The policy challenges facing our world today demand ever-greater foresight, ingenuity and a willingness to collaborate across sectors. As this report illustrates, the Centre for Science and Policy has been helping its network to navigate challenges from climate resilience to new forms of healthcare; from national security to shaping innovation in the public interest.

The Centre for Science and Policy in 2015

The maturity of CSaP’s unique network of academics and policy makers is demonstrated by the breadth and depth of our work during 2015. Our network now encompasses over 200 Fellows and more than 1100 researchers and, during the year, we welcomed more than 2500 participants to 43 events.

These achievements are testimony to the vision of David Cleevely, who served as CSaP’s founding director until 2015. When David accepted the invitation to establish the Centre more than seven years ago, he brought a wealth of experience from his work as an entrepreneur, angel investor and government adviser. He established CSaP with three founding principles that have shaped our development:

- an attention to the questions and constraints of policy professionals, in other words a focus on the ‘demand-side’;
- a commitment to fostering networks based on mutual understanding, respect and trust, and establishing the conditions for collaboration;
- a willingness to experiment, learn and adapt.

As he moves on to chair CSaP’s Advisory Council, I would like to express my gratitude to David for his inspirational work in founding the Centre.

In 2016, a year set to be every bit as challenging for governments as 2015 has been, CSaP’s role in brokering links between research and policy will be more important than ever. The Policy Fellowships programme will remain at the core of our activities, and we will look for new ways to increase the value of the network – particularly through a new pilot scheme extending the Fellowships programme to a network of UK universities. This will enable us to strengthen links between universities and broaden the academic resources in the network.

I am particularly looking forward to working with our network of affiliate universities to strengthen links between government and academia at EU, UK, devolved and local levels. In 2016, we will continue to promote our unique brand of creative collaboration, leading to fresh insights and a growing appetite for engagement between the research and policy worlds.

Dr Robert Doubleday
Executive Director
Centre for Science and Policy

"Over the seven years since its launch, the Centre for Science and Policy has pioneered new ways of bringing academia and government together to tackle policy challenges. CSaP has successfully promoted long-term thinking and more robust networks of expertise and evidence for public policy.

2015 is the year in which the Centre came of age. Having served as its founding director from 2009 to 2015, I am delighted CSaP is playing a central role in supporting the University’s mission, and that the Centre is in the excellent hands of a new management board. I am immensely proud of everything CSaP has achieved to date.

I look forward to contributing further to CSaP through continuing to meet Policy Fellows, participating in our events and chairing the newly constituted Advisory Council, which will play a key role in shaping the Centre’s strategy."

Dr David Cleevely CBE FREng
Chair, CSaP’s Advisory Council

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The policy challenges facing our world today demand ever-greater foresight, ingenuity and a willingness to collaborate across sectors. As this report illustrates, the Centre for Science and Policy has been helping its network to navigate challenges from climate resilience to new forms of healthcare; from national security to shaping innovation in the public interest.
Over the five years since its launch in 2011, the Policy Fellowship has brought more than 200 influential policy makers from government, industry and the third sector to Cambridge to build networks and working relationships with academics.

Our 200-plus Fellows have benefitted from over 5750 face-to-face introductions through the Fellowship process, which has now reached more than 1100 academics, researchers and other experts.

During 2015, 35 new Policy Fellows and Junior Policy Fellows, and 9 new Policy Leaders Fellows, were elected, between them making more than 1300 connections with over 500 experts in the course of the year. All three termly elections were again oversubscribed.

The Fellowship continues to be recognised across the University as the go-to network to connect research with the policy world. The Fellows – and the wider network of policy makers who can be reached through them – represent a uniquely valuable resource to Cambridge’s academics, whether they are convening workshops, seeking expert speakers, or identifying the potential beneficiaries of research.

The value of this approach is increasingly being recognised by other leading academic institutions in the UK and elsewhere in Europe. In 2015, CSaP launched an affiliation scheme with UK higher education institutions; the CSaP Affiliate Network extends the benefits of our Policy Fellowships programme to other universities, and enhances Policy Fellows’ access to world-leading researchers.

A survey of our Policy Fellows during the academic years 2013/14 and 2014/15 shows that, as a result of participating in the programme:

- 70% had gained a better understanding of what academia has to offer and how to access it
- 75% had improved their network of contacts
- 91% had gained fresh perspectives on their current work
- 100% would recommend the programme to others

CSaP Policy Fellowships Programme 2014/15: Meetings between Policy Fellows and researchers
Policy Fellows elected in academic years 2013/14 and 2014/15

We would like to thank Pembroke College for continuing to welcome our Policy Fellows to Cambridge.

Affiliates shown are correct as at the time of election to the Fellowship.
Policy Leaders Fellowship

The Policy Leaders Fellowship – a select group of the most senior members of CSaP’s network – meets once a term to share insights into the development of open and evidence-based policy making.

In 2015, Policy Leaders Fellows explored the topics of infection, the opportunities and risks of artificial intelligence, and neuroscience ‘from molecule to mind’.

The inaugural Fellows (elected in 2013) have now reached the end of their two-year tenure, and we would like to thank the initial cohort for developing the concept and the culture of the Fellowship.

Three new Fellows are elected each term (by invitation). As at December 2015, Policy Leaders Fellows are:

- Nick Jocey  
  Director General, Strategy, International and Biosecurity  
  Department for Environment, Food and Rural Affairs

- Gavin Kelly  
  Chief Executive  
  Resolution Foundation

- Tim Kelsey  
  National Director for Patients and Information  
  NHS England, National Health Service

- Charlie Massey  
  Director General, Strategy and External Relations  
  Department of Health

- John Pullinger  
  National Statistician  
  UK Statistics Authority

- Sam Beckett  
  Director General, Economics & Markets, and Deputy Head, UK Government Economic Service  
  Department for Business, Innovation and Skills

- Deborah Bronnert  
  Chief Operating Officer  
  Foreign and Commonwealth Office

- Nadia Calviño  
  Director-General, Directorate-General for Budget  
  European Commission

- Sir Jon Cunliffe  
  Deputy Governor for Financial Stability  
  Bank of England

- Gareth Davies  
  Director General, Knowledge and Innovation  
  Department for Business, Innovation and Skills

- Helen Edwards  
  Director General, Localism  
  Deputy Permanent Secretary  
  Department for Communities and Local Government

- Sir Paul Grice  
  Clerk and Chief Executive  
  Scottish Parliament

- Antonia Romeo  
  HM Government Envoy to the US Communications Service Providers  
  Cabinet Office

- Philip Rutnam  
  Permanent Secretary  
  Department for Transport

- Jonathan Slater  
  Director General, Economic and Domestic Affairs Secretariat  
  Cabinet Office

- Julia Unwin  
  Chief Executive  
  Joseph Rowntree Foundation

- Chris Wormald  
  Permanent Secretary  
  Department for Education  
  Head of the Government Policy Profession

“Governments frequently deal with problems that border on the impossible – or are impossible – and need what help they can get, particularly by way of greater understanding and better analysis. It frequently strikes me that Cambridge is a huge reservoir of knowledge and would benefit both itself and the wider community if it could make some of it available to government. The sheer energy and intelligence which Policy Leaders Fellows have generated in their discussions with academics has confirmed the value of such a dialogue and has been immensely rewarding.”

Lord Wilson of Dinton, Chair of the Policy Leaders Programme
Our workshops, seminars, lectures and annual conference provide a platform for policy professionals and researchers to discuss and debate high-priority public policy issues.

Policy Workshops
Our policy workshops help researchers at Cambridge consider and realise the potential policy impacts of their work and provide decision makers in government with an opportunity to test and shape their thinking on a range of policy issues.

In 2015 we held seven policy workshops which addressed topics such as the economic impact of health research, the benefits of play in middle childhood and the Strategic Defence and Security Review (see the “spotlight” sections for more details).

Annual Conference: How can government make better use of expertise and evidence from the humanities?
Our fourth annual conference explored opportunities for improving the way government makes use of expertise from the humanities. Working in partnership with the British Academy, we invited historians, philosophers, artists, anthropologists, classicists and financial experts to present examples of the significant contribution these disciplines have made to public policy.

There is a crucial role for humanities research and evidence in policy development – from providing lessons from history to ethical analyses of complex challenges. CSaP’s conference helped to turn the spotlight on this valuable input.”
Alan Evans
Chief Executive and Secretary of the British Academy

Statesmanship in a scientific age
As part of the Churchill 21st Century Leadership Programme, CSaP teamed up with Churchill College, Cambridge to organise a lecture and professional development workshop, at which early-career civil servants and researchers worked together to explore approaches to successful evidence-informed policy making.

Number of participants by event type in 2015

Breakdown of event participants in 2015

- 2012 (1262 participants)
- 2013 (2002 participants)
- 2014 (2487 participants)
- 2015 (2517 participants)
CSaP works with strategic research initiatives and departments at the University of Cambridge to provide opportunities for PhD students and postdocs to understand the importance of their research to policy.

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**Professional Development**

**Professional Development Workshops**

CSaP’s Professional Development Workshops provide early-career policy professionals and researchers with an insight into the role of expertise and evidence in policy making.

**Internships**

In 2015 we hosted seven PhD students from the universities of Bristol, Cambridge, Durham and Manchester through the RCUK policy internships scheme and the ESRC Doctoral Training Centre at Cambridge.

Internships at CSaP offer a unique career development opportunity, giving researchers the skills and confidence to work outside their own area of expertise, and as part of a team.

Our interns this year organised and took part in policy workshops, wrote and edited policy reports for non-expert audiences, and met with Policy Fellows to learn about the value of building connections between government and academia.

**Interns in 2015**

- Sarah Connors, University of Cambridge (NERC)
- Nick Jones, University of Cambridge (ESRC Doctoral Training Centre)
- Matthew McGuire, University of Cambridge (ESRC Doctoral Training Centre)
- Leanne Melbourne, University of Bristol (NERC)
- Natalie Miazga, University of Manchester (BBSRC)
- Tom Rodger, Durham University (AHRC)
- Matt Wright, Durham University (AHRC)

At the end of three months, interns will have gained and developed new skills in organisation, communication and working collaboratively, as well as a much better understanding of the relationship between research, evidence and policy making.

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**Secondments**

Three years ago, CSaP introduced a policy placement scheme for early-career researchers at Cambridge to take up secondments in government. To date, we have placed 12 researchers into the Department for Business, Innovation and Skills (BIS).

This year, five researchers worked on a range of projects in BIS from preparing for the Spending Review to providing support to the Dame Ann Dowling Review, which examined how government could support the development of more effective collaboration between businesses and university researchers in the UK.

**Secondees in 2015**

- Dr Heather Blackmore (MRC Institute of Metabolic Science)
- Paul Clarkson (Dept of Chemistry)
- Dr Karthik Depuru Mohan (Dept of Engineering)
- Dr Charlotte Lee (Dept of German & Dutch)
- Jacquelyne Poon (Dept of Plant Sciences)
- Dr Heather Blackmore (MRC Institute of Metabolic Science)
- Paul Clarkson (Dept of Chemistry)
- Dr Karthik Depuru Mohan (Dept of Engineering)
- Dr Charlotte Lee (Dept of German & Dutch)
- Jacquelyne Poon (Dept of Plant Sciences)

"The internship has been an extremely valuable experience that has allowed me to demonstrate transferable skills in a working environment. I now have a much better understanding of how science translates into policy but also of how important CSaP’s role is in bridging the gap between government and research.”

Natalie Miazga
BBSRC-funded Policy Intern

"Ensuring that scientists setting out on their careers understand the policy challenges, as well as their science, is hugely important.”

Professor Dame Athene Donald
Master of Churchill College, Cambridge

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In 2015 we held three workshops bringing together more than 100 researchers and civil servants. Topics included: science and 21st century leadership; how big data is being used to improve public policy and services; and linking transport, health and well-being.

**Professional Development Workshops**

CSaP’s Professional Development Workshops provide early-career policy professionals and researchers with an insight into the role of expertise and evidence in policy making.
Research

While the challenges facing governments today place ever-increasing demands on scientific advice, there is also a widening appreciation of the complexity of relations between science and politics.

Pathways to Impact
CSaP helps researchers at Cambridge to apply for funding from the Research Councils and elsewhere by designing policy-related knowledge exchange activities. In 2015 CSaP contributed to 18 proposals valued at £14.5m, covering topics such as the education of women in India, the internet of things, ideas of consent, the national grid, genomic licensing and comparative EU land law.

Our workshops and Policy Fellowships can be tailored to support the policy engagement of particular research projects. CSaP’s tried and tested approaches can help ensure research is effectively connected to live policy problems.

Future Directions for Scientific Advice in Europe
CSaP published a collection of essays edited by Robert Doubleday (CSaP) and James Wilsdon (University of Sussex), and funded by the Mercator Foundation and the European Commission. The collection was launched in Brussels in April and was the focus of a meeting in Berlin in June.

"A debate on the ways in which science can and should shape policy in the EU and its governance structures led to a collection of essays… both the debate and the publication have helped to shape how policy makers think about scientific advice in the EU."

Robert Madelin
Senior Adviser for Innovation, European Commission

Climate Change Risk Assessment Project
CSaP was commissioned by the UK’s Foreign and Commonwealth Office (FCO) to edit a collection of essays that illustrated the links between climate change risk assessment and policy making on mitigation. The essays were written by leading climate scientists from (among others) the Met Office Hadley Centre, the Potsdam Institute, and the Harvard University Centre for the Environment.

"CSaP’s work editing our risk assessment report was invaluable – they helped translate the complex scientific information into language that policy makers could easily understand, which helped hugely in getting the report’s message across."

Simon Sharpe
Head of Climate Risk Team, Science, Innovation and Climate Department, FCO

“CSaP provided invaluable support for my application for a major research grant on multilingualism. In particular it offered advice on impact and policy issues and put me in touch with the relevant civil servants in Whitehall.”

Wendy Ayres Bennett
Professor of French Philology and Linguistics
A major theme of CSaP’s work in 2015 was climate and cities, with a particular focus on how cities can adapt in response to changing futures.

Building on the success of this collaboration, CSaP and the Forum joined forces again to lead one of six Foresight Future of Cities projects – Visions of Cambridge in 2065 – a collection of 24 visions from city and county-level policy makers, researchers, and also people who live and work locally.

In addition, Visiting Research Fellow Professor Charles Kennel (UCSD) returned to Cambridge in early 2015 to deliver a series of seminars on climate and sustainability.

Katrina Williams leads on international science and resilience in the Department for Energy and Climate Change (DECC). Having worked in both Defra and DECC in recent years, issues such as Bovine TB, neonicotinoids in pesticides, and fracking have all at various points come within her purview.

Katrina used what she had learned to feed directly into a modellers’ group in her department. Her Fellowship also helped her value complexity, and learn to express it, resisting temptations to reduce problems to a single message.

“There’s an enormous role for academia to challenge civil servants by exploring options that the political limitations of the civil service might not allow. Just good conversations and good communication between policy makers and academics can be immensely beneficial.”
The Cambridge Forum for Sustainability and the Environment partnered with CSaP to address how policy makers might better understand the effects of climate change on cities and urbanising populations. A series of workshops focused on the adaptation of existing built environments and modes of governance.

Climate and sustainability in multiple dimensions

Following on from the success of his 2014 seminar series on adaptation to climate change, our Visiting Research Fellow – Professor Charles Kennel, Emeritus Director of the Scripps Institute of Oceanography at UCSD – returned to Cambridge in 2015 to deliver a new series.

Guest speakers – including Sir Partha Dasgupta, Lord Martin Rees, Professor Susan Owens, Professor Brian Wynne, Rowan Douglas and Dr Hildegard Grammer – explored the cultural framings of climate change, and asked whether human understanding of global warming had affected our response to climate change.

Professor Kennel will return to Cambridge in February 2016 to deliver his latest seminar series, which aims to explore practical solutions to meeting the commitments made at Paris 2015.

The most concrete impact of my Fellowship – and the one where there has been a lot of follow-up – was on the topic of climate resilience in buildings— both commercial and residential— ways that improve the climate resilience of buildings, which will inform EBRD’s investment planning in this sector in the highly climate-vulnerable countries of North Africa and the Middle East.

Co-convened with our Climate Change Adaptation associate, the workshop was an opportunity for me to reach out to a wider network of practitioners and highly experienced and knowledgeable academics, enabling us to connect with people I would otherwise never have come across.

It enabled me to kick off a whole new area of business development looking to invest in ways that improve the climate resilience of buildings – both commercial and residential – in climate-vulnerable countries, particularly those which have high exposure to heat and water stress in the southern and eastern Mediterranean.

The EBRD is an ‘innovation bank’, created to make a difference in our countries of operation by financing investments that go beyond business-as-usual and support market adoption of improved technologies and practices.

My main aim for the Policy Fellowship was to identify a focused number of areas where our operations and business needs intersect with the research interests of motivated academics.

The most concrete impact of my Fellowship – and the one where there has been a lot of follow-up – was on the topic of climate resilience in buildings, and cities more generally. The network that was established through my Fellowship helped to form an expert panel on climate resilience in buildings. This enabled us to kick off a whole new area of business development looking to invest in ways that improve the climate resilience of buildings – both commercial and residential – in climate-vulnerable countries, particularly those which have high exposure to heat and water stress in the southern and eastern Mediterranean.

We believe that the work we are doing will help households, communities and businesses deal with increasing climatic variability and climate extremes. The connections that I have made at Cambridge will certainly have contributed to that outcome.

“The Fellowship has enabled me to connect with people I would otherwise never have come across. It enabled me to reach out to a wider network of practitioners and highly experienced and knowledgeable academics, enabling us to explore new ideas and expand our business operations.”

As Head of Climate Change Adaptation at the EBRD, Craig Davies leads on mainstreaming climate resilience into EBRD’s investment operations in Central and Eastern Europe, Central Asia, the Caucasus, Turkey and the southern and eastern Mediterranean.
SPOTLIGHT ON | INNOVATION

Innovation

In 2015 our network was able to harness all the strengths of Cambridge’s innovation ecosystem to inform European, national and business policy.

A series of meetings between a Policy Fellow from the Cabinet Office and experts across the University of Cambridge directly influenced how government procurement creates opportunities for SMEs.

A workshop exploring how policy, regulatory and financial initiatives could better support innovation provided new insights for the Senior Adviser for Innovation in the European Commission.

And a conversation between a BT Policy Fellow and the Head of the Cavendish Laboratory led to a workshop with Cavendish academics and BT technical researchers to consider new ways that fundamental physics can be used to deliver higher internet speeds over greater distance.

Philip Sinclair is Head of Innovation and Growth in the Cabinet Office. At the start of his Policy Fellowship, Philip was responsible for creating an online procurement service – https://www.gov.uk/contracts-finder – to enable large contracts issued by government to be broken into smaller units that would be more accessible to SMEs. The purpose was to improve competition, reduce costs and promote innovation.

CONNECTIONS

Philip used his Policy Fellowship to engage with researchers at the Institute for Manufacturing, Judge Business School and the Computer Laboratory, as well as with behavioural experts and local entrepreneurs. The connections he made provided the impetus for Philip to test ideas and concepts early on in the design process.

OUTCOME

All public sector opportunities and future opportunities (pipelines) are now on one website. Opportunities are presented in a robust standardised way, and published via an open API. All data on the platform is open and searchable by price, location and sector.

"Contracts Finder is a world first in terms of scale and ambition. It opens up government business like never before and levels the playing field for SMEs who, in the past, didn’t know how to find public sector contracts, let alone bid for them."

Lord Young
The Prime Minister’s Enterprise Adviser
Dr Karthik Depuru-Mohan is a researcher in Mechanical and Aerospace Engineering at Cambridge. In 2015 he was seconded into the Department for Business, Innovation and Skills (BIS) to carry out an international comparison of research and innovation systems.

CONNECTIONS
Karthik used his secondment to build connections in government. He worked with a global network of policy officers and conducted interviews with senior university figures to gather data and relevant information.

OUTCOME
The result of Karthik’s work was a comprehensive overview of 20 different countries, which is already proving to be a useful source document to BIS, both as part of the Spending Review and to inform future policy debates about research and innovation systems.

A conversation between CSaP Policy Fellow Tim Whitley and Professor Andy Parker, Head of the Cavendish Laboratory at Cambridge, led to a workshop with Cambridge academics and BT technical researchers, funding for PhD students, and joint proposals to the EPSRC to support ongoing work.

A workshop with academics from the Cavendish Laboratory considered new ways of applying fundamental physics to deliver higher connection speeds over greater distance — a question that has huge purpose and significance for customers, the nation and for GDP (given that the economic value of businesses is linked strongly to their connectivity).

One of the topics I was interested in when I embarked on the Fellowship was the Internet of Things, and how we could move towards becoming an enabler and purveyor of insight. A meeting with Ying Jin in the Department of Architecture helped me think about how we live together, why cities are the way they are, and how they could be in the future.

When I think about a smart city I come to it from a telecoms perspective, inevitably thinking about bits and bytes and how to connect things. However, this novel perspective, which places people at the heart of the city, provoked me to rethink the kinds of environments that people will want to live and work in.

Even for a company like BT, which has very established links and a 30-year relationship with Cambridge, the diversity of the University is breathtaking but also difficult to navigate. While BT has a solid base in Cambridge, CSaP’s ability to augment that with its high-impact, highly efficient network allows us both to deepen ongoing relationships and add new parties.

“The one thing CSaP has given me is the ability to step back and think about the whole problem, and this has really helped me. I had a bit of a shock when I did it, but it was really useful.”

Dr Tim Whitley, Managing Director, Research and Innovation, BT

“One of the most powerful things about the CSaP Policy Fellowship is that it provoked me to ask questions that I would not have otherwise considered. Almost immediately you find yourself engaged in conversations which are interactive, hugely relevant and valuable.”

Dr Bryony Butland
Assistant Director Research Strategy, BIS

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Given the importance to health policy of having access to the best evidence, and the excellence of biomedical research in Cambridge, it’s no surprise that policymakers in this area continue to be strongly represented in CSaP’s network, and to make regular visits for workshops and one-to-one meetings.

For example, CSaP organised a one-day visit to Cambridge by the HM Treasury team led by Paul Doyle, HM Treasury’s Director of Health and Social Care, to discuss the relationship between public-funded health research and economic growth.

As part of the visit, Professor John Bradley, Director of the NIHR Biomedical Research Centre, hosted a discussion that brought together experts from Cambridge University, AstraZeneca, The Babraham Institute, GSK and Medimmune with policymakers from NIHR.

Mark Samuels is founding director of the NIHR Office for Clinical Research Infrastructure. Mark’s Policy Fellowship contributed to a NIHR study on the relationship between science funding and economic growth – Growth through health research: The NIHR as an engine for growth – published in March 2015.

“The Treasury visit to the Cambridge Biomedical Research Centre put a human face to my projects and collaborations. I have spent all this time thinking about how the NIHR’s investment contributes to economic growth, and it is the Treasury – the team that came to visit – that make the call on future developments. It was immensely useful to hear how they were thinking, even before the recent Spending Review."

Outcomes

Coming to Cambridge during the early stages of his study on science funding and economic growth made a significant contribution to the scope of Mark’s project, and helped him to understand and present the research. The connections he made are ongoing and there have been spin-off benefits such as linking Cambridge academics to other stakeholders and policymakers in his network.
Dr Kathy Liddell is Director of the Centre for Law, Medicine and Life Sciences (LML) at the University of Cambridge. Kathy’s research focuses on biotechnology and bio-information, with the aim of understanding and improving the legal frameworks that govern this complex and fast-moving field.

**CONNECTIONS**

Dr Mark Bale (a CSaP Policy Fellow from the Department of Health) was able to connect Kathy’s research group with other key parts of government. A meeting with Linda Kahl (Policy Fellow from Biobricks) raised awareness of new areas in science and innovation that could help Kathy and her group better understand questions on openness and innovation in genomics.

**OUTCOME**

Kathy’s meetings with Policy Fellows, and the subsequent policy workshop, led to the publication of a report on the debates, policy frameworks and recommendations for further research, and (as Mark Bale explains opposite) helped deliver a new government priority on genomics. Kathy plans to follow-up Kathy’s research group with other networks, helping to reinvigorate my earlier confidence.

Dr Mark Bale leads for the Department of Health on emerging healthcare science areas and their ethical, legal and policy implications. The connections made during his Policy Fellowship helped him to deliver a huge new government priority on genomics.

I am involved in delivering the ‘100,000 Genomes Project’, which is a scheme that aims to sequence 100,000 whole genomes from NHS patients. It intends to do many things for many people – deliver benefits to patients, allow access to researchers, and provide opportunities for industry partners – whilst maintaining public trust and confidence.

The workshop achieved what we’re increasingly calling ‘open policy making’. It’s a good example of how you can take a problem, bring together the various actors and come up with a plan that works for everyone. A report of the workshop has since been published and has contributed to the policy approach that Genomics England is adopting. The next step will be to work with researchers to identify the questions that need to be answered and see whether they fit with our policy needs.

"The Fellowship has helped my own professional development, giving me the confidence to act as an expert in a personal capacity, rather than as a cog in a machine, and enabled me to build on the connections I have made to engage others.”

**POLICY WORKSHOPS**

**Realising genomic medicine: intellectual property issues**

Working with Dr Kathy Liddell, Director of the Centre for Law, Medicine and Life Sciences, CSaP organised a policy workshop to discuss intellectual property (IP) policy, strategies and licensing practices for genomic medicine.

The workshop report concluded that with substantial public and commercial support, innovative science and thoughtful policy development, genomic medicine had the potential to revolutionise healthcare and contribute to economic growth.

**The benefits of play in middle childhood**

A workshop CSaP organised on behalf of the ESRC and Uleven discussed the strength of available evidence on the benefits of play in middle childhood, and where research could productively be focused.

With contributions from Professor Helen Roberts, a medical sociologist at UCL, and Dr David Whitebread, a senior lecturer in the psychology of education at Cambridge, the workshop report concluded that play in middle childhood was key to human well-being and that significant work needed to be done to increase the visibility of the importance of play.

"The CSaP policy workshop on genomic medicine and intellectual property issues was important in that it identified fresh issues and networks, helping to reinvigorate my earlier research and bring it up-to-date.”
Risk and Resilience

Facilitating knowledge exchange on the threats facing local, national and international communities has been a key pillar of CSaP’s work over the past year.

Risk and resilience – the threats societies face and how we cope with them – are recurrent policy priorities for any government, and this was reflected in the focus of CSaP’s activities in 2015.

A collaboration with Cambridge’s Engineering Design Centre led to a workshop exploring the concept of resilience in government and industry, and how engineers can help design resilient systems.

As a result of discussions during his Policy Fellowship, a Senior Adviser in the National Security Secretariat asked CSaP to organise a roundtable discussion for the Cabinet Office team undertaking the Strategic Defence and Security Review.

CSaP continues to host the External Champion to RCUK’s Partnership for Conflict, Crime and Security Research (PaCCS), which delivers high quality research to help improve understanding of global security challenges.

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Elizabeth Surkovic is Deputy Director for Science in Government at the Government Office for Science. She spent her Policy Fellowship exploring risk assessment, appetite for risk, and resilience to emergency scenarios. Following these discussions Liz worked with CSaP on a series of workshops exploring how the behavioural sciences can inform government planning and responses to emergency situations.
Dr Colin Wilson is Head of Strategic Planning, HM Passport Office. In his previous role at the Home Office’s Centre for Applied Science and Technology, Colin focused his attention during his Policy Fellowship on: the need for enforcement agencies to test for a wide range of drugs in a robust way; issues around how government interacts with the enforcement agencies if they meet an emerging market need. He spoke with Professor David Spiegelhalter about risk calculation and perception, and a meeting with Professor Larry Sherman encouraged him to use randomised control trials in new areas.

Academic input into the Strategic Defence and Security Review

At the request of one of our Policy Fellows, we ran a roundtable discussion for the Cabinet Office team undertaking the Strategic Defence and Security Review (SDSR). The purpose of the discussion was to discuss academic input into the SDSR, exploring the major questions that the academic community considers important to the SDSR process.

The meeting took place in Cambridge, and was chaired by Sir Richard Dearlove (former Chief of the Secret Intelligence Service). The main points raised centred on: options for strategic focus; prioritising people vs technology; cyber expertise and governance; making use of expertise; drivers of innovation and a more entrepreneurial culture; strategic communications; and the appetite for risk.

“CSaP’s policy workshop provided an excellent opportunity to test and shape our initial thinking and challenge our emerging view of the strategic context. The discussions on drivers of innovation, building cyber expertise in the UK, and on the broader need to promote an entrepreneurial culture really helped to refine our thinking in these areas.”

Conrad Bailey
Director, Strategic Defence and Security Review
Cabinet Office

CSaP worked with Nathan Crilly and his team to deliver a workshop examining how concepts of resilience differ between government departments, academia and industry, and how engineers can design more resilient systems.

My group conducts research into the design of systems, be they technical, social or socio-technical. Resilience is used as an umbrella term for all sort of concepts in a system (adaptability, flexibility, robustness), so it is often unclear quite what is meant when someone describes a system as requiring, possessing or lacking resilience.

This workshop explored resilience concepts with respect to different types of systems and from the perspective of different domains. We learned how individuals coming from different backgrounds understand resilience and communicate resilience. It was especially interesting to see participants recognise that they could benefit from each other’s approaches to resilience.

We created a synthesis of what was discussed at the workshop and what we learned and, as a result, have been able to think about and represent resilience in a domain-neutral way. Our findings have since been presented at a number of forums.

Much of the value of the workshop was having people describe the resilience of their system in terms that other people could understand. It became clear that when resilience claims are made, the boundaries that define the system are often left implicit, as is the assumed purpose of the system.

“I did more academic engagement in my week in Cambridge than in the previous few years put together. I continue to recommend the Policy Fellowship to colleagues within and beyond my department.”

“I was especially interesting to see participants recognise that they could benefit from each other’s approaches to resilience.”

Dr Nathan Crilly, Engineering Design Centre, University of Cambridge
CSaP’s Advisory Council meets twice a year and advises on CSaP’s strategy and activities, paying particular attention to the views of stakeholders. It is chaired by Dr David Cleevely.

Governance: Advisory Council

Dr David Cleevely CBE (Chair)
Entrepreneur and Government Adviser

Dr Claire Craig CBE
Director, Science Policy, Royal Society

Professor Dame Athene Donald DBE
Master, Churchill College Cambridge

Professor Dame Ann Dowling OM DBE
President, Royal Academy of Engineering

Clare Moriarty CB
Permanent Secretary, Defra

Dr Geoff Mulgan CBE
CEO, Nesta

Professor Nick Pearce
Director, Institute for Policy Research
University of Bath

Dame Fiona Reynolds DBE
Master, Emmanuel College Cambridge

Dr Adrian Weller
Senior Research Fellow, Department of Engineering
University of Cambridge

Rt Hon Lord Willetts
Executive Chair, Resolution Foundation

Lord Wilson of Dinton GCB
Cabinet Secretary (1998 – 2002)

Chris Wormald
Permanent Secretary, Department for Education

CSaP’s Management Committee meets once a term and reports to the Councils of the Schools and to the University’s Research Policy Committee. It is chaired by Professor David Runciman.

Governance: Management Committee

The members of the Management Committee are:

Professor David Runciman (Chair)
Head of Department, Department of Politics and International Studies

Dr Robert Doubleday (Secretary)
Executive Director, Centre for Science and Policy

Professor Ottoline Leyser CBE
Director, Sainsbury Laboratory

Professor Christoph Loch
Director, Cambridge Judge Business School

Professor Richard Prager
Head of School, School of Technology

Following a consultation on how CSaP’s governance should reflect the way in which the Centre has developed in recent years, a new Management Committee has been established.

For the previous six years, CSaP’s Executive Committee proved an invaluable source of oversight, guidance and advice. The Centre would like to thank all those who served on it.

Dr Robert Doubleday
Executive Director, Centre for Science and Policy
The Centre for Science and Policy is grateful for the support of its principal funders – particularly the David and Claudia Harding Foundation, the Isaac Newton Trust and the University of Cambridge for its HEIF contribution – without whose generous support none of our achievements to date would have been possible, and to the organisations who have sponsored or supported particular activities during 2015, including the British Academy, Churchill College Cambridge, the Economic and Social Research Council, the European Commission and Stiftung Mercator.

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<th>FY 2013 / 2014</th>
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<td>Income</td>
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<td>Expenditure</td>
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<td>Total funds carried forward as at 31 July</td>
<td>383k</td>
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CSaP’s network and programmes are supported by a small team based in Cambridge which brings together all the necessary skills and expertise in event management, marketing, programme development, networking and research.

Dr David Cleevely CBE
Chair, Advisory Council

Katie Collins
Administrator

Dr Robert Doubleday
Executive Director

Dr Ben Earley
Pathways to Impact Coordinator

Dr Nick Gray
Policy Fellowships Programme

Dr Clare Moran
Policy Fellowships Coordinator

Jackie Ouchikh
Head of Programmes

Dr Miles Parker OBE
Senior Research Associate

Dr David Rose
Research Associate

Henry Rex
Policy and Communications Officer

Dr Tristram Riley-Smith
External Champion, Partnership for Conflict, Crime and Security Research

Dr Alice Vadrot
Visiting Research Fellow

Centre for Science and Policy Team
A note of thanks

CSaP would like to record its gratitude to all the members of the University and others who have given their time this year to support our programmes and events and to meet visiting Policy Fellows, including:
A note of thanks