### **Working Paper**

Understanding the organisational context for evidence-informed policy-making

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# **About this paper**

This is the first in a series of documents that have been developed as part of the VakaYiko Consortium project, supporting the Department of Environmental Affairs (DEA) in South Africa as it embeds and enhances an evidenceinformed approach to policy-making. It has been jointly produced by a team from DEA and from the Overseas Development Institute (ODI) in the UK, working with the Council for Scientific and Industrial Research (CSIR), the Human Sciences Research Council (HSRC), the Department for Planning, Monitoring and Evaluation (DPME) and the Department for Science and Technology (DST).

Other documents in the series include:

• a report that synthesises the team's observations on evidence-informed policy-making in DEA

• a set of guidelines that underpin an evidenceinformed approach to policymaking within a department or line ministry.

The VakaYiko consortium project runs over three years and involves five organisations working primarily in three countries: Ghana, Zimbabwe and South Africa. This project is funded by the Department for International Development (DFID) under the Building Capacity for the Use of Research Evidence (BCURE) programme. For more information about the VakaYiko Consortium contact us at vakayiko@inasp.info.





Science and Technology Planning, Monitoring and Evaluation









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# Acronyms and abbreviations

| BCURE | Building Capacity for the Uptake of Research Evidence | HSRC  |
|-------|---|-------|
| CSIR  | Council for Scientific and Industrial Research        | INASP |
| DEA   | Department of Environmental Affairs                   |       |
| Defra | Department for Environment, Food and Rural Affairs    | KSI   |
| DFID  | Department for International Development              | M&E   |
| DPME  | Department for Performance Monitoring and Evaluation  | NGO   |
| DST   | Department of Science and Technology                  | ODI   |
| EIP   | evidence-informed policy-making                       | RAPID |
| EIS   | Evidence Investment Strategy                          | UCT   |
| FSA   | Food Standards Agency                                 | UK    |
| HMG   | Her Majesty's Government                              | WHO   |

| HSRC<br>INASP | Human Sciences Research Council<br>International Network for the Availability of Scientific<br>Publications |
|---------------|---|
| KSI           | Knowledge Sector Initiative   |
| M&E           | monitoring and evaluation   |
| NGO           | non-governmental organisation   |
| ODI           | Overseas Development Institute  |
| RAPID         | Research and Policy in Development  |
| UCT           | University of Cape Town   |
| UK            | United Kingdom  |
| WHO           | World Health Organization   |

# **Executive summary**

Efforts to improve the use of evidence in government policy-making across the world have tended to focus on different groups and organisations. But while a good deal of work has been done to improve the supply of evidence from entities such as research centres and academia, less attention has been paid to improving demand for, and use of, evidence by government policy-makers.

This paper draws on the authors' direct experiences of working on evidence in two government departments: previously with the UK's Department for Environment, Food and Rural Affairs (Defra) and more recently in South Africa with the Department of Environmental Affairs (DEA). DEA has been working to enhance its use of evidence in policymaking since 2008 and, in 2014, a small group of DEA officials joined up with researchers under the DFID-funded BCURE programme<sup>1</sup> to try to understand the department's strengths and weaknesses in relation to evidence and to develop tools and approaches to improve how evidence is used throughout the organisation. Based on the principles of co-design, co-production and co-learning, the two-year project helped design a much longer programme of work that DEA will implement over the coming years.

This working paper presents ideas for discussion and debate; it describes the framework the team used to analyse how DEA's internal structures and processes and the external policy environment in South Africa affect how its policy-makers source and use evidence. Our aim is to outline, systematically, the detail of the issues we believe to be important to understanding how and why a government department operates when it comes to evidence.<sup>2</sup>

#### Analysing a department's use of evidence

There are two parts to this process of analysis. First, understanding the existing practices in relation to evidence, and their strengths and weaknesses. Second, understanding how these may have arisen from the internal and external pressures on policy-makers and policy teams.

## Understanding a department's strengths and weaknesses regarding evidence

Policy teams may work on many different processes simultaneously. At any one time a single policy team could be, for example, drafting and consulting on norms and standards; amending regulations; finalising management plans; reviewing alignment of a National Action Plan with an international strategy; drafting an adaptation plan; and implementing several location-specific projects. For all of these processes the teams need to find, appraise and interpret the evidence they need to make decisions. But they also need to make sure they are asking the right questions in the first place to ensure that the evidence, when they have it, is fit for both short-term and long-term purposes. There are many ways of accessing evidence, and policy-makers can draw on many internal and external relationships to do so. To simplify matters, and to enable the team to look across several different policy domains systematically, we drew from previous work in the UK (Defra, 2006) to conceptualise four separate processes: framing the issue and scoping the question; assembling existing evidence; procuring new evidence as necessary; and interpreting the evidence to inform decisions and reframe the issue. The emphasis throughout is on doing this jointly, with policymakers and evidence providers working together across the 'evidence-policy interface'. This is encapsulated in Figure 1.

#### Reading and working with the organisational context

People can be trained in many different ways to improve their understanding of what makes evidence robust, where to find it and how to use it. But, having been trained, they return to work in their teams, which are part of a much larger organisation with its own internal dynamics; and that organisation is part of a national policy-making system that is both bureaucratic and political. This makes for an extraordinarily complex context for policy-making, but by looking at three clusters of issues we can begin to see the main factors that shape the way evidence is used by teams

<sup>1</sup> BCURE: Building Capacity for the Use of Research Evidence, funded by the UK's Department for International Development. See https://bcureglobal. wordpress.com

<sup>2</sup> The different country contexts do not appear to give rise to different approaches to using evidence. However, it is important to recognise that our observations are mainly from departments of environment. Readers should be aware that the issues we raise in this paper may be different for departments in other sectors.



Source: Adapted from Defra, 2006.

and individuals. These are the external influences from outside the department, the internal structures and processes that influence how people relate to each other, and the business processes of a government department that shape what they do (Figure 2).

#### Embedding an evidence-informed approach

The detailed questions that emerge from this framework are given in the full paper. They link together to help a department hold up a mirror to itself so that it can understand where its strengths and weaknesses lie in relation to evidence; and how they have arisen. This is the first step

towards creating systems that could help a department take a strategic approach to managing its evidence base. It should help it focus on its short-term needs for evidence without losing sight of what it needs to know in the longer term. It should also help ensure it engages with a wide range of stakeholders to benefit from the full range of exisiting evidence, and engages with them in a way that enhances mutual understanding. It should help work out what could be done to make sourcing evidence as cost-effective as possible without compromising its quality. Finally, it should help systematically embed an evidence-informed approach to policy-making so that, over time, it becomes 'business as usual'.

#### Figure 2. The components of the wider institutional context for evidence-informed policy-making

#### External influences:

The sectoral politics of evidence Ongoing pressures to change Shocks to the system Debates around evidence

#### Internal (human) influences: Senior management and strategy Structure and relationships Culture, incentives and capabilities

Internal (business) influences: Planning

Reporting Budgeting

# **1** Introduction

This working paper aims to prompt discussion about what a government department might need to do to improve how it uses evidence in policy-making. It outlines an approach that can be used to help a department analyse what influences the way it sources and uses evidence, and understand where its strengths and weaknesses lie. This is the essential first step in developing a systematic and phased approach to improving evidence-informed policy-making.

The paper derives from work done with the South African Department of Environmental Affairs (DEA) in 2014 and 2015, which in turn was informed by work done in the UK's Department of Environment, Food and Rural Affairs (Defra) between 2004 and 2008. It could also inform work with other government departments that wish to explore a more evidence-informed approach to policy.

The work with DEA helped develop a departmental strategy for improving how it uses evidence. It is clear from the previous work with Defra that asking an entire government department to make evidence-informed policy-making part of 'business as usual' is an extremely complex, experimental and long-term process, and one that is likely to involve systemic organisational change. Efforts to improve the demand for evidence in policy-making risk falling short if they do not appreciate the complexity of the task and the need for a strategic, adaptive and locally owned approach. The early analytical, or diagnostic, phase is vital to understand what influences how individuals and teams within a government bureaucracy source, handle and use evidence.

Two companion papers provide other guidance for departments that want to follow a similar path to DEA. These review the good practices and challenges DEA faces in relation to evidence and set out the principles that underpin its evidence-informed approach to policy-making.

# 1.1 Situating ourselves in the debates around evidence-informed policy-making

The phrase 'evidence-informed policy-making' is now well recognised around the globe. It has been extensively examined in the literature, and a scholarly journal is devoted to the topic (*Evidence & Policy*, 2010–present). Most people would broadly agree with the World Health Organization's statement that describes it as 'an approach to policy decisions that aims to ensure that decision making is well-informed by the best available... evidence' (2016). However, agreement on the detailed meaning of the phrase probably ends there. Evidence-informed policy-making (EIP) has been described as a 'movement' (Young et al., 2012) and, like all movements, it has its adherents and its critics. We do not review all the nuanced arguments around the phrase in this paper, because we focus on a subset of the issue – how to help government departments understand their strengths and weaknesses when it comes to sourcing, handling and using evidence. However, it is important to set out where we, the authors, sit in the overall debate.

Readers are referred to publications such as Nutley et al. (2007), Head (2008), Oliver et al. (2014) and Parkhurst (2016, forthcoming), which provide detailed overviews of the literature and how different arguments have developed. Very broadly, adherents to the EIP movement point out that it is the responsibility of elected politicians and the civil servants who support them to take decisions that are informed by robust evidence. Their focus is on evidence of 'what works' - a convenient shorthand to describe the full complexity of evidence about what policy interventions have worked in the past, where, for whom, how and why, and what is the likelihood that they will work in future. This side of the movement aims to ensure that the evidence used is of the highest possible technical quality, sourced according to the relevant disciplinary standards and communicated effectively to policy-makers.

Similarly broadly, critics of the EIP movement argue with the presumption that there is a 'policy problem' in need of evidence to construct 'a solution' (see Bacchi, 2009), rather than a set of contested issues that are continually shaped and reshaped as evidence emerges and is debated in the public sphere. They also take issue with the use of particular methods that emphasise technical criteria and methodological generalisability at the expense of determining how the local political economy shapes the ways evidence is understood, sought and used (Cartwright and Hardie, 2012). The policy process is shaped by the way different networks of people interact - favouring particular ways of thinking or responding to current fashions, and favouring some types of evidence over others (Cairney, 2016). And some of the discussions abou evidence can be distinctly technocratic in nature (du Toit, 2012), defining a very narrow set of outcomes to be achieved in isolation from each other. These fail to engage with the complex policy narratives that shape and reshape how policies are framed, and do not recognise the interdependencies between issues that create and reproduce poverty.

We see the strengths and weaknesses of both sides of the movement. Between us, we have extensive experience of working with and in governments in several countries on many issues related to evidence. We have worked as civil servants, policy advisers, researchers, research managers and consultants. We have observed government from the outside to assess what influences how evidence is sourced, handled and used. But we have also worked inside government, trying to implement an evidence-informed approach to policy-making within a department. So we are aware of the various strengths and weaknesses that departments might face and of the need to ground the ideals of an evidence-informed approach in the reality of a complex organisation.

#### 1.2 Background to this paper

Efforts to improve the use of evidence in government policy-making have tended to focus on different groups and organisations. Much work has been done to improve the supply of evidence from entities such as research centres and academia (Young et al., 2012). Somewhat less has been done to improve the role of intermediary organisations that act at the interface between evidence suppliers and government agencies. But this is growing with a greater understanding of the roles knowledge-brokers can play (Shaxson and Bielak, 2012; Oliver et al., 2014).

The least attention has been paid to improving demand for, and use of, evidence by government policy-makers. Two large donor-funded programmes are currently looking at how to improve the 'demand side' of the evidence and policy relationship. The Indonesia Knowledge Sector Initiative (KSI)<sup>3</sup> and the BCURE programme<sup>4</sup> are supporting ways to understand and enhance how policy-makers access, appraise and use rigorous evidence. The premise of both programmes is that improving the use of evidence in government departments is both a means to an end (better outcomes) and an end in itself (improved policy processes). Both programmes support initiatives to train policy-makers at different levels to appraise and use evidence, to strengthen relationships with external evidence providers and to develop guidance on how to ensure decisions from government cabinet level downwards are well informed by evidence.

There is, however, little in the academic or grey literature that contains concrete suggestions for what else government departments could do at an organisational level to ensure an evidence-informed approach becomes mainstreamed.

Part of the problem is that the EIP movement has tended to look at how evidence is used in specific policy issues (such as climate policy or waste policy or air quality policy – what some refer to as 'policy domains'). However, a single government department will have to work across many policy domains simultaneously: the UK's Defra works on 29 different domains, from animal health to waste and recycling, flooding and coastal defence and economic growth in rural areas (HMG, 2016). Different domains will overlap to different degrees, and two departments may share a single domain (e.g. food policy may be shared between departments of agriculture and health). Taking an issue-based approach to evidence may contribute to improved outcomes within individual domains, but there is no guarantee the department as a whole is becoming more consistent in its use of evidence.

A second problem is the EIP movement has focused on finding ways to increase research uptake, rather than on how evidence is used in the statutory business of government (Oliver et al., 2014, quoted in Punton 2016). Work to build policy-makers' capacity to use evidence tends to stress the need to ensure that individual policy-makers either have or are able to access the skills needed to search for, appraise and synthesise evidence. This is clearly necessary, but once people are trained they return to work in their teams, and the way teams operate is conditioned by the bureaucratic processes within the agency, such as planning, reporting and budgeting - the basic administrative processes of government. In turn, these are influenced by the structure of the organisation and the political economy of the broader policy-making environment (Jones et al., 2012). Complemented by appropriate capacity-building, 'progress towards a more evidence-informed policy and administrative system would require sustained commitment across several focus levels individual leaders and managers, organizational units, and cross-organisational relationships' (Head, 2015: 8).

This paper addresses these two issues by describing the elements that need to be considered to design and implement a *departmental* approach to evidence-informed policy-making. It has two purposes: to promote discussion about how to support a departmental approach to EIP and to offer guidance to departments that want to assess their strengths and weaknesses regarding evidence and to make the necessary improvements. In doing this, we hope to contribute to what Parkhurst (2016, forthcoming) refers to as the good governance of evidence: developing systems and processes in government departments that recognise that, while robust evidence needs to inform policy issues, definitions of what makes 'robust evidence' are conditional and contested.

Collecting and using evidence takes time and resources. Our concern in this paper is to help departments answer two linked questions:

1. Is the department prioritising, sourcing and using its evidence base as effectively as possible to deliver outcomes that benefit society across the full range of issues it faces?

<sup>3</sup> www.ksi-indonesia.org

<sup>4</sup> https://bcureglobal.wordpress.com

2. Is its expenditure on evidence as cost-effective as it could be?

#### 1.3 The importance of diagnosis

Albert Einstein once said that, given an hour to solve a problem, he would spend the first 55 minutes working out what the real question was and five minutes working on the solution.<sup>5</sup> In many organisations, the pressure to get on and deliver change often results in a short, externally conducted, one-off diagnostic phase. This generally results in a plan to correct the problems the consultants have identified. However, organisations are constantly changing. Any diagnosis is only a snapshot of the organisation at a specific moment. Moreover, the future is unpredictable, which means the resulting plan can be only provisional.

This paper develops a framework, in the form of series of questions, which help a department 'read itself' and understand where its strengths and weaknesses lie in sourcing, handling and using evidence. It is intended to inform an initial diagnostic phase of any project or programme to improve an evidence-informed approach in any department. A systematic approach to supporting a whole department requires a systematic approach to understanding its current strengths and weaknesses and the issues it faces in trying to make change happen.

Our paper will not help decide whether a government agency has an evidence-informed approach to policymaking. In fact, this is a non-question, because evidence informs all decisions to some degree. The real question is whether the quality of the evidence and of the processes that support those decisions can be improved (Shaxson, 2005). This is not just a technical problem: a narrowly framed definition of what constitutes quality evidence may make for a speedy decision process but privilege a technocratic approach or favour some interests over others. A more inclusive process may be a lengthy and costly one, but the final decision may attract more widespread support. The optimal approach depends on several factors, including the purpose of the decision and the context within which it is taken.

Government departments are usually large agencies made up of many hundreds of officials assembled into several formal and informal groups. The people within them will have different ideas of what change is necessary and why, what is possible and how ready they are to begin making those changes. They will have built relationships with each other around evidence and the decision-making process. The wider contexts in which they work will be very complex and constantly changing. Our experience is that, by taking a participatory, learning-oriented approach (led by senior officials and with the support of external consultants), a department can hold a mirror up to itself. This selfdiagnosis helps officials at different levels develop their own ideas about the challenges they face, the changes that may be needed, the spaces for reform and where to begin.

#### **1.4 Methodology**

Very little has been written that specifically covers an evidence-informed approach from a government department's point of view. Our literature review covered papers from related bodies of work including:

- evidence-informed policy-making (with authors such as Sandra Nutley, Phil Davies, Julius Court and John Young)
- the literature on change management, from more conventional authors (such as John Kotter) to more critical studies drawn from complexity sciences (such as Chris Mowles)
- organisational learning and the spread of innovation in mainly high-income countries (such as Trisha Greenhalgh and Geoff Mulgan)
- capacity development, mainly in low-income countries (such as Alan Kaplan and Jan Ubels)
- institutional change in developing countries, including recent work on problem-driven iterative adaptation (Matt Andrews, David Booth, Lant Pritchett, Leni Wild and Michael Woolcock)
- drafts of emerging literature on the relationship between evidence and policy-making such as Weyrauch et al. (2016) and Parkhurst (forthcoming, 2016).

We also draw on our own direct experience of working on evidence in two government departments: in the UK with Defra (see Shaxson, 2009, 2014a) and in DEA in South Africa – the focus of the current BCURE project. The paper tries to bridge some of the gaps between the different literatures, in the practical context of these two departments.

#### 1.5 The DEA-BCURE project

DEA has been working to enhance its use of evidence in policy-making since 2008, when it developed a document that outlined what an evidence-informed approach would look like (DEA, 2008). In 2014, a small group of DEA officials requested support from researchers under the BCURE programme to help them implement the ideas in that document across the department.

The resulting project developed a programme that DEA will implement over the coming years to improve how it sources, handles and uses evidence. It based this on a thorough diagnosis of DEA's strengths and weaknesses regarding evidence. While the team drew widely on the academic literature, this was not a research-led diagnosis,

<sup>5</sup> See, for example, http://www.rockefellerfoundation.org/blog/defining-problem-find-solution

and certainly not a one-way process in which an external group built government capacity. Throughout the project, the team emphasised co-learning with DEA staff about what questions to ask, how to ask them, what the answers meant and how to interpret them within DEA's organisational context. Each stage of the project helped the team co-design and co-produce the next.

What is described in this paper is the analytical framework that informed the diagnostic phase of the project. Once the framework was developed, it was used to design five studies of individual issues that helped the team develop a deep understanding of how evidence flowed through the organisation. The observations from these studies are summarised in a linked document (Wills et al., 2016a) and were used to develop an improvement strategy for the department. This work led to the co-production of a set of guidelines (Wills et al., 2016b) that help ensure that as DEA works through the improvement strategy, any approaches to evidence-informed policy-making are sustainable, and more likely to become business as usual over time. While the framework has an academic slant, its purpose is to outline the real detail of all the issues we believe to be important to understanding how government

departments operate in relation to evidence. A shorter and more practical version will be published later in 2016.

#### 1.6 Organisation of the paper

This section of the paper has introduced the main ideas we have drawn on to develop our diagnostic approach. The remainder of the paper sets the approach out in more detail in two steps the team took:

- Understand the department's current strengths and weaknesses in relation to evidence-informed policymaking. We identify four processes that support an EIP approach, which can be used to conduct an initial self-assessment.
- Understand the external and internal influences on how the department sources, handles and uses evidence. We set out three broad sets of influences that need to be considered before any organisational changes are developed.

Throughout, we identify the questions that will help departments conduct this self-assessment. We conclude with a brief summary and discussion of how our approach has been used to date.

# 2 Supporting the use of evidence

This section focuses on two overarching questions departments can consider as they think about how to ensure the evidence they use to inform decisions is robust:

- 1. What are the current processes for scoping, assembling, procuring and interpreting evidence? How and why do they differ across the organisation?
- 2. Where do the processes work well and less well?

There are two ways to conduct the diagnosis. The first is via a process of self-assessment, which is best done in a group setting, as different people (and teams) will have different opinions. Displaying a larger version of the diagram in Figure 1 and populating it with different coloured sticky notes (representing good practices and weaknesses) could help kick off discussions. The second is to ask external consultants to do more thorough analysis of the four processes across different policy domains (clearly the two methods could be combined).

The final overarching question, clearly, is how to strengthen the four evidence processes; how to work out where change is needed; and which types of change are realistic and sustainable. This means understanding the organisation in some depth – as set out in Section 3.

# 2.1 Evidence-informed policy-making in practice

Examining Departmental Annual Performance Plans in South Africa shows that, during 2015/16, a single policy team (in this case the Biodiversity and Conservation Branch in DEA) could be working on drafting and consulting on norms and standards; amending regulations; finalising management plans; reviewing alignment of a National Action Plan with an international strategy; drafting an adaptation plan; implementing several location-specific projects; and a host of other activities (DEA, 2015: 121-141).

These different types of policy activities need to be informed by different types of evidence in different combinations, and via a host of different processes. We follow the definition set out by Newman et al. (2012): that an evidence-informed approach to policy is one that has considered the four types of evidence outlined herein (Section 2.2). Policy processes that have considered, but rejected, evidence can still be considered evidenceinformed as long as they have recognised key insights from that evidence. There are, however, three challenges to this. First, evidence is rarely conclusive enough to give definitive answers to a question: it is often ambiguous. Second, contested understandings of evidence emerge from different political viewpoints and different analyses of history (Bacchi, 2009; du Toit, 2012; Jones et al., 2012), giving rise to different types of bias in the evidence base (Parkhurst, 2016, forthcoming). Third, political know-how and judgement is an important part of understanding how to get things done (Head, 2008; Weyrauch et al., 2016).

A detailed review of the attitudes of South African policy-makers noted that an evidence-informed approach to policy-making ran counter to one where decisions were taken solely on the authority of people derived from their position within an organisation. It moved the approach 'from a discourse of power to a discourse of reason' (South African policy-maker, quoted in Paine-Cronin and Sadan, 2015: 14). However, within organisations, all debates are informed by power relationships (Mowles, 2011) and political viewpoints are informed by reason.

This means that, while an evidence-informed approach must have considered evidence of some form at some stage, we cannot make a hard and fast distinction between a politicised approach to evidence and a reasoned one.

Evidence is needed to inform specific decisions on choices to make to help deliver on institutional mandates, goals and objectives. It also has other roles to play in the policy process. There is no single definition of these roles: Paine-Cronin and Sadan (2015) maintain it can be used either to argue (to motivate, defend a position or secure resources) or to improve understanding and choice around an issue. Bossuyt et al. (2014) set out six different ways in which it can be used: instrumentally; conceptually for learning purposes; to legitimise decisions after they have been taken; to make symbolic points about what issues are considered important; non-use; and misuse. Bielak et al. (2008) provide an alternative framing, noting that it can confirm what we think we know, challenge received wisdom, enrich our understanding, explain complex relationships or scope opportunities for change. Finally, Carden (2009) suggests evidence can expand policy capacities, broaden policy horizons and affect policy regimes.

These frameworks complement each other, but what all have in common is that evidence is used both strategically and operationally in different ways for different purposes. Given the complexity of most policy issues, evidence will be probably used in all these different ways, simultaneously within a single department. It needs to be robust enough to withstand these different uses.

Before understanding what makes evidence robust, it is worth considering what we mean by evidence within the policy process.

#### 2.2 What is evidence for policy?

There is no single definition of evidence as it is used in the policy process. Davies (2014) defines it as 'information or data that supports *or rejects* a conclusion... or... anything that increases the *estimate of the probability* of the truthfulness of a proposition' (emphasis in the original). This definition gives weight to the statistical validity of evidence.

However, in their notes for a course for senior policy officials on evidence-based policy-making and implementation, the South African Department for Planning, Monitoring and Evaluation (DPME) and the University of Cape Town (UCT) observe, statistical evidence is only one type of evidence. Other types 'are more qualitative and seek to establish *what counts as evidence* for different social groups, and to understand *why, how and under what conditions* a policy intervention will be effective' (DPME and UCT, 2014 (emphasis in the original)). They note that statistical evidence focuses on understanding what can be generalised, but more qualitative types of evidence are needed to inform policy-making.

Following this reasoning, we differentiate between four types of evidence that focus on their purpose in informing policy decisions. Building on Jones et al. (2012), these are:<sup>6</sup>

- Statistical and administrative evidence, which describes and helps monitor the situation. This includes demographic data, data on performance of key indicators and administrative data that form the basis of management decisions in government.
- Analytical (research) evidence, which has several roles. It confirms or rejects hypotheses about how change happens and generates new hypotheses. It also explains causal relationships, enriches our understanding of complex issues or challenges received wisdom. It includes primary and secondary research evidence.
- Evidence from citizens and stakeholders, which tells policy-makers what people value and what they consider legitimate. This type of evidence may be collected using research methods but also emerges from participatory engagement throughout the policy process.

• Evidence from evaluations, which tells us what has worked in the past, for whom, how and why. This may be collected via process or impact evaluations.

Collectively, these different types of evidence form the 'evidence base' of a department (Shaxson, 2016).

There is a degree of overlap between these four categories. A citizen-based monitoring project, such as the one that the South African DPME is piloting (DPME, 2015), might produce administrative data on the workings of police stations and other facilities as well as citizen evidence. A piece of research could build on a statistical database. An evaluation of social service provision might draw on the administrative data held by the relevant monitoring department. The statistical, administrative and evaluation evidence may be produced through research processes – which may also incorporate stakeholder involvement. However, it is helpful to separate them out conceptually to be sure none is being overlooked.

A government department needs all four types of evidence, in different combinations at different times, to make its decisions and report on progress. If it focuses only on evidence from research or evaluations but ignores administrative evidence, it risks missing evidence for management decisions about how the policy is being implemented. If it misses citizen evidence, it could design a policy that has limited or adverse effects.

Collecting and using evidence takes time and resources. Our concern in this paper is to help departments answer two linked questions:

- 1. Is the department prioritising, sourcing and using its evidence base as effectively as possible to deliver outcomes that benefit society across the full range of issues it faces?
- 2. Is its expenditure on evidence as cost-effective as it could be?

#### 2.3 Good enough evidence

What makes evidence for policy robust? Several issues need to be considered, because it is not just about its technical quality. Cash (2003) notes that evidence for policy needs to be credible, salient and legitimate; we would add that it also needs to be *reliable* so it can play a continuing role in decision processes (Shaxson, 2005).

To assess credibility, we can look at the technical quality of a single piece of statistical, research or evaluation evidence against the standards of its discipline – whether quantitative, qualitative or a mixture of both. Robust evidence must have internal validity (rigorous methods of data collection and analysis) and external validity (we must

<sup>6</sup> Legal expertise may be needed to help develop or amend regulations, and to formulate legislation. We do not see this as a separate form of evidence, but as knowledge on how to use the evidence that already exists and to define what other evidence may be required.

be able to generalise from its findings). It is more difficult to assess the saliency of a body of evidence on an issue when different studies use different methods, the sample sizes are different and the studies are undertaken in different contexts (see DFID, 2016). In developing countries, where some data quality is poor, several issues undermine the idea of assessing the quality of evidence using a hierarchy based on study design (see Nutley, 2013). Few studies meet the methodological criteria for the highest quality methods, which often limits the usefulness of the conclusions.

In addition, an exclusive focus on methodological rigour detracts from the political economy of the evidence (why it was collected in the first place). We need to consider in particular how bias creeps into decisions about what evidence to look for and how to interpret it. Bias can be introduced in several ways (see Parkhurst, 2016, forthcoming): ignoring evidence from marginalised groups may end up marginalising them further; over-emphasising that from the natural sciences may give rise to technocratic decisions that neglect the lived realities of citizens and stakeholders. In many ways, bias in the evidence base is related to the history of the policy issue. Understanding who has been included and excluded from decision-making in the past will help us understand why people interpret evidence differently. This is particularly important in South Africa, with its divided history (Box 1). Where there are deep divisions and issues are very political, there will be little agreement on what the evidence means. In fact, disagreement is part and parcel of participatory and inclusive policy-making.

To assess reliability, we need to look at whether the evidence is collected in such a way that it provides information over the long term. A government department needs to manage the resources it devotes to evidence. A strategic approach here will seek out evidence more likely to be reliable over time. This means ensuring it is good enough to give a clear picture for ongoing monitoring and learning and can be used as a basis for future evaluations. All these criteria are important for assessing the robustness of evidence *for policy*. Officials will need to manage the breadth and depth of the entire evidence base to try to satisfy all policy-makers' concerns and to manage the inevitable contestation around what constitutes evidence and what it means.

However, there is a final issue to consider. Within any government organisation, civil servants will use evidence both to cooperate and compete as they press for personal and professional advantage, while at the same time trying to advance the policy area of which they are a part (see Mowles, 2011). This means that implementing an evidence-informed approach is not just about the quality of the evidence. The quality of the processes used to manage the evidence base is just as important as the quality of the evidence itself.

#### 2.4 Good enough evidence processes

Just as there is no gold standard for evidence, there is none for an evidence-informed process. No directives set out what an evidence-informed approach should look like or how to manage it. And it is important not to fall into the trap of thinking a structure or process that works in one organisation will automatically work in another (Andrews et al., 2012).

An effective approach to evidence-informed policymaking must be responsive to the time, resource and capability constraints that affect all government departments. It will need to put in place structures and processes for gathering and using evidence that are robust enough to meet policy and reporting priorities and transparent enough to understand the risks of taking a poor decision (Shaxson, 2005). It will need to be legitimate in the eyes of those affected by the issue. The key, then, is to strengthen relationships between people within the evidence ecosystem who are responsible for the supply, interpretation and use of evidence. These may not be in the same institutional location. Some organisations that produce evidence may sit within government (e.g. departmental research teams). Some will be external

#### Box 1. History matters - the context for evidence-informed policy-making in South Africa

The history of the relationship between evidence and policy matters, particularly in a country like South Africa. Under apartheid, government research agencies were involved in generating selective evidence to prove predetermined outcomes, justify apartheid policies and exclude large segments of the population from the development narrative. In the post-apartheid era, the core principles of evidence-informed policy-making – of sourcing and using evidence to inform decisions – were embedded in its approach to policy. Significant progress has been made to improve the generation and use of quality evidence. The purpose of DPME, established in the Office of the President in 2009, is to improve government-wide monitoring and evaluation, (M&E) using both programme-focused and administrative (department-focused) data, including programme evaluations (Phillips et al., 2015). It, and the Department of Science and Technology (DST), both lead the debate around evidence within government together with the Department for Public Service Administration. Although there are criticisms of evidence-informed policy as a 'meta-political project' that is essentially technocratic in nature (du Toit, 2012), there is a recognition in South Africa that 'Who is asking what developmental questions, who generates the evidence or who interprets and analyse the findings are critical considerations that define the way evidence is valued, acquired and used in the policy space' (Dayal, 2016: v).



In a shorter time frame, research reviews, syntheses and evidence networks will be more cost-effective

Source: Adapted from Defra (2006: 6).

(industry bodies, civil society organisations). Some will be independent organisations funded through the public purse (academia, some think tanks). Some may operate as 'knowledge-brokers' for specific issues, working both inside and outside the policy process. They may be on expert advisory committees, commissioned researchers or secondees to policy teams, as the need arises.

Work to develop Defra's Evidence Investment Strategies identified four processes that underpin the effective use of evidence in a government institution. These were also found useful for DEA's approach and were adapted to its particular needs for the 'Change' and 'Sustained' Agendas.<sup>7</sup> These processes 'focus less on the particular tools that are needed and more on the behaviour that makes the various tools effective' (Shaxson et al., 2009: 22). They are represented in Figure 1 and outlined in detail in the following sections. Note that, as with the different types of evidence, there is a close interrelationship between them: the processes overlap, ideally forming an iterative approach. For example, new analyses may suggest that issues could be framed differently, that existing questions could be better shaped, or raise entirely new questions that need answering.

The following subsections explore these four processes in more detail. They describe why each is important and some specific actions that could strengthen it. The list of actions is not exhaustive. Readers may well be able to develop others that suit their particular context.

#### 2.4.1 Jointly scoping the question

Before deciding what evidence is needed, we need first to explore what the real issues are and who to involve in defining them; and second to understand how to shape the questions so we have a chance of answering them with an appropriate mix of evidence. At a high level, it might mean framing a new policy approach or setting the agenda in a particular policy area. At a lower level, it might mean discussing the framing for an evaluation of a specific policy programme or for a piece of research to answer a particular question about whether, for sake of example, taxing plastic bags changes the way people use them. It might mean

<sup>7</sup> South Africa's National Development Plan and Medium Term Strategic Framework set out fourteen Outcomes that guide all policy making at national and provincial level. This is known as the Change Agenda. At the same time, departments develop five-year strategic plans that set out their legislative mandates and describe the wider policy agendas that are not captured in the Change Agenda. These strategic plans form the Sustained Agenda.

breaking down a particularly challenging policy question into a series of discrete ones that small studies can answer.

The key word is 'jointly'. Policy-makers who are not well trained in research methods may have a broad idea of the issues they want to explore but may not know what makes a question answerable or what type of evidence is most appropriate. Evidence specialists<sup>8</sup> within a department may have ideas about what they think are the key questions but have only a limited understanding of the current policy context and the questions that keep policy officials awake at night. People outside the department, whether citizens, other stakeholders, people from other departments or external technical specialists, may have quite different ideas. Processes of scoping the questions need to be participatory and inclusive, to ensure legitimacy, and to be clear on what the particular issue is and how different groups represent it, to ensure the evidence that is subsequently collected is salient. And they need to involve people with technical expertise and lived experience to ensure they are broadly credible.

Working jointly to frame the issue and scope the questions will help ensure they can be answered within time constraints. This may be challenging, as many policy issues have their schedules set for them, notably by parliamentary timetables. Working jointly also means exploring different views on the strategic importance of the question, its relation to both short- and long-term political priorities and how it fits within the public debate around the issue (Newman et al., 2012). This helps ensure that, when the evidence finally emerges, it can be set in the context of the issues that policy-makers need to address.

Box 2 outlines what happened when a government department focused on improving the way policy questions were scoped. However, local and central government, and even different central departments, do not necessarily share the same points of view about what questions need to be addressed. Well-run civic engagement processes can help move policy formulation away from 'stage-managed' processes of consultation to participatory processes, which co-produce the questions that really need answering (see Swilling, 2014). External advisers can make important contributions as a result of their knowledge of what is happening outside the department.

Strengthening this joint scoping function could therefore include:

- developing participatory and inclusive processes to engage with citizens and stakeholders to understand how they frame issues and what 'evidence' they consider important
- training policy-makers in research, evaluation and other analytical techniques so they understand what makes a question answerable through formal research-based methods
- clarifying when policy questions might emerge (through horizon-scanning or other foresight exercises) to ensure evidence processes are put in place in good time
- employing expert advisers (through individuals, or by setting up committees)
- supporting consultation processes before and during policy development – including civic engagement as well as multi-stakeholder forums that bring in business, industry groups and advocacy groups
- creating rolling evidence strategies that describe joint understandings of what the important questions are likely to be over the next one, three or five years and that are regularly updated through inclusive and participatory processes

#### Box 2. Scoping the question – putting policy in the lead

An early focus of Defra's Evidence Investment Strategy (EIS) in 2006 was to change the process of defining policy questions. The department had a considerable number of scientists, managed separately from the policy professionals. They were used to setting their own questions and then trying to feed the resulting evidence into the policy process. This resulted in some interesting questions being answered, but, because it did not address current policy priorities, the evidence was simply not used. Instead, policy-makers were using their own small budgets to commission work to answer questions that were occupying them. In general, they did not check whether the question had already been answered and did not have the capacity to appraise the quality of the evidence delivered to them. This resulted in duplication of effort and poor quality evidence.

The team managing the EIS developed the principle of 'putting policy in the lead' – ensuring the process of scoping the policy questions was led by policy teams but done jointly by policy-makers and their evidence specialists. Over time, this led to moving people around the organisation to build relationships to facilitate closer working. It also led to a realisation that Defra needed a great deal more social science than natural science, and changed the balance of the disciplines that informed its policy decisions (Shaxson, 2009; 2014).

<sup>8</sup> We refer to 'evidence specialists' rather than 'researchers' or 'evaluators' to ensure the definition covers all types of evidence. Sometimes referred to as policy analysts, these include economists, social scientists, statisticians, natural scientists, engineers, legal experts and others – people with a disciplinary knowledge rather than a knowledge of policy processes.

• creating interdepartmental and national/provincial/local government forums (noting that various spheres may have very different views of the key questions).

#### 2.4.2 Assembling existing and emerging evidence

Before rushing to find new evidence to inform a decision, it is important to know what evidence already exists. Capacity to conduct this second process is particularly important when policy questions are urgent. Paine-Cronin and Sadan (2015) note that South African policy-makers source evidence via international reviews or study tours, unstructured internet searches, personal networks, research databases, evidence from evaluations and internal discussion forums – though not always systematically or strategically. A more strategic approach clarifies how the question defines what evidence is needed, setting out the parameters and protocols of the search strategy and using those to frame the analysis of the evidence that emerges.

Many different resources are available for the assembly process. Expert advisory groups can point policy teams in the right direction, but the most rigorous techniques are systematic reviews, such as those that the Cochrane and Campbell Collaborations or the 3ie repository of reviews offer.<sup>9</sup> These are not always appropriate, however, particularly where time is limited. In addition, they insist on using only peer-reviewed literature, which limits what they can include (see McClure, 2005) and ignore the political economy of evidence, as outlined earlier. Other forms of review such as rapid evidence assessments<sup>10</sup> and evidence gap maps are emerging to help describe the evidence landscape in relatively short timeframes.

This is not just good practice: it is a good way to checkg whether the question has been answered before and whether in fact it is the right question to be asking. Organisational memory within government is often quite weak because of poor knowledge-management systems and the rapid rotation of staff between posts (Box 3). However, internet access is improving rapidly. If more reviews are done by people who have been trained to search effectively, this will enable policy-makers to access the evidence they need at the right time and decide what questions still need answering. Improving policy-makers' ability to assemble existing and emerging evidence might therefore include the following overlapping issues:

- training policy officials in how to search for and appraise the quality of different types of evidence, making better use of librarians where they are available
- building technical skills such as rapid evidence assessments, or working with external advisers to commission systematic reviews
- ensuring evidence is procured within the right timeframe to inform anticipated policy decisions (linking to an earlier point about evidence strategies)
- creating spaces for engagement with groups of people with different points of view such as civil society, nongovernmental organisations (NGOs) and labour unions
- setting aside a budget to encourage policy-makers to attend seminars, conferences or other formal or informal forums or exchanges

#### 2.4.3 Procuring evidence

A longer timeframe can allow policy-makers and their advisers to search for primary evidence 'on the ground', rather than relying on reviews of what already exists. The tools for this are basic commissioning exercises. A department can do this itself if it has sufficient budget, or it can work with government agencies that have a mandate to conduct research to inform public policy. It can also form relationships with external organisations such as research councils, NGOs or civil society organisations. If the question is well scoped then procurement could be outsourced as long as government rules allow it.

Procuring new evidence is not just a matter of commissioning a research project. Bearing in mind that

#### Box 3. We've all heard stories like this...

One of the authors worked in a department where a senior policy official was about to go out to tender on a large piece of work. It was a stressful time as he was also changing offices. As he moved a filing cabinet, a whole pile of papers fell off. At the bottom was a report, commissioned some years previously, that addressed almost the same question as the project he was about to commission. He stopped the procurement process just in time. Another official in a newly created team working on a new policy area contacted an internationally known consultant to do a piece of work that the recently established research committee had identified as important. The consultant wrote back saying that, while she would be delighted to do the work, in fact she had addressed that specific question for the department three years previously. She attached the report to her email. In both cases, reviews of what was already known would have saved a great deal of effort and embarrassment.

10 See http://betterevaluation.org/evaluation-options/rapid\_evidence\_assessment

<sup>9</sup> Cochrane, Campbell and 3ie online repository, http://uk.cochrane.org/, www.campbellcollaboration.org/lib, and www.3ieimpact.org/en/evidence/ systematic-reviews.

we are concerned with four types of evidence, all of which need to be credible, salient, legitimate and reliable, the procurement process could also involve:

- broadening and strengthening relationships with the full range of organisations that provide evidence, including them in discussions about what the policy questions are and what evidence already exists. For academia and government agencies that benefit from public funding, this may encourage them to shape their programmes to become more relevant to policy.
- improving understanding of what different approaches to collecting evidence (such as evaluations, research, monitoring, civic engagement) can and cannot provide.
- improving individual and team skills in project and programme management to ensure the evidence is procured as cost-effectively as possible.
- developing rapid response functions by working with expert advisers, government agencies, academia, consultancies or think tanks.
- influencing government procurement rules as they may affect how easy it is to procure different types of evidence.

#### 2.4.4 Interpreting the evidence

The fourth process identified is interpreting the evidence to reframe the issue and to inform policy options and decisions. Again, the key word from Figure 2 is 'jointly'. It is not just a matter of researchers producing policy briefs and providing recommendations that disappear into the black box of policy-making. Building relationships between the department and the people and organisations who provide evidence helps increase mutual respect and allows for the 'cross-pollination of ideas and knowledge' (Strydom et al., 2010: 5). A knowledge-brokering approach within the department encourages debate on the evidence and helps develop a shared understanding of what the evidence means for achieving a particular set of policy goals (Phipps et al., 2013). In some cases it might be useful to use an intermediary person or organisation who can help translate the evidence for non-specialist policy-makers.

Tools and techniques needed to support joint interpretation processes might include:

- building an approach to partnership working between policy-makers and, for example, researchers, rather than seeing evidence as simply a service to be provided
- ensuring that participatory engagement processes are not just held in the early stages of policy development: including evidence providers throughout will ensure that their interpretations of the evidence are taken on board
- skills in communicating complex evidence; these should not be the sole preserve of researchers. Policy officials might also benefit from training in writing styles (such as short briefs) and understanding communication strategies and channels

• encouraging researchers to informal meetings with policy officials to discuss the results of their work, possibly hiring people to help facilitate these.

#### 2.4.5 Supporting the four evidence processes

Together, the four evidence processes should help a government department make more effective use of its evidence. They could apply to the big strategic questions that senior policy-makers need to discuss with expert advisory committees, to specific operational/project-level issues that are contracted out to individual researchers and to participatory processes whose purpose is to co-produce evidence at a local scale to address local concerns. They involve a mix of individual and team skills, structures and sub-processes. They are not just technical changes: they also involve building internal and external relationships. Doing them well can help policy-makers become more responsive to changing contexts and help make policymaking processes more transparent and robust. Ideally, they form part of an iterative approach that constantly questions whether the department's evidence base is sufficiently robust, and is managed sufficiently well, to inform policy options and decisions.

Questions to inform a self-assessment relate to where the department's strengths and weaknesses are when it comes to:

- Framing the issue and scoping the question. How are different groups of people involved in framing the issues and defining what evidence is needed to answer the policy questions? Who is 'on the inside' and who is currently being overlooked? Is the approach to defining evidence requirements more strategic or more reactive to short-term pressures? Are all four types of evidence considered, or is the emphasis on only one or two types?
- Assembling and appraising existing and emerging evidence. Are policy teams able to conduct systematic searches for all four types of evidence? Once they find it, do they have the skills to appraise how robust it is? What types of expertise are available to help policy-makers?
- **Procuring new evidence.** How strong are relationships with all the organisations that provide evidence, both inside and outside government? How do government procurement rules affect the types of evidence that are sought and used?
- Reframing the issue: interpreting evidence to inform policy options and decisions. How well is complex evidence communicated to policy teams – are there sufficient opportunities to jointly interpret the evidence and reframe the issues, or is evidence seen simply as a service to be provided to the department?

In our experience, it is important to ask these questions in a group setting. Different people will identify different good practices for each of the four functions, which can be shared as an early output of the diagnostic process. These four questions formed the basis of one of the studies during the BCURE project's diagnostic phase. The observations from that work are summarised in Wills et al (2016a).

#### 2.5 Moving beyond individual capabilities

The premise of evidence-informed policy-making is that improving the quality and use of evidence should lead to better decisions. These in turn should lead to better outcomes for people, such as better housing for marginalised groups, higher levels of child nutrition, lower maternal mortality, improved livelihoods for smallholder farmers, greater economic growth and more sustainable use of natural resources.

Where technical knowledge is limited, efforts to improve capacity to take decisions tend to focus on improving expertise and understanding how organisational factors help or hinder the ways that expertise can be expressed. However, once officials are trained they return to work in their teams. The teams sit within branches or divisions, which are part of an often large and bureaucratic government department. The department is part of a national policy-making and reporting system that probably has a very complex set of rules about how policies are made. Individual officials may benefit from training to improve how they scope, assemble, procure and interpret evidence. However, they may find it difficult to use their new skills if departmental systems prevent them from working as effectively as they would like to. Punton (2016) notes three possible factors that may limit how policy-makers can use their expertise: whether evidence is valued in general, whether they have enough time to access and appraise evidence, and whether evidence is well managed between organisational silos. These factors may be important, but are by no means the only ones. Policymakers are strongly influenced in what they can do by their need to comply with the routine departmental processes of business planning, budgeting and reporting; the need to liaise with other departments; the mandatory aspects of public consultation; responses to parliamentary questions, and many other processes that comprise the day to day business of government.

So, although issue-based and individual approaches to capacity-building are essential, it is equally important to understand how to improve the use of evidence within groups, and at a departmental level. The rhythms of policymaking and the business processes of government affect how well policy-makers can scope, assemble, procure and interpret evidence for policy.

This raises a number of questions. How do we help policy teams and the department as a whole ensure all the decisions taken are more likely to make better use of evidence? How can we ensure the systems and processes for procuring evidence to meet all the department's current and future needs? How can we strengthen all the relationships between people who focus on the quality of evidence and people who focus on the policy content? How do we ensure all evidence processes are as inclusive as they can be? And how can we demonstrate this is all done as cost-effectively as possible?

Our premise, and the premise for the work we have done with DEA in South Africa, is this: although issue-based approaches to evidence-informed policy-making are essential, it is equally important to understand how individuals can work together to strengthen systems and processes to make better use of evidence across a department.

# 2.6 Strengthening an organisational approach

The four functions outlined in Section 4 provide a guide to what is needed, but they do not specify what 'success' is and how to achieve it. A government department that has improved its evidence-informed approach has people with better capacities, improved structures, stronger relationships and more effective systems to support the four processes described. Improving these is not an easy undertaking, especially where policy-making involves different people and organisations at different levels. This is illustrated in Box 4.

Government departments are places of both constant change and deep inertia (Page et al., 2012). Like all organisations, they have their own internal politics (Mowles, 2011). Both the organisations and the officials who work

#### Box 4. The complexity of environmental policy-making in South Africa

Responsibility for environmental policy is shared between the national, provincial and local government as a 'concurrent function'. As the central government department, DEA is responsible for setting policy direction. Responsibility for implementing policy decisions is also held by the provinces and municipalities, particularly the large cities. Both national and provincial departments report progress against their agreed goals to the Cabinet and the Provincial Legislature. South Africa has a very diverse natural environment, which means different provinces need to implement policies (say on management of biodiversity) in different ways. This makes for a very complex set of relationships as the different organisations negotiate what the issues are, what evidence is needed to understand them, who needs to be involved in developing the policies and what evidence to use to report on progress.

for them can resort to behaviours and ways of working that have been established over time (Penland, 1997), which may make it difficult to absorb change. But at the same time, departments may have had to adapt to new political leaders with new priorities and new budgets as well as to the 'events' that are part and parcel of the policy process.<sup>11</sup> Understanding how this tension between stasis and change influences the way departments source, assemble, procure and interpret evidence is the focus of the next section.

<sup>11</sup> Harold Macmillan, British Prime Minister in the 1950s and 60s, was once asked what was the thing he most feared about his job. His response was simple yet penetrating: 'Events, my dear boy, events.'

# 3 Reading and working with the institutional context

This section describes some of the external and internal issues that influence how a government department sources, handles and uses evidence. Improving an evidenceinformed approach to policy-making is not simply a matter of raising technical standards for evidence, training more people and funding projects to collect evidence for specific policy issues. For evidence to become part of business as usual there need to be systems in place for what Parkhurst (2016, forthcoming) calls 'the good governance of evidence'. This means understanding how the wider context of sector and national policy-making and reporting processes influence what types of evidence are needed and how they are sourced and used. It means recognising that the history of the organisation and the different cultures of evidence that exist in it will influence how people and teams work with each other. It means developing clear and transparent processes for prioritising spending on evidence, fostering a strategic approach that ensures adequate resources are allocated for statutory evidence, short-term policy priorities and longer-term goals.

All of this means there is no template for an evidenceinformed approach within a department; nor can we anticipate how long it might take to implement one. It will be up to each department (and each team within a department) to decide what sorts of changes might need to be made to structures, processes and relationships in what order and in what combination; and how long to let them run before deciding they are effective. Changes that look good on the drawing board might not work so well in practice: as the Defra experience shows, innovation at this depth takes time and a willingness to experiment.

The previous section set out the four processes that underpin an evidence-informed approach to policy, as the first half of our framework for understanding how government departments make better use of evidence. This section sets out the second half: the components of the wider organisational context that facilitate or hinder change. Together, they comprise a way of exploring an organisation's strengths and weaknesses for using evidence and the potential for scale-up and improvement. At the end of each subsection we set out a series of questions, to help identify the key issues that may need addressing. Some may relate to a specific evidence function, such as scoping the question. Others will contribute to a more general understanding of the political economy of evidence within the department as a whole.

First, though, we make two observations about the nature of organisational change.

#### 3.1 Organisational change: key issues

There is a very large literature on organisational change in government, but very little of it addresses the particular topic we are concerned with: how organisational change can improve the use of evidence in government departments (Head, 2015). Again, we can trace two broad and competing arguments about how change happens.

The first sees change as something that is controllable and that can be led: where cause and effect relationships are relatively predictable and where imperfections, constraints and ambiguities can be tidied away (see Kotter, 1996 as an example). Within the public sector, this is embodied by the approach known as New Public Management, with its emphasis on private-sector style management practices rather than policy skills; a greater stress on discipline and cost-cutting; and explicit, formal and measurable standards of success (see Hood, 1995).

The second sees change as emerging from the activities and intentions of individual people who cooperate and compete with one another to get things done (see Ramalingam and Jones, 2008). The net effect is a pattern of interactions between people over which no-one is in complete control, despite the power and influence of senior managers (Mowles, 2011). These are unique to each organisation. Even if organisations appear to share similar features, no two are really alike. Nor do they share the same paths of development (Kaplan, 1999).

Our own experiences once again mean we fall somewhere in the middle of the two arguments. Government departments are often bureaucratic and hierarchical places, with standardised processes designed to build consistency and conformity. Some aspects of change are managed from the top down, through rules and procedures that have to be followed, such as budget or reporting cycles. However, departments are also large collections of people who form their own relationships within and across teams, take matters into their own hands where they can, innovate where they see opportunities to do so and both compete and collaborate depending on what best serves their individual purposes. Our collective view of how change happens in government departments probably best reflects what is known as the 'contingency theory' of public management. This emphasises the need to design systems and processes that are individual to each organisation and that reflect the wider context within which it operates (Gulrajani and Honig, 2016).

#### 3.1.1 Politics and power

Politics - the relationships of power - between groups and individuals permeates all organisations. It affects how people interact with each other to bring about the changes they want to see. Any government department will have its own politics to contend with. This includes the politics of each policy issue, the ongoing politics of interactions with other government and NGOs and the internal politics between individuals and teams (see Mowles, 2015; Weyrauch et al., 2016). These interact in different ways to influence how people within the department conceive of, understand, design, discuss, adopt and adapt any new practices. Bringing about change may mean altering the patterns of relationships within a department. These could upset established hierarchies, and might make for difficult negotiations between individuals and teams, and even between departments and their stakeholders.

#### 3.1.2 Change is complex and unpredictable

Improving a department's approach to evidence is, then, going to be a complex and relatively unpredictable process. It will be a combination of changes that are expected, unexpected and (possibly) unwanted. In a review of organisational change in challenging contexts, Williamson (2015: 7) notes that actions that lead to sustainable change are often unplanned, but 'are responses to local problems and opportunities that fit the available space and capacity for reform'. This suggests there are no fixed solutions to problems: they can be addressed only through an iterative approach involving experimentation and learning from experience. In a systematic review of the diffusion of innovations in service organisations, Greenhalgh (2004: 598) points out that:

'People... seek innovations, experiment with them, evaluate them, find (or fail to find) meaning in them, develop feelings (positive or negative) about them, challenge them, worry about them, complain about them, 'work around' them, gain experience with them, modify them to fit particular tasks, and try to improve them—often through dialogue with other users... There is little support for the stereotypical and value-laden terms ('early adopters' and 'laggards'), which fail to acknowledge the adopter as an actor who interacts purposefully and creatively with a complex innovation.'

Strengthening an evidence-informed approach involves many innovations in relation to skills, processes and relationships, as previous sections set out. Any change activities need to be able to take all this complexity into account.

As Section 2 showed, improving an evidence-informed approach to policy-making will need more than one innovation. It will need better-skilled people, stronger networks, different structures and new or improved systems; in different combinations at different times for different purposes. How these are selected, designed and implemented will depend on the wider organisational context and how that has been shaped by pressures from within and from outside the department.

From our review of the different literatures and our experience working with government we have identified three sets of issues that influence change. Again, they overlap, but separating them out helps develop a set of questions we can ask in order to explore what a department might do better to improve its use of evidence:

- *external influences:* the wider context within which the department operates. This includes the politics of the sector, ongoing pressures to change, any shocks it has faced in its recent past and the current debate and relationships around evidence.
- *internal (human) influences:* the structures, functions and relationships between people and teams and the incentives, cultures and capabilities that influence how they work.
- *internal (business) influences:* the internal systems and processes that underpin the rhythm of day-to-day work and the budget allocation mechanisms that resource the production and use of evidence.

Sitting between the external and internal contexts we identify leadership and strategy, which develops the vision for the department. Figure 2 sets these out in more detail, and we expand on the individual components in subsequent sections. After each component we set out one or two key questions that can be asked to begin the analysis of what influences an evidence-informed approach.

#### **3.2 External influences**

Government departments make policy in a complex organisational and political environment – sometimes within a very particular institutional and political history. They work simultaneously on short- and long-term priorities at local, national, regional and international levels, and are never entirely sure how politically 'hot' any issue will be at any time, or for how long. The politics

#### Figure 2. The components of the wider institutional context for evidence-informed policy-making

External influences: The sectoral politics of evidence Ongoing pressures to change Shocks to the system Debates around evidence Internal (human) influences: Senior management and strategy Structure and relationships Culture, incentives and capabilities

Internal (business) influences: Planning Reporting Budgeting

of the sector changes over time. Ministerial reshuffles, national planning processes and unforeseen events force departments to change priorities and develop new organisational structures to deliver them. Budgets are under constant downward pressure from finance ministries, yet there is a rising pressure to demonstrate progress – towards both national goals and international obligations. It is helpful to differentiate between the ongoing pressures to change incrementally, and the shocks and crises that force sporadic but serious rethinking.

#### 3.2.2 The sectoral politics of evidence

Government departments cover many different issues within 'their' sector: in South Africa, DEA covers policy around biodiversity, conservation, waste, chemicals, air quality, climate change, marine environment, marine economy, environmental infrastructure and sustainable development – to name a few of its broad categories. It works with a dual mandate, to conserve the natural environment and to contribute to the country's top social and economic priorities for development, those of stimulating economic growth and employment.

Each of the issues described will have its own internal politics that influence what evidence is used and how individual policy teams interpret it. From the point of view of a whole department, what we are interested in is whether there are broadly competing bodies of knowledge and how the department engages with them.

#### Competing bodies of knowledge

Here, we need to look at the extent to which there is agreement or disagreement in the sector. First, new evidence may change the way an issue is viewed. For example, the view of waste as an 'end-of-pipe' issue has been superseded by one that any waste not designed out in production processes can be an economic resource, generating income and employment through recycling or used to generate energy. Second, people with one set of values and beliefs may reject some forms of evidence that others view as legitimate. For example, there are three different views of 'sustainable development'. One sees it as a revolutionary transformation of economic relationships to bring them in line with the planet's natural limits and ecological ideals. People holding this view want to challenge long-held beliefs and ideologies. Others see it as just a slight change of direction to the prevailing model of growth and development: they see the natural environment as a resource that contributes to economic growth, which is the main driver of progress. The third view is that the environment is an economic opportunity. This does not focus on environmental limits and scarcity:

instead, its emphasis is on new markets, services and forms of consumption (Death, 2014).

The existence of competing bodies of knowledge has important implications for who is involved in deciding how policy questions are scoped, what evidence is assembled, where it is procured from and how it is interpreted.

#### A spending or an influencing department?

The second consideration is whether the department in question is, broadly, a 'spending' or an 'influencing' department. Spending departments, such as health, education, home affairs, agriculture and social services, wield large budgets and deliver policy through structures within their direct control, such as hospitals, health services, police forces and schools. Influencing departments, which often include environmental affairs, have to achieve many of their goals through the spending departments. The goals of environmental policy are delivered through greener transport amenities, climate-resilient agricultural policies, a less wasteful approach to health service provision and so forth. Relationships between the two types of department can get quite political, particularly where their goals appear to contradict each other. For example, greening the national transport system may necessitate a rise ticket prices, which runs counter to the goal of reducing the expense of transport for poor people. Understanding these sorts of relationships helps us appreciate the politics of evidence within the sector.

#### Questions about the sectoral politics of evidence

- Are there competing bodies of knowledge within the sector? What are the implications for how the policy questions are scoped and the evidence is assembled and interpreted?
- Is the department in question a spending or an influencing department? How does this affect how it sources and uses evidence?

#### 3.2.3 Ongoing pressures on the evidence base

Three ongoing pressures can influence how departments use evidence: economic and budgetary constraints, pressure from donors and devolved responsibility for policy-making.

#### Economic and budgetary constraints

Budgetary incentives can shape evidence use. In the UK, increasing pressure on public resources since the global financial crisis in 2008 has led the government to commit to a series of wide-ranging reforms with a renewed focus on achieving better social outcomes at a reduced cost. This has increased demand for better evidence of 'what works' and pressure for it to be acted on (Puttick, 2011).<sup>12</sup>

Where the debate abou evidence is well advanced, downward pressure on budgets can help departments improve how they use evidence. The Indonesian Ministry of Finance has invested in the development of its research and development unit to improve its ability to generate and manage economic resources for the country, in an environment where there is significant inter-ministerial competition for funding (Datta et al., 2011). Budget pressures do not always improve how evidence is used, however. Their net effect will depend on the wider state of debates around evidence. In our work, we have seen that, in some countries, departments of research and statistics are viewed as hardship postings. In these cases, cuts are more likely to reduce the budgets for evidence than to strengthen them.

#### Donor pressure

Foreign donors can also put pressure on a government department to improve evidence-informed policy-making, although they are not always successful. As well as financing evaluations of policy programmes, donors may offer support to improve the use of evidence through longand short- term technical assistance and training (Tilley et al., 2015). However, their influence is not always helpful. They can drain institutional capacity by placing too many expectations on it to deliver, or by pulling people with core skills away from priority areas. Donors in Vietnam, for instance, provided significant funding to governmentaffiliated researchers. The end result was that Vietnamese civil servants were often more responsive to donor agendas than to those of their own policy-makers and were overworked (Datta and Pham, 2013).

#### Devolved or delegated decision making

Not all policy decisions are made centrally: in many countries, subnational governments play a significant role in designing and implementing policies. This can drive new demands for evidence use among subnational officials as they are given more responsibility for the services they provide – what is delivered, by whom and how (Sharpes, 2013).

As noted in Box 4, environmental policy-making in South Africa is a 'concurrent function', with the national department (DEA) along with provincial and local spheres of government making policies. This raises all sorts of challenges about how to ensure policy meets the wide variety of local needs. For example, DEA is responsible for licensing hazardous waste, provinces for developing policy around general waste and local governments for waste collection. Provinces and local governments often have lower capacity than national government departments. This is particularly true in relation to capacity for evidence. It is difficult to ensure the evidence base is coherent and consistent between the three levels.

<sup>12</sup> See for example, the What Works Network: www.gov.uk/what-works-network

Global or regional international agreements (such as global agreements on climate change or biodiversity) add another layer of complexity. Some agreements specify what evidence needs to be collected to monitor progress, imposing significant pressure if this is not done.

#### Questions about ongoing pressures to change

- What budgetary pressures are departments facing? How do they influence the evidence base?
- How much, and how, do donors and international organisations influence the policy questions that government institutions are asking? What pressures do they exert to collect particular types of evidence?
- To what extent is policy delivery decentralised to subnational levels or influenced by regional and global institutions? How does this affect the search for evidence in a sector?

#### 3.2.4 Shocks to the system

Unanticipated crises can cause real shocks to government institutions. In the UK at the turn of the century, both the 'mad cow disease' and foot-and-mouth disease crises caused serious harm to the country's agricultural economy. They damaged the reputation of the Ministry of Agriculture, Fisheries and Food, which was subsequently dismantled and merged with parts of other departments to become Defra. Reviews of what happened specifically pointed to the ministry's weak evidence base, which limited the sorts of decisions that could be made as the two crises hit (Anderson, 2002). As the debate about evidence-informed policymaking gained strength in the UK in the early 2000s, the memory of the crises and the damage they caused provided a useful background to encourage Defra to implement a major change strategy to improve the use of evidence (Defra, 2006; Shaxson et al., 2009; Shaxson, 2014a).

Crises such as this can result in great lurches of institutional change, but it can also be driven by political pressures to reinvent the Cabinet or dissatisfaction with the *status quo* among ministers (Page et al., 2012). Ministers are moved about and different responsibilities are added to or taken away from their portfolios. While the timing of these changes may be relatively predictable (they often happen after national elections), it is generally impossible to predict exactly what they will be. Major changes may take several years to bed down as different organisations develop different working practices and internal cultures regarding the use of evidence.

#### Questions about shocks to the system

• How has the organisation responded to any shocks and crises it has faced? To what extent were those shocks caused by problems with how it used evidence?

• How stable has the institutional structure been over the previous five years? If there have been changes, what effects have they had?

#### 3.2.5 Debates about evidence

Debates about evidence-informed policy-making can play an important role in shaping how policy-makers think about evidence and how they use it in their work. Paine-Cronin and Sadan (2015) conducted a detailed survey of South African policy-makers. They noted that how different groups used evidence was shaped by whether they held one of three views of the policy-making process. The first group articulated a 'predictive' view of evidence use, with policies based on objectively verifiable 'facts that speak for themselves' collected through replicable methods. The second put forward a more 'formative' view of evidence use that was more political and contested, based on an iterative search for explanations that was subject to particular contextual factors. The third suggested both views were valid, and the choice of which one to use would depend on the individual policy issues. A broad debate on which of these views prevails in a department at any one time could be a useful one to have.

Other aspects to the debates are equally important: whether or not policy considers all types of evidence, whether it is inclusive and how much it is driven by monitoring and reporting. As noted earlier, there are four main types of evidence for policy. However, debates around evidence are often limited to one or two types of evidence, such as research or evaluations. Citizen evidence may be overlooked outside social policy departments. Administrative evidence is hardly ever included in the debates, though it may take a significant proportion of the overall budget and be a major factor in management decisions about adjusting or scaling up policy programmes.

It is helpful to explore whether current debates privilege one type of evidence over another and what that may mean for policy-makers, who need all the different types in different combinations depending on what they are working on (Jones et al., 2012). A particularly powerful department such as the Treasury or Ministry of Planning might push particular types of evidence such as evaluative evidence, with tools and checklists to ensure compliance.

The pressure to demonstrate progress – against the Sustainable Development Goals, international agreements or national policy initiatives – emphasises the need for evidence from monitoring and evaluation (M&E). While this is a necessary part of the evidence base, an overemphasis on M&E risks changing the culture of evidence to one that is about just reporting on activities and processes rather than the achievement of results or strategic thinking, as in Box 5.

Finally, as noted earlier, there are many different voices in policy-making. Deciding how inclusive to be will frame the nature of the debate about evidence.

#### Questions about the debates about evidence

- Does any one type of evidence dominate debates? What are the implications of this? Does it give rise to any systemic strengths or weaknesses in debates?
- How inclusive are the debates about the use of evidence? Who is involved? How? Are resources put into ensuring evidence can be debated in consultative or participatory forums, or are debates relatively closed?

#### 3.2.6 Senior management and strategy

Leaders are often thought of as the people at the top of an organisation who can bring about organisational transformation: their role is to inspire and motivate employees to achieve an ambitious set of goals. However, people at all levels can lead change in their own spheres of influence, either as self-motivated champions for a particular issue or by being put in positions where they take decisions on behalf of others (such as heading up committees).

Although they are unlikely to be able to control what happens in a government department, senior management can play key roles as change happens. Greenhalgh et al. (2014) suggest their primary function is to encourage people to think differently about what changes might be needed and to create and protect the spaces for them to happen. Senior managers do not necessarily need to understand all the changes in detail, but they do need to see what their colleagues hope to achieve and how the intended changes might help the department fulfil its mandate more effectively. This means being clear about the scope of the departmental mandate, describing the benefits of a more evidence-informed approach and intervening where necessary – but stepping out of the way to let teams and individuals experiment and innovate.

In South Africa, an initiative to improve the use of evidence in DEA emerged from the middle of the departmental hierarchy. An informal group of theme managers, each leading large areas of work, produced the Environment Sector Research, Development & Evidence Framework to improve the use of evidence (DEA, 2012).<sup>13</sup> They elevated this to a receptive senior manager, who approved the ideas contained in the framework and space for theme managers to start implementing it.

It is often difficult for outsiders to understand what government institutions are thinking and how best to inform them with evidence. Communicating departmental priorities in a structured way can show what types of evidence are likely to be needed and when, and what decisions they will inform. Defra's EIS helped it clarify what its needs and priorities were for evidence to other stakeholders in the sector (Shaxson, 2014a).

While a strategy document is a useful communication tool, the more important work is what precedes it and what happens after it is published, as people try to implement the ideas it contains. As Mowles (2011) notes, strategy is the product of how people engage with each other. It is more helpful to talk about the components of a strategic approach to evidence, how such an approach can balance both long- and short-term needs for evidence within a limited budget and how individuals and teams might work together to put this into practice.

A strategic approach needs to engage with the providers and users of evidence, learning with them what the future might look like and how much to try to plan for it. With some organisations, this could be quite an instrumental relationship: government needs evidence; universities have it; they can develop a relationship that makes the links cost-effective. However, this instrumental approach needs to be approached with care, particularly where policy development is a co-produced and political process involving marginalised communities (Swilling, 2014). Here, evidence cannot be 'collected' or 'extracted' but must also be co-produced and treated as a shared resource.

#### Box 5. The risks of an overemphasis on monitoring and evaluation

Since 2009, DPME in South Africa has built an M&E system that collates a wide range of evidence on the performance and achievements of national and provincial government departments and presents it to the president, the Cabinet and parliamentary committees. It reports on the 14 Outcomes set out in the Medium Term Strategic Framework, management performance, frontline service delivery and the national evaluation system. While there has been a strong demand for this sort of M&E evidence from the highest levels of government, several challenges remain. The ways Institutions collect and use evidence tends to be less driven by a 'learning mindset' and more by a 'compliance mindset'. As well as being nervous of what the Auditor-General may pick up in its strict audits of annual performance plans, departments also find it hard to keep their plans for their priority outcomes strategic. This means they tend to set targets that are easy to achieve and to focus their evidence collection on measuring activities and processes rather than results.

Source: Phillips et al. (2014).

13 https://www.environment.gov.za/sites/default/files/docs/environmental\_research\_framework.pdf

#### Questions about senior management and strategy

- How engaged is senior management in the process of implementing an evidence-informed approach? How do they engage: do they encourage a hierarchical approach or one based on local experimentation? What does this imply for how change is likely to happen?
- To what extent does the department have an inclusive and strategic approach to ensuring it has the evidence it needs to meet its current and likely future policy priorities? What activities and relationships could be strengthened to implement this approach?

#### 3.3 Human influences

In this section, we discuss a set of factors relating to people and their relationships with one another. The organisational culture and incentives, and the formal and informal structures and processes, affect how people interact with each other and how they work. Together, these create internal pressures for and against change. Once again, there is no template for this: we need to consider how these different issues interact and the sorts of evidence-related behaviours they encourage and discourage.

#### 3.3.1 Structures and relationships

Few government organisations will have the luxury of a cadre of officials who focus only on managing evidence and ensuring it reaches policy teams in a timely way and a useful format. However, some may have evaluation specialists, scientists, statisticians and research managers. These may be concentrated in sub-units that may or may not be well linked in the departmental hierarchy to policy development and delivery teams. Designing formal structures and relationships to make best use of this expertise will probably take a good deal of experimentation, as Box 6 outlines.

#### Formal relationships

Most departments rely on external organisations to provide a good deal of their evidence: academia, NGOs, civil society, advocacy groups or the private sector. Formal relationships can ensure these organisations have a seat at the table and their evidence is heard. The risk to these relationships is that they become too formalised, limiting access by new or marginalised voices and consequently restricting the overall quantity and quality of evidence available to policy-makers.

#### Informal relationships

Organisational change does not happen by changing only formal structures and relationships: informal ones are just as important. Any organisation has groups of people who

#### Box 6. Top-down or bottom-up?

Defra's experience over the past decade in improving its approach to evidence shows this is not a simple process, particularly not for a government department dealing with complex issues such as climate change, animal health and welfare, waste policy, water quality and biodiversity within a network of government and NGOs. From the beginning, it took a top-down approach to its use of evidence to ensure it was applied strategically and systematically across the organisation. The team leading the process worked with policy teams to produce a map of Defra's entire evidence base and put it out for consultation – the first time this had been done in the UK (possibly anywhere). To strengthen relationships between evidence specialists and policy teams, it centralised all its evidence specialists into a single team and gave budgetary control to the chief scientific adviser.

Once this whole-organisation approach had been adopted, the next step was to embed it in the departmental business planning and budgeting processes to ensure both financial and human resources needed to support the evidence base were allocated as effectively as possible. Evidence plans and a prioritisation checklist were developed to link planning for evidence to the departmental budgeting process. As these plans were developed, Defra realised a central evidence team was not responding to policy requests as effectively as it could do, so it decentralised the evidence specialists and their budgets into policy teams to strengthen their relationships. This lasted about two years before realisation dawned that, with no central coordination, policy teams were beginning to duplicate work. The current situation is that the evidence specialists still sit with policy teams, but a small central team retains control over the evidence budget (Shaxson, 2014a).

Defra has made many other innovations during the decade in which it has been improving its approach to evidence. But as we work with DEA – which has a very similar remit – it is obvious it is a completely different organisation and that the innovations that could be put in place are very different. In both, pressure to design a programme of work that focuses specifically on evidence emerged from people three or four layers of management below the director general/permanent secretary (the CEO of the department). In Defra, the impetus for change came directly from severe shocks, as described. But while use of evidence is prescribed in environmental legislation, in DEA the impetus emerged from a less formal grouping of interested people, who were keen to adapt Defra's principles of an evidence-informed approach to their sector. So, while Defra's previous experience encouraged a top-down approach, DEA's approach is more bottom-up.

meet to discuss common interests, work out what is not working and try to get things done (or done differently) (Greenhalgh et al., 2004; Mowles, 2011). While senior management can open up the space for change, it tends to be driven by middle managers (Williamson, 2015). As we have illustrated, informal groups and networks can play an important role in clarifying what needs to change and how, and in building support for what is ultimately proposed (Melchor, 2008; Rashman et al., 2009). Their informal nature may limit their authority and their ability to access resources to support a change process. Some formalisation may be necessary, though if groups become too formalised and only include people with a narrow set of skills and interests they can fall prey to groupthink (Janis and Mann, 1977). This leads them to emphasise one approach and reject others uncritically (Jones et al., 2012). There is then a danger that competing groups could emerge. In jostling for power and budgets, they could end up setting the department back in its efforts to use evidence strategically and systematically.

#### Questions about structure and relationships

- What are the formal relationships around evidence? What roles do different people play in relation to evidence? How do they relate to each other and to external stakeholders?
- Are there informal groups of people able to talk knowledgeably and inclusively about all forms of evidence? Do they broadly agree with each other? How much influence do they have and on whom?

#### 3.3.2 Cultures, capabilities and incentives

#### Cultures of evidence

Is it important to foster a 'culture of evidence' within an organisation? Culture is an extremely difficult term to define. Commentators such as Deshpande and Webster (1989: 3-15), Schein (1992) and Kaplan (1999) suggest organisational culture comprises the norms and values that are practised in an organisation; the way of life, the way things are done. CEN (2004) suggests the term includes several other issues:

- the values and beliefs individuals hold
- how they are (and how they feel) rewarded, organised and controlled
- how their work is organised and experienced through job descriptions and conditions of service
- how authority is exercised and distributed
- the value placed on various functions within an organisation
- how much scope there is for risk taking and initiative

Elias (1977) describes culture as referring to patterns of thinking, acting and feeling among employees. Individual

civil servants have a number of goals, which may relate to the accumulation of power, prestige, income, security, convenience, loyalty (to an idea, a leader – such as a minister – or the nation), pride in excellent work and a desire to serve the public interest (as the individual perceives it). Improving the use of evidence may be a priority if they think it could help them achieve one or more of their goals, such as demonstrating loyalty to the organisation or leader, helping them serve the public interest and/or helping them take pride in their work (see Downs, 1965).

A review of evidence use within the Department for International Development (DFID) by the What Works Network (2014) talks about embedding 'a culture of evidence use' by seconding academic experts. It emphasises quality assurance, effectiveness, cost-effectiveness and collaboration between evidence specialists and policy teams. DFID has put a great deal of effort into improving the technical quality of the evidence it uses to advise country governments on their policy choices. But country governments need to do more than focus on technical excellence in the evidence base. For DEA, it is increasingly important to support a culture of participation and inclusiveness between all stakeholders in the policy process. South Africa's national planning process has given rise to a culture of reporting and compliance that, as Box 5 noted, has strengths but also weaknesses when it comes to using evidence (Phillips et al., 2014; Goldman et al., 2015). All this means it is more helpful to talk about multiple cultures of evidence and how they combine and collide to create incentives for people to jointly scope, assemble, procure and interpret evidence for policy. What we are looking for is the extent to which policy-making is influenced by the different cultures of evidence outlined in this paper.

#### Capabilities

The way departments hire people reflects their assessments of what capabilities are needed to support an evidenceinformed approach. The capability assessment conducted as part of Defra's first EIS process revealed the need to hire a cadre of social scientists, for example (Shaxson et al., 2008). However, capability assessments that focus just on the spread of technical disciplines may miss the expertise needed to ensure (for example) that the search for evidence is also inclusive and strategic.

#### Incentives

Performance management frameworks tend to lock in these capability assessments. They are intended to reflect an organisation's commitment to ensuring the capabilities of its staff support its achievement of its goals. They are constructed to provide incentives for people to progress to the next level in their career. They indicate ways in which managers can support their staff to improve how they source and use evidence. Policy-making is such a messy and contingent process that these frameworks cannot fully define or determine the way people work with evidence. Nonetheless, they can give an indication of the predominant cultures of evidence and how these are changing. In 1999, for example, British civil servants were reviewed on nine competencies, one of which was 'evidence-based policy-making'.<sup>14</sup> However the UK's current Civil Service Competency Framework does not have a specific focus on sourcing or using evidence, rather embedding it in the broad category of 'making effective decisions' and to a lesser extent in 'delivering results'.

#### Questions about culture, incentives and capabilities

- What are the different cultures of evidence within the department and how strong are they? How do they reinforce or work against each other?
- What is the general level of staff capability to source, assemble, procure and interpret evidence effectively? What could be done to improve individual and team skills?
- What performance management frameworks are in place (at departmental, team and individual level) and how might they offer incentives to improve the use of evidence?

#### 3.4 Business influences

The purpose of an evidence-informed approach is to ensure people and teams within a government department are able to make good decisions about how to achieve their policy priorities on the basis of the best available evidence. A department needs to make policy for many different issues in many different locations simultaneously, negotiating how they are all resourced according to changing policy priorities. This is captured in the corporate processes – planning, budgeting and reporting – that underpin the way the organisation functions but are often overlooked (Newman et al., 2012).<sup>15</sup> One-off innovations can become part of the internal culture of the organisation and embedded in business as usual. From our point of view, this means understanding how to incorporate innovations around evidence into normal business processes.

#### 3.4.1 Business planning and the evidence base

Business planning processes are the periodic plans, budgets and financial and narrative reports drawn up to determine and account for the work of a department. They generally work to an annual cycle and are an important rhythm in the process of policy-making (Jones, 2012). Departments submit a plan and an outline budget to the ministry in control of government finances, and then enter a process of negotiation around what they will be able to deliver against the budget that is finally agreed. These plans and budgets are ultimately put to parliamentary vote and published. They may also be the basis for formal reports on progress: in South Africa, the Auditor-General scrutinises departmental strategic plans and annual performance plans to check whether what was planned was delivered.

A strategic approach to managing the evidence base will show how the evidence sourced and used supports the delivery of these plans in the short, medium and long term. It will set out a clear 'line of sight' between the department's policy goals and its evidence base (Defra, 2010: vii). Business plans are key documents. To be robust, they need to be informed by evidence of progress to date and of what is needed to achieve future goals. In consequence, they also need to ensure resources are explicitly allocated to evidence to inform future plans.

As well as setting out an overarching strategy for how it invests in evidence, Defra has found it helpful to draw up specific evidence plans that outline what the policy goals are, what evidence is needed to help them achieve those goals, what the priorities are in the short and long term, where the evidence will come from and how it will be analysed and interpreted (see Box 7). These then inform the business planning and budgeting process.

An inclusive evidence planning process – involving external organisations and advisers as well as departmental staff – will help make the point that many people and organisations have shared interests in improving a department's use of evidence. External organisations are keen to see the evidence they provide considered, if not used. Involving them in the planning process will help them understand what sorts of evidence might be useful, to whom and by when, and how they could be better presented.

Government staff will also gain from these improved relationships. In the UK, the Food Standards Agency (FSA) developed its Science and Evidence Strategy in two workshops, one internal and one external. The external workshop brought together over 30 stakeholders to discuss what evidence would be needed to deliver the FSA's strategic priorities and how it could be provided (Shaxson, 2015).

### Questions about business planning and the evidence base:

• What business planning processes are used in the department? How do they shape the way evidence is sourced and used? How well do business plans incorporate an understanding of evidence?

#### 3.4.2 Reporting

Departmental approaches to evidence are strongly influenced by pan-government strategies such as national

<sup>14</sup> The others were forward-looking; outward-looking; innovative, flexible and creative; inclusive; joined-up; policy review; and policy evaluation (see Bochel and Duncan, 2007).

<sup>15</sup> Apart from two case studies in the UK (Shaxson, 2014a and 2014b), there is very little analysis of how departmental business processes can be used to support an evidence-informed approach.

development plans and medium-term strategic frameworks. Responsibility for these generally rests with central institutions such as the Treasury or the Office of the President/Prime Minister. Departments are required to report progress against these as well as other national and international goals, to the executive and the legislature. Memos to Cabinet, departmental reports to parliamentary committees and reports to the Treasury are all standard processes, generally under the aegis of a national development plan or medium-term strategic framework that requires specific types of evidence. The regularity and detail of these reporting processes can create quite a strong 'pull' on the evidence base.

Box 8 outlines the Outcomes reporting process in South Africa. The pressure is on DEA and provincial governments to collect evidence of progress against quarterly and annual targets. Annual targets are set in the context of long-term goals for the environment, economy and society. However, with limited budgets, the risk is that the evidence base becomes overly focused on short-term goals and less able to anticipate long-term, strategic threats or 'red flag' issues that may otherwise emerge without warning.

#### Questions about evidence for reporting:

• How does the department report upward to senior institutions such as the Cabinet and Parliament? How might these processes shape what types of evidence are sought, how its quality is appraised and how it is interpreted?

#### 3.4.3 Budgeting

Plans without budgets are simply frameworks for action. Change cannot be implemented without a good understanding of how it will be resourced. But government budgets do not routinely explain what proportion they spend on the evidence base. While it might be relatively

#### Box 7. Evidence planning in Defra

In the UK, Defra sets out its five-year strategic approach to evidence in evidence strategy documents (see Defra 2006, 2010, 2014). Underneath these, each policy team develops yearly evidence plans for its discretionary spend on evidence (see box 8), which outline how it will implement an evidence-informed approach. Evidence plans are 'an integral part of the business planning and approvals processes' (Defra, 2010: vii) which help it 'redirect funds... to meet the most pressing and important needs across the portfolio' (p.30). The evidence plans set out:

- the policy context: the policy outlook and key outcomes for each programme
- the current and near-term evidence objectives: how the current evidence base aligns to the delivery of policy outcomes
- future evidence needs for the policy programme
- the approaches that will be taken to meeting evidence needs
- how policy teams will maximise and evaluate the value for money and impact gained from investing in the evidence

Each evidence plan is submitted to the central evidence team for quality assurance and to check for overlaps and gaps in the overall evidence base. It is then published online as a way of communicating Defra's evidence needs to the outside world (Shaxson, 2014a; also see www.gov.uk/government/publications/ evidence-plans). Note that at the time of writing Defra had agreed a 15% budget cut with HM Treasury and was working through the implications for the size and scope of its evidence base.

#### Box 8. Outcomes reporting in South Africa

The Outcomes approach provides a strategic focus to South African policy-making. This began in 2010, and there are now 14 Outcomes that between them set out what the government intends to achieve to bring about concrete improvements in the life of all South Africans. Based on a logic model of inputs > activities > outputs > outcomes > impact, the approach clarifies 'what we expect to achieve, how we expect to achieve it and how we will know we are achieving it' (The Presidency, 2010) and forms the basis of performance agreements between ministers and the president. Each Outcome is broken down into a number of sub-Outcomes, each of which has specific and measurable indicators of progress. Departments report quarterly against their achievement of the Outcomes. DEA is responsible for coordinating Outcome 10 on the natural environment. It has done a great deal of work to develop clear technical specifications for the sub-Outcome indicators, which set out what evidence is needed to report progress. However, the heavy Outcomes reporting requirements run the risk of overemphasising the collection of evidence of short-term progress at the expense of a longer-term, more strategic approach to evidence based on identifying which indicators best encapsulate the need for change.

Source: Author interviews.

easy to find out how much has been spent on research or on policy evaluations, it is much harder to understand how much has been spent on gathering citizen evidence via participatory processes or on collecting administrative monitoring data. Effective budget management is based on knowing how much you are spending on what.

Understanding what is being spent on all types of evidence will make it easier to link budgetary management of the evidence base to business planning. This may not be easy. However, if it can be done, it would be possible to then allocate specific percentages of the budget between the four different types of evidence, between the different strategic priorities for evidence (statutory, short-term and long-term) and between the different evidence processes. In the UK, Defra has spent the past decade working out how to manage its budget for evidence effectively (Box 9).

#### Questions about budgeting for evidence

- Does the department know how much it spends on different types of evidence?
- How are budget allocations for evidence decided? Is there a clear prioritisation framework that informs budget decisions?

#### Box 9. Managing the budget for evidence - prioritising evidence needs

There are different ways to classify the evidence base. As well as the four types listed in this paper, departments may be required by law to collect specific types of evidence, such as evidence to meet reporting obligations. In South Africa, the Outcomes reporting process is mandatory for all government departments. In the UK, Defra has a legal obligation under European Union treaties to collect evidence on (for example) water quality and biodiversity.

Defra currently allocates approximately 40% of its evidence budget to collecting evidence to meet its statutory (legal) obligations (Defra, 2014). This is non-discretionary expenditure, 'part of the air Defra breathes' (senior Defra official, quoted in Shaxson, 2014a) and mainly comprises administrative and statistical evidence. The remaining part of the evidence budget is discretionary and is divided between evidence needed to help it meet its short-term (ministerial) and longer-term priorities. These make up 40% and 20% of the overall evidence budget, respectively. These discretionary spending categories generally cover the other three types of evidence we have identified (research, citizen evidence and evidence from M&E)

As the evidence plans are being developed for the discretionary needs, Defra's chief scientific adviser and senior policy leads assess the bids for budgets based on five key questions:

- 1. Is the policy issue a high priority?
- 2. How critical is it to have the evidence: is it 'need to have' or just 'nice to have'?
- 3. What are the impacts and risks of not having the evidence?
- 4. Is the evidence needed to underpin Defra's strategic capability for emergency response (e.g. in the event of an outbreak of animal disease)?
- 5. Can the evidence leverage larger investments in more evidence from external organisations?

Answering these questions does not reduce the politics of the budgeting process for evidence, but it provides one basis on which to defend the decisions made (Shaxson, 2014a).

# 4 Summary: applying our approach

This paper describes an approach to help a government department 'read' itself and assess the strengths and weaknesses of its evidence-informed approach. It focuses on the four processes of scoping, assembling, procuring and interpreting evidence and how the department's external and internal contexts affect these. Its intention is to help government departments use evidence:

- in a strategic way, so they can anticipate future spend on evidence needs and can coordinate with research providers effectively to deliver what they will need in future
- that is based on different types of knowledge (including statistical and administrative data, research, citizen and stakeholder evidence and evidence from evaluations)
- that delivers the most value for its budget: setting out what evidence they could 'make' (i.e. commission) themselves and what could be 'bought' more cheaply elsewhere
- that builds internal skills around all the different aspects of managing the evidence base, such as quality assurance, search strategies, knowledge-brokering and participatory approaches
- that links to the organisation's business processes: evidence needs to be become business as usual, with transparent prioritisation of budget allocations
- that is communicated effectively, improving internal learning on evidence and ensuring other teams/institutions know what evidence they have and what they need
- in a way that fits all of this into departmental resources and the daily rhythms of government decision-making.

The checklist summarises the questions that are outlined in each of the previous sections. These link together to help a department hold up a mirror to itself so it can understand where its strengths and weaknesses lie and how these have arisen. The questions are necessarily generic ones that will need to be tailored to each institution, and more questions may well be added as the conversation about evidence unfolds. There is no hierarchy to the questions: in our experience all are important. Some will be answerable through documentary analysis, some through formal interviews, some through workshops and focus group discussions and some through informal conversation.

We developed and tested our approach with DEA in South Africa between 2014 and 2015, in several steps. First, we worked with DEA to develop five studies that would collectively address the key questions around evidence and address issues of concern to the department. The first was a review of existing practices of scoping, assembling, procuring and interpreting evidence to identify where existing knowledge and expertise around evidence could be shared more widely. The second was a study of participatory processes – a key concern for DEA as it attempts to improve its engagement with civil society and its stakeholders. The third looked at the specific cross-departmental policy issue of sustainable development, where DEA's mandate as an influencing department is critical. The fourth explored the department's internal business processes to see how an evidence-informed approach could be mainstreamed. The final study examined the external context for DEA's evidence, looking at the processes of filtering, packaging and repackaging evidence as it reports to and engages with external technical committees in its policy development, departmental planning and Outcomes reporting processes. The individual reports are confidential to DEA, but their findings are summarised in Wills et al. (2016a). This shows that DEA is not starting from a zero base in using evidence. Good practices exist throughout the department, though perhaps more effort could be put into learning from them and scaling up.

The observations from the studies were turned into a series of observations about what could be done to strengthen the four processes of scoping, assembling, procuring and interpreting evidence at individual, team and departmental levels (see Box 10).<sup>16</sup>

DPME sets out good practice for managing recommendations from evaluations, which we followed. As such, the observations were grouped into a set of improvement areas, each with a set of specific objectives and associated activities. This formed the improvement strategy for the department, which was presented as a

<sup>16</sup> It may not be essential to conduct detailed studies as we did in our diagnostic phase. The questions in our checklist could be asked, over time, in workshops or meetings. The process of undertaking the analysis, done in a more participatory way, could help civil servants step back from the daily rigmarole of departmental life and be more conscious of what it is they are doing and how they are using evidence. In turn, this could help them think through how they might improve their use of evidence individually, within their teams and more broadly across the department.

phased approach. Again, the detail of this is confidential but, broadly speaking, in the first phase, work will be done to encourage discussions about evidence within all policy teams, sharing the observations from the diagnostic phase. These discussions will help identify possible innovations and enthusiastic innovators for specific evidence projects in the second phase of the work. The final phase will scale up what has worked. Phase 1 may last for a year or more; we are not putting a time scale on Phases 2 and 3.

As the improvement plan was being developed, a set of principles emerged from discussions about how to monitor progress across the wide range of evidence-related activities the improvement plan would contain. It was felt that a principlebased approach would help develop a common understanding of how to design the different activities, and a consistent basis for comparison. The principles are given in following sections but described in more detail (with associated guidelines on how to implement them) in Wills et al. (2016b):

- 1. Use a broad definition of robust evidence, encompassing the four types outlined in this paper.
- 2. Link evidence needs to policy priorities, to ensure there is a clear 'line of sight' between policy goals and the evidence base.
- 3. Link an evidence-informed approach to business planning, budgeting and reporting processes, to make evidence part of 'business as usual'.
- 4. Adopt inclusive and participatory evidence processes, to ensure wide involvement of interested stakeholders and role players and to understand the different policy narratives that are at play.
- 5. Co-design and co-produce evidence and policy, with a focus on working together at local levels.

The diagnostic approach, plus the principles, should help departments understand their own strengths and

weaknesses and develop their own approach to improving their use of evidence.

The approach is not a recipe for change. It has been developed working directly with two departments of environment: one in the UK and one in a middle-income country. However, we hope it can be tested more broadly and form the basis for discussions in other countries and other sectors. Our wider work on evidence in suggests that in assessing and improving evidence use, many of the core issues facing government departments across the world are similar. How, for example, does the external context influence how evidence is sourced and used? Does senior management create the space for the changes that might need to happen to improve the use of evidence? Who inside the department is talking about evidence, what are they saying and what influence do they have? Do we understand how much is spent on evidence? What types of evidence are collected and how are they prioritised? In our experience of working in the UK, South Africa and other countries, the basic questions about how a government department can enhance its approach to evidence-informed policy-making are not all that different.

#### 4.1 The checklist of questions

This list summarises the questions set out in the text of the report. See Box 10 for our suggestions on how to use them.

## Analysing strengths and weaknesses in evidence processes

Framing the issue and scoping the question. How are different groups of people involved in framing the issues and defining what evidence is needed to answer the policy questions? Who is 'on the inside' and who is currently being overlooked? Is the approach to defining evidence requirements more strategic or more reactive to short-term

#### Box 10. Using the checklist

The three steps taken to apply the approach in South Africa were as follows:

- identification of which policy teams would like to work on improving their use of evidence within which policy domains. At the beginning, it was important for us to work with enthusiasts, who were keen to explore how this could help them and happy to help co-design the innovations. Work with this group aimed to identify specific policy domains to work on.
- tailoring the detailed checklist of questions in this paper to suit the selected policy domains and devising of
  individual studies. These were overseen by a steering group that comprised people from several departments, as
  well as policy officials from DEA. Several steering group meetings were needed to debate the emerging findings.
- summarising the observations from the studies and the steering group discussions. These helped identify broad improvement areas with specific improvement objectives in each one. These formed the basis of a phased change strategy for the department.

Throughout the process, we held regular meetings with interested policy officials who were not on the steering group, to reflect on the emerging evidence and jointly learn about what could be done.

pressures? Are all four types of evidence considered, or is the emphasis on only one or two types?

Assembling and appraising existing and emerging evidence. Are policy teams able to conduct systematic searches for all four types of evidence? Once they find it, do they have the skills to appraise how robust it is? What types of expertise are available to help policy-makers?

**Procuring new evidence.** How strong are relationships with all the organisations that provide evidence, both inside and outside government? How do government procurement rules affect the types of evidence that are sought and used?

**Reframing the issue**. Interpreting the evidence and reframing the issue. How well is complex evidence communicated to policy teams and decision makers? Are there sufficient opportunities to jointly interpret the evidence and reframe the issues, or is evidence seen simply as a service to be provided to the department?

#### The sectoral politics of evidence

- Are there competing bodies of knowledge within the sector? What are the implications for how the policy questions are scoped and the evidence is assembled and interpreted?
- Is the department in question a spending or an influencing department? How does this affect how it sources and uses evidence?

#### **Ongoing pressures to change**

- What budgetary pressures are departments facing? How do they influence the evidence base?
- How much, and how, do donors and international organisations influence the policy questions that government institutions are asking? What pressures do they exert to collect particular types of evidence?
- To what extent is policy delivery decentralised to subnational levels or delegated upward to regional and global institutions? How does this affect the search for evidence?

#### Shocks to the system

- How has the organisation responded to any shocks and crises it has faced? To what extent were those shocks caused by problems with how it used evidence?
- How stable has the institutional structure been over the previous five years? If there have been changes, what effects have they had?

#### **Debates about evidence**

- Does any one type of evidence dominate debates? What are the implications of this? Does it give rise to any systemic strengths or weaknesses in debates?
- How inclusive are debates about the use of evidence? Who is involved? How? Are resources put into ensuring evidence can be debated in consultative or participatory forums, or are debates relatively closed?

#### Senior management and strategy

- How engaged is senior management in the process of implementing an evidence-informed approach? How do they engage: do they encourage a hierarchical approach or one based on local experimentation?
- To what extent does the department have a strategic approach to ensuring it has the evidence it needs to meet its current and likely future policy priorities? What activities and relationships could be strengthened to implement this approach?

#### **Structure and relationships**

- What are the formal relationships around evidence? What roles do different people play in relation to evidence? How do they relate to each other and to external stakeholders?
- Are there informal groups of people able to talk knowledgeably and inclusively about all forms of evidence? Do they broadly agree with each other? How much influence do they have and on whom?

#### **Culture, incentives and capabilities**

- What are the different cultures of evidence within the department? How do they reinforce or work against each other?
- What is the general level of staff capability to source, assemble, procure and interpret evidence effectively? What could be done to improve individual and team skills?
- What performance management frameworks are in place (at departmental, team and individual level) and how might they offer incentives to improve the use of evidence?

#### **Business planning and the evidence base**

• What business planning processes are used in the department? How do they shape the way evidence is sourced and used? How well do business plans incorporate an understanding of evidence?

#### **Evidence for reporting**

• How does the department report upward to senior institutions such as the Cabinet and Parliament? How might

these processes shape what types of evidence are sought, how its quality is appraised and how it is interpreted?

#### **Budgeting for evidence**

- Does the department know how much it spends on different types of evidence?
- How are budget allocations for evidence decided? Is there a clear prioritisation framework that informs budget decisions?

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