



People Science & Policy

The Universal Ethical Code for Scientists

An assessment from Chairs of Scientific Advisory
Councils and pilot institutions

Prepared for the
Science and Trust Expert Group

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Executive Summary

Introduction

People Science & Policy Ltd (PSP) was commissioned to assess the impact of The Universal Ethical Code for Scientists (the Code) as part of the Science and Trust Expert Group's programme of work to determine that particular Code's usefulness. As part of this research, in-depth interviews were conducted with 12 Chairs of Scientific Advisory Committees (SACs) exploring their awareness and perceptions of the Code. A second stage of the project involved research with three of the institutions that piloted the implementation of the Code.

Findings from the Chairs of SACs

Awareness

- Awareness of the Code appears to be low, few of the 12 interviewed were aware of the Code and even fewer had implemented the Code as part of their committee's procedures.
- Awareness was reportedly equally low amongst the scientific community in general.

Perceptions

The Code was seen to:

- be largely uncontroversial;
- be brief and thereby easily accessed and remembered;
- reinforce the idea that ethics is relevant to all areas of scientific research;
- of particular value to scientists who are not governed by Codes of practice;
- particularly useful for multi-disciplinary research to ensure consistency of practice;
- emphasise communication with society, although there is no guidance on how this is done;
- highlight the need for Chairs to be competent communicators as they are spokespeople for a particular area within science; and
- on the less positive side, be self evident and too vague to be of any practical use.

Practical benefits of the Code

- Some Chairs had adopted the Code as part of their committees' practices.
- The Code serves as a reminder of what being a good scientist means.
- It reinforces the need to declare conflicts of interest which is very important in ensuring public trust in science and scientists.

Practical problems with the Code

- Not allowing people to be misled about scientific issues places undue onus on scientists.
- For many areas of science there are no clear guidelines and it is not clear how the Code would relate to the working life of these researchers.
- The Code contains little guidance on how compliance is enforced.
- The Code could give confidence to those who might be in a position to speak out about corrupt practices and professional misconduct, and this may help compliance.
- Compliance could be ensured through the SAC appraisal process.
- Too many Codes, regulations and guidelines conflicts with the concept of independent SACs.

Raising the profile of the Code

- Many of the Chairs would like to see the profile of the Code raised.
- The Code should be introduced early in scientists' training.



Findings from institutions piloting the Code

Perceptions

- The Code is entirely congruent with the manner in which pilot organisations operated.
- The Code offers little by way of specific guidance on the ethics of scientific research.
- The value of the Code is seen in terms of starting the conversation on ethics and keeping ethics at the forefront of researchers' minds.

Implications of adopting the Code

- Pilot institutions did not adopt the Code in a particularly overt manner, though some conducted seminars, placed the Code in welcome packs and publicised the Code on the staff intranet.
- The Code is not seen to have made any large differences to the manner in which the pilot institutions operate.
- There are mixed feelings about how the implementation of the Code should be reviewed and reluctance by some for the Code to form part of any review criteria for the pilot institutions.

Perceived benefits of the Code

- None of the institutions that had piloted the Code had experienced major upheavals as a result of adopting the Code.
- The Code was seen as helpful in shifting the perception of ethics from an abstract concept to a central principle of scientific research.
- The Code is thought to help ensure ethical consistency in interdisciplinary, inter-institutional and international research.
- Individuals interviewed in pilot institutions valued the emphasis placed on communication within the Code
 - Communication of scientific research with the public is felt to help to avoid potential controversies.
 - The Code is seen as a helpful basis for clarifying the relationship between scientists and policy makers.
 - The Code also helps to uphold the principle of an open organisation and aid management in general.

Potential problems with the Code

- While none of those interviewed reported having experienced any issues relating to the adoption of the Code, some did point out potential problems that might be encountered upon widespread implementation
- Some felt that there was little guidance as to what should be done if:
 - a policy contradicts scientific research
 - when public opinion contradicts scientific research
- Some felt that the extra administrative burden associated with adopting the Code would be difficult for organisations to manage.



1 Introduction

1.1 Background

The Science and Trust Expert Group, one of five expert groups set-up to take forward the UK's Science and Society strategy, were set up to develop an Action Plan covering a range of issues relevant to public confidence and trust in science, and the ethical frameworks used by scientists across the disciplines. Part of their terms of reference involved conducting an assessment of the Universal Ethical Code for Scientists, and its impact within those institutions that had acted as pilots following its development and introduction in 2005.

The Universal Ethical Code for Scientists (the Code) was introduced in 2005 by the former Government Chief Scientific Adviser, Sir David King, and piloted by five Government agencies between then and 2007. The Science and Trust Group wishes to establish:

- whether the Code has been useful to the pilot organisations and their employees;
- how far it has been implemented by the pilot organisations; and
- whether the introduction of the Code has made an impact in these five agencies.

As the Code was also embedded within the Code of Practice for Scientific Advisory Committees, published in 2007, we were also asked to do a number of telephone interviews with 12 Committee chairs to establish:

- awareness of the Code;
- whether it has made an impact on their Committees' working practices.

1.2 Methodology

This research comprised two discreet elements. The first comprised 12 in-depth telephone interviews with Chairs of Scientific Advisory Committees (SACs) involved in the provision of advice to Government departments in a range of fields, including environmental, medical and veterinary sciences. There are 82 SACs¹ but some of the Chairs Chair more than one committee and there are therefore 77 Chairs in total. In selecting the sample, PSP worked from a list supplied by BIS, which included slightly fewer SACs.

Each interview lasted for approximately 20-25 minutes and covered stakeholders' awareness and perceptions of the Code as well as their views on the use of the Code as part of their work, both as Chairs of SACs and outside of the advisory committees, in academia and research in general. Many of the Chairs who were interviewed did not have experience in implementing the Code, therefore the interviews focused on their views and awareness of the Code itself.

Visits or interviews were undertaken with four of the agencies that had piloted the Code to try to understand the institutions' views and perspectives on the Code as well as to understand the practical issues that were faced by organisations in implementing the Code.

Site visits were undertaken to The Veterinary Laboratories Agency in December 2009 and to the Forestry Commission in January 2010. These were day-long visits that involved interviews with four members of staff at various levels in each institution, including senior management. Each interview lasted approximately 40 minutes.

¹ Department of Business Innovation and Skills www.bis.gov.uk



Some of the organisations reported that there had been restructuring since they began piloting the Code. The Pesticides Safety Directorate has been subsumed within the Health and Safety Executive and the Science Department in the Environment Agency has been subsumed within the new Evidence Directorate. This restructuring impacted on the extent to which the Code had been implemented by these organisations.

Furthermore, floods that had taken place at the time of the research had meant that a visit to the Environment Agency was not possible. Similarly, due to the restructuring of the Pesticides Safety Directorate, a site visit was not possible. The site visits were replaced by interviews with one member of staff from the Environment Agency and The (former) Pesticides Safety Directorate both of whom had been involved in the implementation of the Code. Each of these interviews lasted between 45 minutes and an hour.



2 Findings from the Chairs of Scientific Advisory Committees

2.1 Introduction

This section reports on the findings from the interviews with Chairs of Scientific Advisory Committees.

2.2 Awareness

Awareness of the Code appears to be low. The study involved speaking with just 12 SAC Chairs out of 77, and is therefore not representative; nevertheless, many reported having never heard of the Code prior to this exercise. Furthermore, even amongst those who were previously aware of the Code, it was not something that was commonly discussed either with colleagues on the SAC or with the wider scientific community. However, the Chairs who were interviewed as part of this exercise spontaneously mentioned several of the other codes that affect their roles as Chairs of SACs and their other roles. A number emphasised the importance that they place upon ethics in general.

This suggests that **the Code has a lower profile within the scientific community compared to many other codes and guidelines.**

2.3 Perceptions

There were mixed responses to the content of the Code, with some Chairs more positive than others. Those who were not aware of the Code were given some information during the interview.

There was general agreement that **much of the content of the Code was uncontroversial and compatible with other guidelines and codes of practice.**

Almost all the Chairs interviewed saw the document as **by no means a comprehensive guide to ethics** within science but **merely a springboard**, or a “*starter for ten*” that would serve the purpose of beginning the conversation concerning ethics.

On the positive side, some viewed the **brevity** of the document as **an advantage**. The “*commendably short*” nature of the document means that it can be **digested easily**.

One Chair who had implemented the Code as part of their committee procedures felt that the **particular value** of the document was that it **reinforced the idea that ethics is relevant to all areas of scientific research**. For example, it was suggested that ethics are generally at the forefront of a researcher’s mind where research involving human participants is concerned; however ethics are less obvious, though no less important, when conducting research that may rely on computer modelling or secondary sources. The Code helps to embed this broad view of ethics into working procedures.

The Code was thought to be of **particular value in fields not governed by a pre-existing code of ethics** and for **multi-disciplinary research, to ensure consistency of ethics practice**.

The **responsibility section of the Code was felt to be novel** and added to existing codes and guidelines. While the aspects in this section relating to ‘not misleading’ and ‘presenting evidence honestly’ were thought to be integral to the way scientists conduct themselves, some of the other points in this section provoked greater discussion. This was particularly the case with ‘Seek to discuss the issues that science raises for society. Listen to the aspirations and concerns of others.’

For many, this was the most significant section of the document and Chairs emphasised two points that are implicit in this statement:

- the need to place science within its societal context; and



- the need to communicate properly the outcomes of scientific research to society at large.

A number of Chairs indicated that they felt that where public controversies have occurred relating to science, they have often resulted from the way in which scientists communicated their findings to the public. The **emphasis placed upon communication with society in the Code was therefore welcomed.**

The document does not offer specific guidance on the practicalities of how communication might be conducted. Nevertheless, Chairs saw value in planting the idea that good communication between scientists and the public is crucial and the Code helps to embed this idea within scientists' practices.

One Chair went further and suggested that as well as communicating with the public at large, there **should also be a process by which there can be lay input into the research process**, although they did acknowledge the practical difficulties this would involve.

The emphasis on communication was felt to be particularly germane in the case of SACs due to the nature of the work in which they are involved. One interviewee remarked that it is essential for **Chairs of SACs to be good communicators as they are often seen as spokespeople** for a particular scientific area. This Chair believed that it is therefore important that Chairs are selected who are good communicators.

On the less positive side, some felt that the contents of the Code were **so self-evident it served no purpose**. For example, the sentence concerning 'ensuring that a scientist's work is lawful and justified' was seen as simply advice on not breaking the law. It was also suggested that in order to serve as a *universal* code of ethics for scientists any code would have to be **too vague to be of any practical use**.

2.4 Practical benefits of the Code

Unsurprising, given the level of awareness, few Chairs had implemented the Code as part of their practices either in their SACs or in their wider work. Thus few of those interviewed were able to say a great deal about the practical advantages of the Code. Nevertheless, some Chairs who were interviewed had adopted the Code as part of their committee's practices, and others were keen to suggest what the practical advantages of such a code might be once it has been implemented.

As mentioned before, most reflected that the Code effectively summarises the manner in which they had been "*brought up*" as scientists and **the document serves as a reminder of what it is to be a good scientist**, even though it may lack the practical details of how that might be achieved. The Code is seen to echo what was already being done, however, for some it is **useful that this is codified**.

A number of the Chairs who were interviewed **welcomed the emphasis on declaring conflicts of interest**. Those who spontaneously mentioned this aspect of the Code indicated that this is already an integral part of their procedures and a very important issue in terms of ensuring public trust in science and scientists.

2.5 Practical problems with the Code

The Code was seen to have **practical advantages in ensuring that ethics is ingrained in the mindset of scientists** but some practical problems were highlighted by the Chairs.

As is discussed, the **emphasis on communication** with the public was welcomed, but it was acknowledged that simply emphasising this in a document **does not create good communicators**. Chairs said that **great care needs to be taken in communication with the public because poor communication may lead to a greater disconnection between scientists and the public and thereby create a lack of trust between the two groups**. Chairs were however, keen to stress that **communication with the public should not be a forced obligation for all scientists**.



Some Chairs believed that in science there are concepts that are alien to the public and very difficult for a lay audience to understand. Furthermore, Chairs pointed out that **some concepts are understood very differently by the public and scientists.** For example, it was suggested that the concept of risk means something very different to scientists than to politicians or the public at large.

A few Chairs were **concerned that the section relating to not allowing the public to be misled about scientific issues, placed undue onus on scientists.** The perceived media tendency to sensationalise scientific research was mentioned. Chairs pointed out that no corresponding code exists for journalists, who are the channel through which most of the public hear about scientific research findings, and thus scientists often have little control over what reaches the public. In the view of some Chairs, the Code implies that scientists should monitor all the media coverage in their field for misrepresentation but this would be very difficult, if not impossible in practice. One Chair also raised the issue of selective citation by journalists and suggested that research that does not represent the majority view can be very difficult to refute, which can result in false perceptions in the public consciousness.

The Code was seen as having practical value in terms of *beginning* the conversation on ethics and sowing the seeds of ethical practice. However, **some Chairs found it difficult to understand how an ethical culture would develop as a result of the Code,** although most agreed with the suggestion that the **Code could give strength and confidence to whistleblowers.** In the case of scientists with a biomedical background there is a clear link to other guidelines but for the many areas of science where there are no clear guidelines Chairs said that it is not clear how the Code would relate to everyday working.

Chairs also felt that there was **little guidance on compliance** with the Code and how it might be enforced. Most found little in the way of incentives to ensure compliance, although one Chair indicated that compliance was ensured through the presence of ethics as part of the SAC appraisal process.

Another point raised by Chairs was the **implications of an overburdening of codes, regulations and guidelines for the independence of SACs.**

2.6 Raising the profile of the Code

As has been mentioned, awareness of the Code was low amongst the Chairs who were interviewed. However, **many of the Chairs** who were interviewed **would like to see the profile of the Code raised.**

A number of Chairs who were interviewed made suggestions about how this might be done. A few suggested that it should be a mandatory part of the induction pack that is given to new members of any SAC² and that it should be referenced alongside other codes of practice and ethical guidelines as part of the appraisal process of committee members.

To raise the profile of the Code to that of other codes of practice, it was said that it would have to be introduced early in scientists' training. Chairs were not sure whether this should occur at the undergraduate level or early in the post graduate experience but there was **universal agreement that it should be part of university training in science.**

2.7 Summary

If the SAC Chairs interviewed for this project are typical of all SAC Chairs and of the wider scientific community, awareness of the Code is very low. However, once the Chairs were given information about the Code there was some **enthusiasm for using it as a high level document to raise awareness among scientists from all disciplines of ethical issues and some would like to see its profile raised.** Chairs perceived that implementation of the Code would raise problems and the second part of this work explored this in more depth. **Most importantly, the Code raises issues regarding communication with the public not perceived to be well covered by other codes of ethics and practice.**

² The CODE is appended to the Code of Practice for Scientific Committees.



3 Views and perspectives of the Code amongst pilot institutions

3.1 Introduction

This section of the report discusses the findings from the case study work with the four pilot institutions.

3.2 Perceptions of the Code amongst pilot institutions

The institutions that piloted the Code are all involved in areas of public interest and they felt that the Code was particularly germane to the issues with which they were dealing. They were therefore broadly favourable about the Code and while they were aware of its limitations as a standalone document, they were keen to point out its potential benefits, especially those who had been more intimately involved in the adoption of the Code.

Echoing the view put forward by the Chairs of SACs, many of the pilot institutions felt that as a standalone document, the **Code does not offer a great deal of specific guidance on how to conduct research ethically**. However they did see the **value** in the document **as a means of keeping ethical principles at the forefront of the researchers' consciousness** and beginning conversation on ethics.

The Code is **seen as entirely congruent with pre-existing codes of practice** with which many, particularly those involved in areas such as research using animals, were familiar. Furthermore, and once again echoing the views of the Chairs of SACs, the Code is seen as **a succinct summary of what it means to be a good scientist**.

"The Code is so logical that we would do it anyway."

"It is the standard that we expect."

"This [the Code] is what being a scientist is about."

The **brevity** of the Code was again an aspect that was **popular**. Many felt that it was the **right length to for researchers to remember** and one suggested that it would make a good addition to the coffee tables of scientific research institutions.

3.3 Implications of adopting the Code

The pilot organisations reported that as the Code was **entirely congruent with existing practices**, and was **not overtly adopted**, it was therefore **not thought to have resulted in major changes in operation**.

Some of the organisations already had stringent guidelines in place, for example, related to the use of animals in research. Furthermore, the results of the scientific research conducted at these institutions are used as the basis for regulatory decisions that could potentially be subject to legal challenge and the systems are therefore designed to ensure that the science is robust. For these reasons, the pilot organisations reported that the **Code effectively codified the direction in which they were already travelling** and the adoption of the Code did not therefore require any major organisational upheaval.

Some interviewees pointed out that the **Code offers little guidance on what should be done when a policy contradicts the scientific evidence**³. However, another individual suggested that the Code would **help scientific researchers to appreciate that science is just one of the many factors upon which policy-makers form their decisions**.

³ This research was conducted soon after Professor David Nutt was dismissed as Chair of the Advisory Council on the Misuse of Drugs.



3.3.1 Staff

The Code was **introduced to staff** through a variety of means. Some organisations reported introducing the Code through **staff seminars and briefings**, others highlighted the Code on the **staff intranet** and some also placed the Code into **introduction packs for new employees**. **Some** of the organisations **adapted the wording of the Code in order to make it more relevant to their organisations**.

Despite these efforts, there was a feeling amongst some of those interviewed in the pilot organisations that the **Code does not have a particularly high profile and that many staff would be unaware of its existence**. In part this **may be due to the fact that where the wording has been adapted** to be organisation-specific the Code has effectively been stripped of its identity as a distinct document.

3.3.2 Compliance

At the time of writing, none of the organisations piloting the Code had implemented any code specific auditing system and there were **mixed views as to whether formal measures should be implemented to ensure compliance with the Code**.

One individual felt that the profile and correspondingly the efficacy of the Code would be raised if there was some kind of structure to review implementation, perhaps as part of a Government Office for Science review. Another did not have a specific audit in place but felt that as the Code was so congruent with all aspects of their organisation, there was in reality an audit of the organisation's actions relating to the Code during their independent review.

One of the pilot organisations reported that it would adopt the Code into their key performance indicators (KPIs) for their forthcoming delivery plan, however they were unsure exactly how the Code would be reflected in KPIs. Despite this, the same organisation was reluctant to have any official audit or review of compliance. They felt that the administrative burden of any additional review criteria would be a further strain on resources and put the organisation at a competitive disadvantage to other organisations (particularly those in the private sector) when tendering for work.

3.4 Perceived benefits of the Code

While none of the organisations had adapted their operations significantly on adopting the Code, many were keen to point out the benefits that widespread adoption of the Code would confer. Few could give any specific examples of where the Code had benefited their organisation and most of the perceived benefits of the Code related to the underlying ethos of the organisation.

3.4.1 Organisations

At an overview level, many felt that the **primary practical benefit** of the Code was to **ensure that ethical standards become part of the norms of the organisation**. Though in many cases the Code does not raise the standards which they are expected to follow, they felt that the Code cements the idea of ethics in the minds of researchers, and ensures that ethical standards permeate through all that they do. The Code was seen to help shift the perception of ethics in scientific research from a potentially abstract concept, to a core principle of how the work of a scientist is conducted. In this respect, the Code is felt to be **particularly useful for scientists and researchers who are new to the organisations or at the early stages of their careers**.

Others felt that the presence of the Code would **smooth the internal communication of an organisation and aid management in general**. None of those interviewed relayed specific experiences but the Code was felt to **give confidence to potential whistleblowers**, especially in institutions where there is not a clear line of communication with senior management. Another individual interviewed at a pilot organisation felt that the Code helps to avoid decisions being made on a hierarchical basis and gives more confidence to staff to debate issues. In general the Code is seen to be **congruent with the principle of an open organisation**.



3.4.2 Cross-disciplinary research

Some reflected that there is **no established generic code of practice for scientists** equivalent to those held by some other learned professions such as accountants. The **Code is seen as having the potential to fill this gap** and in doing so **ensure a consistent ethical standard across all areas** of scientific research. For example, one respondent noted that while physicists and chemists had their own separate codes of practice, there was no unifying code of practice for cross-disciplinary research.

3.4.3 International co-operation

The Code was also seen as having **value** in terms of **upholding ethical standards in research when collaborating with overseas partners**. One individual felt that when collaborating with researchers in countries that have historically not had the same ethical standards as the United Kingdom (UK), persuading the overseas researchers to be consistent with UK standards was more effective when 'backed up' by a Government endorsed code. Likewise, when visiting researchers are working in the UK, the Code is a quick and succinct means of demonstrating the expected standards.

3.4.4 The public

The organisations that piloted the Code were involved in areas of great public interest and some felt that the existence of **the Code would help to reassure the public that policy decisions are based on sound science**. The value of the Code in this respect however, would, of course, be **dependent on the profile of the Code in the public consciousness**.

Those who were interviewed at the pilot organisations placed great importance on the relationship between scientific research and the public at large. Those who were interviewed who had taken part in public engagement activities felt that such activities had increased public understanding in the scientific method and correspondingly public trust in the results of scientific research. The Code's **emphasis on the communication of scientific research with the outside world, and the importance of placing research within its societal context, was seen as novel** and something that sets the Code apart from more specific codes of practice and guidelines. It was not necessarily seen as every individual scientist's obligation to communicate with the lay public, but there was a feeling that there is an obligation for *organisations* involved in scientific research to engage with the public.

The importance of placing research within its societal context was picked-up by some who felt that in the past a detachment between scientific research (and the policy decisions based on that research) and the societal context, had led to large-scale public opposition to some Government policies. The Code was seen as a constant reminder to scientists to appreciate the wider implications of their work.

3.4.5 Policy-makers

Some pointed out that the Code also **helps the channels of communication between Government funded scientists and policy-makers**. Some reported that at times they have been under pressure to allow policy-makers to base policy on data from unfinished scientific trials. The individual involved had no hesitation in refusing the request. Nevertheless, they felt that if the Code had a higher profile, such conflicts would not occur because policy-makers would be aware of the ethical principles underpinning scientific enquiry and would not have made the request.

3.5 Summary

Those interviewed at the pilot organisations felt that the **biggest impact** on these organisations had been on the **ethos of the organisation, rather than on management systems and ways of working**. This was especially true because the Code is congruent with existing working practices but interviewees **stressed the need to avoid any administrative additional burdens** to ensure compliance.

The **perceived benefits** were many and **related to the organisation, cross-disciplinary working, working with non-UK researchers and with policy-makers, and communicating with the public**.



4 Overall Summary and Conclusions

In summary, despite apparently not enjoying a particularly high profile, the Code was viewed in a largely favourable light by those who participated in this exercise.

At an overview level, many welcomed the primary purpose of the document as a unifying code for scientists in the same way that other learned professions have their own codes of practice. The Code was felt to be particularly useful for the areas of research that do not currently have prescriptive codes of practice and where the ethical issues may be less overt. Furthermore, both Chairs and individuals within pilot institutions saw the value of the Code in ensuring ethical consistency in interdisciplinary research.

Though both Chairs and those interviewed in the pilot institutions felt that as a standalone document, the Code does not offer much in terms of specific guidance on the ethical issues that a researcher might encounter, this was not necessarily a point of criticism. While some Chairs felt that the Code was too vague to be of any practical use, others viewed the Code as ‘commendably short’ and felt that its primary value was not in offering specific guidance or protocols but rather as a means of cementing the idea of ethics as a principle that permeates all aspects of scientific enquiry.

Many of those who participated in this exercise felt that the Code was in effect a summary of what it means to be a good scientist, and those who had been involved in the implementation of the Code in pilot institutions felt that the Code was a reflection of way in which they currently operate. However, this did not lead to outright dismissal of the Code as some felt that the principles of ‘being a good scientist’ can not necessarily be taken for granted and the Code ensures that these principles are cemented, particularly amongst scientists who are at the earlier stages of their research careers.

Chairs of SACs and those interviewed in pilot organisations saw novel value in the Code in the emphasis placed on communication with the public and understanding of the societal context of the scientific research.

The research was undertaken in the aftermath of two public controversies in science and policy, the sacking of the Chair of the Advisory Council on the Misuse of Drugs, Professor David Nutt, and the hacking into the email accounts of the climate scientists at the University of East Anglia’s Climatic Research Unit. As both of these controversies were related to the communication of science, it is clear that these issues were fresh in the minds of those who participated in the research. Many welcomed the emphasis on the communication of science and felt that such emphasis might help to stem future controversies and in doing so maintain and improve public trust in science.



Appendix 1 Topic guide: Interviews with Chairs of the Scientific Advisory Committees

PSP has been commissioned to assist with BIS's in-house work to assess the impact of the Universal Ethical Code for Scientists. As part of this work we are interviewing Chairs of Science Advisory Committees to explore awareness of and attitudes to the Code.

Awareness of the Code

- When did you first hear about the Universal Ethical Code for Scientists? How did you first become aware of it?
- How much knowledge would you say you have of the Code? Why?

IF UNAWARE OF CODE GO TO PAGE 2 OF TOPIC GUIDE

Use of the Code during committees

- How much/if any consideration do you give to the Code when discussing issues during committee meetings?
- **If use Code-** Can you think of any examples of how the Code has been used?
- **If use Code-** Do you think the Code has changed the way you make committee decisions? Why?
- **If use Code-** How much work goes in to ensuring the Code is considered?
- **If do not use Code-** Why do you not consider the Code during committee meetings?
- **If use Code-** what impact do you think the Code has had on the practices of your advisory committee?
- How practical do you think the Code is for use in committee meetings? Why?

If a researcher/academic - Use of Code in university

- How much/if any consideration would you say you gave the Code as part of your working life? Why?
- **If use Code-** Can you think of any examples of how the Code has been used?
- **If use Code-** Do you think the Code has changed the way you work? Why?
- **If use Code-** How much work does it take to implement the Code? What has to be done? Why?
- **If do not use Code-** Why do you not use the Code as part of your working life?
- How practical do you think the Code is in your day-to-day working life? Why?
- How widespread is the use of the Code in your faculty/department/university? Probe for examples of use
- **If use Code-** What impact has implementation of the Code had on your institution?
- Are you aware of how widespread use of the Code is among colleagues in other universities? Probe for examples of use

Perceptions of the Code

- How helpful do you think the Code is for scientists- in terms of informing practices? Why?
- How important do you think it is that there is a universal code for Scientists rather than more subject specific codes? Why?
- Do you think there is anything that the Code fails to cover? Why?
- How do you feel that
- How do you feel the Universal Ethical Code fits into the wider code of practice for Science Advisory Committees?



ASK ALL

Secretariat

What guidance do you get from your secretariat or sponsoring department on ethical practice in the conduct of research, consideration of the impacts of research and the dissemination of research to policy-makers and the public?

2. Are you aware of COPSAC (the Code of Practice for Scientific Advisory Committees)?
3. What guidance do you get from your secretariat or sponsoring department on ethical practice in the conduct of research, consideration of the impacts of research and the dissemination of research to policy-makers and the public?

Thank respondent for their help.



Appendix 2 Topic Guide: Pilot Institutions

Introduction:

Thank you for helping with this study we are conducting on behalf of the Department for Business, Innovation and Skills. As you may know, the study will help to inform the Science and Trust expert group about the impact of the Universal Ethical Code for Scientists.

This interview will last approximately 45 minutes, and nothing you say will be attributed to you. We are interviewing at a range of organisations throughout the country, and our report will not include information which could lead to the identification of any individual. I would like to record this interview with your permission, to save me from taking notes.

IF OK TO RECORD: Start recording

Questions:

- Why did **[your institution]** decide to adopt the code?
- How was the code introduced to staff? Were there associated briefings or meetings?
- How important was the champion in promoting the code?
- Are there any formal measures to ensure or encourage compliance with the code?
- Are you aware of any behaviour that was thought to be non-compliant with the code? Was any action taken as a result? What was it?
- How relevant was the code thought to be by staff?
- Was the code thought to formalise expectations that already existed or were contained in existing codes?
- Did the code add anything extra to existing codes or expectations of behaviour?
- How (well) does the code relate to other codes that staff may have been using?
- Was the code thought to be sufficiently clear and explicit? Did staff understand the implications of the code for their behaviour?
- Did staff feel that the code clarified any of their professional or ethical obligations under the following categories:
 - Rigour, honesty and integrity
 - Respect for life, the law and the public good
 - Responsible communication: listening and informing
- Did endorsement of the code change staff expectations of the standard of ethical behaviour expected by **[your institution]**, and institutional support that would be provided to uphold ethical standards?
- Did endorsement of the code reassure any staff about the legitimacy of drawing attention to/informing others of behaviour that they felt to be unethical?
- How did staff react to the code more generally?
- What impact has the code had, if any, on working practices?
- Is the code still being used? Why/why not?
- Is there anything else that should be added to the code?
- How did the code support or hinder other changes in the organisation?

Thank respondent for their help.