Interview with

| Prof. Dr. Sandy Thomas, Head of Foresight Programme, The Government Office for Science, UK

**Dr. Beate Freuding:** Prof. Thomas, you are Head of the Foresight Programme in the Government Office for Science. What are the objectives of the UK Foresight Programme and how do you realize those objectives in your daily work?

Prof. Dr. Sandy Thomas: The programme advises government on how to ensure current polices are robust in the light of future uncertainties. Foresight is led by the Government Chief Scientific Adviser who reports to the Prime Minister.

In practical terms, Foresight realises this by undertaking long-term studies on specific future challenges, for example global food security, or personal identity, and brings together international experts in the field to build a comprehensive evidence base on these major issues.

Across Government, Foresight also provides bespoke workshops and consultancy on specific departmental issues.

1. **Freuding:** In what projects or field of subjects is Foresight in the UK Government currently used and which methods are mainly applied?

Prof. Thomas: UK Government applies Foresight tools and approaches to a wide range of issues from security and intelligence to international development and the environment. Insights are often generated from scenarios; we have recently used visions and roadmaps to inform industrial strategy, defence research and procurement. The Foresight Programme also makes extensive use of horizon scanning, as does our National Health Service. The Department of Environment, Food and Rural Affairs uses trend analysis and identifies potential shocks for policy development and preparedness. Systems maps are increasingly part of the Foresight toolkit, a tool we used to good effect in Future of Obesity. Overall, we use a rich diversity of approaches to provide fresh perspectives on important issues.
Foresight has recently published research on the future of identity, the future of computer trading in financial markets and the future of reducing risk disaster. Currently underway are studies on demography, manufacturing and the future of cities.

3. Freuding: Implementing new complex methods in our daily work is often difficult. How do you support the different government departments in using Foresight in their daily policy routines? Do you have special training programmes for the staff?

Prof. Thomas: We have a small Horizon Scanning Centre that does a significant amount of outreach to officials. They offer training, maintain a toolkit of the best tools and approaches, and run networks of security and intelligence operatives and government analysts that use Foresight. We also work on projects with and on behalf of government – from workshops to two-year reports. The amount of mentoring, the use of experts, original research, the depth of analysis and the size of report (if any) depend on the client.

4. Freuding: What role do you see for information and communication technology in Foresight in general and what role does software support play in your work in particular?

Prof. Thomas: We use mind-maps, systems maps (e.g. obesity), and also commission modelling work (e.g. to quantify possible future flooding) for some of our Foresight work. But our emphasis is on expert knowledge and collecting it, analysing it - communicating it is often low-tech although we are also interested in innovative ways to convey the results of our analysis.

5. Freuding: Are your Foresight projects and their outcomes evaluated? What have been major challenges and lessons learned of the first years and which changes have been implemented due to those findings?

Prof. Thomas: Impact is essential and is a key measure when assessing the success of our work. As such, a key task with every project is to build a route to action right from the start of the work. Securing ministerial sponsorship and forming an advisory group of high-level stakeholders are just two of many factors that contribute to this.

At the end of a two-year project, an Action Plan is usually agreed and used to take forward the major findings. Foresight convenes a meeting of the project’s ‘high-level stakeholder group’ a year after publication to review the report’s impact. These ‘one-year reviews’ are published on the Foresight website.

Additionally, Foresight commissions and publishes mid-term (three to five year) reviews of the impact of some of its reports. Many years ago, there was no explicit action to ensure that the Action Plan was implemented. However, an evaluation of the Programme identified this as a weakness and now Foresight sets aside resource to disseminate its major reports and to facilitate their impact. The Foresight ‘Follow-up Team’ works with government and other organisations, particularly in the year or two following the publication of a report, to help ensure that its evidence base and key messages are used to inform policy making, strategic thinking, research, and investment in technology development in the UK and internationally. This has been found to significantly amplify the effectiveness of the projects and widen their impact for longer,
both within the UK government and internationally.

6. Freuding: What has been so far the biggest success story of your unit?

Prof. Thomas: Getting high-quality, multidisciplinary scientific futures work at the heart of government’s long-term strategic planning and policy making. For example, the Technology Innovation and Futures work supported David Willetts (Minister for Universities and Science) in negotiations with the Treasury leading up to the Autumn Budget Statement 2012 – Her Majesty's Treasury increased funding for science.

Several projects have continued to have a particularly strong impact since the change in administration in 2010. For example the report Mental Capital and Wellbeing: Making the most of ourselves in the 21st century (2008) explores what needs to be done to meet the challenges ahead so that individuals can realise their potential and flourish in the future. The UK Department of Health’s new mental health strategy (MHS) ‘No health without mental health a cross-Government mental health strategy for people of all ages’ (2011)\(^1\) carries forward some of the Foresight study’s principal conclusions. Tackling Obesities: Future Choices (2007) (TOFC) has been one of the most successful of Foresight’s reports in achieving enduring impact. Having already been intimately connected with the framing and development of British Government initiatives, for example the £372 million Healthy Weight, Healthy Lives: a cross-government strategy for England, the Report has again been at the heart of UK government thinking.

In 2011, the Department of Health launched Healthy Lives, Healthy People: A call to action on obesity in England (HLHP).\(^2\) It states how TOFC has been a ‘driving force behind efforts to tackle obesity’ and, although published almost four years ago, remains a ‘robust foundation for future action’.

7. Freuding: Oftentimes politicians have a tendency to preferably target short-term goals rather than solving long-term problems, since the latter do not serve the politicians’ need to get re-elected. How do you overcome this tendency? Or phrased differently: How can Foresight and its translation into policy be incentivized?

Prof. Thomas: By demonstrating to government’s policy makers that by using Foresight’s evidence base to inform their decisions, they will get the best, long-term sustainable returns from its expenditure and, therefore, value for money. In this context, it is critical for projects to use the analysis to generate practical advice and choices on decisions that policy makers need to take today. Also, it can be important to make clear to policy makers the costs and risks if decisions are not taken. This was particularly important in convincing Her Majesty’s Treasury to broadly double expenditure for flood risk management in England, even though the relevant Foresight project took an 80-year forward look.

Despite such successes, creating action across government is a substantial challenge – particularly when one part of government needs to spend its budget on

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something that another department will benefit from. An example is Foresight’s project on Mental Capital and Wellbeing (MCW), which highlighted the positive effects that early years education has on mental health in later life. The result is that the Department of Education ends up increasing funding in areas such as the early identification of dyslexia but it is Departments such as Health who are the ones who actually benefit from this increased spending. Here engagement with the centre of government is important.

8. Freuding: Prof. Thomas, how do you assess the link between Foresight and Good Governance? Do you think that the work of the British Government has been improved due to the usage of Foresight?

Prof. Thomas: Measuring impact is often a challenge as there are many elements contributing to policy decisions. However, as seen in the previous answer some projects have fed directly into policy. The other project of note is Future Flooding (2004), which continues to have an impact when making funding decisions on flood defences. We have also recently, with Cabinet Office, reviewed horizon scanning activity throughout UK Government. The Cabinet Secretary has championed horizon scanning and his Advisory Group provides the link between Foresight and policy. The Advisory Group is supported by a Director from each government department who can commission Foresight or steer policy in response to Foresight.

Huge resources across Government are invested to deliver effective policies for a better society, and so in that context it is sensible to invest and ensure that Government has the latest and best knowledge to tackle some of the most challenging issues. Foresight, in its specialised areas of work, has created clear direction for further academic and policy work.

9. Freuding: What is your vision for the future regarding Foresight in the UK? In optimistic terms, where and how do you see Foresight implemented in 5 years?

Prof. Thomas: We’d like to see a strong centre in UK Government, driving and reacting to Foresight, and promoting its uptake across all areas of policy. We would also like to see sustained funding for Foresight within all core UK government departments and the creation of a more diverse community of Foresight practitioners to work together and feed into policy making.

10. Freuding: If you were asked to advise other countries, like Germany, on their endeavours regarding national Foresight structures, what would – from your point of view – be the three critical parameters that need to be attended to?

Prof. Thomas: The three most important parameters are:
1) To be demonstrably independent, free from political and other forms of vested interest. This must also include the scientific and futures analysis, which should be of high quality and robust to challenge.
2) The involvement of multiple stakeholders from the outset, to ensure that they have buy-in to the project. They should also be involved in the management of the project. We have a high-level stakeholder group formed of people who help steer the project at the strategic level, and are in a position to take forward the findings, and a Lead Expert Group, formed of 6-10 academic,
business, NGO leaders in the relevant field, each with different multi-disciplinary backgrounds.

3) An active follow-up programme to ensure that the findings are taken forward and thereby have an impact. This also enables additional avenues to be explored, which were not originally identified, broadening the effectiveness and impact of the work of the project.

**Freuding:** Prof. Thomas, thank you very much!

*Dr. Beate Freuding is partner at BE|YOND Strategic Consulting, a consulting firm for project development and non-technical innovation.*
| Prof. Dr. Sandy Thomas, Head of Foresight Programme, The Government Office for Science, UK |

Sandy Thomas is Head of the Foresight Programme in the Government Office for Science. She oversees the major two-year Foresight projects, the shorter Policy Futures projects and the Horizon Scanning Centre. Before joining the Civil Service, she was Director of the Nuffield Council on Bioethics. Originally a biologist, she spent a decade at the Science Policy Research Unit at the University of Sussex where she was a Professorial Research Fellow, focusing on biotechnology and genetics, particularly intellectual property rights. She is an Honorary Professor at Sussex.

| The Foresight Programme and Horizon Scanning Centre |

Since its creation in 1994 the Foresight Programme has helped the UK Government to think systematically about the future. The programme advises the UK government about how to ensure today's decisions are robust to future uncertainties. By combining the latest science and evidence with futures analysis, it helps policy makers tackle complex issues with a better understanding of the potential opportunities and challenges that lie ahead.

The programme does this in three ways:

1. Major Foresight Projects: in-depth two-year studies which build a comprehensive evidence base on major issues looking 20-80 years into the future
2. Policy Futures Projects: shorter projects which provide futures and evidence analysis to fill a specific gap in existing policy understanding
3. The Foresight Horizon Scanning Centre: training, toolkits and networks to strengthen futures thinking capacity and share best practice within and across government

Its work is used to stimulate and inform the development of more effective strategies, policies and priorities at national and international levels.

Foresight is headed by Professor Sir Mark Walport, the Government Chief Scientific Adviser, who reports directly to the Prime Minister and Cabinet. It is a part of the Government Office for Science within the Department for Business, Innovation & Skills.

More information is available at: http://www.bis.gov.uk/Foresight which includes descriptions of all the projects, and downloads of all the reports.
| About the Government Foresight Project |
Acting strategically is one of governments’ key tasks. However, planning and implementing future-oriented policy is particularly challenging due to the multitude of stakeholders, the growing interdependence between different policy areas and the wide spectrum of dynamic developments. Examples such as the Arab Spring and the global financial crisis illustrate that decision makers (including their advisors and critical commentators) are often taken by surprise and are not well prepared to deal with such developments. Against this background strategic Foresight is gaining importance for government institutions at the federal level. The project Government Foresight seeks to develop proposals for enhancing strategic Foresight at the federal level of the German state. To that end, structured interviews serve as vehicles to explore ideas of renowned experts as well as approaches and best practices in other countries and organizations and to generate Impulses for further developing Government Foresight in Germany.

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