



Stakeholder Engagement Research 2018

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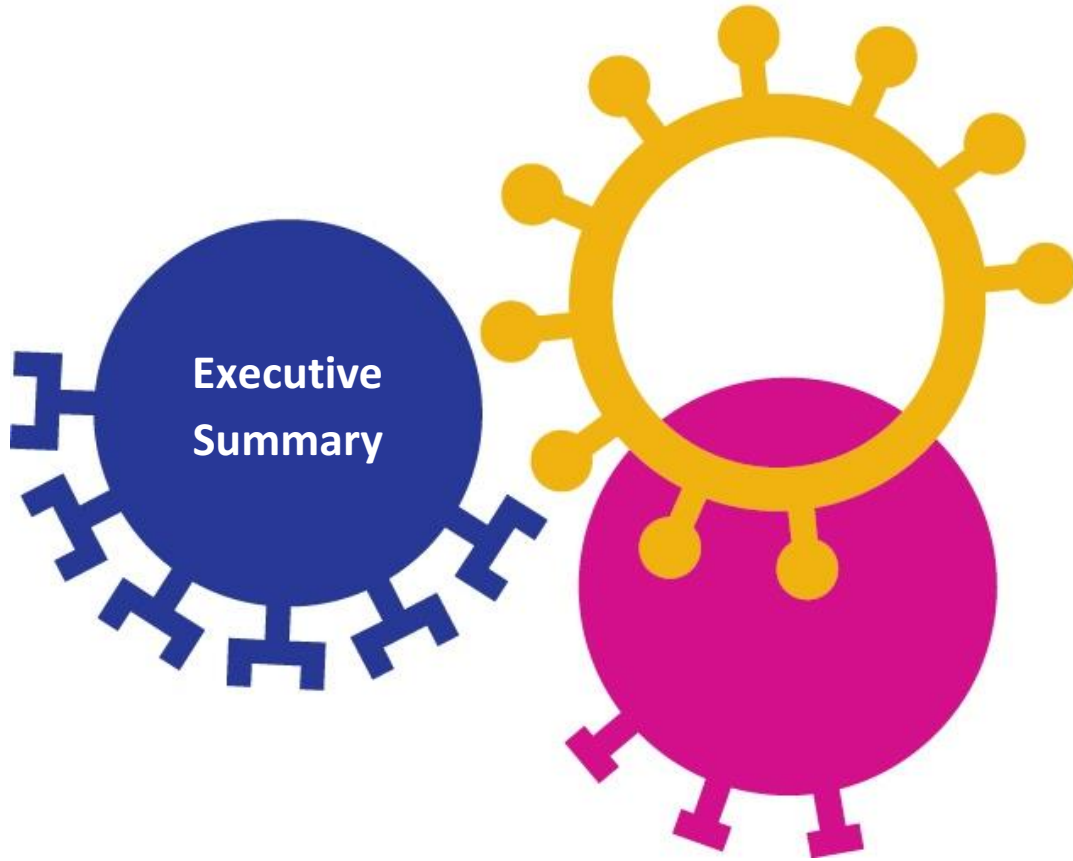
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Glossary of Terms

Bioeconomy	The Chairs of the UK's three bioscience leadership councils, comprising the Industrial biotechnology leadership forum (IBLF), the Agri-technology leadership council (ATLC) and the Synthetic biology leadership council (SBLC), have developed the following definition of the bioeconomy: <i>All economic activity derived from bio-based products and processes which contributes to sustainable and resource-efficient solutions to the challenges we face in food, chemicals, materials, energy production, health and environmental protection.</i>
Bioscience	Bioscience is at the heart of many technological advances and has the potential to address some of the world's greatest challenges. Bioscience research offers solutions that can help to tackle the challenges faced by society in relation to food security, chemicals, materials, energy production, health and environmental protection. BBSRC's investments in bioscience research underpin important economic sectors in the UK, such as farming, food, industrial biotechnology and pharmaceuticals. The impact from BBSRC-funded bioscience contributes to the UK bioeconomy.
Catapults	Catapult centres form a network of world-leading centres designed to transform the UK's capability for innovation in specific areas and help drive future economic growth.
Collaborative Awards in Science and Engineering (CASE)	CASE studentships (formerly known as 'Collaborative Awards in Science and Engineering') are collaborative training grants that provide students with a first-rate challenging research training experience, allowing top quality bioscience graduates to undertake research, leading to a PhD, within the context of a mutually beneficial research collaboration between academic and partner organisation.
Doctoral Training Partnerships (DTPs)	DTPs provide PhD training in research areas relevant to BBSRC's remit and strategic priority areas. They also provide a breadth of professional development training opportunities to enhance students' capability and develop the world-class, highly skilled workforce the UK needs for its future.
Global Challenges Research Fund (GCRF)	The GCRF is a five-year £1.5Bn fund and a key component in the delivery of the UK Aid Strategy, involving tackling global challenges in the national interest. The fund aims to ensure that UK research takes a leading role in addressing the problems faced by developing countries.
Industrial Strategy Challenge Fund (ISCF)	The ISCF aims to bring together the UK's world-leading research with business to meet major industrial and societal challenges. The fund is part of the government's £4.7Bn increase in research and development over four years and provides funding and support to UK businesses and researchers.

Knowledge Transfer Partnerships (KTPs)	Knowledge Transfer Partnerships (KTPs) accelerate business innovation by supporting knowledge exchange with academic institutions. KTP operates through an open call which includes the entirety of BBSRC's remit. As part of a UK-wide programme, these partnerships serve as a mechanism to transfer knowledge and to develop graduate and postgraduate personnel for industrial careers.
Networks in Industrial Biotechnology and Bioenergy (NIBBs)	BBSRC, with support from EPSRC, has committed £18 million to fund 13 unique collaborative Networks in Industrial Biotechnology and Bioenergy (BBSRC NIBB). The BBSRC NIBB will foster collaborations between academia, industry, policy makers and NGOs in order to find new approaches to tackle research challenges, translate research and deliver key benefits in IBBE. Each network has a particular focus area, mainly within the UK, but with interest to build international links.
Non-governmental organisation (NGO)	Any non-profit, voluntary citizens' group which is organised on a local, national or international level.
Stakeholder	BBSRC's stakeholders comprise individuals and organisations with which it has a strategic and/or operational relationship. For the purpose of this research – and to maintain comparability with previous iterations of this research – BBSRC's stakeholders have been classified into the following main groups, in order of highest to lowest prevalence: academics; industry; government/policy; and non-governmental organisations. Some stakeholders do not fit neatly into any of these groups and have been classified for this research into the category of 'Other'.



Context

In 2018, the Biotechnology and Biological Sciences Research Council (BBSRC) commissioned Pye Tait Consulting to undertake its third biennial stakeholder engagement research. This research examines BBSRC's progress in relation to its *Corporate Communications and Engagement Strategy* (published in 2015) and gauges shifts in stakeholder perceptions relative to the two previous stakeholder engagement surveys (2016 and 2014). It also explores the potential influence of significant external events on stakeholders' perceptions, such as the UK's vote to leave the European Union and changes to the research funding landscape. On this latter point, from 1st April 2018, the seven Research Councils, Innovate UK and Research England will come together under a new organisation, UK Research and Innovation.

The 2018 stakeholder engagement research was undertaken through three strands of fieldwork:

- An online survey of BBSRC's stakeholders (748 responses);
- 35 in-depth telephone interviews with a sample of stakeholders
- Three focus group discussion forums.

The survey results distinguish between the views of BBSRC's main stakeholder groups, notably those from academia, industry, government/policy stakeholders and Non-Governmental Organisations (NGOs)¹. Statistical significance tests have been carried out on key questions to assess whether differences in the distribution of results per stakeholder group are due to chance or whether they represent meaningful differences between the groups. The term 'significant' is therefore used throughout this report to denote statistically significant differences.

A summary of the main messages from the research are set out, below, under thematic headings. Each section begins with headline measures and trends from the survey, followed by qualitative insights and discussion.

¹ A non-governmental organisation (NGO) is any non-profit, voluntary citizens' group which is organised on a local, national or international level.

Awareness and understanding

Headline measure	% of respondents (or average ratings) – 2018	Change in 2018 from 2016 scores	Change in 2018 from 2014 scores
Stakeholders are knowledgeable about BBSRC	90%	+2	+6
BBSRC is associated with knowledge exchange and innovation	81%	+23	+17
BBSRC is associated with leadership and influence	42%	+22	N/A
BBSRC keeps stakeholders well informed	79%	+5	+6

The vast majority of surveyed stakeholders (90%) know a great deal or a fair amount about BBSRC and this has increased consistently since 2014. Academics and NGOs feel especially knowledgeable (98% and 90% respectively), although government/policy and industry stakeholders less so (79% and 76%, respectively). The differences between these stakeholder groups indicate that BBSRC could do more to better understand and respond to what each of these audiences need from their relationship with BBSRC, using targeted and tailored communications. This is discussed further under the section ‘Interactions and Communications’.

Almost all stakeholders associate BBSRC with research grants (97%), followed by knowledge exchange and innovation (81%). They identify least with BBSRC having a leadership and influence role (42%) although good progress has been made since 2016, with an increase of 22% associating BBSRC with this area. Stakeholders generally feel that BBSRC provides a strong voice for bioscience and been innovative in its approaches for creating impact and strengthening doctoral training. However, there is uncertainty around BBSRC’s ability to maintain autonomy and leadership within UK Research and Innovation, which is discussed further under the section ‘Future Priorities’.

More than three quarters of stakeholders (79%) believe that BBSRC keeps them very or fairly well informed about its work, with performance having consistently strengthened since 2014. Academics feel most informed (87%), compared with 66% of industry and 64% of government /policy stakeholders. While these percentages are still generally high, they once again suggest that BBSRC could find ways of engaging more successfully with specific groups of stakeholders.

Working relationships

Headline measure	% of respondents (or average ratings) – 2018	Change in 2018 from 2016 scores	Change in 2018 from 2014 scores
BBSRC is easy to work with	55%	-9	-1
Desire to work more closely with BBSRC in the future	60%	+4	+4
Extent to which BBSRC adds value (rating)	7.1	-0.3	+0.5

BBSRC manages a diverse portfolio of stakeholders that appears to have been growing in number over recent years (see Table 27). Stakeholders have different individual views on what they feel BBSRC's funding priorities should be (covered in more detail in the section 'Performance and Impact') and since 2014 an increasing proportion (now 60%) say they would like to work more closely with BBSRC. A minority of stakeholders mention having experienced decreasing levels of strategic contact with BBSRC, especially with senior BBSRC staff. Industry stakeholders tend to see BBSRC as being comparatively more supportive of academia and are of the view that, to ensure research has more tangible and meaningful benefits for industry, BBSRC should involve businesses more directly when shaping its strategic direction and funding priorities. These findings emphasise how BBSRC needs to remain as inclusive as possible, whilst at the same time managing stakeholder expectations.

Most stakeholders generally feel that BBSRC is easy to work with (55%). This is highest among academics (66%) and lowest among industry (39%) – a significant finding. BBSRC also adds value to stakeholders' organisations, with the survey returning an average added value rating of 7.1 out of 10. This is highest among academics (8.3) and lowest among industry stakeholders (5.0) – again a significant difference. Two thirds of stakeholders (66%) believe BBSRC could add more value to their organisation, for example by enabling and promoting more collaborative and cross-disciplinary research, especially at the interface between bioscience research and the physical and social sciences, as well as encouraging a more flexible portfolio of funded projects and being less risk averse.

Interactions and communications

Headline measure	% of respondents (or average ratings) – 2018	Change in 2018 from 2016 scores	Change in 2018 from 2014 scores
The frequency of BBSRC's communications are about right	71%	N/A	N/A
BBSRC communicates well	74%	N/A	N/A

Almost three quarters of surveyed stakeholders (74%) believe that BBSRC communicates well with their organisation. This is high across all stakeholder groups although there is a significant difference between academics (80%), government/policy stakeholders (64%) and industry (63%). Qualitative discussions reveal that stakeholders would welcome more targeted and tailored communications that chime with their organisation's needs and priorities. Furthermore, a minority commented that it can sometimes be difficult to reach the right person within BBSRC, or feel that changes to BBSRC staff has reduced levels of expert knowledge in some specialist areas. A fifth of industry stakeholders say that they interact with BBSRC less often than yearly or never.

Most stakeholders rate all forms of interaction with BBSRC to be generally effective. This is especially the case for face to face contact, with 91% of the view this is effective, although only 40% say that they currently interact with BBSRC in this way. Stakeholders value meetings that help to shape funding priorities (with particular praise for the 'Town Hall' meetings), which this ties in with a desire among most surveyed stakeholders for closer and more strategic engagement with BBSRC.

Performance and impact

Headline measure	% of respondents (or average ratings) – 2018	Change in 2018 from 2016 scores	Change in 2018 from 2014 scores
Stakeholders would speak highly of BBSRC unprompted	22%	-5	-2
BBSRC effectively communicates its impact	57%	+8	N/A

The qualitative research has revealed that BBSRC is perceived to have many strengths. Stakeholders acknowledge BBSRC's vital role in funding UK bioscience research and promoting collaboration between academia and industry. They are proud to be associated with BBSRC and recognise that it treads a difficult line in balancing the needs of government, universities, industry, the public and students. Stakeholders praise the impactful translational science emerging from institutes that have received funding from BBSRC, the value of Doctoral Training Partnerships (DTPs) in nurturing new talent, and support for entrepreneurship such as through BBSRC's Innovator of the Year Awards. Additionally, focus group participants remarked that BBSRC is open to having discussions with the research community to help them get a better understanding about funding calls and value the opportunity for dialogue with BBSRC.

Almost two thirds of surveyed stakeholders would speak highly of BBSRC to others (64%), including 22% without being asked. This has reduced slightly from 74% since 2016. Surveyed academics are BBSRC's strongest advocates, with 70% saying they would speak highly, compared with 51% of industry stakeholders – a significant difference. Qualitative discussions reveal that it can be harder for industry stakeholders to identify with the research that BBSRC funds, notably the extent to which it relates to their own work and how much direct value they believe it will bring to their part of the industry. Indeed, several industry stakeholders commented that they have a closer relationship with

Innovate UK than BBSRC. This is not necessarily a bad thing, but ties in with a desire among stakeholders for more joined up working between the Research Councils.

In terms of how BBSRC manages grant applications, there is some frustration, especially among academics, where proposals appear to “fall between the cracks” of Research Council remits. This is observed where applicants extend beyond BBSRC’s bioscience remit, for example into the medical sphere. Stakeholders would like to see a more integrative ‘cross-Council’ approach to research funding, with better recognition of interdisciplinary working as something to be encouraged. There is a strong opportunity here under UK Research and Innovation – discussed in more detail in the section ‘Future Priorities’.

Additionally, the focus groups generated substantial discussion regarding the balance that BBSRC strikes between funding fundamental exploratory research, alongside industry-applied research. Academics generally consider it vital that BBSRC does not lose sight of the former, making the point that without sufficient high-quality underpinning research then there will be insufficient pipeline to support future translational research. Industry stakeholders tend to place more value on applied research.

Finally, when asked the extent to which they feel BBSRC contributes to economic and social impact, surveyed stakeholders returned an average rating of 6.7 out of 10. This is highest among academics (7.1) although somewhat lower among industry stakeholders (6.0) and NGOs (5.0) – a significant difference. The majority of surveyed stakeholders believe BBSRC communicates its impact effectively (57%), which is a rise of 8% since 2016.

Vision and strategic direction

Headline measure	% of respondents (or average ratings) – 2018	Change in 2018 from 2016 scores	Change in 2018 from 2014 scores
Extent to which stakeholders are familiar with BBSRC’s Mission and Vision	6.0	-0.7	-0.3
Extent to which stakeholders think BBSRC achieves its Vision	6.5	0.0	+0.2
Extent to which stakeholders share BBSRC’s Vision	7.4	-0.6	-0.3
The UK has a world leading position in bioscience	83%	-5	-5
The UK’s international position in bioscience is due to BBSRC	76%	-3	-1

Stakeholders broadly share BBSRC’s Vision, especially as beneficiaries of funding for projects that are aligned to BBSRC’s priority areas of work. Several describe this Vision as “*compelling*” and “*inspirational*”, commenting that “*we are all striving for the same thing*”. Those less aligned with BBSRC’s Vision tend to identify less with high level Vision statements and find it easier to understand

and relate to more specific objectives that their organisations work to, for example relating to providing industry-led advice, products and services.

Most surveyed stakeholders (83%) agree that the UK has a world-leading position in bioscience, with consistently favourable views across the stakeholder groups. More than three quarters (76%) agree that the UK's international position in relation to bioscience is due to the BBSRC, especially among academics (80%) compared with a significantly lower 68% of industry stakeholders.

Future priorities

To ensure UK bioscience continues to be prosperous and world-leading, BBSRC and the research community need to respond to a number of priority changes and developments. Surveyed stakeholders were asked to what extent they think that a more strategic approach to tackling science challenges, such as through the Global Challenges Research Fund (GCRF) and the Industrial Strategy Challenge Fund (ISC), will support BBSRC's influence in bioscience. The majority (59%) believe that this would be the right approach to take. In contrast to other results, academics are comparatively less favourable here, with 53% supporting this approach, compared with 61% of government/policy stakeholders, 64% of industry stakeholders and 80% of NGOs.

While some stakeholders are complimentary about BBSRC's efforts to align itself with government and the industrial strategy, saying that *"there seems to be a good synergy"*, academic stakeholders in particular wish to avoid a perceived risk of BBSRC being *"pressured"* by government to tip the balance too strongly in favour of strategic and applied research at the expense of fundamental research.

The UK's impending exit from the European Union is one of the foremost concerns for BBSRC's stakeholders. Whilst offering potential opportunities in terms of collaboration beyond Europe, stakeholders have identified three main risks that they believe must be overcome: 1) continued access to EU funding; 2) being able to attract and retain high quality research scientists from the EU; and 3) sustaining EU partnerships.

Survey respondents and focus group participants tended to use the term *"uncertainty"* in the context of BBSRC's forthcoming role under the auspices of UK Research and Innovation². Several anticipate a *"business as usual"* environment for the foreseeable future, with change expected to be evolutionary rather than revolutionary. The launch of UK Research and Innovation is seen by many as a positive opportunity for enabling more joined-up working and cross-Council collaboration, although noting that BBSRC must ensure it maintains a strong voice for bioscience to attract sufficient funding on which UK bioscience is heavily dependent.

² From April 2018, the seven Research Councils, Innovate UK and Research England will come together under a new organisation, UK Research and Innovation, to provide a strong voice internationally on behalf of UK research. Source: UKRI Official Narrative.

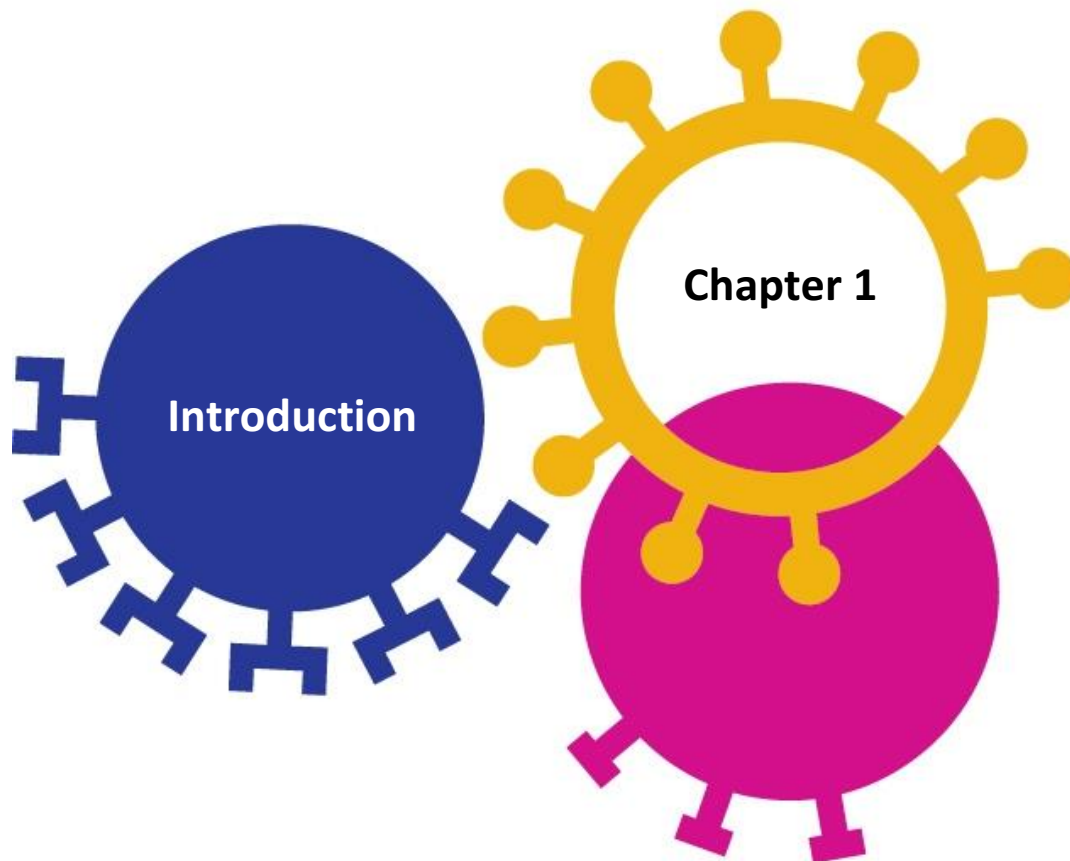
Finally, technological change is viewed as a key driver for the future of UK bioscience, such as the increasing use of Digital Data Analytics (DDA), genetic science, artificial intelligence (AI), robotics, and mechanisation. These changes, it is argued, are blurring the boundaries between the Research Councils and stakeholders emphasise once again the need for much more cross-Council collaboration.

Emerging themes

Based on the findings of the research, several key themes have emerged which are summarised below. Further details (including specific actions that BBSRC could take) are set out in chapter 8.

1. Continuing to raise awareness about BBSRC's role, its work, and the economic and social outcomes of the research it funds, using tailored communications for different stakeholder groups
2. Strengthening cross-Council working to better respond to the increasingly interdisciplinary nature of bioscience research for the benefit of society
3. Maximising the benefit of a more strategic approach to funding UK bioscience whilst ensuring that an appropriate balance is retained between fundamental and applied research
4. Working hard to ensure a strong and prosperous future for UK bioscience following the UK's exit from the European Union, through good access to funding and collaboration opportunities
5. Establishing BBSRC's role in the new funding landscape under UK Research and Innovation and clearly communicating this to stakeholders
6. Ensuring that academia and industry can draw on the knowledge and skills needed to exploit new technologies for the benefit of UK bioscience
7. Helping to stimulate and strengthen collaboration opportunities between academia and industry
8. Continuing to review and improve operational processes in areas that would help to improve stakeholder satisfaction and confidence
9. Being visible, open and communicative, whilst managing stakeholder expectations.

The strategic aims and objectives of BBSRC's 2015-17 *Corporate Communications and Engagement Strategy* remain valid, notably that BBSRC needs to continue to secure and maintain the best possible environment for UK bioscience, raise awareness of the value of its work, and strengthen its reputation as being a trusted and open organisation.



This chapter sets out the research context, research aims, a summary of the approach taken to obtaining stakeholders' views and perceptions, and an overview of research participant numbers.

1.1 Background

The Biotechnology and Biological Sciences Research Council (BBSRC) is the UK's leading funder of academic research and training in the non-clinical life sciences. It is a Government-funded non-departmental public body, sponsored through the Department for Business, Energy & Industrial Strategy (BEIS).

BBSRC funds internationally competitive research to improve the fundamental understanding of biological systems spanning the microbial, plant and animal kingdoms, from molecules and cells to whole organisms and populations. In 2016-17, it invested £469M in world-class bioscience to further scientific knowledge, promote economic growth, and improve quality of life.

Bioscience research offers solutions that can help to tackle the challenges we face as a society in relation to food security, chemicals, materials, energy production, health and environmental protection. BBSRC's investments in bioscience research underpin important economic sectors in the UK, such as farming, food, industrial biotechnology and pharmaceuticals. The impact from BBSRC-funded bioscience contributes to the UK bioeconomy.

Bioscience in the 21st century offers an opportunity for a more prosperous, healthy and sustainable society and BBSRC's role is to ensure that the UK is able to responsibly seize this opportunity and to ensure that bioscience sits effectively alongside other disciplines and in tandem with public policy and societal expectations.

In 2014, BBSRC undertook its first *Corporate Stakeholder Benchmarking Research*³ to understand how it was perceived externally and to gauge the level of support from stakeholders. The findings were used to refresh the BBSRC's *Corporate Communications and Engagement Strategy*⁴ which had a single overarching aim:

- to secure and maintain the best possible environment for the UK bioscience community to undertake research and to realise the potential of bioscience to delivering economic growth, wellbeing and improved quality of life in the UK and beyond.

To be achieved through:

- raising awareness of BBSRC, including its research, impact and relevance with the aim of creating advocates and supporters
- building and maintaining trust with stakeholders, including the public, by being open, transparent and be considering diversity in strategic decision making.

³ BBSRC (2014) *Corporate Stakeholder Benchmarking Research*

⁴ BBSRC (2015) *Corporate Communications and Engagement Strategy 2015-2017*

Subsequent stakeholder research, undertaken by BBSRC in 2016⁵, reviewed progress against the findings of the 2014 survey and the targets set out in the *Corporate Communications and Engagement Strategy*. Since then, significant external events have occurred with undoubted implications for UK bioscience, making it important to reach out once again to stakeholders and gauge their views on BBSRC, the work it does and to inform its future priorities.

1.2 Research aims and objectives

In 2018, BBSRC commissioned its third biennial stakeholder engagement research in order to:

- understand how BBSRC is perceived by its corporate stakeholder community
- gauge if there has been any shift in perceptions of, and attitudes towards, BBSRC since 2014
- measure BBSRC 's success in engaging with its stakeholders over the past four years
- measure BBSRC's success in delivering against its *Corporate Communications and Engagement Strategy*
- understand how stakeholders perceive BBSRC's role in a new funding landscape under the auspices of UK Research and Innovation⁶.

1.3 Approach, interpretation and limitations

1.3.1 Summary of approach

The 2018 stakeholder engagement research was undertaken via three main strands of fieldwork:

- An online survey of BBSRC's stakeholders (748 responses) – the highest of the three surveys to date)⁷
- 35 in-depth follow-up telephone interviews with a sample of stakeholders who responded to the survey
- Three focus group discussion forums.

BBSRC hosted the online survey and Pye Tait undertook all follow-up telephone interviews and focus group discussions independently and impartially on behalf of BBSRC. Pye Tait then undertook analysis and reporting of the results and evidence from all three stages of the fieldwork. This ensured an impartial approach to analysis and stakeholders' anonymity was preserved in line with the Data Protection Act 1998 and Market Research Society (MRS) Code of Conduct.

A detailed methodology is presented in Appendix 1.

⁵ BBSRC (2016) *Corporate Stakeholder Research*

⁶ From April 2018, the seven Research Councils, Innovate UK and Research England will come together under a new organisation, UK Research and Innovation, to provide a strong voice internationally on behalf of UK research.

⁷ The online survey was hosted by BBSRC and all analysis was undertaken independently and impartially by Pye Tait, ensuring the anonymity of respondents in line with the Data Protection Act 1998 and Market Research Society (MRS) Code of Conduct.

1.3.2 Interpretation and limitations

The survey's online methodology means it was self-selecting and quotas were not set on ensuring a particular number and percentage mix of responses per respondent group. Response volumes from government/policy stakeholders and NGOs are particularly small, meaning they should be treated with extra caution as they are less likely to be representative of the wider population of these organisations.

As in previous years, survey data have not been weighted. This is because the survey is based only on BBSRC's known population of stakeholders and does not factor in a potentially wider pool of individuals and organisations that operate in similar ways but are not known to BBSRC⁸.

If one were to assume that the 2,536 stakeholders emailed to participate in the online survey represented the total population of BBSRC's individual stakeholders, then the resulting overall margin of error from 748 completed survey submissions would be 3% at the 95% confidence level. In other words, the chances are that, 95 times in 100, the 'true' answers if 100% of stakeholders had responded, would fall within a range of 3% on either side of the attained values. Several factors combine to affect the margin of error as this applies to individual survey questions, notably the cross-tabulation of results by stakeholder group (to reveal similarities and differences by group) and the fact not all survey respondents answered all questions.

For certain key questions from the online survey, statistical significance testing has been performed. This means that, in addition to describing differences found in the sample via percentages and averages, the differences in distributions have been tested to assess whether they are due to chance or whether they represent meaningful differences between the groups.

More detail on the significance tests carried out for this research is set out in Appendix 1.

Finally, the qualitative evidence gathered through this research (i.e. from open-ended survey questions, telephone interviews and focus group discussions) is not designed to provide statistically reliable data on what participants as a whole are thinking. Such evidence is illustrative, exploratory and based on perceptions, to provide in-depth insight.

1.4 Profile of research participants

A breakdown of stakeholders participating in the online survey, telephone interviews and focus group discussions is shown in Table 1.

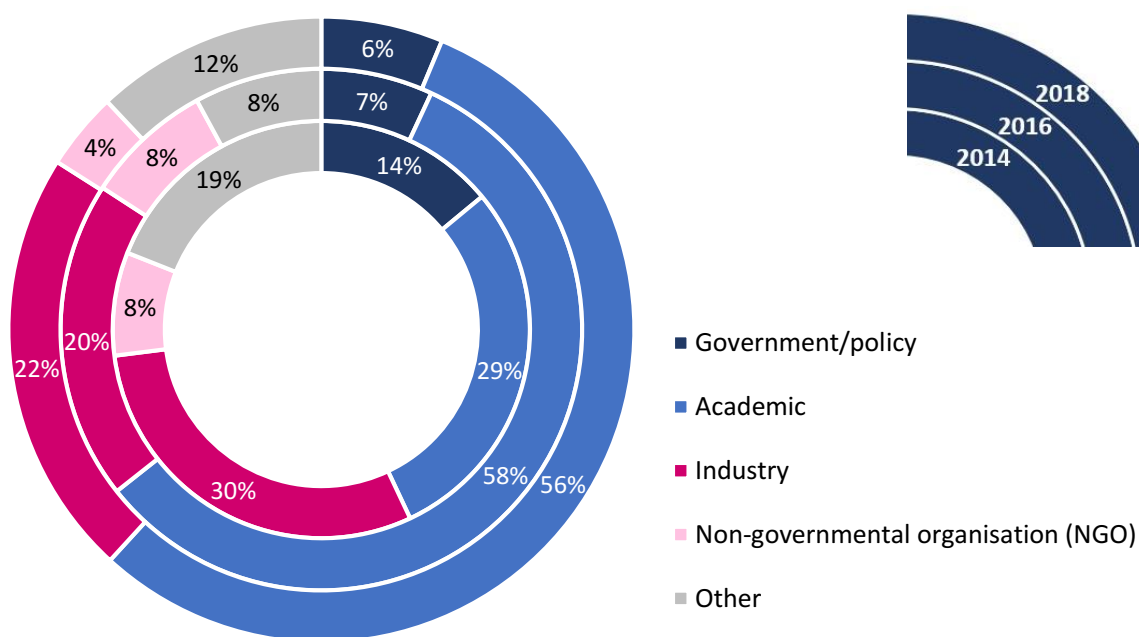
⁸ Where BBSRC has established a relationship with an organisation, there could be multiple individuals within that organisation with differing individual views about BBSRC, some of whom may not be known to BBSRC. Additionally, it is possible that some stakeholders will not have shared their email contact details with BBSRC, placing them into the wider unknown population.

Table 1 Participant numbers – by stakeholder group

Stakeholder group	Survey respondents	Telephone interviewees	Focus group participants
Academic	415	13	15
Industry	166	15	6
Government/policy	47	3	3
Non-governmental organisation (NGO) ⁹	30	4	1
Other	90	N/A	1
Total	748	35	26

The percentage mix of survey respondents achieved in 2018 – by stakeholder group – is very similar to 2016. There are slight increases in the proportion of industry and ‘other’ stakeholders, and slight decreases in the proportion of academic, government/policy and NGO stakeholders (Figure 1).

Figure 1 Online survey respondents – by stakeholder group



Base: 748 respondents

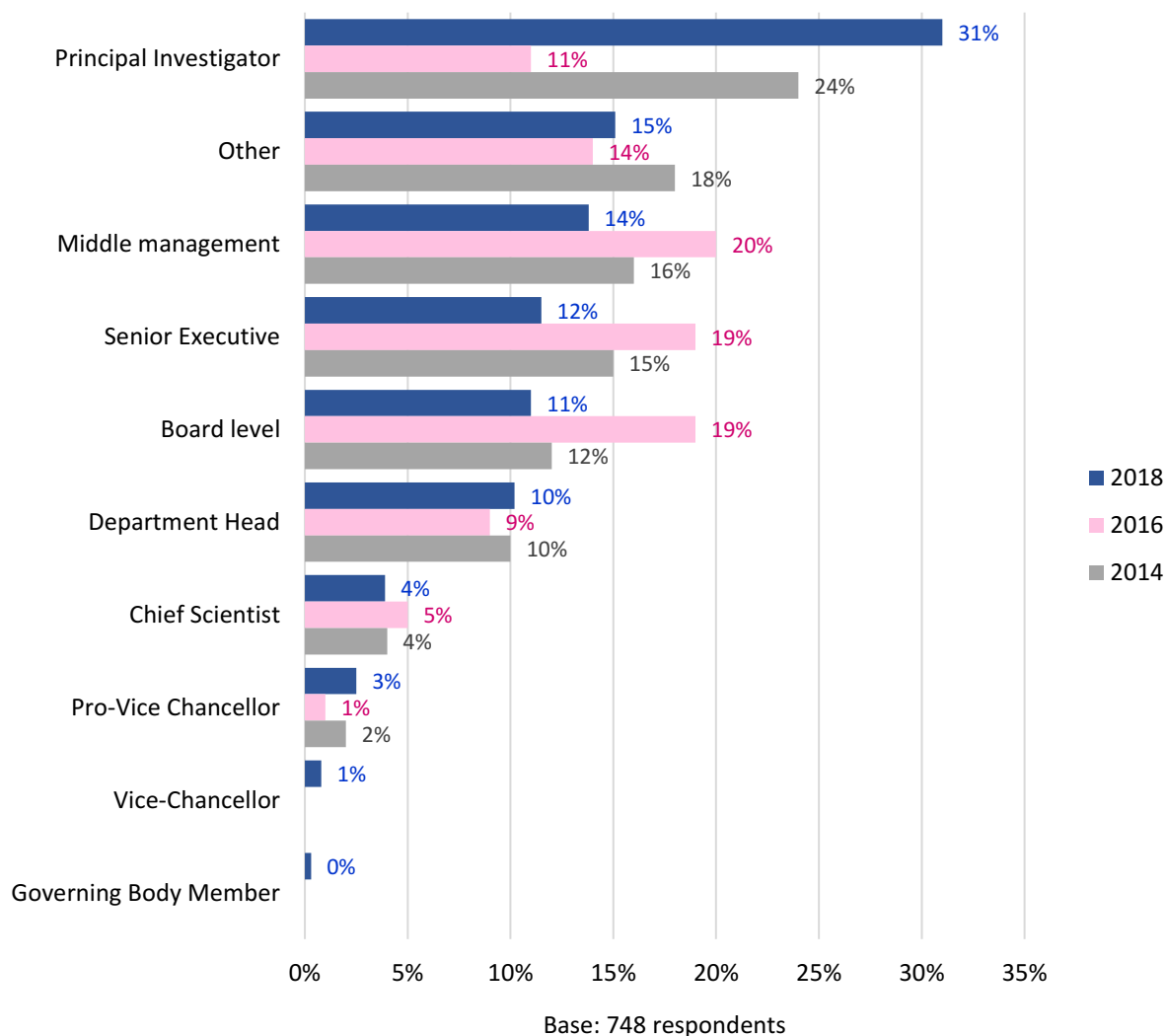
The five most common organisation types self-classified as ‘Other’ include:

- Non-departmental public body
- Research institute
- Charity
- Individual retiree
- Consultancy

⁹ A non-governmental organisation (NGO) is any non-profit, voluntary citizens' group which is organised on a local, national or international level.

The mix of survey respondents by job role is shown in Figure 2, with almost a third (31%) occupying the role of Principal Investigator. This marks a change from 2016 when the largest proportion of responses was received from individuals in middle management roles, and is therefore more in line with 2014 proportions.

Figure 2 Online survey respondents – by job role

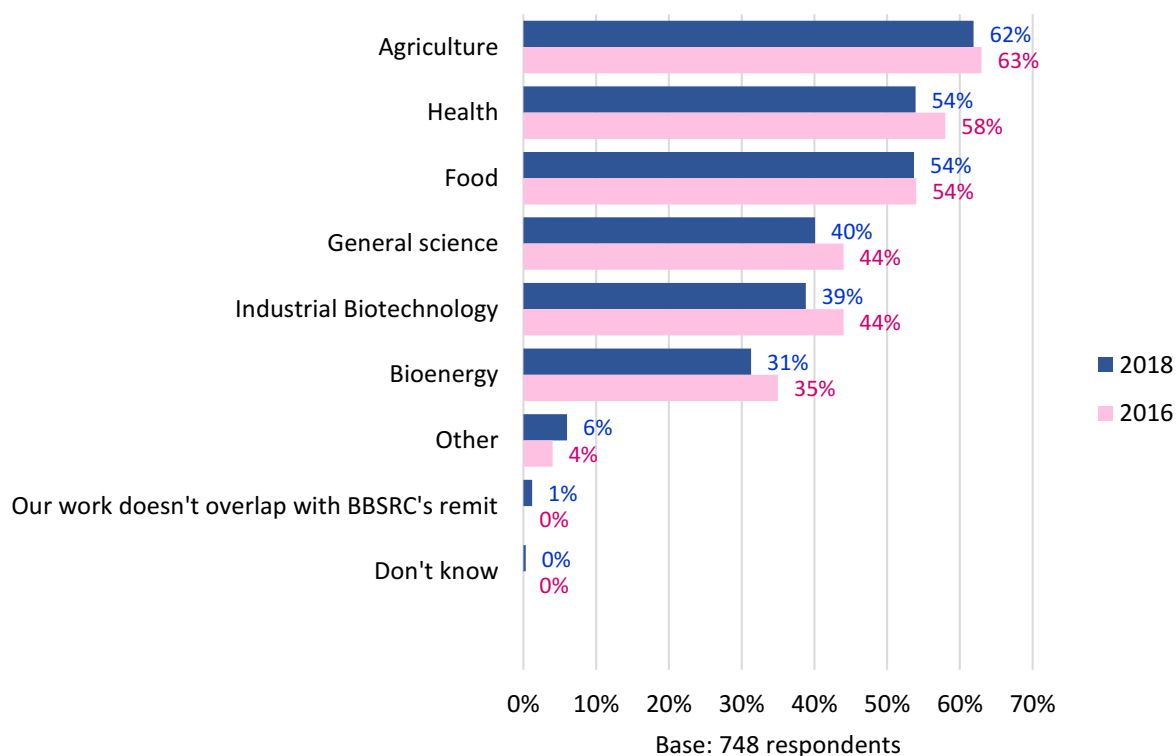


The five most common roles self-classified as ‘Other’ include:

- (Post-doctoral) Researcher
- (Emeritus) Professor/Fellow
- Retired
- Consultant
- Policy Manager/Analyst.

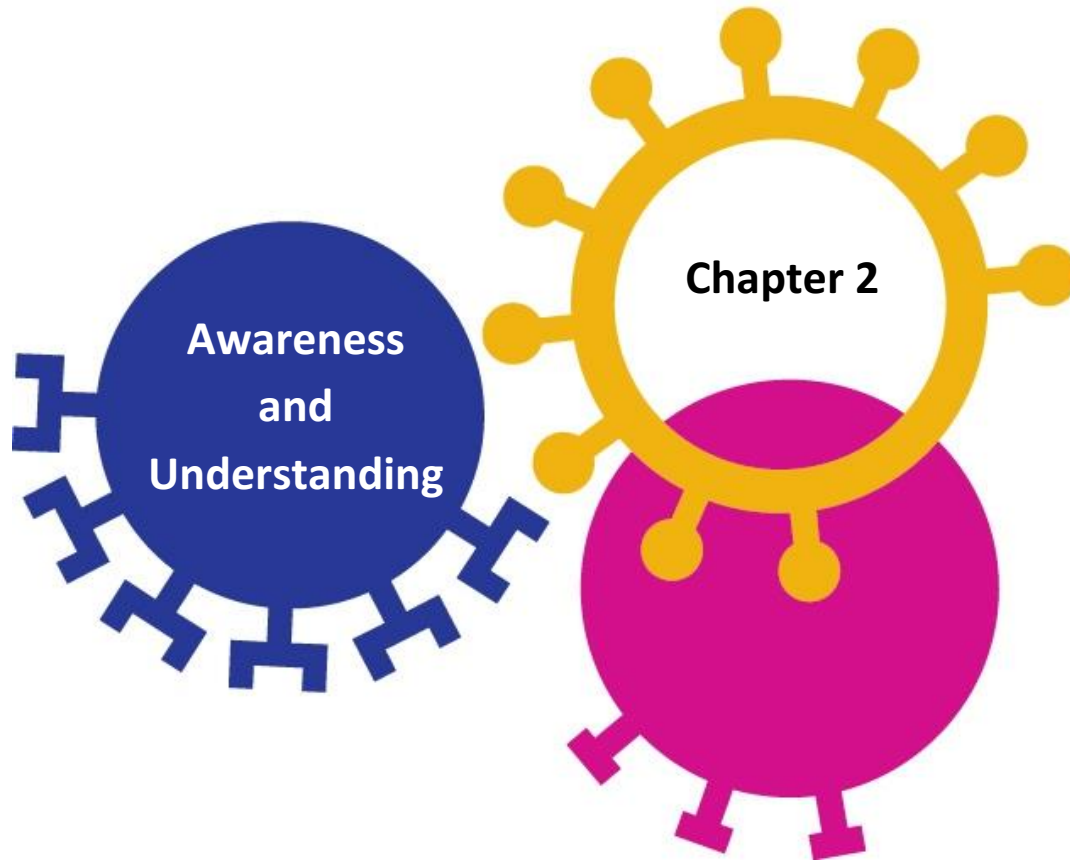
The mix of surveyed stakeholders by area of work is shown in Figure 3. This is similar to 2016, with almost two thirds involved in agriculture and more than half involved in health and/or food.

Figure 3 Online survey respondents – by area of work



A direct comparison with 2014 is not possible for this question due to changes in how specific areas of work have been defined. The 2014 responses were:

- Agriculture/food security: 65%
- General science: 56%
- Health: 52%
- Industrial biotechnology and bioenergy: 46%
- Our work doesn't overlap with BBSRC's remit: 1%
- Don't know: 1%
- Other: 9%.



This chapter explores stakeholders' overall familiarity with BBSRC, the areas of work they associate with BBSRC, and how well they feel BBSRC keeps them informed.

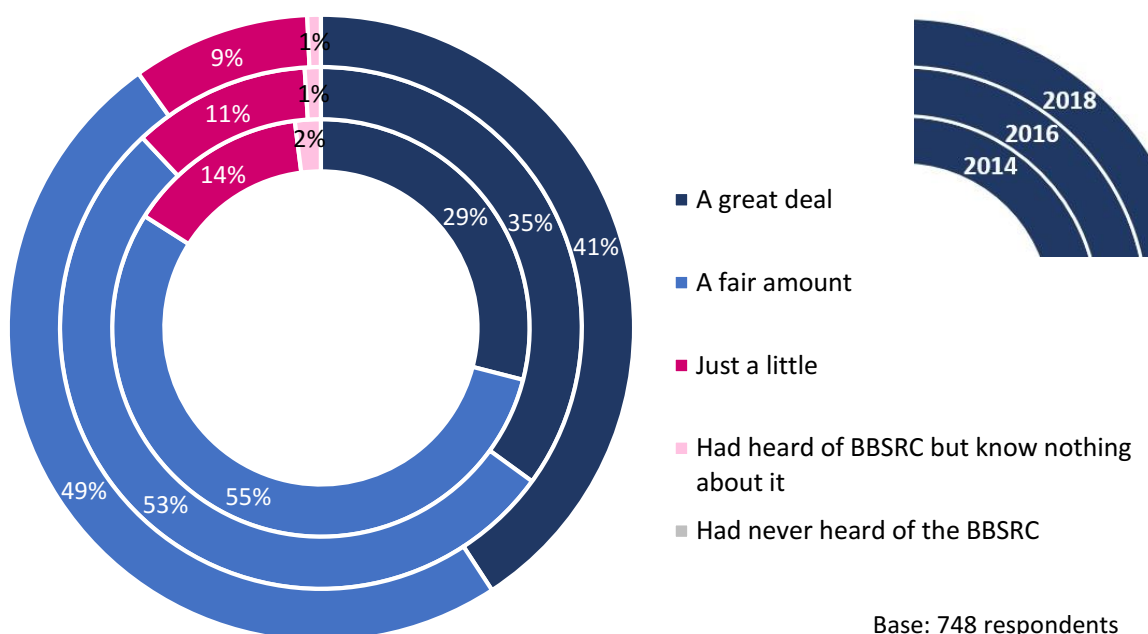
2.1 Familiarity

Stakeholders work and interact with BBSRC in many different ways, which can affect levels of familiarity and understanding of BBSRC’s role and work. Most academic stakeholders are experienced grant applicants and some are (or have been) members of Research Committees, Strategy Advisory Panels, or have acted as grant reviewers. Industry stakeholders tend to have a less direct relationship with BBSRC than academics, but some of those interviewed said that they have collaborated on funding proposals, benefited from studentships, and been members of Research Committees. Several mentioned being strategic stakeholders of BBSRC, thereby having two-way dialogue in relation to BBSRC’s strategic direction and helping to strengthen understanding.

For some stakeholders, collaborations with BBSRC have become stronger over the past two years, while for others, interactions have remained largely the same, but perhaps focusing on different topics of interest. Some said that engagement has become more rare or distant, for example due to movement of staff and previously known contacts at BBSRC. Changes to stakeholders’ own roles, for example moving in and out of a Research Committee role, can also change the level and frequency of interactions and being able to keep up to date with emerging priorities.

Almost all stakeholders surveyed for this research (90%) said that they knew a great deal or a fair amount about BBSRC prior to completing the survey. This is a slight increase from 88% in 2016 and 84% in 2014, indicating that BBSRC’s work to improve awareness and raise its profile among stakeholders has reaped successful results (Figure 4).

Figure 4 Prior knowledge of BBSRC



Knowledge of BBSRC is highest among academics (98%) and NGOs (90%) and comparatively lower among industry (76%) and government/policy stakeholders (79%). Greatest gains have been made among NGOs, with an increase of 16% becoming knowledgeable about BBSRC since 2016 (Table 2).

Table 2 Prior knowledge of BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	166	47	30
A great deal/a fair amount	98%	76%	79%	90%
	(+4)	(-2)	(-6)	(+16)

NB: Figures in brackets in this and subsequent tables denote the percentage-point change since 2016. Green denotes an increase (+) to a favourable variable or a decrease (-) to an unfavourable variable. Red denotes the opposite. Orange denotes either 'no change' or an increase/decrease to a neutral variable, e.g. 'don't know' or 'neither agree nor disagree'.

Stakeholders suggest various mechanisms which they believe could strengthen their understanding of BBSRC even further, notably:

- better awareness of BBSRC's strategy, the challenges BBSRC faces, and how and why these are important to different stakeholder groups
- opportunities to work more closely and strategically with BBSRC, to improve understanding of shared goals and promote mutually beneficial outcomes
- ensuring continuity of understanding about BBSRC, where changes in senior managers within stakeholder organisations can lead to knowledge gaps about BBSRC
- more targeted and tailored engagement and communication strategies that speak to different types of stakeholders on their level and about matters relevant to them
- stronger outward communications from BBSRC to industry and the general public, to raise awareness of new developments in bioscience, stimulate debate and raise BBSRC's profile
- cultivating a reputation for being inclusive of all stakeholders and responsive to differing needs and priorities.

"Working with BBSRC has been very useful in understanding better how the organisation functions, what can and cannot be achieved collectively and being able to speak to individuals in the organisation to get clarity on issues."

Other stakeholder

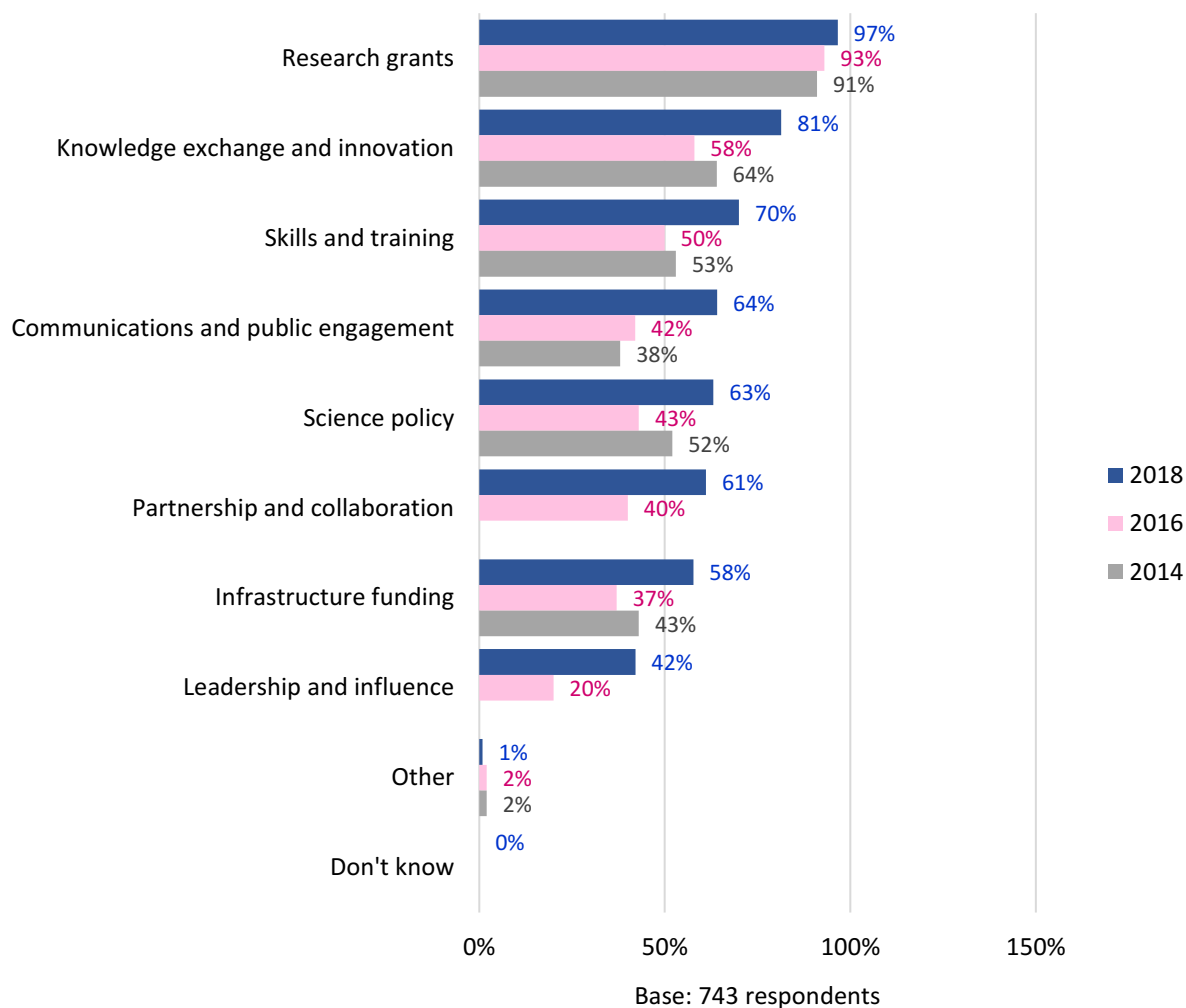
2.2 Associations

Based on a list with nine options, stakeholders were asked which areas of work they associate with BBSRC. On average, respondents selected five answers, with the most to least common following a similar pattern to previous years (Figure 5).

In 2018, almost all stakeholders (97%) associate BBSRC with research grants, followed by knowledge exchange and innovation (81%) and skills and training (70%). They identify least with BBSRC having a leadership and influence role (42%) although this has more than doubled from 20% in 2016 and is discussed in more detail later in this section.

There are gains on previous years in the percentage of respondents associating BBSRC with all eight main areas of work. The largest gain between 2016 and 2018 is in relation to knowledge exchange and innovation (+23%).

Figure 5 Areas of work associated with BBSRC



Analysis by stakeholder group reveals that the majority of surveyed academics associate BBSRC with all listed areas of work, with the exception of leadership and influence. This group associates BBSRC with skills and training to a considerably greater extent than other groups with 82% of academics stating this option, compared with 66% of government/policy stakeholder, 63% of NGOs and 51% of industry stakeholders. Industry stakeholders identify with BBSRC to a lesser extent than academics in relation to all areas of work (Table 3).

Table 3 Areas of work associated with BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Research grants	99%	94%	96%	90%
Knowledge exchange and innovation	82%	77%	89%	83%
Skills and training	80%	51%	66%	63%
Communications and public engagement	72%	44%	55%	60%
Science policy	66%	57%	41%	67%
Infrastructure funding	65%	42%	50%	57%
Partnership/collaboration	62%	55%	77%	43%
Leadership and influence	48%	26%	48%	30%
Other	1%	1%	0%	0%
Don't know	0%	0%	0%	0%

On the topic of leadership and influence, stakeholders feel that BBSRC has provided a strong voice for bioscience and become more innovative in recent years, for example through asserting a greater focus on impact and strengthening doctoral training programmes. Stakeholders have found BBSRC to be open to new ideas and innovative methods for tackling a wide variety of bioscience topics and not being afraid of those which may be seen as controversial but where more research is needed. To that end, stakeholders are keen that BBSRC operates as effectively and autonomously going forward under UK Research and Innovation as it has in the past (explored further in chapter 7).

However, a minority refer to a lack of strategic leadership within BBSRC aimed at identifying well-resourced and integrated approaches to the delivery of sought-after outcomes of national and international significance. As a primary research funder, they feel that BBSRC could do more to corral others and set a clear agenda, rather than being primarily responsive to researchers.

Stakeholders' perceptions of BBSRC's leadership can also be affected by how clearly they see the organisation asserting its role in response to change, for example one government/policy stakeholder observed that, with respect to technology transfer, it has become difficult to establish a clear distinction between the role of BBSRC and that of Innovate UK. Finally, a small number observed that some panels could benefit from a more diverse range of voices (especially where

employer representation is limited) meaning that BBSRC’s role as an influencer risks being too heavily steered by “familiar faces”.

“BBSRC could ensure continued leadership by further extending its working relationships with other Research Councils and international partners through interdisciplinary science.”

Academic stakeholder

“Many of the biggest challenges facing the world require a truly multi-disciplinary approach and I would encourage BBSRC to work within UK Research and Innovation to support cross-council doctoral and postdoctoral training initiatives that could enhance the ability of the next generation of researchers to work collaboratively across disciplines to tackle these challenges.”

Academic stakeholder

2 3 Keeping stakeholders informed

More than three quarters of surveyed stakeholders (79%) feel that BBSRC keeps them very or fairly well informed about its work, which has grown from 74% in 2016 and 73% in 2014 (Figure 6). This is highest among academics (87%) compared with 66% of industry stakeholders and 64% of government /policy stakeholders – a significant difference. Greatest gains since 2016 have been made among NGOs (an increase of 23% feeling well informed - Table 4).

Figure 6 How well BBSRC keeps stakeholders informed

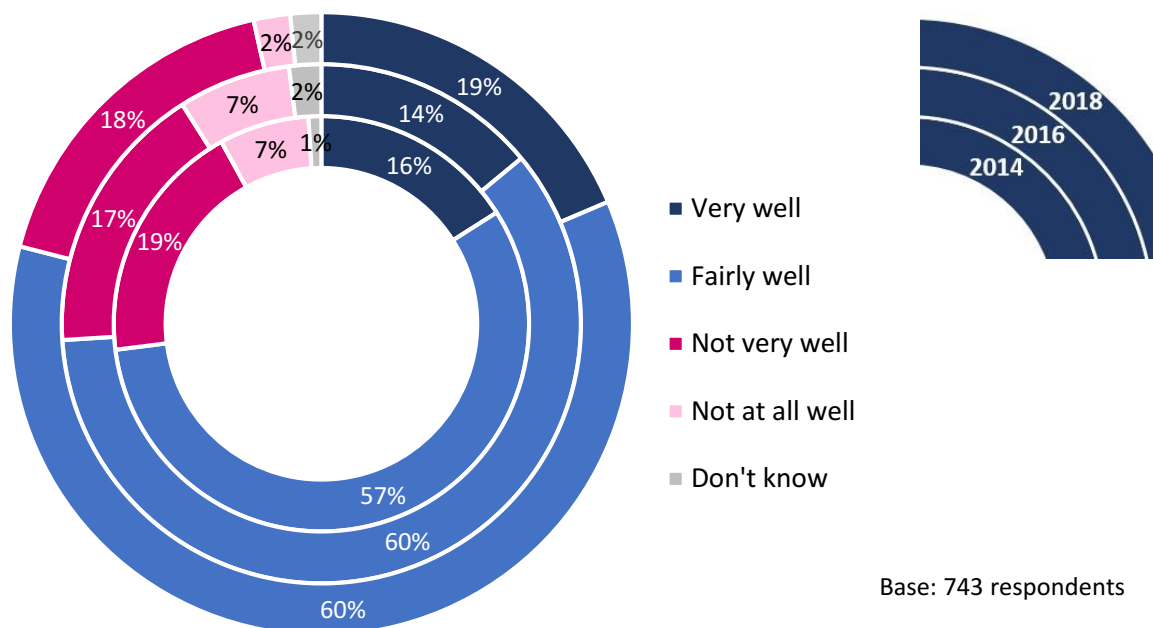
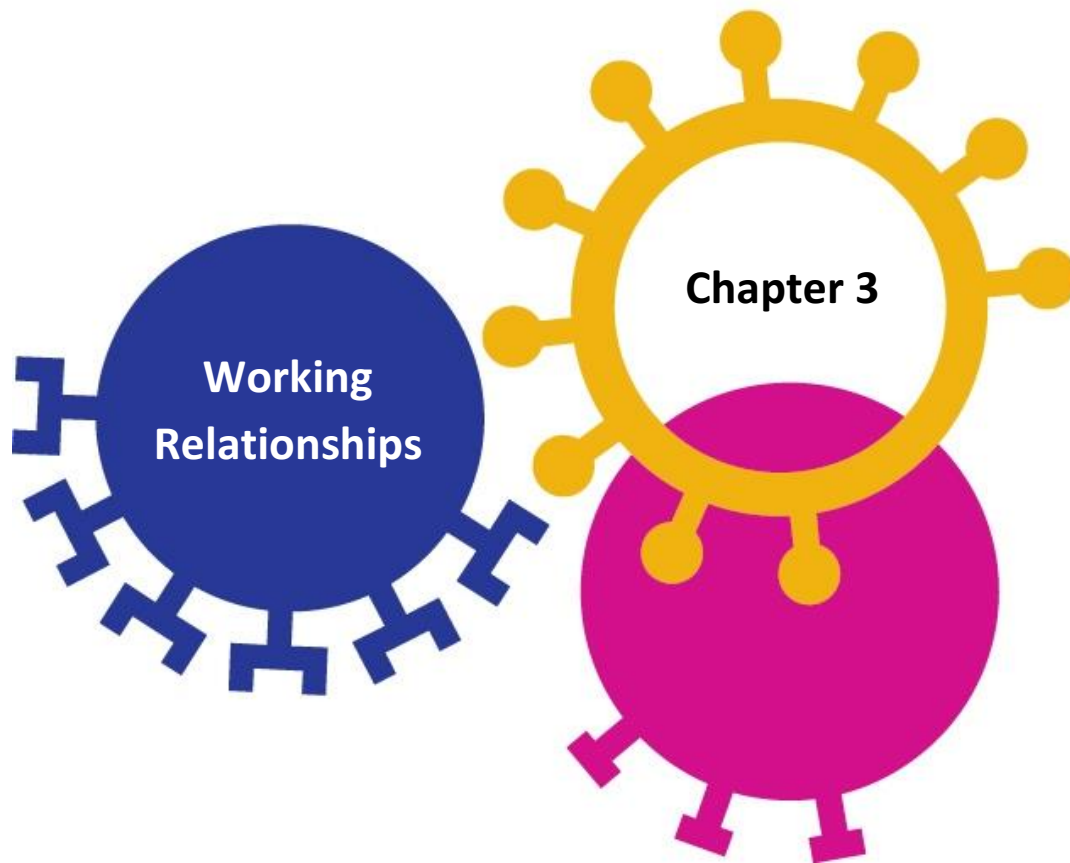


Table 4 How well BBSRC keeps stakeholders informed (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Well informed	87%	66%	64%	77%
	(+8)	(-3)	(+2)	(+23)
Not well informed	13%	32%	32%	20%
	(-6)	(+2)	(-2)	(-21)
Don't know	1%	2%	5%	3%
	(0)	(+1)	(+5)	(-2)

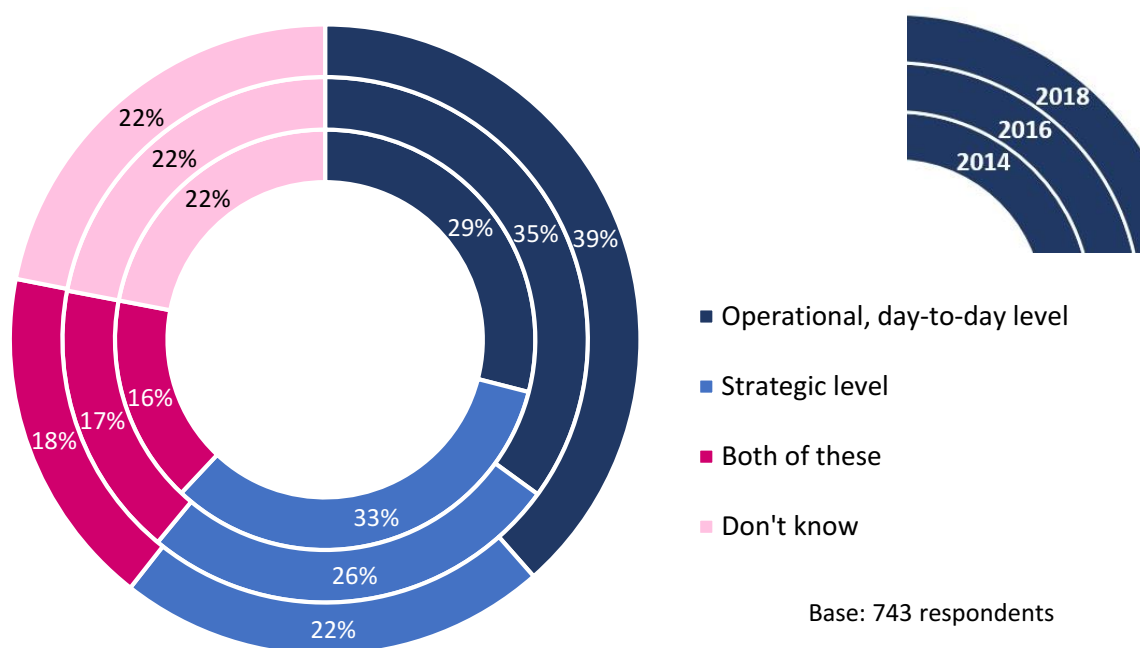


This chapter examines how stakeholders work with BBSRC, how easy or difficult this is, and how working relationships with BBSRC could be strengthened or improved. It discusses BBSRC's strengths, collaboration opportunities, and how BBSRC adds value to stakeholders' own organisations.

3.1 Nature and ease of working relationships

Stakeholders work with BBSRC in a variety of ways. Some engage with BBSRC at a strategic level, others at an operational, day-to-day level, and some at both levels. Since 2014, there has been an increase of 10% in the proportion saying that they work with BBSRC at an operational level, for example sitting on committees and reviewing grant applications. In comparison, the proportion working at a strategic level has decreased by 11% over the same period (Figure 7).

Figure 7 Level of working relationship with BBSRC



Government/policy stakeholders appear to have formed the most strategic relationships with BBSRC, while academics have more operational working relationship (Table 5). More than a third of industry stakeholders (36%) and just under half of NGOs (43%) have been unable to define their level of interaction with BBSRC, suggesting that they would benefit from further information and guidance from BBSRC on how they are viewed and positioned as stakeholder organisations.

Table 5 Level of working relationship with BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Strategic level	15%	25%	57%	23%
Operational level	53%	26%	11%	23%
Both of these	18%	14%	21%	10%
Don't know	15%	36%	11%	43%

“I find BBSRC approachable. They like to foster one on one relationships and I can often talk to a specific individual. They try to be as fair and reasonable as possible.”

Academic stakeholder

“BBSRC is a very good vehicle for catalysing and promoting bioscience in the UK. They do well at bringing together industry and academia, especially as it can be hard for small companies to get involved with universities without a support network and framework in which to operate.”

Industry stakeholder

The shift in balance over time from strategic to operational level contact appears to be due to a combination of factors. While many are pleased with the nature of their current relationship with BBSRC, several report decreasing levels of contact in recent years, especially strategic conversations with senior level staff, which is discussed in more detail in section 3.1. They put this down to BBSRC having suffered budget cuts and needing to scale back strategic level contact as a result. The shift may also be partly explained by an increase in the number of BBSRC’s stakeholders (see Table 27), more of which are working operationally rather than strategically with BBSRC.

“I find that with so many changes it is increasingly difficult to know who to approach and how to communicate with BBSRC. I now feel unable to approach them on anything relating to senior strategy.”

Government/policy stakeholder

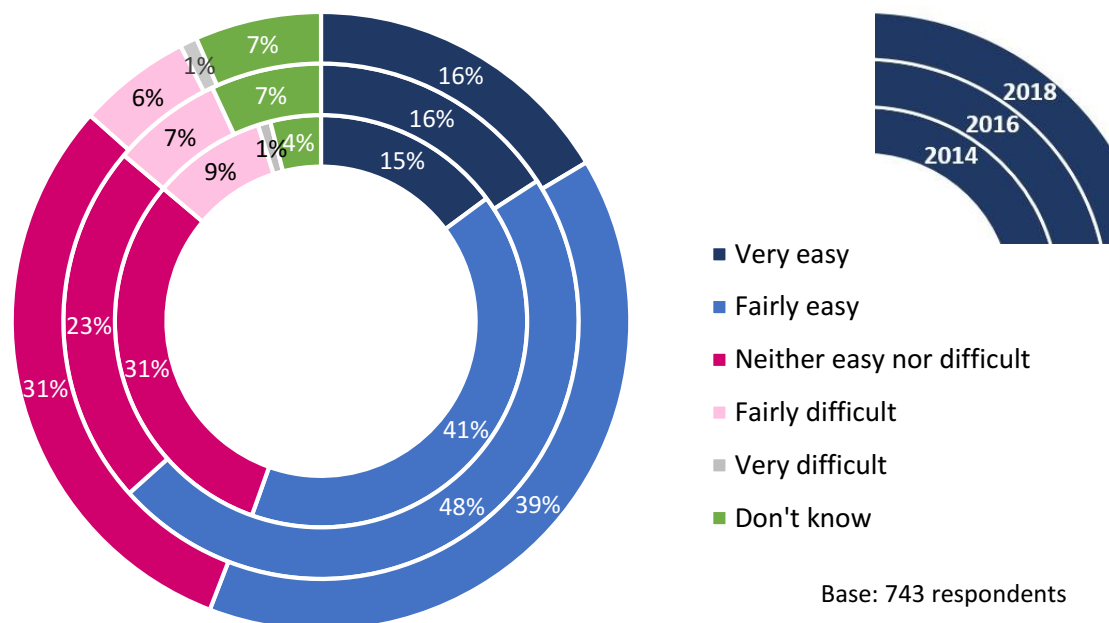
“I have formed the view that BBSRC is primarily concerned with its own academic research community and much less so with potential beneficiaries of research outcomes who are not within their traditional contact list.”

Government/policy stakeholder

Most surveyed stakeholders (55%) consider it very or fairly easy to work with BBSRC, whilst just 7% find it difficult (Figure 8). Ease of working primarily emerges through strong opportunities for collaboration and shared goals and values between BBSRC and stakeholder organisations. Ease of communication is also important and is discussed in more detail in chapter 4. Stakeholders generally recognise that BBSRC is about much more than funding and that it proactively seeks opportunities for partnership working.

The percentage of stakeholders describing BBSRC as easy to work with has dipped from 64% in 2016 and is now more on par with 2014 levels. There are a number of reasons that appear to have caused this change, notably reports from some stakeholders that they have less frequent contact with BBSRC than before, that they have more difficulty making contact with skilled and knowledgeable staff within BBSRC, and a view that BBSRC is not as flexible as it might be in terms of the research it chooses to fund. This latter point is discussed in more detail in sections 5.3 and 5.4.

Figure 8 Ease/difficulty of working with BBSRC



Two thirds of academics (66%) find it easy to work with BBSRC compared with 39% of industry, 48% of Government/policy stakeholders and 43% of NGOs. The difference between the views of academics and each of the three other key stakeholder groups is significant.

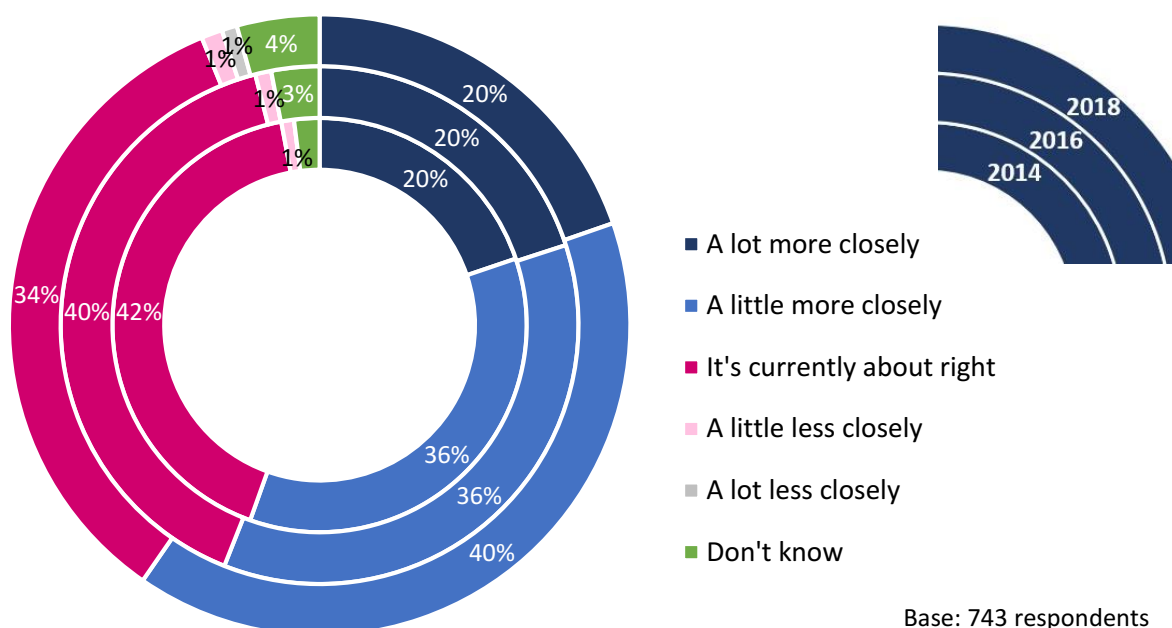
The percentage of industry stakeholders saying that BBSRC is easy to work with has fallen by 18% since 2016, with a corresponding shift to the middle zone of ‘neither easy nor difficult’ (Table 6).

Table 6 Ease/difficulty of working with BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Easy to work with	66%	39%	48%	43%
	(-2)	(-18)	(-5)	(-3)
Neither easy nor difficult	26%	42%	32%	33%
	(+5)	(+15)	(+16)	(+1)
Difficult to work with	5%	7%	11%	7%
	(-4)	(+2)	(+5)	(-1)
Don't know	3%	12%	9%	17%
	(+1)	(+1)	(-16)	(+3)

Most surveyed stakeholders (60%) would like to work more closely with BBSRC – a slight increase from 56% in both 2016 and 2014. A fifth would like to work “a lot more closely”, which is the same as in previous years (Figure 9).

Figure 9 Closeness of future working with BBSRC



Differences by stakeholder group are not significant, however, there has been a notable increase of 18% since 2016 in the proportion of industry stakeholders pressing to work more closely with BBSRC (Table 7). Issues behind this, as well as how BBSRC could be perceived as adding more value to stakeholders, are discussed in section 3.3 (Relationship Management) and 3.4 (Additional Value).

Additional analysis reveals that of the 9% of surveyed stakeholders who report only having limited overall familiarity with BBSRC, almost two thirds (67%) would like to work more closely with BBSRC.

Table 7 Closeness of future working with BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Would like to work more closely	59%	62%	64%	53%
	(+1)	(+18)	(+5)	(-12)
It's currently about right	36%	32%	30%	40%
	(-3)	(-17)	(-8)	(+5)
Would like to work less closely	2%	1%	2%	0%
	(+1)	(0)	(+2)	(0)
Don't know	3%	5%	5%	7%
	(+1)	(+1)	(+2)	(+7)

3.2 Strengthening working relationships

Stakeholders place strong value on having a close relationship with BBSRC, especially where they have the opportunity to influence BBSRC's direction. There is a general desire for more of this type of meaningful one-to-one and strategic engagement. It is felt that this would further boost confidence in BBSRC as a supportive partner, enhance trust, respect and better enable long term planning. Several stakeholders mentioned "frequent staff or role changes" at BBSRC which can sometimes be a barrier to forging strong and consistent relationships.

A small number of academics and NGOs say they would like greater input into BBSRC's strategic developments and to be kept better informed about BBSRC's priorities and emerging funding (including co-funding) opportunities so they can prepare and respond more effectively. Some academics would like the opportunity to sit on panels where they have not had the opportunity to do so before. More communication and consultation would also be welcomed on proposed funding initiatives, proposal procedures and reporting structures, for example through more guidance on the website and more accessible telephone support.

"Over the years we have evolved a stronger working relationship with BBSRC. This is mainly due to good and early communication of issues and both sides seeking effective solutions."

NGO stakeholder

"It would be nice to discuss grant ideas in more detail with BBSRC teams. I recently interacted with the Wellcome Trust for a grant application and I got much more detailed information and feedback to inform what I was planning to write, which turned out to be very helpful."

Academic stakeholder

"It would like it to be much easier to have early discussions about funding opportunities, grant remit enquiries, how we might successfully apply for funding, and post award use of funds. Currently it feels a bit 'us and them' with BBSRC, whereas it could be a more mutually beneficial partnership."

Academic stakeholder

Government/policy stakeholders echo the view of academics that they would like a more collaborative partnership and to be more closely involved with BBSRC through joint strategic discussions. Holding a greater number of strategic meetings is one suggestion for helping to exchange information and ideas in areas of mutual interest.

"BBSRC can be rigid in its approach to procedures... at present requests for information are met with a push back ("we don't normally do this"), which is in contrast to other partners who more readily engage with requests."

Government/policy stakeholder

Industry stakeholders tend to see BBSRC as being comparatively more supportive of academia and feel that, to ensure research has more tangible and meaningful benefits for industry, BBSRC should involve businesses more directly to inform its own strategic direction and funding priorities. To that end, stakeholders suggest that BBSRC works more closely with various sector and trade bodies, for example via workshops and conferences, regional industry-academic clusters and industry-led groups. They would welcome more newsletters tailored to businesses, including details of successfully-funded projects and their outcomes, including what this means in terms of industry benefits. Furthermore, by building connections with other funders such as the Agriculture Horticulture Development Board (AHDB), it is felt that shared goals would emerge, which would mobilise research efforts to greater gains and reduce fragmentation.

3.3 Additional value

Surveyed stakeholders were asked the extent to which they feel BBSRC adds value to their organisation on a scale from 1 'no value' to 10 'BBSRC is essential to their organisation'. A summary of results, compared with 2016 and 2014, are shown in Figure 10 and a breakdown by stakeholder group is presented in Table 8.

The majority of stakeholders (62%) gave a high rating of between 7 and 10 out of 10, which is a slight dip from 66% in 2016 but higher than 55% from 2014.

The overall mean rating is 7.1 out of 10, which is slightly lower than 7.4 in 2016 but higher than 6.7 in 2014. The most common answer (mode) is the perfect score of 10 out of 10.

The mean rating is highest among academics (8.3) followed by NGOs (5.9), government/policy stakeholders (5.8) and industry stakeholders (5.0). The mode is at least 7 out of 10 for each group, reaching 10 out of 10 among academics and NGOs.

The difference in the ratings of academics compared with each of the three other key stakeholder groups is significant.

Figure 10 Extent to which BBSRC adds value

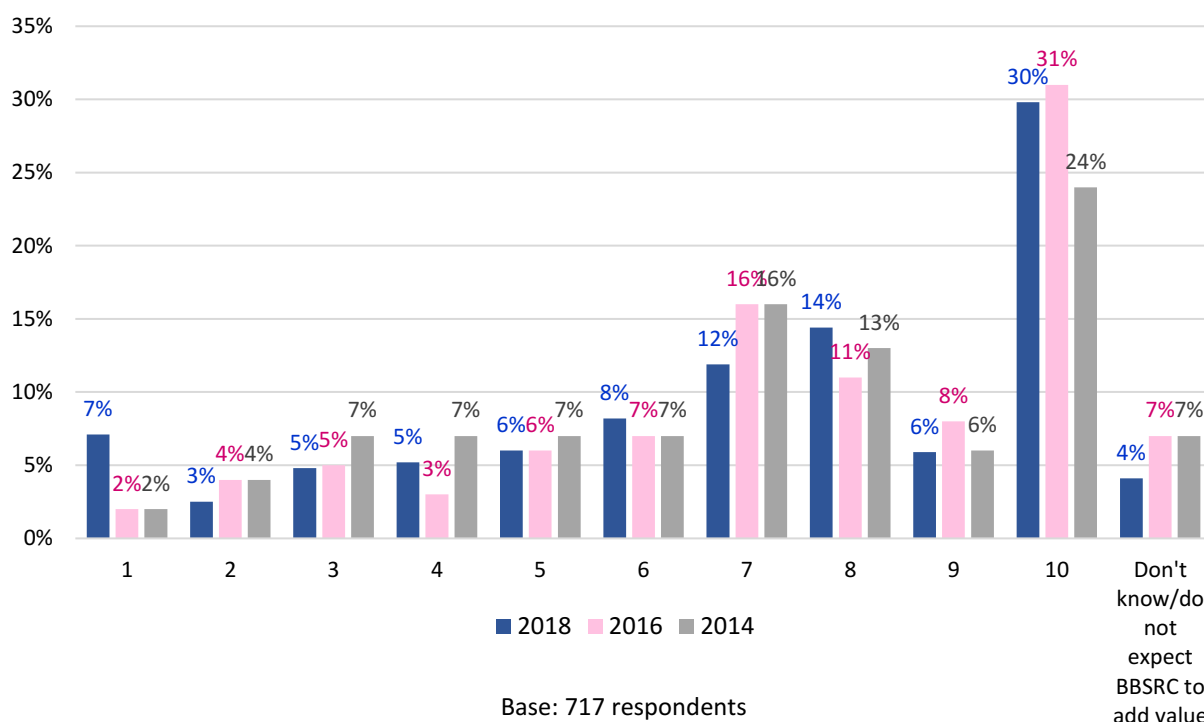
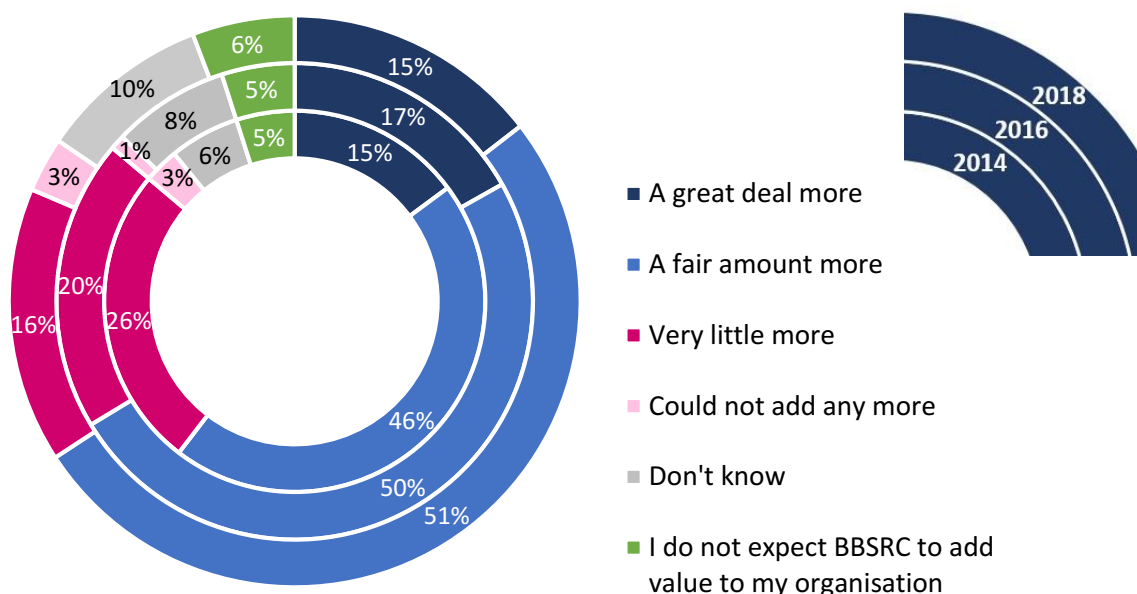


Table 8 Extent to which BBSRC adds value to stakeholders (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	405	154	42	30
Ratings of 7-10	83%	36%	43%	50%
Ratings of 4-6	12%	32%	36%	20%
Ratings of 1-3	5%	33%	21%	30%
Mean	8.3	5.0	5.8	5.9
Mode	10	7	8	10

Two thirds of stakeholders (66%) believe BBSRC could add either a great deal or a fair amount more value to their organisation in the future, which is on par with 2016 and higher than 61% in 2014 (Figure 11).

Figure 11 How much more value BBSRC could add to stakeholders



Base: 743 respondents

Almost three quarters of academic stakeholders (74%) feel that BBSRC could add more value to their organisation, compared with 56% of industry stakeholders and 50% of government/policy stakeholders. The difference in the results from academics compared with industry and government/policy stakeholders is significant (Table 9).

Table 9 How much more value BBSRC could add to stakeholders (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Could add more value	74%	56%	50%	57%
	(0)	(+4)	(-2)	(-2)
Could not add more value	17%	21%	23%	20%
	(-1)	(-3)	(+1)	(-4)
Do not expect BBSRC to add more value	1%	10%	14%	13%
	(-1)	(+1)	(+5)	(+2)
Don't know	8%	12%	14%	10%
	(+2)	(-3)	(+1)	(+5)

Stakeholders were asked for suggestions as to how BBSRC could add more value. The main message is a desire for BBSRC to enable and promote more collaborative research, including cross-disciplinary partnerships where there are shared goals.

“BBSRC should do more to promote opportunities for collaborative work at the interface between bioscience research and the physical and social sciences.”

Academic stakeholder

“Greater BBSRC engagement in collaborative partnering initiatives between industry and academia would help our company identify appropriate UK academic partners with key technologies, and where BBSRC funding can add value by taking some of the risk away for industry.”

Industry stakeholder

A number of academics commented that BBSRC already adds excellent value through its vital role as a key funder of UK bioscience research. For these stakeholders, gaining more value from BBSRC would need to involve BBSRC offering funding that is even more relevant to their own area of expertise, for example covering the relationship between food and health, food security or being more inclusive of all aspects of veterinary science. Industry respondents believe that BBSRC could add more value by linking more fundamental research programmes with identified industry needs as opposed to responding to the research interests of academics.

Other suggestions for ways in which BBSRC could add more value include:

- encouraging a more flexible portfolio of funded projects by size and length, rather than an observed tendency to fund projects of similar lengths and values
- being less risk averse in selecting projects in order to stimulate greater potential leaps in innovation, whilst at the same time exercising a high-quality review process
- being more proactive in helping to improve technology transfer and commercialisation of research outcomes
- pulling interest groups together on big topics, for example the impact of gene editing in different industry spaces such as medicine, food and agriculture
- investing more in longer term programmes that foster the development of enduring centres of excellence
- undertaking or offering more funding for PR initiatives to raise awareness of bioscience research outcomes, for example high-profile pieces in the media aimed at the general public and written in a language they can easily understand.

“BBSRC is essential to plant breeding innovation in the UK... Plant breeding companies would not be able to do more speculative R & D without the opportunity to participate in BBSRC initiatives and collaborative programmes.”

Industry stakeholder

“BBSRC should give serious consideration to schemes of a longer rather than shorter duration (up to five years), and develop more funding initiatives to support follow-on programmes that build on these investments.”

Academic stakeholder

Government/policy stakeholders would like to see an increase in the flow of knowledge and innovation from the academic sector to technical policy experts and feel that BBSRC should strengthen its engagement with Whitehall and be bolder in arguing for what it sees as priorities, backed up by evidence. NGOs feel that BBSRC should increase strategic and responsive mode funding; ensure the food and farming research agenda is inclusive, transparent and progressive; and engage more effectively in partnership working with the NGO sector.

3.4 Collaboration

Collaboration opportunities between academia and industry are highly valued by stakeholders, in particular the likes of Knowledge Transfer Partnerships (KTPs), Networks in Industrial Biotechnology and Bioenergy (NIBBs) and Catapults. Stakeholders would like BBSRC to help provide more of these types of opportunities, especially industry stakeholders who report that they sometimes encounter push-back from academic institutions that are less open to partnership working.

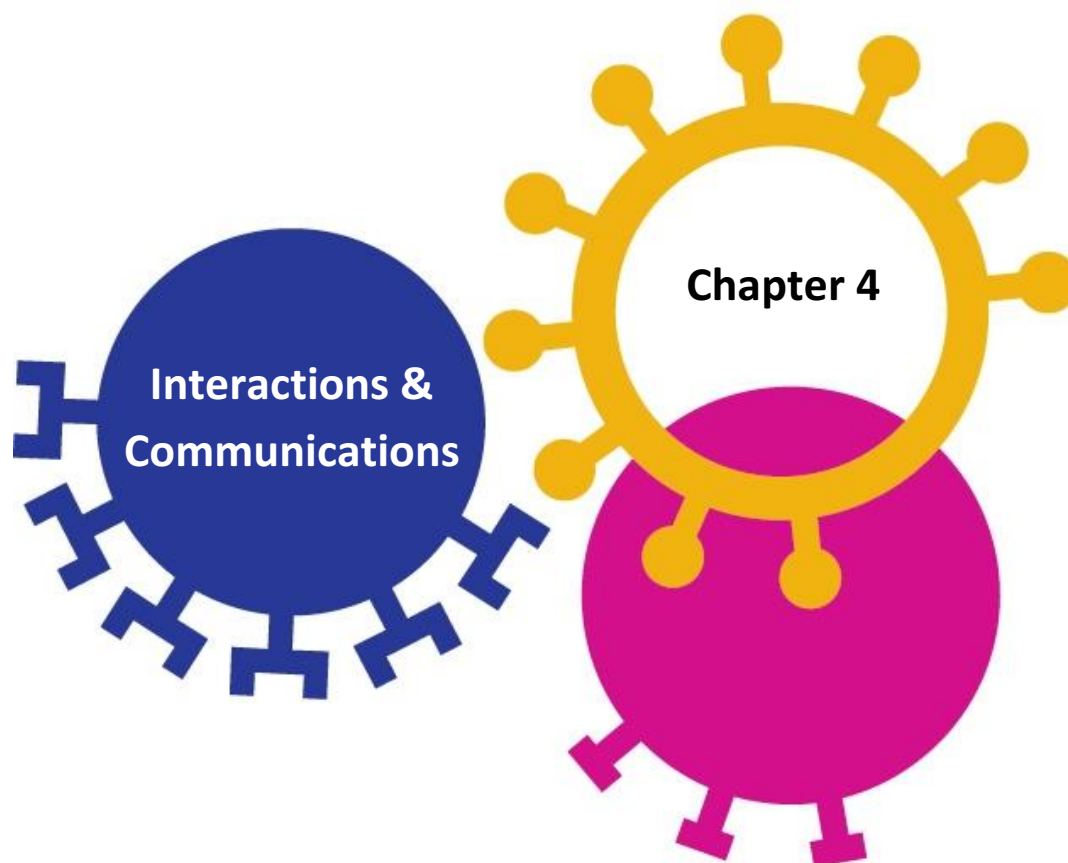
“I have been involved in a NIBB for more than two years and for a small amount of money it has been exceptionally successful. BBSRC really stimulates the community and sets the agenda for topics too so they’re really involved beyond just the funding of it. I have been very actively involved from the beginning and it has been great for our business.”

Industry stakeholder

“Agriculture is perhaps facing its greatest ever challenges, in productivity, environment, trade and profitability. This challenge we believe must be people-led. We must ensure we are prioritising the right research projects, that they are appropriate to farmers, applicable and effective. The key aspiration I suggest is hugely increased effort to collaborate, increase a common understanding of roles, and establish effective partnership through common language and engagement activities.”

Industry stakeholder

Participants in Edinburgh argued that consortiums are increasingly needed to tackle big subject areas, for example diseases which affect animal and human health, and that these networks need to be continuously nurtured and maintained. An industry participant at the London focus group observed that BBSRC should build stronger relationships with other science organisations such as the Royal Society of Chemistry – or at least promote that these relationships exist – and encourage stronger representation from industry on its committees, noting in particular the apparent absence of any major food businesses on its *Plants, microbes, food and sustainability* committee.



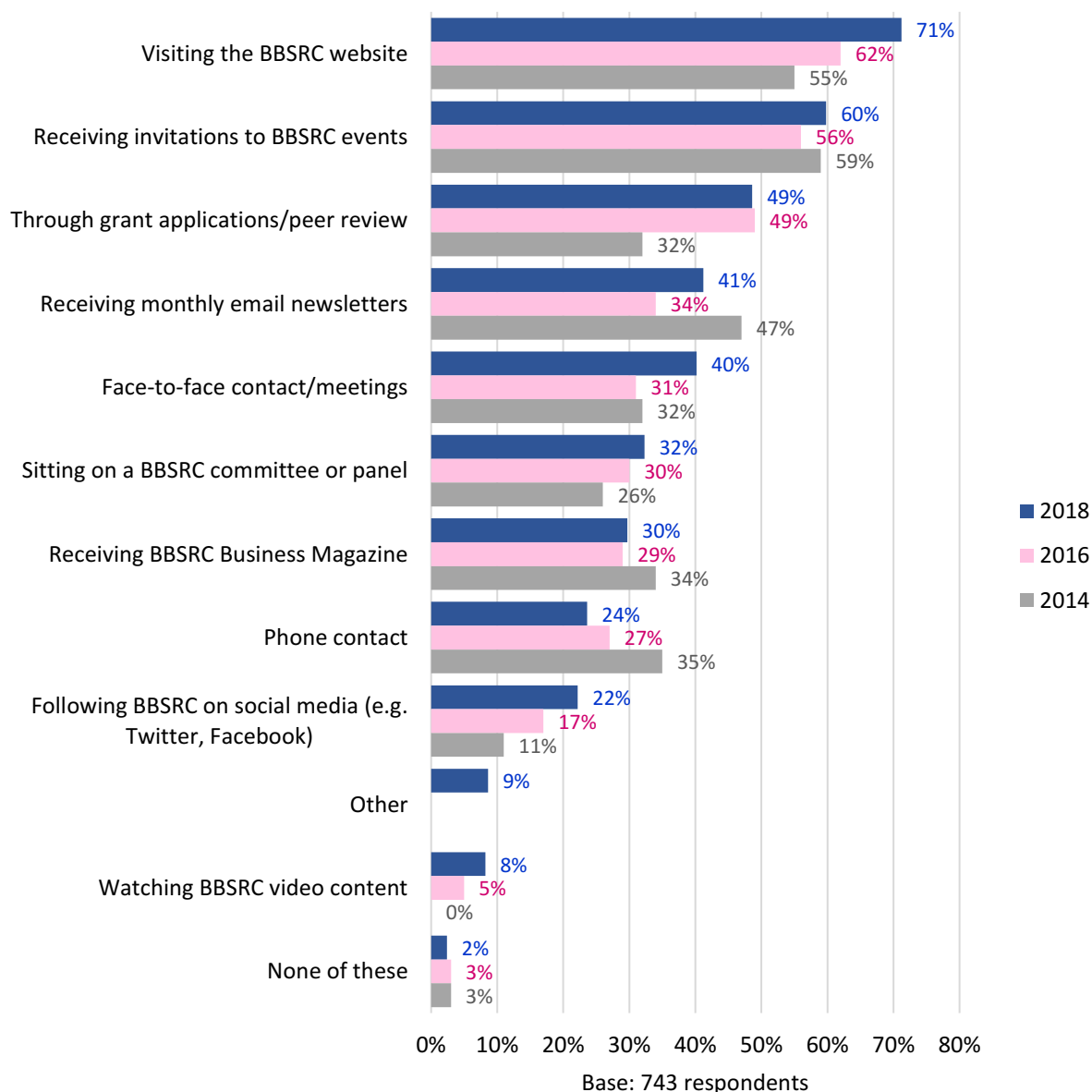
In this chapter, the methods and frequency by which stakeholders interact with BBSRC are revealed. Also discussed are the perceived effectiveness, sufficiency and quality of BBSRC's communications and how stakeholders believe their interactions with BBSRC could be improved in the future.

4.1 Methods and frequency of interactions

Stakeholders interact with BBSRC in a variety of ways, with the majority using BBSRC’s website (71%) and receiving invitations to BBSRC events (60%). Other common methods of interaction include the grant application/peer review process (49%) and receiving monthly newsletters (41%).

The percentage of stakeholders interacting in all of these ways has increased since 2016, with the exception of phone contact, which has reduced from 35% in 2014, to 27% in 2016 and subsequently 24% in 2018 (Figure 12).

Figure 12 Methods of interaction with BBSRC



The most common channels of interaction self-classified as 'Other' include emails and interacting with known contacts, for example at meetings, by telephone, via LinkedIn or informally.

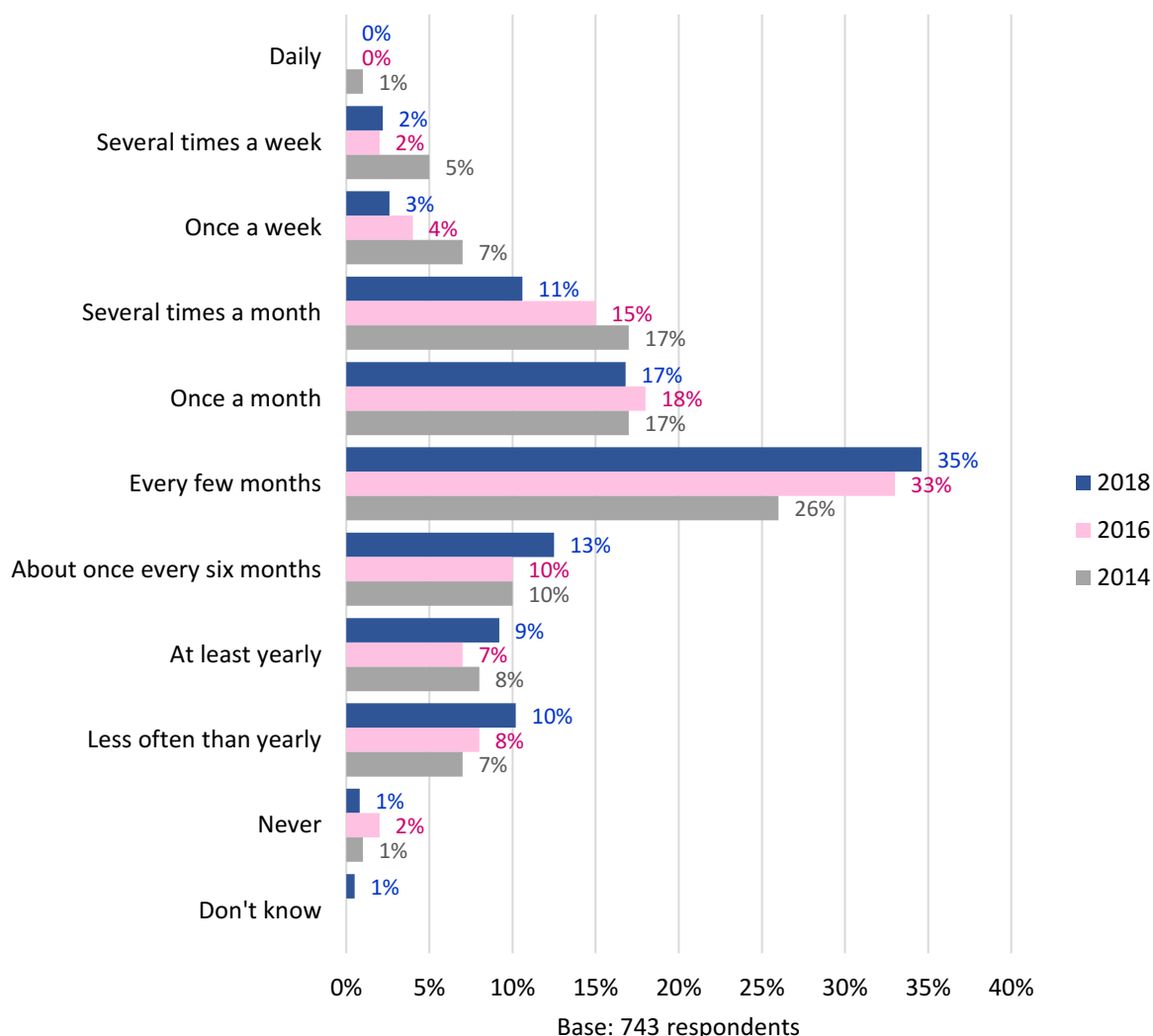
Academic stakeholders responding to the survey are the most frequent users of BBSRC's website (85%), which is markedly different from industry and government/policy stakeholders, among whom less than half use the website. The most common method by which industry stakeholders interact with BBSRC is through invitations to events, while government/policy stakeholders most commonly engage with BBSRC through face-to-face meetings (Table 10).

Table 10 Nature of interactions with BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Visiting the BBSRC website	85%	47%	48%	77%
Through grant applications/peer review	69%	26%	14%	20%
Receiving invitations to BBSRC events	61%	62%	55%	47%
Receiving monthly email newsletters	45%	36%	32%	37%
Face-to-face contact/meetings	40%	33%	59%	33%
Sitting on a BBSRC committee or panel	39%	26%	16%	20%
Receiving BBSRC Business Magazine	33%	26%	14%	23%
Following BBSRC on social media	27%	13%	18%	13%
Phone contact	26%	15%	30%	17%
Watching BBSRC video content	12%	2%	2%	7%
Other	4%	9%	23%	23%
None of these	1%	6%	7%	0%

Frequency of interactions with BBSRC appears to have decreased over recent years, with exactly one third of surveyed stakeholders interacting at least monthly in 2018, compared with 39% in 2016 and 47% in 2014 (Figure 13).

Figure 13 Frequency of interactions with BBSRC



Surveyed government/policy stakeholders interact with BBSRC most frequently (39% at least monthly), followed by academics (38%), industry stakeholders (23%) and NGOs (19%). A fifth of industry stakeholders say that they interact with BBSRC less often than yearly or never (Table 11).

Additional analysis reveals that of the 9% of surveyed stakeholders who report having limited overall familiarity with BBSRC, more than a third (38%) interact with BBSRC less than yearly.

Table 11 Frequency of interactions with BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Daily	0%	0%	0%	0%
	(-1)	(0)	(0)	(0)
Several times a week	2%	1%	5%	3%
	(0)	(-2)	(+2)	(+3)
Once a week	3%	1%	0%	3%
	(-1)	(-2)	(-3)	(+3)
Several times a month	12%	7%	18%	3%
	(-3)	(-3)	(-1)	(-11)
Once a month	21%	10%	16%	10%
	(0)	(-4)	(-3)	(+5)
Every few months	37%	31%	25%	40%
	(+3)	(-3)	(+6)	(+2)
About once every six months	11%	15%	7%	13%
	(+2)	(0)	(+1)	(+2)
At least yearly	8%	15%	14%	10%
	(+1)	(+9)	(+5)	(+1)
Less often than yearly	7%	19%	14%	10%
	(+2)	(+5)	(-5)	(-9)
Never	0%	1%	0%	3%
	(-1)	(-4)	(0)	(+3)
Don't know	0%	0%	2%	3%
	N/A	N/A	N/A	N/A

These findings suggest that BBSRC could better engage stakeholders through more frequent and tailored communications. This would inevitably help to boost awareness and understanding of BBSRC's role and work among different stakeholder groups, and encourage those stakeholders to feel that BBSRC has an open door to all (and not just academics as a minority mentioned). Further evidence to substantiate this argument is set out in the remainder of this chapter.

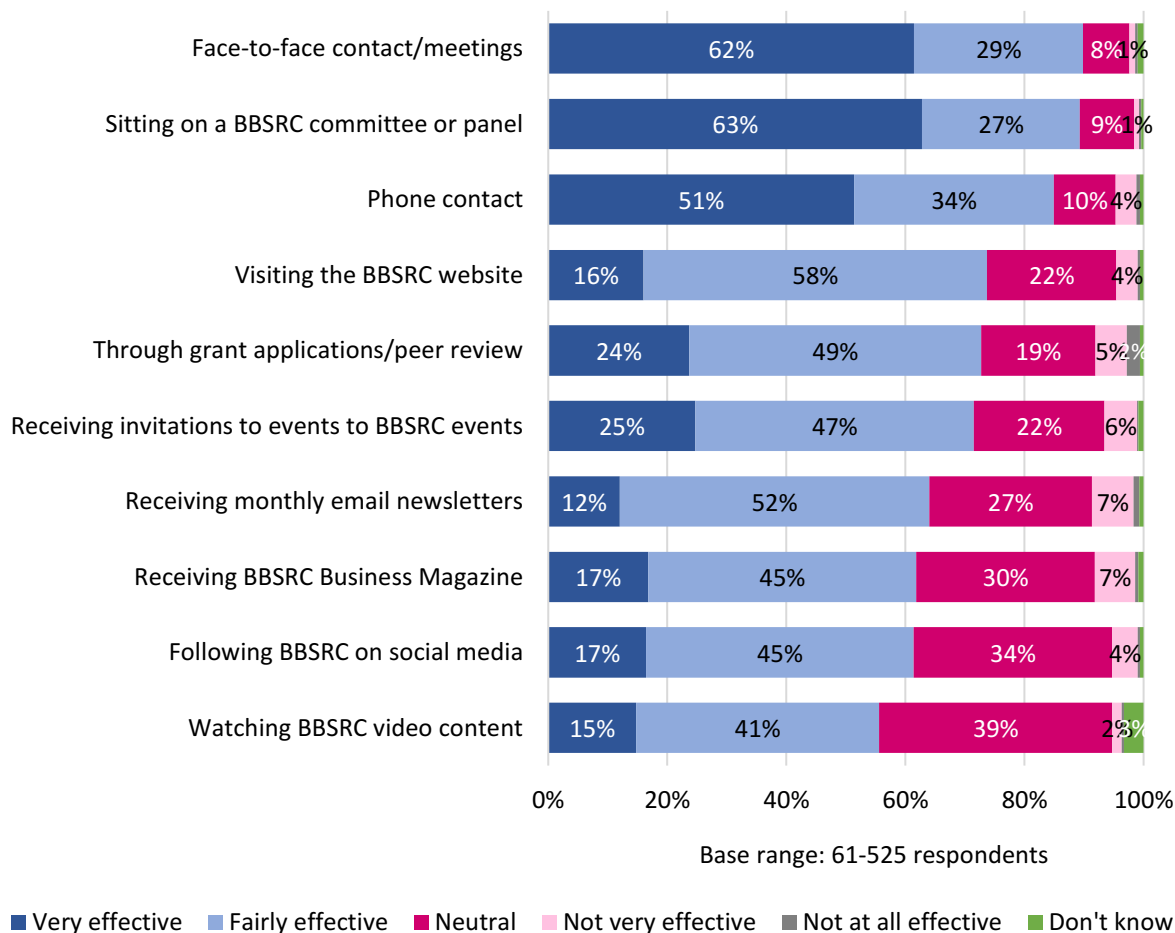
4.2 Effectiveness of interactions

The majority of stakeholders consider all forms of interaction with BBSRC to be generally effective (Figure 14), however, it is interesting to note that the most frequently used methods of interaction from Figure 12 are not necessarily seen as the most effective.

Stakeholders consider face to face contact to be the most effective mode of interaction (91% of this view), despite only 40% overall saying that they interact with BBSRC in this way. This ties-in with a desire among most surveyed stakeholders for closer working with BBSRC. Other modes of

interaction perceived as particularly effective include sitting on BBSRC committees or panels (90% describing these as effective) followed by phone contact (85% of the view this is effective).

Figure 14 Effectiveness of interactions with BBSRC

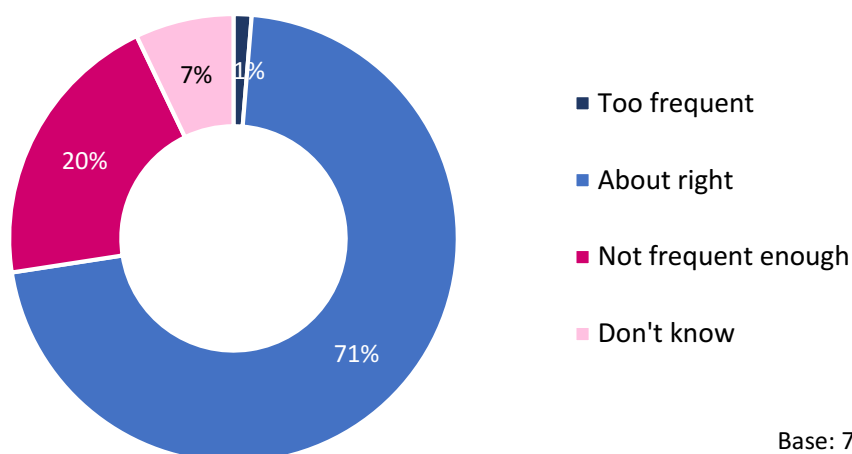


4.3 Sufficiency and quality of communications

The majority of surveyed stakeholders (71%) consider the frequency of communications they receive from BBSRC to be 'about right' and a fifth say they are not frequent enough (Figure 15).

Figure 15 Frequency of communications from BBSRC

New question for 2018



Base: 743 respondents

Satisfaction with the frequency of communications is highest among academics (77% saying about right). Whilst the difference between academics and industry stakeholders is significant, respondents are generally pleased, with more than 60% saying ‘about right’ across the various groups (Figure 12).

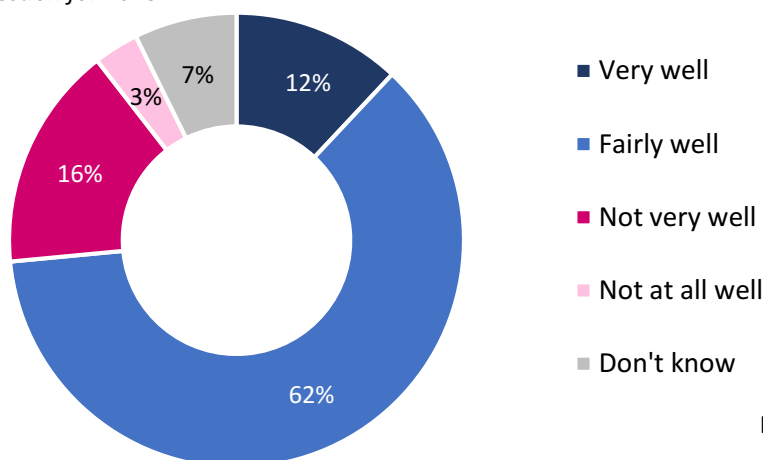
Table 12 Frequency of communications from BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Too frequent	1%	1%	2%	0%
About right	77%	63%	61%	67%
Not frequent enough	17%	25%	23%	27%
Don't know	5%	12%	14%	7%

Overall, almost three quarters of stakeholders (74%) believe BBSRC communicates very or fairly well with their organisation, with just under a fifth (19%) of the opposite view (Figure 16).

Figure 16 How well BBSRC communicates

New question for 2018



Base: 743 respondents

A high proportion of academics (80%) say that BBSRC communicates well, compared with 63% of industry and 64% of government/policy stakeholders. The difference between the views of academics and each of these two other stakeholder groups is significant (Table 13).

Table 13 How well BBSRC communicates (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Very well	15%	7%	9%	7%
Fairly well	65%	56%	55%	60%
Not very well	12%	25%	18%	13%
Not at all well	1%	7%	5%	7%

4.4 How interactions could be improved

When asked how interactions with BBSRC could be improved, the findings reveal a mixed picture. Some stakeholders appear to have ample opportunity to engage with senior level staff within BBSRC and are very happy with the status quo. Others feel they lack that opportunity and are keen to engage more closely with BBSRC and in a more strategic way. This, they feel, would help them to better understand BBSRC’s strategic priorities, especially in relation to upcoming funding calls. A minority recognise that the onus is partly on themselves to be more proactive in keep on top of what BBSRC is doing through the information it makes available.

“It’s really valuable when BBSRC bring stakeholders together to discuss what will be priority areas for funding. However, when I have been to such meetings, they tend to be dominated by some of the same faces.”

Academic stakeholder

“We’d welcome more discussions at a strategic level with senior management. That’s already in progress though, so hopefully moving in the right direction.

NGO stakeholder

In terms of how interactions with BBSRC could be improved, academics suggest:

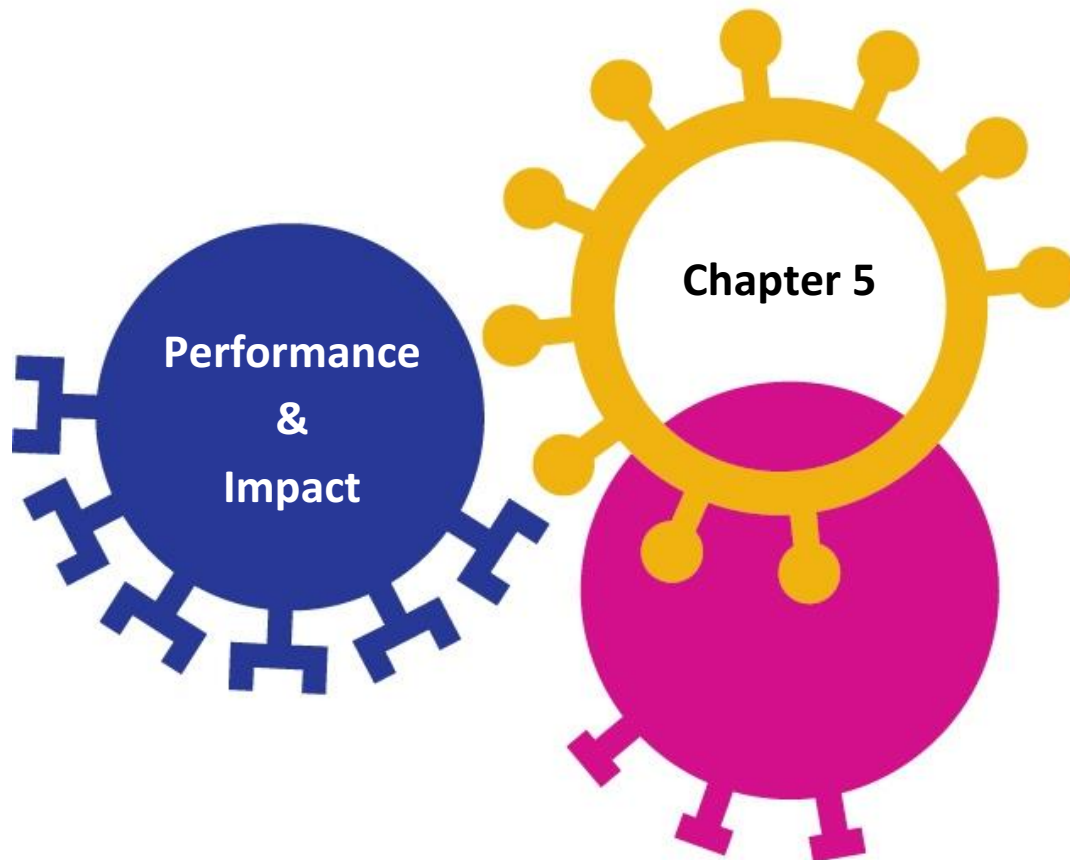
- having named and consistent points of contact in BBSRC
- more visits from BBSRC staff to their organisations
- more networking opportunities, especially outside of London
- more detailed, meaningful and timely feedback on grant applications from committees
- streamlining the form used by grant reviewers (several made the point that there are too many boxes to tick)
- feedback should be provided for grant reviewers on the outcomes of grants they handle, with a view to improving standards and consistency in the grant review process
- improved navigability of BBSRC’s website
- more targeted/tailored newsletters/communications.

Industry stakeholders feel that interactions with BBSRC could be improved through:

- better awareness and understanding of BBSRC’s strategy, i.e. through BBSRC being more communicative about what that means in practical terms for industry
- identifying opportunities to be gained from Brexit, i.e. through BBSRC investigating and more openly communicating its stance and guidance
- having more direct involvement in the future strategic direction of research;
- more opportunities for collaboration with academia
- having clear points of contact within BBSRC, including more face-to-face contact
- more regional networking events
- more proactive communication from BBSRC and showcasing of funded projects
- more use of web-conferencing/webinars
- simplification of BBSRC’s website
- more targeted/tailored newsletters/communications.

Government/policy stakeholders echo a number of these points, with a common theme being more regular and more tailored engagement, and a desire for more information about current issues, emerging science and its application. NGOs mentioned the importance of continuing strategic engagement between NGOs and senior managers within BBSRC and greater exchange of ideas.

Participants in Edinburgh mentioned that the issue with interactions with BBSRC is the lack of ‘meaningful’ communication with consistency, noting that one can often speak to several people and receive different information.



This chapter explores how stakeholders would speak of BBSRC, views on the types of research it funds and the perceived effectiveness of grant application processes. It also examines how stakeholders rate BBSRC's contribution to economic and social impact, and how effectively that impact is communicated.

5.1 Perceived strengths of BBSRC

Stakeholders acknowledge BBSRC as a vital funder of bioscience research in the UK. BBSRC's reputation is highly regarded as a bastion of quality and stakeholders clearly feel a sense of prestige being associated and involved with BBSRC. Generally speaking, stakeholders also seem confident that BBSRC is targeting funds in the right strategic areas.

“The main benefit of working with BBSRC is the absolute privilege of seeing the best quality science coming forward.”

Academic stakeholder

“BBSRC is responsible for funding the best research in bioscience and that's what they do. It is all carefully peer reviewed and they have to make difficult decisions on where they put funding due to constraints on this money.”

Government/policy stakeholder

BBSRC is described by some stakeholders as respected, transparent, straightforward and professional, while managers and staff are referred to as friendly, helpful, approachable and responsive. This is especially the case where named points of contact are held, which does not appear to be consistent for all stakeholders as some would like.

BBSRC is valued for being consultative and there is a recognition that it has to tread a difficult line, courting the middle ground between government, universities, industry, the public and students. Stakeholders therefore acknowledge that its direction and decisions inevitably cannot suit everyone, with one academic making the point that BBSRC has “so many stakeholders” that there are inevitably going to be difficulties representing them all. This appears to have affected BBSRC's ability to interact with stakeholders as regularly as they would like, although several observed that BBSRC has had to manage reductions to its own funding and become leaner as an organisation but that it has sought to be as efficient as possible. It is not yet clear how BBSRC's role and funding will work under UK Research and Innovation – discussed in more detail in section 7.3.

Another of BBSRC's perceived strengths is bringing academia and industry together on a collaborative footing. It is considered quite hard for small companies to become involved with universities without a strong support network and framework in which to operate, therefore networking opportunities organised by BBSRC are highly valued and more would be welcomed.

“Becoming a panel member has put a lot of faces to names and I understand more about how BBSRC works and what's informing strategic decisions.”

NGO stakeholder

Focus group participants say that BBSRC is open to having discussions with the research community to help them get a better understanding about funding calls, and to offer helpful guidance where funded projects risk falling short against BBSRC's remit. Several praised the 'Town hall' regional

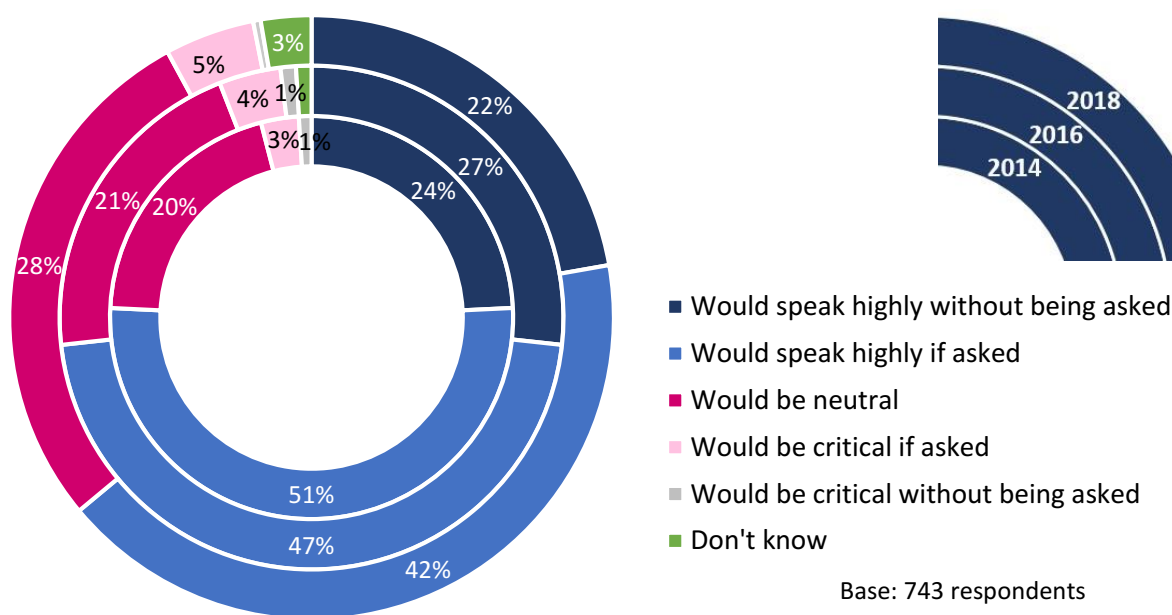
meetings to discuss future planned funding calls and suggest that an annual conference would be really valuable to help bring the sector together, resources permitting. Stakeholders also view BBSRC’s Research Clubs and Link Awards as being among its key strengths.

5.2 Advocacy and perceptions

Advocacy levels are largely influenced by the perceived value that stakeholders place on their relationship with BBSRC, how relevant they see BBSRC to their organisations (including the extent of shared values) and how easily they are able to make meaningful contact with BBSRC – discussed in more detail in the preceding chapters.

Almost two thirds of surveyed stakeholders would speak highly of BBSRC to others (64%), including 22% without being asked. However, the percentage that would speak highly has reduced from 74% in 2016 and 75% in 2014, with comparatively higher proportions of respondents now taking a more neutral stance (Figure 17).

Figure 17 Advocacy



Surveyed academics are BBSRC’s strongest advocates, with 70% saying they would speak highly compared with 51% of industry stakeholders – a significant difference. It is among industry stakeholders where BBSRC has experienced the most notable decrease in advocacy levels since 2016 – a fall of by 20% (Table 14).

Reasons for the change in advocacy levels in recent years could be partly explained by changes in BBSRC’s own ability to fund and resource stakeholder engagement activities. Another key influencer is uncertainty in the funding environment – notably the launch of UK Research and Innovation and

question marks over what that might mean for BBSRC's influencing powers in the future (discussed in more detail in chapter 7).

Additional analysis reveals that of the 9% of respondents who report only having limited overall familiarity with BBSRC, most (59%) would be either neutral or critical about BBSRC to others.

Table 14 Advocacy (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Would speak highly	70%	51%	64%	60%
	(-6)	(-20)	(-17)	(-11)
Would be neutral	23%	40%	30%	30%
	(+4)	(+17)	(+14)	(+7)
Would be critical	6%	7%	2%	7%
	(+1)	(+3)	(+2)	(+3)
Don't know	2%	2%	5%	3%
	(+2)	(0)	(+2)	(+1)

A Net Promoter Index (NPI) is an increasingly common system of measuring advocacy. It offers an alternative way of looking at the advocacy results and enables BBSRC to compare its performance against other organisations that use this measure.

The NPI is calculated by subtracting the percentage of 'detractors' (those who would be critical) from the percentage of 'promoter's (those who would speak highly). A higher index denotes stronger support and the results for each year are summarised in Table 15.

Table 15 Net Promoter Index (NPI)

	2014	2016	2018
NPI	81	69	61

Surveyed stakeholders were invited to select up to three words that they would use to describe BBSRC from a prompted list. The results are displayed as a word cloud¹⁰ (Figure 18) and percentage breakdowns (including by stakeholder group) are shown in Table 16.

BBSRC is perceived as having many great qualities and is highly praised as bring credible, influential, trusted, innovative and forward-thinking. This ties in with stakeholders' views that BBSRC has a hugely valuable and important role to play in funding UK bioscience and continues to innovate, for example through use of DTPs and its commitment to impact.

¹⁰ A word cloud is a way of visualising the strength of stakeholder/respondent opinion with reference to a list of specific qualities. It works by ranking the most to last mentioned qualities using largest to smallest sized text.

The most frequently mentioned negative words are that BBSRC is bureaucratic, cautious and reactive. This ties-in with a sense of rigidity experienced by some grant applicants, which is discussed in more detail later in this chapter.

Figure 18 Words to describe BBSRC



'Credible' is the most common word used to describe BBSRC by all main stakeholder groups, especially among government/policy stakeholders who are also most strongly of the view that BBSRC is a trusted and forward-thinking organisation. Surveyed academics are comparatively less likely than other groups to view BBSRC as 'innovative' and more likely to see BBSRC as 'bureaucratic' and 'cautious'. This is not to underestimate the good work that BBSRC is recognised as doing, but ties in with some concerns that grant application processes can feel slow and rigid, and a desire for BBSRC to be more risk-averse in its funding decisions, i.e. focused too heavily on "short term impact" at the expense of "bold science"

"Better ways to support disruptive science are needed to keep the UK at the cutting edge."

Academic stakeholder

"BBSRC are in a strong position to encourage and energise bioscience in UK and beyond."

Industry stakeholder

Table 16 Words to describe BBSRC (by stakeholder group)

The top three word-choices from each stakeholder group appear in green/bold.

	All respondents	Academic	Industry	Government/policy	NGO
Credible	31%	30%	29%	39%	30%
Influential	24%	26%	20%	25%	20%
Trusted	22%	21%	22%	36%	27%
Bureaucratic	22%	24%	18%	21%	17%
Innovative	20%	17%	26%	25%	23%
Cautious	19%	22%	17%	9%	13%
Forward-thinking	19%	17%	22%	27%	17%
Accessible	16%	20%	13%	7%	0%
Reactive	11%	14%	5%	7%	13%
Connected	11%	11%	12%	11%	7%
Ambitious	10%	11%	9%	7%	13%
Slow	9%	10%	8%	5%	7%
Authoritative	9%	7%	12%	9%	13%
Proactive	8%	8%	9%	7%	10%
Closed	6%	6%	7%	9%	7%
Open	6%	7%	6%	2%	0%
Insular	6%	5%	6%	11%	13%
Inflexible	6%	6%	4%	2%	13%
Don't know	5%	2%	9%	11%	7%
Other	3%	3%	5%	2%	3%
Disjointed	3%	4%	3%	2%	0%
Flexible	3%	4%	1%	0%	3%
Archaic	1%	1%	1%	2%	3%
Ineffectual	1%	2%	1%	0%	0%
Agile	1%	1%	1%	0%	0%
Unconvincing	1%	1%	2%	0%	0%
Indecisive	1%	1%	1%	0%	0%
Untrustworthy	1%	1%	0%	0%	0%

Table 17 shows the percentage of surveyed stakeholders mentioning each of the top 10 keywords in 2018, compared with 2016 and 2014. Due to a change to some of the keywords between years, these comparisons should be treated with caution, for example a lower proportion of respondents selecting 'credible' and 'innovative' in 2018 may be offset by the introduction of new keywords 'influential' and 'forward-thinking'.

Table 17 Top 10 keywords in 2018 (comparisons between years)

	2018	2016	2014
Credible	31%	48%	56%
Influential	24%	Not asked	Not asked
Trusted	23%	26%	31%
Bureaucratic	21%	24%	30%
Forward-thinking	20%	Not asked	Not asked
Innovative	20%	24%	26%
Cautious	18%	17%	17%
Accessible	17%	29%	32%
Connected	11%	19%	27%
Ambitious	10%	17%	18%

5.3 Balance of funding

There was substantial discussion at the three focus groups regarding the balance that BBSRC strikes between funding fundamental and curiosity-led 'blue sky' research that is not expected to yield short term economic and social benefits (also termed 'responsive mode'), alongside more industry-applied or 'translational' research. Academics strongly believe that it is vital BBSRC does not lose sight of the former, making the point that without sufficient high quality fundamental and underpinning research then there will be insufficient pipeline to support future translational research.

Participants at the focus groups also discussed the relative importance of impact in relation to grant applications. Whilst they generally agree that there has to be a justifiable reason for undertaking research, they make the point that impact must be considered not only in terms of shorter term industry or societal value, but in terms of pure scientific impact on which future innovations can develop. A counter argument to this point from an industry participant is that scrutiny over publicly funded research is "no bad thing when so much seems to be unusable".

"Whilst we all need 'pathways to impact', the major driver has to be innovation at the scientific end. So, what's importance is breadth and depth of knowledge and that's what makes the UK stand out through high quality and innovative science."

Academic stakeholder

"For BBSRC to deliver greater value to the agricultural sector there is a need to move toward applied and translational research that reaches further to the end user than it currently does. Whether this is acceptable is an issue but to have an impact is critical. This is not to stop the fundamental blue sky research but to recognise for this to add value, additional work is needed to deliver it to the end recipients."

Other stakeholder

A common message is that BBSRC could be more strategic in terms of these types of trade-offs and more confident in making difficult decisions. For example, it was observed at the Edinburgh focus group that BBSRC has taken on a broader remit in agriculture in response to reductions in Defra's funding of applied agricultural research. This, stakeholders feel, has resulted in funding for many important areas of bioscience being squeezed, indicating that BBSRC could have perhaps stated its case more strongly and overtly.

Another area where BBSRC appears to have a difficult role relates to its approach to risks. Some feel that BBSRC risks "trying to do too much", becoming overly reactive and responsive to change and spreading itself too thinly. Others are keen for BBSRC to remain poised at the cutting edge of bioscience and not seen as "treading water", "lagging behind" or "risk averse"

"Reducing the number of committees was a mistake. Committees now have too broad a remit and funding decisions are being made by people who lack expertise in particular areas."

Academic stakeholder

An academic interviewed following the survey gave an example of BBSRC investing in research into the emerging technology of algal biofuels and continuing to support this when signs had already begun to emerge that this type of fuel might not be environmentally or commercially sustainable. The message here is that BBSRC reacted too quickly to supporting an emerging technology but then did not respond quickly enough and move away from this area when evidence started to emerge that this may not have the desired potential.

Finally in this section, several stakeholders feel that BBSRC could be more proactive at identifying emerging and potential PR issues associated with bioscience much earlier, and being more visible in its messaging to mitigate the risk of storm-whipping through press coverage. Several used negative press associated with genetically modified foods as an example, making the point that a swifter response with more effective information, communication and public relations around the science behind such initiatives could help to provide better overall education. The challenge here is the level of public interest in bioscience research, with one stakeholder commenting that *"the image of bioscience isn't especially sexy in the public domain."*

5.4 How BBSRC supports bioscience

5.4.1 Grant applications

On the whole, BBSRC is considered to be strong in terms of its administrative processes for dealing with grant applications. In fact, many stakeholders describe these as consistent, rational, professional and impartial, simple and transparent.

However, there are frustrations, especially among academics, where grant applications are submitted that extend beyond the periphery of BBSRC's remit, resulting in these applications "falling

between the cracks” between Research Councils, denied funding and meaning they have to be re-written or resubmitted to another Research Council with no guarantee of success.

Stakeholders would like to see a more integrative ‘cross-Council’ approach to research funding, with better recognition that interdisciplinary working is valuable and something to be nurtured rather than denied. A key concern is that two very separate disciplines which amalgamate under a single proposal do not get favourably evaluated as referees do not understand “the other half”. Stakeholders at the Birmingham focus group feel that BBSRC should set clearer lines in the sand regarding what it will be prepared to fund where bids span the remits of multiple Research Councils,

“Collecting environmental samples traditionally falls under the remit of NERC, while DNA sequencing traditionally falls under BBSRC – but having both elements in the same proposal means that both Research Councils could reject the bid. That can affect the project as a whole, it may only be part funded, or it can lead to applicants trying to adjust the focus on paper to make it fit.”

Academic stakeholder

“Support for non-biomedical research has been variable over the last 20-30 years. In my view BBSRC was really visionary in staking a claim to support food security and industrial biotechnology, and these two strategic areas will be absolutely crucial going forward. But, where would a soil microbiologist obtain funding? Probably at the interface of BBSRC, NERC & DEFRA although they would be unlikely to get support from any of these.”

Academic stakeholder

A counter argument emerging from the London focus group is that, under the present way of work, if a Research Council rejects a proposal then it can theoretically be submitted to another “*in different clothes*” and taking account of comments. They mentioned that closer working between the Research Councils could therefore arguably inhibit this opportunity.

Participants across each of the focus groups suggested various ways of improving how grant applications are administered. These include:

- shifting to more targeted funding calls to make it clearer what is being sought and to limit the number of applications, in turn saving time as part of the review process
- considering grant applications deadlines more carefully to avoid periods just after holidays
- speeding up the process of undertaking and communicating grant decisions and payments;
- providing more useful feedback on grant submissions

- introducing a two-stage application process with an initial pre-qualification phase, intended to require less work to prepare and review prior to a more detailed proposal being requested by BBSRC.

A counter-argument was raised to the final point, notably, that organisations with stronger marketing experience could stand the best chance of getting through the first round, which could be at the expense of high-quality science.

“We get very little feedback on grants. Often the feedback consists of bland legally defensible statements that don’t help us to make improvements. Other funders allow feedback for a fee and that’s been useful.”

Academic stakeholder

Several government/policy stakeholders would like the opportunity to directly apply for BBSRC funding as they feel there are a lot of good scientists in those organisations who have the expertise to lead a consortium but are currently only eligible to act as a subcontractor. Additionally, a number of industry stakeholders say they would like easier access to BBSRC funding for applied research, and occasionally find that BBSRC staff do not always display sufficient knowledge of a specialist subject area to instil confidence.

“The only way we have been able to participate in BBSRC funded research is as a contractor to grant recipients. Access to BBSRC funding for more applied research (on a merit basis) would enable easier development of relationships.”

Industry stakeholder

5.4.2 Grant review committees

Several stakeholders voiced some concerns about the perceived quality of grant review committees, for example one academic referred to confidence being eroded where committee members are not highly rated internationally and another referred to an observed lack of consistency in decision-making. An industry respondent made the point that review committees need to be held accountable to strategic policy in their decision making and whilst funding the best research is extremely critical, so is funding “the right thing”. Navigating how to achieve both is viewed as a key task for BBSRC going forward.

“I think the grant committees need to focus on more specific areas of research. It is very, very hard to rank grants in order when they cover such a hugely diverse range of topics and too many panel members are working far outside their comfort zones.”

Academic stakeholder

5.4.3 Studentships

BBSRC is highly praised for being proactive in supporting studentship delivery, including internships to boost work experience and build students' quantitative and mathematical skills. Stakeholders would like to see more studentships, fellowships and knowledge exchange funding made available.

Several academics made the point that recent changes to the way Collaborative Awards in Science and Engineering (CASE) studentships are awarded is preventing some, particularly smaller organisations that are not part of Doctoral Training Partnerships (DTPs), from accessing them. They believe that CASE studentships are hugely valuable and should be available to all institutions.

"From PhD studentships to major grant support to universities and biotech companies, BBSRC supports an unbroken chain towards bioscience exploitation."

Industry stakeholder

"I think that UK bioscience is less well served by the current DTP system and more open studentships are needed."

Academic stakeholder

5.5 Economic and social impact

Surveyed stakeholders were asked how they would rate BBSRC's contribution to economic and social impact, on a scale from 1 'no contribution' to 10 'significant contribution'.

More than half of stakeholders (58%) gave a rating of between 7 and 10 out of 10. The overall mean rating is 6.7 out of 10 and the mode is 7 out of 10.

The mean rating is highest among academics (7.1) followed by government/policy stakeholders (6.7), industry stakeholders (6.0) and NGOs (5.8). The most common answer (mode) is 7 out of 10 across all stakeholder groups.

The difference in ratings of academics, compared with industry stakeholders and NGOs, is significant.

In 2016 this question was asked differently, with separate ratings obtained for BBSRC's contribution to economic impact and social impact, respectively. The mean scores that year were 6.7 for economic impact and 5.8 for social impact, pointing to BBSRC's performance in this area being at least equal to, if not greater than at the time of the last survey.

The distribution of ratings is shown in Figure 19 and breakdowns by stakeholder group are presented in Table 18.

Figure 19 Rating of BBSRC’s contribution to economic and social impact

Question not directly comparable with previous years

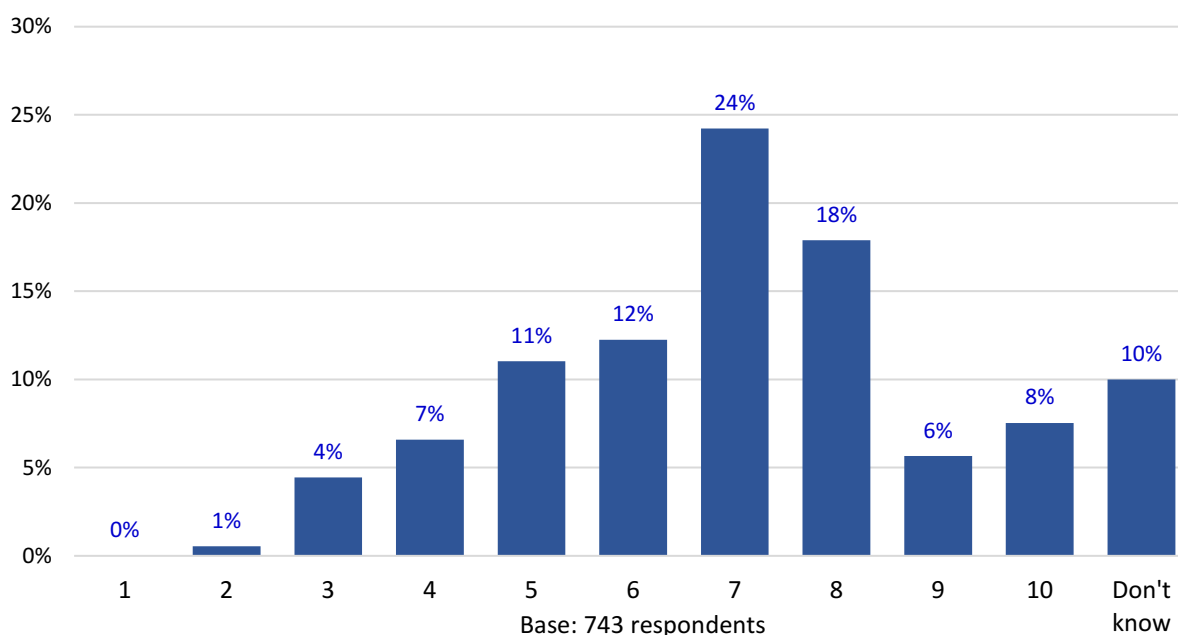


Table 18 Rating of BBSRC’s contribution to economic and social impact (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	405	154	42	30
Ratings of 7-10	83%	36%	43%	50%
Ratings of 4-6	12%	32%	36%	20%
Ratings of 1-3	5%	33%	21%	30%
Mean	7.1	6.0	7.2	5.8
Mode	7	7	7	7

Stakeholders generally feel that BBSRC’s commitment to the impact agenda has been strong in advancing science and improving societal outcomes. Many stakeholders praise impactful translational science emerging from institutes that have received funding from BBSRC, the value of DTPs in nurturing new talent, and support for entrepreneurship such as through BBSRC’s Innovator of the Year Awards. Mention was made of sound mechanisms to help communicate impact, such as through networks and dissemination events.

The topic of impact is complicated by BBSRC’s role in funding fundamental research and applied research. As discussed in section 5.2, both types of research are perceived as generating impact in different ways, for example in terms of knowledge and scientific advancement, versus more tangible commercial benefits, respectively. Stakeholders’ views are mixed on the relative value of each type

of impact, for example industry stakeholders tend to identify impact more in terms of BBSRC’s visibility, the success of its communications and the ultimate practical use of what it funds.

To tackle this issue, several academic stakeholders interviewed following the survey feel that BBSRC should provide greater clarity on what is meant by ‘impact’ for UK bioscience and how value can be realised in different ways.

“Impact measurement should include articles in the farming press, presentations and attendance at farming events and demonstration of on-farm take up.”

Industry stakeholder

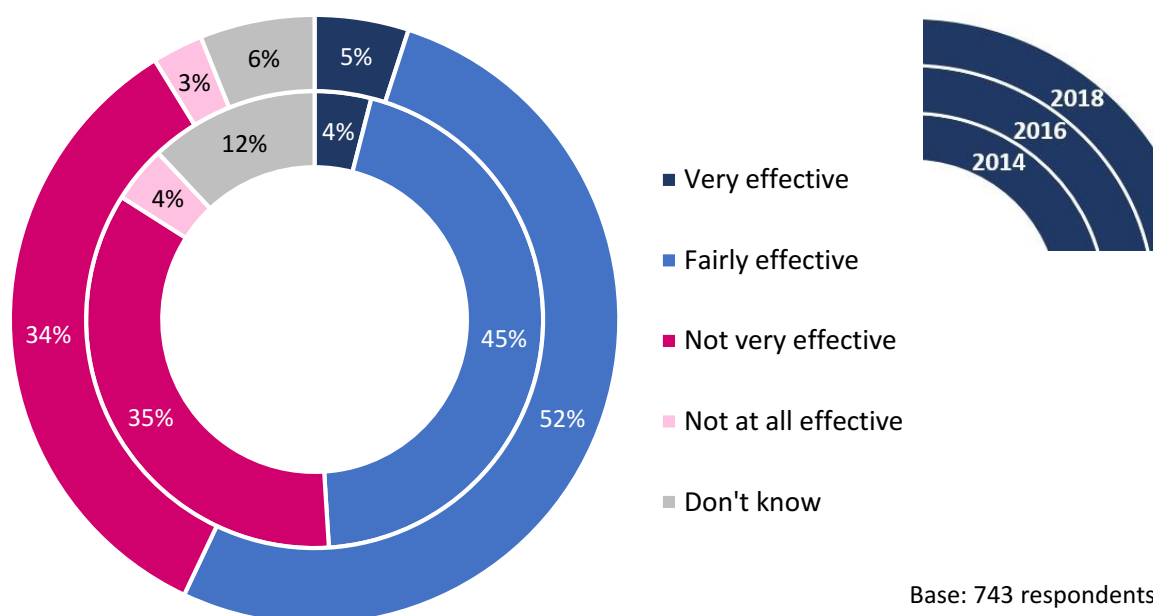
“Speaking to many researchers in institutions involved with agriculture, they point out that the impact of BBSRC funding, and indeed their careers, is measured largely in scientific papers and communication to their peers and never to actual growers. This has meant even researchers and institution leaders with a natural inclination to want to change practices in the field have been unable to bring that about practically.”

Industry stakeholder

More than half of surveyed stakeholders (57%) believe BBSRC communicates its impact effectively, which is an increase from 49% in 2016 (Figure 20). This is generally put down to BBSRC’s strong commitment to the importance of impact more generally and seems to have been well recognised through publications and information available on BBSRC’s website.

Figure 20 BBSRC’s effectiveness at communicating its impact

Not asked in 2014



Across the stakeholder groups, two thirds of academics (67%) consider BBSRC to be effective at communicating impact, compared with just 34% of industry and 48% of government/policy stakeholders. The difference between academics compared with these two other key stakeholder groups is significant. This appears to tie in with levels of understanding and interaction more generally, which is somewhat lower among industry respondents and is further explored in the next chapter on BBSRC's Mission and Vision.

There has also been strong uplift in the perceptions of NGOs since 2016, with an increase of 33% of view that BBSRC is effective at communicating its impact (Table 19).

"I like the newsletter and reading about some of what's been done in other institutes is great and demonstrates a rich portfolio with strong outcomes for the UK."

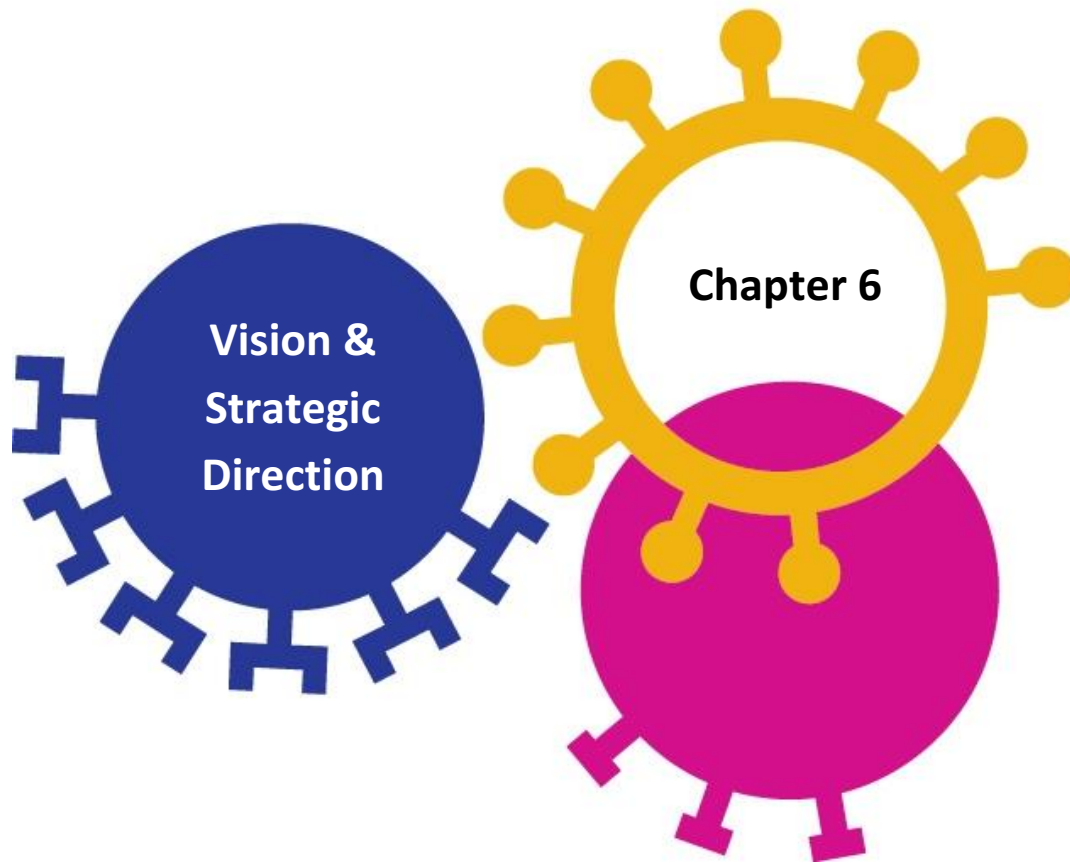
NGO stakeholder

"BBSRC brings people together with a strong focus on impact, i.e. how something can be exploited and commercialised following early developments. Payback for those involved is good. BBSRC does try to increase their external awareness and outreach but that's probably an area of challenge as they're not well known among the public."

NGO stakeholder

Table 19 BBSRC's effectiveness at communicating its impact (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Very effective	6%	2%	5%	7%
	(+1)	(0)	(+5)	(+7)
Fairly effective	61%	32%	43%	53%
	(+7)	(+7)	(+5)	(+26)
Not very effective	28%	51%	39%	27%
	(-1)	(+1)	(+5)	(-16)
Not at all effective	1%	6%	5%	7%
	(0)	(-2)	(-4)	(-1)
Don't know	4%	10%	9%	7%
	(-7)	(-3)	(-4)	(-15)



BBSRC's Mission and Vision is explored from a variety of angles, including how well stakeholders identify with those messages and extent to which they feel BBSRC achieves on its aims. It also examines how well stakeholders feel that BBSRC represents UK bioscience.

6.1 Familiarity with BBSRC's Mission and Vision

BBSRC's Mission is to:

- promote and support high-quality basic, strategic and applied research and related postgraduate training relating to the understanding and exploitation of biological systems
- advance knowledge and technology (including the promotion and support of the exploitation of research outcomes), and provide trained scientists and engineers, which meet the needs of users and beneficiaries, thereby contributing to the economic competitiveness of the United Kingdom and the quality of life.

BBSRC's Vision is to:

- lead world-class 21st century bioscience, promoting innovation in the bioeconomy and realising benefits for society within and beyond the UK.

Surveyed stakeholders were asked the extent to which they are familiar with BBSRC's Mission and Vision on a scale from 1 'not at all familiar' to 10 'completely familiar'. Half of respondents (50%) gave a high rating of between 7 and 10 out of 10, which is a dip from 61% in 2016 and 55% from 2014.

The overall mean rating is 6.0 out of 10, compared with 6.7 in 2016 and 6.3 in 2014. The most common answer (mode) is 7 out of 10.

The mean rating is highest among academics (6.7) followed by NGOs (5.8), government/policy stakeholders (4.9) and industry stakeholders (4.4). The mode varies considerably, and is highest among academics and NGOs (7), followed by government/policy stakeholders (3) and industry (1).

The difference in the ratings of academics compared with industry and government/policy stakeholders is significant.

The distribution of ratings is shown in Figure 21 and breakdowns by stakeholder group are presented in Table 20. The data suggest that greatest increases in familiarity since 2016 have been experienced by NGOs.

Figure 21 Extent of familiarity with BBSRC’s Vision

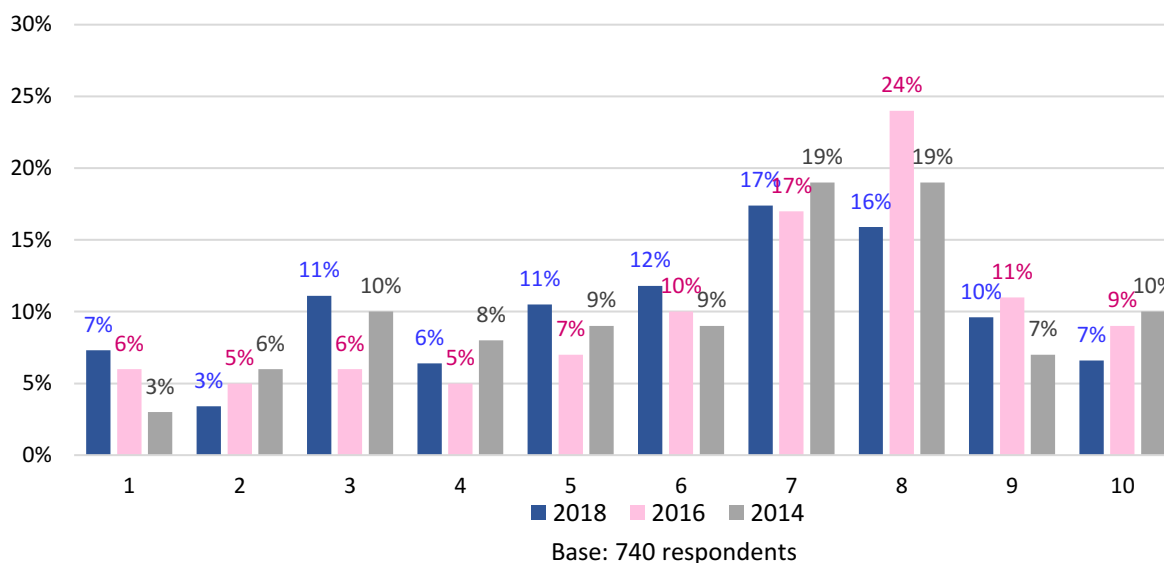


Table 20 Extent of familiarity with BBSRC’s Vision (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	414	164	43	30
Ratings of 7-10	63%	25%	28%	50%
	(-10)	(-21)	(-16)	(+23)
Ratings of 4-6	27%	32%	35%	23%
	(+10)	(+1)	(+13)	(-7)
Ratings of 1-3	11%	43%	37%	27%
	(+2)	(+20)	(+3)	(-14)
Mean	6.7	4.4	4.9	5.8
Mode	7	1	3	7

6.2 Achievement of BBSRC’s Vision

Surveyed stakeholders were also asked the extent to which they believe BBSRC achieves its Vision, on a scale from 1 ‘not at all’ to 10 ‘completely’. More than half of respondents (52%) gave a high rating of between 7 and 10 out of 10, which is a slight dip from 57% in 2016 but higher than 45% in 2014.

The overall mean rating is 6.5 out of 10, which is identical to 2016 and a slight increase from 6.3 in 2014. The mode is 7 out of 10.

The mean rating is highest among academics (6.7) followed by government/policy stakeholders (6.8), NGOs (6.3), and industry stakeholders (6.1). The mode is 7 out of 10 among all groups except NGOs, where it is slightly higher at 8 out of 10.

The difference in in the ratings of academics compared with industry stakeholders is significant.

The spread of ratings is shown in Figure 22 and breakdowns by stakeholder group are presented in Table 21.

Figure 22 Extent to which BBSRC is perceived as achieving its Vision

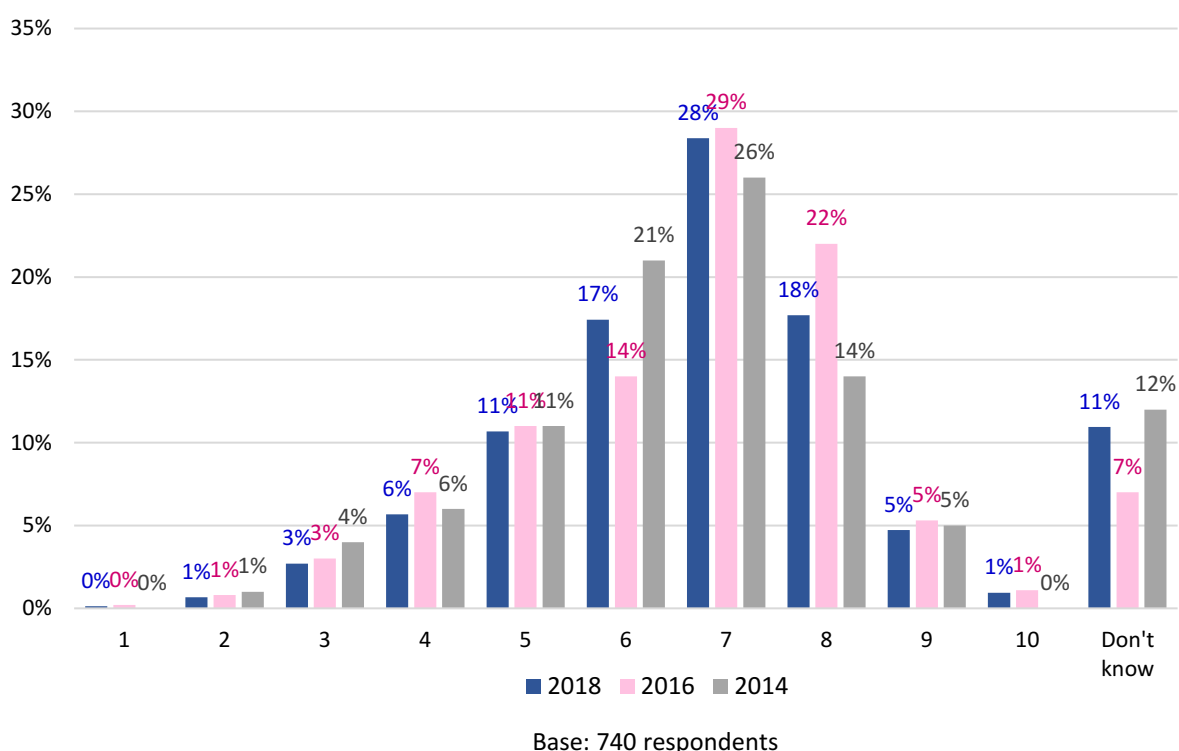
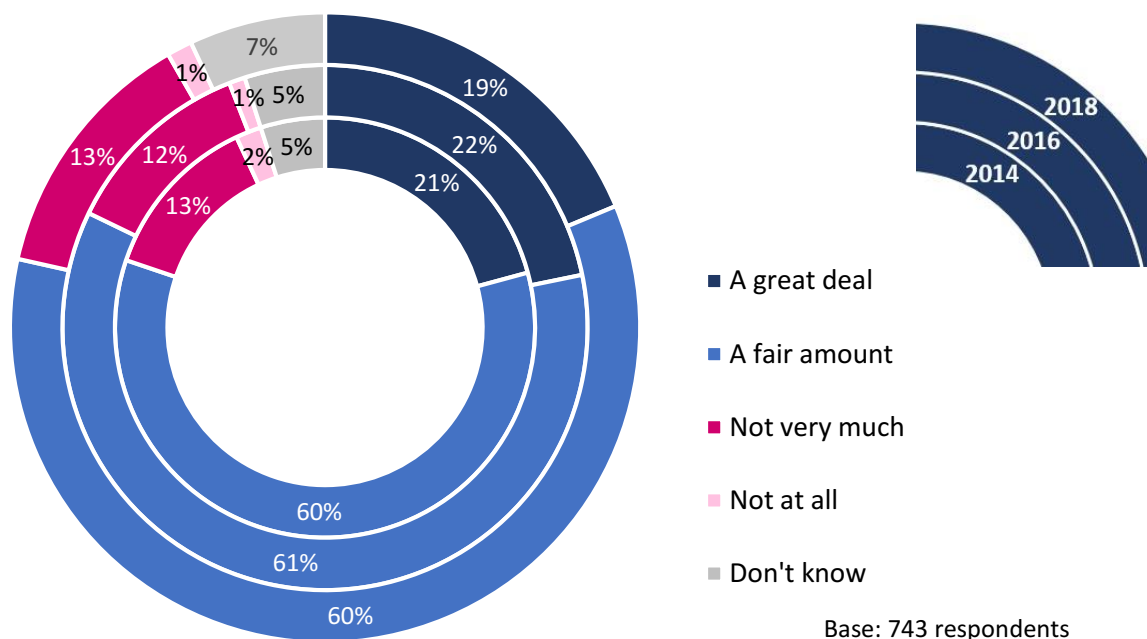


Table 21 Extent to which BBSRC is perceived as achieving its Vision (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	397	127	37	27
Ratings of 7-10	62%	49%	62%	48%
Ratings of 4-6	36%	43%	35%	44%
Ratings of 1-3	3%	8%	3%	7%
Mean	6.7	6.1	6.8	6.3
Mode	7	7	7	8

More than three quarters of surveyed stakeholders (79%) believe there is scope for BBSRC to work more closely with their organisation to achieve its own Vision in the future. This is slightly lower than 83% in 2016 and 81% 2014 (Figure23).

Figure 23 Scope for BBSRC to work more closely with stakeholders to achieve its Vision



The vast majority of academics (86%) feel there is scope for BBSRC to work more closely with their organisation to achieve its Vision, compared with 67% of industry stakeholders – a significant difference (Table 22).

Table 22 Scope for BBSRC to work more closely with stakeholders to achieve its Vision (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
A great deal	20%	12%	18%	23%
	(-4)	(-1)	(+5)	(-7)
A fair amount	66%	55%	55%	47%
	(+4)	(-2)	(-17)	(-15)
Not very much	8%	22%	25%	20%
	(-2)	(+1)	(+12)	(+12)
Not at all	0%	2%	0%	0%
	(0)	(0)	(0)	(0)
Don't know	6%	10%	2%	10%
	(+2)	(+3)	(-1)	(+10)

In terms of how BBSRC could work more closely with organisations, this ties in very closely with the findings in chapter 4.4, i.e. by increasing levels of interaction with stakeholders through more targeted and tailored communications, and to engage with stakeholders more regularly and strategically to build understanding of how the objectives of their own organisation dovetail with those of BBSRC. Some stakeholders also recognise that the onus is on them to make contact with BBSRC.

“I should proactively try to access BBSRC's channels of information. I really need a prompt from them to do this. We're a small company and probably slip under their radar.”

Industry stakeholder

The survey then asked stakeholders the extent to which their own organisation shares BBSRC's Vision, on a scale from 1 'not at all' to 10 'completely'. Almost three quarters of respondents (71%) gave a high rating of between 7 and 10 out of 10, which is slightly lower than 80% in 2016 and 74% in 2014.

The overall mean rating is 7.4 out of 10, which is slightly lower than 8.0 in 2016 and 7.7 in 2014. The mode is 8 out of 10.

The mean rating is highest among academics (7.9) followed by industry stakeholders (6.8), government/policy stakeholders (6.7) and NGOs (6.5). The mode is highest among NGOs (9), followed by academics (8) and industry and government/policy stakeholders (7).

The difference in the ratings of academics compared with each of the three other key stakeholder groups is significant.

The distribution of ratings is shown in Figure 24 and breakdowns by stakeholder group are presented in Table 23.

Figure 24 Extent to which stakeholders share BBSRC's Vision

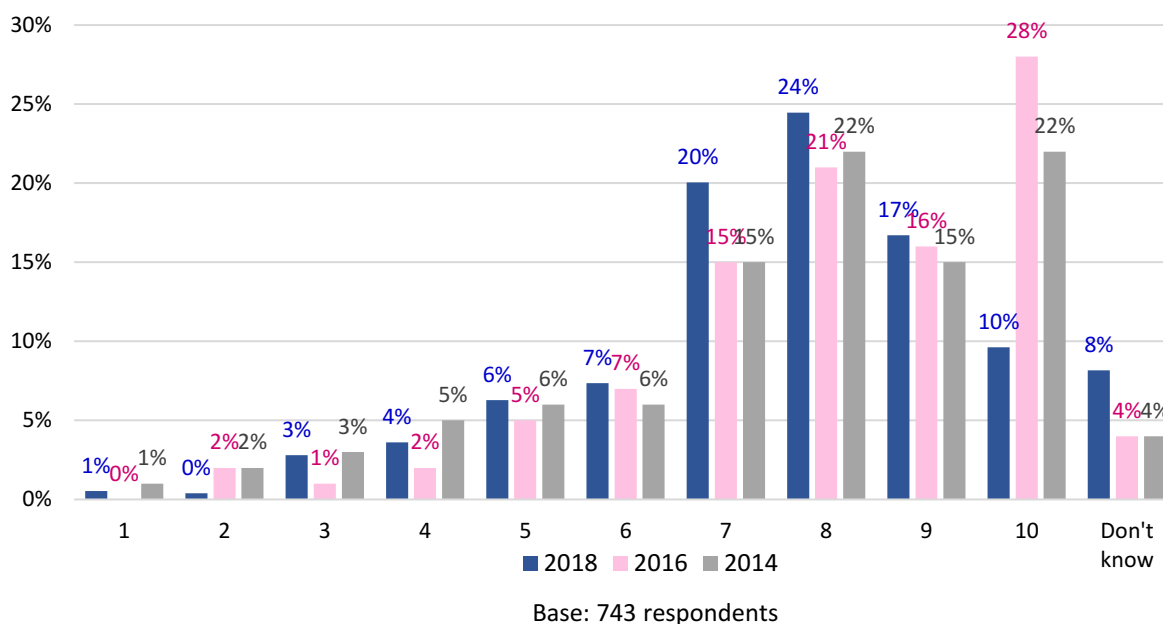


Table 23 Extent to which stakeholders share BBSRC's Vision (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	388	148	42	30
Ratings of 7-10	87%	67%	67%	53%
Ratings of 4-6	12%	26%	26%	37%
Ratings of 1-3	1%	7%	7%	10%
Mean	7.9	6.8	6.7	6.5
Mode	8	7	7	9

Stakeholders were asked to provide reasons for their rating to this question. Those providing a rating of 10 out of 10 describe working in complete alignment with BBSRC's Vision and priorities, mainly due to having a close working relationship, sharing similar strategic objectives, and drawing significant funding from BBSRC. A number of academic stakeholders referred to their own Mission statement being similar to that of BBSRC, i.e. to be world class and dynamic in an innovation-driven sector, seeking to ensure their research has maximum possible benefit for the economy, society and the environment.

“Yes, I think that is what my university stands for – the best fundamental science that you can do, translated if possible, and working to have real impact on people’s lives.”

Academic stakeholder

“We share a vision and commitment to making UK bioscience as competitive and world-leading as possible.”

Academic stakeholder

Stakeholders providing ratings between 7 and 9 out of 10 generally echo these views, observing that “we are all striving for the same thing” and that BBSRC’s Vision is “compelling” and “inspirational”. However, some of these respondents mentioned that their remits are somewhat broader than the priority areas of BBSRC, for example extending into the medical sphere, whilst others said that they are perhaps not as innovation-focused as BBSRC or that their organisations have slightly different agendas.

Those providing lower ratings tend to identify less with high level statements in favour of more tangible and specific objectives that their organisations work to, for example relating to providing industry-led advice, products and services. Other reasons for less direct alignment with BBSRC’s Mission and Vision include lack of real knowledge and understanding about BBSRC’s Vision, that they have not seen these values clearly communicated, or (in a minority of cases) that their values differ considerably from those of BBSRC. One industry respondent made the point that whilst their own organisation is not directly aligned with BBSRC’s Vision, that’s not to say that they don’t value it.

“At a local level we are completely supportive of driving UK growth. However, as part of a global multinational, our corporate strategy is not focussed on the performance of an individual country, state or region.”

Industry stakeholder

“My perception is that BBSRC has not appreciated the potential contribution to the bio-economy of a wide range of non-market ecosystem services, yet these are an increasing focus of the policy areas in which I operate (e.g. nutrient recycling, pollination, cultural and landscape services, climate and water protection).”

NGO stakeholder

“BBSRC is covering a massively broad area and needs to ensure it doesn’t lose sector focus. There’s a dichotomy between the agri side and the life sciences.”

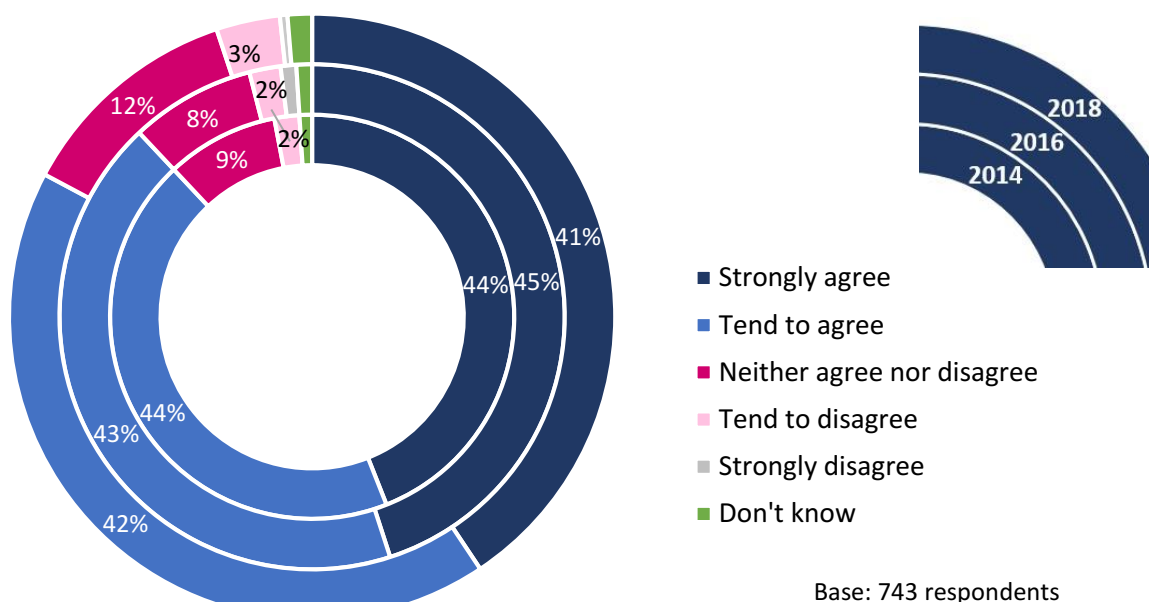
Industry stakeholder

Stakeholders at the Birmingham focus group acknowledged that BBSRC’s Mission and Vision is articulated in its publications and on its website, but that, arguably, a layer below is missing, i.e. how the Vision translates into detailed actions for the short-term future. A comparison was made with Innovate UK which, it was argued, goes a step further than BBSRC by providing an advance programme of research calls and planned dates, which can help with planning ahead.

6.3 World-leading bioscience

The majority of surveyed stakeholders (83%) agree that the UK has a world-leading position in bioscience. This is slightly lower than 88% in both 2016 and 2014, with a slightly higher proportion neither agreeing nor disagreeing in 2018 (Figure 25).

Figure 25 The UK has a world leading position in bioscience



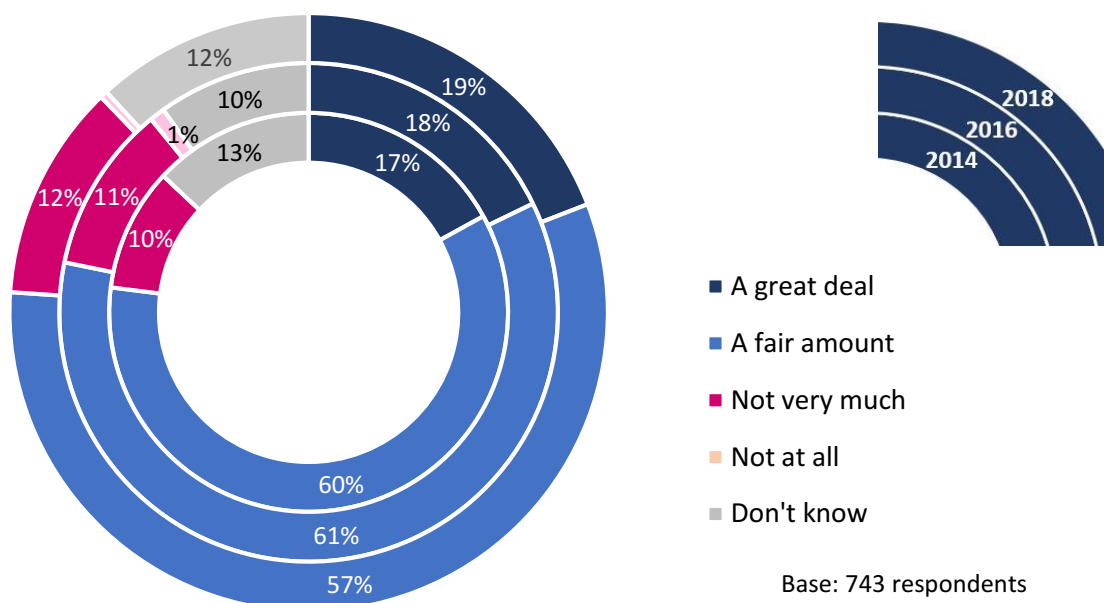
The extent of agreement is generally high across all stakeholder groups. Government/policy stakeholders are most favourable, with 86% generally agreeing. Industry stakeholders are comparatively more ambivalent, although three quarters generally agree. The difference between the views of government/policy and industry stakeholders is significant (Table 24).

Table 24 The UK has a world leading position in bioscience (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
Strongly agree	42%	31%	50%	33%
Tend to agree	44%	44%	36%	50%
Neither agree nor disagree	10%	19%	9%	10%
Tend to disagree	3%	4%	0%	0%
Strongly disagree	0%	1%	0%	3%

More than three quarters of survey respondents (76%) consider that the UK's international position in relation to bioscience is due to the BBSRC. This is virtually on par with 79% in 2016 and 77% in 2014 (Figure 26).

Figure 26 The UK’s international position in relation to bioscience is due to BBSRC



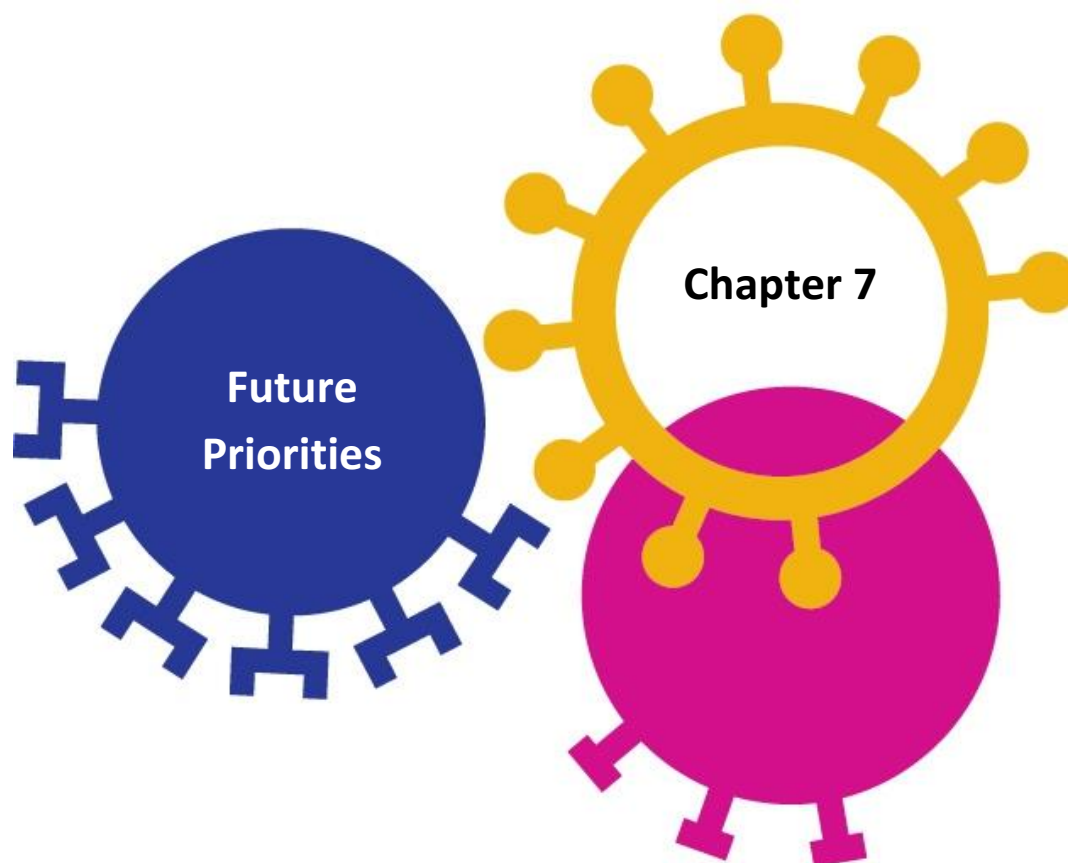
Surveyed stakeholders from academia identify most strongly that BBSRC has influenced the UK’s position relating to bioscience, with 80% saying a great deal or a fair amount. This is a significant difference from 68% of industry stakeholders who hold the same view. Around a fifth of industry, government and NGO stakeholders were unable to answer this question (Table 25).

Table 25 The UK’s international position in relation to bioscience is due to BBSRC (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
A great deal	21%	12%	21%	13%
	(+2)	(-2)	(-1)	(-3)
A fair amount	59%	56%	46%	50%
	(-6)	(+2)	(-7)	(-7)
Not very much	13%	10%	16%	17%
	(+2)	(-4)	(+10)	(+9)
Not at all	0%	1%	0%	0%
	(0)	(-1)	(0)	(0)
Don't know	7%	21%	18%	20%
	(+6)	(+5)	(-1)	(+1)

Finally in this chapter, stakeholders interviewed following the survey were asked how well they feel BBSRC represents UK bioscience. Most agree that BBSRC does this very well through the breadth of science it funds and being a strong catalyst for promoting UK bioscience on the international stage through strong international collaborations.

Where BBSRC is seen as representing the sector less well, is the periphery of bioscience, where research meshes with the remits of other Research Councils, such as the medical and social science arenas. Several stakeholders mentioned the Wellcome Trust as another strong and influential player in UK bioscience and a minority emphasised that BBSRC is perhaps less visible to industry than academia, and even less visible among the general public.



To ensure UK bioscience continues to be prosperous and world-leading, BBSRC and the research community need to respond to a number of priority changes and developments. This chapter reveals what they are, how stakeholders feel about them, and the role that BBSRC can play.

Stakeholders interviewed for the research highlighted a range of economic, social and environmental challenges facing all of us in the future that can only be tackled through innovation and world class research. These include the threat of climate change, issues of global food security, pests and diseases, land pressures and global market competition to name but a few.

To tackle these challenges effectively, the bioscience sector needs to focus on a number of key priorities. These include:

1. making sure the UK is strategically well positioned to tackle science challenges
2. preparing for the UK's exit from the European Union
3. ensuring bioscience continues to be strongly supported in the new funding landscape under UK Research and Innovation
4. responding to technological change.

Each of these four priority areas were explored with stakeholders as part of the research and are discussed, in turn, below.

7.1 Strategic approach to tackling science challenges

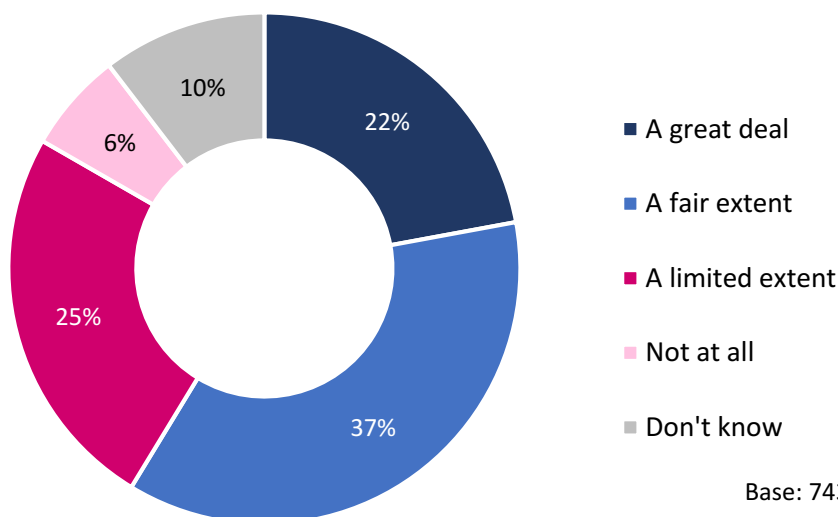
Surveyed stakeholders were asked to what extent they think that a more strategic approach to tackling science challenges, such as through the Global Challenges Research Fund (GCRF) and the Industrial Strategy Challenge Fund (ISCF), will support BBSRC's influence in bioscience.

The GCRF is a five-year £1.5Bn fund and a key component in the delivery of the UK Aid Strategy, involving tackling global challenges in the national interest. The fund aims to ensure that UK research takes a leading role in addressing the problems faced by developing countries. The ISCF aims to bring together the UK's world-leading research with business to meet major industrial and societal challenges. The fund is part of the government's £4.7Bn increase in research and development over four years and provides funding and support to UK businesses and researchers.

The majority of stakeholders (59%) believe that taking a more strategic approach to tackling science challenges will support UK bioscience to a great or fair extent (Figure 27).

Figure 27 Extent to which a more strategic approach to science challenges will support BBSRC's influence

New question for 2018



Base: 743 respondents

Most survey respondents across each of the stakeholder groups share this view, especially NGOs, among which 80% say this will have a great deal or a fair amount of influence, followed by 64% of industry stakeholders, 61% of government/policy stakeholders and 53% of academics. The difference in the views of NGOs compared with academics and industry stakeholders is significant (Table 26).

Table 26 Extent to which a more strategic approach to science challenges will support BBSRC's influence (by stakeholder group)

	Academic	Industry	Government/ policy	NGO
Base respondents	415	165	44	30
A great deal	21%	19%	25%	37%
A fair extent	32%	45%	36%	43%
A limited extent	31%	16%	21%	7%
Not at all	10%	1%	0%	7%
Don't know	6%	19%	18%	7%

Several stakeholders interviewed following the survey were complimentary about BBSRC's efforts to align itself with government and the industrial strategy, commenting that "there seems to be a good synergy". They made the point that senior leaders in BBSRC have a key role here in working with government to ensure these funds support the bioscience sector in the best possible way.

As a result of the GCRF and ISCF, academic stakeholders in particular foresee a risk of BBSRC being "pressured" by government to fund more strategic and applied research where this could be at the

expense of fundamental research, i.e. losing an appropriate balance. Several interviewees and focus group participants made the point that GCRF seems to have squeezed the budgets on fundamental responsive-mode grants, meaning that the threshold for successful grants has been pushed higher and a lot of very good smaller ideas go unfunded. A minority are also concerned that GCRF appears to have been somewhat rushed and that levels of quality and peer review “are not always as good as they could be”.

“I am not convinced at all that [these funds] will lead to any improvement in impact but I am quite sure this will lead to less engagement in basic research which is the main strength of UK bioscience.”

Academic stakeholder

A minority of academics responding to the survey emphasised that, as a tool for getting scientists to think more broadly, the GCRF is valuable. They suggest that BBSRC could help researchers to understand how these opportunities could apply to them and enable events to allow them to develop connections to support new ideas.

An NGO stakeholder made the point that BBSRC is not alone among Research Councils in needing to make sure that challenge-led initiative calls engage with members of society sufficiently early on the problems to be overcome. This, it was argued, is important to shape the way that research calls are framed and to make sure that there is an appetite for the proposed direction of travel.

“Bioscience needs to engage with the social sciences when thinking about the economic and human implications and benefits of the research being undertaken – especially under the GCRF.”

Industry stakeholder

7.2 Preparing for Brexit

The UK’s impending exit from the European Union is one of the foremost concerns for BBSRC’s stakeholders, with a general sense that this currently presents more risks than opportunities that need to be addressed.

Participants across all stages of the research flagged uncertainties about how Brexit will impact on funding, especially EU-funded frameworks from which the UK is perceived as currently gaining more back financially than it puts in. Another perceived risk is being able to readily recruit and retain high quality researchers from overseas – the loss of which some stakeholders feel could adversely affect the quality of postgraduate research. Linked to this, there is some concern about the cost of higher education in the UK which could be dissuading home-grown talent from pursuing postgraduate education in bioscience – further squeezing the future talent pool.

“It’s difficult to recruit for research scientist positions within the UK. The just aren’t enough people with the right skills.”

Industry stakeholder

There is concern among some survey respondents and interviewees that Brexit could stifle collaboration opportunities with international institutions. They argue that BBSRC should help to establish new platforms as a priority for the British scientific community to collaborate effectively with other European scientists. This level of collaboration, it is argued, would be difficult to achieve without a common funding umbrella, therefore it is felt that BBSRC should do what it can to enable UK scientists to continue to be eligible for EU funding post-Brexit.

Brexit is a major threat to UK's strong position in science globally, so to be part of European collaborative projects will be essential to keep this position.”

Academic stakeholder

Several questioned what Brexit will mean for BBSRC schemes for early career researchers and fellowships in the future, questioning whether they will be opened up more widely or narrowed. It is suggested that more engagement is needed about bioscience careers in schools and that examples of good practice in developing bioscience skills could be learned from other countries.

The main identified opportunity from Brexit is the potential to forge new partnerships outside Europe, for example India or China, with a call for help and support to help make this happen and a potential role here for BBSRC and the Department for International Trade (DIT).

“BBSRC (and others like the Wellcome Trust and AHDB) are absolutely key players that must have a voice in how the UK develops in response to Brexit. Bioscience is a leading 'export' from the UK and in order to maintain our world-leading position, we absolutely must have the support and strong voice of these organisations.”

NGO stakeholder

7.3 BBSRC’s role under UK Research and Innovation

In response to a recommendation from the Nurse Review of Research Councils¹¹, the launch of UK Research and Innovation from 1st April 2018 will be the biggest change to the funding landscape in decades. It sees the seven Research Councils, Innovate UK and a new organisation, Research England come together to provide a strong voice internationally on behalf of UK research.

This unique arrangement is expected to deepen understanding of the research and innovation landscape to improve investment decisions, and improve communications between the sectors and funders. Each Research Council is expected to lead and encourage their own discipline, therefore

¹¹ Nurse, P (2015) *Ensuring a Successful UK Research Endeavour – A Review of the UK Research Councils*
March 2018

BBSRC will continue to promote and support bioscience skills and research. UK Research and Innovation's ambitions include:

- encouraging the best of human knowledge and understanding
- delivering economic impact and social prosperity
- creating social impact by supporting and encouraging our society and others to become enriched, healthier, more resilient and sustainable¹².

Survey respondents and focus group participants tended to use the term "uncertainty" in the context of UK Research and Innovation and its potential influence on bioscience and the role of BBSRC. Several anticipate a "business as usual" environment for the foreseeable future, with change expected to be evolutionary rather than revolutionary.

The launch of UK Research and Innovation is seen by many as a positive opportunity for enabling more joined-up working and cross-Council collaboration, particularly with a view to tackling the current situation where grant applications spanning the remits of more than one Research Council can be denied funding for that reason. However, several survey respondents and some focus group participants emphasised that BBSRC's voice must not risk being diminished or "crowded out". Linked to this, a participant at the London focus group made the point that bioscience research is arguably more dependent on BBSRC than medical research is dependent on the Medical Research Council (MRC), due to fewer alternative funding bodies in bioscience, making it especially important that BBSRC is a strong voice in the new structure.

"There is a risk of 'UKRI soup', where all the Research Councils are thrown into one, with loss of specific expertise in their respective fields."

Academic stakeholder

There is scepticism among some stakeholders as to what UK Research and Innovation's role might mean for the balance of fundamental versus applied research. In particular there is some concern among academics of the research agenda being steered too strongly by government and on to the "topic of the day", in turn squeezing out opportunities for more exploratory research.

"I am concerned that UKRI will narrow the landscape and consolidate all our research into just a few headline areas."

Academic stakeholder

"While the push for stronger engagement under UKRI is to be applauded and encouraged, it is equally important that we do not lose sight of the vital importance of supporting basic science: there would be no such thing as successful applied science without the underpinning basic science."

NGO stakeholder

¹² UK Research and Innovation (2017) *Official Narrative*

Stakeholders seek more clarity as soon as possible on how BBSRC intends to work within UK Research and Innovation and, crucially, how that is likely to affect the bioscience sector. They see a key priority for BBSRC in maintaining its budget and remit where there could be growing pressure for more funds to be directed towards biomedical research. There is also a desire to ensure that the new funding structure does not lead to significant changes to key BBSRC personnel, BBSRC priorities, or changes in the way BBSRC engages with its strategic partner organisations.

7.4 Responding to technological change

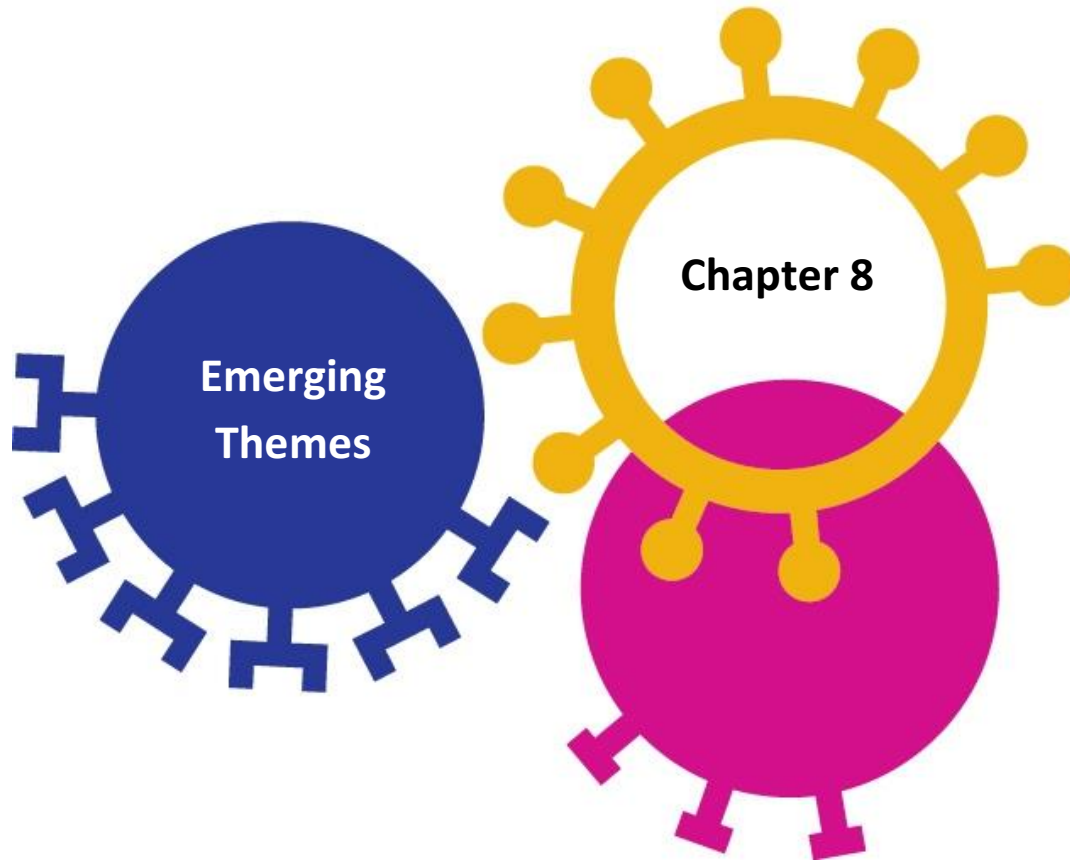
Stakeholders at the Birmingham focus group discussed in detail how computational interfaces are driving change in bioscience. They note that Digital Data Analytics (DDA), genetic science, artificial intelligence (AI), robotics, and mechanisation are gaining considerable traction. From an industry-perspective, technological change is important due to the need to reduce labour costs, especially in the face of fluctuations in the value of the pound, possible import/export tariffs imposed as a result of Brexit, and a general reluctance among supermarkets to pass on price increases of home-grown foodstuffs to consumers.

These changes, it is argued, are blurring the boundaries between the Research Councils and emphasise once again the need for much more cross-Council collaboration. One participant observed that advanced digital technology seems to have achieved more success to date in medical science than bioscience and therefore needs more investment. Furthermore, it is becoming increasingly important that bioscience researchers have the skills to harness and work with Big Data in a way that has not been seen before.

“An individual with a computer science background needs to understand the bioscience elements of a project, whilst bioscience specialists need the computational skills. That cross-pollination is hard to achieve but it’s arguably important both ways.”

Academic stakeholder

Linked to technological change is the matter of licensing bioscience products (e.g. foods) developed using particular techniques. In addition to supporting innovation, it is felt that BBSRC needs to make sure that the research it funds is acceptable to the public through effective public relations messaging and using the right language to ensure that the outcomes from innovative new developments land well with general audiences.



This chapter draws together all evidence from the stakeholder engagement research into a series of emerging themes, including suggestions for how BBSRC may wish to respond.

Building on BBSRC's 2014 and 2016 stakeholder engagement research, this report has provided an overview of stakeholder's latest perceptions of BBSRC in terms of its strategic direction, relationship management approaches and operational processes. It has gauged the priority concerns of different stakeholders in a changing funding and political landscape, and explored what actions BBSRC could take to continue to strongly represent bioscience and support its stakeholder community.

The research has revealed that most surveyed stakeholders are generally favourable towards BBSRC, acknowledging its importance as a funder of exploratory and translational bioscience research in the UK. BBSRC has garnered a strong reputation for quality and international influence and stakeholders actively seek closer and more strategic involvement with BBSRC. Meeting this demand could be a key challenge for BBSRC going forward given that its population of stakeholders appears to be growing (see Table 27) yet BBSRC's own resources have become more limited in recent years.

A range of complex influencing factors can contribute to how stakeholders' perceptions of BBSRC have changed in recent years. In areas where views have become less favourable in 2018 compared with 2016/2014, this is partly due to uncertainties surrounding Brexit and what that could mean for the bioscience sector, potential changes to the funding landscape under UK Research and Innovation, and perceptions that funding opportunities are becoming scarcer and/or harder to win. Given that BBSRC's resources have also had to go a lot further, some stakeholders have noticed that close working relationships enjoyed in previous years have are no longer sustained to the same degree.

Analysis of the survey findings reveals that academics are often significantly more favourable in their views about BBSRC than industry stakeholders. The qualitative insights embedded throughout this report help to reveal why. This primarily comes down to differences in the perceived value gained from BBSRC, and perceptions of how well BBSRC "talks to" their organisation. Academics tend to have more operational involvement with BBSRC and, through grant application processes, have a closer working relationship with BBSRC and a stronger understanding of its values. There is a general recognition that BBSRC is actively balancing the funding of fundamental and translational research, however, industry stakeholders are not always aware of what BBSRC does to directly benefit business, or are missing these messages. It is also noteworthy that more than a third of industry stakeholders (36%) do not know how to describe the level of their relationship with BBSRC (i.e. strategic, operational or both) suggesting a disconnect in BBSRC's engagement strategy with this audience. Balancing the needs of a diverse range of stakeholder groups is therefore a key on-going challenge for BBSRC.

The remainder of this chapter summarises the emerging themes and suggested actions that BBSRC could take in response to the research findings. Several of the points made in this chapter echo those raised in 2016, such as better promoting UK bioscience, carefully managing the transition to the UK Research and Innovation funding landscape, and issuing better tailored communications. This emphasises the continuing validity of the strategic aims and objectives of BBSRC's 2015-17

*Corporate Communications and Engagement Strategy*¹³, notably that BBSRC needs to continue to secure and maintain the best possible environment for UK bioscience, raise awareness of the value of its work, and strengthen its reputation as being a trusted and open organisation.

THEME 1: Continuing to raise awareness about BBSRC's role, its work, and the economic and social outcomes of the research it funds, using tailored communications for different stakeholder groups

Familiarity with BBSRC's role and work is high among academics and NGOs, but more work is needed to engage industry and government/policy stakeholders. This means understanding and responding to what each of these stakeholder groups need from their relationship with BBSRC, using targeted and tailored communications.

For industry stakeholders, this goes beyond the need for BBSRC to better communicate its Mission and Vision, but to articulate its strategy and the outcomes from funded projects more strongly in terms of how they can directly benefit industry and the economy. For government/policy stakeholders, BBSRC should ensure strong engagement with the UK and devolved governments, articulate its priorities boldly and confidently, and provide more information to these stakeholders about current issues, emerging science and its application.

BBSRC should also consider being more proactive in engaging the public with bioscience, with a focus on education and positive promotion of bioscience. This could be achieved through greater media engagement and/or funding more outreach activities among the research base.

THEME 2: Strengthening cross-Council working to better respond to the increasingly interdisciplinary nature of bioscience research for the benefit of society

The increasing interconnectedness between bioscience and the health and social agendas, means that more research is more commonly straddling previously defined peripheries of Research Council remits. However, current funding arrangements do not appear to have kept up, meaning that research proposals can be denied or applicants referred to another Research Council, causing frustration, delays, additional work and (in some cases) a re-engineering the original focus of proposals to try to make them fit the system.

BBSRC should consider pursuing a more interdisciplinary approach to funding bioscience, the opportunity for which is strengthened under the new UK Research and Innovation funding environment.

¹³ At the time of writing, the BBSRC has not yet finalised its proposed *Corporate Communications and Engagement Strategy* to follow-on from the 2015-17 edition.

THEME 3: Maximising the benefit of a more strategic approach to funding UK bioscience whilst ensuring that an appropriate balance is retained between fundamental and applied research

A continuing challenge for BBSRC, readily acknowledged by research participants, is being able to balance the needs of a wide circle of stakeholders who bring different interests, specialisations and motivations to the funding table. Academic stakeholders tend to be stronger promoters of fundamental responsive-mode research, while industry stakeholders tend to identify and engage more with research that can bring more immediate “real world” application. Some stakeholders went as far as specifying what they felt the percentage split should be in BBSRC’s funding of these two distinct strands of research, and the topic created some division during focus group discussions.

Additionally, the majority of stakeholders in each of the four main groups (59% overall) are favourable to BBSRC taking a more strategic approach to science challenges, for example through the Global Challenges Research Fund (GCRF) and the Industrial Strategy Challenge Fund (ISCF). NGOs and industry stakeholders are especially favourable.

BBSRC should therefore continue to strike an appropriate balance that ensures funding in challenge areas and of an applied nature continues, but does not compromise budgets for fundamental responsive-mode grants. A consequence of doing so is that the threshold for successful grant applications is pushed up, potentially limiting funding opportunities and dampening the potential for future scientific innovation through blue sky research.

As stakeholders are somewhat divided on the ‘balance of funding’ issue, a key action for BBSRC could be to address this more directly and clearly communicate its funding strategy to stakeholders, including what types of research it chooses to fund, in what quantities, and why that is. This communication could be tailored for different stakeholder groups, i.e. for academics by placing more emphasis on its responsive-mode funding strategy, and for industry by focussing more on its applied funding strategy.

THEME 4: Working hard to ensure a strong and prosperous future for UK bioscience following the UK’s exit from the European Union, through good access to funding and collaboration opportunities

For BBSRC's stakeholders, Brexit presents one of the most significant challenges for UK bioscience in contemporary times. Whilst offering potential opportunities in terms of collaboration beyond Europe, stakeholders have identified three main risk areas that need to be overcome: 1) continued access to EU funding; 2) being able to attract and retain high quality research scientists from the EU; and 3) sustaining EU partnerships.

Specific concerns include lack of clarity over what will happen following the expiry of current EU funding frameworks, that the UK will not be seen as an attractive and welcoming place for EU

research scientists, and that the UK will not be able to easily tap into the expertise and facilities of overseas European collaborators.

At the time of writing, a great deal of uncertainty remains as to how Brexit will shape each of these areas, however, it is important that BBSRC does everything it can to influence the best possible outcomes and is seen to be doing so. This will inevitably mean continuing senior-level dialogue with the UK government, and working with EU partners to protect and preserve existing established relationships.

THEME 5: Establishing BBSRC's role in the new funding landscape under UK Research and Innovation and clearly communicating this to stakeholders

BBSRC's stakeholders can only speculate as to how the new funding structure under UK Research and Innovation will evolve and what that will mean for BBSRC's autonomy, influence and ability to control the funding it provides for UK bioscience. There is a clear feeling among some stakeholders that BBSRC is equally unclear, although the current perceived 'wait and see' attitude is not necessarily seen as a bad thing.

Stakeholders are cautious about the idea of radical change and academics in particular see UK Research and Innovation as providing a strong opportunity for greater alignment of the Research Councils and to encourage a grant funding system that is more responsive to proposals that cross traditional sectoral dividing lines.

Going forward under the new structure, BBSRC should ensure that it continues to promote the prominence of its position in the UK as a leading funder of bioscience on which the community is heavily dependent. It will be vital that BBSRC has a strong voice to protect the interest of stakeholders, secure sufficient funding, and ensure bioscience can continue to innovate and have a strong presence on the world stage.

THEME 6: Ensuring that academia and industry can draw on the knowledge and skills needed to exploit new technologies for the benefit of UK bioscience

To remain internationally competitive and at the forefront of cutting edge innovation, the UK bioscience community needs to maximise the potential of new digital technologies and processes, such as computational interfaces, robotics, artificial intelligence (AI) and the power of Big Data. For industry, being able to use and capitalise on new technology is vital for minimising costs, especially as there are growing concerns about domestic skills shortages, fluctuations in the value of the pound and the possible effects of Brexit on trade tariffs and margins.

BBSRC should continue to support research to advance and better exploit these technologies, including more follow-on funding opportunities with a view to boosting commercialisation of research.

THEME 7: Helping to stimulate and strengthen collaboration opportunities between academia and industry

Collaboration opportunities, such as Knowledge Transfer Partnerships (KTPs), Networks in Industrial Biotechnology and Bioenergy (NIBBs) and Catapults, are highly valued by stakeholders. However, industry stakeholders can sometimes encounter resistance from academic institutions, which can impede partnership working.

BBSRC should help to enable, promote and/or incentivise more of these opportunities. One approach would be to specify that a percentage of funding awarded to universities is designated for conversion to CASE studentships to support more collaboration with industry. Consideration should also be given to providing more support aimed at sustaining international collaborations in the longer term, especially if Brexit has the effect of curtailing current EU partnerships.

THEME 8: Continuing to review and improve operational processes in areas that would help to improve stakeholder satisfaction and confidence

BBSRC should consider responding to concerns raised by some stakeholders about the quality and efficiency of grant application processes. Doing so could help alleviate a feeling of ‘them and us’ between stakeholders and BBSRC.

Specifically, this should take into account when grant applications are released and deadlines set (i.e. around holiday periods), speeding up the decision-making process, providing more detailed feedback on grant submissions, and considering a two-stage application process that includes an initial and more lightweight pre-qualification phase.

Additionally, BBSRC should continue to ensure that grant review committees work consistently, have the best possible expertise in their fields, but are also not averse to taking risks in what they choose to fund.

THEME 9: Being visible, open and communicative, whilst managing stakeholder expectations

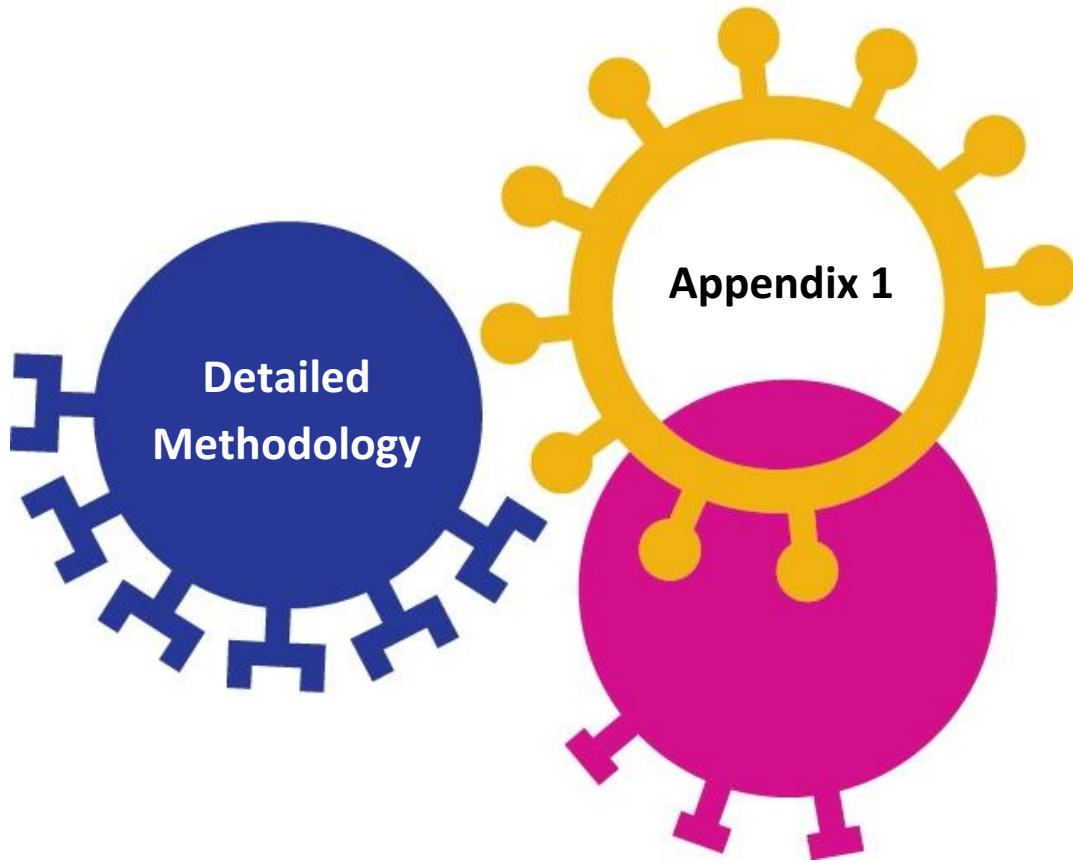
All of the themes discussed in this report point to the need for BBSRC to increase its visibility among stakeholders and be more open and communicative. How BBSRC chooses to do this will depend on the reach of its own resources. For example, if BBSRC’s pool of stakeholders continues to grow then it may become more difficult to sustain current levels of engagement to the same extent in the future. This reinforces the need for a stakeholder engagement strategy that clearly articulates the opportunities as well as the challenges, thereby helping to manage stakeholder expectations.

BBSRC could strengthen stakeholder engagement by reaching out more to those with whom it has had limited recent contact and maximise opportunities for more regular and meaningful two-way dialogue. Stakeholders value well publicised and geographically dispersed ‘Town Hall’ meetings,

networking events, and visits from BBSRC representatives to their own organisations. They also enjoy the privilege of having named points of contact within BBSRC. Having said that, any enhancements that BBSRC could make to its website content and email bulletins so that these are better targeted and tailored to particular stakeholder groups would also go a long way.

In addition, BBSRC should keep in mind the need to keep stakeholders informed about its stance in response to particular challenges, how its role under UK Research and Innovation will change, and continue to communicate how it is working to support the interests of each of its key stakeholder groups.

To that end, BBSRC should consider developing a clear strategy for stakeholder engagement that clearly articulates the opportunities as well as the challenges, thereby helping to manage stakeholder expectations.



The three main strands of the fieldwork are explained in detail, below.

Online survey

The online survey questionnaire was designed jointly between BBSRC and Pye Tait Consulting. A key consideration was balancing comparability with previous years (for those questions where trend analysis was considered important) and new lines of questioning to reflect BBSRC's latest priorities. BBSRC hosted the survey online and successfully distributed the link by email to 2,536 individuals. Only those individuals with access to the link in the email were able to complete the survey, for example in some cases it may have been appropriate for the recipient to forward the link to a colleague to complete on their behalf. The survey was live from 14 February 2018 to 12 March 2018.

The survey achieved 748 responses and a response rate of 29%. This is the highest volume and response rate of BBSRC's three biennial stakeholder engagement surveys to date (Table 27).

Table 27 Survey volumes and response rates (2018, 2016 and 2014)

Year	Total stakeholders emailed (adjusted to deduct delivery failures)	Total survey responses	Response rate
2018	2,536	748	29%
2016	2,028	507	25%
2014	1,365	383	28%

Follow-up telephone interviews

Pye Tait set out to achieve 30-35 follow-up telephone interviews with a sample of survey respondents to explore their views in more detail. Individuals responding to the survey were invited to opt in to being contacted by Pye Tait for this purpose and BBSRC shared contact details of those individuals with Pye Tait under a Data Sharing Agreement. The data shared for this purpose did not include a record of stakeholders' survey responses.

Pye Tait stratified stakeholders according to BBSRC's four main defined stakeholder groups – Government/policy, academia, industry and Non-Governmental Organisations (NGOS). Within each group, Pye Tait then contacted a random sample of stakeholders with a view to ensuring a mix of participants from each group. A total of 35 interviews were completed.

Focus group discussion forums

Individuals responding to the survey were invited to register their interest in attending one of three focus group discussion forums to explore additional topics in detail. Their contact details were shared with Pye Tait in the same manner as those agreeing to be contacted for a telephone interview.

All participants expressing interest in the Edinburgh and Birmingham events were subsequently emailed by Pye Tait to confirm that a place was available. As the London event was over-subscribed, a random sample of participants expressing interest were invited to attend, ensuring mixed representation from academic, industry, Government/policy and NGO stakeholders. A total of 26 stakeholders participated in the focus group phase.

Statistical significance testing

All survey results are subject to sampling tolerances, which means that not all differences can be considered statistically significant. When comparing between years, this is further complicated by the difference in the number of stakeholders who took part, i.e. 748 in 2018, 507 in 2016 and 383 in 2014.

Statistical significance testing has been performed to assess whether differences in survey results between stakeholder groups are due to chance or whether they represent meaningful differences between the groups. Pair-wise Mann-Whitney U-Tests have been performed to compare the responses to 17 key questions between academics, industry, government/policy and Non-Governmental Organisations (NGOs). The significance (p) level was set to 0.05 for all tests.

Detailed results from the Mann-Whitney U-Tests are set out below.

Q6: How well would you say BBSRC keeps you informed about its work?

- Academics and industry: The value of U is 24653. The Z-Score is -5.26361. The p-value is < .00001. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 7235.5. The Z-Score is -2.26382. The p-value is .02382. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 5318. The Z-Score is -1.33262. The p-value is .18352. The result is not significant at $p < .05$.

Q9: How easy or difficult do you find working with BBSRC?

- Academics and industry: The value of U is 23770.5. The Z-Score is -5.74828. The p-value is < .00001. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 7256. The Z-Score is -2.23931. The p-value is .0251. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 4418. The Z-Score is -2.65568. The p-value is .00782. The result is significant at $p < .05$.

Q10: Thinking about your relationship with BBSRC, would you like to work more or less closely in the future? (Select one answer only)

- Academics and industry: The value of U is 33992. The Z-Score is -0.13456. The p-value is .89656. The result is not significant at $p < .05$.
- Academics and government/policy: The value of U is 8446. The Z-Score is 0.81696. The p-value is .41222. The result is not significant at $p < .05$.
- Academics and NGOs: The value of U is 14956. The Z-Score is 0.35586. The p-value is .71884. The result is not significant at $p < .05$.

Q12: To what extent do you feel BBSRC adds value to your organisation?

- Academics and industry: The value of U is 10101.5. The Z-Score is 12.3578. The p-value is < .00001. The result is significant at $p < .05$.

- Academics and government/policy: The value of U is 3790.5. The Z-Score is 5.91547. The p-value is < .00001. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 3300.5. The Z-Score is 4.17509. The p-value is < .00001. The result is significant at $p < .05$.

Q13: How much more value (if any) do you believe BBSRC could add to your organisation?

- Academics and industry: The value of U is 27285.5. The Z-Score is -3.81782. The p-value is .00014. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 6906. The Z-Score is -2.65765. The p-value is .00782. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 5208.5. The Z-Score is -1.49359. The p-value is .13622. The result is not significant at $p < .05$.

Q18: What is your opinion of the frequency of communications you receive from BBSRC?

- Academics and industry: The value of U is 28775. The Z-Score is -2.99977. The p-value is .0027. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 7750.5. The Z-Score is -1.64826. The p-value is .09894. The result is not significant at $p < .05$.
- Academics and NGOs: The value of U is 5445. The Z-Score is -1.14592. The p-value is .25014. The result is not significant at $p < .05$.

Q19: Overall, how well do you think BBSRC communicates with you/your organisation?

- Academics and industry: The value of U is 26942.5. The Z-Score is -4.00619. The p-value is < .00001. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 7329. The Z-Score is -2.15206. The p-value is .03156. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 5008. The Z-Score is -1.78834. The p-value is .07346. The result is not significant at $p < .05$.

Q21: Which one of the following describes how you would speak of BBSRC?

- Academics and industry: The value of U is 27885.5. The Z-Score is -3.48829. The p-value is .00048. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 8456.5. The Z-Score is -0.80441. The p-value is .42372. The result is not significant at $p < .05$.
- Academics and NGOs: The value of U is 5542. The Z-Score is -1.00332. The p-value is .31732. The result is not significant at $p < .05$.

Q22: To what extent do you agree or disagree that the UK has a world-leading position in bioscience?

- Government/policy and academics: The value of U is 8539. The Z-Score is 0.7058. The p-value is .4777. The result is not significant at $p < .05$.
- Government/policy and industry: The value of U is 2847. The Z-Score is 2.19532. The p-value is .0278. The result is significant at $p < .05$.
- Government/policy and NGOs: The value of U is 555. The Z-Score is -1.15051. The p-value is .25014. The result is not significant at $p < .05$.

Q23: To what extent do you think that the UK's international position in relation to bioscience is due to BBSRC?

- Academics and industry: The value of U is 27896. The Z-Score is -3.48253. The p-value is .0005. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 7943.5. The Z-Score is -1.41757. The p-value is .1556. The result is not significant at $p < .05$.
- Academics and NGOs: The value of U is 4924.5. The Z-Score is -1.91109. The p-value is .05614. The result is not significant at $p < .05$.

Q24: To what extent do you think that taking a more strategic approach to science challenges, e.g. through the Global Challenges Research Fund (GCRF) and the Industrial Strategy Challenge Fund (ISCF), will support BBSRC's influence in bioscience?

- NGOs and academics: The value of U is 4569.5. The Z-Score is 2.43297. The p-value is .0151. The result is significant at $p < .05$.
- NGOs and industry: The value of U is 1856.5. The Z-Score is 2.17344. The p-value is .03. The result is significant at $p < .05$.
- NGOs and government/policy: The value of U is 522.5. The p-value is .13104. The result is not significant at $p < .05$.

Q25: How would you rate BBSRC's contribution to economic and social impact within the UK?

- Academics and industry: The value of U is 17817. The Z-Score is 5.92144. The p-value is $< .00001$. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 6518.5. The Z-Score is 1.13127. The p-value is .25848. The result is not significant at $p < .05$.
- Academics and NGOs: The value of U is 3092. The Z-Score is 2.88762. The p-value is .00386. The result is significant at $p < .05$.

Q26: How effective do you consider BBSRC at communicating its impact?

- Academics and industry: The value of U is 22029. The Z-Score is -6.70473. The p-value is $< .00001$. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 7203.5. The Z-Score is -2.30207. The p-value is .02144. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 5692. The Z-Score is -0.78281. The p-value is .4354. The result is not significant at $p < .05$.

Q27: How familiar are you with BBSRC's Mission and Vision?

- Academics and industry: The value of U is 16538.5. The Z-Score is 9.61841. The p-value is $< .00001$. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 5303. The Z-Score is 4.3644. The p-value is $< .00001$. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 4973.5. The Z-Score is 1.82124. The p-value is .06876. The result is not significant at $p < .05$.

Q28: To what extent do you think BBSRC achieves its Vision?

- Academics and industry: The value of U is 19961.5. The Z-Score is 3.53318. The p-value is .00042. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 7327. The Z-Score is 0.0233. The p-value is .98404. The result is not significant at $p < .05$.
- Academics and NGOs: The value of U is 4628. The Z-Score is 1.18641. The p-value is .23404. The result is not significant at $p < .05$.

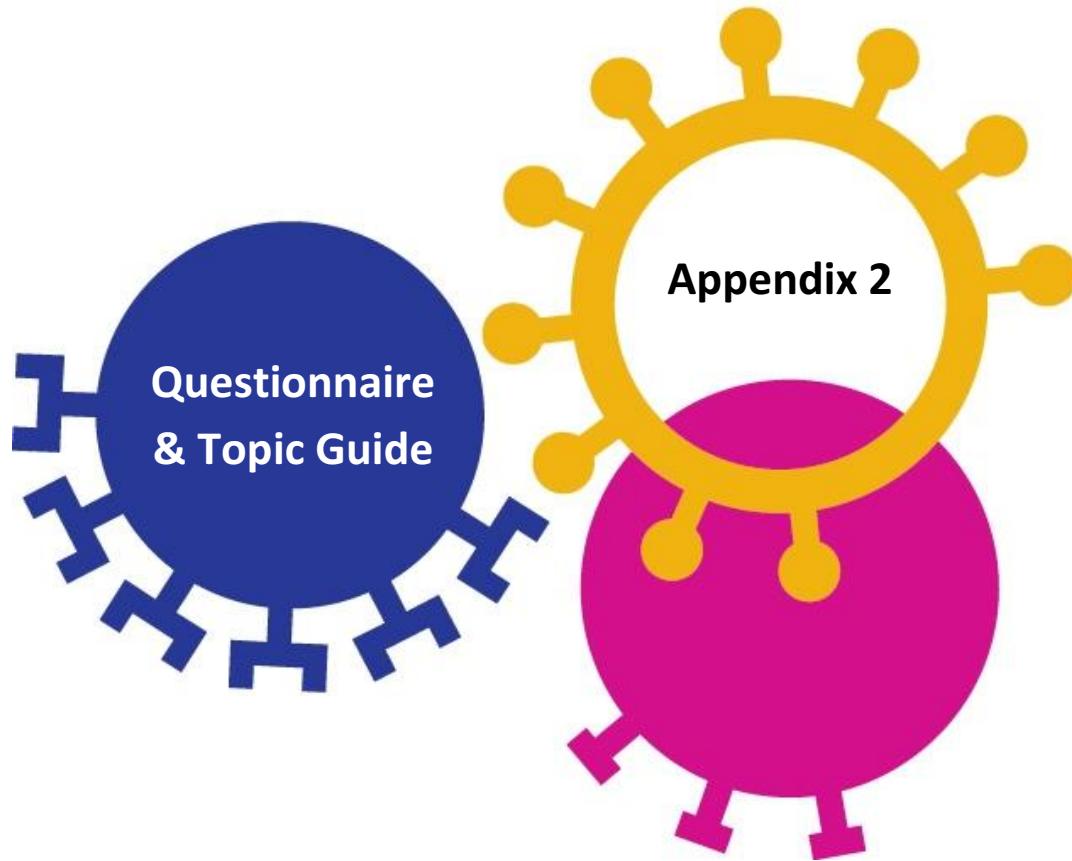
Q29: To what extent do you think there is scope for BBSRC to work more closely with your organisation to achieve this Vision?

- Academics and industry: The value of U is 26300. The Z-Score is -4.35906. The p-value is $< .00001$. The result is significant at $p < .05$.
- Academics and government/policy: The value of U is 8097. The Z-Score is -1.2341. The p-value is .2187. The result is not significant at $p < .05$.
- Academics and NGOs: The value of U is 5604.5. The Z-Score is -0.91144. The p-value is .36282. The result is not significant at $p < .05$.

Q30: To what extent, if at all, does your organisation share BBSRC's Vision?

- Academics and industry: The value of U is 18091. The Z-Score is 6.62524. The p-value is $< .00001$. The result is significant at $p < .05$.

- Academics and government/policy: The value of U is 4581. The Z-Score is 4.6618. The p-value is $< .00001$. The result is significant at $p < .05$.
- Academics and NGOs: The value of U is 3621.5. The Z-Score is 3.44774. The p-value is $.00056$. The result is significant at $p < .05$.



Online survey questionnaire

PART 1: About you/your organisation

1. Which of the following classifications best describes the organisation you work for? (Select one answer only).

<input type="checkbox"/>	Government/policy
<input type="checkbox"/>	Academic
<input type="checkbox"/>	Industry
<input type="checkbox"/>	Non-governmental organisation (NG)
<input type="checkbox"/>	Other

If Other – please specify:

2. In your organisation, which of the following best describes your main role? (Select one answer only).

<input type="checkbox"/>	Board level
<input type="checkbox"/>	Senior Executive
<input type="checkbox"/>	Middle management
<input type="checkbox"/>	Chief Scientist
<input type="checkbox"/>	Vice-Chancellor
<input type="checkbox"/>	Pro-Vice Chancellor
<input type="checkbox"/>	Governing Body Member
<input type="checkbox"/>	Principal Investigator
<input type="checkbox"/>	Department Head
<input type="checkbox"/>	Other

If Other – please specify:

3. In which, if any, of the following areas does your organisation's work overlap with BBSRC's remit? (Select all that apply).

<input type="checkbox"/>	General science
<input type="checkbox"/>	Bioscience
<input type="checkbox"/>	Health
<input type="checkbox"/>	Agriculture
<input type="checkbox"/>	Food
<input type="checkbox"/>	Bioenergy
<input type="checkbox"/>	Industrial Biotechnology
<input type="checkbox"/>	Our work doesn't overlap with BBSRC's remit (no other boxes can be ticked)
<input type="checkbox"/>	Don't know
<input type="checkbox"/>	Other

If Other – please specify:

PART 2: Awareness and understanding

4. How much, if anything, did you know about BBSRC prior to completing this survey? (Select one answer only).

	A great deal
	A fair amount
	Just a little
	Had heard of the BBSRC but know nothing about it
	Had never heard of the BBSRC

If bottom two options selected – the remaining questions do not apply.

5. Which of the following, if any, do you associate with the role of BBSRC? (Select all that apply).

	Infrastructure funding
	Knowledge exchange and innovation
	Communications and public engagement
	Research grants/research funding
	Science policy
	Skills and training
	Leadership and influence
	Partnership and collaboration
	Don't know
	Other

If Other – please specify:

6. How well would you say BBSRC keeps you informed about its work?

	Very well
	Fairly well
	Not very well
	Not at all well
	Don't know

PART 3: Working relationships and value

7. At which of the following levels do you mainly engage with BBSRC? (Select one answer only).

	Strategic level (e.g. around BBSRC's goals and strategic direction)
	Operational, day-to-day level (e.g. sitting on Panels, reviewing grant applications)
	Both of these
	Don't know

8. Approximately how often do you have contact with BBSRC? (Select one answer only).

	Daily
	Several times a week
	Once a week
	Several times a month
	Once a month
	Every few months
	About once every six months
	At least yearly
	Less often than yearly
	Never
	Don't know

9. How easy or difficult do you find working with BBSRC?

	Very easy
	Fairly easy
	Neither easy nor difficult
	Fairly difficult
	Very difficult
	Don't know

10. Thinking about your relationship with BBSRC, would you like to work more or less closely in the future? (Select one answer only)

	A lot more closely
	A little more closely
	It's currently about right
	A little less closely
	A lot less closely
	Don't know

11. Please tell us any ideas you have for how your working relationship with BBSRC could be strengthened or improved?

12. To what extent do you feel BBSRC adds value to your organisation?

Please type your answer on a scale from 1 to 10, where 1 means 'BBSRC adds no value to your organisation' and 10 means 'BBSRC is essential to your organisation'.

13. How much more value (if any) do you believe BBSRC could add to your organisation?

	A great deal more
	A fair amount more
	Very little more
	Could not add any more
	Don't know
	I do not expect the BBSRC to add value to my organisation

14. **ONLY ASKED IF Q13 = options 1/2/3:** In what ways do you think BBSRC could add more value to your organisation?

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PART 4: Effectiveness of interactions

15. In which of the following ways do you interact with BBSRC? (Select all that apply)

	Visiting the BBSRC website
	Following BBSRC on social media (e.g. Twitter, Facebook)
	Watching BBSRC video content
	Receiving BBSRC Business Magazine
	Receiving monthly email newsletters
	Receiving invitations to events to BBSRC events
	Phone contact
	Face-to-face contact/meetings
	Sitting on a BBSRC committee or panel
	Through grant applications/peer review
	Other
	None of these

If Other – please specify:

16. CONDITIONAL TO MATCH THE ANSWERS GIVEN TO Q15: How would you rate the effectiveness of those interactions?

	Very effective	Fairly effective	Neutral	Not very effective	Not at all effective	Don't know
Visiting the BBSRC website						
Following BBSRC on social media (e.g. Twitter, Facebook)						
Watching BBSRC video content						
Receiving BBSRC Business Magazine						
Receiving monthly email newsletters						
Receiving invitations to events to BBSRC events						
Phone contact						
Face-to-face contact/meetings						
Sitting on a BBSRC committee or panel						
Through grant applications/peer review						

17. In what ways, if at all, do you think interactions with BBSRC could be strengthened or improved?

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18. What is your opinion of the frequency of communications you receive from BBSRC?

	Too frequent
	About right
	Not frequent enough
	Don't know

19. Overall, how well do you think BBSRC communicates with you/your organisation?

	Very well
	Fairly well
	Not very well
	Not at all well
	Don't know

PART 5: Performance and impact

20. Which of the following words would you use to describe BBSRC as an organisation? (Select up to three answers only)

<input type="checkbox"/>	Accessible	<input type="checkbox"/>	Ineffectual
<input type="checkbox"/>	Agile	<input type="checkbox"/>	Inflexible
<input type="checkbox"/>	Ambitious	<input type="checkbox"/>	Influential
<input type="checkbox"/>	Archaic	<input type="checkbox"/>	Innovative
<input type="checkbox"/>	Authoritative	<input type="checkbox"/>	Insular
<input type="checkbox"/>	Bureaucratic	<input type="checkbox"/>	Open
<input type="checkbox"/>	Cautious	<input type="checkbox"/>	Other
<input type="checkbox"/>	Closed	<input type="checkbox"/>	Proactive
<input type="checkbox"/>	Connected	<input type="checkbox"/>	Reactive
<input type="checkbox"/>	Credible	<input type="checkbox"/>	Slow
<input type="checkbox"/>	Disjointed	<input type="checkbox"/>	Trusted
<input type="checkbox"/>	Don't know	<input type="checkbox"/>	Unconvincing
<input type="checkbox"/>	Flexible	<input type="checkbox"/>	Untrustworthy
<input type="checkbox"/>	Forward-thinking	<input type="checkbox"/>	Other
<input type="checkbox"/>	Indecisive	<input type="checkbox"/>	

If Other – please specify:

21. Which one of the following describes how you would speak of BBSRC?

<input type="checkbox"/>	Would speak highly without being asked
<input type="checkbox"/>	Would speak highly if asked
<input type="checkbox"/>	Would be neutral
<input type="checkbox"/>	Would be critical if asked
<input type="checkbox"/>	Would be critical without being asked
<input type="checkbox"/>	Don't know

22. To what extent do you agree or disagree that the UK has a world-leading position in bioscience?

<input type="checkbox"/>	Strongly agree
<input type="checkbox"/>	Tend to agree
<input type="checkbox"/>	Neither agree nor disagree
<input type="checkbox"/>	Tend to disagree
<input type="checkbox"/>	Strongly disagree
<input type="checkbox"/>	Don't know

23. To what extent do you think that the UK's international position in relation to bioscience is due to BBSRC?

<input type="checkbox"/>	A great deal
<input type="checkbox"/>	A fair amount
<input type="checkbox"/>	Not very much
<input type="checkbox"/>	Not at all
<input type="checkbox"/>	Don't know

24. To what extent do you think that taking a more strategic approach to science challenges, e.g. through the Global Challenges Research Fund (GCRF) and the Industrial Strategy Challenge Fund (ISCF), will support BBSRC's influence in bioscience?

	A great deal
	A fair extent
	A limited extent
	Not at all
	Don't know

25. How would you rate BBSRC's contribution to economic and social impact within the UK?

Please type your answer on a scale from 1 to 10, where 1 means 'no contribution' and 10 means 'significant contribution'.

26. How effective do you consider BBSRC at communicating its impact?

	Very effective
	Fairly effective
	Not very effective
	Not at all effective
	Don't know

PART 6: Mission and Vision

BBSRC's Mission is to:

- Promote and support high-quality basic, strategic and applied research and related postgraduate training relating to the understanding and exploitation of biological systems; and
- Advance knowledge and technology (including the promotion and support of the exploitation of research outcomes), and provide trained scientists and engineers, which meet the needs of users and beneficiaries, thereby contributing to the economic competitiveness of the United Kingdom and the quality of life.

BBSRC's Vision is to:

- Lead world-class 21st century bioscience, promoting innovation in the bioeconomy and realising benefits for society within and beyond the UK.

27. How familiar are you with BBSRC’s Mission and Vision?

Please type your answer on a scale from 1 to 10, where 1 means ‘not at all familiar’ and 10 means ‘completely familiar’.

28. To what extent do you think BBSRC achieves its Vision?

Please type your answer on a scale from 1 to 10, where 1 means ‘not at all’ and 10 means ‘completely’.

29. To what extent do you think there is scope for BBSRC to work more closely with your organisation to achieve this Vision?

<input type="checkbox"/>	A great deal
<input type="checkbox"/>	A fair amount
<input type="checkbox"/>	Not very much
<input type="checkbox"/>	Not at all
<input type="checkbox"/>	Don’t know

30. To what extent, if at all, does your organisation share BBSRC’s Vision?

Please type your answer on a scale from 1 to 10, where 1 means ‘not at all’ and 10 means ‘completely’.

31. What are the reasons for your rating to the previous question?

32. Please use this space to record any additional comments relating to your perceptions of, and interactions with, BBSRC including your aspirations and concerns for the next five years

33. We would like the opportunity to explore your views in more detail by way of a telephone research interview. Are you happy please for Pye Tait to contact you for this purpose?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

- 34.** We will be hosting three small roundtable discussion events in London, Birmingham and Edinburgh. These will bring stakeholders together to discuss how BBSRC engages with them, particularly in the context of a changing funding environment. A buffet lunch will be provided and discussions will be facilitated independently by Pye Tait.

If you would like to register interest in attending, please select your preferred venue below. A confirmation will be then be emailed to you directly by Pye Tait Consulting.

Please note that spaces are limited.

	EDINBURGH 6 March 2018 10:30-13:00
	BIRMINGHAM 8 March 2018 10:30-13:00
	LONDON 9 March 2018 10:00-13:30

- 35. ONLY ASKED IF Q33 AND/OR Q34 = YES:** Thank you. Please complete the following details so Pye Tait can contact you. Please be assured that your personal details will be separated from your survey responses before being shared with Pye Tait, and will not be used in any way to identify you in relation to your survey responses.

Your name:	
Job role:	
Organisation:	
Telephone number:	
Email address:	

Qualitative interview topic guide

PART 1: Working relationships and value

1. To begin with, how do you engage and interact with BBSRC in your professional role?
 - a. What issues and topics do you engage with them about?
 - b. Has the nature of your engagement or interaction changed in any way over the past two years? If so, how, and what are the reasons for that?
2. How would you describe your experience of working with BBSRC?
 - a. What do you consider to be the main benefits of working with BBSRC?
 - b. What is most important to you?
 - c. Is there anything about the working relationship that you feel could be changed or improved? If so, what?
3. What do you see as BBSRC's main strengths and weaknesses? Can you provide any examples?
 - a. Strengths
 - b. Weaknesses

Prompts if needed: Vision and strategy; funding models; staff expertise; stakeholder relationships; communications.

PART 2: Performance and impact

4. How would you describe BBSRC's performance over the past two years?
 - a. What do you believe it has done particularly well/less well?
 - b. What have you seen or heard that has informed your views on this topic?
 - c. In what areas of its work, if any, do you think BBSRC could improve?

PART 3: Mission and Vision

5. BBSRC's Mission and Vision includes promoting and supporting high-quality research and post-graduate training, advancing knowledge and technology, providing trained scientists and engineers, and leading world-class bioscience for the benefit of society and to improve quality of life.

How effective do you consider BBSRC at living and breathing these values in practice? Do you have any specific examples?

- a. How well would you say BBSRC communicates these values?
- b. In what ways, if at all, do these values tie in with your own organisation?

PART 4: The Future

6. What do you see as the main changes and developments likely to affect bioscience over the next two years?
7. How do you perceive the BBSRC's role in the context of those changes and supporting the future of bioscience?
 - a. What aspects of its role, if any, do you think need to change and why?
8. What do you see as the main changes facing BBSRC in the future?
Prompts: The launch of UK Research and Innovation (UKRI); Brexit; the UK Government's Industrial Strategy
 - a. In what ways would you say these present opportunities for BBSRC?
 - b. What are the challenges for BBSRC?
 - c. How well placed would say BBSRC is to address the challenges and capitalise on the opportunities?
9. How well, if at all, do you think BBSRC represents UK bioscience? What are your reasons?

PART 5: Final comments

10. Do you have any final comments about the BBSRC's role in relation to bioscience?