improving air quality. The schools can then build a project around the best ideas."
(Consultant/Researcher/Government)

**BUT:
Ensure any school initiatives are followed through with actions**

"It will be like poking a hornets' nest. The school did a whole piece about improving air quality and the teachers and pupils were motivated to change things. However, they soon discovered that nothing could be done about it. The Councils must be aware that if people feel powerless you create a whole lot of angry people. If you are giving information to users then expect them to have a response. If the Council are going to encourage people to make a difference then they need to action things that can be done to improve the situation." (Schools)

**BUT:
Beware of duplicating information already available elsewhere**

"Quite useful but that exists already. If you're going to put effort into that then I'd say that the EPA, Defra and Public Health England already do this. So maybe just have links to their sites."
(Consultant/Researcher/Government)

"Everyone always wants schools to do stuff but there are other groups like the Combined Cadets, The Brownies, sciences groups or the Oxfordshire Playhub who could also be interested in this. There could be more creativity with where this content could go."
(Public Health)

Q3-Q21. I am going to read out some different types of potential content the website could include. For each I would like you to rate how useful it would be. Are there any comments you would like to make about what you would like included for this type of content, or how you would like it displayed?
**Base:** Users Total (53)

Opinions on Interactive Tools and Functionalities
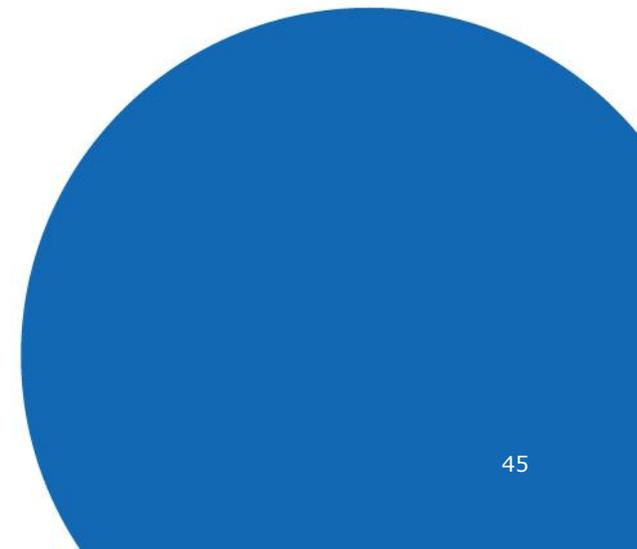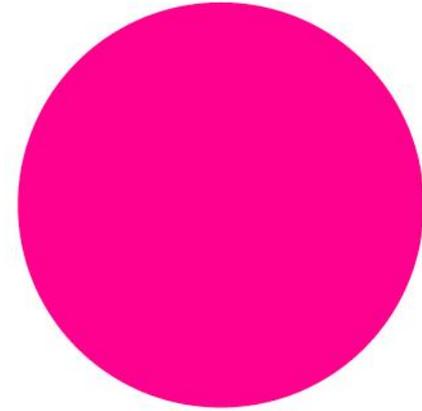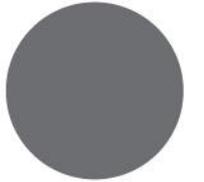
Oxfordshire map with air quality monitoring locations ranked as the most desirable air quality tool by Residents

Of the eight options presented to Residents, more than four fifths (86%) rank 'a map of Oxfordshire with locations where air quality is monitored' as one of their top five air quality interactive tools and functionalities, with more than half (53%) ranking this as their number one option. At a much lower level, 'air pollution forecast tools' and 'access to historic air quality data, statistics and access to interactive air pollution data and charts' are chosen as one of the top five options by seven tenths (69%) and three fifths (59%) respectively.

Mean:

|	
A map of Oxfordshire with locations where air quality is monitored	*3.7*
Air pollution forecast tools	*2.4*
Access to historic air quality data, statistics and access to interactive air pollution data and charts	*1.7*
Introduction of news feed area with current updates on national and local air quality related news	*1.5*
Ability to download all relevant air quality data and documents produced by your local authority	*1.4*
Repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire CC	*1.2*
Development of specific tools that promote interaction between users and the platform	*1.0*
Access to relevant national and international air quality contents	*0.5*

A map of Oxfordshire with locations where air quality is monitored: 53% | 15% | 9% | 5% | 4% | 14%

Air pollution forecast tools: 13% | 27% | 13% | 9% | 7% | 31%

Access to historic air quality data, statistics and access to interactive air pollution data and charts: 4% | 16% | 17% | 11% | 11% | 41%

Introduction of news feed area with current updates on national and local air quality related news: 5% | 11% | 15% | 13% | 9% | 47%

Ability to download all relevant air quality data and documents produced by your local authority: 8% | 6% | 12% | 14% | 11% | 49%

Repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire CC: 5% | 9% | 7% | 13% | 14% | 52%

Development of specific tools that promote interaction between users and the platform: 6% | 3% | 9% | 9% | 12% | 61%

Access to relevant national and international air quality contents: 3% | 4% | 7% | 10% | 75%

■ Ranked 1st ■ Ranked 2nd ■ Ranked 3rd ■ Ranked 4th ■ Ranked 5th ■ Not ranked in Top 5

Q14. From the list of air quality interactive tools and functionalities below, please can you select and rank your top five options in priority order with 1 being the most useful to you?
Base: Residents Total (300) **NB:** Data label not shown if <3%.

Oxfordshire map with air quality monitoring locations ranked as the most desirable air quality tool by Users

Of the eight options presented to User groups, all (100%) rate 'a map of Oxfordshire with locations where air quality is monitored' as either useful or very useful, while nearly nine tenths (89%) express a similar view about 'air pollution forecast tools'. More than four fifths (85%) feel that the 'ability to download all relevant air quality data and documents produced by your local authority', 'access to historic air quality data, statistics and access to interactive air pollution data and charts' and 'a repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire County Council' are either useful or very useful tools to have access to.

Mean:

Tool	Very useful	Quite useful	Not that useful	Not at all useful	Mean
A map of Oxfordshire with locations where air quality is monitored	72%	28%			3.7
Ability to download all relevant air quality data and documents produced by your local authority	51%	34%	8%	8%	3.3
Access to historic air quality data, statistics and access to interactive air pollution data and charts	45%	40%	11%	4%	3.3
Air pollution forecast tools	40%	49%	11%		3.3
Repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire CC	36%	49%	15%		3.2
Development of specific tools that promote interaction between users and the platform	42%	32%	23%	4%	3.1
Introduction of news feed area with current updates on national and local air quality related news	23%	45%	30%	2%	2.9
Access to relevant national and international air quality contents	13%	49%	28%	9%	2.7

■ Very useful   ■ Quite useful   ■ Not that useful   ■ Not at all useful

Q26-Q40. I am going to read out some different types of Interactive tools and functionalities the website could include. Again, for each I would like you to rate how useful it would be and make and comments (if you have any) about what specifically you would like to see.
Base: Users Total (53) **NB:** Data label not shown if <3%.

Users see 'air pollution forecast tools' as beneficial to the wider public when they are planning journeys/movements generally

Further comments made by User groups relating to 'air pollution forecast tools' largely focus on its potential benefits to the wider public for planning their movements generally and also that it could integrate with, or into, other existing services. However, there is a feeling that new air pollution forecast tools would need to be vastly better than many existing ones.

'Air pollution forecast tools'
(additional comments made for this tool/functionality)

Useful for residents to plan daily movements based on pollution levels	Would need to be an improvement on similar tools that already exist	Integrate into/with other services/websites
"It would be very useful as a member of the public, who was planning a trip to the city centre, to see if there are any negative quality events happening. As a consultant looking at a specific area, I'd like know the air quality status over a period of time - it might be okay now but is it predicted to get worse later on?" (Consultant/Researcher/ Government)	"Having a forecast tool is very useful but it will be a challenge to do the prediction. But it's great to include in order to be able to plan your day etc." (Schools)	"We've used air pollution forecast tools for one of our projects but then had to stop using it as it was costing to much. It would be better (for us) if these forecast tools were integrated to the site." (Council)	"It could be done in conjunction with the weather forecast." (Resident)
	"It would also be very useful for people whose health is more affected by pollution - such as people with asthma or other respiratory diseases - so they know to avoid a particular area or to take necessary precautions if they can." (Charities/Campaigning/Community)	"This is useful but as someone who uses air quality forecast tools I know that some of them are rubbish." (Consultant/Researcher/Government)	"If they are an exact enough science then something like a weather forecast tool on the main map where users can look forward to the next 5 days. Perhaps link it to a weather service that does this already." (Public Health)
"This would be really use if you were buying a house in a different area as you would have an idea of the air quality in the present and the future for that area." (Public Health)	"It might be useful for people who are severely impacted by air pollution and they should know if it's a predictive, not a guaranteed reading." (Resident)	"In general, more needs to be done on developing forecast tools for pollution as the are more weather related at the moment." (Council)	"DEFRA are responsible for this so just a summary of data which can then drill down to the Met office air quality forecast." (Consultant/Researcher/ Government)

Q27-Q41. I am going to read out some different types of Interactive tools and functionalities the website could include.
Are there any comments you would like to make about what you would like included or your preferred functionality?
Base: Users Total (53)

48

Users see access to historic/interactive air pollution data/charts as useful but this functionality may have more 'niche' appeal

Further comments made by User groups relating to 'access to historic air quality data, statistics and access to interactive air pollution data and charts' largely relate to its general usefulness as a feature, although this appears to hold greater appeal for those who have a specific interest in being able to download and work with the raw data.

'Access to historic air quality data, statistics and access to interactive air pollution data and charts'
(additional comments made for this tool/functionality)

Useful for historic data to be available/be compared	**Allow downloadable tables of data/manipulation of data by users**	**Tool would only be of limited use**
"When we do an assessment we have to look at historical data so that would be useful." (Consultant/Researcher/Government)	"Useful if you can look at previous trends and if the forecast is based on what we expect to happen - based on trends then it's useful." (Charities/Campaigning/Community)	"Historic data and stats would be useful but I'm not so keen on interactive stuff, especially if using a mobile phone, as the information rarely displays properly." (Residents)
"The ability to see what has happened in the long run would be useful. Drivers are not aware of how worse things have got." (Council)	"Presented as charts and with the ability to download the raw data. And the ability to find out what's dropped or improved in the area." (Public Health)	"It's more useful for officers and is just there to show the overall pattern" (Council)
"It's important to explain that air pollution has improved over the last 20 years and to show the long-term trends." (Public Health)	"Make the data as raw as possible and as easy as possible for data professionals." (Charities/Campaigning/Community)	"Useful but mainly for academics." (Residents)
		"Useful but this should be put in an archive section, not the front pages." (Consultant/Researcher/Government)

Q27-Q41. I am going to read out some different types of Interactive tools and functionalities the website could include.
Are there any comments you would like to make about what you would like included or your preferred functionality?
Base: Users Total (53)

Some Users see the value of a 'news feed area' as useful way of building air quality lobbying and campaigning momentum

Further comments made by User groups relating to the 'introduction of news feed area with current updates on national and local air quality related news' indicate that if the news feed area was kept simple and targeted it could help with lobbying campaigns. However, for a few Users, this tool appears to be more of a 'nice to have' element.

'Introduction of news feed area with current updates on national and local air quality related news' (additional comments made for this tool/functionality)

Useful if made as simple/easy to digest as possible	Can be used to build lobbying/ campaigning momentum	Provides up-to-date and 'fresh' information	Tool would only be of limited use

Useful if made as simple/easy to digest as possible

"It must be clear and easy to understand, and accessible." (Public Health)

"Just headlines and a short summary, with links to links to additional information." (Charities/Campaigning/Community)

Can be used to build lobbying/ campaigning momentum

"It could be used as a mobilisation weapon so users can start to build up an evidence base which they can then use to campaign or to lobby their local councillor. I would like to see pre-set alerts for a specific area e.g. like outside every school; then every time it pings an alert, parents can send can be galvanised to email to their local council, etc." (Consultant/Researcher/Government)

"Issues around air quality have been getting increasingly fashionable, so build on the momentum already generated." (Consultant/Researcher/Government)

"Informing people so that they may start to change their habits." (Resident)

Provides up-to-date and 'fresh' information

"It keeps the site fresh. There needs to be emphasis on stuff that's local and could also include stuff from other areas that could relate to Oxfordshire. But the balance has to be right or it could create unrealistic expectations for the public. For instance, what works and can be done in London, may not be viable in Oxford as the law and legislation is different in both areas." (Council)

Tool would only be of limited use

"I would probably go to the national web pages of UK Air - I know where to find it already" (Consultant/Researcher/Government)

"It would be nice to know its there. But it only needs to be updated once a month. I've no time to read a continuous news feed" (Schools)

"The difference between this and a local update is that it's much more general and less relevant to Oxfordshire." (Charities/Campaigning/Community)

Q27-Q41. I am going to read out some different types of Interactive tools and functionalities the website could include. Are there any comments you would like to make about what you would like included or your preferred functionality?
Base: Users Total (53)

Users would like to have 'access to relevant local authority data and documents' as this information can be hard to find

Further comments made by User groups relating to the 'ability to download all relevant air quality data and documents produced by your local authority' centre around it generally being a good idea – but specialists and consultants would like to be able to download and investigate the raw data, while API feeds are also seen as something to incorporate.

**'Ability to download all relevant air quality data and documents produced by your local authority'
(additional comments made for this tool/functionality)**

Would be a useful resource to access

"It should be a given that this type of information is transparent and easily available." (Resident)

"It would be more useful for the Councils. We get freedom of Information requests for things like this so having it here would save time and heartache." (Council)

"It's a standard - you can do this now but it's very difficult to find this information so having it in one location would make it more accessible to more people." (Charities/Campaigning/Community)

"It is quite hard to find this information at the moment. It can be used to raise awareness and it should also measure the impact of initiatives to backup it's usefulness."
(Charities/Campaigning/Community)

"This would be good as there's a lot of information that needs to be reported on."
(Schools)

"If possible, it would be useful if all the districts can all do one single report to make the whole thing more standardised, rather than their own individual reports. If they have to do separate reports then make them as similar as possible."
(Public Health)

Would need to allow downloadable tables of data/manipulation of data by users

"Being able to download all relevant data and use it offline. We use that data in our assessments and need to be able to access it offline. When it is downloaded we can do a lot more with this data."
(Consultant/Researcher/Government)

"From an open data perspective, they should be doing this anyway. They should also be able to provide data as a CSV file rather than a spreadsheet."
(Consultant/Researcher/Government)

Integrate into/with other services/websites

"It's not just about downloading data. It needs to be an API - that's very important. Downloads on their own are not very useful. An API feed on its own would be excellent; the blocker, at the moment, is the data feed." (Council)

Q27-Q41. I am going to read out some different types of Interactive tools and functionalities the website could include. Are there any comments you would like to make about what you would like included or your preferred functionality?
Base: Users Total (53)

Users would like a 'Council air quality repository tool' to be up-to-date, easily searchable and to combine static and visual content

Further comments made by User groups relating to a 'repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire County Council' relate mainly to functionality/coverage, such as it being kept updated regularly, having a 'quick search' function and even incorporating videos and blog posts.

'Repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire CC'
(additional comments made for this tool/functionality)

Would be a useful resource to access	Suggested Functionality/Coverage

"If people see action is being taken it has a more positive effect - so link it to the different local areas." (Consultant/Researcher/Government)

"It's a good way to show what the Councils have been doing and could help the general public get involved." (Public Health)

"Access to a list of what's been done and tried is important as this will enable Cabinet Members to just send links to people." (Council)

"It will reassure people that this has already been researched. It's important to show the public where and how their money is being spent." (Charities/Campaigning/Community)

"It would be for good each authority to know what's going in their area." (Council)

"It would have to have resource behind it and be updated at least quarterly, otherwise there's no point in having this." (Public Health)

"It has to be organised in such a way to make it accessible. Perhaps different tabs - broken down into different elements to help you search for relevant information quickly." (Schools)

"It would be useful to do it but only if it's in a new and engaging way - like videos and blog posts - rather than just a static page that will waste away on the internet." (Consultant/Researcher/Government)

"It could be quite simple - the year and the district, for example, and a link to the document and where to get it from. This would be particularly useful for evidence based schemes, for instance." (Public Health)

"It should contain impact stories or relatable stories, not just reports." (Charities/Campaigning/Community)

Q27-Q41. I am going to read out some different types of Interactive tools and functionalities the website could include. Are there any comments you would like to make about what you would like included or your preferred functionality?
Base: Users Total (53)

Users see 'user-platform functionality' as empowering for galvanising citizens, as long as interaction is monitored effectively

Further comments made by User groups relating to the 'development of specific tools that promote user-platform interaction' focus on a liking for user interaction generally as long as it is monitored carefully. Suggested functionality ideas include linkage to the school curriculum and youth interactions and reporting of issues at a postcode level.

'Development of specific tools that promote interaction between users and the platform'
(additional comments made for this tool/functionality)

Would be a useful resource to access	Suggested Functionality/Coverage

Would be a useful resource to access

"Making it interactive is really important and that is what will make it different to other national sites, which tend to be boring and preachy. They'll get a better response if it's interactive." (Consultant/Researcher/Government)

"This connects people who are interested and presents a good opportunity to galvanise people." (Resident)

"It could be very useful if residents are monitoring relevant air quality data and have the ability to upload their results to something or another." (Council)

"Behaviour changes needs to be built in. It's useful for people to understand how their behaviours impact air quality." (Council)

"It would be engaging for residents and communities, peer groups and pressure groups and help them to lobby for commitment to the issue." (Consultant/Researcher/Government)

"It would be nice if there was real person at the other end not just a computer. A paid full timer is needed, not something that is actively monitored half a day per week. This type of initiative requires proper investment." (Charities/Campaigning/Community)

Suggested Functionality/Coverage

"Something that enables the user to report problem - a postcode-driven referral form, for instance. So if, say, someone wanted to report a bonfire for instance, the user can enter their postcode and be directed to the right place/person who would deal with the issue. I see it as a sort of triaging thing, a nice easy place you can go to report air quality issues." (Public Health)

"Create an interactive picture of what kids and citizens think of air quality issues. It could be a really strong tool if it could be made to work." (Charities/Campaigning/Community)

"It's handy to think about the school angle on this and the links to national curriculum. The ability for schools to run projects with interactive tools would make it more interesting and compelling for pupils and teachers." (Council)

"It depends on what it is, but how cool would it be if you saw a problem on your street and you can click button and say "sort my street out"? Empowering people to take actions, based on what they're seeing, is a great idea." (Schools)

"Include a sensors area and also areas without sensors so those areas can hire mobile sensors to do their own readings. Ask people for ideas and make it an open forum for people to exchange ideas." (Consultant/Researcher/Government)

Q27-Q41. I am going to read out some different types of Interactive tools and functionalities the website could include. Are there any comments you would like to make about what you would like included or your preferred functionality?
Base: Users Total (53)

Users view an 'access to relevant national and international air quality contents' tool as a 'nice-to-have' with younger appeal

Further comments made by User groups relating to 'access to relevant national and international air quality contents' reflect that this tool/functionality is a 'nice to have' rather than an 'essential'. However, making content and functionality appealing to young people is favoured by some Users.

**'Access to relevant national and international air quality contents'
(additional comments made for this tool/functionality)**

Would be a useful resource to access	'Nice to have' but information already exists elsewhere	Suggested Functionality/Coverage	

Would be a useful resource to access

"People need to understand that a lot of pollution is from other areas and not just generated locally." (Public Health)

"An easy way to make comparisons with other places worldwide." (Public Health)

'Nice to have' but information already exists elsewhere

"Quite helpful but I know where to find it elsewhere. The national level is less important to me." (Consultant/Researcher/Government)

"Again the devil is in the detail. There needs to be a clear understanding on what is being looked at."
(Charities/Campaigning/Community)

"Refer to the https://naei.beis.gov.uk/emissions/naei website for national levels. International content won't be very useful." (Council)

Suggested Functionality/Coverage

"But you should only want to reference places doing better than your area. Make it inspirational. Use like-for-like comparisons - like a twinned Council or town. Look at what they are doing better and include links to how they have achieved their success. A world ranking would be great."
(Consultant/Researcher/Government)

"A map of the world with links to the different countries' own pollution websites." (Residents)

"Provide information on what are the rules and which rules are being broken. I'd be keen for my kids to understand what the current rules are, are they being broken and what is the government doing about it." (Public Health)

"If we were looking at this as a theme in school it would be useful if it were school-friendly." (Schools)

Q27-Q41. I am going to read out some different types of Interactive tools and functionalities the website could include.
Are there any comments you would like to make about what you would like included or your preferred functionality?
Base: Users Total (53)

Some Residents would find more in-depth report breakdowns, live/real-time reporting and evidence of how data is being used as other useful air quality tools/content for the new website

More in-depth reporting/ breakdowns provided

Some residents would like to see more in-depth analysis and reporting based on available data included in the new website.

"A breakdown of local air quality on a month-by-month basis." (Oxfordshire Resident)

"Separate reports on major roads throughout the county e.g. A34, A417 etc." (Oxfordshire Resident)

Live/real time reporting

"Live hourly air pollution concentrations from automatic recording stations would provide the public with a better understanding of the daily health risks and the trends throughout time and geographically throughout the County. PM2.5 concentrations should be measured and reported on frequently. Meteorological data for local wind speed and direction should be overlaid as a layer on the inter-active maps of the air pollution concentrations." (Oxfordshire Resident)

"Live air quality data on maps. Historic data presented in trend charts e.g. what times of day and what days of week is air quality best and worst in a particular area... the idea being you can time when you go for run or cycle ride to coincide with the days/times with the best air quality." (Oxfordshire Resident)

A summary of action that is being taken to tackle air quality issues

Some feel that the air quality information being collected needs to be actioned, as well as reported, in real time and that evidence of this needs to be included in the new website.

"Year on year analysis of progress being made to improve air quality is probably covered but it would be useful to know the reasons why quality is at this level, either higher or lower than previous years, and what action has/is being taken to achieve/address this and what accounts for the differences shown." (Oxfordshire Resident)

"What my local authority is doing to cut air pollution and if it is working." (Oxfordshire Resident)

More general/background information

A few Residents would like to see how air pollution affects other aspects of how they live their lives and advice on frequently asked questions about air quality in general.

"Clarity about different types of air pollution." (Oxfordshire Resident)

"Clear guidance on where air pollution comes from and the impact those sources have on health e.g. cars, log burners, bonfires etc." (Oxfordshire Resident)

"A FAQ section. For instance, does a 20mph speed limit decrease pollution in an area (because of lower speed) or increase it (because vehicle takes longer to travel)?" (Oxfordshire Resident)

Q15. Are there any other air quality related contents and/or tools that you would find useful and that you would like to see included in the new website?
Base: Residents Total (300)

Ideas for Content and Tools to Encourage Behaviour Change

User groups feel that helping people to visualise personal impacts and see transport's effects on air quality would be effective in encouraging people to change behaviours

The most common themes in the comments made by User groups about information/content/tools that would be most effective in encouraging people to change behaviours centre around helping people to visualise their own impacts on air quality and providing information and content around the effect of transport choices on air pollution.

Types of information, content or tools that would be most effective in encouraging people to change behaviours

Tools/content to help people visualise their own impact on air pollution/quality		Tools/content showing information on the effect of transport choices on air quality	
"Some sort of footprinting tool where the user could input their journey by mode and find out how much air pollution they are producing and how much they'll be exposed to." (Consultant/Researcher/Government)	"Finding a way for people to visualise the current air pollution levels for where they live, walk or drive is the strongest way to acquire more sustainable behaviour in general. The difficulty is to how to relay this so maybe the bulletin can assist with that, by telling people where pollution is really high." (Consultant/Researcher/Government)	"The provision of information on how to access things like car share, buy bus tickets, etc. So perhaps a tool that could integrate several services providers in one place and tell us about travel tickets we can purchase, and the route, time taken and cost of the trip, using public transport. It could also include positive case studies of say, people's car sharing experiences." (Consultant/Researcher/Government)	"We need to discourage people from using their motor vehicles and when they use them, to do so responsibly. I don't think we will get people to change their behaviours - like driving - but if we can narrow it down to the levels outside schools and hospitals and can show the negative impacts, it might make people think twice." (Council)
"If you have proof and evidence of the impact change makes to society, you're more likely to go with it. You also need to help people understand why its important and how they can make a difference. Let them see that their individual change in behaviour can impact society in general." (Schools)	"The air quality footprint calculator is the most important one. The ability to be able to compare your footprint to the average footprint. Some people will have a higher footprint than others because they drive an SUV and have a wood burner stove or drive a diesel car. So provide information on the choices they can make to lessen their impact." (Public Health)	"Reminders that if they can make a relatively small change (using the car less) it will make a personal impact for them, their family and people who live in their locality. A small piece of health information with a direct action they can take - e.g. stop using wood burners if you already have another form of heating. Can you walk to your local shops and shop there, rather then going in the car to your nearest superstore? These things are not immediately obvious. Linking air quality improvement with climate crisis solutions, and/or the problems of the climate crisis." (Charities/Campaigning/Community)	

Q44. What types of information, content or tools do you think would be most effective in encouraging people (like you) to change behaviours, for example to increase the use of sustainable transport and travel by car less or car share?
Base: Users Total (53)

57

User groups also feel that showing 'poor air quality' areas and providing people with attainable objectives to meet would also be effective in encouraging people to change behaviours

Two other themes of note in the comments of User groups about information/content/tools that would be most effective in encouraging people to change behaviours are that website users should be able to access information about where air quality is poorest and also to be encouraged to meet realistic personal targets for their own behaviours, such as incentivising regular bus usage.

Types of information, content or tools that would be most effective in encouraging people to change behaviours

Showing areas/locations where air quality is poorest (and why)

"A route planner with a "reduce my air pollution" option for driving, cycling and walking."
(Charities/Campaigning/Community)

"Clear graphic evidence of when we are over WHO guidelines and this should be indicated in bright red so people know when parts of the city are in breach of WHO guidelines. Long-term there should be subsidies for e-bike purchase, support for new cyclists, shower rooms at work, "safe cycle" cycling information and free city-wide transport for the under 25's."
(Charities/Campaigning/Community)

"I would like to see statistics for an area with a Zero Emissions Zone compared to a heavy traffic area. I want to be able to compare like for like. I also want to see the relationship between poor air quality and health and suggestions for schemes like bike hire, etc." (Residents)

"Let them know how much air pollution there is in their area and the effects it has on health and the environment. Educating people is the best option." (Council)

Provide people with objectives that they can realistically meet

"Behaviour change is incredibly challenging. If something's too scary people tend to put their heads in the sand and take no action so it needs to share the right amount of information in the right way so that people feel encouraged to make a change. But if you turn the dial down too low, it might also miss the mark and be just as ineffective as scaring people. Present the information in the right way, then give people smart objectives - things that are achievable and doable."
(Consultant/Researcher/Government)

"Being able to see the negative impacts of air pollution really clearly is a good place to start; and this information could be broken down into the parts of Oxfordshire with the worst air quality. It could then list 4 or 5 different measures to combat pollution as well as an incentivizing index of the different behaviours that cause air quality issues. This information could run alongside something that motivates people in a positive way. Perhaps a reward scheme, where for instance, you can receive a free bus journey for every 10 journeys you make."
(Charities/Campaigning/Community)

Q44. What types of information, content or tools do you think would be most effective in encouraging people (like you) to change behaviours, for example to increase the use of sustainable transport and travel by car less or car share?
Base: Users Total (53)

Showing the health effects of poor air quality and creating a forum for air quality interaction and discussion would also be effective in encouraging people to change behaviours

The other two themes of note in the comments of User groups about information/content/tools that would be most effective in encouraging people to change behaviours are that website users should be shown the health effects of poor air quality – both generally and for specific conditions – and to be able to use the website as a forum for interaction and discussion with other parties and groups and organisations in the sphere of air quality.

Types of information, content or tools that would be most effective in encouraging people to change behaviours

Show the health effects of poor air quality

"Video content with a range of different people on the impacts of air pollution for people with asthma, COPD etc. A list of ways air pollution can be reduced in the area e.g. through sustainable transport, and a 'tips and advice' area (like a forum) for swapping ideas." (Council)

"The implications for human health as people don't know or understand how these pollutants are affecting them. Advice on how to change how to change behaviours - this section should be a public education campaign." (Council)

"Something that will shock people into making a difference. I find that people don't respond well to lots and lots of information so maybe it can include statistics that are really shocking - such as how pollution from cars can make asthma in children much worse. I'm not really sure what other shock tactics they can employ but something that would play on people's guilt would be good." (Schools)

"It should go beyond transport, as domestic pollution from wood burning and bonfires is very significant. People need to be made more aware of the impacts of air pollution on health. Case studies about people who have changed their behaviour would be useful. Good graphics on the health harm of pollutants." (Public Health)

Tools/functionality to create a forum for discussion and empowerment

"If you look at the literature in behaviour and psychology it doesn't work that way. You can't give people advice to change behaviour - that decision comes from within or is triggered by a shock event. The best way to trigger behavioural transformation is to create space for people to talk with like-minded people so there needs to be a conversation tool to facilitate that. What would be helpful would be pointing to spaces and venues where people are engaging on these issues - like Friends of the Earth, Cyclocks and the Oxford Pedestrian Association." (Consultant/Researcher/Government)

"It comes down to empowerment. There needs to be real, accessible stories from people across the board. And it needs to be actionable so that people can see that something has been done." (Consultant/Researcher/Government)

Q44. What types of information, content or tools do you think would be most effective in encouraging people (like you) to change behaviours, for example to increase the use of sustainable transport and travel by car less or car share?
Base: Users Total (53)

Conclusions and Recommendations
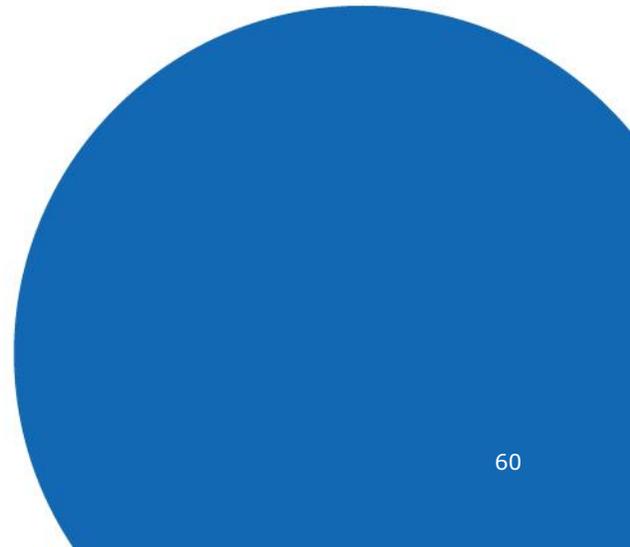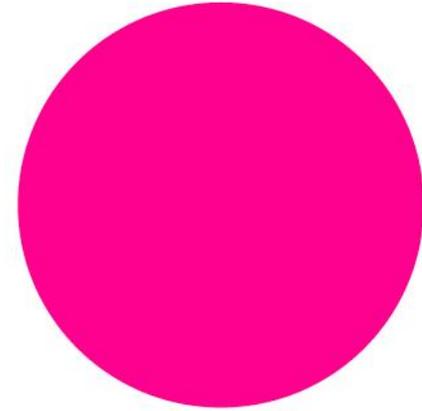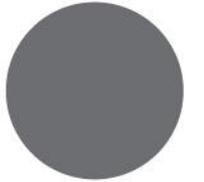
Conclusions (1)

- **The impact of air quality on Oxfordshire residents appears to be very significant.**
  - More than nine tenths of Residents (91%) indicate that they are concerned about air quality to some degree, with 45% saying that they are 'always' concerned about the issue.
  - Approaching three quarters (73%) of Residents believe that air quality impacts on their day-to-day activities to some extent, with more than a quarter (27%) feeling that it impacts them regularly (most days or every day) and 40% being impacted at least once a week.

- **Three fifths of Residents currently look for some form of information about air quality in Oxfordshire.**
  - More than a third (35%) use internet search engines, with nearly a fifth (19%) using governmental webpages. Less than a tenth use either local media (9%) or social media (6%) to look for air quality information for the County.
  - More than a tenth (12%) use another method to find out air quality information for different areas of the County – the most common 'other' ways are to use a dedicated weather app/website or a dedicated air quality app/website.
  - However, approaching two fifths (37%) say they never look for information about air quality.

- **There is clear scope for improvement to the current dissemination of air quality information to Residents.**
  - Nearly four fifths (78%) of Residents agree to some extent that 'air quality information is not disseminated adequately', while just over three fifths agree that 'there is a lack of coherence/consistency in the way air quality information is communicated' (61%) and that 'air quality information exists but it is not relevant to my local area (60%).
  - The statement with the greatest level of negativity is 'air quality information exists but is not relevant to my local area' (26%).

- **There are high interest levels for the proposed free air quality bulletins and the free air quality app.**
  - More than four fifths of Residents (82%) and Users (80%) express an interest in at least one of the two air quality information tools which could provide up to date information on air quality.
  - In total, more than three fifths of Residents (62%) indicate an interest in subscribing to free air quality bulletins, while over half of Residents (55%) are interested in downloading and using a free air quality app.
  - However, approaching a fifth (18% of Residents and 19% of Users) say they are not interested in either the free air quality bulletins or the air quality app.

Conclusions (2)

- **'Interactive maps' is ranked as the most useful method of presenting air quality online by both Residents and User groups.**
  - Of the four methods presented to respondents, almost three quarters of Residents (73%) and more than four fifths (85%) of Users rank 'interactive maps' as the most useful method of presenting air quality information online.
  - Only a tenth of Residents, and a slightly smaller proportion of Users, rank 'interactive charts and graphs' and 'tables with detailed data' as their most preferred method, while only small minorities rank 'reports' as their main preference.

- **There is a clear preference overall for an air quality search engine to be searchable by postcode.**
  - More than seven tenths of Residents (72%) and Users (75%) would like to look for air quality readings on a search engine tool organised by postcode. Other ways of organising this feature prove to be less popular - around a sixth of Residents (17%) and nearly a fifth of Users (19%) indicate that they would like this feature to be organised by city/town, while only 3% and 2% respectively would prefer to search by District Council.
  - Only a small minority (6% of Residents and 2% of Users) say that they would not be interested in using a search engine tool that would allow users to look for air quality ratings.

- **'Information on current air pollution levels where I live' and 'the long-term situation for my local area/region' are ranked or rated as the most desirable website content elements by both Residents and User groups.**
  - Of the nine website content options presented to Residents, more than nine tenths (91%) rank 'information on current air pollution levels where I live' as one of their top five options, with seven tenths (70%) ranking this as their number one option. 'The long-term situation for my local area/region' is chosen as one of the top five options by seven tenths (71%), with more than three fifths (62%) ranking 'specific information about the types of air pollutants I am exposed to' as one of their top five website content options.
  - Of the ten website content options presented to User groups, all think that 'information on current air pollution levels where you live' would be useful to them (89% find this 'very useful'). More than nine tenths feel that several of the other options are useful to some degree but particularly 'the long-term situation for my local area/region' and 'information on how I can reduce my exposure to air pollution', which are both rated as either quite useful or very useful by 94% of Users. 'Summary information on today's pollution levels in the UK' is rated as the least useful of the options, although 62% still found this option useful to some degree.

Conclusions (3)

- **'A map of Oxfordshire with the locations where air quality is monitored' is ranked and rated as the most desirable air quality tool/functionality by both Residents and User groups.**
  - Of the eight options presented to Residents, more than four fifths (86%) rank 'a map of Oxfordshire with locations where air quality is monitored' as one of their top five air quality interactive tools and functionalities, with more than half (53%) ranking this as their number one option. At a much lower level, 'air pollution forecast tools' and 'access to historic air quality data, statistics and access to interactive air pollution data and charts' are chosen as one of the top five options by seven tenths (69%) and three fifths (59%) respectively.
  - Of the eight options presented to User groups, all (100%) rate 'a map of Oxfordshire with locations where air quality is monitored' as either useful or very useful, while nearly nine tenths (89%) express a similar view about 'air pollution forecast tools'. More than four fifths (85%) feel that the 'ability to download all relevant air quality data and documents produced by your local authority', 'access to historic air quality data, statistics and access to interactive air pollution data and charts' and 'a repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire County Council' are either useful or very useful tools to have access to.

- **When asked what types of information, content or tools would be most effective in encouraging people to change behaviours (for example, to increase the use of sustainable transport and travel by car less or car share), demonstrating to people the effects of their own daily behaviour is seen as the most effective angle to approach this from.**
  - The most common themes in the comments made by User groups about information/content/tools that would be most effective in encouraging people to change behaviours are focused around helping people to visualise their own impacts on air quality and providing information and content around the effect of transport choices on air pollution.
  - Other key themes of note are that website users should be able to access information about where air quality is poorest, to be encouraged to meet realistic personal targets for their own behaviours (such as incentivising regular bus usage), that website users should be shown the health effects of poor air quality (both generally and for specific conditions) and to be able to use the website as a forum for interaction and discussion with other parties and groups and organisations involved in air quality issues.

Recommendations

- Given that the impact of air quality on Oxfordshire Residents appears to be very significant, and that three-fifths of Residents currently look for some form of information about air quality in Oxfordshire, the development of an Oxfordshire Air Quality website is likely to be both welcomed and used by residents of Oxfordshire. This will also tackle the perception amongst Residents that air quality information is not disseminated adequately.

- The high levels of interest expressed for the proposed free air quality bulletins and the free air quality app supports the launch of both of these services.

- In terms of presenting air quality information online, the survey findings indicate that the use of interactive maps is the most effective way of doing this, with an element of drop-down interactive charts and graphs being a suitable method of supplementing the interactive maps.

- The search engine for the Oxfordshire Air Quality website will be most useful for website users looking for air quality readings if it is searchable by postcode.

- Based on the findings from both the Residents and User groups surveys, the key content of the Oxfordshire Air Quality website should enable users to easily find out:
  - 'Information on current air pollution levels where I live';
  - 'The long-term situation for my local area/region';
  - 'Specific information about the types of air pollutants I am exposed to'; and
  - ''The long-term situation for my local area/region'.

- Based on the findings from both the Residents and User groups surveys, air quality tools and functionality should focus on providing:
  - 'A map of Oxfordshire with the locations where air quality is monitored';
  - 'Air pollution forecast tools';
  - 'Access to historic air quality data, statistics and access to interactive air pollution data and charts';
  - 'The ability to download all relevant air quality data and documents produced by your local authority'; and
  - 'A repository with all relevant air quality projects being delivered by the 5 District Councils and Oxfordshire County Council'.

For more information

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