

Transport design decision-making

The experiences of people working in the UK transport design sector, November 2024



About ncat



The National Centre for Accessible Transport (ncat) works as an Evidence Centre developing high quality evidence, best practice and innovative solutions to inform future disability and transport strategy, policy, and practice by:

- Engaging with disabled people to better understand their experiences and co-design solutions
- Amplifying the voices of disabled people in all decision making
- Collaborating widely with all transport stakeholders
- Demonstrating good practice and impact to influence policy.

ncat is delivered by a consortium of organisations that includes Coventry University, Policy Connect, The Research Institute for Disabled Consumers (RiDC), Designability, Connected Places Catapult, and WSP. It is funded for seven years from 2023 by the Motability Foundation.

For more information about ncat and its work please visit our website www.ncat.uk

To contact ncat, either about this report or any other query, please email info@ncat.uk



Why did we do this work?

Disabled people face significant barriers to participating in society, reporting higher anxiety, limited access to education and lower employment prospects than non-disabled people.

This report is part of a series of research conducted by the National Centre for Accessible Transport (ncat) since its launch as an Evidence Centre in early 2023. Whilst this is a standalone report, we would recommend it is considered alongside other ncat research published from late 2024. As ncat progresses further, reports and insights will also be published on our website www.ncat.uk

In 2023, the National Centre for Accessible Transport (ncat) was set up to help reduce this transport accessibility gap. ncat works with disabled people and people in the transport industry to understand how to improve transport.

To ensure that ncat is led by the independent views of people working in the transport design sector, an anonymous survey was developed.

The survey aimed to find the barriers that people faced that led to design decisions within the transport sector.

What did we do?

37 people from the transport design sector responded to a survey about their experiences of transport design in the UK.

How did we design the research?

We created a survey using the software Qualtrics, designed to ensure that participants could easily respond online.

The survey was posted on LinkedIn, along with a supporting article (called a 2-minute read). We chose LinkedIn as there is a large professional design and transport sector represented on the platform.

Who responded to the research?



We used a two-step approach to understand design decision-making.

The survey ran from 15th of November to 15th December 2023, after which the participant responses (data) were collated and analysed.

22 responses were completed and available for analysis.

From the data, we established recommendations. At the end of the survey (phase 1), we offered an opportunity for participants to request a follow-up interview (phase 2).

5 people participated in interviews for phase 2 of the study over three months. The interviews were semi-structured but led by the participants. Each participant explained their experiences of working in the transport design sector and the barriers they had faced. We gathered personal stories from across the UK.

Phase 1 – Survey

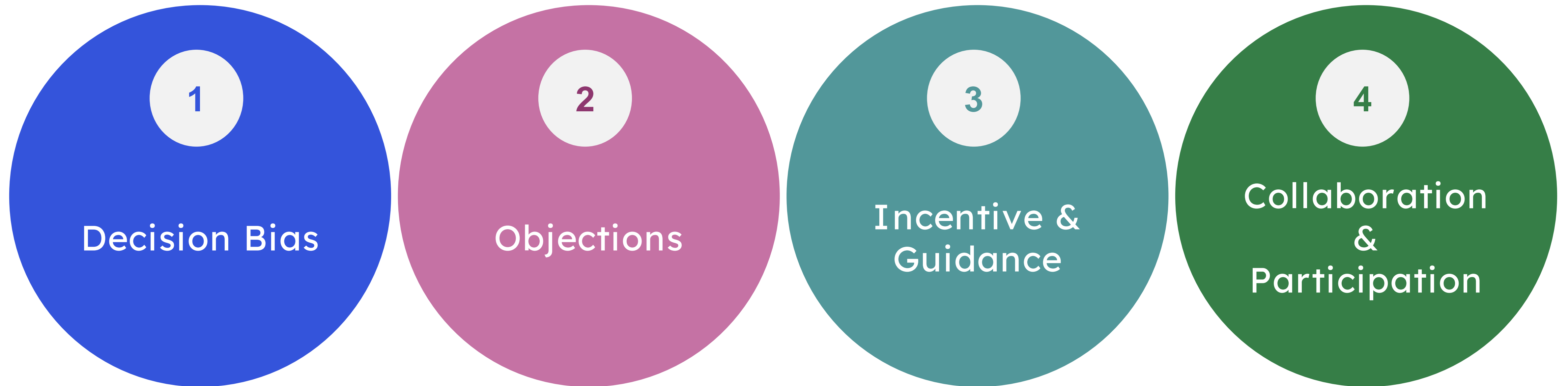


What did we find from the survey?

Professionals working in the transport design sector described multiple barriers that influence design decision making.

These barriers are systemic and become accepted ways of working in the sector.

By analysing data, 4 main themes emerged: Decision Bias, Objections, Incentive & Guidance and Collaboration & Participation.



Theme 1 – Decision bias

Participants repeatedly refer to decision maker subject bias.

“ultimately the decisions remain with the design director or client.”

Repeated reference to a decision maker subject to bias

The decision makers appear to hold senior, or long-standing roles

“use seniority to ensure their solution is carried out”

“Team Lead... may have the greater experience of the 'customer' and so would have the casting vote”

Acceptance of decision based upon *'knowing the subject best'*

No indication of associated design process or expertise in human centered design expertise

“to steer the ship in directions they see fit”

Theme 2 – Objections

The sector has inadequate methods in place to support objections

“Sometimes people prioritise business perspective over User Experience of vehicles and overrule.”

A designer

“Occasionally overruled for wider business constraints - usually time and or budget!”

Overruled manager

“Not really, just an email trail to say why it wasn't possible”

Transport User

“...as part of our review under IATF16949 there has to be a feasibility review which covers all aspects of the design including rejection”

Manufacturer

[IATF 16949](#) has been developed by the industry, the International Automotive Task Force (IATF) to encourage improvement in both the supply chain and the certification process

Theme 3 – Incentive & Guidance

Human-centred experiences that teach the ability to engage are limited in the sector.

Limited incentive for the transport design community (not just research) to challenge brief

Targeted deliverables do not equate to a quality design feedback experience

Limited accessible guidance for designers, and especially to support new designers

Guidance (from Senior Leadership) needs to be objective but tends to be personal

Theme 4 – Collaboration and Participation

There is a lack of ‘space’ to accommodate collaboration in existing process

Collaborative method responses suggest a lack of application of co-creation

This sector is led by the ‘loudest voices’ – with similarities during the design process

Hierarchy can result in a design decision barrier regardless of the proposed outcomes

When asked about co-creation tools, participants responded with more traditional methods

Lack of familiarity of co-creation outside of research or community work

This may also indicate a sector misunderstanding of the value of co-creation

“... I’m not really sure what a co-creation tool is?”

Designer

What conclusions did we come to from the survey?

Conclusions from phase 1 are a combination of themed responses to survey questions and cumulative stories that provided context.

- Incentivise a design ‘standard’; make this a validation ambition for example by creating a ‘D-Corp’ (a set of guidelines and specifications that outlines how products, services, or infrastructure should be designed, ensuring consistency, quality, and safety across all projects).
- Improve knowledge and access to meaningful collaboration methods.
- Provide guidance needed to empower new industry talent in relation to accessibility as core knowledge as they embark on their career.

What other conclusions did we come to from the survey?

Conclusions from phase 1 are a combination of themed responses to survey questions and cumulative stories that provided context.

- Avoid imposing a ‘research’ method, as this may risk not being costed into a design project for fear of rejection by clients.
- Develop a transparent method of objection, as is important to encourage and enable a responsible outcome that is not just a single point of view.
- Better engagement with users with experience who as co-creators provide greater evidence for better decisions.
- Address the complexity of cultural change within design-led organisations, which must be addressed before imposing change can be realistic or even adopted.

Phase 2 – Structured interviews



What did we find from the interviews?

5 participants then undertook a semi-structured interview to provide further insights, which reflected the phase 1 recommendations and found differences that added to our learning.

Develop mentor support could guide early career designers to progress along their own path

Be prepared to challenge a brief, to ensure it is objective and achieves a real ambition

Review of behaviour in the design community could provide insight into the discipline in practice, and help to define ways to empower design progression beyond bullying

Provide communication training to improve collaboration with people with disability and empathy

Improve background research methods for a rigorous and reasoned proposal, to justify and advocate for the solution with confidence

Develop a transparent validation tool to ensure a better, responsible decision

What recommendations do we put forward?

Based on this two-part investigation, this is what we need to do:

Incentivise a design 'standard' as a tool to ensure better, responsible decision making. This might be considered as 'D-Corp' status which could incorporate development of mentor support and much needed guidance to empower new industry talent in relation to accessibility as core knowledge.

Establish a democratic relationship in the design decision-making process. A transparent method of objection is important to enable a responsible outcome not just a single point of view.

At the outset, challenge the preconceptions of a design brief to ensure it is objective and achieves a real ambition. Achieve this by improving access to meaningful collaboration methods, and background research methods to advocate for validated accessible ambition.

Improve engagement with experience for better decisions. Provide communication training to improve collaboration with people with disability and develop empathy skills. Avoid imposing a 'research' method as this may risk not being costed into a design project for fear of rejection by clients.

What should happen next?

There is a real need for change. Failures occur at every stage of transport design development.

What will ncat do?

- Work with others to identify tangible changes. Together, we will identify changes for the key issues identified in the survey. A roadmap for change and grant funding programme will be shared on the [ncat website](#).
- Share the data from the research. The data from this survey and interviews will be shared publicly, and we will track how things change.
- Raise awareness about transport barriers using the experiences shared in this report.

What can people working in the transport sector do?

- Use the data and insights from this survey and from existing industry research into accessible transport to make transport decisions.
- Ensure disabled people are decision makers. Disabled people need to be decision-makers in the transport industry. From the very start of design, co-produce projects work out what needs to happen and implement changes.
- Advocate for accessible transport. Share this report, and other research you come across with your colleagues, to raise awareness of the transport barriers faced by disabled people.