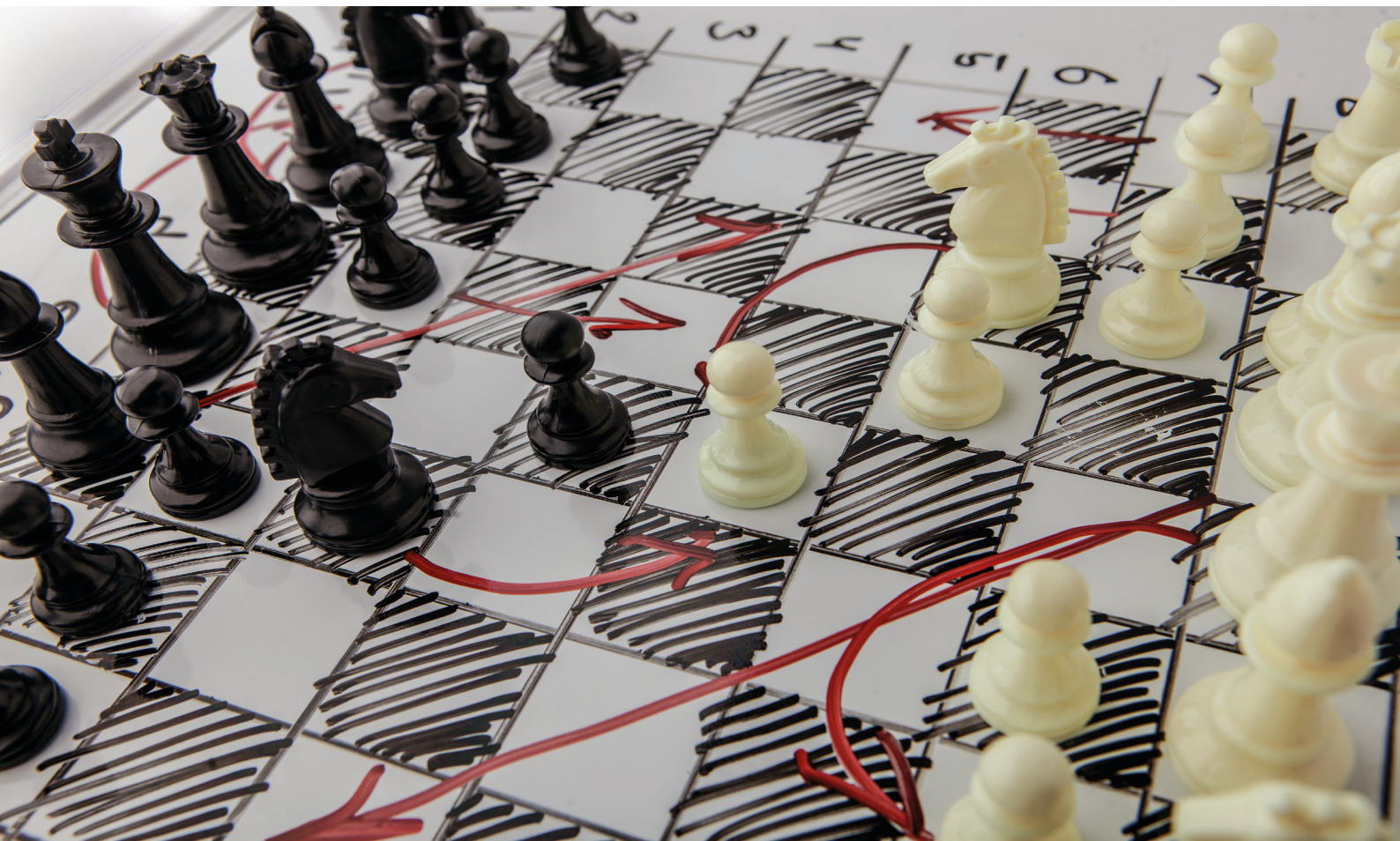# Quality of Public Administration
A Toolbox for Practitioners

Theme 1: Policy-making, implementation and innovation

Governments will always face difficult policy choices, even in times of peace and prosperity, and will be judged on the outcomes they produce. Policy decision taken at all levels (supra-national, national, regional and local) will shape the strength of economic renewal and social well-being in the EU in the coming years. This theme poses a series of questions: How is policy designed in practice? What instruments are available? How can more creative solutions be found? In seeking answers, it explores the qualities of good policy-making, approaches to longer-term strategic planning, stakeholder consultation and the advent of co-responsibility with citizens and businesses (co-design, co-production, co-evaluation, etc.). It also sets out tools and techniques for regulatory reform. In pursuing continuous improvement, it emphasises the importance of systematic feedback, the value of external scrutiny in driving up standards, and innovation in its myriad forms.

Social
Europe

Contents

Good governance is all about policy choices: how administrations make best use of the powers and resources entrusted to them by the public, and manage their relationships with citizens, businesses and other stakeholders. This chapter:

✓ Sets out the rudiments of policy design and decision-making, including the role of the evidence base and 'big data' analytics, and describes techniques to strength-test the policy process;

✓ Explores how governments are looking beyond immediate policy pressures, and envisioning sustainable socio-economic development over long-term horizons;

✓ Explains the ways that administrations are connecting with citizens and businesses through consultation and co-responsibility;

✓ Examines the challenges in policy delivery - managing spending within a sound fiscal framework, creating a regulatory framework that is conducive to growth, choosing the best organisational mode ('make or buy'), providing information, and co-producing with businesses and citizens;

✓ Elaborates the growing influence of behavioural insights in policy design and implementation;

✓ Recognises the pressures for continuous improvement in public policy, and reviews the contributions of evaluation, external scrutiny and innovation.

Introduction

"Policy-making is the process by which governments translate their political vision into programmes and actions to deliver 'outcomes' - desired change in the real world". A Practical Guide to Policy Making, Northern Ireland Executive, 2016.

Every public official has a concept of what 'policy' means in his or her field, but a quick scan of government guidance and independent research globally finds no precise and universally agreed definition, except perhaps the dictionary consensus: a definite course of action. Asked to describe policy in a specific domain, an official might see it as:

✚ The government's intentions (*"as the minister / mayor said …"*);

✚ The administration's actions (*"a change in the law is being put to the assembly"*, "*we have just launched a new programme*", *"the government is planning to decentralise delivery", "the agency's functions will be put out to tender", etc.*);

✚ A review of alternative options (*"you'll find the policy document on our website with details of the government's analysis and its proposals for discussion"*).

Rather than attempt a comprehensive definition, this Toolbox focuses instead on the characteristics of policy in 5Ds. Every policy should be a clear statement of <u>direction</u>. It should be the product of a robust assessment and hence <u>deliberation</u> over the pros and cons of prospective solutions, to enable a <u>decision</u> on the best way forward. Policy sets out a course of action, so must lead to <u>delivery</u>, otherwise statements of intent are just warm words. Policy-making should also be <u>dynamic</u>, taking account of changing circumstances, and flexible enough to adapt to experience and events.

The Toolbox also distinguishes between the concepts of policy and strategy (especially as not all policies are accompanied by strategies). The direction set out in the policy might be elaborated in a strategy, describing how resources are marshalled to achieve the government's objectives. Policy-

making is deciding on a definite 'path' to be pursued, the strategy is the 'road map' for getting there. This chapter considers how high-level objectives are articulated in policy-oriented strategies.[1]

This chapter explores three fundamental aspects of policy-making - designing policy, choosing the instruments of implementation, and seeking continuous improvement - and the ways and means to achieve them:

Key questions	Ways and tools
1.1 How is policy **designed**? What and who informs decision-making? How can governments move from reactive and *ad hoc* policy decisions to more reflective, long-term planning?	- Policy fundamentals - Insights from data analytics and visualisation - Forward thinking - Strategy preparation - Consultation and co-design
1.2 What **instruments** are available to policy-makers to achieve their policy goals? What are their relative merits? How best should they be implemented?	- Public spending (see topic 8.1), including public service delivery (see theme 5) and procurement (see topic 8.2) and use of EU funds (see topic 8.3) - Laws and the regulatory framework - Soft policy Tools (see Better Regulation Toolbox) - Reforms to government structures (see theme 3) - Relevant Information - Applying behavioural insights - Co-production
1.3 How does the administration know if the policy has been achieved? How can the administration strive for **still-better performance and more creative solutions** to established and emerging problems?	- Monitoring and evaluation (including co-evaluation) - Performance audits - External scrutiny - Public sector innovation - Trust Building

The policy choices taken by governments at all levels (supra-national, national, regional and local) will shape the strength of economic renewal in the EU in the coming years and the success in attaining Europe 2020 goals of smart, inclusive and sustainable growth. This is particularly true of the effect of policy decisions on public administrations. Public policy determines whether the most suitable organisational structures (theme 3) and staffing (theme 4) are put in place, whether the delivery of public services meets needs and expectations (theme 5), whether businesses are helped or hindered in delivering economic prosperity (theme 6), whether the judiciary can operate independently and to the highest standards of quality and efficiency (theme 7), and whether scarce public resources are managed prudently (theme 8). Ethics are integral to good policy-making, but policy can also dictate the extent to which integrity is integrated into the functioning of the administration itself (theme 2).

Ultimately, every government at whatever level is judged by its policy choices and their outcomes, which places a high premium on strengthening policy-making as a process, to try and achieve the desired results.

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[1] See theme 4 for how operational goals are translated into organisational strategies.

1.1   Qualities of good policy-making

Policy-making is usually described as a cyclical process, from problem identification to programme evaluation, which in turn informs the next round of policy design. But the lack of a consensus definition reflects the reality that policy-making is a flexible concept, which in practice does not follow

| Policy design |
| Analysing big data to solve policy problems |
| Forward thinking |
| Consultation and co-responsibility |
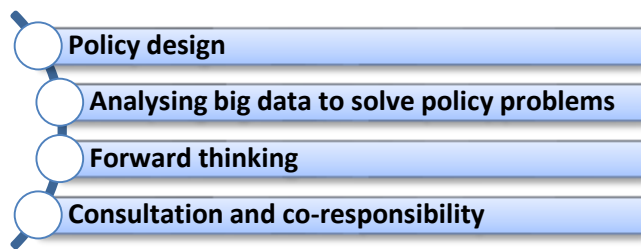
rigid rules. Decision-making should be underpinned by certain principles, however, that can be applied whatever the context. While unexpected events mean that policy-making is sometimes sporadic and reactive (policy 'on the hoof'), governments also face demographic, economic and environmental challenges which extend beyond the short term, and often demand pan-European or global solutions. In this light, many public administrations are finding the time and space for forward policy planning over medium-long term horizons, covering more than one electoral cycle. They are also increasingly looking to actively involve citizens and businesses in policy-making, rather than as the passive recipients of policy decisions.

The 'policy cycle' is a well-established concept, which is typically taught as the rational model of policy decision-making. While some version set out more or fewer stages to the process than others, and the terminology and may vary, the basic sequence of stages follows a common pattern:

- A problem is **identified**, and the underlying causes and needs are analysed, to determine whether there is a rationale for public policy intervention, for example due to market failure or government.

- A policy response is **formulated**, based on setting out several scenarios that will resolve the problem and satisfy the needs and expectations of the affected parties (whether citizens, businesses, public institutions, etc.), and an options appraisal is performed that weighs the pros and cons of alternative approaches, usually based on a cost-benefit analysis.

- The preferred solution is **selected**, usually at the political or senior management level, following consultation with interested stakeholders that will be directly affected by the outcome, wherever possible.

- The policy is **implemented** as agreed and subjected to monitoring, as a management tool to track performance and measure progress against the plan, including any deviations or unforeseen outcomes.

- Finally, the policy is **evaluated**, to determine whether it has been successful in addressing the original problem and meeting the needs of affected parties. If so, the evaluation seeks to draw out learning points for future interventions, and if not, the evaluation notes whether the original objective has been overtaken by subsequent developments or recommends an alternative course of action, thereby feeding back into policy design.

Topic 1.1: Qualities of good policy-making

This traditional policy-making model is presented below. It is widely recognised that this is an **idealised** view of the policy process, and that the model is intended to be illustrative.
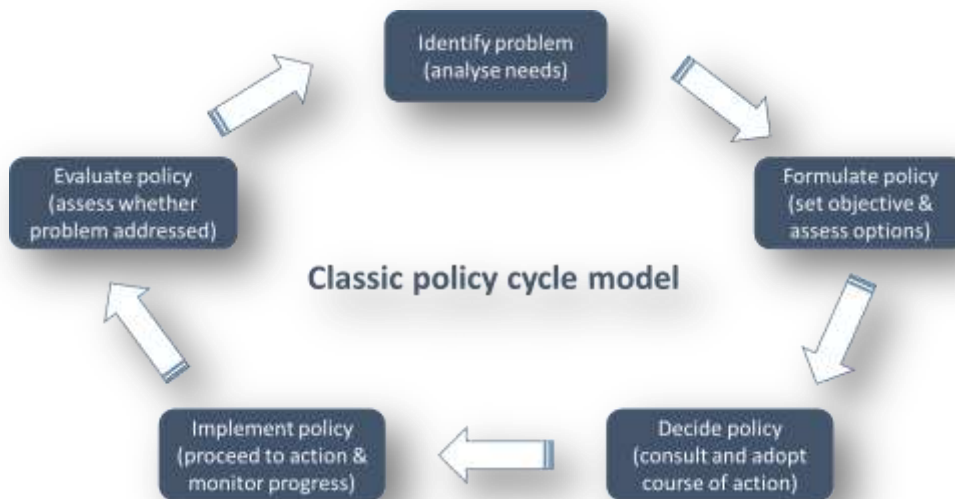
In practice, the reality is usually **more complicated** and sometimes chaotic too:

- Administrations rarely start with a blank sheet of paper. The **initiative** for policy design can come from a variety of sources: political commitments made at election time, the priorities of individual elected officials (ministers, mayors, etc.), obligations from EU directives and international treaties, public pressure, emerging crises, new approaches to old policy problems, lobbying by think tanks and associations, and many more. This 'frames' the problem identification and policy formulation within a pre-existing set of ideas and proposals. If allowed, the administration might wish to challenge these assumptions, in the interests of policy rigour, but in any case, they represent the initial parameters for policy-making most of the time.

- The conventional model suggests that policy-making is a linear, sequential, end-to-end process, and that administrations have sufficient time to conduct each phase and reflect on the outcome before proceeding to the next. In practice, the stages in the 'cycle' are inter-dependent, can happen **simultaneously** and often cannot be separated from each other. Elected officials at any level (supra-national, national, regional or local) may require or request policy advice which is all-encompassing and all-at-once: immediate solutions to current problems, including scenarios, a recommendation on the best way forward, and a proposal for how the policy will be delivered, including budget and responsible body. The policy decision may involve several **iterations**, with goals, potential actions and preferred option all evolving, often together, as new inputs or information are sought.

- Policy-makers can reach decisions without being able to consider all available options thoroughly, either because of limited information or time constraints. In many cases, the solution is announced based on political **expediency** or parliamentary timetables, rather

than objective evidence. In the real world of unforeseen events and 24-hour news, decision-makers must sometimes make policy pronouncements quickly in response to emerging situations.

✦ The chain of supposed events in the policy cycle is **easily broken**, especially when there is a change of government. Even when the government is stable, elected officials may resign, retire or be replaced before a policy is fully formulated, implemented or evaluated. Their successors may wish to change the direction of policy. Evaluation is often the poor relation of the policy-making process, either being neglected completely, or the findings arrive too late to influence changes in policy design.

✦ Monitoring is more common, but **not necessarily systematic** (using baselines, indicators and benchmarks). Elected officials will often know when a policy is not performing anyway through the less formal channels of public opinion, critical media and business lobbying. At this point, any stage of the policy-making process – goals, delivery options, actual implementation – may need to be adjusted or even abandoned.

For these reasons, the policy-making process can be thorough or flawed, and all points in between. Even the best of intentions can become 'bad policy' at the point of implementation, with unexpected and unfortunate consequences. The policy-making process will never be an exact science, as the environment is ever changing. In a dynamic world, public administrations face difficult choices, must steer a path through complicated scenarios, and manage uncertainties created in complex situations (see diagram right).[2]

Complicated scenarios - due to problem size, scale or scope, or process that is intricate and risky (e.g. international negotiations)

Difficult choices - due to conflicting views and interests, lack of information, resources, capacity, political will or time (e.g. deficit reduction)

Complex situations - due to broad dispersion of power, high degree of interdependence and unpredictability and some emergent characteristics (e.g climate change)

Good governance

> Public policy-making presents a dilemma to public administrations. On the one hand, governments should strive for 'good policy' that satisfies societal needs and expectations, which suggests a **rigorous** process that involves planning and resources. On the other hand, the environment for policy is continually evolving, which forces decision-makers to be **responsive** to changing conditions and nimble in reacting to events.

Policy is prone to exogenous factors and its effects are never entirely predictable, which puts a premium on **'adopt-and-adapt'**. This iterative approach is what Professor John Kay[3] has described as "*a process of experiment and discovery. Successes and failures, and the expansion of knowledge, lead to reassessment of our objectives and goals and the actions that result.*" Administrations should

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[2] Source: J. Bourgon with P. Milley (2010), *The New Frontiers of Public Administration*.
[3] J. Kay (2010), *Obliquity: Why Our Goals Are Best Achieved Indirectly*.

focus on high-level objectives and always keep them in sight, but remain ready to respond to events as they arise, and willing to adjust short-term operational goals and activities accordingly. Policy-making should be versatile.

As a result of "*global tendencies in politics, economy, development of technologies, migration and demography, society and civic participation*", the European Public Administration Network (EUPAN) has described the increasingly **dynamic environment** for public administration in Europe in its first Strategy Paper as characterised by four elements, summarised as 'VUCA':

- **Volatility**: the dynamics, scale and pace of change;

- **Uncertainty**: the lack of predictability, the fact that part of future events will be surprising;

- **Complexity**: the varied forces and factors that affect the operation of organisations;

- **Ambiguity**: the difficulties of precisely determining the connection between causes and consequences, and hence the risk of erroneously interpreting events.

> "*We have, as a rule, only the vaguest idea of any but the most direct consequences of our acts … By "uncertain" knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty … Even the weather is only moderately uncertain. The sense in which I am using the term is that in which the prospect of a European war is uncertain, or the price of copper and the rate of interest twenty years hence, or the obsolescence of a new invention … About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know. Nevertheless, the necessity for action and for decision compels us as practical men to do our best to overlook this awkward fact*". John Maynard Keynes, The General Theory of Employment, 1937.

The growing recognition that plans do not follow a predictable path has sparked an increasing interest in **systems thinking** in public administration.[4] With its origins in the early 20th century and modern applications in many disciplines[5], the main value of systems approaches is the underlying philosophy of 'seeing the bigger picture'. Systems exist in many forms, e.g. transportation, healthcare, the weather, the economy, even public administrations themselves. The connections and interactions *within* systems and with the external environment (including other systems) are vital to how they function, which means that focusing on individual components – the literal meaning of *analysis*[6] – can produce misleading conclusions and lead to unintended consequences.

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[4] A system can be defined as a set of interacting or interdependent parts forming a unitary (and typically complex) whole with a purpose. The system concept is perhaps best captured in the phrase 'greater than the sum of its parts'.

[5] These include biology/medicine, metrology, economics/business, engineering, transportation, computing, cybernetics, communications, sociology and behavioural sciences.

[6] From the original Ancient Greek, meaning 'loosening-up', analysis can be defined as the division of the whole into its constituent parts for individual study (see http://www.dictionary.com/browse/analysis), and the opposite of synthesis.

"*Traditionally, public policy makers have addressed social problems through discrete interventions that are layered on top of one another. However, these may shift the consequences from one part of the system to another, or address symptoms while ignoring causes … Looking at the whole system rather than the parts allows one to focus on where change can have the greatest impact*". OECD, Working with Change: Systems approaches to public sector challenges, 2017.

Systems thinking starts with acknowledging that a system exists - and that any changes to one constituent part might change the system and/or its behaviour, but there will still be a 'system'. It takes a holistic viewpoint, avoiding the error of seeing elements in isolation. It sees cause and effect as not a straightforward linear process (A > B > C > D), due to the dynamics within systems, the interplay of elements and the impact of feedback (e.g. D on B), both positive and negative. Certain tools are available to visualise systems approaches, such as causal loop diagrams, along with techniques such as framing, connecting, dwelling, prototyping, stewarding and evaluating.[7] Systems thinking has implications for the quality of public organisations (see theme 4), and effective service delivery (see theme 5), as well as making positive change happen in public administration reform (see theme 9).

Most policy decisions are **not purely technical**, however, based on the considered merits of one course of action over another with respect to likely outcomes. As the US Academy of Science observes, the decision-making process also involves:

- ♣ **Political considerations**, insofar as policy choices influence who has and retains power; and

- ♣ **Normative considerations** regarding the desirability (or undesirability) of a proposed action, value judgments, and considerations of legitimacy.

Public policy-making is inseparable from the democratic mandate, so policy development should reflect the **relationship** between the political priorities of elected officials (national, regional or local) and the 'wise counsel' of appointed officials (civil servants). Given the importance of evidence-based policy, this requires clear strategic direction and leadership from politicians to be married to balanced and professional advice from the administration.

Moreover, as systems thinking suggests, the **policies themselves interact**, meaning their effects cannot be isolated from each other in assessing the best way forward.

"*Policy arguments generally constitute a package of considerations backed by reasons presented to persuade particular audiences of the validity of and need for a given action. The arguments consider not just the policy choice at hand, but how that policy interacts over time with many other policies—does opening a school in the community decrease or increase housing prices; do housing prices affect the local labor supply; does the labor supply affect whether a chain store locates in the community? Obviously, it is a complex undertaking to sort out how the multiple characteristics of policy argument function together to yield a coherent, valid, and persuasive argument*". US Academy of Sciences.[8]

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[7] See OECD (2017), op. cit.
[8] National Research Council (2012), *Using Science as Evidence in Public Policy. Committee on the Use of Social Science Knowledge in Public Policy*, K. Prewitt, T.A. Schwandt, and M.L. Straf, Editors.

An alternative approach to the 'policy cycle' model, which reflects reality more closely, is to concentrate on creating the right culture, working environment and organisational structures for sound policy design. This approach relies on applying flexibly the **qualities of policy-making**. The UK's Institute for Government has set out a vision of the policy process which takes 'policy fundamentals' as its building blocks, and the sequence in which they are assembled is a secondary concern.

Policy fundamentals

Many existing models of policy making are increasingly inappropriate in a world of decentralised services and complex policy problems. In the face of these challenges, we need to give a more realistic account of what good policy making should look like – and then ensure the surrounding system increases its resilience to the inevitable pressures to depart from good practice. The starting point is our analysis that there are certain fundamentals of good policy making which need to be observed at some point in the policy process:

- Clarity on goals;
- Open and evidence-based idea generation;
- Rigorous policy design;
- Responsive external engagement;
- Thorough appraisal;
- Clarity on the role of central government and accountabilities;
- Establishment of effective mechanisms for feedback and evaluation.

The fundamentals draw on elements of current policy making models, but place additional emphasis on policy design and clear roles and accountabilities. They need to be seen alongside the need to ensure long-term affordability and effective prioritisation of policy goals. Overlaying these criteria has to be a decision on resources and resource availability. Individual policies have to be affordable over their life time and represent good long-term value for money.

By policy design, we mean the stage in the process which turns policy ideas into implementable actions. Policy design is a fundamental yet under-developed part of the policy process. Many ideas which look good on paper are not feasible to implement – and it is often too late to change course when the legislation is on the statute book and political capital has been expended. Those failures can come from multiple causes, but one recurrent theme is the failure to understand the likely behaviours of those whose actions the policy is designed to affect. Policy makers need to be able to use prototypes and stress-test policies to ensure they are implementable, which will require new partnerships and a greater involvement of service users in policy development. More radically, policy makers (and Parliament) will need to move on from the idea that central government creates fixed designs for policies, and start creating designs that are flexible enough so others can adapt them to changing circumstances.

Source: Extracted from M. Hallsworth and J. Rutter, "Making policy better: improving Whitehall's core business", Institute for Government, UK

With some minor adjustments to increase transferability to European administrations, the Institute for Government's **checklist** is a useful mechanism to assess whether all the fundamentals have been achieved during the policy process, irrespective of the order they are performed. These seven building blocks are explored in more detail in the topics and tools in the rest of this chapter.

'Fundamental'	Key questions	References
Clear goals	Has the issue been adequately defined and properly framed? How will the policy achieve the high-level objectives of the government / ministry / municipality?	Topics 1.1 and 1.3
Evidence-based	Has the policy process been informed by evidence that is high	

Topic 1.1: Qualities of good policy-making

'Fundamental'	Key questions	References
ideas	quality and up to date?	
	🔸 Has account been taken of evaluations of previous policies?	
	🔸 Has there been an opportunity or licence for innovative thinking?	
	🔸 Have policy-makers sought out and analysed ideas and experience from the 'front line' or other European administrations?	
Rigorous design	🔸 Have policy-makers rigorously tested or assessed whether the policy design is realistic, involving implementers and/or end users?	
	🔸 Have the policy-makers addressed common implementation problems?	
	🔸 Is the design resilient to adaptation by implementers?	
External engagement	🔸 Have those affected by the policy been engaged in the process?	Topics 1.1.3 and 1.3.2
	🔸 Have policy-makers identified and responded reasonably to their views?	
Thorough appraisal	🔸 Have the options been robustly assessed?	Topic 1.2
	🔸 Are they cost-effective over the appropriate time horizon?	
	🔸 Are they resilient to changes in the external environment?	
	🔸 Have the risks been identified and weighed fairly against potential benefits?	
Clear roles and accountabilities	🔸 Have policy-makers judged the appropriate level of (central) government involvement?	Theme 3
	🔸 Is it clear who is responsible for what, who will hold them to account, and how?	
Feedback mechanisms	🔸 Is there a realistic plan for obtaining timely feedback on how the policy is being realised in practice?	Topic 1.3.1
	🔸 Does the policy allow for effective evaluation, even if government is not doing it?	

The New Synthesis (NS) Initiative has developed an evolving theoretical framework for helping governments to face the challenges of the time, whether the response involves policies, programmes, projects, services, structures or systems. The approach focuses on applying a series of techniques, summarised below:

Technique	Overview
Positioning	**The Power of a "Broader Mental Map"**: the way we think about the role of government in society and the way we frame issues transform the way we address the issues, the relationship with citizens and the impact of government actions. Positioning recognises that public policies, programmes and agencies are instruments to serve a broader public purpose. They are important insofar as they move society forward and contribute to better societal results. Positioning is about: exploring the inter-relationship between agency, system-wide and societal results; gaining an appreciation of the ripple effects of government actions across government and across society; and expanding the space of possibilities and the range of options open to government. Positioning is a pragmatic search for what is feasible with the resources and capabilities available at the time.
Leveraging	**The Power of Others**: discovering how government can achieve the greatest possible impact with the least amount of effort and economy of resources by enrolling the contribution of others to bring viable and sustainable solutions to the problems we face as a society. Leveraging is about pooling capabilities and resources across multiple boundaries and interfaces to achieve results of higher public value at a lower overall cost to society. Government does not need to do it all to serve the collective interest well. It can achieve better results by focusing on what it is best positioned to do while building on the strength of others. Government actions form part of long chains of intermediate results where the contributions of multiple agents are necessary to achieve the desired public outcome.

Topic 1.1: Qualities of good policy-making

Technique	Overview
Engaging	**The Power of People:** transforming the relationship between government and citizens from one where government is the primary agent responsible for serving the public good to one of mutuality and reciprocity. Engagement is about:
	✦ Exploring what government is best positioned to do, what citizens can do for themselves, what can best be accomplished by working together and how it may all fit together;
	✦ Designing public policies, programmes and services that give citizens, users and beneficiaries an active role in working with public agencies to create and produce public results;
	✦ Creating an enabling environment that encourages and promotes self-organisation and self-governing practices by citizens. This means encouraging citizens to work together to take charge of addressing issues of concern to them in a manner that also promotes the collective interest.
	✦ Building resilience by encouraging participation, shaping policy responses that reduce the risks of dependency, building trust and confidence in the collective capacity to invent solutions to the challenges we face as a society.

Positioning is about framing the policy problem and the response, so that it looks beyond the performance of individual organisations ('agencies'), and lifts sights towards higher-level objectives and outcomes: societal results. *Leveraging* is about breaking down silo thinking, within and beyond the public administration, and seeking new ways to coordinate and cooperate. Societal problems increasingly require an integrated approach that cuts across several policy fields, and may necessitate inter-agency programmes with a coordinating project leader. In the Netherlands, for example, such initiatives within the public administration can last several years, and thereby justify the setting-up of an inter-ministerial programme department. *Engaging* takes government into the often-unfamiliar territory of co-responsibility: transforming the relationship with citizens to one of shared responsibility (see topic 1.1.3).

1.1.1 Policy design

The strength of the **evidence base** is the foundation of successful policy-making, along with its interpretation. A solid evidence base strengthens decision-makers' room for improvisation, challenging pre-conceived ideas and current practices in the search for (more effective) policy solutions. But this remains the exception, rather than the rule.

- Policy design
- Analysing big data to solve policy problems
- Forward thinking
- Consultation and co-responsibility
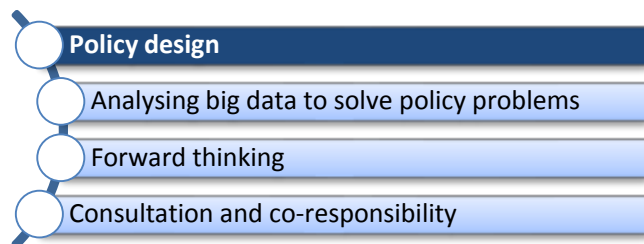
> *"It's fairly obvious that intelligent use of evidence reduces the risks of error and increases the prospects of success. But systematic use of evidence remains surprisingly rare … In most fields of government action, the evidence is too patchy; or it may show that things work in one context but not that they can be spread. Yet it's vital that everyone from a police officer or head teacher to a policy-maker is aware of what is known … Politicians have the right to ignore evidence but not to be ignorant of it".* NESTA, Rewiring the Brain, a Rough Blueprint for Reforming Centres of Governments, 2014

Policy advisors should cast a wide net when thinking about potential sources and viewpoints, including: official statistics; existing studies from in-house, academia, associations, think-tanks, etc.;

Topic 1.1: Qualities of good policy-making

evaluation findings; surveys, panels and other original research (if appropriate and affordable); expert inputs; and evidence from stakeholders, both interested and affected parties. ICT can play a key role in evidence-based policy-making through the use of 'big data' (see topic 1.1.2), simulation and prototyping.

One option is to outsource the gathering and assessment of evidence to a dedicated public authority with specific expertise in research and analysis, such as the CPB Netherlands Bureau for Economic Policy Analysis, which is part of the Ministry of Economic Affairs, but functions independently.

Inspiring example: CPB Netherlands Bureau for Economic Policy Analysis

CPB Netherlands Bureau for Economic Policy Analysis (CPB) conducts scientific research aimed at contributing to the economic decision-making process of politicians and policymakers. It was founded in 1945 and has been a part of the Ministry of Economic Affairs ever since. Its director is appointed by the Minister, in consultation with other members of the government, but CPB is fully independent as far as the contents of its work are concerned. It also has its own legal mandate and an independent advisory committee. Research at CPB is carried out on CPB's own initiative, or at the request of the government, parliament, individual members of parliament, or for example national trade unions or employers' federations. It is largely publicly financed. To ensure its independence, a maximum of 20% of its annual budget may originate from external assignments. However, CPB is not allowed to compete with commercial research bureaus, and external assignments are limited to local and national governments, European institutions or international governmental organisations.

The output for which CPB is best known includes its quarterly economic forecasts of the development of the Dutch economy. The main forecasts are the Central Economic Plan (CEP), published every spring, and the Macro Economic Outlook (MEV), which is published jointly with the Annual Budget at the Opening of the Parliamentary Year in September. A special forecast is the Medium-Term Forecast, which is published at the start of each election cycle. This forecast differs from the above-mentioned CPB forecasts by covering a four-year period. It offers a foundation for the development of policy plans by political parties and the negotiations for a new government after the general elections. From 1986 onwards, CPB has offered interested political parties an analysis of the economic effects of the policy proposals in their election manifestos. The plans of the participating parties are analysed identically, thus offering voters a comprehensive tool for comparison of the parties, contributing to the transparency of the election process. After the elections, CPB is often requested to analyse all or some of the policy proposals put forward during the negotiations for a new government. These analyses use the same methods as those used during the analysis of the election manifestos.

CPB analyses policy proposals in a number of different ways and also evaluates the effects of policy measures that have already been implemented. Since the early 1950s, the bureau analyses the costs and benefits of large infrastructural projects. These studies are known in Dutch by the acronym MKBA (Societal Cost Benefits Analysis). Examples include the Delta plan, the construction of the East Flevoland polder and the Betuwelijn freight railway. CPB also conducts research into numerous other areas - for example, the economic effects of ageing, globalisation, health care, education, the financial crisis, or the regulation of market orders. Such work is sometimes co-financed externally—in particular, by Dutch ministries or the European Commission.

For further information: http://www.cpb.nl/en

Another well-known example is the **Productivity Commission**[9], which is the Government of Australia's independent research and advisory body on a range of economic, social and environmental concerns, with a mandate to help governments make better policies in the long-term interest of the Australian community. In a 2009 speech, the former Chairman emphasised heavily

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[9] The Productivity Commission advises on a range of economic, social and environmental issues. Its independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the well-being of the whole community. For further information: http://www.pc.gov.au/

the value of the evidence base, and its contribution to avoiding false assumptions and flawed policy proposals, including as a check on the validity of the high-level objective.

Inspiring example: Productivity Commission (Australia)

"Without evidence, policy makers must fall back on intuition, ideology, or conventional wisdom — or, at best, theory alone. And many policy decisions have indeed been made in those ways. But the resulting policies can go seriously astray, given the complexities and interdependencies in our society and economy, and the unpredictability of people's reactions to change. From the many examples that I could give, a few from recent Productivity Commission reviews come readily to mind:

- In our research on the economic implications of Australia's ageing population, we demonstrated that common policy prescriptions to increase immigration, or raise the birth rate, would have little impact on the demographic profile or its fiscal consequences (indeed, higher fertility would initially exacerbate fiscal pressures).

- Our report into road and rail infrastructure pricing showed that the presumption that road use was systematically subsidised relative to rail was not borne out by the facts (facts that were quite difficult to discern).

- In our inquiry into waste management policy, we found that the objective of zero solid waste was not only economically costly, but environmentally unsound.

- Our inquiry into state assistance to industry showed that the bidding wars for investment and major events the state governments engaged in generally constituted not only a negative sum game nationally, but in many cases a zero-sum game for the winning state.

- Our recent study on Australian's innovation system reaffirmed that, contrary to conventional opinion, the general tax concession for R&D mainly acted as a 'reward' for research that firms would have performed anyway, rather than prompting much additional R&D.

- Our recent draft report on parental leave, indicated that binary views in relation to whether childcare was a good or a bad thing were both wrong, depending on which age group you were looking at, and that there were many subtle influences involved.

Now I am not saying that policy should never proceed without rigorous evidence. Often you can't get sufficiently good evidence, particularly when decisions must be made quickly. And you can never have certainty in public policy. All policy effectively is experimentation. But that does not mean flying blind — we still need a good rationale or a good theory. Rationales and theories themselves can be subjected to scrutiny and debate and, in a sense, that constitutes a form of evidence that can give some assurance about the likely outcomes. Importantly though, all policy experiments need to be monitored and evaluated and, over time, corrected or terminated if they turn out to be failures. These are things that Governments typically find hard to do — particularly the termination part."

Source: G. Banks (2009), "Evidence-based policy making: What is it? How do we get it?" (ANU Public Lecture Series, presented by ANZS OG, 4 February), Productivity Commission, Canberra.

Officials may need to draw on **fresh thinking** to solve often well-established and intractable policy dilemmas. In seeking creative solutions, public administrations may need to look beyond their own internal know-how experience, and search for answers further afield – from front-line staff, affected stakeholders, other administrations, academia and think-tanks, etc. This can create insecurity, as policy officials feel they are either ceding responsibility or acknowledging they don't have all the answers, but it also empowers them by bringing different perspectives and new intelligence to the table.

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Policy design can embody **innovation** by being inventive (entirely new concepts) or incremental (improving on existing practice). Ultimately, administrations may need to experiment, to find elusive routes to desired outcomes, when other ways have been found lacking, by launching prototype actions, evaluating their performance, jettisoning some practices and expanding others (see also topic 1.3). There are risks with experimentation, however, as the media and public can be critical of failure and what are viewed as wasted public resources. This highlights the value of shared ownership with citizens and businesses by co-opting all interested parties into the decision-making process (see also topic 1.1.3).

One of the best-known examples of putting this principle into practice is Denmark's MindLab, a cross-governmental and multi-disciplinary innovation unit which involves citizens and businesses in creating new solutions for society. MindLab is both an organisation with its own permanent staff and secondments, and a physical space that can provide a neutral location for exercising creativity and collaboration.

Inspiring example: MindLab (Denmark)

Established in 2002, MindLab is jointly owned by three ministries (Ministry of Business and Growth, Ministry of Education, and Ministry of Employment) and one municipality (Odense), and collaborates formally with the Ministry for Economic Affairs and the Interior. MindLab's mission is to work with its owners to create change which generates the desired value for citizens, businesses and society. MindLab is instrumental in helping key decision-makers and employees to view their efforts from the outside-in and see them from a citizen's perspective, as a platform for co-creating better ideas. MindLab has three strategic objectives:

1. Public sector innovation: MindLab will strengthen the outcomes of public policies through systematic insight into the perspective of citizens and businesses, and active involvement of the stakeholders which can turn new ideas into practice.

2. Change capacity: MindLab will build knowledge about new approaches to public problems. This knowledge shall enhance the owners' competencies to take courageous change initiatives.

3. Visibility and legitimacy: MindLab will work actively to qualify the public sector innovation agenda and to share the owners' role as co-creators of one of the world's leading innovation environments.

MindLab was originally created for the Ministry of Economic and Business Affairs as an internal incubator for invention and innovation, with five employees. At that time, the vision of an in-house laboratory as a centre of creativity and innovation was unique for a ministry. In the years that followed, MindLab conducted over 300 workshops, both within the ministry and for a broad range of other public and private organisations. In 2007, a new strategy and new goal were set for MindLab: its focus would be the active involvement of both citizens and businesses in developing new public sector solutions. At the same time, MindLab acquired two additional parent ministries, namely the Ministries of Taxation and Employment. In this manner, MindLab also became a fulcrum of intra-governmental cooperation. Finally, the strategy involved MindLab taking on a number of professional researchers, with the aim of establishing a more robust methodological foundation for its work.

Today, MindLab has considerable experience with innovation processes that are based on the realities experienced by citizens and businesses, and which also promote collaboration across the public sector. MindLab's core staff consists of:

- Seven project managers with a background in design, political science, anthropology, sociology and communication.

- Seconded project managers heading up some substantial user-centred development projects within one or more of the parent ministries, for between six and twelve months.

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    ↓   A research manager responsible for working with experts, think tanks, researchers and other knowledge environments to generate valuable change in MindLab's parent ministries.

    ↓   Trainees and students with a background in public administration, sociology, communication and design.

MindLab's strategic direction is set by the Board, which meets three to four times a year, and comprises the Permanent Secretaries of the three Ministries and the Chief Executive of Odense Municipality. The Board also gives final approval to MindLab's portfolio of projects. An international Advisory Board has been established to provide the Board with expert input drawn from Denmark, Australia, Canada, United Kingdom and United States. MindLab resides in the Ministry of Business and Growth in a specially designed and flexible office space, which can be easily reconfigured. The space comprises several zones. The Mind is the characteristic egg-shaped space lined on the inside with whiteboards. Architects NORD have developed the concept in collaboration with designers All the Way to Paris. They have created the Workshop Zone, which is the largest section, and is where most of MindLab's workshops take place. The library consists of mobile shelving that contains MindLab's literature, plus a high table that is used for meetings, lunches and informal gatherings.

For further information: info@mind-lab.dk*, see also* http://www.mind-lab.dk/en

The European Commission itself has the Joint Research Centre (JRC), as its in-house science service, with a mission to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy process. Among the wide set of services offered by the JRC across the Commission, the focus on innovation in policy-making has been strengthened with the establishment of the EU Policy Lab. This new unit aims at providing a safe space where Commission's services can experiment with new ways of addressing complex policy challenges as well as new forms of engagement with stakeholders. One of the specific features of the EU Policy Lab is to bring together an interdisciplinary team with competences in foresight, behavioural insight and design thinking. The EU Policy Lab is engaged in a range of innovation projects in partnership with other Commission's services, such as scenarios for the future of the collaborative economy, co-design on new forms of engagement for the implementation of regional funds, and the application of behavioural sciences for EU policy-making.[10]

The fear of failure can also be mitigated by conducting rigorous **options appraisals** before embarking in a new direction, as a well-established method and a crucial component of impact assessment, which is described further in topic 1.2 in the context of assessing proposed legislation, but is applicable to all policy proposals that have an economic, social or environmental effect. Options appraisal applies cost-benefit analysis (CBA) techniques to several implementation scenarios, typically involving the *status quo* option ('do nothing'), the proposed solution and at least one other alternative. The appraisal must be genuinely impartial and indifferent to the options to add any value, otherwise it is just a *post hoc* rationalisation of a pre-selected way forward.

In finalising the choice of policy instrument, policy-makers need to consider the **role of the public administration** and its relationship to the chosen mode of implementation, especially if it involves decentralisation, outsourcing or co-production. The government may wish to devolve responsibility for the details of implementation to the organisation(s) tasked with delivery, especially if the policy

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[10] For in-depth information on specific applications, please see also, topic 1.1.3 on foresight for EU policy-making, topic 1.2.2 on applying behavioural insights and topic 1.3.3 on design for policy.

subject is complex and front-line providers are far better placed to determine what is best. It may seek to pilot a variety of methodologies, to see what works most effectively. It may wish also to select an array of providers with strengths among different target groups to promote diversity. These considerations have been codified by the Institute for Government (op. cit.) as four criteria:

Criteria	Key questions
Risk	↓ Does the government action need to be 'right first time'? ↓ Is the priority to achieve a specific goal as efficiently or efficiently as possible, or to explore new possibilities?
Uniformity	↓ What is the appetite for variety and divergence in service provision?
Complexity	↓ Is the issue so complex that it is better for the system of actors to address it through adaptation, rather than specifying a solution in advance? ↓ How likely is it, that central direction will be able to control the actors responsible for realising the policy in practice?
Capacity	↓ What is the capacity of the actors in the system to address the policy issue through their own agency? ↓ Is central government able to intervene to build such capacity? ↓ To what extent is guidance or direction being requested?

The **time horizons** for public policy extend from the immediate to the indefinite. Some policy challenges are 'slow-burners', such as the implications for care services and welfare provision of the ageing population, or the impact of long-term unemployment on skills and employability. Others are immediate, arising from sudden crises, conflicts and natural disasters. Most fall somewhere in between these two poles: medium-long term policy goals which are aspirational and ambitious, but affected by many factors outside the government's direct influence, such as improving the educational performance of children, increasing jobs and raising productivity in the economy, or reducing the crime rate. Moreover, Governments seem to be increasingly tested by so-called 'wicked problems', such as the consequences of climate change for flooding and drought – intractable, multi-dimensional and requiring the interaction of many stakeholders.

1.1.2 Data insights to help solve policy problems

In an increasingly 'VUCA' policy environment, coupled with advanced technics of statistics, predictive and advanced analytics, and data mining in combination with data visualisation technique, governments need to be rigorous but responsive in their policy-making - and yet the systematic use of evidence to inform

- Policy design
- **Analysing data to solve policy problems**
- Forward thinking
- Consultation and co-responsibility

public policy remains relatively rare. At the same time, we live in an increasingly **data-rich society**. The exponential growth of semiconductor capacity over the last few decades (under the so-called Moore's Law[11]) has led to an explosion of data from digital sources - the Internet, social media, mobile phones, sensors, satellites, static and wearable devices (e.g. physical fitness and step trackers, air pollution monitors, traffic mappers, etc. that contain sensors, processing capabilities and connectivity). This has brought about the phenomenon of 'big data': a step-change in the scale

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[11] Moore's Law is a computing term which originated around 1970; the simplified version of this law states that processor speeds or overall processing power for computers will double every two years.

and scope of the sources of materials - and tools for manipulating these sources - available in relation to a given object of interest.[12] Opportunities now exist to strengthen evidence-based policy-making from major ICT-led advances in data processing, by using the assembly and analysis of 'big data' to find patterns, linkages and relationships that shed fresh light on policy problems.

> 'Big data' refers to both collections of datasets (numbers, vectors, text, images), often from bringing different sources together, and the tools and methods used to interrogate them (data analytics). The benefits of big data for public policy arise from its size and sophistication, enabling users to identify trends and patterns, and to find connections and correlations across policy fields by combining datasets. There is no universal standard or threshold to define 'big', but the common approach is to focus on **four Vs**: volume (of objects, including over time), variety (of sources), velocity (of availability, including real-time access), and veracity (of quality, through validation and reduction of bias and 'noise').

The immediacy of data flows in the digital era blur the boundaries between public service 'users' and 'providers'. This is also integral to the concept of the Internet of Things, in which objects in a network share information with each other and create a smart environment for people to extract services and value.

Big data analytics has proven to bear promising insights for all policy fields. Its use is still embryonic but evolving quickly.[13] Public administrations are increasingly mining data as a raw ingredient to inform innovation in policy design, evaluation and implementation. Among **Member States**[14], for example:

- Germany's sim[TD] research project, funded by three Federal Ministries and involving a partnership of the Hessian State Government, automotive and telecommunications companies, universities and research institutions, aims to increase road safety and improve the efficiency of the traffic system, through the use of car-to-car and car-to-road communication.

- Rijkswaterstaat, part of the Dutch Ministry of Infrastructure and the Environment, has launched an initiative with partners titled Digital Delta to use big data sources for monitoring purposes to prevent floods and to improve water quality and internal navigation.[15]

- The Spanish Ministry for Telecommunications and the Information Society uses big data analytics to support its understanding of the structure and size of the ICT sector and to improve its evaluation process for awarding R&D grants, using natural language processing.

International organisations are increasingly active in data for policy-making initiatives, including the OECD through its E-Leaders initiative, United Nations (UN) through its Global Pulse project and the

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[12] Definition from R. Schroeder (2014), *Big Data: towards a more scientific social science and humanities?* in M. Graham and W.H. Dutton (eds.) 'Society and the Internet'. Oxford: Oxford University Press, pp. 164–176.

[13] For example, the application of big data and open data through algorithmic regulation is an emerging field within regulatory reform, although at an early stage where the pros, cons and risks are still being examined.

[14] The following examples are taken from the EU-funded www.data4policy.eu.

[15] B. Rooney (2013) *The Netherlands Looks to Big Data to Tackle Flooding*, The Wall Street Journal http://blogs.wsj.com/tech-europe/2013/06/25/the-netherlands-looks-to-Big-data-to-tackle-flooding/;

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World Bank through its 'Innovations in Big Data & Analytics for Development' programme. The European Commission is pursuing several actions in the field of big data, launching both research studies and pilot initiatives.

EU support to big data analysis

Under the **ISA Programme**, the European Commission has been collecting best practices in Member States' public administrations in analytics and big data technologies to support decision-making, along with the supporting organisational and operational processes.

The Commission also funds big data related projects through the **Horizon 2020** Framework Programme for Research and Innovation, not least through Co-Creation-06-2017: Policy-development in the age of big data: data-driven policy-making, policy-modelling and policy-implementation.

A **task force** in EUROSTAT is exploring how big data analytics can complement official statistics with information coming from various sources (e.g. mobile data, Wikipedia stats), and contributing to the business cases of the European Statistical System's Big Data Project.

The Commission outlined its new **strategy on big data** in 2014, focused on research in innovative area, with several project themes connected to EU policy objectives, including:

- Healthcare: saving lives with better diagnostics. This has led, for example, to the development of an ICT tool for brain trauma patients (TBICARE) and a platform to promote a healthier daily life (DAPHNE).

- Transport: fewer accidents and traffic jams. This has included, for example, a project on tackling road congestion (VIAJEAO).

- Environment: reducing energy consumption. This has included, for example, a project on the best place for wind farms (Sopcawind).

The Commission has also funded data4policy, a consortium of the Technopolis Group, the Oxford Internet Institute (OII) and the Centre for European Policy Studies (CEPS), to explore the opportunities that innovative data-driven approaches offer for evidence-informed policy making, including the relevant data sources and technologies. The study contributed to creating or linking relevant communities in the field (policy-makers, public agencies, NGOs, companies that provide tools and collect data, etc.), conducted an inventory of 58 innovative initiatives across the EU, plus selected non-EU countries and international organisations, and organised the Big Data for Policy conference on 15-17 June 2015. The final deliverables are available at the study website: State-of-the-Art report; the workshop report, 10 cases of innovative data-driven approaches for policymaking at EU level; and an online 'bee health' demonstrator of big data linking and data visualisation for policy-making.

The Commission is also developing a series of tools and projects with direct applications for EU policies. One example is the **Tool for Innovation Monitoring (TIM),** which is based on technology forecasting and exploiting data coming from patents, publications and news. The Commission's Joint Research Centre (JRC) is using big data analytics in Earth and environmental sciences through the Digital Earth Platform, which can help other Commission Services working in this policy area.

The EU's eGovernment Action Plan 2016-2020 (see topic 5.4) includes several actions to make the most of big data's potential. There is a growing demand from business and citizens to have access to high quality, interoperable and re-usable data to provide new services, particularly in the field of spatial data. The use of spatial data for urban, land-use, traffic planning and for scientific purposes can unleash new innovations that respond to societal needs such as reducing the negative impact on the environment. In this regard, the Commission has committed to promote the development of end-user applications, including specific EU-level applications, to harvest from citizens and business more efficiently the data provided through Spatial Data

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(INSPIRE) for EU-level policy making and implementation, particularly in relation to reporting and compliance promotion. This will improve evidence-based policy making and support eGovernment processes where high quality spatial data (e.g. cadastres, maps, addresses, buildings, parks, protected sites, natural risk zones, etc.) is needed.

Under the auspices of the Action Plan, the Commission has also launched the [European Cloud Initiative](#) as its blueprint for cloud-based services and world-class data infrastructure to ensure science, business and public services reap the benefits of the big data revolution. Europe is the largest producer of scientific data in the world, but insufficient and fragmented infrastructure means this big data is not being exploited to its full potential. By bolstering and interconnecting existing research infrastructure, the Commission plans to create a new European Open Science Cloud that will offer Europe's 1.7 million researchers and 70 million science and technology professionals a virtual environment to store, share and re-use their data across disciplines and borders. This will be underpinned by the European Data Infrastructure, deploying the high-bandwidth networks, large scale storage facilities and super-computer capacity necessary to effectively access and process large datasets stored in the cloud, and will reduce the cost of data storage and high-performance analysis. Making research data openly available can help boost Europe's competitiveness by benefitting start-ups, SMEs and data-driven innovation. Public services will benefit from reliable access to powerful computing resources and the creation of a platform to open their data and services, which can lead to cheaper, better and faster interconnected public services. The Commission will progressively put in place the European Cloud Initiative through a series of actions from 2016 to 2020. The public and private investment needed to implement the European Cloud Initiative is estimated at €6.7 billion, including €2 billion in Horizon 2020 funding.

To further advance the eGovernment Action Plan, the Commission has also established an engagement platform (https://ec.europa.eu/futurium/en/egovernment4eu), on which ideas can be proposed. The platform seeks to understand stakeholders' needs and then asks for ways to address them. Data can be used to justify the idea for action.

Sources: Opportunity now: Europe's mission to innovate; data4policy website; Commission press release and website

Data analytics can help overcome the challenge of designing better informed policies that reflect and address the complexity of (systemic) policy problems. It can serve as a policy tool at various stages of intervention: problem analysis and agenda setting; *ex-ante* impact assessment of potential policies; monitoring the implementation of existing policies; or evaluating *ex-post* their effectiveness.

The starting point for thinking about big data as a policy-making tool is to ask the question: **for this policy problem, is there a potential data-driven solution?** In other words, if we search for fresh data, seek answers within existing data or bring datasets together, could it shed new light or open up new windows of opportunity?

Once the initial decision is taken to look to data for answers, and the policy question which the policy-maker is seeking to address is clearly formulated, the next requirement is to identify data sets and ensure **data availability**, which can involve collection, capture, saving and storage (for example in data warehouses and/or cloud-based), data cleaning to improve quality, and data linking to produce larger datasets with potential correlations, which depends on interoperability[16].

The purpose of **data analysis** is to uncover trends, patterns and connections that might otherwise be invisible, while data visualisation ensures the outputs are presented in a reader-friendly format,

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[16] See [topic 5.4](#) for an explanation of interoperability. Differences between data sets can include data formats, identifiers (for citizens or enterprises), storage solutions, meta-data systems, etc.

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more accurately reflecting the complexity of policy options and knock-on effects and with the overall aim to identify insights to feed into policy decisions.

This process can be characterised as a series of **six steps**, which includes a prototype stage before the data processing solution to policy-making is rolled out or scaled up[17]. This should be viewed as a dynamic, iterative process, as data-driven insights (step 6) can and should reframe the policy question (back to step 1 or 2), by furthering the understanding of causalities, related factors, etc., or indeed, when data 'streams' reflect a near real-time dynamic change of the policy problem.
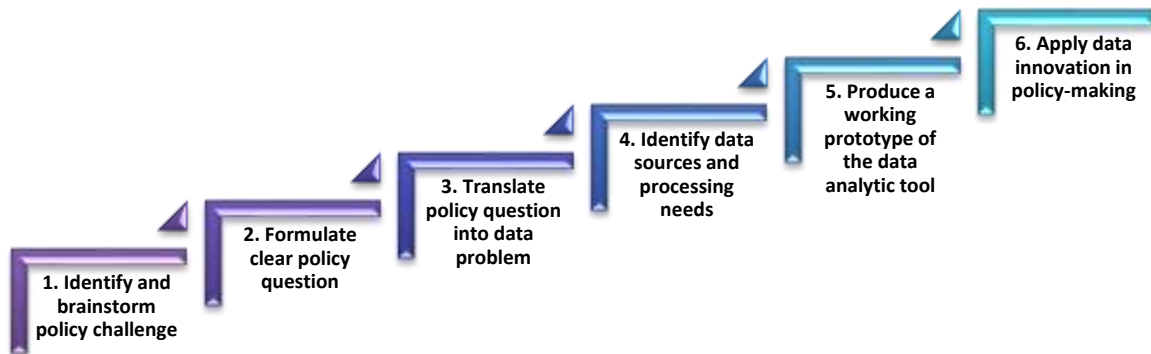
Theme 7 includes the inspiring example of Slovenia's Judicial Data Warehouse and Presidents' Performance Dashboards, which effectively comprises all these steps and has successfully helped reduce the backlog of pending court cases and improve efficiency.

Moreover, the ongoing example below of data-driven approach to tackle illegal fishing and over-fishing activity at sea, based on the data4policy case study, illustrates this **data-driven policy process** up to step 5 (prototyping) of the above typology. One of the interesting aspects of this case is that two potential systems have been developed in parallel: one is aimed at public authorities for enforcement purposes ('Eyes on the Seas'), while the other is open to all and more suited to civil society and hence external pressure and accountability purposes ('Global Fishing Watch').

Ocean governance

Step 1: Identify and brainstorm policy challenge

Illegal fishing and over-fishing are serious global challenges from an environmental and economic point of view that can permanently destroy ocean ecosystems and jeopardise food security. According to the UN, "*about a third of marine fish stocks worldwide have been overfished, and over 90% of the world's fisheries are fully exploited or over-fished*". In the case of illegal fishing, the scale of the problem is well known (although it may be understated) - experts estimate that about 20-40% of the fish caught in the wild enters the market due to illegal fishing activities, accounting for more than $20 billion each year. Monitoring and enforcing protected marine reserves, fishing quotas and legislation in remote parts of the world is a challenge that is currently not sufficiently addressed. This 'policy failure' results in the presence of industrial-scale pirate fishers having a sense of impunity. There is a need to better protect the oceans from illegal activity, so that depleted fishing stocks can be safely preserved and rebuilt.

Over 60% of the world's oceans are beyond national borders. The high level of fragmentation in ocean

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[17] This typology is based around data4policy's readiness assessment criteria.

governance complicates monitoring activities and interventions: responsibilities and competences are spread among different agencies at regional (coastal regions), national and international levels. For example, there are about 10 different UN bodies responsible for marine protected areas. To have better knowledge of activities at sea, there needs to be more transparency and especially, more collaboration between different institutions. The general objective of European Ocean Governance Policy is to ensure better international governance of oceans and seas to the benefit of sustainable blue growth.

The European Union is obliged to monitor illegal fishing activities as part of its role in enforcing the European Union's Common Fisheries Policy (CFP). This governs access for fishing vessels inside the exclusive economic zone (EEZ) of EU member states which stretches 200 nautical miles from their coastlines, and negotiates access in waters of third countries or governed by Regional Fisheries Management Organisations. Within their EEZs, Member States retain a 12-mile zone from their own coastlines with exclusive fishing rights for their vessels. At 25 million square kilometres, the EEZ of EU countries is the largest in the world.

In 2009 the Pew Charitable Trusts, the Coalition for Fair Fisheries Arrangements, the Fisheries Secretariat, the New Economics Foundation, Seas at Risk and Ecologistas en Acción established the OCEAN2012 coalition. It included fishermen organisations, environmental NGOs, consumer organisation and other actors with an interest in sustainable fisheries. Within five years, OCEAN2012 had grown from 5 to 193 supporting groups across 24 EU Member States.

European legislators were moving in the same direction. In May 2013, they reached an agreement to reform the Common Fisheries Policy, to "*restore fish stocks and to end EU overfishing by 2015 where possible and 2020 by the latest*". The new Policy came into force in January 2014. It allocated greater funding for data collection and enforcement within the European Maritime and Fisheries Fund (EMFF) which will deploy €6.4 billion between 2014-2020. The majority will be managed by the Member States themselves but 11% will be managed by the Commission to support EU-wide objectives in maritime and coastal affairs, including international governance. Of the total EMFF funds, €580 million have been allocated for control and enforcement activities. These resources will contribute to monitoring compliance with the CFP and to protect a fair access to healthy fishing stocks.

Enforcement is a responsibility of individual Member States. They can be notified of suspicious behaviour and must ensure that their own vessels or vessels within their waters comply with EU agreements. In severe cases of non-EU Member States breaching international agreements and failing to act to correct illegal fishing, the EU can set up embargoes to fish products from those countries. Up until now, enforcement has been based on the collection of data provided by the Member States and on the use of inspectors checking fishing gear and inspecting the registers of fish caught (and comparing them with the quotas). These checks can be done in port, at sea, and using aerial photography. However, they are costly, highly resource-intensive and time consuming (and therefore slow) processes that do not sufficiently act as deterrent for most illegal activity. Most important, they do not allow for timely information at the needed scale. As a result, non-compliance remains a significant problem.

Step 2: Formulate policy question

How can we effectively identify suspicious or illegal fishing activities (to enforce the rule of law and improve ocean governance)?

Step 3: Translate policy question into data problem

Most of the data to effectively tackle this policy question exists and has been identified as being available either from commercial providers or the different governments and institutions. The public sector has access to vessel positioning data, which can be linked to other administrative data sets, to indicate possible illegal activity that can be followed up by the relevant law enforcement agencies. represents for an improved conservation of marine resources and global ocean governance. There is the potential to develop an **automated early-warning system** that would enable flagging suspicious activities through the linking of available data sets combined with the use of advanced analytical techniques. Such a system would need to be aware of the vessel's position over time, the administrative information detailing available quotas and fishing licences for each vessel, and data on the location and characteristics of fish stocks in the sea.

There would also be **spin-off benefits**. Information on the movement of (large) ships would be relevant not only related to illegal fishing, but also for environmental, tax and trade concerns. Coastal information, satellite imagery and information from aircrafts and patrol boats can be combined to form a fuller picture of activity in the ocean. More real-time data on positioning and patterns of large ships would allow more targeted interventions for EU inspectors and more effective legal action. To cover the oceans, combined monitoring is used integrating several systems.

Using a data approach could therefore contribute to a more effective conservation of natural resources (fishing, deep sea mining, protected areas), reduce fragmentation in the governance of sea activities (fostering better coordination and collaboration between different institutions) and provide more transparency through better knowledge of activities at sea.

Step 4: Identify data sources and processing needs

With regards to data sources:

- The Vessel Monitoring Systems (VMS), which regularly provides data on the location, course and speed of vessels to the fisheries authorities of flag states and those of the coastal states in whose waters it is fishing.

- Fishing vessels over 300 gross tons carry the Automatic Identification System (AIS), which broadcasts a signal to prevent collisions. AIS has been progressively introduced in EU fishing vessels above 15m and is increasingly used by Member States for monitoring the behaviour of large ships and collecting data on their speed, position and direction.

- Currently, satellite imagery is used mostly in research projects. It has proved too expensive to deploy on an operational basis. The main difficulties are the time between requesting an image and receiving one (each satellite only passes overhead every day or so and the satellite needs time before it can programme its camera or sensor towards the target) and the need for manual identification of vessels in the images – usually synthetic aperture radar due to the ability to see through cloud. Improving the capability of imagery for vessel detection is the focus of the EU's Copernicus maritime monitoring programme.

What are the pros and cons of VMS and AIS?

- Both VMS and AIS obtain positional information from GPS signals, but VMS uses point-to-point satellite communication to send the information to shore whereas AIS transponders broadcast VHF signals that can be picked up by satellite or shore stations.

- Communication costs make VMS expensive, so transmission occurs only every hour or so. AIS signals are transmitted approximately every minute.

- Data sharing requirements for VMS are more bureaucratic. Furthermore, VMS information is only available to flag state and coastal state, unless special arrangements are made for sharing, whereas AIS information can be bought for any area of the planet.

- There are differences between distribution of AIS signals picked up by satellite and those picked up by coastal stations. Satellite AIS gives global coverage of the sea but signals are only picked up when a satellite passes above an area. The frequency of signals depends on the number of satellites scouting a specific area. As it passes, the satellite can pick up more than one signal so that vessel tracks can be observed. On the other hand, due to signal collision, satellites do not pick up all the signals in high ship density areas, making this solution better for open ocean monitoring. In this case, signals picked up by coastal stations can be much more frequent but their range is more limited.

AIS data is collected by coastal stations and satellites and it can be bought from commercial providers. In

terms of costs, there are providers of data from coastal stations that already have operational online platforms that are supported by subscription models. For example, IHS Maritime sells AISLive/Sea-web subscription plans to their online platform and marinetraffic.com sells subscriptions from €9 to €269 per month, depending on the requested features.

Once the data are available, two stages of analysis can be deployed, first related to the modelling and the analytics to identify patterns and types of behaviour for ships, second to signal anomalies and suspicious cases. A behavioural classification model can be run on the datasets to identify fishing behaviour, based on the vessel's pattern of movement and speed.

During the past two years, two initiatives have worked to address the data sourcing, linkage, processing and visualisation challenges related to the proposed automated early-warning system:

- ⚜ The 'Eyes on the Seas' project, developed by the Pew Charitable Trusts together with the UK Satellite Applications Catapult,
- ⚜ The 'Global Fishing Watch' prototype by Oceana, Google and Skytruth.

The prototype systems link positional data from ships, collected mainly from the AIS system, with geographic and administrative data. AIS systems are codified with unique identifiers for each vessel, which allows identification of the country of origin. Additional information includes the type of vessel - fishing, cargo, tanker etc – although this is not always accurate. The data on AIS is already being collected by coastal stations and distributed by commercial providers. For the rest of the ocean, the data can be bought from satellite providers or intermediaries. For example:

- ⚜ The 'Eyes on the Seas' system combines data sets from VMS (via GPS and satellite), Synthetic Aperture Radar (SAR) satellite, AIS and Optical Satellite Sensors for oceanographic and atmospheric data. These are further linked to other specialist databases that include international fishing and marine reserve boundaries, and oceanic data comprising depth and temperature readings (bathymetry). All the information is centralised in a 'Virtual Watchroom' where analysts can query the data and interesting activity patterns are investigated.

- ⚜ The 'Global Fishing Watch' system builds dynamic visualisations of ships based on AIS signals, and runs behavioural models. These behavioural models can distinguish between fishing and non-fishing ships. In a following step, they are assessed by analysts and crosslinked with other datasets that delineate restricted fishing zones. The process started with a dataset of 3.7 billion data points, comprising two years of satellite collection and covering 111,374 vessels. This dataset is one terabyte in size.

In addition, the European Marine Observation and Data Network (EMODnet) is an initiative run by the EC's DG MARE. It is a platform that consists of more than 100 organisations providing marine data, providing complementary background information on ocean conditions such as temperature, currents, sediments and marine life. The data and meta-data undergo a standardisation and quality assurance process and are available without restrictions of use (free and open access). This contextual information can be used to enhance the information on ship movements. EMODnet is currently starting its third development phase and it is expected that it will be completed in 2020. The rest of the data is available either from commercial providers or the different governments and institutions.

Step 5: Produce a working prototype

The two initiatives – 'Eyes on the Seas' and 'Global Fishing Watch' – have both built prototypes, which are currently testing the feasibility and potential implementation of the idea launched in this use case. In addition, the prototypes allow the set-up and training of the analysis models for this particular application. This is a necessary step before these solutions can be validated and have sufficient legitimacy to be used in policy-making. As at early 2016, the two prototypes still had some limitations. For example:

- ⚜ The project 'Eyes on the Seas' launched its monitoring activities by focusing on the Chilean territory

surrounding the Easter Island, and the Pacific island nation of Palau. The system initially focuses on helping the governments of these territories to enforce these protected marine reserves, and the idea is that it will be able to scale to other larger areas. The 'Project Eyes on the Sea' documentation discusses some of the behaviours that can trigger an alarm. The use of vessel data is linked with marine reserve boundary data. Patterns can be identified that include activity in closed fishing areas or unauthorised switching-off of AIS transceivers. While switching AIS transceivers off can be used to try to circumvent detection, global coverage allows detecting when a vessel's position suddenly disappears from the dataset and reappears later elsewhere is flagged (or when vessels are using duplicated AIS identifiers). Also, the system can detect close proximity between vessels, which could signal that some of the cargo is being moved between ships at sea. When an alarm is triggered, a team of trained analysts then investigates it and relevant government enforcement organisations are notified. A supporting evidence package is transferred to the authorities, who then proceed with an appropriate response in case the rules were breached.

By contrast, the 'Global Fishing Watch' had a global reach from the outset, but the prototype operates using a snapshot of static data from 2012 and 2013. As at 2016, it covered over 25,000 unique vessels that were identified as carrying out fishing activities, and the final visualisation comprises 300 million AIS data points. The fishing activity map in the prototype shows data from 3,125 vessels that were independently verified. The idea is that when the system is completed, it will switch to using near real-time data streams, analysing current conditions while still having the capacity to examine historical behaviour. Oceana stated in late 2014 that the system would be fully completed by 2016, depending on funding conditions.

However, the main difference is that 'Eyes on the Seas' primarily aims to facilitate direct action by governments and authorities, while 'Global Fishing Watch' puts more emphasis on the fact that the system will be free and open from the outset (like another layer on top of Google Maps), so that pressure for authorities to act will come from external pressure groups, citizen activists, NGOs, media, etc. The role of NGOs for this particular case is interesting and can have an effect in increasing public awareness and holding governments to account. So far, governmental authorities have been reluctant to provide information on fishing, citing confidentiality as an issue.

As well as the provision of near real-time information, AIS allows the **scaling up** of the current anomalies detection system to the global scale. It would equally add an automatic process for identifying misreporting to the established framework. For example, one can identify cases where vessels have incorrect or duplicated identifiers. Regarding the governance process, it would add a global dimension and foster collaboration amongst several institutions at EU level, at least amongst EU agencies EMSA, CFCA and Frontex. If the analysis were offered openly to the public, this would add elements of open policy-making and allow pressure groups and other activist organisations to also carry out monitoring activities.

The technical scalability of the demonstrators is possible by moving from the use of snapshots to (quasi) real-time data and by expanding the focus from specific regions to global coverage. As computing power improves (or more resources are dedicated to such initiatives) the pilot projects can move from dedicated control systems (the concept of a 'watch room') to a service that is widely available on the Internet (i.e. the Google approach). Additionally, new sources of information can be added in the future, including additional satellite imagery, various types of optical imagery, imagery from unmanned aerial vehicles, crowd-sourced photographs and sightings, electronic signals such as radar on ships, and possibly radio broadcasts. To undertake this scaling up process, three things would be needed: additional resources; validation of the models that involves experts from the relevant authorities; and more countries and organisations across the fish and seafood value chain providing their own data to reduce the false positives.

Step 6: Use of the data in policymaking (forthcoming)

The November 2016 [Communication "International ocean governance: actions for safe, secure, clean and sustainably managed oceans"](#) proposed that:

On the basis of technological developments in satellite communications and data analysis, and existing systems for monitoring maritime activities, the Commission, in association with the High

Representative, will launch a pilot project to monitor illegal fishing worldwide, working to broaden maritime situational awareness, and explore the possibilities for expanding monitoring to other sectors.

The prototype systems allow government officials and other independent analysts and groups of experts to identify and monitor activities at sea. Activities that present specific activity patterns will trigger alarms, signalling potentially illegal, unreported or unregulated activities. These systems are early alert systems and can prompt the relevant authorities to take a closer look into specific cases. They are more efficient than current established procedures and reduce the amount of resources that are needed to monitor vast sea extensions and fleets. The Commission Communication does not indicate how the system will develop from pilot to operational phase, who will operate it and who will have access to the results but the intention is clearly there.

However, it can be assumed that the evidence from these systems will always need to be complemented by other proof of wrongdoing. Suspicious patterns will be packaged and sent to the appropriate teams within the relevant authorities who will have the remit of investigating particular cases. This is analogous to, for example, systems in the banking domain that flag suspicious credit card charges or bank transfers. When an alarm for suspicious activity is triggered, the case is passed on to a relevant expert team that verifies and checks the situation with the involved parties. The systems will also enable authorities to share information on specific suspicious vessels and patterns of activity, and thus increase international collaboration in information gathering and enforcing activities.

Potential synergies with other initiatives
Eurostat and ESMA also use AIS as a source data for the collection of transport statistics and CO_2 emissions analysis, but limited to the European space. Multipurpose use of this data is possible, but should be extended beyond Europe. This broader use of AIS data could increase the relevance and efficiency of the data collection processes. An element that requires further consideration regards the political and operational governance structure that would support and sustain this data collection and analysis initiative: who would be responsible, who would be the caretaker and who would fund it.

Source: www.data4policy.eu
For further information: Global Fishing Watch, http://globalfishingwatch.org; Project Eyes on the Seas,
http://www.pewtrusts.org/en/multimedia/video/2015/project-eyes-on-the-seas

Regarding **data availability**, the sources might be public or private[18]:

- ✓ The Statistical Offices remain among the most important players within the **public sector**, as data collection and assembly is their *raison d'être*, but other public bodies also generate data as a by-product of their daily activities.

- ✓ The largest source of digital data is **privately-held**, including all economic transactions, mobile phone metadata (e.g. location data - relevant to transport, healthcare, safety and security), and search engine data and the content of social media, both of which indicate people's interest and preferences. Geo-data from satellites, whether government or privately-owned, can contribute to mapping climate change (environment and agriculture policy), people (migration) and freight movements (transport), fish stocks (aquaculture), and urban spread (physical planning).

- ✓ Increasingly, data generated by **citizens** online through privately-held devices, not just government or businesses. Examples include micro sensors to monitor air and water quality or their own health signs (blood pressure, heart rate, etc.). Some of the most powerful

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[18] This is where the concept of open data is important (see also topic 1.1.4, topic 2.3 and topic 5.4).

applications of big data arise from combining different data sources, although this relies on access (if proprietary), anonymity (if the data could be used to identify individuals) and interoperability (if the data formats are not immediately compatible).
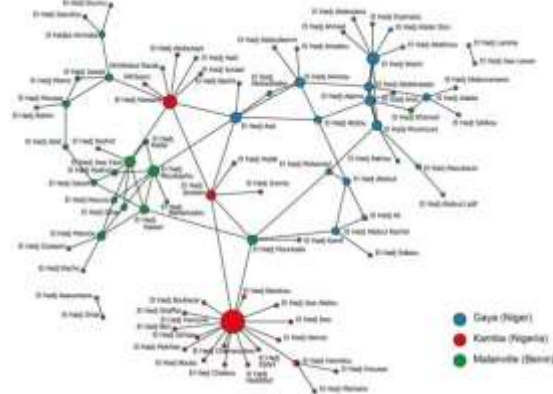
✓ With the advent of the Internet of Things (IoT), data is now also accruing from sensor data in **equipment** and machine-to-machine (M2M) communications.

Many **data processing techniques** (some of which are summarised below) involve data analytics, which is the process of drilling down into raw and unstructured data to extract useful and usable information, which can be gathered and assembled in a common space, such as a data warehouse. These techniques may seem esoteric, but are increasing in usage as the examples show.

Tool	Description
Data profiling	This involves investigating available data in an existing source and collecting information about that data (including metadata), to determine if it can be easily used, conforms with certain quality standards and/or could be integrated with other data (interoperability). The data might be tagged (with keywords or descriptions) or categorised, so that it can be drawn upon later.
Web scraping	Also known as web harvesting, this is the automated, high-speed and large volume version of 'copy-paste', and involves using software to extract data from websites, and save / store it in a database or spreadsheet, which can then be analysed and visually (re-)presented. Examples include online price comparison, which is based on trawling retailers' sites for the raw price data on specified products. Eurostat has experimented with online price data obtained by web scraping as an additional source for the Consumer Price Index.
Text mining	Also known as text analytics, this involves trawling through a set of documents or other online sources to extract relevant, new and/or interesting information from the text, based on identifying keywords, categorising and clustering the text, recognising concepts and patterns (e.g. word frequency), and evaluating the output to discern which text is useful and usable. This might be performed for the purposes of summarising or classifying documents, looking for associations between entities, conducting sentiment analysis, or performing predictive analytics, for example. The European Commission has launched pilot projects which use text mining of scientific papers to identify research trends, and analyse the ICT job market through information available on job posting websites.
Sentiment analysis	This technique seeks to extract and capture people's inclinations, opinions and reactions in subjective information from the web (news articles, reviews, blog posts, tweets, status updates, etc.) using natural language processing and computational linguistics (which enable computers to understand human language and are the basis of machine translation, for example). It can be used for example to gauge reaction or anticipation of policy announcements, or assess levels of public trust. Statistics Netherlands has used social media sentiment analysis for consumer confidence data
Machine learning	Using algorithms, this method enables computer to learn from interrogating data iteratively, recognising patterns and relationships, and hence to build its own models and extract 'hidden insights' without being explicitly programmed where to look.
Predictive analytics	The aim is to determine patterns within datasets and make predictions about future events or behaviours based on probability models and 'what if' scenarios. Predictive analytics is used in risk assessment (such as credit ratings), medical diagnostics and the identification of tax fraud (by mining tax returns).

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Social network analysis (SNA)	SNA uses network theories, models and applications to investigate the nature and importance of relationships within social structures, namely the connections and interactions between actors in a network. These relations might be social, economic, political, biological, etc. The analysis focuses entirely on the actors' associations, rather than their individual attributes. Network models are built around nodes (members of the group) and the links / ties between them, which can be presented graphically (see diagram right, taken from World Bank blog on cross-border business ties). From its origins in sociology, SNA has become a valuable tool in medicine (for example, regarding the spread of diseases), economics, information science and ICT, organisational behaviour, etc. Concepts used in SNA include: tie strength; density (the ratio of direct ties to all ties in a networks); and distance (minimum number of ties required to connect two particular actors). Network methodologies focus on sub-groups, from 2 or 3 nodes upwards, and in the case of big data analytics, larger systems or entire networks.
Agent-based modelling (ABM)	ABM involves simulation to study the behaviour and actions of agents in a network or system, either as individuals or collective entities (organisations or groups), to assess their impact - through interactions - on the whole system. ABM draws on various techniques, including game theory, complex systems theory, Monte Carlo simulations and evolutionary thinking, to bring together rules-based approaches (using heuristics), rationality, randomness and adaption using algorithms. ABM has been used in the study of ecological and economic systems, traffic bottlenecks and management, social segregation, stock-market crashes and urban planning. It can help to better understand path dependency and the points in which interventions can have a disproportionate impact. In complex systems, even simple decisions can have volatile and extreme consequences.

However, analysts need to be always vigilant regarding **data quality** and especially potential bias. For example:

- Internet access and mobile phone ownership have reached high levels of penetration but are not yet 100%, and there is a danger that certain sections of the community are excluded by accident from data due to the 'digital divide' (see topic 5.4).

- The original data source should be open to scrutiny, to ensure the methodology is sound. The case of Google Flu Trends (GFT) is widely cited. Set up by Google in 2008, GFT used searches around the word 'flu', such as describing the symptoms, to predict where it would become prevalent, in a technique known as 'nowcasting' (usual real-time data for forecasting purposes). Compared with the traditional method of collecting flu data (reporting by doctor's clinics), which naturally involves a time lag, GFT initially outperformed in both speed and accuracy. However, GFT under-performed seriously at the peak of the 2013 flu season and was closed in 2014. While Google was lauded for taking the initiative on flu (and subsequently, dengue fever), the search methodology and hence the dataset remained proprietary and hence the research could not be replicated in line with best scientific principles.

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Practitioners can draw upon an array of **analytical and visualisation tools**. At the simplest end of the spectrum, desk-based analysis can be performed using standard spreadsheets (e.g. Excel) to produce and present descriptive statistics and conduct and trend analysis, while general-purpose visualisation tools (e.g. Google maps) can be used to show the results attractively. At the most advanced end are sophisticated systems for statistical and predictive modelling. Realistically, the sheer volume, frequency and complexity means big data analytics is often unsuited to the more traditional systems. Hence, new high-performance storage and processing solutions, suitable for huge and distributed data sets, have come to the market, often using open source software (e.g. Apache Hadoop).

For Member States, statistical offices and public institutes (e.g. economic, environmental meteorological), traditionally tasked with collecting, processing and holding high quality data, are often well placed to manage the process of accessing new sources, such as social media, mobile phone, sensor and satellite data, and linking them to conventional sources for processing and visualisation. They have the foundation of expertise, experience and equipment, which can be built upon. For example, the Dutch institute, Statistics Netherlands, has invested in pioneering work using three data sources - traffic loops, mobile phones and social media – to investigate the possibilities for informing policy.

Emerging data-driven projects in public bodies point to process and organisational challenges. First, data-driven policies cannot be built without a solid data literacy amongst policymakers. Second, a strong data capability rests on agile methodologies and strong data analytics competencies within the organisation. However, recruitment in this space is generally a challenge for public bodies, where expertise is expensive and the private sector job market is highly competitive. Third, the skill challenge involves multi-disciplinary teams, and the process challenges that come with them. Finally, data capabilities necessarily need to be accompanied by robust policy and decision-making processes that are able and open to absorb data-driven insights.

Inspiring example: Test cases for big data (The Netherlands)

In our modern world, more and more data are generated on the web and produced by sensors in the ever-growing number of electronic devices surrounding us. The amount of data and the frequency at which they are produced have led to the concept of 'big data', which is often largely unstructured, meaning that it has no pre-defined data model and/or does not fit well into conventional relational databases.

Apart from generating new commercial opportunities in the private sector, big data is also potentially very interesting as an input for official statistics; either for use on its own, or in combination with more traditional data sources such as sample surveys and administrative registers. However, harvesting the information from big data and incorporating it into a statistical production process is not easy.

At Statistics Netherlands, several big data case studies were performed. Data sources studied as potential input for statistics were: a) traffic loop detection data, b) mobile phone data, and c) social media messages.

The findings are briefly described overleaf.

Traffic loop detection data

In the Netherlands, approximately 80 million traffic loop detection records are generated a day.[19] This data can be used as a source of information for traffic and transport statistics and potentially also for statistics on other economic phenomena. The data is provided at a very detailed level. More specifically, for more than 12,000 detection loops on Dutch roads, the number of passing cars in various length classes is available on a minute-by-minute basis. The downside of this source is that it seriously suffers from under-coverage and selectivity. The number of vehicles detected is not available for every minute and not all (important) Dutch roads have detection loops yet. Fortunately, the first can be corrected by imputing the absent data with data that is reported by the same location during a 5-minute interval before or after that minute[20]. Coverage is improving over time. Gradually more and more roads have detection loops, enabling a more complete coverage of the most important Dutch roads. In a year, more than 2000 loops were added.

A considerable part of the loops can discern vehicles in various length classes, enabling the differentiation between cars and trucks in three length categories: small (<= 5.6 meter), medium-sized (>5.6 and <= 12.2 meter), and large (> 12.2 meter). The results after correction for missing data were used. The profiles clearly reveal differences in the driving behaviour of the vehicle classes. The small vehicles have clear morning and evening rush-hour peaks at 8 am and 5 pm respectively. The medium-sized vehicles have both an earlier morning and evening rush hour peak, at 7 am and 4 pm respectively. The large vehicle category has a clear morning rush hour peak around 7 am and displays a more distributed driving behaviour during the remainder of the day. After 3 pm the number of large vehicles gradually declines. Most remarkable is the decrease in the relative number of medium-sized and large vehicles detected at 8 am, during the morning rush hour peak of the small vehicles. This may be caused by a deliberate action of the drivers of the medium-sized and large vehicles to avoid the morning rush hour peak of the small vehicles.

At the most detailed level (individual loops), the number of vehicles detected demonstrates (highly) volatile behaviour, indicating the need for a more statistical approach[21]. Harvesting the vast amount of information from the data is a major challenge for statistics. Making full use of this information would result in speedier and more robust statistics on traffic and more detailed information on the traffic of large vehicles, which is very likely indicative of changes in economic development.

Mobile phone location data

The use of mobile phones nowadays is ubiquitous. People often carry phones with them and use their phones throughout the day. Instrumental for the infrastructure enabling the coverage for mobile phones, are mobile phone masts/towers, called 'sites' in the industry. Those sites are located at strategic points, covering as wide an area as possible.

Much of the activity that is associated with handling the phone traffic, i.e. handling the localisation of mobile phones, optimising the capacity of a site is stored by the mobile phone company. So mobile phone companies record data that are very closely associated with behaviour of people; behaviour that is of interest to statistical agencies. Obvious examples are behaviour regarding tourism, mobility, commuting and transport. The destinations and residences of people during day-time are topics of various surveys. Using data from mobile phone companies we should be able to provide additional and more detailed insight on the whereabouts and the activity of mobile phone users.

For our research, we obtained a dataset from a mobile telecommunication provider containing records of all

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[19] P.J.H Daas, M.J. Puts, B. Buelens, and P.A.M. van den Hurk (2013), *Big Data and Official Statistics*, Paper for the 2013 NTTS conference, Brussels.
[20] Daas et al (op. cit.)
[21] Daas et al (op. cit.)

call-events (speech-calls and text messages) on their network in the Netherlands for a time period of two weeks. Each record contains information about the time and serving antenna of a call-event and a scrambled version of the identification number of the phone. This study revealed several uses for official statistics, such as economic activity, tourism, population density to mobility and road use.[22]

Social media messages

Around 1 million public social media messages are produced daily in the Netherlands. These messages are available to anyone with Internet access. Social media has the potential of being a data source as people voluntarily share information, discuss topics of interest, and contact family and friends. To respond to whether social media is an interesting data source for statistics, Dutch social media messages were studied by Statistics Netherland from two perspectives: content and sentiment.

Studies of the content of Dutch Twitter messages (the predominant public social media message in the Netherlands at the time of the study) revealed that nearly 50% of messages were composed of 'pointless babble'. The remainder predominantly discussed spare time activities (10%), work (7%), media (TV and radio; 5%) and politics (3%). Use of these more serious messages was hampered by the less serious 'babble' messages. The latter also negatively affected text mining approaches.

Determination of the sentiment in social media messages revealed a very interesting potential use of this data source for statistics. The sentiment in Dutch social media messages was found to be highly correlated with Dutch consumer confidence; especially with the sentiment towards the economic situation. The latter relation was stable on a monthly and on a weekly basis. Daily figures, however, displayed highly volatile behaviour.[23] This highlights that it is possible to produce weekly indicators for consumer confidence and could be produced on the first working day following the week studied, demonstrating the ability to deliver quick results.

Challenges identified

Our studies and the High-Level Working Group paper[24] revealed several challenges/issues that need to be addressed. These fall into the following categories:

- **Legislative** - with respect to the access and use of data. The right to access administrative data, established in principle by the law, is not adequately supported by specific obligations for big data. Many potential big data sources are collected by non-governmental organisations or are 'freely' available on the web; situations that may not be covered by existing legislation.

- **Privacy** - managing public trust and acceptance of data re-use and its link to other sources. Privacy is generally defined as the right of individuals to control or influence what information related to them may be disclosed. The problem with big data is that the users of services and devices generating the data are most likely unaware that they are doing so, and/or what it can be used for. The data would become even bigger if they are pooled, as would the privacy concerns.

- **Financial** - potential costs of sourcing data vs. benefits. There is likely to be a cost to acquire big data, especially big data held by the private sector, and especially if legislation is silent on the financial modalities surrounding acquisition of external data.

- **Management** - policies and directives about the management and protection of the data. Big data for official statistics means more information coming to national statistical institutes (NSIs) that is subject to policies and directives on the management and protection of the information that NSIs must adhere to. Long-term stability may be a problem when using big data. Typically, statistics for

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[22] E. De Jonge, M. van Pelt and M. Roos (2012), *Time patterns, geospatial clustering and mobility statistics based on mobile phone network data*, Discussion Paper 201214, Statistics Netherlands.

[23] Daas et al (op. cit.)

[24] High level working group (2013), *Big Data and its Potential Use by the Statistical Community*, Working paper for the High-level group for the modernisation of statistical production and services meeting, d.d. March 10.

policy making and evaluation are required for extended periods of time, often covering many years. Many big data sources have only recently been 'established'.

🞦 **Methodological** - data quality and suitability of statistical methods. When more and more data are being analysed, traditional statistical methods, which were developed for the very thorough analysis of small samples, run into trouble; in the simplest case, they are just not fast enough. Since text is an essential part of many big data sources, the need to extract information from text increases. Also, the subpopulations covered by big data sources studied are not the target populations for official statistics. Therefore, such data are likely to be selective, not representative of a relevant target population. Assessing representativeness of big data may prove problematic, as often there are no characteristics readily available to conduct such comparison. Next, including the information content of big data sources in the statistical production process (often without unique statistical ID keys) makes integration challenging.

🞦 **Technological** - issues related to information technology. Dedicated and specialised computing infrastructures are required to cope with big data to enable processing and speed up analysis of large amounts of data. Certainly, for the exploratory phase, during which the content and structure of big datasets must be understood, fast technology certainly speeds up this process and more quickly enable the revelation of their use for statistics.

Overall, it can be stated that the work described above revealed that there is a need for new legislation (enabling access to big data), persons with new skills (statistical aware 'data scientists'[25]), new methods (specifically tailored to large data files and fast) and computational facilities that enable the speedy analysis of large data files while ensuring privacy[26].

Vision

The official statistics community is only scratching the surface when it comes to exploring the opportunities offered by big data. Moreover, at this moment, research activities related to big data are limited to isolated initiatives at some NSIs. In our opinion, the methodological and technological challenges mentioned above should be met in a big data research programme. Such a research programme should provide guidance and financial instruments for the following research, and should include the following topics:

✓ Experimentation with big data sources by setting up a number of **pilot projects** in selected statistical areas. These pilots will provide guidelines for the effective use of big data for purposes of official statistics. Important research areas include: combining big data with traditional data sources (survey, administrative); replacing traditional data sources, i.e. decreasing administrative burden; opportunities for new output; and opportunities for faster or real-time statistics production.

✓ Development of **new exploration and analysis methods**, specific for the study of huge volumes of data, in the context of official statistics.

✓ Further experimentation with **high performance computing technologies** which are essential for the processing of huge volumes of data.

✓ **Collaboration with third parties** such as universities or IT/consulting companies with experience in the statistical analysis of large data sources.

Big data is a highly multidisciplinary field requiring subject matter knowledge, strong maths skills as well as strong programming skills. To ensure a speedy progress, research sub-projects should be performed by small, highly skilled and dedicated teams covering such expertise. Moreover, because of the multidisciplinary character of the research programme, guidance could be provided by a steering committee composed of experts in various statistical fields.

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[25] M. Loukides (2011), *What is Data Science?* O'Reilly Radar report, O'Reilly Media Inc.
[26] P. Daas (2012), *Big Data and official statistics*, Sharing Advisory Board, Software Sharing Newsletter 7, 23.

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The strategic contributions of the above research programme consist of the knowledge and experience gained in applications of big data for official statistics, as well as breeding 'data scientists' with a strong knowledge of official statistics, who will be an indispensable part of NSIs' human capital in the future.

Source: P.J.H Daas and M. van der Loo (2013), "Big Data (and official statistics)", prepared by Statistics Netherlands, Meeting on the Management of Statistical Information Systems, 23-25 April, Eurostat, OECD Statistical Directorate, UN ECE Conference of European Statisticians and UN ESCAP

The vision and challenges set out identified by Statistics Netherlands tally with **key issues for policy-makers** identified by the data4policy research:

- ✓ **Understanding the scope**: Policy-makers need first to become fully cognisant with the potential and techniques of a data-driven approach, to use it appropriately, to select the most appropriate sources and analytical tools, and to be able to explain the process and outputs to other stakeholders. They also need to understand the limitations, as data collection and analysis is not a panacea or a replacement for other research techniques, and can be just a trigger for further, more in-depth investigation.

- ✓ **Ethics**: The use of data sources can bring up questions of integrity regarding commercial confidentiality and privacy protection, especially in the context of sensitive sources, such as social media and mobile phone data, and can be accentuated when two or more datasets are linked together with the effect of exposing individuals' personal details and patterns of behaviour. These concerns should be handled within the context of Data Protection Law, but may also require higher levels of transparency, communication and consent-seeking in data collection and/or in data use.

- ✓ **Data skills**: To embark on using big data for policy, you need to develop the in-house skills to collect data, analyse it using the various tools, and interpret the results. Even the initial brainstorming requires a level of data literacy. This issue is allied to the deficit of digital skills in many public administrations. To use the simpler analytical and visualisation tools, the necessary expertise (low and medium level skills) can be obtained relatively quickly and cheaply, including through self-learning. The more advanced 'cutting edge' systems demand high-level skills – computing degrees and several years of professional experience. Whatever competence level, the necessary investment requires management commitment to recruitment, training and development.

- ✓ **Data access**: It is natural to lean towards using readily available data, but policy-makers should always contemplate what would be the most relevant for the policy challenge under consideration, even if this takes more time and money to gather. Collaborations with other interested parties, including in other countries, can help to increase the dataset, spread the cost and increase the usefulness. This may rely on partnerships with or procurement from private enterprises, including privately-held data and specialist data brokers and exchanges. Statistics Netherlands, for example, receives scanner data from supermarkets and product prices web-scraped from the Internet, which provide most of the input data for the Consumer Price Index. It also purchased social media sentiment analysis from the data

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broker Coosto, which it used to track consumer confidence[27], and accessed the mobile phone location data from Vodafone.

Big data is also being used to increase **transparency and accountability**, and to encourage societal pressure for change, by engaging directly with affected citizens. This is illustrated by the EU-funded DIGIWHIST initiative, which is supported by the EU's Horizon 2020 and brings together six European research institutes with the aim of empowering society to combat public sector corruption. Led by the University of Cambridge (UK), the other institutes are: DATLAB (Czech Republic); Government Transparency Institute (Hungary); Hertie School of Governance (Germany); Open Knowledge Foundation Deutschland (Germany); and Transcrime, Università Cattolica del Sacro Cuore (Italy). DIGIWHIST will run for three years (March 2015 – February 2018).

DIGIWHIST – The Digital Whistleblower

DIGIWHIST's goal is simultaneously to increase trust in governments and improve the efficiency of public spending across Europe. It will do this through the systematic collection, structuring, analysis, and broad dissemination of information on public procurement and on mechanisms that increase accountability of public officials across the EU plus some neighbouring countries (Armenia, Georgia, Iceland, Norway, Serbia and Switzerland).

The project will compile and evaluate micro-level data using information from individual public procurement transactions and winning firms' finance and ownership structures. This data will be linked to information on aggregate asset and income declarations data, to detect potential conflicts of interest in the system of public procurement, and more specifically, to identify systemic vulnerabilities in the respective legislations and their implementation. The 'whistleblower' dimension comes from citizen participation:

"*Imagine driving on a road which is full of potholes, in spite of having been repaired only a few months ago. DIGIWHIST would allow you to instantly identify the corresponding government contract (e.g. using geolocation), the construction company and the amount of public money involved. In addition, you would be able to take a photo of the potholes and attach them to a contract or organisation profile, thus contributing to the evidence of poor quality.*"

By using DIGIWHIST's mobile app and web portal (www.digiwhist.eu), citizens can file reports linked to the corresponding procurement information concerning contracts, winning companies and contracting bodies directly to the respective public authority. (DIGIWHIST is not intended, however, for general whistleblowing or uploading of documents). DIGIWHIST will collect micro-level public procurement data, and combine them with company and other datasets in an open, structured, and standardised format. By marrying big data analytics with the rich local knowledge of citizens, the aim is to drastically increase the capacity to hold governments and their contractors to account. In addition, DIGIWHIST is developing an observatory of European transparency legislation, similar to national procurement portals, called European Public Accountability Mechanisms (www.EuroPAM.eu). This comprehensive and structured database on legal and regulatory norms will cover: public procurement; conflict of interest; income and asset disclosure; and access to information and open data. EuroPAM is an extension of the Public Accountability Mechanisms Initiative (PAM) of the World Bank, which is a primary data collection effort that produces assessments of in-law and in-practice efforts to enhance the transparency of public administration and the accountability of public officials. To ensure the reliability of in-law data, a rigorous and systematic approach is applied to data collection and analysis. Researchers produce summaries of the legal provisions collected from primary source documents, in the original language where possible. Following the preliminary analysis performed by researchers, the data is sent to technical in-country experts for feedback on accuracy and relevance. Country experts are intended to

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[27] P.J.H Daas and M.J.H. Puts (2014), *Social Media Sentiment and Consumer Confidence*, European Central Bank, Statistics Paper Series No. 5.

have either in-depth legal knowledge of the mechanism being examined in a specific country or expertise in a related field. The final data is released in both quantitative and qualitative form for policy and research purposes,

DIGIWHIST is also developing a website called www.opentender.eu to make public tenders more transparent, and an easy-to-use risk assessment software for public authorities, which will be based on the data collected and the indicators developed by DIGIWHIST, to assess corruption risks in their public procurement procedures.

1.1.3 Forward thinking

Increasingly, governments are looking to engage in longer-term thinking over horizons of typically up to 10-20 years into the future. Foresight uses the latest scientific evidence and futures analysis to address complex issues and provide strategic options for policy. The need for

- Policy design
- Analysing big data to solve policy problems
- **Forward thinking**
- Consultation and co-responsibility

anticipatory functions in governments comes from an increased awareness of the complexity of issues that policy must deal with, which requires a holistic and systemic approach and broader policy horizons. Foresight methods and processes complement quantitative modelling through qualitative and participatory methods involving all relevant stakeholders. They facilitate thinking out-of-the-box. The objective is to engage with different possible futures (e.g. providing alternative futures) and challenge present assumptions.

Within mainstream public administration, **foresight units** came to prominence at the end of the 1990s, usually focusing on scientific and technological development and their implications for research and innovation policies.

Foresight contributing to EU policy-making

The European Commission's Joint Research Centre (JRC)'s foresight activities within the EU Policy Lab[28] are co-designed with policy DGs to deliver insights that can contribute effectively to specific policy initiatives. The activities explore the future of societal challenges and their potential implications on policy and society on a wide range of issues (e.g. visions for European manufacturing sectors, scenarios on the future of the collaborative economy). This is in line with the new emphasis on foresight and forward-looking tools that is outlined in the Better Regulation toolbox. All foresight processes have several mandatory characteristics:

- They are highly participatory, engaging experts from different backgrounds as well as stakeholders from the European Commission's policy Directorates-General (DGs), industry, industrial associations, research organisations, universities and NGOs. Foresight can play different functions in support to the policy making process.

- They should apply foresight tools and methods (e.g. scenarios, vision building, trends analysis, Delphi surveys) to enable the analysis of a given issue within a systematic and systemic approach, facilitate inter-service collaboration; consider emerging challenges and trends in technology and society, which could be otherwise overlooked.

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[28] For an overview of the EU Policy Lab, please see also topic 1.1.1.

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In terms of the main functions and benefits of applying foresight to policy making, four ones are to be highlighted (as illustrated in the table below):

- Foresight can **inform policy** by generating insights regarding the dynamics of change, future challenges and options that can be used as an input to policy conceptualisation and design.

- A second function is to **facilitate policy implementation** by enhancing the capacity for change within a given policy field, by building a common awareness on future challenges, as well as facilitating new networks and visions amongst stakeholders.

- A third function is related to **embedding participation in the policy-making process** by facilitating the participation of civil society.

- Finally, foresight can **support policy definition** as it translates outcomes from the collective process into specific options for policy definition and implementation. All these functions contribute to reconfiguring the policy system in a way that makes it more apt to address long-term challenges.

Function	Outcome	Benefit for policy
1. Informing policy	Understanding of change Visions of change	Long-term orientation Additional source for information (based on a broad variety of views) Awareness of future challenges
2. Facilitating policy implementation	Networks, shared visions	Better receptivity of actors for policy objectives due to ownership of results, therefore easier implementation
3. Embedding participation in policy-making	Transparency of policy-making process	Better identification of citizens with policy (legitimacy)
4. Supporting policy definition	Generation of strategic options together with policy makers	Direct support in strategy development and implementation

Rather than establish permanent units, some Member States conduct **futures research** that is time-limited, but wide-ranging and far-reaching in scope, such as Finland's futures reports, which have been an integral element of the Parliamentary cycle for over 20 years. The latest Finnish analysis to 2030 is pan-Governmental and connected to wider networks and expert sources. During preparation of the latest report, the Prime Minister's Office announced it was contemplating a more permanent arrangement to establish a foresight model, "*to provide Finnish decision-makers with the best possible perspectives into the future*". This would include: appointing a Foresight Group comprising permanent and non-permanent members, tasked with coordination and innovation relating to Finnish foresight activities; creating a national foresight network; inviting 'foresight actors' to convene at regular foresight forums; commissioning an international foresight report to complement the national one; providing training on foresight expertise; and the possibility of an online portal known as Tulevaisuuskartasto.fi ("the future atlas"), for the distribution of foresight data, analysis and discussion.

Inspiring example: Government Report on the Future (Finland)

Once in each electoral period, the Government of Finland submits its Foresight Report to Parliament on the long-term perspectives and options faced by society relating to policy decisions to be taken in a 15-20 year' period, with the aim to encourage a broad debate in society. The Prime Minister's Office is responsible for the Government Foresight Report and promoting the implementation of policies within the given time frame. The last 'Government Report on the Future' was adopted by the Government in October 2013, focusing on well-being and sustainable growth to 2013. The report was not an action programme, but it instead sought to highlight factors and development paths that would facilitate sustainable growth in the future.

Preparation of the report was led by a Government-appointed ministerial working group representing all parties in Government and chaired by the Minister of Economic Affairs. For the first time, a separate foresight phase formed part of the report's preparation, with the purpose of seeking new directions for Finland in a new way. The foresight phase was carried out as a collaborative exercise between the Prime Minister's Office, the Finnish Innovation Fund Sitra, the Academy of Finland, and Tekes, the Finnish Funding Agency for Technology and Innovation, alongside a host of independent specialists and experts from research institutions, enterprises and NGOs. Extensive analysis material was produced for the range of themes subjected to foresight work: participating organisations' material on trends and drivers, an extensive analysis and a summary of global and domestic research and analysis reports, plus a questionnaire making use of social media.

Discussions were held on the report website at www.2030.fi, and regional discussion events, led by ministers, were organised in seven cities in the autumn of 2012, in which citizens were urged to come forward with ideas, and to discuss and ponder Finland's future and the possibilities that lie ahead. The results were published in February 2013. Use was also made of the preliminary results of the 'Sustainable Growth Model', an independent international research project that was carried out concurrently. Expert workshops and broad-based crowd sourcing were utilised in selecting the themes. As well as four horizontal themes (flexibility and crisis resilience, skills and competences, use of ICT, and global perspective), the end-result comprised six content themes:

- Public administration as an enabler;
- Citizens' well-being and inclusion;
- Working life in the future;
- Business regeneration;
- A new geography for the North; and
- Opportunities in the midst of scarcity.

The report's key findings include that: the present trend growth trajectory will not provide sustained well-being for the ageing population in 2030; a new approach towards structural change and renewal is needed throughout Finnish society; the growth sectors or areas of sectors cannot be selected, but an environment that is conducive for sustainable growth can be established; half of the value created will be digital in the 2030s (the exact figures or dates are of lesser relevance); and resilience against shocks and 'black swans' will be a main condition for wealth creation in 2030; the economy that re-establishes itself first after global or regional shock can gain and re-invent itself more smoothly.

In addition to the Government, Parliament participates in the consideration of the report, which also provides issues for a broader-based debate within society. The Parliament has a specific 'Committee for the Future', established in 1993, whose main task is to respond formally to the Foresight Report. The Committee also deliberates on parliamentary documents and make submissions to other committees on futures-related matters within their spheres of responsibility, as well as conducting research associated with futures studies, including their methodology. The Committee also functions as a parliamentary body that conducts assessments of technological development and the effects on society of technology.

The Parliament concurred with the main findings of the Foresight report in its formal response to the Government in autumn 2014. The Resolution that was drafted by the Committee of the Future after hearings in six other committees, underlines for example the importance of experimentation in government and further development of the participatory foresight procedures. A Cabinet meeting responded formally to the Resolution and forwarded it to relevant ministries for action, in particular within the perspective of spring

2014 elections and subsequent government programme preparations. The ministries also published their future reviews in autumn 2014, this being the fourth time. The reviews are also designed as background documentation for the next government.

The current national foresight model is an outcome of the implementation phase of the last foresight report in 2013.

The government that was appointed in May 2015 has started preparing the new report on the future. The theme for the current electoral term will be the Transformation and the Future of Work. The political preparation is done in the government's strategy sessions. The Economic Council, which is chaired by the Prime minister and includes key ministers, the Governor of Bank of Finland and representatives from the central labour market organisations (employers and employees) acts as advisory forum in the process.

The Government Report on the Future will be completed in two stages:

- Part 1 (2017): A shared understanding of what does the work and working life look like in 2036
- Part 2 (2018): Capacity building for the systemic change of work and its impacts in Finnish society

The foresight process relies on the national foresight model, on existing networks and on the foresight cooperation between ministries. The Prime Minister's Office and Sitra, The Finnish Innovation Fund coordinate the national foresight network and support foresight activities and networking in Finland. The network brings together Finnish foresight specialists and acts as a discussion and coordination forum for foresight actors. The purpose is to foster public discussion and research on the new challenges and opportunities facing Finnish society and to promote the use of foresight knowledge and futures perspectives in decision-making.

The foresight steering group, which is a key component of the of the new foresight model, was appointed in 2015 by the Prime Minister's Office. The Group consists of Finnish top foresight experts and it supports and guides the national foresight cooperation and provides methodological and scientific guidance in the government's foresight work.

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Forward planning implies a break with existing patterns of development and hence will most likely meet some **resistance**, as there will be interested parties that might lose out from change, even when the cumulative benefits for economy and society exceed individual costs. However, these long planning horizons have the advantage of allowing greater time for adjustment than conventional policy timescales, including investing in research and infrastructure, and building capacity within both the public administration and business community. Europe's experience with seismic policy changes in the past has shown that industry is able to find the technological solutions, and to adjust business models and investment plans accordingly, if the following ingredients are in place.

Smoothing the path to forward planning
- A period of consultation and reflection, to understand the implications for affected parties (usually business) and take them on board;   - An unambiguous policy, based on a clear statement of intent and unwavering commitment from the public administration, which requires leadership from the top;   - A 'level playing field' to ensure fairness in the policy's application, including sanctions for non-compliance;   - Sufficient time to adjust, for example to find technological solutions, adjust business models, access investment finance, develop requisite skills and competences, etc.

In the past, such policy shifts have often emerged from environmental risks and dangers (for example, banning CFCs and reducing toxic engine emissions). It can be easier to create a consensus around forward plans, including internationally, when faced with a clear prospective crisis, such as

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droughts or flooding caused by climate change, ageing populations, financial instability, etc. The focus of foresight should not be forecasting the future, but shaping it - a process of experimentation, not simply extrapolation. It is about having a vision for where the country would like to be in 10, 20, 30 years' time, setting out on **the journey**, and finding the incremental steps and sometimes huge leaps that are needed to get there. This means that the public administration must be willing to stop and check position regularly, and change direction if necessary, in a series of moves to get to the ultimate destination. If events on the way means the end-point is no longer attainable or desirable, then the plan itself must be reconsidered. Whatever happens, the journey will only be successful, or indeed gain any momentum at all, if citizens and businesses are brought along too. In the journey to achieve the high-level objective (such as, for example, fossil free road transport) – the public administration is the Sherpa, in service to the public.

In converting plans into action, **strategy documents** can guide all interested parties, inside and outside the administration, to deal with deep-rooted challenges that require medium-to-long term planning horizons. The word strategy comes from the Greek for 'general-ship' and is about how best to organise resources and direct operations to achieve the desired outcome, originally to a military objective.

This rationalisation of resources is undermined when a country has a plethora of strategy documents that are overlapping in coverage and timescales, and inconsistent with each other. One medium-sized Member State with a population below 10 million has over 200 national strategy documents alone, including multiple strategies within the same sector (health, education, environment, emergencies, etc.), which argues for streamlining to provide a coherent framework for follow-up actions. The following checklist provides seven criteria for **assessing the quality and internal consistency** of individual strategies.

Criteria	Key questions
Scope	✦ Does the strategy set out its boundaries, and is explicit about its coverage (what falls inside and outside its scope)? ✦ Are the meanings of key terms clearly defined, avoiding any ambiguity, and consistent with other documents from the public administration? ✦ Does the strategy describe links to any other national, regional or local strategies that are relevant to its performance? ✦ Does the document refer to existing laws, treaties or other international obligations, institutions and stakeholders that provide the context for the strategy, or might be affected by it?
Analysis	✦ Does the strategy set out the evidence base clearly and comprehensively, present a rounded picture of the challenges facing the sector and any contextual factors? ✦ Are any statistics used the most recent available (as relevance deteriorates with time) and qualified by definitions, sources and interpretation? Do they include data series, to discount any one-off blips or irregularities, and projections (where this is both feasible and credible) with all underpinning assumptions and caveats? ✦ Are trends and patterns assessed and placed in the context of wider socio-economic and contingent factors, including international comparisons where they are relevant and provide useful benchmarks? ✦ Does qualitative information include stakeholder consultations and the views of independent commentators, if available?
Vision	✦ Does the strategy set out an achievable vision of the desired future state at the end of the period, in the form of the ultimate outcomes for beneficiaries (rather than inputs, processes or intermediate steps)?

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Criteria	Key questions
	+ Is this vision articulated as a set of complementary objectives which are unambiguous, follow logically from the analysis, can be achieved with the available resources?
	+ Do the objectives form a balanced and cohesive whole (the sum of their effects should contribute jointly to accomplishing the vision)?
Measures	+ Are the objectives translated into shorter-term operational solutions, in the form of measures, each with their distinct rationale?
	+ Does the choice of measures reflect lessons learned from past practice, including interventions to be built upon and mistakes to be learned from?
	+ Does the strategy consider all appropriate public policy instruments in designing measures? Have the pros and cons of different options been assessed for their likely costs and consequences, especially impact and sustainability? (see topic 1.2).
	+ Does the strategy describe the underlying assumptions, pre-conditions and risks affecting the prospects for its measures?
Adaptability	+ If the strategy is a 'road map', is it clear about the direction of travel, the ultimate destination, and the milestones that can be used to measure progress?
	+ Do monitoring indicators avoid being captured by 'quantification' (counting what can most easily be counted)?
	+ Is the strategy sufficiently flexible to adapt to evolving circumstances which cannot reasonably be anticipated?
Ownership	+ Does the strategy demonstrate that it is widely accepted by affected parties (public bodies, citizens, businesses, socio-economic partners and civil society), including summarising the consultation process (possibly as an annex)?
	+ As it might outlast one electoral cycle, is there a political consensus around the systemic problems being addressed and the selected solutions, which crosses party boundaries?
Presentation	+ Is the strategy as succinct as possible, clear in its use of language, and easy to read?
	+ Does the document flow logically from analysis to vision / objectives to measures to implementation?

1.1.4 User-centred consultation and co-responsibility (co-creation)

Policy-makers increasingly recognise the role that citizens, businesses and other interested parties can and should play in designing policy. It is well accepted that designing user-centred policies and services increase ownership and trust. All stakeholders have a say in the success of

- Policy design
- Analysing big data to solve policy problems
- Forward thinking
- **Consultation and co-responsibility**

public sector governance, insights that are not available to the administration, and a potential role in implementation. Forward-thinking administrations look to capture these perspectives in their policy development.
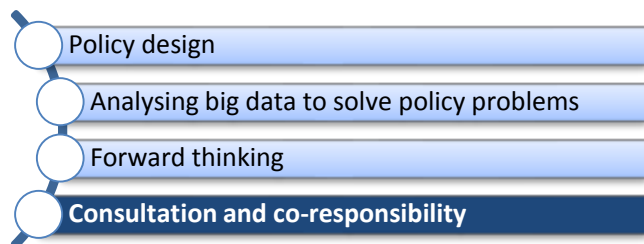
As the innovation charity NESTA puts it, one of the priorities for "*modern government is to ensure that all the actors in the system are aware of the available evidence about what works, both for policy and practice".* It is incumbent on public administrations to identify and present the best knowledge they have available, to ensure **decisions are well-informed and inclusive**. Citizens are no longer just occasional voters, or regular but passive service recipients, they are increasingly active co-creators of public policy.

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Public service providers and their clients often see more clearly than policy officials the situation 'on the ground', what is needed, what has worked in the past or not, and why. They can spot potential obstacles and pitfalls, and steer officials away from expensive and embarrassing errors in policy implementation at a later stage. The **consultation** of the ultimate beneficiaries of public policy, both citizens and businesses, should provide crucial inputs throughout the policy process. The interests of good governance are served by the intended beneficiary being integral to all steps in policy-making, not just as an end recipient of government programmes, funds or services.
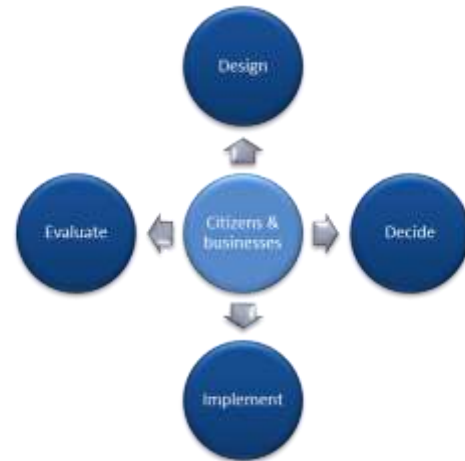
As an example, the Small Business Act (SBA) has made SMEs and their representatives pivotal to policy-making at the European level. The SBA commits the European Commission, and invites Member States, to consult stakeholders, including SME organisations, for at least 12 weeks prior to making any legislative or administrative proposal that has an impact on businesses (see also theme 6). The preparation of the SBA itself was subject to a public hearing and online consultation.

European Commission consultation with small businesses

The Small Business Act has established strong governance mechanisms based on the close cooperation with Member States and SME stakeholders. The implementation of the SBA is now supported by the **SME Envoys**, a network of high-level representatives from Member States. The nomination of a single point of contact for all issues related to the SBA in the Member States has reinforced the application of its principles and allows Member States to exchange best practices. To involve stakeholders directly, representative SME business organisations at European level participate as observers in the meetings of the network. These activities aim to ensure that regulatory burden reduction becomes a priority in the Member States through an enhanced sharing of best practices. For example, the Network has been instrumental in reducing the time to start-up a business in Europe (see theme 6). Furthermore, the Commission has proposed that the appointment of an SME Envoy and the implementation of the SME Test by Member States are introduced as criteria for Member States to receive SME-related support from the European Regional Development Fund (see theme 8).

Regular annual meetings between SME associations and the Commission are also now held to identify and monitor SME relevant priority initiatives in the Commission Work Programme for SME impacts. The Commission is using the **Enterprise Europe Network (EEN)** to consult SMEs, including micro enterprises, directly on forthcoming legislation ('SME Panel' consultation) and to collect their feed-back on the existing EU legislation ('SME feed-back' database). Business organisations and Member States have welcomed such developments as important for SME policy.

In addition, the Commission has organised **conferences** with SMEs from Germany, Italy, the Netherlands, Poland, Sweden, and the UK. These conferences allowed entrepreneurs from SMEs to raise their concerns, in

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different areas like labour law, the regulation of the marketing of products and the related process of the setting of European product standards confirming the compliance of products with regulatory requirements, health and safety, environment, VAT and food hygiene and labelling. The conferences also allowed face-to-face discussion and the exchange of detailed information and positions.

The Commission is also consulting SME employers' organisations regularly through EU **social partner consultations** and through the work of European social dialogue committees. SME associations have been contributing actively to the definition and implementation of the work programme of the European social partners.

Finally, the SME dimension became a focus of the [High-Level Group of Independent Stakeholders on Administrative Burdens (HLGAB)](), an expert group created in 2007 and chaired by Dr Edmund Stoiber, the former Prime Minister of Bavaria, to advise the Commission on reducing administrative burdens resulting from EU legislation. The Group advises on EU regulatory measures adopted by Parliament and Council under the Administrative Burden Reduction Programme and look into how Member States have implemented these measures. SMEs will be consulted on the extent to which the measures taken have made a real difference for them. This work facilitates the exchange of information between Member States on different ways of implementing EU legislation and contributes to better understanding of the final impact of measures adopted. The HLGAB issued two landmark studies in 2011 and 2014.

Consultation is appreciated by citizens and businesses, so long as it involves genuine engagement with sufficient time and input to make a productive contribution, rather than as a tokenistic exercise or where consultees are presented with a highly restrictive set of options and feel 'railroaded' into a decision. A mix of methodologies can be deployed, such as meetings, written submissions, focus groups and surveys (see also topic 5.1) to achieve a good mix of breadth and depth of coverage. It is important to ensure the consultees are broadly representative, not just the most vocal or the most inclined towards one channel or another, and to avoid the 'tyranny of the majority', where the dominant view overrides the legitimate concerns of the minority. Professional judgement will still be required to interpret the findings and feedback, to reconcile dilemmas and to balance the best use of resources, as with all forms of policy-making.[29]

Some Member States have adopted **national standards for stakeholder consultation**, such as Austria's 'Standards of Public Participation', and the UK's 'Code of Practice on Consultation', through inter-ministerial working groups and the involvement of NGOs, external experts and interest groups.

The example of public consultation over the Development Strategy of the Malopolska Region for 2011-2020 in Poland shows the value of using multiple mechanisms, including offline and online media, to draw in the community and connect with as many residents as possible.

> *Inspiring example: Malopolska 2020: unlimited opportunities – unlimited debate (Poland)*
>
> In parallel to the work on the consecutive drafts of the *Development Strategy of the Malopolska Region for 2011-2020* (DSMR), the Marshall Office of the Malopolska Region carried out a broad regional debate on the future of Malopolska. Public consultations included a range of initiatives and events aimed at opening up the preparations for the new strategy to the region's inhabitants, from October 2009 (following approval and publishing of the DSMR update guidelines) until September 2011 (final adoption of the Strategy by the Regional Assembly of the Malopolska Region).

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[29] For more extensive insights, see E. Loeffler and S. Martin (2016), *Citizen Engagement*, in 'Public Management and Governance', edited by T. Bovaird and E. Loeffler, Routledge.

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Using communication tools resulted in DSMR consultations within the framework of a multi-platform regional debate about the future of Malopolska, lasting several months. Over the course of the debate, all stakeholders representing social, professional and local community groups, as well as the inhabitants of the region, had the opportunity to express their opinions about the document and suggest changes. At each stage of the work on the strategic document, they could familiarise themselves with the content using the specific website dedicated to the process. Due to the range of activities undertaken, it was decided formally to extend the timeframe beyond the 35-day term designated by law. This increased the fundamental quality of the document, but also raised awareness among the intended audience.

The events and initiatives organised during the course of the regional debate related to the work on the Development Strategy of the Malopolska Region for 2011-2020 were as follows:

1.   Public events:

   a) Public consultations through the Internet: enabling stakeholders to acquaint themselves with the document and to communicate their opinions, as well the updated the DSMR draft;
   b) Territorial consultations consisting of five meetings located in the centres of Malopolska sub-regions. These meetings allowed guidelines to be drafted and agreed on individual conduct for the development of Malopolska in the sub-regional dimension;
   c) Thematic consultations consisting of conferences and seminars on the key areas of the strategy: higher education, culture, rural areas, cities, economy and entrepreneurship;
   d) Promotional campaign involving broad use of the media: regional television, both public channel TVP Krakow and Internet television of the Marshal Office, as well as the regional and local press, Internet (Facebook and an Internet competition 'My idea on Malopolska', where any Malopolska resident could submit an initiative aimed at improving the life of local or regional community or development of the region).

2. Experts' activities, which included discussion on the DSMR drafts within the framework of the DSMR 2020 update team; Malopolska Council for Observatories of Regional Development and Evaluation; Malopolska Innovation Council: Malopolska Council for the Public Benefit; Regional Urban and Architectural Commission.

3. Discussion within formal bodies: Regional Assembly's Committees and Regional Board; Malopolska Mayor's Forum and Convent of the Poviat Starostes of Malopolska Region; Joint Commission of the Central Government and Territorial Self-Governments.

Around 1500 of the region's residents took part in the public participation on the updating of the DSMR for the years 2011-2020.

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Public administrations are increasingly taking **e-Participation** on board, as citizens use governmental websites and social media to convey their expectations to policy-makers. ICT offers new tools to better engage with citizens and businesses, and gather evidence to improve the impact of policy. This is a worldwide phenomenon. At the EU level, the Commission gathers all its public consultations at a single access point.

Participatory governance through online platforms

Over the last few years, a significant number of countries have been adopting citizen inclusion as part of their eGovernment agenda, leveraging multiple technology channels to enable e-Participation e.g. through online surveys or feedback forms, chat rooms, listservs, newsgroups and social media such as Twitter and Facebook.

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Some of these initiatives include:

- Have Your Say section (National Portal), Australia – citizens can send their inputs on draft regulations to the respective ministry by email (http://www.australia.gov.au);

- eGovernment Site, Brazil – Forum section allowing users to send comments regarding accessibility and integration of services and also contains a public consultation section on draft regulations (http://www.governoeletronico.gov.br);

- e-Democracy Site, Hungary – Government officials/agencies respond to citizens' comments and conduct moderation activities (https://edemokracia.magyarorszag.hu);

- Ministry of Education and Ministry of Health websites, Mozambique – online discussion forums for users' inputs on policy issues regarding education (http://www.mec.gov.mz) and health (http://www.misau.gov.mz); and

- e-Petition (National Portal), UK – citizens can lodge online petitions for Governments to propose to Parliament if enough signatures are acquired (http://www.direct.gov.uk).

With an increasing number of people using social networking in their personal lives, online platforms are becoming powerful tools for engagement between governments and their constituents.

Source: PwC (2013), "Future of Government: Tomorrow's leading public body"

As a form of **civic activism**, these web-based platforms are often initiated by civil society organisations (CSOs), but implemented with the agreement and typically active involvement of the public administration in shaping the agenda. Their purpose is to enable (self-selecting) citizens to feed their views on pressing matters of public policy and services, usually to sub-national authorities at the city or municipal level. Examples from the US include: Open Town Hall, which is a "*cloud-based online civic engagement platform that augments and diversifies public participation in ways that also enable government leaders to increase public trust in their governance*"; and online Citizen Report Cards (CRCs), which were originally pioneered in paper form in 1999 to facilitate citizen participation in raising service standards in Bangalore India, but have since been taken up in e-form in the highly prosperous community of the State of California.

Increasingly, administrations are looking to move from consultation to **co-responsibility,** giving citizens and businesses a much greater stake in policy-making, and sharing ownership of policy decisions with the community that is most affected by them. The traditional model of policy-making is administration-centric and hierarchical: political and administrative leaders determine what programmes and services are to be provided, on what terms and to whom, and officials and professionals subsequently organise and deliver them. The role of the intended beneficiary is largely passive. Recent years have seen a paradigm shift, however, with a growing range of actors involved institutionally or on an *ad hoc* basis in the design, production, delivery and evaluation of public policy, and the role of citizens

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and businesses has become more and more active.[30] This implies that public agencies evolve from closed, self-centred service providers to open networking organisations that the public can trust. This occurs through transparent processes and accountability, developing the democratic dialogue from an internal focus (resources and activities) to an external one (outputs and outcomes), involving stakeholders in every step of the policy process. Citizens and businesses become **co-designers, co-deciders, co-producers and co-evaluators**.[31]

In the spirit of co-decision[32], policy-makers are specific seeking to engage with the citizens and businesses that will be affected by **legislation**, inviting their inputs in the shaping of new laws and regulations. This includes e-Participation tools at the EU level, such as [European Citizens' Initiative (ECI)](#) which allows EU citizens to participate directly in the development of EU policies, by calling on the European Commission to make a legislative proposal.

Co-design is also known as **'co-creation'** and is well illustrated by the Basque Government's approach to housing policy, in which citizens were invited to participate in the housing master plan, shaping the housing law and influencing policy management.

The Basque approach to citizen participation has been recognised by the United Nations Public Service Award in 2012 and by the International Observatory on Participatory Democracy (IOPD) in 2016. The IOPD is a worldwide network of more than 600 cities, associations, organisations and research centres interested in learning about participatory democracy on a local scale, exchanging impressions and know-how, and applying experiences, with the aim of deepening the roots of democracy in government and enriching public policies. This network was created within the framework of the Decentralised Cooperation Projects of the European Union's URB-AL Programme (547 cities and 52 countries networked, 310 local governments, 237 universities, research centres and associations).

Inspiring example: Creating housing together (Spain)

One of the Basque Government´s priorities for the 2009-2013 legislature was to apply the principles of good governance to housing policy. The principles of consensus, transparency and participation are particularly noteworthy. Housing is one of the main concerns of Basque citizens, which is only exceeded by unemployment and the current economic situation.

In the context of the deep financial and economic crisis with high unemployment rates, the contraction in credit availability and restrictions on public resources, the Basque Government considers it more necessary than ever to join forces and to search for a wide consensus to ensure all citizens have the right of access to adequate housing. Due to this public concern, and the need to define a new housing policy and make essential legislative changes to apply it, the Department of Housing, Public Works and Transport of the Basque Government designed and implemented a participative process structured into three public participation sub-processes, through which it aimed to foster the full participation of the Basque Society in drawing up housing strategy, policy lines and legislation:

⬇ **Housing Social Pact**: Basque Housing Strategy 2010-2025. The target population was institutional, social and political agents (December 2009 - June 2010).

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[30] N. Thijs and P. Staes (2009), *European Primer in Customer Satisfaction Management*, EIPA, Maastricht.
[31] N. Thijs (2011), *Measure to improve. Improving public sector performance by using citizen-user satisfaction information*, EIPA, p.104
[32] Co-production is explored further in [topic 1.2](#), and co-evaluation in [topic 1.3](#).

Topic 1.1: Qualities of good policy-making

- **Housing and Urban Regeneration Master Plan 2010 – 2013,** "On Housing, your opinion counts": The target population was citizens and experts' groups (April 2010 - July 2010).

- **Basque Housing Law**: The target population was citizens (January 2011- May 2011).

The overall **objective** was to promote the participation of the Basque population, to enhance the strategy, policy lines and legislation that may help to facilitate access to housing for Basque citizens. Other specific objectives were: to find out the opinion of the Basque people in relation to housing strategy, policy lines and legislation; to receive proposals that may enhance the strategy, policy lines and legislation proposed by the Housing Department; to establish long-term cooperation relations between the institutional, economic and social agents involved in the housing market in order to help fulfil the desired objectives; to take advantage of the potential of the new technologies to promote the participation processes; to achieve a high level of participation in the process; and to achieve a high level of satisfaction with the process.

The initiative was a **social innovation** process, because it generated value (social benefit) for the Basque society in a field which is of prime concern for citizens, in addition to being one of the fundamental rights of a modern and united society, and an **open innovation** process of transparency, plurality and client orientation, because it takes advantage of joint intelligence to develop innovative solutions in relation to housing. Furthermore, in this case, the Public Administration opens its doors to ensure that the groups directly affected by the actions developed are involved in them).

The implementation had three parts:

- **Design:** Definition of the aim, participation channels and duration of the participative process, evaluation and decision whether to foster processes with specific groups in relation to certain questions on which the group's opinion is important, and explanation of the rules of the game.

- **Launch activation and monitoring:** Pre-testing of the participation tools and communication of the initiation of the process. Liaising with the media is extremely important, so that information on the process reaches its target population, particularly when this is the public. Cooperation with associations or other types of representative social groups is recommended, to raise awareness of the process among specific groups. During the open participation, on-going monitoring and introduction of the planned participative elements and new elements that have arisen from the process, performing the necessary communication actions to foster participation.

- **Termination:** Evaluation of the proposals received for their possible inclusion in the strategy, policies or regulations put forward for social debate, preparation and presentation of a report on the participative process. Evaluation of the process from three points of view: level of participation, satisfaction with the participative process and impact of the participation. Satisfaction with the participative process is measured by means of a survey that is carried out at the end of the process. The impact of the participation is measured in accordance with the number of proposals put forward and the number of which are adopted, to improve the Department´s initial proposal.

As a **result** of the initiative:

- 78 social and economic agents signed the **Housing Social Pact**: agents, social organisations and citizens (12); professional agents (14); sectoral agents (11); municipal urban development companies (13); public and partly-owned companies (6); universities (3); financial entities (18); and the Basque Government.

- 45 citizen proposals were evaluated for their potential inclusion in the **Housing and Urban Regeneration Master Plan**, of which 30 (67%) were included in the Master Plan. Of the remaining 15 proposals, 8 were not included because they were already implemented and the other 7 were dismissed because the Department lacked the capabilities for their development or were proposals that needed to be analysed in the debate on the future Housing Law. In practice, therefore, 85% of the proposals were included in the Housing Master Plan. In total, 15,748 people participated, 5,230

surveys were answered, 569 opinions were expressed through the forums, and 120 suggestions were made through proposals.

🞣 Concerning the **Basque Housing Law**, there were 17,187 web visits, 2,223 opinions received, 188 citizen proposals received and 312 social networks followers.

The process focused on the establishment of more democratic forms of governance at regional level, following the guidelines of the White Paper on European Governance (European Commission, 2001), where the Commission argued that good governance must build on the core principles of openness, participation, accountability, effectiveness and coherence. Therefore, it was a valuable experience at three different levels:

1. **Department of Housing**: the internal dynamics of the process can be implemented in any other projects developed

2. **Basque Government**: it is an innovative process in the framework of new legislation process within the Basque Administration

3. **Good practice**: it constitutes an example for other public administrations, at local, regional or even national level.

In 2012, this public participation project won 1st place in the United Nations Public Service Award in the category of "fostering participation in policy-making decisions through innovative mechanisms".

In a further international recognition, the International Observatory on Participatory Democracy (IOPD) awarded '**Your Home, Our Commitment**', carried out by the Department of Employment and Social Policy of the Basque Government through the Basque Observatory of Housing, with a special mention in the IOPD 2016 Award. The participatory process concerning the Housing Master Plan 2013-2016 was recognised by the judges in the 'Special Distinction' category among 36 nominations from 15 countries. The IODP promotes its "Best Practice in Citizen Participation" annually, with the aim of recognising those innovative experiences at the local level that promote the involvement of citizens in the development and implementation of public policy. With this participatory process, the Basque Observatory of Housing had the following two objectives:

🞣 To check, with citizens and expert agents, the strategic principles and the main action lines of the housing policies that the Basque Government was to implement through the new Housing Master Plan 2013-2016;

🞣 To identify new ideas and citizen proposals to enrich and complement the already predefined actions in the draft Master Plan 2013-2016.

The result was a Director Plan with more than 17,000 elements of participation including surveys, proposals, comments etc. More than 16,000 visits to the websites specifically created for this purpose, and the installation of information tents and specific workshops on urban rehabilitation, have allowed the collection of citizens' and professionals' needs and suggestions first hand. For the Basque Observatory of Housing, the value lies in creating a new system of public-private partnership which can integrate conflicts in the design of public policy and maintain long-term relations with stakeholders, experts, academics and citizenship.

These initiatives' outstanding achievements have demonstrated excellence in serving the public interest and have made a significant contribution to the improvement of public administration, serving as an inspiration and encouragement for others working for public service.

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The principle of co-design has been integrated with the concept of **forward planning** in the example of 'MijnBorne2030' in which citizen and business representatives shaped the 20-year vision and development programme for this Dutch municipality.

Topic 1.1: Qualities of good policy-making

> ### *Inspiring example: Mijn Borne 2030 (The Netherlands)*
>
> Borne is a municipality in the province of Overijssel in the eastern part of the Netherlands. It has 21,500 inhabitants, living in three population centres: Borne, Zenderen and Hertme. With the project 'MijnBorne2030', civil society organisations (CSOs) and citizens came together to determine the future development of the community of Borne. The project's objective was to create a widely-shared vision as a starting point for joint action.
>
> The city council and assembly decided to delegate this responsibility to CSOs: 20 took on this challenge, representing entrepreneurs, housing corporations, district representatives, health care, sports, education, youth and elderly people. Together they formed a steering committee 'regiegroep'. The steering committee was responsible for organising an interactive process with the community of Borne, leading to a new vision for, by, and of the community. Unique to the Netherlands, with this process, the project 'MijnBorne2030' reached the highest rung on the participation ladder: delegated power. It was the first time that this level of participation has been reached while creating a vision for a whole community.
>
> The process consisted of six steps: (i) a trend report; (ii) identity study; (iii) formulating ambitions by citizens; (iv) formulating scenarios; (v) election of the preferred scenario by citizens; and (vii) drawing up and determining the new vision 'MijnBorne2030'.
>
> The trend report (i) was written with the help of local and regional experts on health, well-being, community building, spatial planning, housing, economics, entrepreneurship, governance and sustainable development. To determine the identity of the community (ii), research was carried out by the University of Twente. Over 200 inhabitants returned the questionnaire. Citizens were invited to take part in one of the 27 workshops to determine the most important ambitions for the community in 2030 (iii); 470 people contributed to these workshops and over 400 people completed the (online) questionnaire. With these three building blocks, the steering committee created four scenarios for the community (iv). In April 2011, elections were organised during which all the municipality's inhabitants (aged 15 and above) had the right to vote on their preferred scenario (v). This resulted in a majority vote for the scenario 'dynamische dorpen' – dynamic villages. Based on this scenario a new vision was drawn up (vi) and formally ratified by the city council (September 2011).
>
> Following the ratification of 'MijnBorne2030: dynamic villages', both the municipal government and four CSOs committed themselves to the realisation of this vision, working to ensure the continued effects of the process. These partners come together on a yearly basis to hold each other accountable for actions – centred around yearly themes such as safety, sustainability, social activation – and to set new goals. The partners are also challenged to find new ways to embed the vision in future activities. As during the initial process, this realization strategy makes use of joint action and social media. As a result, MijnBorne2030 informs many government policies, projects and goals, while CSOs use the knowledge, energy, and goodwill of the empowered community to reach shared goals.
>
> The process itself has been evaluated by the University of Twente, to learn from this unique form of participation and make the lessons learned transferable, while the project has been lauded both nationally and internationally.
>
> *For further information: Roeland Ambting, Project Manager, r.ambting@borne.nl*

Greater **connectivity** is playing a helping hand in co-responsibility. The eGovernment Action Plan 2016-2020 envisages future initiatives - facilitated by the digital environment - that contribute to "*engaging citizens, businesses and civil society in the collaborative design, production and delivery of public services*". Stakeholder participation in public policy is accentuated by administrations that subscribe to the principle of open government (see also principles and values of good governance

and topic 2.2), and open up their public service information (PSI) to citizens and businesses, in line with the PSI Directive[33] and the concept of open data.

> **Open data** is data that can be freely used, re-used and distributed by anyone. The only requirements are that users attribute the data and make their work available to be shared by others.

In July 2013, the G8 leaders signed the **G8 Open Data Charter**. The Charter recognises that "*access to data allows individuals and organisations to develop new insights and innovations that can improve the lives of others and help to improve the flow of information within and between countries*", but that while "*governments and businesses collect a wide range of data, they do not always share these data in ways that are easily discoverable, useable, or understandable by the public*". As well as improving transparency about what government and business are doing, open data can be a catalyst for innovation. Hence, the Charter committed its signatories to making government data available to all based on five core principles: open data by default; quality and quantity; useable by all; releasing data for improved governance, and releasing data for innovation.

Following the launch of the G8 Charter, representatives of governments and CSOs across the world came together under the auspices of the Open Government Partnership (OGP) to "*identify and share good practices to help OGP governments to implement their commitments and develop more ambitious and innovative action plans related to open data*", through the **Open Data Working Group**.

By providing managed access to PSI[34], public administrations can help stakeholders become better informed about what their governments are doing on their behalf, and better equipped to participate and collaborate in the policy process.[35] This includes information on public services through online channels (see theme 5), and the facilitation of open government through online communities, such as the Commission's Joinup webpage. In addition, the opening-up of data, through developments such as the European Cloud Initiative, creates opportunities for public administrations to realise the potential of 'big data' analytics to generate new policy thinking (see topic 1.1.2). In view of its own digital transformation, the Commission has committed under the eGovernment Action Plan 2016-2020 to publish its data on the EU Open Data Portal, which will feed into the European Data Portal (see also topic 5.4).

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[33] PSI is all the data produced, collected or financed by public bodies in the European Union.

[34] See European Commission (2014), *Delivering on the European Advantage? How European Governments can and should benefit from innovative public services*. https://ec.europa.eu/digital-agenda/en/news/eu-egovernment-report-2014-shows-usability-online-public-services-improving-not-fast

[35] For example, geo-information is very useful for location-based public services, within the framework of the INSPIRE Directive.

Topic 1.1: Qualities of good policy-making

> ***Open, modular and collaborative government***
>
> The EU has been funding several [eGovernment studies](#) and related case studies, the most relevant of which are:
>
> ♣ "[Open eGovernment Services and how the public sector can become an agent of innovation through ICT](#)", which identified examples of [open government cases](#) *inter alia* on an ongoing basis;[36] and
>
> ♣ "[Towards Faster Implementation and Take-Up of Open Government](#)".
>
> In addition, the European Commission has been supporting European projects in the area of [ICT-enabled open government](#) under the Horizon 2020 Research and Innovation Framework Programme, Societal Challenge 6 "Europe in a changing world - Inclusive, innovative and reflective societies", featuring the following topics:
>
> ✓ Applied co-creation to deliver public services;
> ✓ Co-creation between public administrations: once-only principle;
> ✓ Policy development in the age of big data: data-driven policy-making, policy-modelling and policy-implementation;
> ✓ Understanding the transformation of European public administrations;
> ✓ New business models for inclusive, innovative and reflective societies.
>
> Some examples of Horizon 2020 projects supported by the EU include DIGIWHIST (see [topic 1.1.2](#) on big data analytics), along with WeLive, YourDataStories, ROUTE-TO-PA, OpenBudgets, EUth and STEP. A full list of funded projects can be found [here](#).

New technologies combined with emerging innovative models create the possibility of new ways of co-creation (see Public Sector Innovation below in 1.3.3 Fostering innovation)

The [OECD Council's 2014 Recommendation](#) proposes that digital government strategies can bring public administrations closer to citizens and businesses through more open, transparent and trustworthy government, and enable a fundamental shift from citizen-centric approaches (government anticipating the needs of citizens and businesses) to **citizen-driven approaches** (citizens and businesses formulating and determining their needs in partnership with governments). Both administrations and CSOs are employing a variety of new tools, especially digital ones, to empower people in the service of the public good. In recent years, the United States has been in the vanguard, and hence most of the illustrations come from the other side of the Atlantic Ocean, but the techniques are potentially applicable across the EU too.

Tool	Description and examples
Crowd storming	This online tool takes the concept of brainstorming from the few to the very many - scaling up from organising an internal discussion in the administration to seeking the ideas and insights of potentially up to thousands of people, to develop innovative solutions to often complex policy problems. The highest profile example historically is the [Habitat Jam](#), which was a massive online event on 1-4 December 2005, organised by the UN's Human Settlements Programme (HABITAT), the Government of Canada and IBM, to help solve urgent problems of the world's cities, in a collaborative Internet-based environment that was able to accommodate up to 100 000 participants worldwide.
Crowdsourcing	Building on the principle behind crowd storming, crowdsourcing takes it a step further by inviting citizens to contribute more than ideas, but also information and other inputs to public services. In some cases, crowd-sourcing involves prize-funding, such as [NYC BigApps](#),

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[36] See also other [eGovernment studies](#) on the Digital Single Market webpage, including 'Towards faster implementation and uptake of open government' (SMART 2015/0041).

Topic 1.1: Qualities of good policy-making

Tool	Description and examples
	which is an annual competition sponsored by the City of New York that, over a period of five months, invites "*developers, designers and entrepreneurs to create functioning, marketable tech tools that help solve pressing civic challenges*". Some contest winners have gone on to become viable companies.
Hackathons	Combining two familiar concepts, hackathons comprise a 'marathon' of 'hacking' (in the original sense of exploratory programming, rather than criminal activity). These events typically last between 1 day and 1 week, and involve an open invitation to software and subject specialists to convene at a physical location and jointly develop IT solutions to support selected service challenges. Hackathons have been organised for public authorities and NGOs, such as the Hackathon in London's Hackney in March 2016 to support free legal services for low income citizens. Hackathons have been run for education, health, transport and disaster management, *inter alia*.
Civic hacking	According to the pioneering CSO, Code for America, civic hacking is "*the act of quickly improving the processes and systems of local government with new tools or approaches, conducted with cities, by citizens, as an act of citizenship*" in the belief that "*government can work for the people, by the people in the 21st century*". Code for America runs several initiatives to bring the benefit of volunteers' skills and open source software to public services. These include: 'brigades', which involve groups of local citizens partnering with local governments on an ongoing basis; and 'fellowships' which are small teams of paid developers and designers who work with the public administration (at state, county or city level) for a year, building open source apps and helping spread awareness of how contemporary technology works among the government workforce and leadership.
Living labs (LLs)	Living Labs are "*user-driven innovation environments where users and producers co-create innovation in a trusted, open ecosystem that enables business and societal innovation*", according to the European Network of Living Labs (ENoLL). An initiative under the Finnish EU Presidency, ENoLL was established as an international, non-profit, independent association in 2010, reaching over 300 members across Europe by 2016. The World Bank and ENoLL have jointly produced a guidebook on citizen-driven innovation for city and municipal administrations, which explains that the concept was originally developed as a way of more effectively carrying out research and development in ICT for public services, to leverage the mass knowledge of citizens and other users. LLs take R&D out of the laboratory and into the real world, engaging citizens and other stakeholders in the collaborative design of new services.
Prototyping	Rarely, some CSOs are engaged in piloting service innovations that can be rolled-out, such as Participle, which was active for 10 years in the health and welfare field (ageing, families, youth and employability), but took the decision to close in September 2015, leaving behind a legacy website.

Topic 1.1: Qualities of good policy-making

1.2   Instruments of policy implementation

Good   policy-making   considers   the
implications for implementation during policy
design: translating the desired state-of-affairs
(the high-level objective) into practical steps,
weighing up the pros and cons of all available
instruments, and choosing the most effective

Laws & the regulatory environment

Achieving outcomes by changing behaviour

Co-production

options to achieve the policy goal (including the 'do nothing' scenario of non-intervention). This is
easy to recognise but harder to realise, as the instinct of different units and competences within
public administrations is often to opt for the most readily available policy tool. If you are a ministry
or municipal department with a budget allocation, the first response to policy problems tends to be
spending. If you are the centre of government or cabinet with responsibility for organisation, it is
natural to look towards institutional change for solutions, such as restructuring or outsourcing. If you
are a legislator, you tend to see the answer in more regulation or possibly de-regulation.

> For any government at any level, the purpose of public policy could be described in the broadest
> terms as determining whether and how to intervene to ensure the security and well-being of its
> citizens, now and in the future. When considering their policy options, Governments can choose to
> intervene **directly** through public spending (including public service delivery), or **indirectl**y by
> influencing behaviour through regulation, information, taxation and other instruments, such as fees
> and charges.

Public spending can have a direct impact on essential services and infrastructure where the market
does not operate effectively or at all (e.g. education, health, environment), or should not operate
(e.g. defence, police) and can intervene positively to stimulate enterprise, investment and
innovation. Expenditure can have a 'multiplier' or ripple effect, by invigorating local economies,
energising communities, securing the environment and local cultures and traditions, and providing
the risk capital and leverage for long-term changes. But it can also have a distortionary effect on
private behaviour (favouring some interests over another), and always comes with a price tag, given
that public expenditure is financed through taxes, duties, fees, charges and borrowing. Public
finance management (PFM) is explored further in theme 8. As an instrument, 'public spending'
covers:

- ✓ Fiscal transfers, including central government financing of regional and local authorities (see
  theme 3) and other bodies, welfare benefits, grants and subsidies;
- ✓ Expenditure on public service delivery (see theme 5);
- ✓ Procurement of supplies, services and/or works (see topic 8.2), and
- ✓ Use of EU funds including European Structural and Investment Funds (see topic 8.3).

Moreover, the concept also includes what is known in PFM as 'negative expenditure', namely the
use of taxes, duties, fees and charges to influence behaviour.

Laws and regulations are essential in many policy fields, to ensure public safety and security, set
standards and protect the public interest. They can have beneficial incentive effects, shaping

personal and private behaviour by permitting some activities and proscribing others. Regulating is often seen as a more attractive option for administrations than spending, especially in times of tight finances, as it can appear 'cost-free'. The reality, of course, is that there are always costs that must be taken into account. The most immediate and visible ones to the administration are the institutional implications of executing and enforcing the regulation. But it is the public, and more so the private sector, which usually faces the much greater burden from regulatory compliance - from 'hidden' costs (e.g. person time, extra spending, use of space, lost opportunities) in the home, office, factory, site or transit. As an instrument, 'laws and regulations' also includes de-regulation: the decision to remove or revise regulations to reduce their impact.

Soft Policy Instruments are deployed when the subsidiarity and proportionality options to address a given problem demonstrate that traditional legal instruments (regulations, directives, and decisions) are not desired. Policy makers may resort to "soft", more flexible approaches instead. Soft policy tools may include: recommendations, technical standards, communications, self-regulation, and so on. The drawback of soft instruments is that they are non-binding. Therefore it is advisable to complement such policies with strong ownership incentives, communication and engagement mechanisms. See http://ec.europa.eu/smart-regulation/guidelines/docs/br_toolbox_en.pdf

Reform of government structures can have a positive impact in finding better ways to achieve policy goals, whether it involves: creating, abolishing or merging public bodies; allocating functions differently across the administration; centralising or decentralising powers; pooling resources across authorities; outsourcing, privatising, bringing under public ownership or control, or creating public-private partnerships. As with other instruments, each scenario has its merits and its drawbacks. Institutional reforms are disruptive and have short-term costs as a minimum, which must be justified by the longer-term benefits. Responsibilities rely on resources, so reallocating functions should have budgetary implications, may affect revenue collection, and often the administration of regulatory authority too. Government structures, organisation, cooperation and coordination are explored further in theme 3.

Public administrations also affect outcomes by the ways in which they present **information**, an issue that the advertising industry understands well. In recent years, the art and science of 'nudging' has attracted much attention – how to influence people's decision-making in an unforced way by understanding their motivations, incentives and behaviours, and steering them (through 'nudges') towards the desired outcome. The application of these **behavioural insights** (see topic 1.1) to policy execution goes much wider than just information provision for citizens, businesses and other administration, for example in the context of service delivery (see theme 5), it also has implications for how laws and regulations are drafted and executed[37], for how grants, subsidies, taxes and charges are targeted, and for how institutions can become more effective in achieving their goals.

Administrations are also increasingly looking to **co-production**: involving citizens and businesses directly in the implementation of public goods and services (see also theme 5).

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[37] See, for example, this published JRC paper on the application of behavioural insights to competition policy.

Every instrument has its place - its potential to incentivise behaviour, influence performance, and achieve certain results. These outcomes can often be anticipated with confidence, but many times the full consequences cannot be foreseen, leading to unintended effects both good and bad. Each policy tool has its values and virtues, but each also brings its risks. In reaching a balanced and conscious decision about which policy tool is best deployed in any situation, the costs as well as the benefits must be carefully weighed, and all instruments put in the mix.

1.2.1 Laws and the regulatory environment

Legislation makes a vital contribution to cohesive societies and prosperous economies in many ways. Through laws and standards, the regulatory framework aims to ensure that food, water, products, buildings, infrastructure, transportation and workplaces

| Laws and the regulatory environment |
| Achieving outcomes by changing behaviour |
| Co-production |
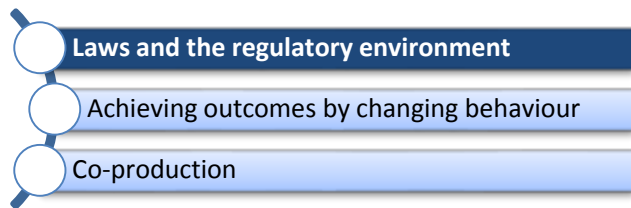
are safe, air is protected from pollution and land from contamination, borders are secured against illegal activity, and the rights of consumers, employees, innovators and investors are respected. By creating a level playing field for enterprises and ensuring fair competition, laws and regulations stimulate productivity, job creation and economic growth, both nationally and across the EU's internal market.

While legislation plays an important and indispensable role, every regulation comes with a 'price tag' for businesses, citizens and administrations too. For businesses, the cost of regulatory compliance takes many forms:

+ Taking **time** for registrations, applications, permissions, providing statistics, completing reports and other 'paperwork' to meet information obligations;

+ Dedicating **staff** to act as compliance or information officers (full or part-time);

+ Incurring **expenses** on equipment and contracted-in services (e.g. legal, financial and other advice) etc.;

+ Reserving **space** for keeping records, goods and materials required for regulatory compliance; and

+ Changing **products or processes**, for example, due to changes in minimum standards or specifications, or the introduction of prohibitions.

These represent opportunity costs for both the enterprise and the economy - time, staff, expenses and space that could be used in productive business activities, and hence must be well justified. The actual and potential costs for compliance tend to be disproportionately much greater for small and

medium-sized enterprises (SMEs).[38] On average, where a large enterprise spends one euro per employee to comply with a regulatory requirement, a medium-sized enterprise might have to spend around four euros, and a small business up to 10 euros.[39]

Reducing regulatory burdens

Given actual and potential regulatory impact, public administrations have an implicit duty to justify both new and existing regulations, to check that the compliance costs are more than offset by benefits to the economy, society, and environment, and to seek out the least burdensome solutions that are compatible with delivering policy objectives and priorities (see theme 5 on service delivery and theme 6 on the business environment).

Laws and regulations can prove problematic if their **preparation** is performed without proper and full consideration of their consequences, including how they will be put into operation, and the implications of secondary legislation. This can happen if the law or regulation is a rapid response to an emergent situation that could not reasonably have been foreseen. It can also occur if the responsible authority is facing a tight timeline due to parliamentary timetables, the imminent lapsing of an earlier law, or an upcoming deadline for transposing a directive. Weaknesses in legal provisions, especially regarding the practicalities of implementation, can be the result of allowing insufficient time to consult with affected parties. Sometimes, legal flaws and anomalies arise from unclear or poorly formulated language, errors in scope or coverage creating gaps, or conflicts that emerge with other legislation. The positive effects of beneficial legislation can be undermined by either failure to follow it up by passing the necessary by-laws to put it into practice, or alternatively by creating badly-worded by-laws that unravel the primary law's intentions.

Some governments have sought to anticipate potential problems by setting out **guidance for the public administration**, including the EU institutions themselves through a joint practical guide of the Parliament, Council and the Commission. One example is Finland's bill-drafting instructions, which lay down principles and standards, which should be observed "*so that the Parliament will receive the information it needs on the legislative proposals it is to consider, and so that the Bills will be of sufficiently uniform quality. No derogations should be made without a good reason. These instructions should be brought to the attention of every official involved in drafting work, as well as of the various drafting organs.*"

Inspiring example: Instructions to officials on drafting laws (Finland)

These instructions provide general guidance for the drafting of legislative Bills. The instructions cover the specifics of Bill structure and style, such as the various parts of the reasons, their purpose, extent and interrelationship. In addition, the instructions contain a brief description of the stages of a legislative project and of project scheduling. That said, the internal structure and the technical aspects of the proposed Act itself are covered only in outline, because more detailed guidance on these issues is available in the Legal Writer's Manual (2013, "Lainkirjoittajan opas") and in other similar manuals. To make it easier to make sense of Bills, they must be drafted to the same basic structure, using the same standard headings. Derogations from these

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[38] The definition of an SME covers all enterprises with less than 250 employees, and equal to or less than either €50 million turnover or €43 million balance sheet total. Micro-enterprises are the smallest category of SME, with less than ten employees and a turnover or balance sheet total equal to or less than €2 million.
[39] Report from the Expert Group on "Models to Reduce the Disproportionate Regulatory burden on SMEs", May 2007

instructions should not be made unless there is a special reason for the same.
The instructions are based on

- A good explanation must be given for why the proposed legislation is necessary.
- The Bill must be brief and concise.
- Proper, plain language must be used.
- The factual basis of the Bill must be correct.
- The impact and the alternatives must be assessed and explained.
- The constitutional issues must be settled.
- The proposed legislation must be linguistically and technically complete and legally flawless.

A Bill constitutes a proposal for a decision to be made by the Parliament. The Bill must be drafted so that it supports parliamentary decision-making. The Bill must explain, concisely and to the point, what the proposed Act or legislative package is all about, concentrating especially on the issues that are relevant as to the background, objectives and regulatory choices in the Bill. The current situation and the problems inherent in it must be described and reasons supplied why, precisely, the proposed legislation is the correct solution to the problems. The minimum requirements for appropriate law drafting are that the proposed legislation is indeed necessary, that it achieves the objectives set to it, and that it is the best possible way of achieving those objectives. Bills must be drafted in proper, plain language. It is very important that a coherent and clear overall picture is provided in the Bill of all the essential impacts of the proposed legislation. Reasoned justification must be supplied about how the stated objectives can be achieved by the proposed legislation. Open discussion is required about the pros and cons and about the anticipated costs, not only of the proposed legislation, but also of any alternative legislative or regulatory arrangements. A Bill must also contain information about its relationship to solutions reached in other countries. If there is a link to EU legislation or other EU decisions, an appropriate account of these circumstances is also necessary. Moreover, the Bill must contain an account of how the proposed legislation is intended to be implemented and how the follow-up regarding the achievement of its objectives is to be arranged.

For further information: parempisaantely@om.fi. Please also see http://lainvalmistelu.finlex.fi/en, which contains information on the legislative drafting process in English

The Finnish instructions place particular emphasis on performing an **impact assessment (IA)** during the drafting of the law, and presenting a summary of the findings with the bill itself. IA is an increasingly well-established technique in the European institutions and across European administrations for ensuring that the consequences of a law or regulation are fully taken into consideration before a decision is reached. IAs typically cover the economic, social and environmental impact, positive and negative, both direct and indirect, short-term and long-term. They are a mechanism for testing whether there is a need for a public intervention at all, whether the objective of the law or regulation is precisely and clearly formulated, and whether alternative courses of action have been fully explored, including the 'do nothing' option. The Commission's impact assessment guidelines are a valuable reference tool in this respect, as they set quality standards and include both general guidance on conducting IAs and thematic guidance for assessing specific impacts. The OECD also published guidance in 2008 on performing regulatory IAs specifically, which might also be a useful source, while some Member States, such as Poland, have also prepared their own national guidelines.

It is important for the completeness and credibility of IAs that they are planned well, publicised, and subject to consultation and scrutiny. The Commission has laid down a series of steps for conducting IAs, which are transferable to other administrations:

Topic 1.2: Instruments of policy implementation

- After the need for an IA has been established, draft and publish a 'roadmap' to inform stakeholders about the upcoming work, feed in comments at an early stage, and plan ahead their participation in the public consultation;
- Set up an IA steering group, which involves all relevant public authorities with an interest in the IA's preparation (in the Commission's case, all relevant Commission services);
- Consult interested parties, collecting expertise and all available data;
- Carry out the IA analysis, in accordance with the guidelines and best practice in CBA;
- Present the findings in the draft IA report, including recommendations (opinion), and open its main elements to consultation and scrutiny;
- Finalise the IA report, taking on board comments, prepare an executive summary and disseminate the report in accordance with the guidelines.[40]

The **roadmap** is an information tool for all planned initiatives that may have significant economic, social or environmental impacts, not just legislative proposals, but also white papers, spending programmes, implementing measures, etc. If there is no expectation of a significant impact, then neither roadmap nor IA is required. Roadmaps describe the problem that the initiative aims to address and possible policy options. They provide an overview of the different planned stages in the development of the initiative, including consultation of stakeholders and impact assessment work. If an impact assessment will not be carried out, the roadmap explains why.

There are various methods for measuring and assessing the **costs and benefits of regulation**. An example is the Standard Cost Model (SCM), which was originally developed in the Netherlands, and measures the administrative costs imposed by government on business from information obligations. The Dutch SCM was adapted by the European Commission to become the EU Standard Cost Model (described in section 10 of the impact assessment guidelines), with additional elements including one-off costs, and is applicable also to citizens, public administrations, and the voluntary sector. The Netherlands has also evolved the original model into SCM 2.0. Many Member States have adopted the SCM for measuring administrative burdens, and in some cases, extended their cost-benefit analysis (CBA) further, by encompassing other categories of cost beyond information obligations, to capture more fully compliance or regulatory costs. For example, France has completed the use of the SCM model with an evaluation of the compliance costs and/or the costs related to reducing burden and the assessment of the time lost or gained by a company in terms of business development.

A **review of techniques**, including the merits of the SCM, is set out in a 2013 study on cost-benefit analysis for the Commission. Other mechanisms which are used for administrative burden evaluation, include an indexed system in Belgium called "score board" that maps the administrative burden landscape.

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[40] In the Commission's case, draft IA reports are subject to quality control by the Regulatory Scrutiny Board (RSB), which comprises senior officials appointed by the Commission President that are independent from the IA preparation itself. The revised IA report, together with the IAB opinion, goes into inter-service consultation along with the draft proposal, and then submitted to College of Commissioners, with the findings published on Europa.

The Standard Cost Model: core methodology

The Standard Cost Model (SCM) measures the administrative costs imposed on business by central government regulation. The costs are primarily determined through business interviews where it is possible to specify in detail the time companies use to fulfil the government regulation.

The SCM breaks down regulation into three manageable components that can be measured:

- **Information obligations** are obligations to provide information and data to the public sector or third parties (e.g. reports about labour conditions, labelling provisions).

- A **data requirement** is each element of information that must be provided in complying with an information obligation. Each information obligation consists of one or more data requirements (e.g. VAT number, identity of business).

- To provide information for each data requirement a number of specific **administrative activities** have to be carried out. These may be done internally or be outsourced. They can be measured (e.g. description, calculation, archiving information).

The SCM then estimates the costs of completing each activity on the basis of cost parameters:

- **Price** consists of a tariff, wage costs plus overhead for administrative activities done internally or hourly costs for external services.

- The amount of **time** required to complete the administrative activity.

- **Quantity** comprises of the size of the population of businesses affected and the frequency that the activity must be carried out each year.

The combination of these elements gives the basic SCM formula:

Cost per administrative activity = price × time × quantity.

Source: OECD (2006), Cutting Red Tape: National Strategies for Administrative Simplification, OECD Publishing, Paris.

In the context of the European Semester and Europe 2020, the priority for policy-makers is identifying regulatory and other initiatives that stimulate smart, sustainable and inclusive economic competitiveness: an economy's ability to provide its population with high and rising standards of living and high rates of employment on a sustainable basis.[41] The key ingredient of competitiveness, whether of the whole economy or a single enterprise, is productivity - the value that each unit of input adds to output. Where policy proposals have a potential economic impact, **competitiveness proofing** within the framework of IAs is about paying special attention to the factors that are widely recognised as important to productivity, namely:

- **Costs of doing business (cost competitiveness):** this includes the costs of regulatory compliance, but also changes in the prices of inputs (including energy) and factors of production (labour and capital);

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[41] http://ec.europa.eu/smart-regulation/impact/key_docs/docs/sec_2012_0091_en.pdf

- **Capacity to innovate:** the potential for businesses to produce more and/or higher quality products and services that better meet customers' preferences in their design, specifications, functionality, efficiency, etc.;

- **International competitiveness:** the likely impact on the comparative advantage of European industries and their share of global markets; and

- **Better allocation of resources:** reducing barriers to the reallocation of capital and labour within sectors helps ensuring that the most productive firms can achieve their growth potential and that less efficient ones leave the industry (or get restructured).

The objective of competitiveness proofing is to identify these potential impacts and, where they are present, and measuring them would involve proportionate effort, to quantify them. Competitiveness proofing is not a 'make or break' test of new policy proposals. Its purpose is to deepen the IA analysis and provide evidence to policy-makers that may lead to the ranking of policy options (favouring the most positive net impact) and/or the introduction of mitigating measures to alleviate any negative consequences for growth and jobs. Quantifying the potential impact of reforms and provide evidence-based policy is a necessary task, but it is often a challenge, as data availability can be a serious constraint, it is difficult to infer causality, and the indicators of reforms' effects can be hard to construct. Therefore, any effort from Member States to generate data, in particular at the micro level, will help to improve such assessments.

The Commission provides guidance in 12 steps, as a simple, effective and flexible tool to test the impacts on sectoral competitiveness within IAs.

Competitiveness proofing in 12 steps

Getting started
1. Does your IA require a specific analysis of impacts on sectoral competitiveness in the first place?
2. If the answer to step 1 is yes, what is the proportionate level of this analysis?

Qualitative screening
3. Which are the affected sectors?
4. What is the effect on SME competitiveness?
5. What is the effect on cost and price competitiveness?
6. What is the effect on the enterprises' capacity to innovate?
7. What might be the effect on the sector's international competitiveness?

Quantifying the impacts: data sources
8. Provide evidence on the structure and performance of the directly affected sector(s)
9. Provide data evidence on indirectly affected sectors
10. Quantify additional compliance and/or operational costs related to the assessed initiative
11. Quantify the expected impacts on the capacity of affected enterprises to innovate
12. Quantify the expected impacts on affected sectors' international competitiveness

*Source: **Better Regulation Toolbox**, Chapter 3, as complement to Commission Staff Working Document, "Better Regulation Guidelines" SWD(2017) 350 final of 7 July 2017*

As well as being step 4 of the competitiveness proofing process, the **SME test** has been an integral element of the Commission's IA methodology since 2009. This evaluates the economic impact of policy proposals on SMEs, which can be disproportionate for two reasons. First, regulatory compliance costs tend to be higher on average for SMEs as a proportion of total revenues, and they face greater difficulties and higher costs in accessing finance. Without the scale economies that larger firms enjoy, they lack the information, staff and time to find out about regulations and deal with administrative rules. Second, SMEs account for the majority of innovative firms, and on average are more reliant on innovation to compete and prosper than larger firms. The four steps of the Commission's SME Test are broadly applicable in Member States' practices, subject to data availability.

Four steps to the SME Test

(1) Identify affected businesses
During this stage, you should establish whether and which SMEs are among the likely affected population. If that is not clear, you will need to identify the characteristics of the businesses / sector(s) likely to be affected. Relevant sources of information should be explored including SME representatives. A non-exhaustive list of elements to consider includes, when applicable:

- Proportion of the employment concerned in the different categories of enterprises affected; ;
- Weight of the different kind of SMEs in the sector(s) - micro, small and medium-sized ones;
- Links with other sectors and possible effect on subcontracting.

If the preliminary assessment leads to the conclusion that SMEs are amongst the affected parties, further analysis should be carried out.

(2) Consult with SMEs representatives
Care should be taken to ensure SME dimension is a central element of the consultation strategy. In addition to an open public consultation, techniques can include: roundtable discussions with stakeholders; focus groups, hearings, SME panels, etc.

(3) Measure the impact on SMEs
The analysis of the costs and benefits of the policy or legislative proposal should be performed with respect to the business size, differentiating between micro, small, medium and large enterprises, both qualitatively and, if possible and proportionate, quantitatively. It is important to establish to which extent the proposal affects SMEs' competitiveness or the business environment in which it will affect their operations. It is likely that an EU measure would have direct and indirect beneficial effects on SMEs. It is equally important to assess the impacts of SME specific or mitigating measures, where they already exist. The direct benefits, such as improved working conditions, legal certainty, increased competition, and new market opportunities, should (at some stage) be reflected in reduced costs to SMEs. Yet, these benefits may be offset by various costs, some of which may be disproportionately felt by SMEs, notably:

- Compliance costs: created by the obligation to pay fees or duties and by the obligation to adapt the nature of the product/service and/or production/service delivery process to meet economic, social or environmental standards (e.g. the purchase of new equipment, training of staff, additional investments to be made)

- Administrative costs: created by the obligation to provide information on the activities or products of the company, including one-off and recurring administrative costs (e.g. resources to acquire or provide information).

The economic impact should be compared between SMEs and large enterprises, using overall costs identified to the number of persons employed to obtain the average cost per employee, or costs identified to the total

overhead or turnover of the company. In addition, it would be useful to consider the following additional elements:

- Possible impacts on barriers to entry, competition in the market and market structure, for example in terms of possibilities for SMEs to enter markets
  Possible impact on innovation

(4) *Assess alternative options and mitigating measures*
If the chosen option creates disproportionate burden for SMEs relative to large enterprises, and the existing measures do not address SME needs sufficiently, then consider the use or the revision of specific measures to ensure a level playing field and the respect of the proportionality principle. This can include changes to the legislation to apply permanent or temporary exemptions, extended transition periods, or simplified reporting obligations. It could also include fiscal measures, such as tax relief, direct financial aid, or lower fees and charges. The cost of the application of mitigating measures should also be fully considered and included in the final assessment. Mitigating measures are explored further under theme 6

For further information:
https://ec.europa.eu/info/files/better-regulation-toolbox-22_en

While IAs, competitiveness proofing and SME tests are most commonly applied to proposed new regulations in *ex ante* evaluation, public administrations need to take care of the **existing stock of legislation** through *ex post* evaluation, including both primary and secondary legislation. If the existing legal base is not addressed, then the flow of new laws and regulations automatically increases the stock, and hence the burden on business, with the potential for legal anomalies. The following checklist sets out a series of questions that Member States can apply to systematically evaluate each policy domain:

Stock-take checklist of existing laws and regulations

Question	Clarification	Suggestion
1. Does the law or regulation create an **excessive administrative burden** on businesses?	It is assumed that laws/regulations are always justified, before they are adopted. But they should also always take account of the impact on business of their implementation. Many existing laws/regulations pre-date the introduction of IAs, or the IA was performed but there were unforeseen effects, possibly due to subsequent revisions or the impact of by-laws.	IAs could be performed on the stock of existing laws. One option would be to conduct stock-takes per sector, so that the combined effect of a body of laws/regulations can be analysed and corrective measures applied collectively.
2. Is there an **overlap** between one or more laws or regulations?	The drafting of new laws and regulations should take account of existing ones, but discrepancies may remain. For example, new EU regulations may overlap with existing national legislation, in which the case the EU law has primacy. In addition, there is a need to eliminate duplications and improve the coordination between layers of the administration (local, regional and central government) and within layers (e.g. a business might receive the same administrative requirement from different ministries).	During the stock-take of existing laws and regulations, administrations could perform a comprehensive mapping exercise, to ensure that provisions are not duplicated, which may lead to inconsistences (see Q3) or obsolete laws / regulations (see Q5).
3. Where there is more than one law /	Whether there is overlap or not, the existence of several laws or regulations in	The mapping exercise (under Q2) should also cover the consistency

Question	Clarification	Suggestion
regulation covering a policy area, are there **inconsistencies** between them?	the same field can produce legal anomalies, such as inconsistent terminology, conflicting definitions, or contradictory rules.	of laws and regulations.
4. Where there is more than one law / regulation covering a policy area, are there **gaps** in provision, which create legal 'blind spots'?	The flipside of overlap in laws and regulations in a specific field is gaps, where practice has shown that the legal base did not anticipate an eventuality, and hence there is no legal provision to either permit or prevent it from happening.	The administration should propose amendment to existing laws or regulations, or the creation of a new legal base to replace outdated laws if appropriate. This process may lead to *more* rules, but they should be appropriate rules – carefully designed and consulted with businesses, as any new law or regulation would be.
5. Are any laws or regulations now **obsolete**, but remain in place?	Obsolete measures may be the reason why there is more than one law/regulation in a specific policy field that is creating overlaps, inconsistencies or excessive burdens.	Following the ex post evaluation (stock-take), legislation should be adopted to 'tidy up the statute book' by repealing obsolete laws & regulations and/or codifying or re-casting amended laws into one consolidated law.[42] To prevent obsolescence being repeated, and force future legislatures to decide consciously whether a law or regulation should continue, the administration should consider introducing 'sunset clauses' into new laws, at which time the legislation is automatically repealed.

The European Commission has led the way on reducing the administrative burdens on business from **EU legislation** by developing the Better Regulation agenda, a concerted campaign to intervene only where necessary, involve stakeholders through consultation, and keep burdens on public authorities, businesses and citizens to the minimum necessary to achieve societal goals. This is fully in line with the Small Business Act, which extols policy-makers to 'think small first' in designing legislation to reduce the burden on micro, small and medium-sized enterprises (see theme 6). The Commission has been particularly active in pushing forward this agenda in recent years with a series of decisive actions, in partnership with Member States and the European Parliament.

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[42] Codification is the process of bringing together a legislative act and all its amendments in a single new act. Recasting is like codification in that is brings together in a single new act, a legislative act and all the amendments made to it, but unlike codification, recasting involves new substantive changes, as amendments are made to the original act during preparation of the recast text. In both cases, the new act passes through the full legislative process and replaces the acts being codified (Source: REFIT Progress Report, 2013)

Topic 1.2: Instruments of policy implementation

Better EU legislation: leading by example

In January 2007, the Commission presented an ambitious ABR Action Programme to eliminate unnecessary administrative burdens on businesses in the EU. The European Council endorsed the programme in March 2007 and agreed that administrative burdens arising from EU legislation, including national measures implementing or transposing this legislation, should be **reduced over 5 years by a target of 25% (2012)**. According to the Commission, this could add €150 billion to the EU's GDP in the medium term. The European Council also invited Member States to "*set national targets of comparable ambition*".

In pursuit of the ABR Action Programme target, EU legislation is estimated to generate administrative burdens of €124 billion, equivalent to around one-third to one-half of the total burdens on businesses.[43] In 2009, the Commission made a commitment to present **Sectoral Reduction Plans** for 13 priority areas: agriculture and agricultural subsidies; annual accounts/company law; cohesion policy; environment; financial services; fisheries; food safety; pharmaceutical legislation; public procurement; statistics; taxation / customs; transport; and working environment / employment relations.

Since 2010, the Commission has developed **Fitness Checks** to assess the overall regulatory framework in the 13 policy areas. These checks are designed to evaluate entire sectors, identify excessive administrative burdens, examine regulatory overlaps, gaps, inconsistencies and/or obsolete measures and assess the cumulative impact of legislation. Their findings serve as a basis for policy decisions on the future of the regulatory framework and to improve the quality of new legislation.

The Commission's November 2011 report "Minimising regulatory burden for SMEs" outlined ways of taking the concept of "Think Small First" a step further to deliver rapid results. It set out how the Commission planned to strengthen the use of **exemptions for micro enterprises** and **lighter legislative regimes for SMEs**. It also explains how this will be followed up through the legislative process and implementation.

Between 2007 and 2012, the ABR programme **achieved its ABR Action Programme target**, covering 72 EU legal acts in the 13 domains, or around 80% of the main sources of administrative burden. Measures equalling 25% have since been adopted by the co-legislators. The Commission itself went beyond the target by presenting proposals to cut the administrative burden by 33%, or the equivalent of close to €41 billion.

As part of its commitment to stakeholder consultation, the Commission invited SMEs and their representative organisations to identify the **top 10 most burdensome regulations** through an EU-wide, Internet-based consultation from October to December 2012, eliciting 1000 responses, including 600 from individual SMEs based in the EU, 40% of which were micro-enterprises. With the support of the High Level Group of Independent Stakeholders on Administrative Burdens (HLGAB) the entire stock of EU legislation was reviewed and ABR measures were suggested to the Member States ('ABR Plus').

The *better regulation* policy has since evolved further. The Commission's Regulatory Fitness and Performance Programme (REFIT), aims to achieve a simple, clear, stable and predictable regulatory framework. The REFIT platform allows national authorities, citizens and other stakeholders get involved in improving EU legislation. They can make suggestions on how to reduce the regulatory and administrative burdens of EU laws, which are then analysed by the REFIT platform and the Commission. The REFIT scoreboard tracks the progress of each individual initiative and the changes introduced by Parliament and Council during the legislative procedure. Each year, the Commission launches a set of simplification initiatives within its REFIT programme – drawing on input from individuals, businesses, NGOs, national authorities and other stakeholders The changes to existing law can take different forms:

- codification: all amendments made to a piece of legislation over the years are incorporated into a single new act, reducing volume and complexity
- recasting: similar to codification, but in this case the legislation itself is amended at the same time as

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[43] Communication from the Commission to the Council and the European Parliament "Action Programme for Reducing Administrative Burdens in the EU: Sectoral Reduction Plans and 2009 Actions", Brussels, 22.10.2009 COM(2009) 544 final,

previous amendments are incorporated to form 1 consolidated text
- repeal: unnecessary and irrelevant laws are removed
- review/sunset clauses: laws are reviewed or automatically removed after a given period
- revision: laws are modified to keep them up-to-date
- directives are replaced with regulations, so that all EU citizens are subject to the same rules and national governments can't add extra requirements
- laws still in preparation are withdrawn if they become obsolete due to scientific or technical advances or if they are no longer in line with new policy objectives
- legally binding laws are replaced with lighter alternatives such as voluntary agreements (self-regulation, co-regulation)

As a result of its *better regulation* agenda, between 2015 and 2017 there have been 137 initiatives for regulatory simplification. Commission has made 109 proposals for withdrawal of legislation, out of which 74 laws have been repealed.

In July 2017, the Commission has consolidated its *Better Regulation Guidelines* and also produced a comprehensive *Better Regulation Toolbox*.

For further information:

Refit – making EU law simpler and less costly: https://ec.europa.eu/info/law/law-making-process/overview-law-making-process/evaluating-and-improving-existing-laws/reducing-burdens-and-simplifying-law/refit-making-eu-law-simpler-and-less-costly_en

 Better Regulation Factsheet: https://ec.europa.eu/commission/sites/beta-political/files/better-regulation-factsheet_en.pdf

Like the Commission, many Member States are especially committed to **getting the views of citizens and businesses** concerning where they see the biggest burdens. A prime example is Belgium's 'Kafka' initiative, which had resulted in 130 laws being repealed, as well as contributing to administrative simplification of service delivery (see themes 5 and 6). Other well-known initiatives include the UK's Red Tape Challenge.

Inspiring example: 'Kafka' (Belgium)

With its motto "la simplification fait la force" (inspired by the national motto "l'union fait la force"), the Belgium government launched the Kafka initiative in 2003 as an innovative way to cut red tape. The website www.kafka.be is managed by the Administrative Simplification Agency (ASA) and allows a user-friendly approach to collect and consider views and priorities from all stakeholders, citizens and businesses, affected by regulations. The success of Kafka is partly linked to the publicity around the initiative and the continuous political backing, but also the fact that the national action is mirrored by efforts at the regional level. The website was redesigned in 2014 and is now easily accessible from mobile devices. Many reform projects that took place are resulting from this unusually accessible and un-bureaucratic contact point.

For further information: ASA@premier.fed.be; www.kafka.be

More ambitiously, the Danish 'Burden Hunter' initiative does not wait for businesses to come to the administration to complain – the civil servants go out to enterprises to see the impact of regulations for themselves, especially those which are "irritating", as much as time-consuming or costly.

Topic 1.2: Instruments of policy implementation

Inspiring example: 'Burden hunter' - methods for reducing administrative burdens and cutting red tape by involving end users and their perspectives (Denmark)

Burden hunters are civil servants who involve end users - businesses - in developing better regulation that can remove red tape. Focus on the end user is an integral part of the Danish better regulation effort, and is a mind-set (always keep the end users in mind), as well as a method (systematically involve end-users). The burden hunter approach allows authorities to focus on removing the administrative requirements that businesses perceive as the most burdensome. By using qualitative methods - observation studies, process mapping, expert interviews, focus groups, co-production, 'nudging' (see 1.3.3), service design and user-centred innovation - the authorities can gain insight into how businesses perceive the regulation and how they actually perform the administrative task that derives from the rules. These insights allow the public administration to efficiently change and adjust the regulation and its administration with the best possible outcome and effect for businesses, as well as for regulatory compliance.

The process in a burden hunter project is structured as shown in the model (below). Depending on the scope and topic, the involvement of end users can be designed as a quick, cheap and simple process, or as a greater, more in-depth study. Important for using the model is the circular way that concepts are developed: sometimes the testing shows that you will have to go back to the users to gather more information, sometimes by using different methods than the ones used in the first round.

When you engage in burden hunting, you need to go to the person ('end-user') in the company who is actually facing the red tape, who must perform the administrative tasks required by the authorities, and can help identify the real problem and develop an appropriate solution.

By using the approach of involving end users, authorities can target their innovation effort towards increasing the effect and outcome on a number of different 'bottom lines' at the same time: productivity; service delivery/experience; results/outcomes; and legitimacy/rule of law. Productivity refers to the effectiveness or productivity increase of the public administration – getting more (compliance) with the same or fewer resources because of innovation. The service delivery/experience aims at delivering regulation and public service to businesses with the least possible compliance costs and burdens. The result/outcome is the effect of innovation on the policy target of regulation and compliance. What has happened in the real world in the final analysis? For example, has compliance improved or do you meet the objective of the policy better in other ways? Finally, the legitimacy/rule of law refers to a perception of due process, justice and increased transparency.

The burden hunter approach to better regulation makes it possible to find solutions that create an impact on several bottom lines simultaneously and can actually work for both businesses and the relevant authority. This means that burden hunting basically can become a win-win-win-win situation. What is important with the four bottom lines is, however, that not all projects necessarily will give positive results on all four and that a project should not give unintended negative results on any of the four bottom lines. The objective of a burden hunter project must always be to make the area in the spider web bigger, not smaller (right).

Burden hunting and systematic involvement of end users require a different skillset than traditional "public governance". Preferably, an anthropological or design background is required, as well as experience in working with a qualitative approach. Projects should always be handled as a collaboration between people with different skills

Burden hunting methodologies can be used for both broad and narrow projects.

- Broad projects aim at uncovering the burdens in a specific area or from a specific law. This approach can be used when you reduce the burdens but do not know where to begin. It can give you a better understanding of the real challenges businesses face. This approach has, for instance, been used for discovering growth barriers for start-up companies in Denmark. In this project, the burden hunters visited several companies with an open questionnaire to let them guide us to where the barriers could be found.

- Narrow projects give you concrete solutions to specific problems. This type of project can create the groundwork for decisions about concrete workflows, guidelines or input for digital solutions. The narrow approach has, for instance, been used for making it easier for companies to do the administrative tasks in connection to getting environmental permits in Denmark. The project with a narrow scope gave us specific input to things that could be changed.

For further information: Helle Venzo, Danish Business Authority, HelVen@erst.dk

Administrative burden reduction is a joint endeavour and a shared responsibility of the European institutions and Member States. Commission initiatives - such as mapping and screening the EU *acquis*, performing fitness checks, and codifying or recasting laws - tackle business burdens at source, but the regulatory process does not end with better crafted legislation. The High-Level Group's authoritative 2011 study found that almost a third of the administrative burden arising from EU legislation was caused by **how EU laws are interpreted and implemented by Member States**. Action to introduce EU legislation more efficiently at the national, regional and local levels could reduce the burden on businesses by nearly €40 billion.

All Member States are obliged to **transpose** EU directives by the deadline in the legislation itself, or risk infringement proceedings, but how they are transposed is matter of national discretion.[44] For example, some Member States pass one over-arching law during the Parliamentary session to put all outstanding EU directives on the national statute, which 'mops up' their obligations across all policy fields in one sweeping motion, without tailoring them to domestic circumstances or tidying up loose ends from existing laws, creating an overall increase in the regulatory base and potential legal minefields. When transposing EU directives, it is important that Member States do not 'gold-plate' them, inserting additional provision that go beyond what was agreed by the co-legislators, which is estimated to account for 4% of the ABR arising from EU regulations and is entirely avoidable. They should also use this opportunity to reconcile new and existing laws in a harmonised legal base. To ensure that the *acquis* is transposed on time, and without gold-plating which will put businesses at a disadvantage, the UK has published transposition guidelines for all authorities engaged in law-making.

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[44] Member States' performances on transposition and infringements are considered in the [EU Single Market Scoreboard](#).

Inspiring example: Guidelines on transposing EU directives (United Kingdom)

The Guiding Principles are aimed at ensuring the UK systematically transposes so that burdens are minimised and UK businesses are not put at a disadvantage relative to their European competitors. The Principles state that, when transposing EU law, the Government will:

- Ensure that (save in exceptional circumstances) the UK does not go beyond the minimum requirements of the measure which is being transposed;

- Wherever possible, seek to implement EU policy and legal obligations through the use of alternatives to regulation;

- Endeavour to ensure that UK businesses are not put at a competitive disadvantage compared with their European counterparts;

- Always use copy-out for transposition where it is available, except where doing so would adversely affect UK interests e.g. by putting UK businesses at a competitive disadvantage compared with their European counterparts or going beyond the minimum requirements of the measure that is being transposed. If departments do not use copy-out, they will need to explain to the Reducing Regulation Committee (RRC) the reasons for their choice;

- Ensure the necessary implementing measures come into force on (rather than before) the transposition deadline specified in a Directive, unless there are compelling reasons for earlier implementation; and

- Include a statutory duty for ministerial review every five years.

Source: "[Transposition Guidance: How to implement European Directives effectively](#)" (April 2013)

In Denmark, the Government has introduced an 'Implementation Council' to safeguard against creating unnecessary burdens on business when implementing EU regulations and transposing EU directives, including gold-plating.

Inspiring example: Implementation Council (Denmark)

The Implementation Council is an advisory body to the Danish Government and was established in 2015. The aim is that the Council works, along with the Government, to ensure that Danish companies are not subject to stricter requirements than companies in other EU countries. Additionally, the aim of the Council's work is to contribute to the Government's ambition to ease the economic burdens on Danish companies by 3 billion DKK by the end of 2020, compared to 2015.

The role of the Implementation Council is to ensure efficient implementation of EU regulation and to prevent Danish special rules and gold-plating (whereby EU directives are given extra strength when being incorporated into national law) by 1) identifying future EU regulations, where there is a need for early and proactive Danish action to avoid unnecessary burdens, 2) preventing unnecessary, potentially burdensome issues to be introduced when EU legislation is transposed into Danish legislation, and 3) pointing out areas in existing Danish regulation where EU regulation has been gold-plated or implemented inefficiently, and where simplification or deregulation is therefore needed.

The Danish Government has adopted five principles for implementing EU business regulation that aim to prevent Danish special rules and gold-plating, unless the overriding public interest requires doing so. The five principles are:

1. National regulation should not go beyond the minimum requirements of the EU regulation.
2. Danish companies should not be disadvantaged in international competition, so the implementation

> should not be more burdensome than the expected implementation in comparable EU countries.
> 3. Flexibility and derogations in the EU regulation should be utilised.
> 4. EU regulation should be implemented through alternatives to regulation when appropriate and possible.
> 5. Burdensome EU regulation should be implemented as late as possible, taking into account the common commencement dates (which means that business regulation can only enter into force two times a year).
>
> The 15 members of the Implementation Council are primarily representatives of business organisations, as well as consumer, employer and employee organisations. Three members are experts with special knowledge of implementation of EU regulation and are appointed by the Minister of Business and Growth.
>
> The Implementation Council meets four times a year. Prior to the meetings, members of the Council outline proposals to be discussed at the meeting. The proposals agreed upon by the Council are subsequently sent to the Government. The Danish Business Authority provides the secretariat and supports the Council in making qualified recommendations.
>
> The Implementation Council is part of the Government's action to prevent gold-plating, which is managed by an inter-ministerial implementation committee of eight ministers. The committee receives the recommendations put forward by the council. The Government's responses to the recommendations are made publicly available at www.implementeringsraadet.dk. As of September 2016, the Implementation Council had sent 66 recommendations to the Government.
>
> *For further information: Secretariat of the Implementation Council, IR@erst.dk*

All Member States have adopted their own **national targets for business ABR**, some on a gross basis (counting just burdens that have been removed) and some on a net basis (counting also the negative effects of new burdens introduced over the same period), ranging from 15% (Luxemburg and Malta) to 30% reductions (Lithuania and Spain). In some cases, these targets include all EU legislation, in others they are nationally derived only. Some Member States have met initial targets and subsequently set new ones. Others have also set targets for administrative burdens on citizens, or focused on specific metrics (i.e. compliance costs).[45] The basis of measurement and timescales mean they cannot be directly compared across the EU-28, but they show the priority given to tackling regulatory burdens and compliance costs that now exists across Europe.

The 2014 HLGAB report and the dissenting opinion from four of its members suggest that the role of targets is open for debate. Regulation remains an essential instrument in the public administration's armoury, especially in the fields of safety, consumer, environmental and employee protection, and where it creates a fairer and more efficient marketplace, but there is no justification for badly conceived and poorly implemented rules that exceed what is necessary to achieve policy objectives. There is a consensus that if an existing rule is unnecessary, out-dated or ineffective, it should be removed or replaced, which requires targeted and systematic action.

Portugal's 'Simplegis' programme is among the most successful initiatives in recent years to **cut the regulatory stock through repealing obsolete laws and avoiding unnecessary law-making**, but also to ensure what is left is more easily accessed by citizens and businesses, and more effectively enforced. This initiative is one facet of the national 'Simplex' programme of administrative burden reduction, which has been driven from the very top of Government, and started off aimed at

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[45] HLGAB study (2011), op. cit.

ministries, but has since devolved to the municipal level, including 'Simplis' within Lisbon City Council (see theme 5).

Inspiring example: 'Simplegis' programme (Portugal)

The goals of 'Simplegis' can be summed up in three ideas: fewer laws, more access, and improved enforcement. The following achievements can be highlighted:

- In 2010, more than 300 obsolete legislative acts were repealed;
- During the same year, the number of new decree-laws enacted by the Government was the lowest of the last 10 years as they were approved solely when necessary and after thoughtful consideration of the regulatory needs, to avoid unnecessary law-making;
- Also in 2010, the rate of flawless legislative acts - therefore, with no need of correction by means of amending statement - was above 95% (a record in the last decade).

Since October 2010, the decree-laws and implementing decrees that are published at the online version of the official journal are accompanied by a plain language summary, both in Portuguese and English. Portugal was the first EU Member State to offer such service to citizens and businesses totally free of charge. A new legislative and legal information web portal was due to be launched online by the second semester of 2011, and would not only feature the online version of the official journal, but also added-value legal information (free of charge), consolidated versions of relevant pieces of legislation and online public consultations with direct and straightforward questions to make participation accessible and simple for everyone.

In September 2010, a wide variety of acts were eliminated from the official gazette (hunting ground-related acts, for instance) and were assigned to specialised websites, thus making it easier to search through the gazette for the most relevant acts. From January 2011, a new method of thorough *ex ante* impact assessment was put in place and applied to all government acts, with good results. Moreover, impact assessment teams in all ministries that will perform *ex post* assessments have been trained.

Source:
http://ec.europa.eu/smart-regulation/refit/admin_burden/best_practice_report/report_example_en.htm

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Some Member States, such as the Netherlands and the UK, have introduced **common commencement dates (CCDs)** to improve communication and predictability of necessary laws and regulations for businesses. The government sets fixed dates on which new business legislation will come into force. By publishing and providing notice in advance of forthcoming legislation, public administrations can give businesses time to plan, prepare for compliance, and budget for the costs of new rules that might affect them. There are exceptions and exemptions, inevitably, but these should be kept to a minimum.

Once adopted, Member States have a range of options to ease the regulatory burden during the **implementation and enforcement** of EU-derived and national legislation, which are considered further elsewhere in this toolbox.

Question	Refer next
Has the national administration ensured that legislation is accompanied by appropriate institutional arrangements to implement and enforce it, so that businesses are clear which organisation is tasked with providing information and responsible for transactions and can respond to queries and concerns? Is this accountable body sufficiently equipped and staffed?	- Government structures – organisation, cooperation and coordination (theme 3) - Organisations – managing performance, quality and people (theme 4)

Topic 1.2: Instruments of policy implementation

Question	Refer next
Has the national administration ensured that the implementation of the regulation is kept as simple, fast, easy and user-friendly as possible, with respect to deadlines, documents, steps, costs, etc., and made best use of service delivery channels, including one-stop shops and eGovernment?	✦ Service delivery and digitalisation (theme 5) ✦ Enhancing the business environment (theme 6).

1.2.2 Achieving outcomes by changing behaviour

In the pursuit of causality (linking action to outcome), policy-makers can be swayed by the illusion of 'rationality', particularly in people's responses to government interventions. The reality is that human cognition follows its own path: in being

> Laws and the regulatory environment
>
> **Achieving outcomes by changing behaviour**
>
> Co-production

emotional and social creatures, the human brain is hard-wired to act intuitively in many situations, prone to pre-conceptions and biases, susceptible to group behaviour and struggling to cope with the overload of information in 21st century life.

In many cases, public policy is not simply about governments 'doing things' to safeguard security and improve prosperity, or in the case of some legislation 'stopping things', it is concerned with influencing behaviour, either individual, collective or corporate. Whether spending, taxing, legislating, regulating, informing or delivering services, this goal can be achieved directly or indirectly[46]:

- ✦ In some cases, behaviour change is the **primary objective** of the policy. Examples include campaigns to encourage people to lead healthier lives, protect the environment (e.g. recycling, installing solar panels or insulation), plan for retirement, enter higher education, wear seatbelts in cars, engage in lifelong learning, etc.

- ✦ In other cases, the behavioural consequences are **secondary effects** that policy-makers need to take account of. For example, fuel duty will raise a certain amount of predicted revenue, but the level will also affect vehicle usage by citizens and businesses (which could equally be the primary objective), which will in turn determine the total revenue take; increasing excise on tobacco might raise revenue, but also lead to higher levels of cross-border smuggling, etc.

- ✦ In still other cases, government actions are targeted at intermediaries (e.g. businesses) whose activities affect or are affected by the behaviour of citizens as **third parties**. Examples include consumer protection, such as introducing laws and standards on misleading advertising, food labelling, cigarette packaging, etc.

In each case, the policy's effectiveness is determined by people's reactions and responses. These behavioural effects need to be factored into the policy design and implementation. How much do we know about people's behavioural traits? Thanks to a growing body of research by psychologists,

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[46] As succinctly described in the European Commission (2013), *Applying Behavioural Sciences to EU Policy-Making*, JRC Scientific and Policy Reports, René van Bavel, Benedikt Herrmann, Gabriele Esposito and Antonios Proestakis.

sociologists, economists and neuroscientists, under the banner of **behavioural science**, the answer is quite a lot. And the main conclusion is that the conventional model of 'rationality', which often underpins policy-making as an implicit assumption, is a highly idealised and often unrealistic model.

The old orthodoxies of **rational behaviour** are increasingly being challenged. This is particularly the case in classical economic theory, which assumes that autonomous individuals make optimal choices in their own interest, independent from others, to maximise their 'utility' (essentially, satisfaction), having reviewed and rejected the alternative scenarios. But economics is not alone. The default setting for many decision-makers is to assume the intended beneficiaries will respond rationally to policy levers and triggers.

None of us is a fully-formed '*homo economicus*' as described above. We are fallible *homo sapiens* instead, each with our own **flaws and foibles**. We can be rational and reflective, but we often act first and think later[47]. We struggle to deal with the vast volume of available information out there, ever-growing thanks to the Internet. We are prone to using heuristics ('rules of thumb') to make decisions, rather than investigating the options. We are creatures of habit, engaging in repetitive actions. We want to eat our cake and have it too.[48]

Some of the most common **cognitive and emotional biases** relevant to public policy-making are well studied and summarised briefly here:

Characteristic	Brief explanation
Anchoring and adjustment	People tend to rely disproportionately on one piece of information when making decisions as a reference point or 'anchor', which is typically the first piece of information they receive. Once the anchor is in place, subsequent decisions are made by adjusting away from it, rather than challenging the premise of the anchor itself. This trait can reveal itself in negotiations, when the first number (e.g. price, budget, compensation claim) that is put on the table becomes the anchor, and success is judged in relation to that original number.
Framing	People tend to respond differently to information, depending on how the case is presented ('framed'). For example, they respond to risk more positively if a question is framed to *achieve a positive* result, compared with *avoiding a negative* result, even if the probability of the actual outcome is the same (e.g. people are more likely to agree to an operation that has a 90% chance of success than the same operation that is presented as having a 10% chance of failure).[49]
Availability bias	People tend to assess the likelihood or prevalence of something as higher, the more readily they can bring instances of it to mind. Hence, for example, people are more likely to think the crime rate is higher than it actually is, if they have recently read or heard stories about robberies or shootings. If the person has recent personal experience of the event itself, these instances stand out ('salience') and accentuate the effect. This tendency reveals itself, for example, in surveys that show people believe immigrants constitute a much higher % of the population than is the case, often by a factor of 10. It also affects people's perspectives on specific health, crime, financial and disaster risks, either much higher or lower than the real probabilities, and hence the actions they take (e.g. lifestyle changes, insurance) accordingly.

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[47] The characterisation by Nobel Prize winning psychologist, Daniel Kahneman, of 'system 1' and 'system 2' thinking is neatly summarised in the JRC's paper and can be read in depth in *Thinking, Fast and Slow,* Penguin Books.

[48] See also D. Ariely (2008), *Predictably Irrational: The Hidden Forces that Shape our Decisions*, Harper Collins.

[49] The Nutrition and Health Claims Regulation (EC 1924/2006) lays down harmonised rules for the use of health or nutritional claims (such as "low fat", "high fibre" and "helps lower cholesterol") on foodstuffs based on nutrient profiles. This is intrinsically related to the question of framing, as in the past consumers were often misled by changes of the reference point (a 20% fat cheese was often packaged as 80% fat-free).

Characteristic	Brief explanation
Confirmation bias	People tend to seek out and focus on information that confirms their preconceived ideas and ignore evidence that contradicts them. This reveals itself in their media choices, including news sources and blogs.
Optimism and over-confidence bias	People tend to over-estimate the chances of a favourable outcome (optimism bias), and their own individual ability to influence situations (over-confidence bias), which encourages risk-taking. Examples include the chances of business success (most fail within the first 3 years), winning the lotto (millions-to-one), or completing a project within the agreed timeframe. Over-confidence reveals itself in the classic example that most people when surveyed assess they are better-than-average drivers, which is statistically impossible.
Endowment effect and loss aversion	People tend to value more highly something they *already* own than something they do not *yet* own (endowment effect). Similarly, people tend to attach a higher weight to *not losing* €10 than to *gaining* the same amount (loss aversion). Both tendencies run counter to classical economic theory, which suggests they should be indifferent between the two outcomes. E.g. it suggests that people would be more reluctant to, say, take out a loan that is secured against their existing property than take out a loan for a new property.
Status quo bias (inertia)	People tend to stick with the current state-of-affairs and gravitate towards this 'default' position. This reveals itself, for example, in reluctance to switch banks or utility suppliers when the market is opened to competition. It is the reason that online retailers send out e-mails offering 'free trials', subject to providing bank account or credit card details, which the customer can cancel at no cost during the 1st month otherwise the direct debit will be triggered. They know that most people will not act in the final days of the free subscription. This inertia is why governments regulate to 'opt in' to deals, rather than 'opt-out'.[50]

There are other effects too, which determine how people process information. For example, we face **information overload** from the Internet, beyond the willingness or ability of people to sift through all the available sources. As well as our innate confirmation bias, which leads us to seek out information providers which reinforce our personal beliefs, we also rely on search engines to make choices for us – 98% of Google searches stop after the top three sites, with 60% of hits on the first. This makes Googles algorithms among the most powerful influencers on human knowledge.

We are not just guided by our individual traits. We are social animals, with an underlying desire to conform, and shaped by social norms and cultural factors. We are also deeply affected by those around us; we are influenced by family, friends and colleagues, but also strangers on social media with whom we have only the most cursory contact. The economist Paul Ormerod refers to **network effects**: people often change their preferences based purely on what others do.[51] He argues that, throughout history, people have had a propensity to copy or imitate the behaviours, opinions and choices of those around them. This can happen for a variety of reasons – so that we fit in (e.g. fashion), because it is risky to stand out (e.g. in the workplace), because we assume others have privileged information that we do not (like choosing between an empty restaurant and a packed one), or we are simply guided by the most popular choice (like clicking on the biggest 'hits' on music websites). These traits are characterised as **group biases**, such as group-think, herd behaviour and bandwagon effects.

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[50] In 2008, the European Commission recognised the existing scientific evidence on the impact of default options, and proposed a Directive on Consumer Rights to the European Parliament and the European Council, including a clause limiting the use of default options in consumer contracts. The proposal was adopted in 2011 and the new rules entered into force across the EU in June 2014. Specifically, sellers are now obliged to obtain express consent from consumers for any payment that is additional to the payment for the main contractual obligation, and could not rely on defaults that require buyers to take an active choice to *avoid* an extra payment.

[51] See P. Ormerod (2012), *Positive Linking: How Networks Are Revolutionising Your World*, Faber and Faber Ltd.

Phenomenon	Brief description
Group-think	Individuals in a decision-making group seek consensus, minimise conflicts, suppress dissent, avoid controversial issues, isolate themselves from external influences, and/or fail to challenge the dominant view (from the majority opinion, the group's leader or strongest personality) by making a critical assessment of alternative perspectives and options, resulting in an irrational and/or dysfunctional outcome. It involves the subjugation of individual creativity and independent thinking to the cohesion of the group.
Herd behaviour	This occurs when individuals in a group act together (collectively) without any central planning or direction. Human examples usually cited include riots and stock market bubbles and crashes. More benign examples include the renowned 1969 study of the influence of crowds, which involved employing a group of actors of increasing number to stop in a busy street and look up at a building (4% of the passers-by stopped alongside a single individual looking up, rising to 40% of passers-by when the stimulus crowd reached 15).[52]
Bandwagon effect	As the name suggests ('jumping on the bandwagon'), this is the tendency to take up ideas, beliefs or trends because other people have done the same, regardless of the underlying qualities (e.g. evidence, attributes). The probability of adopting these behaviours, beliefs or actions increases in accordance with the proportion who have already done so. This can occur because of a desire to conform, because individuals derive their information from others, especially where it is limited, or because individuals want to be on the 'winning side'. The most obvious example is fashion.

We are especially influenced by our social networks, which makes techniques like social network analysis and agent-based modelling (see topic 1.1.2 on big data) particularly pertinent.

"Network effects require policy makers, whether in the public or corporate spheres, to change radically their view of how the world operates. In part, they make policy much harder to implement successfully, and they help explain many of the failures of policies based on the assumption that incentives and not network effects are the key drivers of behaviour. But they open up the possibility of much more effective and successful policies, ones which harness our knowledge of network effects and how they work in practice". Professor Paul Ormerod, Positive Linking, 2012.

In many cases, copying can be a successful strategy (e.g. studies have shown people are more likely to stop smoking if a friend gives up), but herd behaviour can also be potentially fatal. For example, in the event of a fire or other type of emergency in a stadium, people will tend to follow the crowd even if the exit is packed - and will ignore unused exits, even when marked as such, for the same reason they ignore empty restaurants. So, while opening more evacuation points might seem the rational solution to increasing safety, a behavioural approach is needed which focuses on information and flow.

Behaviour in an emergency

In a fire emergency, most people go through four behavioural steps before they even begin to evacuate:

Disbelief: Patrons don't believe it is happening. If they hear an alarm, they will tend to assume it is a false alarm.

Commitment: Patrons typically finish what they are doing. If they are buying a snack, they will finish doing

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[52] S. Milgram, L. Bickman and L. Berkowitz (1969), *Note on the drawing power of crowds of different size*, Journal of Personality and Social Psychology 13, 79–82.

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that before they investigate further. In the King's Cross Underground fire in the 1980s in London, people were observed stepping over hoses deployed from fire trucks to get to the escalators to go underground. They were committed to getting their train home. In numerous tests in the retail environment, patrons observing actual smoke will take their goods to the check-out, rather than move to a fire escape.

Affiliation: Patrons assemble in friends/family groups and won't evacuate until then. This is a huge issue in stadiums. When patrons are away from their seats, and convinced that there is a fire emergency, they will not evacuate — they will return to their seats to re-unite with family members first.

Seek authority figures: Once they have formed their social and family groups, they will look for authority figures to tell them what to do. But they must be perceived as having authority. A teenage usher employed on the day of the event may not be perceived as an authority figure. Where do people in a sports stadium look if they don't know what is going on? The scoreboard!

Source: http://www.aurecongroup.com/en/thinking/archive/stadia-fire-safety.aspx

As decision-making organisations, **public administrations** themselves are also influenced by individual and group biases. Group-think is an ever-present risk in any hierarchical institution, unless members are encouraged by management to speak up, offer fresh perspectives and critical viewpoints, and challenge orthodox thinking. As the most extreme example, the [Rogers Commission Report](#) found the 1986 Challenger space shuttle disaster was a consequence of flaws in the organisational culture, as much as technical deficiencies.

In many ways, our common idiosyncrasies make people's behaviour just as 'predictable' as rationality. This is something that businesses, especially advertising and marketing professionals, have recognised for decades. These behavioural insights are the basis for the new vogue of 'nudging' applied to public policy, made famous by Richard Thaler and Cass Sunstein.[53] Whenever information is presented to individuals for decision-making, it contains a '**choice architecture**' in the words of behavioural scientists, whether consciously or unconsciously.

A nudge is "*any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not*." Richard Thaler and Cass Sunstein, Nudge, 2009.

In the case of public policy, the public choice architecture has often arisen by accident, and only been refined over time through trial and error (as opposed to rigorous controlled testing). Increasingly, however, policy-makers are using **behavioural sciences to inform policy design and implementation**, whenever there is a behavioural element. It can help design new policies, suggest improvements to established ones, or provide *ex post* explanations of outcomes. It can apply to spending, taxation, regulation and information.

For example, **nudging** has been employed by the Danish Business Authority (DBA) to help businesses comply more easily with their regulatory obligations. In the example below, the DBA is helping enterprises avoid errors in the submission of annual reports and to check the quality of their business data in a user-friendly manner.

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[53] R. H. Thaler and C.R. Sunstein (2009), *Nudge: Improving decisions about health, wealth and happiness*, Penguin Books.

Inspiring example: Nudging (Denmark)

'Nudging' is one of the newest tools used by the Danish Business Authority (DBA) in attempting to create the best conditions for growth of business in Europe, and to make it easy and attractive to run a business. By using behavioural insights, the DBA develops ways of identifying burdens and creating solutions. Using nudging as a tool combines using trials (preferably randomised control trials) and data analysis with knowledge of behaviour. The nudging tool is primarily used in the context of better regulation and is often combined with more qualitative research focused on identifying the behavioural patterns that might create inopportune outcomes for businesses as well as for the DBA. In particular, the DBA uses nudging to tackle situations where businesses unwittingly follow a behavioural pattern that leads them to make mistakes, which are not intentional.

The DBA has run initial trials that have showed that nudging is a relevant tool for tackling diverse issues ranging from getting businesses to discover services that the authority provides to getting more businesses to turn in their annual report correctly. Going forward, the DBA will run even more initiatives that will focus on improving businesses take up of growth programmes and on improving registration systems to relieve burdens and boost case management.

When developing nudging initiatives, the DBA addresses a number of different 'bottom lines' at the same time. These are: productivity; service delivery/experience; results/outcomes; and legitimacy/rule of law (see the 'Burden Hunter' case study under topic 1.2.1 for definitions of terms). More often than not, the DBA found that new solutions can create an impact on several bottom lines simultaneously and can actually work for both businesses and for the relevant authority. What is important with the four bottom lines is, however, that not all projects necessarily will give positive results on all four and that an initiative should not give unintended negative results on any of the four bottom lines. The objective of a nudge initiative must always be to make the area in the spider web bigger, not smaller.
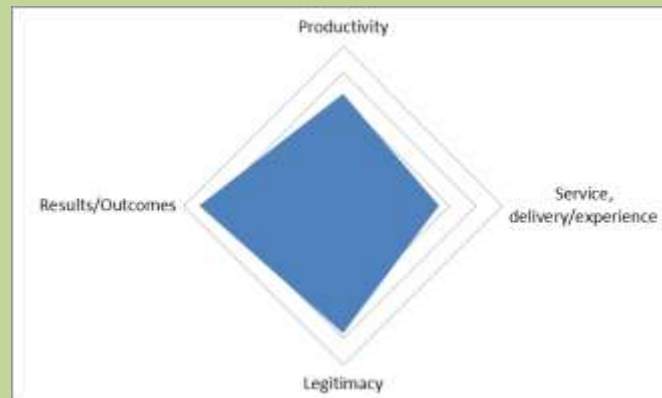
The following examples show that it is possible to create nudge solutions that benefit both business and the DBA - thus, without it, incurring extra expenses for the businesses or the DBA itself. The lessons learned can be reused across other areas where the DBA is charged with quality control and where newly digitalised data gives us the opportunity to nudge to avoid specific mistakes:

➕ A marked improvement in annual reports submitted to the DBA via a digital solution: All Danish businesses are required to send an end-of-year financial report. There are, however, different requirements regarding the amount of information required, based on the type and size of the business. DBA targeted the smaller businesses that have relatively uncomplicated annual reports and use the so-called "Regnskab Basis" digital solution, which involves: creating a draft of the annual report in Regnskabs Basis; printing out the information; getting the management and board to approve and sign off the annual report (if required, the accountant must sign off as well); and getting approval of the report from the general meeting of the involved partners. The person charged with reporting controls the draft and makes sure the information is identical to what has been approved, but there is a tendency to create the draft of the annual report after the general meeting, which indicates that the submitted report is not necessarily identical to the one approved by the management and board. In 2013, 20,000 annual reports (under the responsibility of around 5,000 different individuals - in many cases, company accountants) did not follow the correct procedure, which represents about 43% of the annual reports submitted through the Regnskabs Basis digital solution. To change behaviour and address systematic errors, 5,000 'nudging' mails were sent out,

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leading to 50% fewer mistakes over the same three-month period in 2014 compared with last year. The trial has reduced the rate of reoffending (committing the same mistake again) from 61% to 36% when compared to the same period last year. This action has helped to reduce the risk of penalties if the company's annual report is subject to control, and led to time savings from getting it right in the first instance.

- A marked improvement in quality of business data: With the introduction of more and more digital services and data-based business models, the area of data quality is ever growing in importance. The nudge consisted of introducing a pop-up that allows for the businesses to see and control their own data as part of the normal log-on to the digital platform (www.virk.dk). The nudge worked on the premise that businesses do not know that their data is outdated and that they don't know how or where to correct the information. During the trial, 15,000 businesses were presented with their currently registered data and were asked to verify them - 53% of the businesses confirmed their data by pressing the "verify" button and 42% pressed the "correct" button, giving the DBA strong indications on the current data quality and the need for further measures that can help manage the problem.

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Nudging is only one application. In 2016, the JRC published a state-of-the-art study of the application of behavioural insights (BIs) to policy across the EU Member States and four EFTA countries. The main report is accompanied by a full set of individual country reports, detailing over 200 behavioural policy initiatives, as well as institutional developments regarding the policy application of BIs.

Behavioural Insights Applied to Policy (BIAP)

BIAP 2016 is one of the first publications of the newly-created EU Policy Lab[54] at the Joint Research Centre (JRC) of the European Commission.

Since 2008, the European Commission has been a **front-runner** in bringing behavioural insights into legislation and regulatory intervention. This approach has been used in a number of cases, from the Directive on Consumer Rights, and other consumer protection interventions, to a competition policy decision. The potential contribution of behavioural sciences is also mentioned in the "Toolbox" for Better Regulation, guiding the design of policies and laws that achieve their objectives at minimum cost. BIAP 2016 focuses on developments across Europe and provides a state-of-the-art view of the contribution of behavioural insights to policy-making, while also putting forward an analysis of institutional developments. It showcases examples of behavioural interventions in a range of policy areas, such as employment, consumer policy, health, taxation, environment or transport, pointing to their respective outcome whenever this was available. BIAP 2016 identifies areas where additional work is needed to improve mutual learning, strengthen the evaluation of policy impacts, and encourage a more systematic use of the behavioural approach. The report is also an invitation for sharing experiences, and a call for cooperation in making full use of these insights to deliver on the EU objectives.

BIAP 2016 draws on information collected via desk research, a survey and personal exchanges, including interviews with policy-makers, academics and a range of other stakeholders from 32 countries (28 EU Member States and the four EFTA countries).

Overall, the evidence shows that insights from behavioural sciences are contributing to reshaping public policy in a wide range of domains, in particular employment, consumer protection, health, taxation, environment and transport. Furthermore, some successful behavioural initiatives seem to be replicated or adapted across countries, and this includes well-known examples (e.g. receipt-based tax lotteries) but also less obvious ones (e.g. the penalty points system for driving offences). The current review covers a total of

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[54] For an overview of the EU Policy Lab, please see topic 1.1

more than 200 **behavioural policy initiatives**, the full range of which can be found in the Country Overviews. The insights presented allow for a better understanding of the context and ways through which a given policy issue can be tackled, as well as of the behavioural element (i.e. behavioural biases and/or levers) underlying given policy initiatives. In some cases, policy-makers explicitly took into account behavioural biases - such as information overload, overconfidence, loss aversion - when designing appropriate policy solutions. For instance, in view of reducing information overload and superfluous complexity, initiatives such as prepopulated tax forms aimed at simplifying administrative procedures and increasing tax compliance.

BIAP 2016 also gives account of **institutional developments** regarding the policy application of BIs. The interest in harnessing the potential of BIs for policy-making has already triggered organisational developments in some EU Member States. In the UK, The Netherlands, Germany, France and Denmark, dedicated teams have been created to this end, while similar approaches are being considered in Finland and Austria. The report analyses these developments through the lenses of a tool, PRECIS, which allows for a characterisation of teams applying BIs to policy-making across six dimensions: Political support, Resources, Expertise, Coverage, Integration and Structure. Looking at these six PRECIS dimensions, it is clear that while the existing behavioural teams present several differences, they have all contributed to raising awareness about the potential of BIs for policy-making and stimulated their effective use in their respective countries. Additionally, while no specific structure has been developed in the public administration of most European countries, the application and impact of BIs on policies is nevertheless increasingly visible.

At **EU level**, BIs have explicitly informed a number of policy initiatives since 2009. BIs can inform more targeted and efficient solutions at all stages of EU policy, from design to implementation of EU regulations. The 2014 European Commission's Better Regulation Agenda calls for evidence-based policy-making with a view of delivering more effective policies. By taking an outcome-oriented approach, BIs strengthen the focus on evaluation and support impact assessment as recognised in the Better Regulation "Toolbox."

The use of BIs for policy-making is debated wherever it develops. Beyond the legitimate ethical questions raised by the using nudges designed to favour a particular behaviour, a few **myths and misconceptions** have to be dismissed:

- BIs are not "old stuff;"
- While they might at times be "so close to intuition," they rely on a scientifically-based methodology and evidence;
- BIs do not only rely on behavioural economics and should not be confused with nudges;
- BIs do not breach data privacy;
- Randomised controlled trials are not necessarily too costly to be justified for policy purposes.

Behavioural sciences can inform policies by providing an analytical framework for experimentation and *ex ante* testing of policy options to assess their effectiveness. In this context, **transparency** and the sharing of experiences and outcomes should be two primary concerns for all policy-makers applying BIs. Transparency is needed to respond to ethical concerns, while sharing can lead to more robust behavioural policy initiatives, built with a greater understanding of "what works," and under which conditions (e.g. cultural, geographic, of specific cohorts).

Behavioural sciences can derive valuable behavioural evidence from **existing large datasets or from merging relevant datasets** and analysing the resulting picture. Some breakthrough academic papers in this field, using existing European datasets, could serve both as a basis for further stimulating exchange between policymakers and researchers, as well as for providing inspiration in view of future similar studies.

Four main conclusions stem from BIAP 2016:

1. In terms of capacity-building, there is significant dynamism and **growing appetite to apply BIs** to policymaking.

2. There is certainly room for **improved exchange and knowledge sharing** between the policy-making and the academic communities. For instance, there is great potential in analysing large datasets for extrapolating useful insights for policy with the associated challenge of making more publicly-owned data

available for research.

3. BIs should be **applied throughout the policy cycle** - including in anticipating implementation and enforcement issues - to generate useful evidence in the most effective way. There is still little awareness of the insightful evidence that could come from a more systematic analysis of the impact of policy solutions.

4. There is space to undertake more actions to **improve the effectiveness** of behavioural policy initiatives, shedding light on their long-term impact and increasing transparency, namely through more effective communication and evidence sharing with citizens.

BIAP 2016 constitutes a starting point towards a process that should ideally lead to further evidence-based policy, increased use of behavioural approaches and policy experimentation, and mutual learning.

The JRC review of behavioural policy initiatives is supported by a new **classification**, which helps to structure thinking about evidence-based policy approaches:

✓ **Behaviourally-tested**: Initiatives are based on an ad-hoc test, or scaled up after an initial experiment;

✓ **Behaviourally-informed**: Initiatives are designed explicitly based on already existing behavioural evidence; or

✓ **Behaviourally-aligned**: Initiatives can be said to be in line with behavioural evidence, at least *a posteriori*.

Among the examples of institutional approaches cited in the JRC study is France's General Secretariat for the Modernisation of the Public Action (SGMAP), which is leading the way in coordinating behavioural insights within the French administration at all levels. SGMAP is applying all three types of approach. In the case of 'online tax declaration and payment' case below, for example, the pre-filling of tax declarations is behaviourally informed, while the use of nudges in the promotional campaign is behaviourally tested.

Inspiring example: Applying behavioural sciences to public policies (France)

Since 2014, the Secrétariat Général pour la Modernisation de l'Action Publique (SGMAP) has been pioneering new approaches to policy-making in France, playing a coordinating role, and spreading the message about behavioural insights (BIs) across the French administration, including ministries, municipalities and public agencies.

Sitting at the centre of government in the Prime Minister's Office, SGMAP has integrated 'nudging' and more generally a behavioural approach into its innovation team, with a combined total of 7 staff in 2016, so that policy design / prototyping takes account of BIs. 'Agile' approaches based on field experimentation and using interdisciplinary knowledge is rare among public administrations, so the team works closely with other ministries, research institutions[55] and local administrations to redefine public policies and build capacity through to use BIs. The approach to policy development involves five stages:

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[55] Experimental Economics Lab (Sorbonne University); French National Centre for Scientific Research (CNRS); French National Institute of Agricultural Research (INRA); Groupe d'Analyse et de Théorie Economique (GATE), Lyons; INSEAD Social Science Research Centre, Paris; Laboratoire d'expérimentation en sciences sociales et analyse des comportements (LESSAC), Dijon; Laboratoire d'économie appliquée de Grenoble (GAEL); Laboratoire d'Economie Expérimentale, Toulouse; Laboratoire d'Economie Expérimentale, (LEEM), Montpellier; Laboratoire d'Economie Expérimentale, (LEEP), Paris; Laboratoire d'Expérimentation en sciences sociales (LABEX), Rennes; Laboratoire d'Economie Expérimentale, (LEES), Strasbourg; School of Public Health (University of Toulouse); University of Strasbourg

1. Understanding by 'immersion' – observing what is happening on the ground
2. Identifying new methods using behavioural economics
3. Co-constructing prototype policies and services with the people affected by them to building on citizens' real experiences and uses
4. Testing the proposed solutions
5. Rolling out the new policy

Immersion is the first step in the process and arguably a very important one, so SGMAP has been delivering training for municipal employees in how to observe behaviour, including fieldwork, so that in-house staff have the skills, rather than outsourcing to external agents. Implicating the in-house staff in the process creates a greater engagement on their behalf and allows them to experiment with the approach themselves to better understand it. This process is done with the help of experts (working at SGMAP) that provide the training, give general guidelines and that regularly guide the agents along the way.

As an example of the process, the French Government wishes to make tax compliance easier, and is trying to encourage people to declare their income and pay the corresponding taxes online. However, the vast majority of citizens still physically visited their tax office, rather than using the Internet – in 2014 only 35% of taxpayers declared their revenues online. To understand better why this was the case, the administration visited taxpayers in their homes to see how they filled in the declaration, and discovered that many were scared of missing something and so felt it would be safer to do it with the tax office's help. It was recognised that the automatic pre-filling of declarations with both fiscal and non-fiscal information would simplify the process and reduce the information overload on citizens. It would also reduce the cost of tax management, which amounted to approximately € 250 million per year. In May-June 2014, the Government launched a campaign to promote online tax return. Seven different messages - based on nudge levers such as salience, social norms, immediate call to action, loss aversion - were tested and sent to taxpayers who had access to the Internet but did not use it for their tax return. The Minister of Finance announced that, as a result of the campaign, online tax returns increased by 10 percentage points.

The elaboration and testing of the 'nudges' themselves can be conceived in six phases, shown in the diagram below:

Phase 1: Explore/ study behaviour (observations)

Phase 2: Analyse cognitive biases (based on a review of the scientific literature)

Phase 3: Convene creative workshop to generate nudges - formulate as many as possible

Phase 4: Select & enrich nudges for deployment

Phases 5 and 6: Design & conduct experiment - choose terrain & implementation modalities (P5), monitor & analyse results, recommend & evaluate (P6)

SGMAP and its partners in the administration have recently initiated a set of projects applying BIs mainly in the policy fields of environment, health and taxation, but also consumer protection, social cohesion, gender stereotypes and drug addiction. Examples include:

- **Reducing mobile phone use while driving:** In 2014, SGMAP worked with the delegation for road safety (DGSCR) to reduce mobile phone use while driving. This project lead to the design of a "driving mode" application (equivalent to the "plane mode" setting) and a reframing of road-safety related administrative mail usually sent to citizens.

➕ **Encouraging patients to pay remaining hospitalisation fees:** In 2015, SGMAP worked with the French health care services (DGOS) to encourage patients to pay the "uncovered remainder" of their hospital fees which they forget/omit to pay (this represents the sums still remaining at the patient's cost after all refunds have been received). This ongoing project is now in the testing phase where different nudges are being trialled in three different hospitals. The proposed nudges include: introducing payment-related information as part of the default welcome message in the hospital's telephone voice prompt; launching a campaign with a mnemonic message on the documents to bring with you to the hospital, namely the 4Cs: social security **c**ard, insurance **c**ard, identity **c**ard and credit **c**ard; and adding salience to the 'remaining fees' notice on the bill.

➕ **Promoting physical activity in older adults:** SGMAP launched this project with the municipal services of Villeurbanne (a commune in the Metropolis of Lyon) in June 2016. Knowing that older adults are at a particular risk of leading sedentary lifestyles, and that physical inactivity has been established to be an independent risk factor for a range of threatening chronic diseases, SGMAP is working on finding effective behaviourally-informed interventions to address this problem.

➕ **Consumer protection:** SGMAP launched this project with the Directorate for Competition Policy, Consumer Affairs and Fraud Control (DGCCRF) in July 2016. Based on the idea that consumer decision-making may not be fully rational and that firms can exploit such consumers, SGMAP is working on behaviourally-informed solutions to devise appropriate policy interventions to make markets work better for the consumers they are intended to serve.

➕ **Encouraging eco-friendly behaviour in the city's public institutions:** SGMAP launched this project in September 2016 with the city hall of Paris. The main aim of this project is to encourage agents and citizens to adopt eco-friendly behaviour (such as turning heaters off when leaving a building) in public institutions such as schools, town halls, public gymnasiums, etc.

SGMAP's experience shows that it is not always plain sailing. It is challenging to implement the solutions and test them on a national scale. Robust evaluation techniques are being put into place to control for confounding factors that can come into play when testing a nudge's impact and efficiency. Ultimately, this is a reminder that behaviourally-based policy is experimental, and does not necessarily lead to easy answers.

In 2015, the SGMAP and the French market research company, BVA, joined forces and resources, together with Professors Alemanno and Oullier, to create [NudgeFrance](), a foundation aimed at further promoting the use of behavioural insights in policymaking. In the fourth quarter of 2015, NudgeFrance launched a national and international contest for schools and universities called "NudgeChallenge", in the context of COP21, the United Nations Climate Change Conference. Participants were invited to submit videos up to four minutes long with their ideas for nudges to tackle climate change, to be considered by a jury and a public vote. The response was a success - this first [NudgeChallenge]() drew 92 entrants with creative presentations, which led the competition to be repeated in 2016.

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One of the distinctive characteristics of SGMAP's approach is that it recognises explicitly the **ethical dimension** of BIs. The use of psychology to frame policy-making has raised questions about manipulation - whether people are being pushed into behaving in certain ways - a debate which is alive in the academic community too. The response is that, like all policy interventions, the aim of behaviourally-based actions is to improve lives and achieve better outcomes, not to worsen them. The way that interventions are designed and information is presented to enable people to make decisions – the 'choice architecture', in the psychologist's parlance – can either be prepared blindly (without acknowledging people's behavioural traits) or developed with a vision.

Topic 1.2: Instruments of policy implementation

In the case of SGMAP, their approach is based on four pillars, which act as safeguards:

1. BIs should preserve and enhance individuals' **autonomy**. By contrast, our cognitive biases leave us less well-placed to make sound decisions, and therefore less autonomous. SGMAP uses a framework that allows them to categorise nudge interventions on two scales, namely their "avoidability" and their transparency. This categorisation helps them ensure that their nudge interventions preserves citizens' autonomy.

2. The way the intervention is designed should be **pedagogic** - not just to 'nudge', but also to inform about these biases. In addition, SGMAP is developing a massive open online course (MOOC) that promotes critical thinking and the understanding of biases.

3. There should be **transparency** in the use of BIs, so the projects are described on a public webpage.

4. The process itself should be built around robust **evaluation methods**, using tried-and-tested scientific techniques so the results are robust and fair.

The JRC has identified **six sets of issues for policy-makers** to consider, when thinking about applying behavioural insights generally or conducting a specific behavioural study.

Stage	Comment
Identifying at what stage behavioural science should be applied to the policy-making process	In principle, behavioural science can be applied at any stage: ✓ At the **design** stage, when having a clear, evidence-based, understanding of how people may respond to a policy is a valuable asset. Wrong assumptions at this stage may restrict the spectrum of available policy options and jeopardise the success of the policy. ✓ Later in the process, for example when deciding **how to implement** a policy initiative. In the EU policy-making cycle, this would be the impact assessment stage. ✓ It is also relevant once a particular option has been decided. For example, it may be sensible to run a small behavioural pilot study before committing to **full-scale implementation**. ✓ Finally, applied behavioural science is not only relevant to the design of new policy initiatives; it is also relevant to the critical **evaluation** of existing ones. The earlier in the policy-making process behavioural science is incorporated the more effective its contribution is likely to be. An early application will not only ensure the soundness of the policy design from a behavioural perspective, but it will also allow for more time to conduct behavioural studies in support of that policy.
Defining the role of behaviour in a policy initiative	Before applying behavioural science to a policy issue, the relevant behavioural element needs to be defined in as much detail as possible. Imagine a behavioural study is being considered for an EU policy initiative on effective labelling of food products. Since labels are intended for consumers to read, understand, and act upon, there is clearly a behavioural element here. However, what should be the aim of such a study? Discovering how consumers understand the label or finding out how their behaviour changes due to the label? The choice will depend on the objective of the policy itself. This process of narrowly defining the objective of the policy and the role of behaviour is therefore necessary for adequately designing a research project and allowing for effective behavioural support to policy.

Topic 1.2: Instruments of policy implementation

Stage	Comment
Reviewing the available evidence	The attitudes and behaviour of citizens regarding the policy issue need to be well understood before any behavioural study is considered. This may imply carrying out a thorough literature review or consultation with stakeholders. Such a preliminary phase is necessary to get a first impression of people's attitudes and behaviour, and of the possible policy options available. This will provide a sound basis on which to begin designing a behavioural study.
Estimating the value added of a behavioural study	A sound preliminary reflection of the aims of a specific study and its possible results is absolutely essential. Without it, the study could well fail to deliver useful information. Other kinds of studies (e.g. a data-gathering exercise on economic indicators) can generate large amounts of data, which in turn might lead to analyses that were not anticipated. Other types of study can afford 'casting a wide net' in the hope of landing valuable information. Not so with a behavioural study. An internal foresight exercise must be conducted, and a series of questions need to be asked. What do we expect from this study? What if the results are not what we expected? What if we don't get any statistically significant results (i.e. if the various policy options are equivalent in terms of influence on behaviour)?
Specifying the unit of analysis	Usually the unit of analysis for a behavioural study will be the individual (not a firm, not a family, not a group of people). It is the individual who is subject to biases and heuristics in his or her thought processes, the individual who feels emotions, the individual who has a set of preferences, and the individual who is ultimately responsible for his or her actions. However, there is a demand for behavioural studies to be applied to firms (and other complex bodies), since their behaviour is such a vital component of economic activity. This is a difficult task. Complex bodies, especially large ones, tend to behave 'rationally'. They rely on the expertise of many experienced and trained professionals and often have structured and formalised decision-making processes. Complex bodies cannot be nudged, as a nudge works well when individuals take decisions using their 'system 1', the fast and spontaneous way of thinking. Complex bodies do not think fast or spontaneously; rather, they slowly and deliberately seek to maximise their utility taking reasoned decisions. However, small enterprises (particularly micro-enterprises, with fewer than 10 people) are often less structured when it comes to formal decision-making. Sometimes owners of companies – human beings themselves – will make decisions on behalf of the company, without the benefit of a support structure, in the same way they make decisions about their lives. Also, small groups of people organised around a common task or objective, such as research teams applying for funding, will sometimes respond to incentives in a similar way to individuals. Therefore, while not common, there is scope for applying behavioural insights to small groups of people, especially if they lack formalised decision-making mechanisms.
Considering time constraints	Behavioural studies, like most studies, require time to be conducted properly. The exact problem to be investigated needs to be narrowly defined and translated into a research design. If the study is based on an experiment, the proper experimental treatments and controls, the appropriate size of subject pool, and the right level and form of incentives all need to be established. Moreover, after the collection of data, time is needed to analyse and interpret the results. The simplest version of a project of this kind, with some lab experiments or on-line surveys, needs at least 6 months. If a randomised control trial (RCT) is considered, the project can run for a year or more. In the context of the usual time horizon of the policy-making cycle, this would present a challenge. Hence, studies of this kind must be considered early in the game, if they are to be a realistic option.

The JRC guide also includes advice on **commissioning behavioural studies**: experiments, randomised controlled trials (RCTs), surveys and qualitative research.

Topic 1.2: Instruments of policy implementation

It should be emphasised, however, that behavioural insights are **not a panacea** for all policy problems. There are clearly many challenges facing policy-makers that are not concerned with cognitive and emotional biases, such as major spending programmes on defence and infrastructure. Nevertheless, behavioural science is an increasingly essential instrument in the policy armoury.

1.2.3 Co-production

Public administrations are increasingly aware that they can overcome their limitations in policy delivery by working with programme and service users, empowering them to develop solutions as equal partners. increasing ownership and user-centricity. As the OECD[56]

> Laws and the regulatory environment
>
> Achieving outcomes by changing behaviour
>
> **Co-production**

has observed, public administrations do not hold the monopoly on the delivery of public services, and can benefit from interaction with other stakeholders, including but not only public-private partnerships: "*in some cases, organisations from civil society may be better placed in terms of local knowledge and specialisation to deliver services*". Contemporary governments facing complex problems do not hold all the answers: strength comes through collaboration and co-responsibility.

Co-production could be described as a form of 'outsourcing' which involves citizens and businesses underline directly in the implementation of public policies from which they benefit.[57] Delivery becomes co-owned, more visible and more understandable for the partners in the process. In this way, policy ceases to be a 'black box' to beneficiaries, and where citizens are involved, becomes more legitimate in the eyes of the public and potentially more sustainable. Co-production is a complex term, since it implies a permanent or temporary involvement of different actors in different stages of a sometimes-complicated process. These actors can include for-profit businesses or non-profit associations in public-private partnerships (PPPs), and citizens who play a role in service delivery, which can happen individually (for example, as a parent, as a guide, as a fire service volunteer), or collectively (for example, via NGOs for social services or park maintenance, etc.).

> "*Co-delivery of public services is about citizens and the public sector working TOGETHER in new creative, innovative and collaborative ways. This joint working between professionals and service users, building on each other's assets, experiences and expertise, enables the service to be delivered more efficiently.*" Elke Löffler, Governance International, at the 7th European Quality Conference in Vilnius, 2013.

To avoid ambiguity, full co-production can be characterised as comprising several **features**: citizen's involvement is voluntary; they are people with assets ('capable to contribute'), not just needs; the

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[56] M. Daglio, D. Gerson and H. Kitchen, *Building Organisational Capacity for Public Sector Innovation*, Background Paper prepared for the OECD Conference "Innovating the Public Sector: from Ideas to Impact", Paris, 12-13 November 2014.
[57] A 2015 paper by R. Calleja and U. Marantz for the New Synthesis initiative neatly distinguishes between co-creation and co-production of public services. Essentially, co-creation involves public authorities working with other actors "*to plan and design*" the delivery of public services "*that produce better results for society*", whereas co-production concerns "*the involvement of citizens in the production/implementation of their own services … At its core, co-production involves a shift in traditional models of service delivery by dividing responsibilities between government and citizens based on which actor is best placed to perform specific tasks*". The authors acknowledge that the two terms are often used interchangeably in reality.

working relationship is collaborative ('doing things with people'), not passive or paternalistic ('doing things to them'); they are involved in the decision-making process; and the aim is better services and outcomes.

When users and communities help to deliver services, it brings immediate and direct **benefits**:

- More resources to the service, in terms of the knowledge, expertise, skills, co-operation and commitment of service users;
- Better quality services, focused on the features and outcomes that users value most highly;
- More innovative ideas for public agencies to try out; and
- Greater transparency in the way services are delivered, supporting greater community involvement and open government.

Co-production is not a new idea. It has been around for about 30 years at least, as testified by the examples of Italy's social cooperatives and Sweden's children's day care cooperatives. The **cooperative** is a well-established organisational form, has the advantage of a democratic governance structure (each member has an equal stake), and as a legal entity, provides a corporate vehicle through which public authorities can contract with citizens, subject to procurement rules.

Inspiring examples: Social cooperatives (Italy) and children's day care cooperatives (Sweden)

After the Second World War, Italian local authorities provided health and education services but not social care, and over time the traditional role of families providing support started to diminish. As needs and expectations rose, the social cooperative model grew as a way of providing better care. The cooperatives were also seen as a way of improving service efficiency. In 1991, a new law created a specific legal framework for social cooperatives in Italy. As their purpose, they have 'to pursue the general interest of the community in promoting human concerns and in the social integration of citizens.' Today, there are more than 7,000 cooperatives and they have become a core element in the delivery of social care for many local authorities. Social cooperatives are permitted to distribute profits, so long as distributed profits are restricted to 80% of total profits and the profit per share is no higher than 2% of the rate on bonds issued by the Italian post office.

Cooperative provision of children's day care was developed in Sweden in the 1980s as a response to the growing demand for services and the inability of local authorities to provide sufficient capacity. The Swedish government made a decision to finance specialist cooperative development agencies. These agencies grew up in different ways in different parts of Sweden, and then federated into a national support body, which in 2006 decided to work under the name of Coompanion. The Coompanion network of support agencies is funded centrally by the Swedish Agency for Economic and Regional Growth. Specialist advisers have played an important role in the development of new cooperatives and the continuing success of existing ones. In Sweden, there are around 1,200 cooperatives providing pre-school day care for about 30,000 children, representing about 7% of the total.

Source: European Commission, Directorate-General for Research and Innovation (2013), "Powering European Public Sector Innovation, Towards a New Architecture", Report of the Expert Group on Public Sector Innovation

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Co-production is relevant to many policy areas. Care services have proven a particularly fruitful field. An award-winning example is the care of elderly residents in Denmark's Fredericia, which is now organised to happen at home wherever possible, with multi-disciplinary support from the municipality, so that they continue to live independent and fulfilling lives within their own communities. Given the trend towards an ageing population across Europe, the principles are now

being exported to other municipalities in Denmark, and attracting attention in Norway and elsewhere internationally.

Inspiring example: "Life Long Living" in Fredericia and beyond (Denmark)

"Life Long Living" is a new model of interaction between the elderly citizens of Fredericia who request practical or personal care and assistance, and the municipality - providing everyday rehabilitation and prevention, rather than just offering traditional and expensive compensatory care. The objective is to maintain physical, social and cognitive abilities, to postpone age-related weakening and dependence. "Life Long Living" is an innovative initiative whose purpose is to maintain independent living for as long as possible - to change the conditions of future care by focusing on the resources of each individual, and support empowerment instead of delivering traditional compensatory and pacifying care.

In 2008, it was projected that there would be at least 2000 more people over the age of 65 in Fredericia municipality by 2020, including a significant increase in the number of citizens aged over 80. This development presents an economic challenge, which in 2020 would lead to an additional annual cost in elderly care of at least DKK 46 million (around €6.2 million). This innovation in service delivery started when the managers in Fredericia's social care division asked themselves: 'Should we really continue to provide ever-cheaper in-home cleaning, cooking, and personal care to older citizens? Or should we find out what kind of life they want to live, and then invest in their ability to live it?' To meet this challenge, the City Council in Fredericia municipality decided to launch an ambitious project within the municipal budget.

The aim of the project was to turn the interaction between the elder citizen and the municipality 180 degrees; by meeting each individual with a focus on his/her resources and personal experience of meaningful everyday activities, rather than a reduced focus on lack of functions and limitations. This 180-degree turn of perspective - from looking at our senior citizens as passive patients, to now meeting them as resourceful, active individuals - has required a change of paradigm throughout the entire organisation. In "Life Long Living", the elderly citizens requesting practical or personal assistance from the municipality are now offered to join an intensive everyday-rehabilitation-programme in their own home, where they are trained to regain their ability to perform meaningful everyday tasks. The programme is conducted by our care providers (who have gone through special training in the approach and methods within everyday-rehabilitation) under the guidance of interdisciplinary teams - with occupational therapists, nurses, physiotherapists and nurses' assistants.

When joining "Life Long Living", every citizen gets an individual "Citizen Plan", with set goals for developing or maintaining their ability to perform everyday tasks. The goals are set in cooperation between the elderly citizen, his/her care provider and the interdisciplinary team, to assure a focus on meaningful activities, along with a cross-professional assessment. A home-training-programme is set up and the need for useful assistive technology to support independent daily living is assessed and tested. The training is provided by the care providers as part of the daily care and assistance, not in a training centre, and the goals and activities in the "Citizen Plan" are adjusted continuously as abilities and motivation changes. Previously, these elderly citizens were offered compensatory and pacifying care, which often resulted in losing more everyday functions, and their need for help almost always increased over time. After implementing "Life Long Living", and thereby meeting the elderly citizens with the expectations and individual approach in our everyday-rehabilitation-programme, their need for practical and personal assistance drops off significantly.

Independent evaluations of the economic effects and organisational outcome of "Life Long Living" for citizens and staff have been conducted by DSI (the Danish Institute of Health), later named KORA (National Institute of analysis and research in municipalities and regions).

The results are promising. Joining the everyday-rehabilitation-programme often means a dramatic increase in provided services in the beginning, followed by significant decrease in provided services on a longer term, relatively to the regaining of abilities. All together the need for practical and personal care is reduced considerably: 45.9% of the referred citizens become completely self-reliant and 38.9% become partly self-

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reliant. The number of requested services and the total cost for the municipality has decreased significantly, corresponding to approximately €2 million per year. Along with the economic benefits, the impact of "Life Long Living" can be summarised as:

✓ Satisfied citizens with a high degree of self-sufficiency, who express pride and improved quality of life by regaining independent everyday life;
✓ Satisfied employees, who express significantly greater job satisfaction and commitment working with the new empowering model;
✓ Significant reduced need for care services, leading to a considerable decrease in total costs, enabling the municipality to provide more welfare for the elderly for the same amount of money.

Since 2012, the model has been integrated into the Danish national budget as best practice for all Danish municipalities on how to conduct care and services for the elderly in a rehabilitative and empowering manner, to meet the requests from an increasing number of older citizens in the future. By 2014, all Danish municipalities had adopted the "Life Long Living" approach in their Health and Care Departments. "Life Long Living" has also attracted great attention throughout Europe, on a political as well as on a professional level. The municipality of Fredericia has been a partner in developing the European innovative network on age-friendly environments "*AFE Innovnet*", and the "*Covenant on Demographic Change - Towards an Age-Friendly Europe*", with the main objective to share and develop age-friendly solutions across European countries. From outside Europe, the Singapore Senior Minister for Health and Manpower has visited "Life Long Living" with a delegation of public and private stakeholders, and found the project to be inspiring for future homecare in Singapore.

In 2010, the Fredericia municipality received the great innovation prize for the project from Local Government Denmark (LGDK), the interest group and association of Danish municipalities. This was followed by a best practice certificate in the European Public Sector Award 2011, and being honoured in The European Year for Active Ageing 2012 under the category "Towards age friendly environments". In 2015, the Danish Government turned the "Life Long Living" approach into a legal entitlement for all citizens in Denmark. By adapting the Law of Social Services, it is now mandatory for every municipality to assess the potential of rehabilitation of daily living functions for any citizens who require social care services. Followed by an obligation to offer rehabilitation interventions rather than compensatory care to citizens with potential.

For further information: Britta Hallin, Adviser of communications, britta.hallin@fredericia.dk;
See also: presentation of "Life Long Living" by Project Manager Helle Aavild Juhl (AFE-INNOVNET Webinar 2): http://www.youtube.com/watch?v=48C0be6RIFE (minutes: 28.30 – 40.40); the Covenant on Demographic Change - Towards an Age-Friendly Europe and http://www.healthyageing.eu/project/afe-innovnet

Increasingly, citizens are not waiting to be asked by public administrations to contribute to the co-production of public services, but are making the first move instead, including **seizing the initiative** through civil society organisations (CSOs). This can involve reaching-out to administrations, or even by-passing them:

✓ **Citizen-to-government**: In some cases, CSOs exploit the possibilities of modern media (e.g. mobile phone apps) to demand a more effective response from public administrations**,** which nevertheless retain the primary responsibility for the service. A prime example is the FixMyStreet platform, launched in 2007 by mySociety, a UK-based, not-for-profit, social enterprise, which uses open source, report-mapping software and has become a global phenomenon, taken up by citizens in countries around the world. It is most commonly used for reporting street problems (such as broken lighting) to local authorities, but can be fitted to any project that matches geographical points to email addresses.[58]

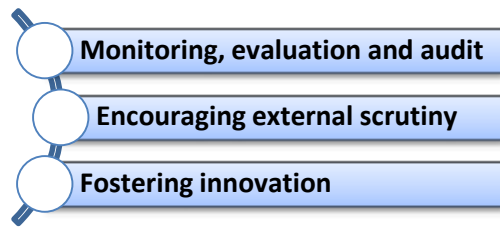[58] See also cases from the two EU-funded studies in the 'open, modular and collaborative government' blue box

✓ **Citizen-to-citizen**: In other cases, CSOs organise their own public services, effectively substituting for public administrations. The government plays no active role, but may provide a facilitating framework. As an example, 'Lulu dans ma rue' kiosk is a French brokerage started in March 2015 by a non-profit organisation in Paris, which puts people searching for work in touch with local residents who are looking for a service. This social innovation was pump-primed by the Veolia Foundation, which helped to finance a feasibility study and set up the first pilot operation in Paris's 4th district. The kiosk can be visited at the physical concierge or through its web platform.

Such situations[59] remain relatively sporadic and dispersed still, but are growing in scale and scope. They present public administrations with a choice: whether to embrace this new way of working together with CSOs, or face in some cases being replaced by bottom-up initiatives. Clearly, co-production is not for everybody and the costs/benefits of harnessing service users and communities in the delivery of a specific public service will vary. To help weigh up the pros and cons of co-production and ways forward, further case studies, research and resources are available from existing organisations, such as Governance International's good practice hub.

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[59] See also the 2010 EU-funded Study on Collaborative Production in eGovernment, which includes six case studies
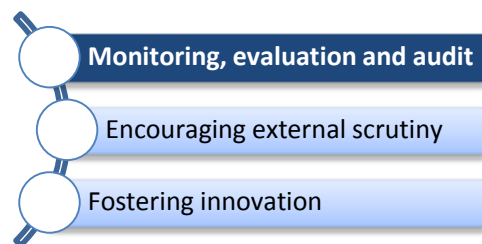
1.3   Continuous improvement and innovation

One of the key qualities of good policy development is that implementation is subject to review and reflection, so that lessons are learned, adaptations are made, or even policy is abandoned in response to findings. This requires openness from the executive, open-mindedness from the electorate and its representatives, and courage on both sides to embrace experimentation and not rush to judgement. This section examines: systematic monitoring, planning and managing evaluations, and the growing role of performance audits in assessing whether implementation is progressing to plan, policies are achieving their high-level objectives, and value-for-money is being delivered; and the value of external scrutiny in driving up the standards of public administration. In this spirit of continuous improvement, the section looks finally at public sector innovation in its myriad forms, and how public administrations are creating innovative cultures to stimulate new ways of working.

1.3.1 Monitoring, evaluation and performance audit

Monitoring and evaluation has often been seen as an unwelcome distraction, imposed by funding providers on recipients: whether this is donors providing development aid, the EU seeking evidence of use of co-financing, or Finance Ministries seeking proof that budget beneficiaries are delivering 'something for something'. In these various scenarios, monitoring and evaluation is often treated as an add-on to the policy process. Increasingly, however, monitoring and evaluation is recognised as integral to policy success. Given the complexities of the real world - complicated choices, tough decisions and unexpected outcomes - the policy process is inevitably iterative, and a feedback loop is essential to make 'adopt-and-adapt' a reality (see topic 1.1).

Monitoring is a term that is widely used, but can mean different things to different people. For some, monitoring is supervision; for others, it is synonymous with control. For the sake of clarity, monitoring is defined here as a **systematic process of collecting data** to track inputs, outputs, outcomes and impacts throughout implementation, and to inform management and stakeholders on performance and progress. Monitoring can be applied to policies, programmes, projects and public services, but also organisations (see theme 4), and systems of governance (see theme 3).

Most public organisations are familiar with **evaluation** in the context of policies and programmes, especially ESIF, taking the information from monitoring (and other sources) at key moments in time, and systematically assessing relevance, efficiency, effectiveness, impact and sustainability. While monitoring provides a flow of data for real-time decisions, evaluation is a comprehensive stock-take of where things stand. This can occur before, during or after an intervention. However, evaluations are far less commonplace and are not applied comprehensively to policies and programmes across Europe, despite the conventional wisdom that evaluation is a major stage in the policy process and

an important contributor to the evidence base. The gap has been partly filled by **performance audits**, conducted by countries' supreme audit institutions (SAIs), but as the SAI's main remit is always financial audit, performance audits are also not a consistent feature of the European policy-making landscape.

In the interests of a common understanding, the following table summarises the key differences between monitoring, evaluation and performance audit.[60]

	Monitoring	Evaluation	Performance audit
What	Tracking performance, and progress against the plan (expectation)	Assessing the relevance, efficiency, effectiveness, impact and sustainability of policies and programmes	Examining the efficiency and effectiveness of government undertakings, programmes or organisations
Why	For **operational** reasons – to learn lessons and take corrective action in real-time, if required	For **strategic** reasons – to ensure the policy addresses the identified problems and objectives, and learn lessons	For **accountability** reasons – to ensure public funds are being used appropriately and identify improvements, if necessary
When	Regular intervals during implementation	Usually at specific points (before, during and after implementation).	Usually at specific points (during and after implementation).
Who	Managers and staff involved in implementation	Internal units or external consultants <u>not</u> involved in design or implementation*	Usually, qualified auditors from the SAI, <u>independent</u> of design and implementation

The exception is ex ante evaluation, where the evaluators are expected to influence the design and future implementation through their independent findings.

In practice, the boundaries between monitoring and evaluation are increasingly blurred, as evaluation can take place in real-time, during the early stages of a new policy or programme or on an ongoing basis. The reality is that all administrations engage in some form of monitoring and evaluation of their activities, whatever they call it. The only question is whether this is casual or structured. The latter is an essential condition of receiving EU funds, especially under ESIF regulations. As a **systematic process**, monitoring and evaluation has five steps, shown below.

Step 1 is **orientation**: what should be monitored and evaluated, why, and how will the information be used? This preparatory phase, however short or long, informs the following four steps. The main ingredients of orientation are set out overleaf.

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[60] As performance audit is an explicit responsibility of SAIs outside the administration, the rest of this topic mainly focuses on monitoring and evaluation, with performance audit described by way of contrast with evaluation.

Ingredient	Purpose
Objectives	There must be clarity about what the policy, programme, project, service or organisation is seeking to achieve. In other words, clear goals against which performance can be assessed (which can be both strategic and specific / operational), as well as a plan to get there.
Responsibility	The role of defining indicators, collecting data, analysing the findings, and assessing performance and progress is assigned to an official or unit (or managing external experts, in the case of evaluation), as well as reporting lines to management and policy-makers.
Methodology	The monitoring arrangement must include a system to gather data and to analyse the findings. As an integral element of designing indicators, it must be known from the outset what the source of the information will be and how often it will be produced.
Management	Once information is gathered by the responsible official(s) on performance, including against indicators, this must be fed into the policy process as part of the evidence base for adjusting policy. This means there must be an outlet for the information to be used. For example, in the case of ESIF, this would be the managing authority[61], but ultimately the monitoring committee through the annual implementation report.

Useful guidance in preparing for monitoring and evaluation can be found, for example, in the EU-financed Community of Practice on Results Based Management (COP RBM), the OECD's Summary of Key Norms and Standards for Evaluation[62] and the Civicus Toolkit on Monitoring and Evaluation.

Public administrations may also find **outcome mapping** useful as a complementary tool and approach for planning, monitoring and evaluation, as its focus is on the behavioural changes brought about by interventions in socio-economic development. Guidance is available from the aforementioned COP RBM[63], and also the United Kingdom's Overseas Development Institute and the Outcome Mapping Learning Community.

At the outset, it is essential that there is **political buy-in** to monitoring and evaluation, to have confidence that the learning points will be internalised when they emerge. This willingness to absorb findings, and momentum, can be built over time by collecting and presenting relevant information that satisfies the information needs of ministers, mayors or councillors, in usable formats (as per step 5).

Evaluations can suffer from poor planning, which leads to ambiguity in purpose and objectives, vagueness in scope, lack of rigour in the analysis, and ultimately blandness in the conclusions which makes it hard to extract useful recommendations. Centres of Government and line ministries can improve the governance of evaluation by publishing **procedures** with clear guidelines on the timing of evaluations for different purposes (*ex-ante*, interim, etc.), the standards they should meet, and the techniques that should be employed. The European Commission's website includes useful guidance on planning and performing evaluations, especially within the context of evaluating ESIF programmes for 2014-2020 (see also topic 8.3).

The decision to move into performance audits can only be taken by the SAI itself, with the consent of parliaments that vote directly for SAI funding. However, there is useful guidance on the websites of the International Organisation of Supreme Audit Institutions (INTOSAI), as well as the European

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[61] Or possibly the intermediate body as the first port-of-call.
[62] This is aimed at developing development cooperation, but interesting nonetheless.
[63] Sourcebook, pages 179-182

Court of Auditors (ECA). INTOSAI has published implementation guidelines[64], which are the basis of the ECA's Performance Audit Manual. With their focus on effectiveness, efficiency and economy, performance audits serve a similar purpose to evaluations. The ECA's manual usefully distinguishes between the two disciplines, the principal difference being the status of the SAI in holding administrations to account. Unlike financial audit, which follows a standardised methodology, performance audits tailor their methods to the subject under consideration, in accordance with INTOSAI guidelines. [65]

Evaluation v performance audit

Both activities involve the examination of policy design, implementation processes and their consequences to provide an assessment of economy, efficiency and effectiveness of an entity or activity. They require similar knowledge, skills and experience and involve similar methods for collecting and analysing data. The main difference is the context in which they take place and the purpose of each. Performance audit is superimposed on an accountability framework, which implies that the Commission and other institutions and organisations concerned are held responsible for the management of EU funds and should provide meaningful and reliable information to demonstrate and take responsibility for performance in light of agreed expectations. Performance audits are carried out by auditors who maintain their independence to select and determine the manner in which to conduct their work, and report the results to the discharge authority (European Parliament acting on the recommendation of the Council). It is therefore not the purpose of the Court's performance audits to deliver comprehensive evaluations of EU activities. This is the responsibility of the Commission, Member States and other managers of EU activities. However, performance audits will usually include evaluative elements of selected subjects and consider evaluation systems and information with a view to assessing their quality and, when they are considered to be satisfactory and relevant, use evaluation information as audit evidence.

Source: European Court of Auditor's Performance Audit Manual

In accordance with INTOSAI guidelines (ISSAI 3000, 2.1), "*the mandate of performance auditing should cover the state budget and all corresponding government programmes. The auditor must be free to select audit areas within its mandate. Political decisions and goals established by the legislature are the basic frame of reference. A performance audit may, as a result of its findings, question the merits of existing policies. Performance audits are in general ex post audits that deal with current issues. High levels of quality in the work must be promoted and secured.*"

At the heart of the monitoring system are **performance indicators**. These can be either quantitative or qualitative, depending on the nature of the indicator (or 'metric'). The indicators that are considered to be the most important are often called 'key performance indicators' or KPIs. As the COP RBM has highlighted in its Sourcebook, different terms are used for indicator types by various organisations

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[64] ISSAI 3000 Implementation Guidelines for Performance Auditing: Standards and guidelines for performance auditing based on INTOSAI's Auditing Standards and practical experience and ISSAI 3100 Performance Audit Guidelines – Key Principles.

[65] "*Performance auditing is not overly subject to specific requirements and expectations. While financial auditing tends to apply relatively fixed standards, performance auditing is more flexible in its choice of subjects, audit objects, methods, and opinions. Performance auditing is not a regular audit with formalized opinions, and it does not have its roots in private auditing. It is an independent examination made on a non-recurring basis. It is by nature wide-ranging and open to interpretations. It must have at its disposal a wide selection of investigative and evaluative methods and operate from a quite different knowledge base to that of traditional auditing. It is not a checklist-based form of auditing*" (INTOSAI Performance Audit Guidelines, ISSAIs 3000, 1.2).

(including the EU and OECD[66]), and hence the following is a guide for common understanding on terms in the rest of this section.

Type	Brief description
Inputs	These are the resources used in the policy, programme, project, service or organisation, whether financial, human, material, or technological. In practice, this indicator is often shown simply in price/cost terms (the amount spent on activities).
Outputs	These arise from the activities of the policy, programme, project, service or organisation and are deliverables (such as products, services, buildings and infrastructure). Monitoring and evaluation should consider not just the existence of the output, but its quality, characteristics, functionality, and timeliness too.
Results	These are the direct changes that are brought about by the activity. For example, if the output of the activity 'rehabilitate railways' was 50km of track re-built, then the immediate benefits might be measured as higher design speed and/or higher maximum load, which would be the specific / operational objectives.
Impact	These are the development effects that accrue from the results of the activity (corresponding to strategic objectives). Using the railways example, the impact might be faster travel time, more trains per hour using the track, and/or improved safety record (fewer accidents). The longer-term and more 'global' impact might be felt in better socio-economic performance, such as GDP, jobs and well-being, but these are harder to link causally to the activity and its outputs.
Context	These are variables in the wider socio-economic environment that can have an exogenous effect on the inputs, activities, outputs, results and impact.

The convention is that each performance indicator should contain five components for the sake of completeness.

Component	Purpose
Definition	The indicator should be clearly stated, so that there is no ambiguity in the minds of the reader, or indeed the people providing or collecting the information, about its content and meaning. While the indicator may be described in shorthand (such as 'jobs created'), it should include explanations, and if necessary references to official definitions, statistical sources and documents, that the reader can follow to understand fully the use of specific terms (e.g. "'jobs created' means the additional employment by beneficiary organisations of persons that undertook the activity supported under the programme and were still in post 12 months after the activity was completed").
Source	Again, the indicator should be clear on how information will be gathered, whether it is quantitative or qualitative. This might involve officially recognised sources (such as Eurostat, national statistics agency, ministry, etc.) or other authoritative source (credible research organisation, academic institution, etc.). It might necessitate an original survey, in which case the methodology must be robust, and ideally elaborated when the indicator is designed.
Timescale	The indicator should be accompanied by a statement of the frequency in which information will be collected and reported, and over what timeframe. In other words, it should state whether the intervals that information will be gathered (e.g. ongoing/real-time, monthly, quarterly, six-monthly, annually, biannually). Depending on the indicator and source, this might be highly specified to reflect publication dates of official data (e.g. "on 15 March and 15 September each year"). The indicator should state 'from when – to when'. For example, it might be appropriate to start gathering information as soon as the activity starts, or only a year after it has been completed, and to stop assessing performance after, say, 2 years.
Baseline	In many cases, the purpose of the indicator will be to track performance over time, in which case the reader needs to know the starting point. Typically, the baseline position will be set out at the same time as the indicator is adopted, so that again there is no ambiguity later.

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[66] For example, OECD refers to 'results' in the table as 'outcomes', and sees 'outputs, outcomes and impact' as 3 levels of 'results' instead.

> **Benchmarks**   Whether the comparison is over time or with peer performance (other countries, regions, localities, etc.), it is common to establish 'comparators' as reference points. If the aim is to achieve eventually a certain level or threshold of performance, these benchmarks are usually called 'targets', usually stated with a time by which the target will be achieved (e.g. "in three years" or "by 2020").

Performance indicators are an easy concept to grasp, but harder to **design and operationalise** in practice. Generating indicators raises all sorts of questions:

- **Does the indicator reflect accurately the objective?** Does it capture what we are trying to do and achieve?

- **Is the information available?** We can try and design the 'perfect' indicator, but can it be measured? Is the cost of gathering information manageable? Does a baseline exist, or is it too late to gather the information to make one? If it is a qualitative indicator, how can we compare it over time or with our peers' performance? Are we falling into the trap of designing indicators around the available data – only measuring the measurable?

- **Is the situation too complex to 'collapse' it into an indicator?** Will it give us a false impression of our performance? Or worse still, by simplifying a complex situation in an indicator, will it push us to emphasise certain elements at the expense of others, and lead to 'bad policy'?

- **Does the indicator really tell us what we think it tells us?** For example, if the indicator is 'number of complaints', does an increase mean that the service is performing worse than before, or that the institution has been successful in becoming more open and welcoming feedback? In the example, is 'number' the best choice of metric – what does it tell you, if the number of service users is also going up, should it be 'percentage' instead and does that tell you much more?

- **Does measuring performance create its own incentives?** Will the presence of an indicator by itself change behaviour: for the better (focus implementers on what is most important) or for worse (concentrate on doing only enough to satisfy the indicator)?

When approaching monitoring and evaluation, a careful choice of indicators is critical, as is their content. This includes decisions on details (e.g. whether 'number' or 'percentage'), but also not relying too heavily on quantitative indicators and especially single metrics. The risks of over-simplicity can be compounded if administrations 'go public' with their indicators, and expect citizens to judge the government's or judiciary's record on the outcome. It is almost impossible to design indicators which encapsulate all the dimensions and subtleties of a policy in a single metric, especially those which are behavioural, cultural or otherwise qualitative, and therefore hard to quantify.

There is also the risk of the **observer effect**: the act of monitoring itself changing the performance of the observed (the implementer). It is essential that 'the tail doesn't wag the dog': striving to hit targets ends up driving decision-making, distorting priorities compared with the diversity of

problems being addressed, and directing resources into some areas at the expense of others. Indicators themselves are not solutions, they are only guides to whether proposed solutions are working.

The importance of indicators is illustrated by their absence; without them, public policies can end up losing direction. **Targets** are one step further - something to aim for, as the name suggests. If they are not hit, the challenge is to understand why the target was missed, by how much, and to alter direction to get closer. In some cases, it may be the target itself that is unrealistic and unattainable, and the sensible response is to adjust or to abandon it, and to embark on a new course of action.

Designing indicators for usefulness
♣ *Develop a portfolio of indicators* which capture many different aspects of a policy challenge, to build up a fuller and more sophisticated picture, while avoiding information overload.
♣ *Don't rely on indicators alone to inform you about performance*. A more rounded assessment of accompanying indicators with insights into what is happening on the ground. For example, a programme might achieve its goal of laying 50km of highway, but unless the supervising engineer can validate that the road has been constructed to agreed specification and standards, the output will be poor value for money and not built to last.
♣ *Above all, emphasise interpretation (step 4) and application (step 5)*. Indicators should be treated as a management tool for improving governance and the future design of policies, programmes and projects/services, not an absolute test of their validity, given all sort of factors might be in play.

Step 3 is **data collection**. Clearly, how information is gathered will depend on the source and the frequency with which data can be made available. These factors will be determined when the indicator itself is defined. The frequency may vary from continuous (in the case of price-based input data) to, at the other extreme, once a decade (in the case of a population census, for example); administrations will wish to tend towards regular flows of information for practical reasons. Ideally, all chosen indicators will be capable of monitoring and evaluation at minimum administrative cost. Information that is automatically generated through day-to-day activities, or regularly assembled by official sources (such as statistics agencies, ministries or municipalities) are ideal, but administrations should not be constrained by immediate availability. In some cases, surveys, panels, self-assessments and other forms of original research might be necessary – but the cost will need to be weighed up and the organisation factored into the planning.

The United Nations Development Programme has identified innovative approaches to monitoring and evaluation, which include novel and user-centric ways of data collection. These include methods for increased participation of citizens, either directly such as providing input through SMS reporting or story-telling, or indirectly, with information being collected and analysed remotely and in the aggregate. The example of Italy's OpenCoesione platform and 'monithon' (see topic 2.3) is a prime example of a participatory approach, in this case to monitoring ESIF performance.

Innovations in monitoring and evaluating results

Innovation	Overview
Crowdsourcing	A large number of people *actively* report on a situation around them, often using mobile phone technology and open source software platforms
Real-time, simple reporting	A means to reduce, to a minimum, the formal reporting requirements for programme and project managers and free up their time to provide *more frequent, real-time* updates, which may include text, pictures, videos that can be made by computer or mobile devices
Participatory statistics	An approach in which local people themselves generate statistics; participatory techniques are replicated with a large number of groups to produce robust quantitative data
Mobile data collection	The targeted gathering of structured information using mobile phones, tablets or PDAs using a special software application.
The micro-narrative	The collection and aggregation of thousands of short stories from citizens using special algorithms to gain insight into real-time issues and changes in society
Data exhaust	Massive and passive collection of transactional data from people's use of digital services like mobile phones and web content such as news media and social media interactions
Intelligent infrastructure	Equipping all – or a sample of – infrastructure or items, such as roads, bridges, buildings, water treatment systems, hand-washing stations, latrines, cook stoves, etc., with low-cost, remotely accessible electronic sensors
Remote sensing	Observing and analysing a distant target using information from the electromagnetic spectrum of satellites, aircrafts or other airborne devices
Data visualisation	Representation of data graphically and interactively, often in the form of videos, interactive websites, info-graphs, timelines, data dashboards, maps, etc.
Multi-level mixed evaluation method	This approach includes the deliberate, massive and creative use of mixed (quantitative and qualitative) methods on *multiple* levels for complex evaluations, particularly for service delivery systems
Outcome harvesting	An evaluation approach that does not measure progress towards predetermined outcomes, but rather collects evidence of what has been achieved, and works backward to determine whether and how the project or intervention contributed to the change

Source: UNDP (2013), "Innovations in Monitoring & Evaluating Results, Discussion paper"

Step 4 is **analysing the data.** This is the point at which monitoring and evaluation have a shared interest.

Both instruments are about interpreting information to learn lessons, the main differences being when these reviews take place and by whom. Monitoring can be seen as a form of ongoing, internal, informal 'evaluation' with an operational focus; formal evaluations tend to be external, a more 'static' snapshot, and for strategic purposes.

In both cases, the administration needs to **create the time and space** for reflecting on the findings from performance measurement. With evaluations, this happens as an automatic by-product of the process; by commissioning evaluators, the administration is creating an external stimulus for scrutinising its own performance. Even if it chooses not to publish the product or take on board the recommendations, the very fact of evaluation causes questions to be asked. The same should happen with all monitoring, as a series of 'mini-reviews'. In the case of ESIF, this is exactly what occurs, but again because of external stimulus: monitoring is a regulatory requirement. The challenge is to translate the ESIF monitoring mentality into standard public sector practice, and to make the process fit the purpose of day-to-day management, whether of policies, programmes, projects, services or organisations.

In analysing data, administrations should consider **international governance indices**. These are a form of context indicator, in the sense of describing the global environment in which their policies, programmes, projects, services and organisations are operating, and in some cases, constitute exogenous factors (for example, a country's performance on rule of law has an influence on the success of activities to stimulate investment). But they also offer interesting and useful benchmarks for the whole reform process itself. The table overleaf provides an overview of widely recognised indices and reports. The extent to which global indices have mushroomed in recent years is an indicator itself of the growing interest in administrative reform. The fact that recent international studies have featured titles like "Democracy in limbo" (EIU) and "Stuck in transition" (EBRD) is a sign of the pressure on public administrations to deliver good governance.

International experts have been active in producing guidance on how to use these indices, including the OECD's 2006 "Uses and Abuses of Governance Indicators", the UNDP's 2009 "User's Guide to Measuring Public Administration Performance" and the Hertie School of Governance's 2014 "Governance Report".

Governance indices are very valuable, but should be used and interpreted with care, to avoid reading too much into individual numbers without understanding first what lies behind them. Many indices employ a 'league table' style to show the performance of individual countries in relation to others. This is an eye-catching device and can help to focus hearts and minds on the underlying problems, but must be treated with caution. Like all indicators, every index has both its valued features and its flaws. Many are composites, meaning each factor must be weighted, a process which is open to debate (and hence, the authors typically present the methodology and rationale). Moreover, comparative positions of countries will always remain relative: there must be a first and last. While movement up and down the table over the years is an interesting guide to the effect of changes in policy and practice, public administrations are not in competition except with themselves. The prize for improving governance is not promotion to a super-league of public authorities, but better societal outcomes: prosperous economies, cohesive societies, sustainable environments.

Hence, the key is to dig below the headline numbers and 'league' positions, and to pose the following questions:

- What are the factors that explain **our performance**? What are the elements of a composite index that the author has considered? What can we learn from the author's underlying analysis of our policies and practices?

- What are the reasons for **higher-placed countries** showing a relatively better performance? What can we learn from their policies and practices? Is there anything that is transferable?

- If we are showing a better / worse position over time in the 'league table', is this down to changes we have made, or has **everyone** got better / worse? If everyone has got worse, then doing better is no basis for complacency - what else can we improve?

How are we doing? International Governance Indices and Regular Reports

Index	Source	Description
Corruption Perception Index (CPI)	Transparency International	The CPI scores and ranks countries/territories based on how corrupt a country's public sector is perceived to be. It is a composite index, a combination of surveys and assessments of corruption, collected by a variety of reputable institutions. A country/territory's score indicates the perceived level of public sector corruption on a scale of 0-100, where 0 means that a country is perceived as highly corrupt and a 100 means that a country is perceived as very clean. A country's rank indicates its position relative to the other countries/territories included in the index. Ranks can change merely if the number of countries included in the index changes. Annual update.
Democracy Index	Economist Intelligence Unit	The Economist Intelligence Unit's index of democracy, on a 0 to 10 scale, is based on the ratings for 60 indicators grouped in five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Each category has a rating on a 0 to 10 scale, and the overall index of democracy is the simple average of the five category indexes. Annual update.
Doing Business Indicators	World Bank	*Doing Business* measures the quality of the business environment. In 2017, the report covers the following 11 categories: starting a business; dealing with construction permits; getting electricity; registering property; getting credit; protecting minority investors; paying taxes; trading across borders; enforcing contracts; resolving insolvency; and labour market regulation. The methodology evolves over time; therefore year-to-year performance comparisons might not automatically be meaningful. Data is not based on firm or household surveys but on expert assessments.
Freedom in the World	Freedom House	Freedom in the World is a survey-based annual global report on political rights and civil liberties, composed of numerical ratings and descriptive texts for each country. The report's methodology is derived in large measure from the Universal Declaration of Human Rights, adopted by the UN General Assembly in 1948. Freedom in the World operates from the assumption that freedom for all peoples is best achieved in liberal democratic societies. The report assesses the real-world rights and freedoms enjoyed by individuals, rather than governments or government performance per se. Political rights and civil liberties can be affected by both state and non-state actors. While both laws and actual practices are factored into the ratings decisions, greater emphasis is placed on implementation.
Global Competitiveness Index (GCI)	World Economic Forum	The GCI defines competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country. It measures 12 pillars of competitiveness, of which, the first pillar concerns the "quality of Institutions". It considers the legal and administrative framework within which individuals, firms, and governments interact to generate wealth. This includes, for example, factors such as: a sound and fair institutional environment, protection of property rights, government attitudes toward markets and freedoms and the efficiency of its operations, in relation to excessive bureaucracy and red tape, overregulation, corruption, dishonesty in dealing with public contracts, lack of transparency and trustworthiness, inability to provide appropriate services for the business sector, and political dependence of the judicial system, the proper management of public finances (pillar 3) and private sector ethics and transparency through the use of standards as well as auditing and accounting practices. Annual Report. The 2014 report covers 144 economies. It is based on a mixture of data sets – both quantitative and opinion survey based.

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| Government at a Glance	OECD	*Government at a Glance* provides a dashboard of key indicators contributing to the analysis and international comparison of public sector performance. Indicators on government revenues, expenditures, and employment are provided alongside key output and outcome data in the sectors of education and health. Government at a Glance also includes indicators on key governance and public management issues, such as transparency in governance, regulatory governance, new ways of delivering public services and HRM and compensation practices in the public service. It is published every two years, and covers only OECD members, thus some EU countries are not included (BG, CY, HR, MT, LT, LV, RO).
Prosperity Index	Legatum Institute	The Legatum Prosperity Index offers an insight into how prosperity is forming and changing across the world. The Index is a measurement of prosperity based on both income and well-being. Traditionally, a nation's prosperity has been based solely on macroeconomic indicators such as a country's income, represented either by GDP or by average income per person (GDP per capita). However, most people would agree that prosperity is more than just the accumulation of material wealth. It is also the joy of everyday life and the prospect of being able to build an even better life in the future. One of the eight pillars of the index covers governance. Variables for assessing governance include government stability, government effectiveness, and rule of law, including subcategories of: regulation, separation of powers, political rights, government type, political constraints, efforts to address poverty, confidence in the judicial system, business and government, corruption, government effectiveness, environmental preservation, separation of powers, government approval, voiced concern, confidence in military, confidence in honesty of elections. The annual report covers 142 countries.
Quality of Government (QoG)	Quality of Government Institute, University of Gothenburg	The QoG is a survey with an information data set on the structure and behaviour of public administration. The data is based on a web survey of 1294 experts from 159 countries. The dataset covers different dimensions of Quality of Government, such as politicisation, professionalisation, openness, and impartiality. The QoG web survey is an ongoing project and data is continuously updated to increase the number of participating experts and the number of countries represented by the survey.
Sustainable Governance Indicators (SGI)	Bertelsmann Foundation	SGI is a platform built on a cross-national survey of governance that identifies reform needs in 41 EU and OECD countries. The SGI brings together a broad network of experts and practitioners aiming to understand what works best in sustainable governance. SGI themes include: *Policy Performance* – including economic policies, social policies, environmental policies; *Democracy* - quality of democracy; and *Governance* - executive capacity, executive accountability

Transformation Index	Bertelsmann Foundation	The Bertelsmann Transformation Index (BTI) is based on 129 country reports. As the focus is on emerging economies, just 11 EU countries from the latest accessions are covered (not CY). The BTI analyses and evaluates whether and how developing countries and countries in transition are steering social change toward democracy and a market economy. The BTI aggregates the results of this comprehensive study of transformation processes and political management into two indices: The *Status Index* and the *Management Index*. The Status Index, with its two analytic dimensions – one assessing the state of political transformation, the other the state of economic transformation – identifies where each of the 129 countries stand on their path toward democracy under the rule of law and a market economy anchored in principles of social justice. Focusing on the quality of governance, the Management Index assesses the acumen with which decision-makers steer political processes. The BTI is published every two years. The BTI does not cover countries that were members of the Organisation for Economic Cooperation and Development (OECD) by the year 1989. The Transformation Index is based on a qualitative expert survey in which written assessments are translated into numerical ratings and examined in a multi-stage review process, to make them comparable both within and across regions. Assessed variables include: stateness; political participation; rule of law; stability of democratic institutions; political and social integration; level of socioeconomic development; organisation of the market and competition; currency and price stability; private property; welfare regime; economic performance; sustainability; transformation management (level of difficulty & management performance); steering capability; resource efficiency; consensus building; internal cooperation; and strategic outlook.
Transition Report	European Bank for Reconstruction and Development	The *Transition Report 2016-17* deals exclusively with the subject of inequality and economic inclusion. It draws on the third round of the Life in Transition Survey (LiTS III), a household survey conducted by the EBRD and the World Bank in 34 countries in 2015-2016, comparing the results with the first two rounds (2006 and 2010). It also uses the results of a unique survey of bank managers (the EBRD's Banking Environment and Performance Survey) and other data sources. Of the EU countries, it only covers the Member States of the 2004 accession onwards.
WJP Rule of Law Index	World Justice Project	The WJP Rule of Law Index offers a detailed, multidimensional view of the extent to which countries adhere to the rule of law in practice, and is the most comprehensive index of its kind. The Index's scores are built from the assessments of 1,000 respondents per country and local legal experts, ensuring that the findings reflect the conditions experienced by the population, including marginalised sectors of society. The 2016 edition expands coverage to 113 countries and jurisdictions (from 102 in 2015), relying on more than 110,000 household and expert surveys. Performance is measured using 44 indicators across eight primary rule of law factors, each of which is scored and ranked globally and against regional and income peers: constraints on government powers, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice, and criminal justice.
Worldwide Governance Indicators (WGI)	World Bank Group	The WGI project reports aggregate and individual governance indicators for 215 economies over the period 1996–2013, for six dimensions of governance: Voice and Accountability; Political Stability and Absence of Violence; Government Effectiveness; Regulatory Quality; Rule of Law; Control of Corruption. These aggregate indicators combine the views of enterprise, citizen and expert survey respondents in industrial and developing countries. They are based on 32 individual data sources produced by a variety of survey institutes, think tanks, non-governmental organisations, international organisations, and private sector firms.

Some indices use the difference in position between individual countries and 'best in class' to show the **distance** that the country still needs to cover. This concept of a journey is helpful, as long as contextual factors are also taken into account, because it focuses on the absolute improvements that are needed in the administration under consideration, and in which areas.

As a feedback mechanism, monitoring is invaluable in steering policies and programmes towards success, but sometimes more in-depth explanations are needed for what is happening and why. For **more fundamental reviews** of plans and performance, one step removed from implementation, public administrations should engage in evaluation, drawing on monitoring data where it is available, and conducting original research (interviews and surveys) where it is not. Both evaluation and performance audit have efficiency and effectiveness as core concepts, but also take account of the sustainability of policy outcomes.

Ratio	Key questions
Efficiency	How well have the various inputs and resources (funds, expertise, time, etc.) been converted through activities into expected outputs? Could the same outputs have been achieved at lower cost, or better outputs for the same cost?
Effectiveness	To what extent have the objectives (specific / operational and strategic) been achieved or are expected to be achieved? Have the interventions and instruments used produced the desired outcomes (results and impact), or could better effects be obtained by using different instruments?
Sustainability	Are the policy outcomes (including institutional changes) durable over time? Will they continue if there is no more public funding? How resilient are they?

The relationship between inputs, outputs, results and ultimate impact is illustrated below:
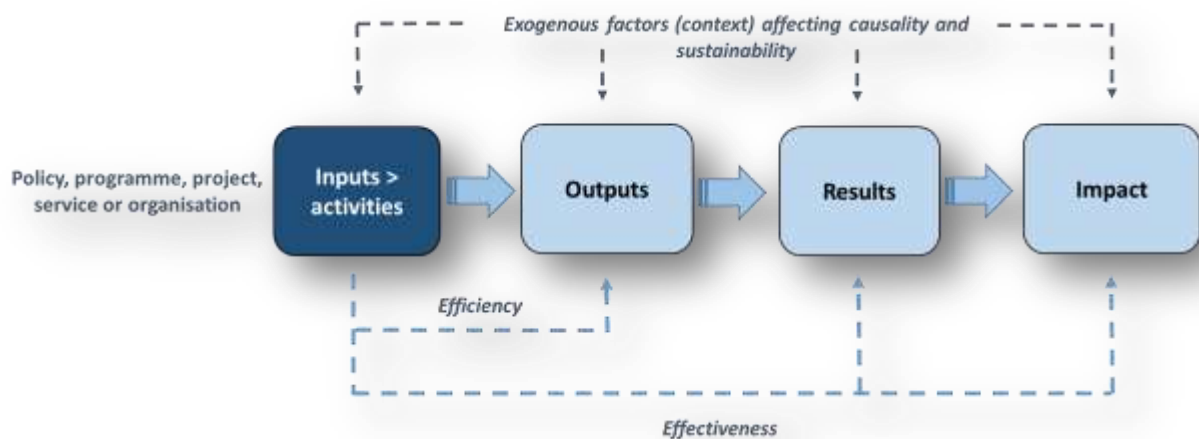
Evaluations and performance audits should also consider **causality** and the **magnitude** of effects. This is about assessing the extent to which policy interventions create the expected effects, or whether there are other exogenous factors which influence outcomes and led to unintended consequences. This has two components: contribution and attribution.

Factor	Key questions	Analysis
Contribution	Is the intervention in fact one of the causes of observed change?	Rank the assessed intervention among the various causes explaining the observed change
Attribution	What proportion of the observed change can really be attributed to the evaluated intervention?	Build a counterfactual scenario: what would have happened without the intervention?

For an inspiring example of using counterfactuals, please see employment programme innovation practised in Denmark using randomised controlled trial experiments (topic 1.3.3).

Step 5 of the process is **action**. Ultimately, there is no merit in monitoring, evaluation or audit

unless it affects performance. If there is deviation from the plan, which might be positive or negative, the point is to understand why and to make adjustments (or not) in either the policy, programme, project / service or indeed the plan itself, to achieve the objective.

This starts with **reporting**: the format in which performance information is presented should be appropriate to the target audience, which includes management, but often external audiences too, including politicians and the public. This may require different styles and levels of detail.

Evaluations often have limited impact on policy-making, either because: their timing is out of step with the policy process (the findings arrive too late to influence policy design); there are conflicts of interest (the same staff that designed the policy also supervise or conduct its evaluation); the recipients are not interested or incentivised to learn lessons from the past; or they are simply not commissioned in the first place. The independence of performance audits is one of their key strengths, although this can also be a weakness if their timing is uncoordinated with the policy process, in which case the public administration's main concern can be defending past decisions, rather than focusing on the future. The following table sets out some potential answers to these weaknesses.

Challenge	Solution
Evaluation are not a systematic part of the policy process	✦ Introduce a law or code of conduct which commits the administration to evaluate policies and programmes, subject to the expected benefits exceeding the costs; ✦ Publish an annual evaluation plan, which sets out the priorities for evaluations over the coming year with a clear timetable.
Evaluation is not sufficiently impartial	✦ Assign responsibility for evaluation to a unit which is separate from the ministry or department which is responsible for the policy; ✦ Request the SAI to audit the evaluation process.
Evaluation findings are ignored	✦ Pre-commit through a law or code of conduct to publish all evaluation findings on the government's website; ✦ Introduce 'real-time' evaluations, which are conducted in parallel with implementation, and hence have a greater chance of influencing ongoing policy development.

The evaluation process itself can be used to take forward **organisational learning**, by involving the public administration in its preparation and implementation, not just as the recipient of the report(s). This is where it is very important to build capacity within the administration to plan and oversee evaluations, and use the findings (see also topic 8.3.3 on working with consultants).

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In addition to formal evaluations, **peer reviews** (including 'gateway reviews'[67]) can be valuable in drawing on the knowledge of expert practitioners - independent from the process - in short, focused inputs to strengthen policy design and implementation. Another alternative to evaluation being organised solely by governments is **co-evaluation**: the active involvement of stakeholders in evaluating public policy and programmes, as exemplified by Italy's pilot 'Civil Evaluation' (see topic 5.5), which has the innovative aim of promoting wide collaboration between public administrations and citizens (users) in assessing public services. The principles underlying this case study are explored further in the context of customer satisfaction of service delivery.

1.3.2 Encouraging external scrutiny

The transparency of government helps to stimulate policy development in public administrations, much in the same way that competition entices enterprises to find better ways to satisfy customers' needs, through external pressure. Governments at all levels are held to account by **parliaments and assemblies**, aided by SAIs, independent regulatory bodies, and Ombudsmen that conventionally report directly to them. They channel the views of the electorate and ensure that their expectations have an outlet.

Monitoring, evaluation and audit

Encouraging external scrutiny

Fostering innovation
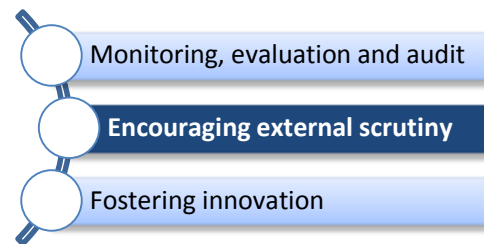
Other institutions outside of the public sector also play essential roles. An **independent and investigative media** may not always be welcomed by governments, but it provides a window into the workings of public administrations and a source of scrutiny that drives up the standards of government and is especially valuable in putting ethics and integrity in the spotlight. Through discourse and dissent, the media provides a 'safety valve' that is vital for political stability and economic prosperity.

Similarly, the 'third sector' of **civil society organisations (CSOs)** provides a voice to local communities and interest groups, with a combination of campaigning energy and expertise, often in specific policy domains, such as environment, enterprise, etc. Civil society is highly heterogeneous, covering everything from humanitarian aid to lobbyists and think tanks, business associations to trade unions to educational bodies, and active in all the fields in which both the public and private sectors are also present. What CSOs have in common is two 'negatives': not being part of the government and not distributing profit to their members. However, while any surpluses are retained to reinvest in activities, the reality is that CSOs frequently experience financial insecurity, being dependent on donations and project funding. As few CSOs have the scale to operate at national or international levels, most tend to remain small and localised, leaving the sector fragmented, fragile and constantly facing an uncertain future. This is where public administrations can intervene to good effect, while preserving the CSO's independence. While many CSOs rely on ESIF funding for their project-based finance (see theme 8), there is also the option of **core funding** from national budgets voted by parliaments.

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[67] Conducted at key stages in the implementation of a programme or project.

The ongoing focus on finding funds distracts many CSOs from pursuing their primary objectives, but weaknesses in governance structures and coordination can also play their part. The sector is sometimes characterised more by competition over scarce resources than cooperation over a shared vision, making the CSO community reactive to the public administration's agenda, rather than anticipating and advocating change. Inadequate networking among CSOs can undermine their effectiveness and miss the opportunity to engage better with businesses and citizens over common causes. Some public administrations have reached out to representatives of the CSO community, to better understand their development needs and to formalise their advocacy role in an advisory capacity with **standing committees**, such as Croatia's Council for Civil Society Development (CCSD), whose members are elected by NGOs.

Inspiring example: Fostering structured civil dialogue (Croatia)

Developed as the most important institutional mechanism for civil dialogue, the Council for Civil Society Development (CCSD) aims at involving wider civil society in the shaping of public policies in Croatia. Given the difficulties most governments face when trying to set criteria for identifying and nominating civil society representatives (CSRs), the procedure for the election of CSRs is an example of good practice, with a great potential for replication in other countries.

The CCSD was established in 2002 as an advisory body, providing a forum for direct and formal dialogue between government bodies and civil society. It is composed of 31 members:

- 15 representatives of government bodies;
- 16 representatives of civil society organisations, namely: 13 representatives of NGOs/citizens' associations, elected by NGOs themselves through public elections; one representative of trade unions, nominated by the coordination of trade union federations; one representative of employers' associations, nominated by the Croatian Union of Employers; and one representative of foundations, nominated by Croatian Network of Foundations;

The CCSD is based on the notion of openness and inclusion as drivers to a more efficient and transparent public administration. The idea is to achieve structured co-operation between public administration and civil society, as well as creating the conditions for sustainable development. In line with the actual problems, i.e. the lack of a structured dialogue and the social doubts about the transparency within public administrations, the introduction of the CCSD brought a new dimension to the system. The Council enables regular and valuable exchange of opinions, know-how and experience between the representatives of different sectors, contributing also to building mutual trust and understanding.

Members of the Council representing NGOs (as the most numerous and diverse actors of civil society) are elected by NGOs themselves through a transparent and democratic procedure, based on a public call for nominations and public call for voting for eligible candidates. The two-stage procedure of electing Council members begins with a public call for nominations widely disseminated and published in all media. NGOs nominate candidates solely for the area in which they operate, taking into account that every NGO or a formal network or association of NGOs can nominate only one candidate for member and substitute member of the Council. Nominations are sent by post using a standard nomination form with a set of required supporting documents. The expert commission checks the eligibility of candidates and establishes the list of candidates with valid nominations, which is published on the website of the Office for Cooperation with NGOs. After that, a public call for voting for eligible candidates is published on the Office website and NGOs vote for eligible candidates submitting a standard voting form available on the Internet by regular post, respecting the principle that one organisation can vote only once. Finally, the expert commission (nominated by the previous Council) proceeds to counting votes, and those candidates with the largest number of votes are proposed to be appointed members and substitute members of the Council by the Act of the Government of the Republic of Croatia. For the purposes of ensuring transparency, detailed information on all valid and invalid votes by

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candidates is available on the Internet. In addition, all organisations can access all supporting documentation and check the validity of votes sent by post, which contributes to the transparency of the process.

At the 2010 CCSD elections, 787 NGOs sent their voting ballots for candidates for the council members (and substitute members) in different sectors, showing a high level of concern and interest in who represents the civil society and what kind of expertise will be added to this advisory body of the Croatian Government.

The CCSD's work is well complemented by the activities of the Government Office for Cooperation with NGOs (founded in 1998) and the National Foundation for Civil Society Development (established in 2003). These three institutions form a three-pillar framework for creating a more enabling environment for civil society development in Croatia. The role and importance of the CCSD has been continuously growing over the past 12 years. Its contribution has been additionally recognised with regards to ensuring participatory programming of EU funds, improving standards of public funding for CSO programmes, as well as developing the normative framework for public consultations on new draft laws, other regulations and acts. The widespread acceptance and positive reviews of its work show the potential for the CCSD to contribute towards more open, participatory and collaborative approaches to public policy-making across the Croatian public sector.

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1.3.3 Fostering innovation

Innovation is central to achieving the goals of Europe 2020 - and public administrations are pivotal to stimulating innovation. The public sector is directly responsible for around one-third of research and development (R&D) in Europe, as well as ensuring and enforcing the right regulatory environment for private R&D, through patenting and protecting intellectual property rights.

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Through public funding, governments have driven the development and demonstration of key technologies, such as renewable energy sources, biotechnology and nanotechnology, at the early stages, when the returns are too long-term and the risks too high for private investors. Through the state's role in funding healthcare, education, defence and infrastructure, public procurement offers considerable leverage over private innovation in high technology industries, such as pharmaceuticals, ICT, aerospace, transport, energy and environment (see also topic 8.2.4). The role of innovation within public administrations is equally important in improving services, strengthening productivity, and bringing new thinking to old problems.

Making the case for public sector innovation

In addition to the public sector's role in catalysing innovation in the wider economy, there is an urgent need to power innovation within the public sector itself to unlock radical productivity improvements and efficiency gains, to foster the creation of more public value and a better response to societal challenges. Innovation in the public sector … can be defined as the process of generating new ideas and implementing them to create value for society, covering new or improved processes (internal focus) and services (external focus). It takes on a variety of forms, ranging from smarter procurement, mobilising new forms of innovation financing, creating digital platforms and citizen-centric services, as well as driving a new entrepreneurial culture among public managers.

Source: European Commission, Directorate-General for Research and Innovation (2013), Powering European Public Sector Innovation, Towards A New Architecture, Report of the Expert Group on Public Sector Innovation.

Topic 1.3: Continuous improvement & innovation

Statistics indicate that the demand for public services in many advanced countries is growing faster than the rest of the economy - a trend started before the onset of the recent global financial and economic crisis, and the resultant fiscal deficits.[68] To reduce indebtedness, the public sector is subject to major budgetary constraints, but the expectations of public services have never been higher. Innovation is vital for increasing public sector efficiency (value for money, better for less) and for delivering new and better-quality services. In fact, innovation in public sector organisations can be defined even more broadly, as comprising **seven dimensions**:[69]

Type	Clarification
Product	Developing new or enhanced products, such as electronic ID cards, better laws and regulations.
Process	Re-designing organisational processes to improve their performance and efficiency, such as lean production, reorganisation of back-office processes, etc. (see theme 5)
Service	Discovering new ways to provide public services to citizens and businesses, such as through smartphones, social media, co-delivery, etc. (see theme 5 and theme 6)
Position	Identifying new contexts or 'customers' for public services, and increasing the tailoring and targeting towards specific groups and individuals, such as offering personalised online services through MyPage, or repositioning the relationship between government and immigrants
Strategic	Defining new goals or purposes for the organisation, such as the role of public sector in the sustainability and social responsibility debate.
Governance	Finding new forms of citizen engagement and democratic institutions, such as area forums, e-Participation, devolved administration, etc.
Rhetorical	Introducing new language and concepts into public administration, such as the concept of 'congestion charging' in city centres, or 'nudging' to influence the behaviour of citizens and businesses to achieve policy goals.

The stimulus for innovation can come from different sources, and can be policy-driven, organisation-driven, professional-driven or user-driven. Unfortunately, evidence suggests that public sector innovation today mostly happens through *ad hoc* and uncoordinated initiatives, rather than due to deliberate and systematic efforts.[70] The European Commission's Expert Group on Public Sector Innovation has identified **internal barriers** which hold back public administrations from becoming more innovative in four broad categories:[71]

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[68] See: G. Mulgan (2007), *Ready or not? Taking innovation in the public sector seriously*, NESTA; and S. Kelman (2008), *The 'Kennedy School' of research on innovation in government*, pp28-51 in S. Borins (ed.) (2008) 'Innovations in government: research, recognition and replication', Brookings Institution

[69] See also J. Hartley (2005), *Innovation in governance and public services: past and present*, Public Money and Management, 25:1.

[70] European Commission, Directorate-General for Research and Innovation (2013), *Powering European Public Sector Innovation, Towards A New Architecture*, Report of the Expert Group on Public Sector Innovation, p.5

[71] Op cit.

Obstacles to innovation	Challenges
Weak enabling factors or unfavourable framework conditions	Public sector organisations face structural obstacles (scattered competences, ineffective governance mechanisms, and diverse legal and administrative cultures), resource constraints to develop and deploy staff and to finance roll-out, and inadequate coordination within and across organisations to share, spread and scale-up successful initiatives.
Lack of innovation leadership at all levels	Ultimately, innovation is down to individuals. Public administrations need leaders that can envisage and manage change at all levels: politicians, top civil servants, mid-level managers, policy advisers, front-line staff, etc. However, the public sector can be slow to recognise and reward innovation, tending to prefer caution (avoiding failure) to creativity (finding new paths to success). Rigid rules and risk-averse managers can discourage staff and stifle the diffusion of innovative ideas.
Limited knowledge and application of innovative processes and methods	To move from theory to practice, innovation needs access to capabilities (systems, skills, tools and methods), which is often absent, and collaboration (with other parts and levels of government, businesses, citizens and third sector organisations) which needs to be nurtured.
Insufficiently precise and systematic use of measurement and data	Public administrations are constrained in pursuing innovation by inadequate information on sources of new and improved products, processes and services, and monitoring data to sell the benefits for policy outcomes.

By its nature, there is no blueprint for innovation: do A, get B. Tomorrow's innovations are unknown, otherwise they would be today's. The main challenge for the public sector is to engineer the conditions and the climate for creativity to flourish. This is about **organisational culture** and can only happen with the acquiescence of the top leadership (politicians and senior management), communicated to all levels and units, and backed-up by systems and day-to-day experiences. Innovation can be embedded into institutions, if employees are encouraged and enabled to act as public sector 'entrepreneurs'.

Entrenching innovation in organisational values

An organisational culture that supports innovative working encourages risk taking and the exchange of ideas; promotes participation in decision-making; has clear goals and rewards for innovation; and provides psychological safety in relation to idea generation. The evidence shows there to be clear sector differences. Further, innovation behaviours, such as challenging current thinking and non-conformity, in one organisation, may manifest differently in another.

Our survey results confirm that organisations that actively promote and reward innovation are most effective at bringing about innovation. For example, providing 'individual and team incentives or reward programmes that encourage innovation' and having 'work time devoted to developing new ideas' were listed as among the most effective initiatives for facilitating innovation. Evidence from our interviewees also reflects the literature findings. To flourish, innovation must be entrenched as one of the core values of the organisation and the organisational objectives must be visibly aligned with those values.

"Culture and history are the main catalysts. The view that innovation is the right way forward for the business occurs from the top down and it has been engrained in the company since its formation, over 170 years ago. It is absolutely true that innovation is the lifeblood of the organisation" (Mike Addison, Open Innovator, Procter & Gamble). "P&G now also augments its internal innovation by constantly striving to create and nurture an organisational culture that is always looking externally for solutions and is proudly championing the adoption of ideas found elsewhere. We believe that the customer is the boss, and we constantly strive to make products more relevant – using the best ideas, regardless of their origin to achieve this".

Different challenges in developing a culture to support innovation are observed across sectors and organisations. For example, one interviewee in local government suggested that middle to senior managers are the key to thinking creatively and having the confidence to move forward with new ideas. "The culture is

> risk adverse in the organisation, the community and the press. Many councils may have a political dogma with [political] members in place for many years – their response is often, 'we've been so successful in the past why change?' Innovation to them sounds risky. Changing culture is about influencing member's innovativeness as well as the employees of the council." (Martin Collett, Head of Organisational Development, Tameside Metropolitan Borough Council).
>
> *Source: Extracted from NESTA (2009), "Everyday innovation: How to enhance innovative working in employees and organisations", http://www.nesta.org.uk/publications/everyday-innovation*

The aim should be an atmosphere in which it is accepted - and expected - that public servants can think laterally and radically about problems and policy solutions. They should be able to put forward their ideas internally, without inhibition. The policy-making process still needs to be evidence-based and rigorous, with robust options appraisal (see topic 1.1). But staff should be actively encouraged to challenge conventional wisdoms, question the assumptions that underlie how things are done currently, and not accept existing paradigms at face value. A good place to start is objectives and outcomes: what does the beneficiary want and how can we help them to achieve it?

In a sense, this makes the creative process a **form of ongoing 'internal consultation'**. When public bodies plan to go outside to consult citizens, businesses and other organisations on their policies and programmes, they have *unlimited* expectations of the reaction they might receive. Some of the ideas from beneficiaries might be very insightful and open whole new avenues of thinking to be explored, for example, while others might add little value and can be discarded quickly. For external consultations, public administrations can frame the discussion with their choice of questions, but they cannot control the feedback, only their response to it, irrespective of whether the format is a survey, a focus group, an SME panel, a public hearing, or a suggestions box (see theme 5). All invited views are valid, but must be screened against the criteria of what is achievable and desirable, and a decision taken on next steps. The same principle should apply to 'internal consultations', but on a continuous basis. This does not mean that permanent revolution serves the public interest: it takes time for adopted innovations to be implemented and intended beneficiaries to adjust to them, to give change a chance.

Public administrations can create the mechanisms for 'innovation through internal consultation' through **systems** for both structures and staffing:

Mechanism	Challenge
Structures	Nominate 'innovation champions' or 'innovation coordinators' across the administration to campaign for innovation, to encourage fresh ideas and to spot new practices (products, processes, services, etc.) that can be disseminated across the organisation and into other public bodies (see theme 3).
Staffing	Encourage and incentivise innovation by targeting creative talent through recruitment, staff development, performance appraisal and bonus payments, and integrating innovation as a competence into profiles and frameworks (see theme 4).

Some Member States have sought to institutionalise innovation by creating **dedicated units** like Denmark's MindLab (see topic 1.1). These units are assigned a specific agenda to think creatively, and to act as catalysers of innovation within the administration, such as the example of 'Know Share' (re-branded as 'REGIO Communities of Practitioners'), a co-design initiative of the Commission JRC's EU Policy Lab and DG REGIO.

REGIO 'Know Share' (re-branded as 'REGIO Communities of Practitioners'): co-designing a bottom-up community to improve ERDF and Cohesion Fund management

In 2015, the European Commission's Directorate-General for Regional and Urban Policy (DG REGIO) and the JRC's EU Policy Lab[72] launched a joint "design for policy" project engaging with managing authorities (MAs) and intermediate bodies (IBs) to improve the management of the European Regional Development Fund (ERDF) and the Cohesion Fund (CF).[73] Across the Member States, there are estimated to be around 24,000 public officials working in the MAs and IBs at national and regional levels on ERDF and the CF, which is a huge resource of know-how. The question was: how best to foster exchange of this collective knowledge among MAs to improve management of the funds and achieve better results?

As a first step, the EU Policy Lab organised a series of lab session with DG REGIO to unpack the problem and co-design a process aimed at creating a user-led 'platform' to forge new relationships between DG REGIO and the MAs and IBs, based on collaboration and shared responsibility. This resulted in a three-phase process based on a participatory design approach:

Phase	Co-design	Community-building
1	Analysis of the problem, co-design and prototyping of solutions with MAs/IBs	Planting the seeds of a community, identifying shared issues and champions among the MAs and IBs willing to take responsibility for action
2	Functional prototyping and testing	Growing the community and supporting the champions
3	Further development, upscaling and mainstreaming	Harvesting the results, making the process self-sustained.

The EU Policy Lab lead the implementation of the 1st phase from December 2015 to March 2016, with DG REGIO taking forward the following phases, including through the organisation of three policy laboratories during the 2016 European Week of Regions and Cities.

The methods applied are people-centred, visual, with strong user involvement to gain a better understanding of contextual factors, and find solutions through iterations. A basic principle is that there should be no preconceived idea about what the outcome should look like.

During phase 1, a group of around 30 individuals from MAs and IBs in 16 Member States were engaged through workshops and webinars, with some additional 20 persons that have followed the project. The initial group consisted of those invited to the kick-off workshop (including those that were not able to join), but has been gradually enlarged through peer-to-peer contacts within and between organisations. The process was structured to build trust among peers and generate collaboration around priority issues identified by the participants themselves (such as State aid, the capacity of ERDF beneficiaries, monitoring of projects and communication of their results). The MAs have then conducted real world experiences applying innovative tools to address concrete issues. Building on this, they have co-designed with DG REGIO a prototype of the sharing and collaboration space that is now been tested. This space will complement and amplify existing support activities implemented by REGIO, notably the TAIEX REGIO Peer 2 Peer initiative (see topic 8.3).

Read more about the project here and in this concept note that summarises the first phase of the project, its outcomes, and the recommendations for phases two and three.

As the first step to facilitating exchanges of experience and linking innovation across different levels of governance, the EU Policy Lab has conducted a mapping of public policy labs across the EU's Member States, and organised Lab Connections in October 2016, the first gathering of European policy labs. The UK's Behavioural Insights Team (or 'Nudge Unit' as it is known) is another well-known case of creating a unit that is tasked with thinking 'outside the box' - in this case on how

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[72] For an overview of the JRC and the EU Policy Lab activities, please see also topic 1.1.1
[73] See also topic 8.3 on managing European Structural and Investment Funds (ESIF).

behavioural sciences can be employed to incentivise certain policy outcomes (see topic 1.2.2). The aim is to understand how individuals take decisions in practice and how they are likely to respond to options. These insights are then employed to design policies or interventions that can encourage and enable people to make better choices for themselves and society.

Inspiring example: Behavioural Insights Team (United Kingdom)

Governments have always used a wide range of tools to achieve policy objectives. 'Traditional' tools, including legislation, regulation or fiscal measures (tax and spending) have been used throughout history to provide incentives to people to behave in certain ways. Many of the most dramatic improvements in the quality of life of British citizens have resulted from the use of instruments of this kind. The background thinking here is that many of the most pressing policy issues faced today are equally influenced by how we, as individuals, behave. We can all cite instances in which we know we should act differently in our own self-interest or in the wider interest, but for one reason or another do not. The traditional tools of Government have proven to be less successful in addressing these behavioural problems. We need to.

The Behavioural Insights Team (BIT), often known as the 'Nudge Unit', has been established to think about ways of supplementing the more traditional tools of Government with policy that helps to encourage behaviour change of this kind. It does this by applying insights from academic research in behavioural economics, psychology, and social anthropology to public policy. It is a small team of 13, with backgrounds in academia (behavioural sciences and experimental methodology), policy-making and marketing. Starting life inside the UK Prime Minister's Office, the BIT became incorporated as a social enterprise with three owners: the employees, the UK government, and NESTA (the UK's leading innovation charity) as the winners of a competitive process to become the team's joint venture partners.

Behavioural insights interventions are usually simple, highly cost-effective, and often yield surprising results. For example:

- ✓ Automatically enrolling individuals on to pension schemes has increased saving rates for those employed by large firms in the UK from 61 to 83%;
- ✓ Informing people who failed to pay their tax that most other people had already paid increased payment rates by over 5 percentage points;
- ✓ Encouraging jobseekers to actively commit to undertaking job search activities increased their chance of finding a new job;
- ✓ Prompting people to join the Organ Donor Register using reciprocity messages ('if you needed an organ, would you take one?') adds 100,000 people to the register in one year.

The Behavioural Insights Team has a methodological approach with four discrete steps.

1. Define your outcome
2. Understand the context
3. Build your behavioural insights
4. Test, learn, adapt

It begins by defining the outcome that you want to see – whether it is more people back in to work; more people saving for a pension; or fewer people failing to pay their tax on time. The next step draws on ethnography to understand better how individuals experience the service or situation in question. This understanding allows BIT to move to the next stage: building new interventions to improve outcomes. During this third phase, BIT draws explicitly on its own MINDSPACE and EAST frameworks, as well as relevant academic studies. Finally, BIT tests and trials its interventions, often using randomised controlled trials that enable BIT to demonstrate how effective the new intervention is relative to the old way of operating. The BIT paper 'Test, Learn, Adapt' sets out nine steps for running randomised controlled trials. This four-part methodology enables the user to identify what works and what can be scaled up, as well as what is less likely to be effective.

The BIT continues its programme of work with No.10 and the Cabinet Office and has had a two-year programme of work with the Government of New South Wales, supporting them to put in place a behavioural insights team which is testing interventions that have previously proved highly successful in the UK. The BIT has been working with Jobcentre Plus, the Department for Energy and Climate Change, the Department for Business, Innovation and Skills, the Metropolitan Police, and numerous other organisations in the UK and overseas to develop and test new interventions that draw on insights from the behavioural sciences. In addition to providing workshops for central Government departments and local authorities, the BIT has supported the United Nations Development Programme, UNICEF, the World Bank, the Government of Singapore and numerous other organisations that have wanted to understand better how they can draw on insights from the behavioural sciences to help them deliver more efficient and effective services.

Source: http://www.behaviouralinsights.co.uk/about-us.[74]

The 'Nudge Unit' works in partnership with an array of bodies, which is essential to maximising the influence and impact. Apart from the obvious advantages of a concentration of expertise on tap, it is not necessary to create specialist units to achieve this type of cooperation and co-creation. The Netherlands' Smarter Network is an alternative model which seeks to **connect public servants with innovative ideas** from across all levels and territories of the Dutch public administration.

Inspiring example: The Smarter Network (The Netherlands)

The main goal of 'The Smarter Network' (in Dutch, het slimmer netwerk) is to connect networks of innovating professionals throughout the public sector, and to design support structures and learning programs that help them increase their innovative capacity. As a secondary goal, Slimmernetwerk has been used as an object of research on the question: to what extent can bottom-up innovation stimulate the innovative capacity of professionals and organisations, as a mean to improve public value creation?

In practice, the network is organised through a set of activities and approaches:

- An online information knowledge-hub that serves the community (www.slimmernetwerk.nl);

- A 'doetank': an iterative innovation approach, consisting of several fixed steps that will guide small interdisciplinary groups of professionals through the process of multi-stakeholder problem defining, through in situ experimenting and reflection, to implementing. Doetanks are assisted by coaches, gatekeepers (to safeguard progress) and supported by high commissioners from government, science and society;

- Smarter Network Cafés (Slimmernetwerk Cafés): meetings aiming to support the community in terms of physical meeting, stand-up inspiration and the connection of Doetanks to networks; and

- A LinkedIn discussion group named 'slimmer werken in de publieke sector' (smarter working in the public sector) to share knowledge, thoughts and connect participants online.

The 4-year programme underlying the network is in its final stage. It is highly expected that some organisations within government will adopt the network and some of its activities in some form.

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In the context of good fiscal governance (see theme 8), public administrations should take an informed approach to risk-taking with innovation. To make progress, administrations need the freedom to exercise 'trial and error', which will inevitably bring both successes and failures. It also

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[74] See also D. Halpern (2015), *Inside the Nudge Unit*, W H Allen.

encourages **prototyping and controlled testing** before proliferation, to manage the risk with small-scale and iterative experimentation. One example is the use of randomised controlled trials in Denmark's employment service, which has been practised since 2005.

Inspiring example: Employment programme innovation via randomised controlled trials (Denmark)

To ensure evidence based policy development, and to underpin implementation of effective measures, the Danish Agency for Labour Market and Recruitment develops randomised controlled trials (RCTs). In these policy experiments, two comparable groups are randomly selected. One group receives the new treatment, the control group gets the normal treatment.

A number of municipal jobcentres and unemployment insurance funds are involved and supported in these trials. Input and outcome are measured, as well as the costs and benefits. The impact of the new treatment is evaluated by external evaluators with qualitative and quantitative methods, providing the answer to whether programme is working as expected and is effective in bringing unemployed people into ordinary jobs or education, and whether it is cost-effective.

The results from RCTs are included in the evidence base that the Danish Agency for Labour Market and Recruitment is building. The Danish Agency for Labour Market and Recruitment has published the results of this work on the web-based knowledge bank "jobeffekter.dk". The evidence base helps support the political decision-making process.

The RCT "Hurtigt I gang" (fast moving into jobs) is an example of a treatment of frequent client meetings with the jobcentre (every second week) that proved very effective. It reduces the length of the first spell of unemployment compared to ordinary client meetings held every three months. Another example is the RCT "mentor til udsatte unge uden uddannelse" (mentoring vulnerable young benefit recipients without education). A mentor increases the share of young people entering education or getting a job compared not getting a mentor.

The Danish Agency for Labour Market and Recruitment is increasingly focusing on building up evidence about the use of insights from behavioural economics and 'nudging' in labour market policy. The new RCT "Tjeklisteforsøget" (the checklist) is an experiment whereby unemployed people receive an online check-list with good advice to go into jobs, the intention being to help them become more effective job searchers. The results from this RCT will be known by the end of 2017.

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Such exercises need to be financed by public funds. The ideal scenario is that policy experimentation is integrated into budget preparation, so that each ministry or municipality has dedicated monies assigned to policy R&D. This set-aside should be viewed as **public sector 'venture capital'**, higher risk than mainstream public spending, but with the opportunity for longer-term returns from better policy outcomes to justify the investment.

An indirect but cost-effective alternative to public expenditure is to build the incentive to innovate into the regulatory framework, by establishing a **'right to challenge' principle**, which exempts public authorities, businesses and/or third sector organisations from the effects of legislation if they can demonstrate they can achieve the policy objective more effectively or efficiently with their own innovation (links to topic 1.2).

The **dissemination** of good practice relies on high calibre intelligence on what works in public sector innovation. In recent years, several pan-European organisations, including the European

Commission, EIPA and OECD, have established networks, awards or best practice websites to collect and diffuse innovative practices.

Benchmarking and learning from good practice

Benchmarking and learning from good practice are widely recognised as having a positive impact on peers. In particular, good practice serves as a source of inspiration for decision makers in the public sector for their own plans to innovate. Good practice awards have undoubtedly great potential to drive innovation through the recognition of achievements and the fact that they provide role models for imitation and replication. The ultimate goal must be to become part of a continuous learning process within and outside public administration. This implies inspiring and empowering people to take part in that process. It further implies sharing and transferring knowledge and know-how thereby influencing the learning curve of a given organisation saving time and money.

The oldest source is the European Public Administration Network (EUPAN), an informal network of the Directors-General responsible for Public Administration in the Member States of the European Union, the European Commission and observer countries. The informal structure of the Network is steered by the Ministers responsible for Public Administration. It is EUPAN's mission to improve the performance and quality of European public administrations by developing new tools and methods in the field of public administration, based on the exchange of views, experiences and good practices among EU Member States, the European Commission, observer countries and other organisations.

The OECD's Observatory of Public Sector Innovation (OPSI) collects and analyses examples and shared experiences of public sector innovation to provide practical advice to countries on how to make innovations work. It provides a place for sharing, discussing and co-creating solutions that work. The OPSI's online platform is a place where users interested in public sector innovation can: access information on innovations; share their own experiences; and collaborate with other users. The Observatory is led by a Task Force of OECD countries, chaired by Canada and France. OPSI benefits from a wide range of experience and research that is relevant to public sector innovation but exists beyond national governments. For instance, highly distinguished experts on public sector innovation from academia and research organisations provide analytical advice to the project.

During almost a decade (2001-2010), the European eGovernment Awards aimed to promote technology-enabled innovation in government and the health sector. The purpose of these Awards was to encourage community-building and knowledge exchange on eGovernment across the EU. A strong policy link was established to the Ministerial Declarations and the European Commission Action Plans on eGovernment under the umbrella of the Lisbon Strategy. The projects and lessons learned were utilised in a number of EU-funded studies and the ePractice portal.

Another example is the European Public Sector Award (EPSA) launched in 2007. Since 2009 this biannual award scheme is being organised and managed by the European Institute of Public Administration (EIPA) with the support of several EU Member States, the European Commission, the City of Maastricht and the Dutch Province of Limburg. EPSA aims to support national modernisation processes by awarding projects which have proven their success by tangible results and impact. EPSA wants to make this experience transparent, available and usable. It targets all public administrations at the different levels of government, with an emphasis on specific themes. EPSA focuses on recognition and dissemination of good practices by means of the awards, knowledge-transfer activities and publications. As a result of the three schemes run by EIPA, more than 800 fully structured and thoroughly assessed cases from 36 European countries and EU Institutions are now available in its database. The EPSA 2013 edition under the theme 'Weathering the Storm – Creative Solutions in a Time of Crisis' received 230 entries from 26 European countries and three European Institutions.

In 2012, the European Commission launched the Prize for Innovation in Public Administrations (PIPA). PIPA aims to highlight excellence and vision in public administrations. The prize gives visibility to the most innovative public administrations and their initiatives, which should serve as best practices to inspire other public administrations in Europe to innovate. Furthermore, PIPA intends to challenge the negative stereotypes of public administration in the perception of the people. PIPA celebrates the most innovative, public initiatives

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Topic 1.3: Continuous improvement & innovation

which benefit citizens, firms, or the education and research sector. In 2013 there were 203 entries to the competition coming from all corners of the European Union. The nine winners were selected by an independent jury on the basis of four criteria: the economic impact of their initiative; its relevance to challenges facing society; how original and easy to replicate the idea is; and how they plan to use the prize money (€100,000 each to scale up). Winning initiatives included integrated healthcare information accessible on a phone, a web-based platform for funding opportunities for firms, and a nationwide plagiarism detection system for higher education institutions.

Source: European Commission, Directorate-General for Research and Innovation (2013), Powering European Public Sector Innovation, Towards A New Architecture, Report of the Expert Group on Public Sector Innovation.

More recently, the European Commission launched the [European Public Sector Innovation Scoreboard (EPSIS)](#) with a view to improving our ability to **benchmark** the innovation performance of the public sector in Europe.

European Public Sector Innovation Scoreboard

Following the Europe 2020 flagship initiative 'Innovation Union', the European Commission launched a pilot European Public Sector Innovation Scoreboard (EPSIS) with a view to improving our ability to benchmark the innovation performance of the public sector in Europe. The ultimate ambition is to capture and present public sector innovation in a similar way to countries' innovation performance in the Innovation Union Scoreboard (IUS) and thereby encourage and facilitate innovation activity across the public sector. The 2013 pilot EPSIS is the first EU-wide attempt to better understand and to analyse innovation in the public sector. It was developed based on the experience of earlier national and regional projects, tested widely and discussed with a number of key relevant experts. The work will continue.

For EPSIS, the definition of public sector innovation follows that used in the Innobarometer 2010 (EC, 2010): An innovation is a new or significantly improved service, communication method, process or organisational method. Based on available data, the pilot EPSIS distinguishes seven innovation dimensions ranging from human resources to drivers and barriers to innovation, encompassing 22 indicators, with data taken from multiple sources including Eurostat, OECD, World Bank, World Economic Forum and the 2010 and 2011 Innobarometer surveys.

The general results demonstrate that public sector in Europe innovates but it faces a number of challenges. The first results show that the involvement of managers and employees makes it more likely that a public administration develops process innovations. The presence of internal barriers to innovation (e.g. lack of management support, staff resistance or risk-averse culture) not only has a negative effect on innovation but also on the government's effectiveness in general. Government procurement can not only act as a driver of business performance by demanding innovative solutions, but procurement of innovations can also contribute to an increased efficiency of the government sector. However, there is a clear divide in the opinion of public administration officials and businesses as to the importance of innovation versus costs for winning procurement tenders with business having a much firmer belief in offering low costs. The results also show that the introduction of new and improved public services have a significant impact on business performance. E.g. by investing in advanced ICT infrastructure, governments have managed to considerably increase the online availability of public services for businesses.

The Innobarometer 2010 on innovation in public administrations shows that public administration is highly innovative with two out of three public administration organisations having introduced at least one service innovation. Most drivers are 'structural' with the single most important driver being the introduction of new laws and regulations. Barriers to innovation are probably as important as drivers: lack of human or financial resources, regulatory requirements and lack of management support and incentives for staff are the most important barriers to innovation in public administration. Ideas from staff, management and clients are the major sources of information used in developing innovations. Innovation in public administration has positive effects on improved user access to information, improved user satisfaction and faster delivery of services.

Topic 1.3: Continuous improvement & innovation

Results of the Innobarometer 2011 show the importance of public sector innovation for business performance. For example, companies that report benefits from using improved public administration procedures (e.g. online completion of government forms or access to online information on government services) are more likely to be an innovator and to have increasing sales. Public services innovations have a positive impact on the probability that a company will innovate. The results also confirm that government procurement has a positive impact on the probability that a company will innovate. These results suggest that in countries where governments manage to provide improved public services for innovation and create a more business-friendly environment, companies show improved economic and innovative performance. Innovative and high quality public services act as a driver of business performance.

The pilot EPSIS does not provide a ranking of countries' performance, since the availability of data is still limited and does not fully capture all parts of the public sector or all aspects of innovation. However, it is sufficient to give a sense of the strengths and weaknesses across countries. In many countries, services of public sector are being delivered by many different types of organisations, and not just public administrations. The feedback from public officials consulted as part of the "Trends and Challenges in Public Sector Innovation in Europe" study confirms that further efforts to develop the measurement and benchmarking of public sector innovation would be of interest to most if not all Member States and that this is an area where European policy should continue to show leadership.

Thus, further work is needed to capture the full spectrum of innovation in public sector. Very much more and better data is needed if EPSIS is going to continue and attain the coverage and robustness achieved with IUS. For this purpose, strong and coordinated efforts at the European and Member States level are needed.

1.4   Conclusions, key messages and inspiration for future action

The policy process is not composed of sequential stages, but inter-linked and inter-dependent elements. The impact of policy decisions should always be anticipated, but can never be perfectly predicted, hence feedback mechanisms are essential to allow corrections in direction to be made and new paths to be laid, if policy is straying too far from its goal. Furthermore, the parties that are most affected by policy decisions, particularly citizens and businesses, need to become active participants in the process: true stakeholders.

Governments and judiciaries operate in a rapidly changing world, in which ICT opens up new possibilities but also brings heightened expectations from 'connected' citizens and businesses. European administrations have always faced a stream of evolving and emerging policy challenges, but now also the added constraint of high public debt and growing liabilities from an ageing population. This context calls for different types of administrative capacity that are ready to respond and fit for purpose, as well as new forms of cooperation and partnership. It also requires officials to be inventive, a trait which has traditionally been associated with the private sector, but which is increasingly demanded of public servants facing complex scenarios, conflicting goals ('more with less') and tough choices.

- The first type to reinforce is **analytical capacity**: the resources to develop a robust evidence base, engage in innovative and forward thinking, and come up with fresh solutions to ingrained problems. This requirement is not confined to policy units in central government alone - it can apply to any level of government or official, depending on structures and responsibilities. However, some administrations may want to follow the lead of others, and establish specialist bodies (like the Dutch CPB, Denmark's MindLab or UK's 'Nudge Unit') which are tasked with original research or thinking 'outside the box', to advise on present problems and/or to engage in future scenario-building. Equally, administrations might want to take the taskforce approach, and assemble groups of officials from different institutions and disciples for problem-solving, on a permanent, ad hoc or flexible basis (like Finland's futures research, or the Netherlands Smarter Network). Whether this capacity is standalone or integrated into the system, administrations may wish to consider drawing on external insights from specialists (e.g. experts in specific fields), and/or from stakeholders to exploit the advantages of co-design.

- The second type that requires the right balance is **delivery capacity**: the flexibility to develop and adapt implementation solutions to serve policy objectives, meet the needs of citizens and businesses, and maximise cost-effectiveness at the same time. Clearly, the public sector is a major provider of infrastructure and services in every economy. Compared with the private sector, which also faces the 'make or buy' decision (in-house or out-source), governments have other instruments in their armouries to achieve their goals, including information/persuasion, regulation and co-creation with 'customers'. The careful choice of instrument to fit the circumstances - weighing up the pros, cons, costs and benefits – requires rigorous analytical capacity. Once the decision is taken, however, administrations face a continuous pressure to identify incremental or even radical improvements, to

Topic 1.4: Conclusions & key messages

enhance service delivery (see theme 5), to simplify administration and reduce the information burden on businesses and citizens (see also theme 6), and to find efficiency savings (see also theme 8). Again, co-responsibility in its various forms, including co-decision, co-budgeting and co-production, can enhance the quality of outcome.

- The third type that is often neglected is **oversight or regulatory capacity**: the expertise to scrutinise policy decisions and their delivery, and the authority to speak up and to question whether changes should be made, in the interests of continuous improvement. This form of capacity should be both integral to delivery (monitoring), but also independent from it (evaluation and performance audit). Stakeholders should be invited in to express their insights (co-evaluation), but just as important is to ensure a healthy external audience of independent media and civil society which can hold the administration to account and maintain its focus on the public interest (see also theme 2).

These three types of capacity do not co-exist in isolation from each other. They overlap substantially, even within individual officials who can be expected to analyse needs, organise implementation, and scrutinise performance using monitoring data, as a process of self-reflection. Equally, however, significant separation of roles is inevitable and desirable. Whatever the arrangements, administrations should carefully consider their strengths and weaknesses in all three domains, and look at their organisational and human resources management (e.g. incentives, appraisal, training and development) to ensure that the institutional focus and the best talent is not over-concentrated in one area (possibly, analysis) at the expense of the others (see also theme 4).

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