



# STEP 1B DESIGN PRINCIPLES REPORT

The future of airspace

# Introduction

## 1.1 About this document

**1.1.1.** At Manchester Airport, in 2019, we started a 'Future Airspace' project to review the flight paths aircraft use when they fly into and out of the Airport. These flight paths are used by hundreds of aircraft each day to connect people and products from across the North to all parts of the globe, and they are important in terms of how we affect communities around the Airport.

**1.1.2.** The purpose of this document is to set out the Design Principles, agreed with the Civil Aviation Authority (CAA), that will guide Stage 2 of modernising airspace.

**1.1.3.** This document also does the following.

- Explains why we need to upgrade the airspace around the Airport and how we have identified the people and organisations who could be affected (our stakeholders).
- Sets out the process we have been through to develop our Design Principles in discussion with our stakeholders.
- Describes how the process we have been through meets the requirements set out in the CAA's guidance document 'CAP1616 Airspace Design: Guidance on the regulatory process for changing airspace design including community engagement requirements' (the CAP1616 guidance document), and how the process has gone further than these minimum requirements in many cases.
- Sets out the future steps in the seven-stage CAP1616 process.

Section 2.3 of the full document (submitted to the CAA) gives an overview of the CAP1616 process.

You can read the full document on the CAA website at <https://airspacechange.caa.co.uk/umbraco/Surface/DocumentSurface/DownloadDocument/732>

## 1.2 The need to modernise airspace

**1.2.1.** Our Future Airspace project could provide a wide-range of benefits for communities, passengers, the environment and the regional and national economy.

**1.2.2.** The Government has made clear how important the sustainable growth of the aviation industry is to trade, tourism and investment, all of which boost the economy and create jobs. To support this growth over the years to come, the Government has highlighted the need to review the flight paths in UK airspace, many of which date back to the 1950s.

**1.2.3.** The UK has some of the busiest airspace in the world, and the Government has identified the need to upgrade and modernise the network of flight paths to tackle existing issues, reduce delays for travellers, and reduce effects on the environment.

**1.2.4.** The Government has developed a strategy to modernise airspace, throughout the UK and at all heights (altitudes).

Airports are responsible for changes to airspace below 7,000 feet (lower airspace), and NATS (the organisation that manages air traffic control) is responsible for changes above 7,000 feet (upper airspace).

**1.2.5.** Our Future Airspace project is part of this UK-wide programme and relates only to aircraft flying in the lower airspace, which are those flying into or out of the airport.

**1.2.6.** Manchester Airport is the UK's third largest airport, and the main international 'gateway' serving the north of England. Handling 29 million passengers a year, the airport connects people and businesses to more than 200 different destinations, including an increasing number of long-haul destinations like China, Hong Kong, Singapore and Ethiopia, and many in North America.

**1.2.7.** To improve customer experience and increase the number of passengers the airport can handle, we are currently investing more than £1 billion in a Transformation Programme that will:

- provide new facilities (for example, shops, parking spaces and check-in desks); and
- improve infrastructure (for example, enlarging Terminal 2, introducing new technology and remodelling the airfield).

**1.2.8.** With two full-length runways Manchester Airport has the potential to handle around 55 million passengers a year, in the future.

**1.2.9.** Government policy supports airports across the UK in making the best use of their existing capacity (the number of passengers they can handle), stating: 'government has set out its support of airports beyond Heathrow making best use of their existing runways, subject to related economic and environmental considerations being considered'. (Read more on-line at the web on page 10).

**1.2.10.** To make the best use of our capacity, the airspace serving the Airport will need to be developed so it can grow in a sustainable way.

**1.2.11.** We need to meet a new regulatory requirements to replace ground-based navigational equipment with satellite navigation technology to guide aircraft arriving at or leaving the airport.

## 1.3 The Airspace Change process

**1.3.1.** Our Future Airspace project needs to be co-ordinated with those of other airports in the north of England, and a dedicated programme, known as the 'Future Airspace Strategy Implementation – North' (FASIN), has been introduced to manage this process. Changes to our airspace also need to be co-ordinated nationally, and the Government has set up the Airspace Change Organisation Group (ACOG) to do that.

**1.3.2.** All airspace change projects in the UK must follow a process set out in the CAP1616 guidance document, which provides guidance on the regulatory process for changing the design of airspace, including requirements to involve communities.

**1.3.3.** The purpose of Stage 1 of the CAP1616 process is to develop a set of Proposed Design Principles. Earlier in Stage 1, we gave the CAA a Statement of Need which set out the reasons for change.

**1.3.4.** The Statement of Need relates to Step 1B of Stage 1, during which airports (referred to in the CAP1616 guidance document as 'change sponsors') must develop Design Principles through discussion with those likely to be affected. Airports wanting to make changes should be able to show that they have a good understanding of the design considerations that are important to stakeholders.

**1.3.5.** We have carried out a thorough process of identifying our stakeholders, which started with defining the geographic area that could be affected by any change in the airspace. Following this, we used a range of techniques to place those stakeholders in the four categories set out in section 3.2.4.1 of the full document. We then assessed the best way to involve stakeholders during Step 1B.

**1.3.6.** We adopted a two-phase 'engagement process' to involve stakeholders in developing our Proposed Design Principles. During the first phase, we published 11 questions to prompt debate about the issues that are most important to stakeholders. These questions were in an engagement document, 'Be part of the conversation', which was published online and sent directly to more than 900 stakeholders. The engagement document – which gained a Crystal Mark from Plain English Campaign – was accompanied by an online questionnaire, so any member of the public could take part if they wanted to. We received more than 750 responses.

**1.3.7.** We used the questions in the engagement document to structure discussions at a series of 11 focus group meetings organised independently by YouGov. The meetings were attended by representatives from groups of stakeholders, based on both geographical areas and particular concerns.

**1.3.8.** To make as many people as possible aware of the engagement process, we issued press materials, used social media to publicise ways to get involved, communicated with our employees and discussed our Future Airspace project as part of an existing programme of stakeholder and community discussions.

**1.3.9.** Following this first phase of the engagement process, we analysed the responses we had received and used these to develop 10 Draft Design Principles. We tested the Draft Design Principles during the second phase of the engagement process, which involved four further focus groups which were independently organised and run. Members of these focus groups included some people from the phase one focus groups and some new stakeholders.

**1.3.10.** We used these focus group meetings to ask stakeholders for their views on our Draft Design Principles, and whether they reflected the responses we received during the first phase. We carefully considered the stakeholders' feedback and used it to refine our Draft Design Principles and develop a final set of Proposed Design Principles.

**1.3.11.** Throughout Stage 1 of our Future Airspace project, we received advice and assurance from The Consultation Institute (tCi) to make sure we were following best practice when involving stakeholders, and that the Proposed Design Principles we sent to the CAA were the result of an effective engagement process.

**1.3.12.** During Stage 1 of our Future Airspace project we set up an independent Stakeholder Reference Group (SRG), made up of stakeholder representatives, to advise on the engagement process we should follow. The group will provide advice and guidance throughout the CAP1616 process.

**1.3.13.** The engagement process we have followed allowed us to develop Proposed Design Principles in line with the CAP1616 process. By exceeding the minimum requirements set out in the CAP1616 guidance document, we have been able to help our stakeholders understand airspace modernisation, and to have effective discussions with them at the earliest opportunity.

We will try to build on this as we move through the further stages of the CAP1616 process.

**1.3.14.** Over the page we have set out the different stages of the engagement process and our Proposed Design Principles.

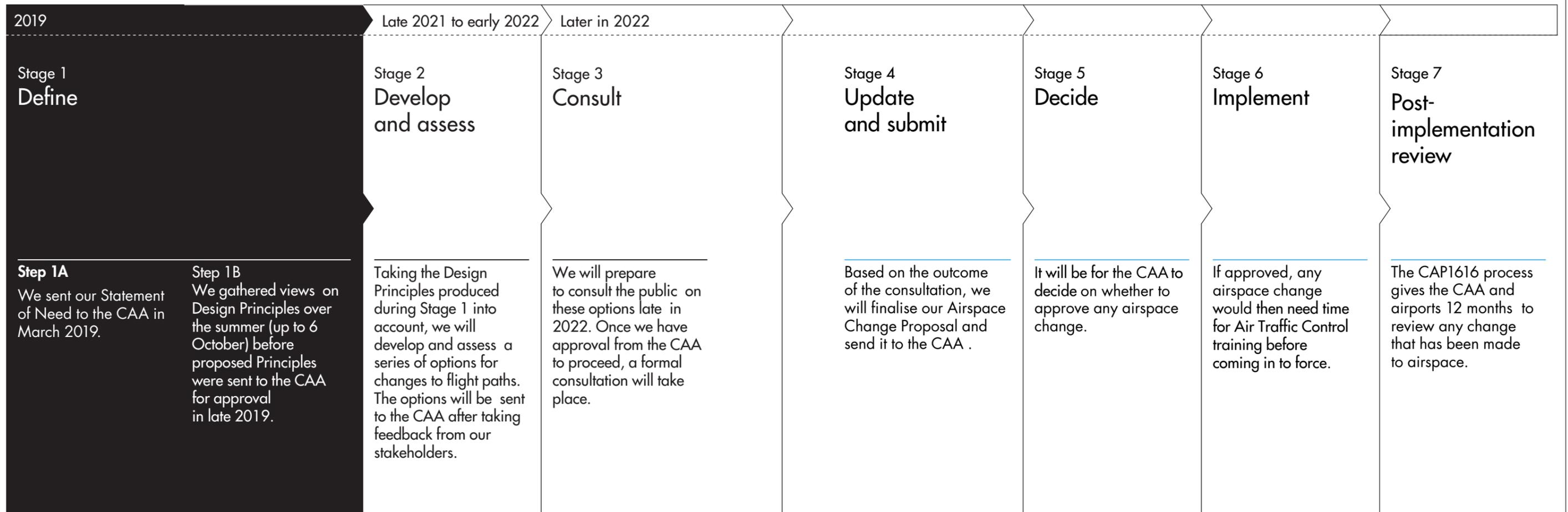
**1.3.15.** We sent our nine Proposed Design Principles to the CAA on 22 November 2019. We agreed final design principles in January 2020. The CAA also agreed for us to move on to Stage 2 of the CAP1616 process, 'Develop and Assess'.

**1.3.16.** During Stage 2, our airspace designers will develop a list of flight-path options, guided by the Design Principles approved by the CAA. These will be tested with the same stakeholders who were involved during Stage 1 of our Future Airspace project. They will provide evaluations of the options.

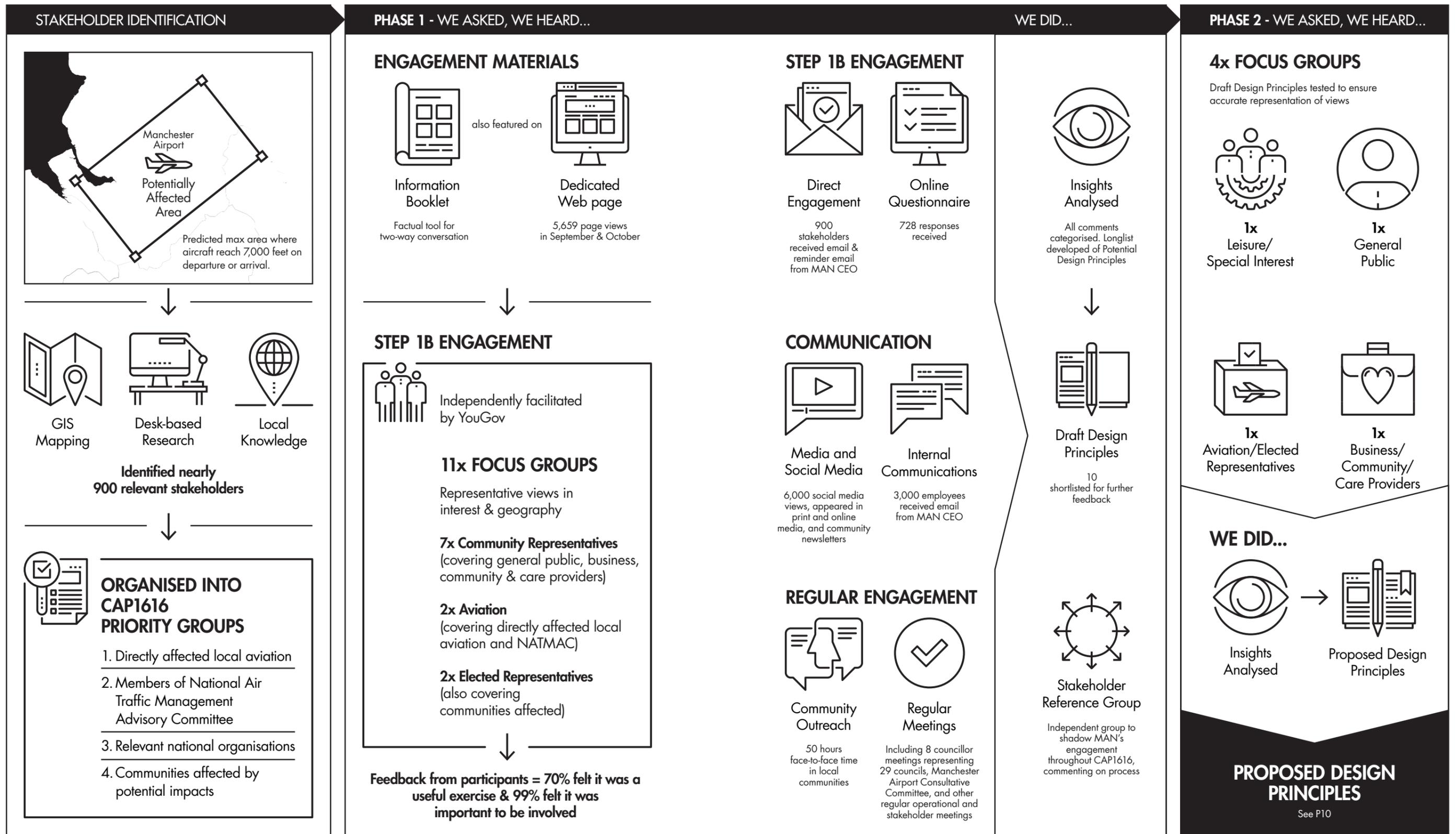
**1.3.17.** When we have received the stakeholders' evaluations, we expect to carry out a full public consultation on a series of options in 2022.

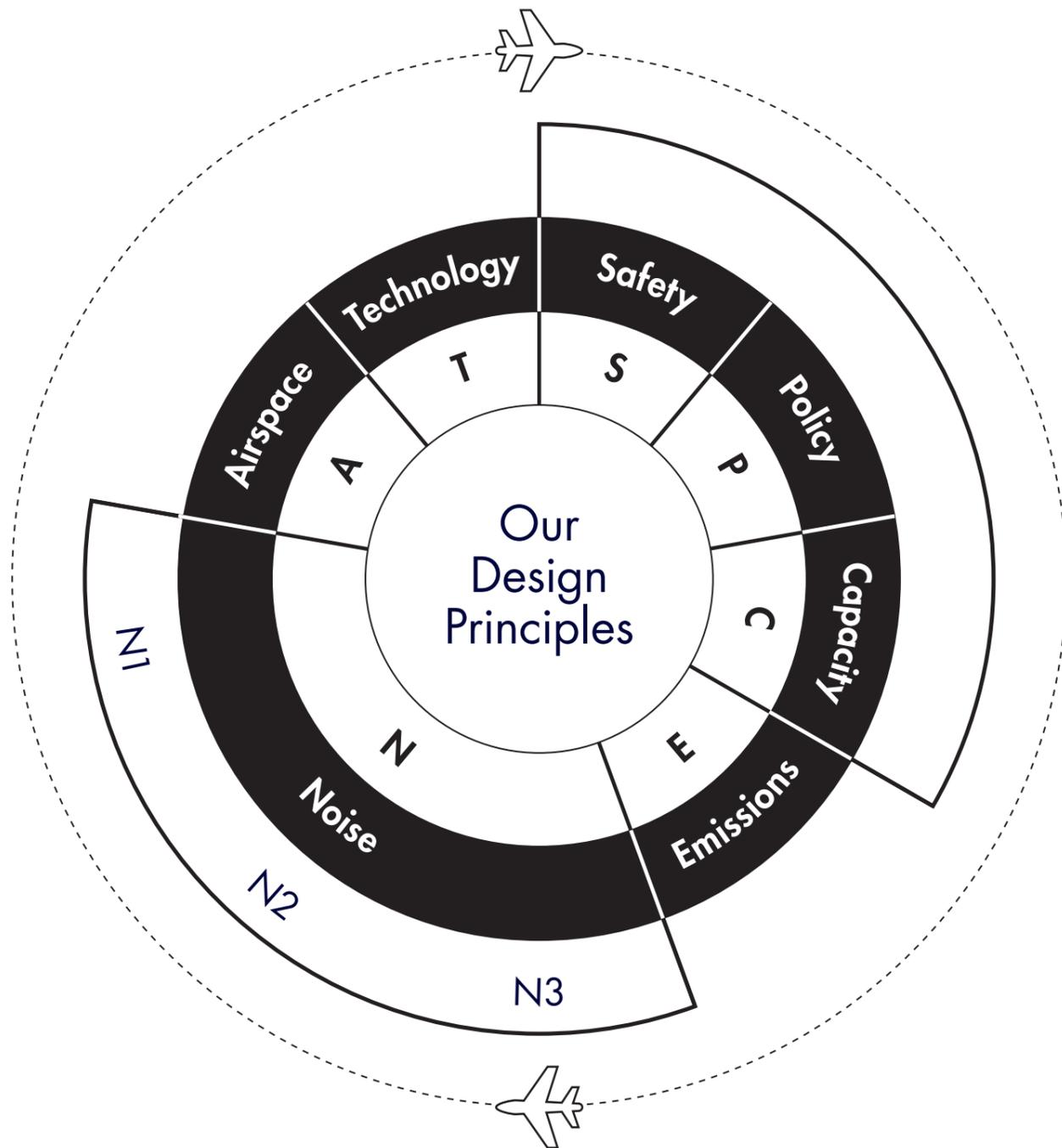
# CAP1616 Airspace Change Process

We are here



# Manchester Airport Future Airspace Project, Step 1B Engagement Process





<b>S</b>	<b>Safety</b> Our routes must be safe, and must comply with industry standards and regulations.
<b>P</b>	<b>Policy</b> Any change must accord with the Civil Aviation Authority's Airspace Modernisation Strategy. Any airspace change must also allow connection to the wider UK En-Route network and be aligned with the Future Airspace Strategy Implementation for the North programme and take into consideration the needs of other airports.
<b>C</b>	<b>Capacity</b> Our future airspace must enable best use of the capacity of our existing runways, in line with government policy.
<b>E</b>	<b>Emissions</b> We will minimise, and where possible reduce, emissions when we design routes. This may be achieved by selecting the most direct routes.
<b>N1</b>	<b>Noise</b> Our route designs should seek to minimise, and where possible reduce, the number of people affected by noise from our flights.
<b>N2</b>	Where practical, noise effects should be shared. The use of dispersion and/or respite, especially at night, will be considered to achieve this.
<b>N3</b>	Where practical, our route designs should avoid, or limit effects upon, noise sensitive areas. These may include cultural or historic assets, tranquil or rural areas, sites of care or education.
<b>A</b>	<b>Airspace</b> Our route designs should minimise the impacts on other airspace users by limiting Controlled Airspace.
<b>T</b>	<b>Technology</b> Our route designs should be based on the latest aircraft navigational technology widely available.



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## Be part of the conversation

[manchesterairport.co.uk/futureairspace](http://manchesterairport.co.uk/futureairspace)



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