

Approach to and methods for data collection and analysis

The methods employed in this research were qualitative in nature. This approach was adopted by TNS-BMRB to allow for individual's views to be explored in detail. Qualitative methods neither seek, nor allow, data to be given on the numbers of people holding a particular view, nor having a particular set of experiences. The aim of qualitative research is to define and describe the range of emergent issues and explore linkages, rather than to measure their extent. TNS-BMRB believed such an approach was more suited to exploring citizen's views around synthetic biology in depth. A large scale survey would have been of very limited value, given the lack of understanding/knowledge about synthetic biology amongst the general public.

However, TNS-BMRB did quantify respondent views on certain key issues/applications before and after debate, through the use of voting technology. Findings from the voting are described in section 4.6 of the final report. These findings are not generalisable in a statistical sense, but give an indication of relative levels of support by participants for different uses of synthetic biology.

In terms of analysis of the qualitative data, all workshops and interviews were audio recorded and transcribed. The data were then analysed through a framework approach called Matrix Mapping.

Matrix Mapping involves a systematic process of sifting, summarising and sorting the material according to key issues and themes. The process begins with a familiarisation stage and includes an initial review of the notes taken by TNS-BMRB researchers during the sessions. After the data in the transcripts have been grouped, the researchers in the project team would reconvene with the transcripts as prompts to discuss, compare and contrast their experiences and findings.

The second stage of analysis involves going through the transcripts in detail and categorising the data within a matrix. The analyst then reviews the summarised data; compares and contrasts the perceptions, accounts, or experiences; searches for patterns or connections within the data and seeks explanations internally within the data set. Piecing together the overall picture is not simply a case of aggregating patterns, but of weighing up the salience and dynamics of issues, and searching for structures within the data that have explanatory power, rather than simply seeking a multiplicity of evidence.

These key issues, and the features that underpin them, are then used as the basis for constructing the written report. Throughout the analytical procedures, care is taken to ensure that the extraction and interpretation of findings are grounded and based on the raw data rather than on researchers' impressions.

Finally, findings were shared with a selected group of the public to help to validate the work.