European Commission

EVIDENCE-INFORMED POLICY MAKING

Building a conceptual model and developing indicators

EUROPEAN PUBLIC ADMINISTRATION COUNTRY KNOWLEDGE

ICF

Structural Reform Support

EUROPEAN COMMISSION

Directorate-General for Structural Reform Support

Unit 02 Governance and Public Administration

Contact: DG REFORM, Unit B2 - Governance & Public Administration

E-mail: REFORM-B2@ec.europa.eu

European Commission
B-1049 Brussels

EVIDENCE-INFORMED POLICY MAKING

Building a conceptual model and developing indicators

Iain Mackie, Dr. Ellen Fobé, Dr. Mihovil Škarica, Prof. Iveta Reinholde, Prof. Turo Virtanen

November 2021

Luxembourg: Publications Office of the European Union, 2022

PDF ISBN 978-92-76-55788-3 doi:10.2887/81339 HT-05-22-227-EN-N

TABLE OF CONTENTS

EXECUTIVE SUMMARY

In principle, the application of available scientific evidence to policy making should improve its quality. As normative values and political judgements often also play a key role in decision making, this implies that evidence *informs* policy instead of *determining* it. In this context, the subject of the following study is the role of evidence in identifying options and making choices, rather than the result (the policies themselves).

This report represents the conclusion of thematic support to DG REFORM's Competence Centre on Public Administration and Governance (PAG) which, together with the Joint Research Centre (JRC), is seeking to develop indicators on the institutional aspects of evidence-informed policy making (EIPM) in Member States. Through a series of online roundtable discussions with four leading PAG experts from four Member States, along with their written contributions, the objective was to build a conceptual model based on actual practice, and based on the model, to identify and interpret potential indicators that could be introduced into the EU's Public Administration Assessment Framework (PAAF).

The most immediate requirement is that these indicators should be practical and operable, and testable through data collection, and hence have been termed 'low hanging fruit' as they should readily accessible through official sources or possibly interviews. Other indicators that might be more difficult to measure, comprise multiple variables and/or involve multiple explanatory factors could also be proposed for further research, characterised as 'high hanging fruit'.

The study lays the foundations of a conceptual model by clarifying what is understood by scientific evidence and policy making. It seeks to understand both sides of the 'evidence for policy' equation, the evidence providers (knowledge generators, also sometimes referred to as the research community) and evidence consumers (policy makers in public administrations), and the factors that enable or constrain them in performing their respective roles. Most importantly, it focuses on formal structures and processes, rather than ad hoc or transitory arrangements, by which the parties come together.

Based on the systems and situations at central / federal levels in Belgium, Croatia, Finland and Latvia (see also separate case report which provides further details on each country), the study proposes a conceptual model of quality EIPM that is constructed from five building blocks, each of which has its own indicators:

1. Policy makers *demonstrate* their openness to EIPM.
2. Policy makers seek to access *all* available and relevant sources of expertise to inform their decision making.
3. Both policy makers and knowledge generators are *willing and able* to play *active* roles in EIPM.
4. Policy makers and knowledge generators have *formal mechanisms* to bring them together.
5. Policy makers have structures and processes in place to *identify, seek and request evidence* to meet their EIPM needs.

As the name implies, the building blocks fit together and reinforce each other, and hence the indicators should be considered as a set, and are presented as such in the concluding section, showing the connections between them.

Member State coverage	Belgium, Croatia, Finland, Latvia
Key words	Policy making, scientific evidence, knowledge generators, liaison, coordination, forums, competencies, financing

1. INTRODUCTION

This publication provides a comparative overview of the characteristics and recent developments in the public administrations in the Member States (EU-27) from a qualitative and quantitative perspective. It is based on analytical work carried out under the contract 'European Public Administration Country Knowledge 2021' (hereafter EUPACK).

EUPACK is a multi-annual initiative of the Commission, which aims to develop its country and thematic knowledge on the EU Member State public administrations' functioning and reforms. Such knowledge enables more pertinent country analysis, helps identify reform priorities, and facilitates the effective delivery of technical and other EU support for improving state capacity in Member States.

The comparative overviews, launched in 2018, use a common approach to describe the characteristics of public administrations across all EU-27 Member States. The methodology covers the institutional systems, capacity, performance and management of public administrations. The point of departure is the definition of the scope of public administration for each Member State, which ensures consistent and comparable analysis. A detailed methodology guides the collection of quantitative data and the qualitative information. This includes the "Public administration assessment framework" - a set of indicators currently tested by the Commission. The collected data and information draw on existing, publicly available sources and statistics. A substantive overview on the formal and informal characteristics of public administration in each Member State is prepared (published separately as country fishes). The systematic and comparative synthesis of key areas of institutional capacity and functioning across all EU-27 countries allows for drawing parallels and understanding differences across all Member States.

This report focuses on recent and/or continuing developments, drawing on the latest contextual and performance data. It summarises relevant Member State policies, strategies, legislation, programmes and other measures introduced or enacted in 2020.

The European Commission's Joint Research Centre (JRC) has played a pioneering role in promoting 'evidence for policy', convening a community of practice ([1]) and publishing the 2020 'Science for Policy Handbook' ([2]), *inter alia*. The JRC is currently investigating the use of scientific evidence to inform the policy-making process in EU Member States. While the JRC is exploring measurement of the operational, process and performance aspects, the connection of science to policy development also has an essential institutional aspect.

> Together with the JRC, DG REFORM's Competence Centre is looking to improve understanding of the formal institutional frameworks supporting the use of scientific evidence in policy making in the EU, which can subsequently form the basis for indicators that support monitoring, enable comparison and ultimately facilitate learning to benefit Member State (MS) practices.

The further context for this ad hoc request is the EU's Public Administration Assessment Framework (PAAF), which the European Commission is developing for the LIME working group, under a November 2018 mandate from the EU's Economic Policy Committee to assess the technical aspects of a possible benchmarking exercise in the area of public administration, 'with the intention of capturing public administrations' strengths and weaknesses in policy making, human resources management, service delivery, account-

([1]) EU4Facts: Evidence for Policy Community, available at: https://ec.europa.eu/jrc/communities/en/community/evidence4policy (accessed 17/09/2021).

([2]) Science for Policy Handbook, available at: https://ec.europa.eu/jrc/communities/en/community/evidence-4policy/document/science-policy-handbook (accessed 17/09/2021)

ability and public financial management' ([3]). This initiative is ongoing, as the Commission continues to refine and enhance its indicator set.

This thematic support will look at formal structures and processes (rather than ad hoc or transitory arrangements) by which public administrations engage scientific evidence to 'provide a basis to help identify policy options and reach a decision, even if ultimately it happens by balancing knowledge with values and political priorities', in the words of JRC's Science for Policy Handbook.

2. METHODOLOGICAL APPROACH

This thematic support was mobilised from July to November 2021, and was conducted through written contributions and a series of roundtable discussions with a thematic expert group (TEG), convened and moderated by ICF's core EUPACK team, comprising the following four leading academics on public administration from four Member States:

- Dr. Ellen Fobé, Public Governance Institute, KU Leuven, Belgium
- Dr. Mihovil Škarica, University of Zagreb, Croatia
- Prof. Iveta Reinholde, University of Latvia
- Prof. Turo Virtanen, University of Helsinki, Finland.

The thematic support has been organised around three research questions:

- What are the systems of policy making in the four Member States, as context for evidence-informed policy making?
- Based on the JRC's characterisation of scientific evidence, what structures and organisations (bodies, committees, forums, etc) are in place to bring scientific evidence into this policy-making arena? Are there indicators and data sources that would capture the presence (and potentially, diversity) of such mechanisms in a comparative perspective?
- Based on the structures, what processes and procedures are in place to utilise scientific evidence in policy making? Are there indicators and data sources that would capture the presence (and potentially, diversity) of such mechanisms in a comparative perspective?

In order to build a model around practice, the TEG described the state-of-play of EIPM in their countries (see separate case study report), focused on four dimensions:

- The policy-making system in central government (federal, in the case of Belgium);
- The knowledge generators as sources of scientific evidence;
- The formal mechanisms to connect evidence with policy; and
- The processes to make these formal mechanisms effective.

As with the first ad hoc request on 'quality of legislative process', these roundtable sessions and written inputs had two main objectives. First, the thematic support aimed to build a conceptual model of quality EIPM based on actual practice (rather than a hypothetical model that is then tested against reality), which is presented in the following two sections. Second, and based on the model, the thematic support would identify possible indicators that could be developed, piloted and rolled-out in the future, potentially within the PAAF.

([3]) Source: Commission Staff Working Document SWD(2021)101 Supporting Public Administrations in EU Member States to Deliver Reforms and Prepare for the Future.

The PAAF requires indicators that are both practical (grounded in reality) and operable, and which could potentially be tested through data collection in EUPACK 2022. Through the TEG discussion, such indicators have been characterised as '*low-hanging fruit*' in that the sources of information *should* be readily accessible through official sources (e.g. parliamentary websites, annual reports, information services, or possibly interviews, but not based purely on opinion), as far as can be assessed from the situations in the six countries. In common with other PAAF indicators, they should be formulated as questions with either 'binary' responses (yes/no or not applicable), quantitative responses (e.g. number, percentage, period), or qualitative responses (qualifying a binary or quantitative response). The indicators should also concern systemic not transitory factors.

At the same time, the TEG has sought to highlight other issues that *could* provide the basis for indicators in the future, but which would require further research and analysis to develop the indicator and/or access the supporting evidence. These can be characterised as '*high-hanging fruit*'. There can be several reasons why such indicators might be elusive, which are not mutually exclusive, including the complexity of multiple variables and/or multiple explanatory factors (some of which might be contradictory), or the indicator might simply be difficult to measure, because of access to information.

During the preparation of the practical and operable indicators, it was recognised that some indicators might be more immediately operable than others, with the latter perhaps categorised as '*medium-hanging fruit*' – potentially accessible, but not immediately within reach. Hence, the proposed indicators have each been subjected to an assessment which scores them according to their operability, based on the proxy experiences of the four countries.

These terms, low-, medium- and high-hanging fruit, will be used as shorthand throughout this report, and as the basis for assessing candidates for PAAF indicators. Of course, the extent to which the 'low hanging fruit' indicators are truly operable will only become fully apparent when they are tested in their application to all Member States.

Please note: Given the variety of administative systems and research communities across the EU, it is not suggested that the four countries represented here are 'representative' per se. However, the diversity among this sample should help to ensure that the conceptual model and proposed indicators capture the key common factors and are flexible enough to be applied to each Member State's circumstances.

3. FOUNDATIONS OF AN EIPM MODEL

The implicit logic underpinning the 'evidence for policy' agenda is that use of scientific evidence (i.e. both access to and application of evidence) should improve the quality of policy-making, *ceteris paribus* - i.e. acknowledging the role of normative values and political judgements in the policy process. Given those non-evidential factors, the model will not consider the merits of the policies themselves (i.e. the outcome), only that there are effective pre-conditions and arrangements in place to enable scientific evidence to influence decision-making on policy choices (i.e. the process). It is recognised, however, that the role of political factors can make it difficult to distinguish the input and impact of scientific evidence, and the combination may indeed call into question trust in the latter. It also raises wider issues regarding how science is viewed in society, and the legitimacy and authority of scientific knowledge among the public, which is not a constant, and which we will not consider in depth here, given the study's scope and time constraints.

The starting point for laying the foundations of a conceptual model is defining the two key concepts. What do we understand by 'evidence' and 'policy making'?

In JRC's Science for Policy Handbook, **scientific evidence** is characterised as 'knowledge based in science' that is 'presented as evidence to support reasons used in a policy argument', and comprises 'data, information, concepts, research findings, and theories that are generally accepted by the relevant scientific discipline'. Hence, it encapsulates knowledge as both objective facts (data and information) and their interpretation (research findings and theories), but excludes unfounded perceptions and opinions.

JRC's Handbook does not subscribe to the idealised policy cycle of design, implementation, monitoring, evaluation, and re-design. Hence **policy making** can be understood as a 'messier' process in practice that is typically not developed in a vacuum, but rather shaped by the reality on the ground and reflecting prior policy decisions (including by previous governments), and iterative, as policy choices are tested through their execution and often re-thought and re-oriented ([4]). This perspective means the model can focus on how scientific evidence can improve the quality of decision-making, rather than becoming side-tracked by stages in the process itself. Furthermore, a focus on regulatory impact assessment (RIA), evaluation and consultation would not be sufficient to measure EIPM, as these concepts are directly linked to specific stages of the policy process, while 'evidence for policy' can be more strategic (conceptual), instrumental (requests for evidence) and tactical (political use of science to strengthen or validate decision-making).

In this study, the TEG has sought to distinguish between the *evidence* itself and the *experts* that generate and/or present it, although these boundaries are easily blurred. While the evidence is the focal point of the thematic support, the forums that connect it to the policy making process – with a finite membership - often rely on individuals to convey it orally, even though there is also scope for submission of scientific papers which can encapsulate a much wider evidential base. The role of experts naturally raises questions about the extent to which they present evidence on behalf of the entire research community, and/or represent their own views and even interests, if they are also stakeholders in the policy deliberations.

Intuitively, therefore, there are two sides to the 'evidence for policy' equation: evidence providers (knowledge generators, also sometimes referred to as the research community) and evidence consumers (policy makers). These terms are not intended to imply an 'active' role for the former (providers) and a 'passive' role for the latter (consumers); in fact, either could be passive or active at any time. Sometimes, the two parties are the same (e.g. government policy units that conduct big data analysis), but more typically they are distinct.

On the **evidence provision** (knowledge generation) side:

- We can identify three components: institutions (organisations), individuals (researchers / experts) and information (data). These three are largely symbiotic, but they can also play distinct roles: institutions comprise many individuals, some of whom provide information (and interpretation) to policy makers; individual experts also play a role in policy making independently of their institutions; and increasingly, information exists outside of institutional settings and individual ownership, as demonstrated by open data and big data. Ideally, the contribution of each to EIPM should be considered on its own terms, as well as together.
- Locationally, knowledge generators can be fully governmental (such as departmental research units, regulatory agencies), fully non-governmental (such as universities and think tanks), and 'quasi-governmental', including organisations that are independent corporately but dependent on public funding (e.g. public research institutes). For the

([4]) See also European Commission (2017), Quality of Public Administration: A Toolbox for Practitioners, available at: https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8055&type=2&furtherPubs=no (accessed 17/09/2021).

purposes of EIPM, each can make an equally important contribution, but we should also acknowledge their mandates, motivation and modus operandi can differ, and moreover that their ability to influence policy is dependent on the content of their advice (i.e. quality) and to a lesser extent their proximity to the decision-makers ([5]),

- Institutional knowledge generators are diverse, both within and across countries. There are common elements, most notably the universities and public research institutes, which feature in all four countries in this study. There are also others that are typical, such as private research institutes and think tanks. However, there are also institutions that are specific to the particular situation in each Member State, such as the plethora of scientific institutes in Germany (Max Planck, Frauenhofer, Leibniz, etc.) .

On the **evidence consumption** (policy making) side:

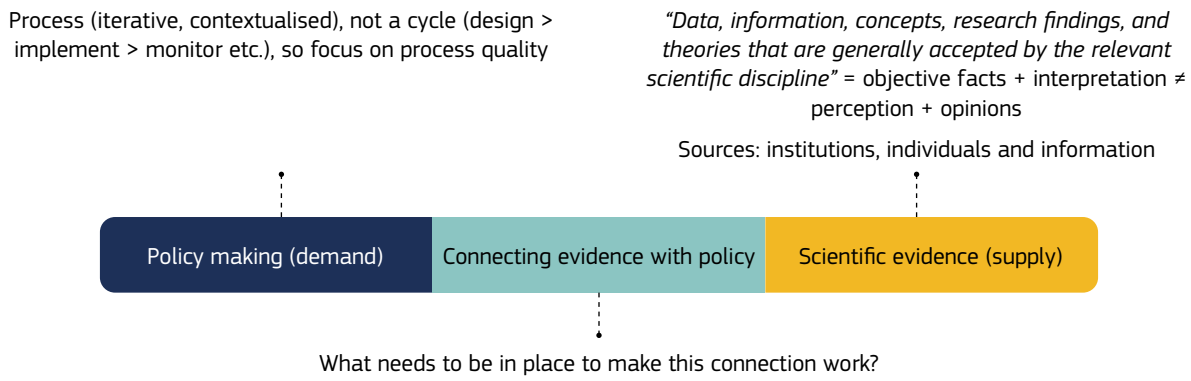
- At the whole of government level, policy making involves choices and trade-offs within the constraints of time, resources and possibility. Mostly, however, policy making is fragmented. To be functional, central/federal governments organise themselves in sectoral silos (ministries and their subordinate agencies). This is also reflected in their diverse evidence requirements and traditions (some tending to be more open than others to scientific evidence, such as defence and healthcare), which must also be factored into any conceptual model of EIPM.
- Governments are also multi-level in every country, with often state/regional and always local levels. Policy making also takes place in sub-national government, but for the sake of simplicity, this thematic support concerns itself with the central/federal level (and to a lesser extent, the state/regional level in federal countries). While some findings might be replicable in local government, it does not seek to address potential conflicts between EIPM across levels (e.g. where local autonomy clashes with national policy directions).

Hence, in constructing our EIPM model, we should seek to understand: the nature and sophistication of both knowledge generators (providers) and policy makers (consumers); their respective roles in 'demanding' and 'supplying' evidence; and the factors that enable or constrain them in performing these roles.

This brings us to the third and most critical element of the conceptual model: **connecting evidence to policy** (knowledge brokerage). This concerns the 'translation' of policy maker's knowledge needs into clear requests to the research community for state-of-the art evidence, whether this is captured in open calls, ongoing financing agreements, or roundtables, *inter alia*. Equally, it is about bridging the gap between academic rigour, which places a premium on originality, rationality, hypothesis, validation and refutation, and hence can involve extended timeframes, and policy formulation, which often emphasises immediacy, practicality, consensus or compromise, and judgements. This brokerage function can be fulfilled through various means, by individuals (such as chief scientists or liaison officers) and institutions (e.g. advisory councils or working groups), whether they are embedded in the policy making side (public administration) or the research community, or they operate as distinct intermediaries.

([5]) Jonathan Craft & Michael Howlett (2013) The dual dynamics of policy advisory systems: The impact of externalization and politicization on policy advice, Policy and Society, 32:3, 187-197, DOI: 10.1016/j.polsoc.2013.07.001

All three elements are the subject of the next section, and the source of the proposed indicators.



4. BUILDING BLOCKS OF QUALITY EIPM

Drawing on the realities of the four countries' systems, the TEG proposes that the conceptual model of quality EIPM is based on five building blocks, the presence of which can be tested through suitable indicators ('low hanging fruit') or might require further research ('high hanging fruit'). These building blocks are so named, as they can be layered on each other, to provide a solid EIPM structure:

1. Policy makers *demonstrate* their openness to EIPM.
2. Policy makers seek to access *all* available and relevant sources of expertise to inform their decision making.
3. Both policy makers and knowledge generators are *willing and able* to play *active* roles in EIPM.
4. Policy makers and knowledge generators have *formal mechanisms* to bring them together.
5. Policy makers have structures and processes in place to *identify, seek and request evidence* to meet their EIPM needs.

Each building block is elaborated further below, drawing on the evidence from the four countries to illustrate their salience.

BB1: Policy makers demonstrate their openness to EIPM

If there is no or little political support for EIPM in central government, then the best evidence base in the world will have zero or minimal impact. The starting point for quality EIPM is openness to use evidence in policy formulation, not just as a commitment in principle (well-sounding statements), but also its application in practice, which can be seen as a proxy for political support. This does not mean that all decision making must or will be evidence informed. As the JRC's Handbook recognises, values-based and political judgements ultimately influence policy choices. Moreover, scientific evidence may not always be available on particular matters: e.g. the costs of tax reform can be calculated, but quite often there is no scientific evidence on the societal effects of the reduction of subsidies/tax deductions, for instance. Scientific evidence can also be indicative, rather than conclusive, or it can hold uncertainties that make it difficult for policy-makers to know what to decide.

The modelling of the four countries' systems considered policy making in four contexts: setting initial policy priorities for the whole of government; determining policy for indi-

vidual sectors (ministries); developing policy across sectors (inter-ministerial coordination); and extraordinary policy making to address complex policy challenges, including wicked or super-wicked problems. In each case, the TEG assessed whether scientific evidence was employed routinely to inform policy making – if such information was accessible.

Overarching policy framework

In all four countries, central/federal governments determine their policy priorities for the entire term during the formation of the incoming government after an election, and presented in one or more public documents. However, in only one country (Finland) does the preparation process systematically draw on scientific evidence.

Table 1 | Policy prioritisation and the role of scientific evidence

Country	Key document	Use of evidence
Belgium	The coalition government agreement outlines the compromises reached among the governing parties during the formation process, with policy goals, but does not include detailed timescales and indicators	No. The civil service and other actors (scientists, stakeholders) may be asked to provide input to the text, including detailed policy notes setting out priorities, goals and activities, but the governmental agreement is essentially a political document.
Croatia	The government's programme identifies broad goals and policies for its entire term, without specifying measures, responsibilities, timescales or indicators.	No. The goverment's programme proclaims only political goals. It is largely a party document, although the public administration can be involved, especially if there is continuity from the previous government, but evidence is never drawn into this stage of policy-making.
Finland	The government programme is its most important document, guiding its activities unchanged over the entire term. The main text can run to 40-100 pages, with a further 100+ pages of annexes. It is followed by a government action plan, which is also instrumental and comprises specific policy projects, and is revised annually. The action plan specifies the main means, responsible ministries, and schedule (month and year) for each goal / project.	Yes. Civil servants feed materials into the negotiation process, which can include scientific evidence. The process also involves expert interviews - around 400 for the most recent programme including 32 from universities, 23 from public research institutes, some from private research institutes and 10 from the SITRA Foundation (6) that specialises in innovation.
Latvia	Each new government prepares a coalition agreement and a government declaration of its intended activities for its entire term, accompanied by a (legislative) implementation plan, which is updated annually, and sets the framework for ministerial plans.	No. Civil servants are involved to ensure the declaration and plan is feasible, but it is largely a politically-driven process.

As these policy priorities are formulated with the expectation of a 4 or 5 year term in office (even if the government might fall at any time during that period), they are typically broad in coverage and aspirational in nature, rather than detailed and prescriptive. Nevertheless, they provide policy direction. While the government's programme in Croatia is a statement of intention only, and largely for presentational purposes, the other three countries treat this initial policy prioritisation more like a manifesto for the ministries to apply, particularly Finland, where it is the key reference document.

One significant factor is that all four countries either tend to, or are always, governed by coalitions, which elevates the status of this initial policy document; given it represents the result of negotiations and compromises, it is risky for any of the parties in government to challenge one element without re-opening it all. The initial policy-setting might be less durable in a single party system.

(6) SITRA, available at: https://www.sitra.fi/en/ (accessed 29/09/2021).

This then puts the onus on annual policy planning, and ongoing policy adjustments (anticipating or responding to events), at the cabinet or ministerial level, to bring these overall goals to fruition.

Ministerial policy making and coordination

The government's initial policy prioritisation provides the umbrella for each country's ministries to design (sectoral) policies within their individual competences, and engage in cross-ministerial dialogue and decision making. All four countries have common approaches across their ministries, which also allow for variances in practice.

Table 2 | Approaches to policy making

Country	Practice
Belgium	The government agreement is translated into 'policy notes' by each minister, valid for the year ahead, comprising a more detailed overview of policy priorities, goals and actions. Each minister has a cabinet of 30-50 political advisors, personally appointed, which can include seconded civil servants with subject expertise. They play the dominant role in policy making, with civil servants having a more technical input to policy design. Hence cabinets are sometimes labelled as 'shadow administrations', because they perform much of the policy design and formulation functions that the civil service traditionally takes up in other countries – communicating to ministers or even deciding on preferred policy alternatives. Despite their size, cabinets must process a lot of information and analysis from the civil service and (directly from) societal stakeholders, scientists, etc, within the political boundaries of the compromises between governing parties.
Croatia	In most cases, policy initiatives come from political officials within the ministry (government appointed, rather than civil servants), who channel ideas and goals developed within their parties, constituencies or lobbying groups. In rare cases, the initiative originates in the civil service (bottom-up). In the early stages, policy preparation is usually assigned to individual departments (sectors) within the ministries, but as soon as the drafting phase of a law proposal or a strategic document begins, the minister usually (although this is not oblgatory) appoints a task force (working group) comprised of civil servants from the resident department and other relevant departments, often with the political officials, for example to lead or coordinate the task force. Depending on the policy issue in question, these task forces can also involve civil servants (and political officials) from other ministries, other public institutions, external stakeholders and experts.
Finland	Each ministry has one or more ministers, who have policy advisors who form his or her political cabinet. As well as permanent responsibilities set by legislation, each ministry's work is organised in projects according to the government action plan, plus often strategies that prioritise the areas that are not tightly related to the government programme. In addition, there are working groups for projects in the government action plan (currently, about 200). One of the ministries has full responsibility for their implementation and one or more other ministers are partly responsible. This structure for implementing government policy has existed for many years. Ministerial working groups are set up by the responsible minister and the composition includes civil servants and stakeholders from different organisations (often also from higher education and research institutions, but it is not formally required).
Latvia	As a rule, there are policy planning departments in all ministries. Policy design and coordination units become a reality after the policy design and planning system was established around 2004. The Law on Development Planning came into force in 2009, so the system was institutionalised in all ministries. Variances among ministries are insignificant.

Each country also has its own approach to policy coordination, in which ministries come together on topics of common interest. While there is always scope for daily dialogue and *ad hoc* 'negotiations' between ministries, there is at least one forum in each country that acts as an institutional mechanism to discuss and decide policy, even if this is ultimately the cabinet of ministers, rather than working groups, task forces, or commissions.

Table 3 | Approaches to policy coordination

Country	Practice
Belgium	Policies are prepared and negotiated between the political cabinets. Again, the government agreement is the reference document. The silo-based structure of government weakens inter-ministerial policy making. If an issue is sufficiently urgent or important, it will be elevated to the 'core cabinet', comprising the PM and Vice-PMs representing all coalition parties.
Croatia	If the policy involves 2-3 ministries, there has to be a lead ministry that coordinates and appoints working groups. With higher numbers, an inter-ministerial commission is usually established that appoints and oversees the work of task forces (working groups). Note, ministers are completely autonomous in deciding when to form a working group, advisory council or commission and who to include in such a body. There are very few instances (in some sectoral legislation) when forming such a body is mandatory, most commonly for establishing advisory councils that monitor policy implementation and advise future polices that gather external stakeholders including researchers/academics.
Finland	The instrument for collaboration, whether related to the government programme or not, is a ministerial working group, comprising civil servants from one or more ministries, and often representatives of government agencies and stakeholders. There are also ministerial committees, both statutory (four) and ad hoc, with members appointed by the Prime Minister, and seven minister groups which are responsible for implementation of the government's action plan with a civil servant as secretary. The Prime Minister's Office monitors the implementation of the government's action plan.
Latvia	Ministries' policy planning departments are responsible for inter-sectoral policy coordination during the policy design stage, both horizontally and vertically, including communication with interest groups and subordinated institutions. To tackle government-wide policy development, the Cross-Sectoral Coordination Centre was established in 2011 to overcome fragmented policy-making, sector-specific policy focus and lack of performance measurement. It is an active participant in preparing the government declaration and also active in tackling the wicked problems.

Of the four countries, two definitively involve scientific evidence in this process on a systematic basis (Finland and Latvia).

Table 4 | Use of scientific evidence in (cross) sectoral policy making

Country	Practice
Belgium	The civil service or the ministerial advisers may look for scientific evidence to frame policy decisions, but the political compromise matters most of the time, as does the support by stakeholders, especially in politically salient dossiers. The civil service has more room for manoeuvre in less politically sensitive dossiers.
Croatia	Scientific evidence is more likely to be used selectively in support of a preferred policy direction. As a rule, there is often one or more external experts in a working group, and hence whether scientific evidence is brought into consideration is usually up to them. In cross-sectoral policy issues, there is probably a greater chance for evidence to be brought forward.
Finland	The ministerial working groups often mainly draw on the expertise of their members, who are mostly from ministries and government agencies but may also be researchers and even academics. Normally, scientific evidence is used, if it is (known to be) available by the members and secretaries, while researchers may also be invited for interviews. However, based on empirical research in 1980-2018 (7), their share in parliamentary committees set up by government (i.e. not parliament's standing committees) and broad-based policy preparatory working groups (i.e. also external stakeholders may be members) has been declining since 2010.

(7) Anne Holli & Saara Turkka (2021), 'The changing role of science in corporatist policy advice: a longitudinal study of the inclusion of researchers in Finnish policy preparatory working groups in 1980–2018', published in Politiikka 63:1, pp. 54-81, 2021 (in Finnish). Abstract: 'The role of academic knowledge in policy making has received increasing attention in scientific communities and among policymakers. This article analyses longitudinal changes in the inclusion of researchers in an important institution of policy advice, namely state committees and broad-based policy-preparatory working groups. In Finland, as in other Nordic countries, important laws and policies have traditionally been prepared in such corporatist institutions. Besides interest groups, they also appoint researchers as members. Based on both primary and secondary data, the study results show that, in the 2010s, the proportion of researchers in working groups more than halved compared with the previous decade, and their status as chairpersons deteriorated in particular. They suggest that the role of researchers as corporatist partners has been eroding. Hence, unlike in some other Nordic countries, there is no trend of 'scientisation' apparent in this corporatist institution. The results indicate that the Finnish policy advisory system is becoming more hybrid, with a notable strengthening of neoliberal elements, as the ways in which the state generates and utilises knowledge for policy-making are changing'.

Country	Practice
Latvia	In most cases, the Cross-Sectoral Coordination Centre relies on scientific evidence, as it is common for them to invite field experts to share their knowledge. When the institution was set up, the evidence-based approach was promoted by the Coordination Centre as a key policy-making rule. Otherwise, the use of evidence by ministries' policy planning departments themselves is a weak point. Mostly, civil servants rely on their technical expertise and information accumulated inside the ministry in preparing ex ante assessments. It is still rare for ministries to conduct ex post assessments (policy evaluation).

The TEG's perception is that some policy sectors, especially those that are defined by science (e.g. healthcare, defence, energy, transportation) draw on scientific evidence more readily than others, especially the social scientific and often more politically-contentious fields (e.g. education, social services, justice). Beyond general characterisations regarding approaches across central/federal government, the extent to which each ministry draws on scientific evidence *in actuality* would require (multiple) interviews in each one. Note: there are more than 13 ministries on average in the four countries (see table below), and often several policy sectors in each one (e.g. 'Ministry of Transport and Communication'). This places 'openness to EIPM' at the ministerial level in the 'higher hanging fruit' categories. Moreover, there are still political choices in every sector, where the contribution of scientific evidence is not clear (e.g. whether the government should train and purchase for conventional or cyber military capabilities, where territorially to invest in healthcare facilities, etc.).

Table 5 | Ministries (or equivalent*)

	Belgium	Croatia	Finland	Latvia
Number	14	16	12	13

* Federal public services (FPS) and public planning services (PPS) in Belgium. Finland includes the Prime Minister's Office.

'Extra-ordinary' policy challenges

Sometimes governments face exceptional policy dilemmas, which impact on multiple ministries and stakeholders, and which are especially intractable and require long-term solutions, if these can be discerned, such as climate change ([8]), mass migration or the socio-economic consequences of an ageing population. These are often termed 'wicked' or even 'super-wicked' problems, and can necessitate extraordinary apparatuses. Three of the four countries have specific arrangements in these circumstances, owing to the special status of these policy challenges.

([8]) Note, climate change is a subnational competence in Belgium.

Table 6 | Arrangements for extra-ordinary policy making

Country	Practice
Belgium	As complex issues cannot be resolved overnight, they require intense negotiating between the governing parties. In many cases, the government will 'outsource' this task to a commission first. There is no written procedure, this is based on common practice (i.e. what usually happens). Outsourcing can imply that one of the already existing advisory bodies (eg the High Council for Health) looks into a complex issue, but it may be the case that a new commission of experts and societal representatives (often a mix) is created. Such an ad hoc commission is created especially for this task alone (eg the pension reform commission or fiscal/tax reform commission). The commission or advisory body takes some time (several months or even 1-2 years) to study the subject, to gather scientific evidence, to discuss with stakeholders and consult with experts, to consider scenarios for reform, and to come up with a final report and conclusions. The report is in principle signed and agreed upon by all members of the commission, or may not be, if the commission's experts had a conflict themselves and did not agree upon one solution. In that case, a 'minority' standpoint is included in the report.
Croatia	There are no special arrangements for specifically tackling government-wide policy development and particularly complex and/or long-term challenges, other than those set out in tables 2 and 3. For such issues, the government usually establishes an inter-ministerial commission comprised of senior (political) officials from the affected ministries (state secretaries or assistant ministers), and often also external stakeholders, but not always researchers. Otherwise, the process is essentially the same; drafting of individual legislative proposals or sectoral strategic documents is organised within ministries through working groups that naturally, in these cases, have a more inter-ministerial character. Additionally, when the government is considering complex or long-term challenges, it usually assembles advisory councils as permanent bodies that are comprised of external experts and stakeholders that monitor, analyse and advise on policy making in these areas.
Finland	For very complex reforms, the current Government has established parliamentary committees (e.g. reform of social security, child strategy, compulsory military service), whose members come from all the parties represented in Parliament, plus the main interest organisations and citizen associations. The term of these committee may last more that the mandate of parliament and government (i.e. more than 4 years, although this has only been the case with the reform of social security so far). The committee secretariats are relatively large, mostly staffed by civil servants of different ministries, but also external experts can be appointed.
Latvia	The rationale and purpose of the Cross-Sectoral Coordination Centre (see table 3) is also to address complex and/or long-term challenges, such as 'wicked problems'.

Whether there are dedicated forums or not, all four countries rely on scientific evidence, as the clamour for expert contributions outweighs any short-term political considerations.

Table 7 | Role of scientific evidence in extra-ordinary policy making

Country	Practice
Belgium	Scientific evidence is used for policy formulation, and perhaps for the policy decisions that will result from that preparatory work. Expert commissions and advisory bodies look for scientific evidence to frame a problem and to come up with (scenarios that hold different) solutions to a problem. Often, they also assess other aspects while providing advice, such as feasibility and stakeholder support, financial impacts, and even the ideological preferences of governing parties (to increase the likelihood that their advice is picked up).
Croatia	Exceptional policy making definitely draws on scientific evidence more than in regular policy issues. It is not rare that the government or the lead ministry commissions an ad hoc research study or report on the matter in question, which then serves as an empirical basis for policy planning. Scientific evidence in these matters is brought forward in a more systematic and continuous way by the aforementioned advisory councils.
Finland	Scientific evidence is drawn into policy making in the same way as all working groups, but in principle there is more time and some research may be commissioned by the government for the purposes of these committees. While there is no evidence of this happening so far, the memorandum for setting up the committee on reforming social security, for example, explicitly stated that the committee may commission research and use experts, covering their costs.
Latvia	See table 4 regarding the Cross-Sectoral Coordination Centre.

BB2: Policy makers seek to access all available and relevant sources of scientific evidence to inform their decision making

Once openness towards EIPM as framed in BB1 (i.e. *demonstrable* political support to use scientific evidence) is established, then the next consideration is openness towards all possible avenues of knowledge, without preconceptions or prior preferences. Hence, this building block incorporates two concepts:

The first is inclusivity, and concerns the 'demand side' of the EIPM equation. Policy-makers should welcome all appropriate sources, even if some of their information or interpretations might appear to conflict with each other, which should then become a source of debate and further enquiry. Hence, policy-making mechanisms should be open to all (qualified) contributors, as reflected in their search criteria and process, and open to new providers if the topics are expanded or new entrants present themselves. Policy makers should not 'cherry-pick' experts and evidence to suit a pre-determined conclusion (as appears to be the case in Croatia). In other words, this building block is predicated on open minds towards evidence. If transparent, inclusivity should also build public confidence in the policy process and decisions, and raise the profile and authority of scientific evidence in society.

The second is availability and relates to the 'supply side' of EIPM. Even with open thinking in the political and administrative culture, policy makers' access to evidence are limited by supply constraints, especially the subject specialisms of knowledge generators with a national context (for example, there are just three experts on nuclear power in Latvia), as well as possibly their awareness of what knowledge generators are 'out there'.

This building block faces the twin challenges of fragmentation and diversity. There is not one set of policy makers, but many, largely organised by sector (ministries and their departments), as demonstrated by table 5.

Available national sources of evidence

Equally, there is no homogeneous, unified community of knowledge generators. As the case study report shows, there are at least five institutional categories, and within them, there are an array of research strengths (which is only partly captured by this thematic support, as more in-depth analysis would require extensive enquiries).

Table 8 | Knowledge generators outside government

Institutional category	Belgium	Croatia	Finland	Latvia
Public universities	10*	9	14	5
Private universities		3	—	—
Public research institutes	12	26	13	5
Private research institutes	2	10	8	—
'Think tanks'	15	7+**	12	3
Other knowledge generators	14	3+**	4	—
Total	**53**	**58+**	**51**	**13****

* Please note, the difference between private and public higher education institutions is diffuse in Belgium. All recognised institutions are funded by the government (for their educational activities) and they have to meet certain quality standards to receive that funding and to officially provide educational degrees to their students.

** The '+' denotes there are at least 7 think tanks and 3 other knowledge generators, these being the most high profile ones.

*** Non-governmental organisations and social partners also serve as knowledge generators for sectors, and they are not included in this number.

Hence, mapping the relationship between the (multi-faceted) evidential needs of policy makers and the (sophisticated) evidential offer of knowledge generators within each

Member State could prove daunting ([9]). This is likely to be easier in smaller countries, where the number of institutions is also likely to be smaller, but more resource-consuming in larger countries, and particularly in federal systems (such as Belgium), where there are both federal and regional / state policy makers on the demand side.

Inclusive approaches to inviting evidence

Returning to the issue of inclusivity, this is a tricky topic to investigate, as policy makers are unlikely to express their prejudices in public. However, it can be divulged by practice, and even procedure. Any government (or individual ministry) that operates an open call for knowledge generators to participate in its EIPM mechanisms (see BB3) is providing at least the minimum conditions for an inclusive approach to evidence gathering. Obviously, this does not mean that all evidence carries equal weight in policy decision making, or worse that the open call is just tokenistic and a 'fig leaf' to cover prejudicial intent, but it is also a step in the right direction, as this way the entire research community has the opportunity to put their evidence on the table, at least in principle.

Taking the example of Croatia, the formation of advisory councils (see BB1) are sometimes envisaged in a law or strategic document that then prescribes which institutions and stakeholders should be represented. However, when establishing a working group, the minister's discretion is higher (which puts the onus on the minister to identify the right lines of enquiry, and as lesser concern, to know who to ask). Previously, the dominant practice was that the minister would appoint whoever he or she wants, especially regarding researchers/academics, who participated individually and not as representatives of an institution. However, a new practice has become prevalent: the minister calls for experts, and the institutions themselves recommend and nominate who they want and the minister usually follows these proposals. While the minister retains the discretion over which institutions are asked to nominate representatives, the system is moving to a more inclusive approach, at least, which should also be transparent to increase accountability (so that the choice of one actor over another can be questioned).

Another caveat is that policy makers sometimes have access to data that is not available to the knowledge generators. In other words, the latter do not know what the former know, including the former's access to its own expert bodies (e.g. research units and institutions) and evidence (e.g. repositories of studies). This can only be surmounted by open government, with policy makers making available all their information, publicly, without charge, in online formats that can be easily interrogated.

BB3: Both policy makers and knowledge generators are willing and able to play active roles in EIPM

This building block is based on the truism in the demand-and-supply dynamic of any marketplace for ideas that 'it takes two to tango'. Both parties to EIPM must participate and actively to make the connection of evidence to policy meaningful.

Given the asymmetric nature of this demand-supply relationship, the leading role in EIPM must be played by the policy makers, who have to make the first move, not just go through the motions of evidence-seeking, and should be well-positioned to make best use of the outcome. Openness (BB1) and inclusiveness (BB2) are insufficient; the willingness and ability to actively engage in EIPM is also essential to be effective.

To put this building block into place, the TEG has identified several dimensions that also build upon the JRC's preliminary work on factors and indicators.

([9]) This building block could also encompass international sources of evidence, especially from other EU countries, and the EU as an institution enhances that opportunity (through Horizon and other collaborative instruments). However, given time and resources limitations, we will limit our lines of investigation to within each country.

Guidance to policy makers

This building block requires the leadership to give a clear direction to public officials whose job profiles encompass EIPM (which can extend beyond designated 'policy advisors', for example), which can be codified in instructions or guidelines.

Where such guidance is organised from the centre of government, it tends to be more visible and accessible for the purpose of indicator development. Where it is devolved, it can be too dispersed to capture in an indicator, given the plethora of ministries, as evidenced in the four countries in table 9.

Of the four countries, two have (central) manuals to guide policy making (Finland and Latvia), while another has legislation to guide the policy making process (Croatia). It is possible that ministries might have their own guidelines (for example, in Finland), but if so, this is not transparent.

Table 9 | Policy making guidance

Country	Existence of guidance	Provisions on accessing & using evidence
Belgium	The only central guidance on policy making concerns RIAs, which is issued by the Agence pour la Simplification Administrative, situated at the Prime Minister's Office. However, even RIAs are rarely used as a tool for assessing policy alternatives. The document is made pro forma, often post hoc, after (political) decisions have been made and preferred alternatives have been selected. Aside from this, there are no official guidelines on how policies should be made, either from the centre or ministerially, as far as can be ascertained within the time and resource limitations of this thematic support.	Not applicable
Croatia	There is no single central document that serves as a guidance on policy making, but there are several pieces of primary and secondary legislation that guide policy making procedures, including in particular: Law on the Governmentl Law on the System of Strategic Planning and Development Governance; Law on Regulatory Impact Assessment; and the Government's Rules of Procedure. These mostly address the formal aspects of policy making and to follow when adopting a law proposal or a strategic document. At the ministerial level, individual ministries do not have specific guidance on policy making, as far as can be ascertained, but there might be some internal (non-written) customs. Regarding rules on how to access and use the evidence from the existing or commissioned research, there are no such provisions written anywhere.	These texts do not mention 'evidence' or 'data' per se; they only indicate the possibility for assembling working groups or advisory councils, thus implicitly referring to evidence. However, the Law on the System of Strategic Planning contains a provision according to which academics as external experts must be included in the process of drafting and monitoring national strategic plans. There are no instances when commissioning research is mandatory.
Finland	The 'Minister's Handbook', which was published for the first time in 2015 and then updated in 2018, serves as 'a comprehensive information source on the organisation and functioning of the Finnish Government, primarily intended to support the work of members of the Government and their aides and advisers'.	The 'Minister's Handbook' describes the mechanisms of providing government with information and knowledge in support of government decision-making. Ministries may have their own guidance on EIPM, as part of its strategy, or a similar document for each policy sector, but there is no established practice.
Latvia	The Cross-Sectoral Coordination Centre issues a central manual on policy making that is obligatory for all ministries, which includes a general description of the policy making system provisions for accessing and using evidence. The manual describes EIPM as the general approach recommended for public administration; ministries do not have their own individual guidelines.	There is no guidance in the manual on particular methods on how to introduce or use evidence. There is no monitoring system to check if the manual is followed.

Competencies in EIPM

Whether policy making guidance exists or not, central government can acknowledge and encourage the skills, knowledge and attributes required for connecting evidence with policy by assessing them in recruitment and selection, developing them on-the-job through education and training, and/or recognising them in performance appraisal, career development and promotion. This does not necessitate that every individual has an identical set of competencies, if unit managers within public administrations are able to assemble teams comprising officials with complementary competencies.

This raises the question of whether the public administration has a competency-based approach in place. For example:

- Some governments operate universal competency frameworks that apply to all civil servants or public officials.
- Other devolve their human resources management to individual institutions (ministries and possibly their agencies), which may or may not establish their own competency frameworks.
- Still others might take a competency-based approach, but without codifying competencies in a government-wide or ministerial framework.

Where the human resource management (HRM) system centres on competencies, the approach may distinguish between leadership roles (e.g. for senior civil servants) and other public officials. Often, they differentiate competency requirements according to grade or function (e.g. procurement). Where there is an agreed competency framework, the secondary and vital consideration for this thematic support is whether it recognises competencies in EIPM. For example, the JRC has developed a draft competency framework for policy makers ([10]), currently under consultation as of November 2021, including a cluster on EIPM which covers: exploring and framing a policy problem; scientific literacy; identifying evidence needs; building expert relationships and networks; finding and commissioning scientific evidence; appraising the quality and pertinence of evidence by scrutiny, evaluation, and feedback; managing procurement contracts; managing data for policy; and working with models.

All four countries take a competency-based approach to some extent, although only one has a central competency framework that applies to all officials (Latvia), and this does not explicitly incorporate EIPM competencies.

([10]) Joint Research Centre, draft Competence Framework, available at: https://knowledge4policy.ec.europa.eu/projects-activities/competence-frameworks-policymakers-researchers_en (accessed 16//11/2021). The other clusters are: critical and systems thinking; collaboration; communication; citizen engagement; and futures literacy - anticipation and foresight. There is also a draft competency framework for researchers.

Table 10 | Competency-based approaches and EIPM

Country	Approach to competencies	Provisions on EIPM
Belgium	The recruitment and selection of civil servants is based on assessments and tests by the centralised recruiting office. There are few training opportunities and little guidance, therefore policy workers have to learn on the spot and draw on their own experiences and education. They will also look to what their colleagues are doing, thereby continuing an organisational culture that may or may not base its practices on the principle of evidence-informed policies.	There is no consideration for EIPM, as 'experts' or 'advisers' are expected to be able to analyse problems and assess solutions, to consult relevant information etc. There is no explicit mentioning of the scientific or research community in any of the functional classifications.
Croatia	There is no universal competency framework, but each central government institution decides on its own which competencies will be required for recruitment and selection. Such 'competencies' are in most cases formalised and narrowly formulated as qualifications, i.e. formal education is required. There is a document (manual) which was drafted by a project around 7-8 years ago, titled 'Recommended competencies for civil servants', which was supposed to serve as a basis for the development of a comprehensive competency framework for the whole civil service, but this never happened. Only sporadically this document serves as a guidance for some ministries, but it is not formal nor mandatory.	As far as can be ascertained, EIPM competencies are never required of civil servants in recruitment, selection or other human resources practices.
Finland	In terms of eligibility conditions, competencies are defined by law for each position in the public administration. However, they tend to be very general, referring to experience in similar jobs (substance) and in leadership, language skills, and suitable higher education degree (BA or MA in most positions). HRM is mostly decentralised to agencies themselves and they may have more detailed frameworks. As for managerial positions, there are guidelines for leaders' selection and career management, which include skills criteria (specified by the Ministry of Finance in the section 'Government as Employer').	Under the Civil Servants Act, the most senior civil servants must demonstrate their management skills. Recently, competencies have not been outlined in relation to whole staff, as more emphasis has been given to knowledge-based management, which is partly related to production of relevant data and use of information systems and creating new ones.
Latvia	The central government has a competency framework that applies to all officials. Human resource management (HRM) policies are autonomous and hence, ministries have a large degree of discretion in the implementation of HRM tools in recruitment, selection, promotion, appraisal and training. Nevertheless, an e-based performance management system (NEVIS) was introduced at the central level in 2013, and competency-based performance evaluation has been conducted in this electronic system since this time, ensuring a whole-of-government approach.	The competency framework does not, however, include competencies in EIPM.

Training and development of policy makers

While competency frameworks are not commonly established across the EU, all central governments offer staff opportunities for training and development, which can or at least could include EIPM-related skills and know-how. Hence, it might be fruitful to focus on whether there are specific courses, including those offered in the curriculums of national schools of public administration (or equivalent institutes), or within e-learning platforms, which cover EIPM competencies, and also their take-up. For example, Finland's HAUS ([11]) (a state-owned enterprise) includes training on knowledge-based manage-

([11]) HAUS website, available at: https://haus.fi/en/introduction/ (accessed 18/09/2021).

ment, including courses on research literacy, better decisions with location information, from knowledge to action, and data visualisation.

The broader context is whether public officials are not only offered such 'off-the-job' opportunities in all countries, especially in techniques (finding and consulting evidence) and not just themes (job-specific subject matter), and whether they are taken up. Internal trainings are inevitably less easy to research than courses offered by external providers (universities and others), while there are often a plethora of potential education and training suppliers that would need to be considered.

Management encouragement of EIPM

Whether there is a competency framework that explicitly rewards EIPM and/or an education and training system that nurtures it – and neither may exist – the minimal requirement is an administrative culture that facilitates staff with EIPM functions to engage in intellectual experimentation, and gives them space to propose policy alternatives. If this is not positively encouraged, or even worse discouraged, by line managers in an institutional environment that does not value scientific evidence, then the seeds of original ideas are unlikely to take root.

Without an enabling environment that actively stimulates public officials to look for and weigh up scientific evidence when developing policy proposals, there is a risk of path dependency, and recycling already-existing data (and the thinking behind it). Public officials can then be led to change policy by reacting to 'negative assessments' (e.g. poor rankings in high-profile, international benchmarking studies), rather than positive searches for innovative solutions.

Given 'management culture' is almost impossible to convert into a measurable metric, we can only use the existence of competency frameworks that incorporate EIPM and training opportunities as a proxy.

Motivation from knowledge generators

Following the 'two to tango' logic, there must also be interest in engaging with policy makers from the knowledge generators' side and the internal systems that incentivise and enable them to initiate or respond to such interactions. This raises questions about the motives and modus operandi of knowledge generators (universities, research institutes, think tanks, etc.).

The university sector, for example, is largely dependent on research and teaching for its funding lifeblood, and hence the extent to which individual experts are incentivised to provide policy advice to governments through scientific evidence depends (to a lesser or greater degree) on a mix of factors, including their intrinsic motivation, the extent to which their employment contracts allow (passively), encourage (semi-actively) or expect (pro-actively, for example with real incentives) them to engage with policy makers, and the potential opportunities to access government funding for original research (see BB5).

Table 11 | Public universities' orientation towards evidence provision to policy makers

Country	Practice
Belgium	Some university research institutes have a strong tradition of conducting applied research and answering research calls from government, while others focus more on fundamental research. Commissioned research is also a way of obtaining funds for the researchers universities employ and who only have a temporary appointment. As with most higher institutions, publications matter, especially scientific publications in high-ranking journals. This implies that some researchers will be less focused on providing evidence to policy makers, as it is not especially of value for their academic careers. Of course, researchers are inherently motivated to contribute to society and to provide evidence for policy, if asked and needed. They can maintain personal networks with civil servants/policy-makers and advise on ad hoc issues, or they can conduct applied research projects and consultancy-like assignments. There is also the professional recognition that academics receive for providing expert advice to government and conducting research on interesting topics with the goal of improving or strengthening policies and their practical application/implementation.
Croatia	There are no direct disincentives, but the absence of incentives is discouraging for academics to engage in providing evidence to policy makers. Participation in the government's or line ministries' working groups, advisory councils or commissions is never financially compensated. Equally, individual academics are never relieved of their workload at the university to participate in policy making bodies; this is something they do in their spare time. There is a certain (non-negligible) share of researchers that a priori refuse to participate in policy making. However, there is a strong sense of 'duty' and 'honour' among academics to provide evidence when invited. Furthermore, many academics and their institutions gladly invite policy makers (senior officials and civil servants) to conferences and symposiums, even providing their latest publications freely for public institutions. Providing evidence in policy making in any capacity increases professional recognition and informal status within a research community. Additionally, the motivation for participation can be networking and greater visibility for academics that will pay off in future commercial projects (EU-funded or not).
Finland	Universities have a working plan template for academic staff (based on collective agreement with universities as employer and trade unions), which has a section on 'third mission'. It is expected that academics are active in 'societal interaction', which means collaboration with social partners like policy makers. The allocation of time is estimated annually, freely, and superiors approve the plan. In practice, this is a formality, but in competitive recruitment, this experience is addressed to some extent (much less than research output). These activities are not needed for a successful academic career. However, many academics are invited to membership or interviews in ministerial working groups, and they agree to contribute, although the number of members from the research community has been declining during the last 10 years.
Latvia	There are no incentives for university departments to engage with the government, unless the latter commissions research with clear funding. Individual academics do engage with central government and individual ministries in their fields of expertise as participants in advisory groups and working groups, however, but these activities are not supported by the universities – there are no allocations of staff time or financial incentives. Any engagement with government is purely at the discretion of the academics in their free time. Most commonly, the academics are members of consultancy teams formed by private companies participating in public procurement for delivery of scientific evidence to the ministries. The main structural and policy problem in Latvia is: low research funding.

This is not a straightforward matter to codify in a measurable indicator, as personal interests and personnel contracts are not public information. However, one easily-accessible metric is mission statements, which apply not just to universities, but also research institutes and academies. For example, the Royal Academies of Science and the Arts in Belgium (RASAB) ([12]), and particularly its Flemish sub-institute, KVAB, produce some scientific evidence aimed at supporting policy makers. To secure their governmental funding, the academies are expected to produce position papers (e.g. eight per year in the case of the KVAB). The topics of these position papers are chosen by the scientists, not policy makers. Position papers are usually drawn up in *ad hoc* working groups.

([12]) Royal Academies of Science and the Arts, available at: https://www.rasab.be/index.php/en/ (accessed 27/09/2021).

BB4: Policy makers and knowledge generators have formal mechanisms to bring them together

This building block concerns the organisational arrangements and structures to connect evidence to policy, by bringing institutions (and their experts and information) from the two sides together, whether the knowledge generators are governmental, non-governmental or quasi-governmental.

'Formal mechanisms' means not just casual contacts, occasional workshops, former academics that enter the public administration at the senior level (which can also create potential conflicts of interest), or civil servants attending post-graduate studies, although this can also stimulate an EIPM culture. Instead, it refers to structured interactions that open the opportunity for alternative evidence to be presented. It is posited that this can take three main forms:

- Liaison: There may be a chief science officer or system of science advisors working in government organisations, whose purpose might include extending the networks with academics, scientific societies and universities, and overseeing collaborative projects.
- Coordination: There may be independent bodies (e.g. scientific councils, research networks, academies), possibly publicly-funded, which act as recognised (not *ad hoc*) coordinators of the research community side (i.e. knowledge generators) in their relationship with policy makers.
- Connection: Academics and researchers from other research institutes may be invited to forums, such as working groups or advisory boards, the membership of which should be publicly available (in line with BB2).

Table 12 | State-of-play with formal mechanisms

Category	Belgium	Croatia	Finland	Latvia
Liaison function for policy makers	X	–	X	–
Coordination function for research community	X	–	X	–
Forums for knowledge generators and policy makers	X	X	X	X

As the practice from the four Member States illustrates, just two countries have liaison and coordination functions (although the formation of research consortiums in response to calls for projects is a common phenomenon). Most crucially, however, all four have forums to connect knowledge generators to policy makers, including the policy making vehicles described under BB1.

Table 13 | Mechanisms to connect evidence with policy

Country	Practice
Belgium	Liaison: Ministries are responsible for liaising with the research community, in coordination with the FPS Science Policy (BELSPO), as each ministry has a policy unit which looks for scientific evidence during policy design (albeit outside the political cabinets, which are the main focal point for policy formulation). This practice is established more strongly in some departments than in others. Some civil servants are also more practiced and willing to consult with the research community than others. This is left to their discretion or communicated from the top. Coordination: The Royal Academies of Science and the Arts in Belgium (op. cit.) seeks to promote interuniversity cooperation, while depending on the research requirements of FPS Science Policy (see BB5). Universities may establish research consortia, which then coordinate projects within a multi-annual research programme, but only in response to a specific calls. Connection: Belgium also has over 1 000 advisory councils, with predominantly a membership of societal stakeholders (or mixed, including also public servants and/or scientists). The most impactful at the federal level are the High Council for Health (which is a scientific advisory board), High Council for Justice, High Council for Finance, High Council for Employment, and Federal Human Rights Institute. In most cases, advisory councils connect with the scientific community and ask for input on the issues they discuss. Nonetheless, the advice provided by most of the councils draws strongly on technical and values-based inputs from stakeholders.
Croatia	Connection: Regarding forums to connect the two sides, these are organised by both the centre of government and individual ministries. • At the centre of government, advisory councils / inter-ministerial commissions are established by either the government's decision or the individual decision of the Prime Minister, mostly of a permanent character, to cover horizontal policies, cross-sectoral issues or complex problems. These currently include the Council for the Development of Civil Society, Council for Youth, National Council for the Digital Economy, Commission for Human Rights, Council for Fighting the COVID-19 Pandemic, inter alia. They are in most cases of permanent character. • At ministerial level, there is a common approach that ministers may establish advisory bodies (advisory councils, working groups and ministerial commissions) whenever they want, except in cases when the establishment of an advisory council / commission is mandated by the law or a strategy. As a rule (but not always), advisory councils are permanent bodies, established to monitor and supervise certain policy and to propose new solutions, while working groups are ad hoc collectives, established for a single purpose to draft a law proposal or a strategic document. Naturally, meetings of working groups are more frequent (estimated as from once a week to once a month), while meetings of advisory councils happen one to six times a year. There is an online database of advisory bodies (13), but unfortunately it is far from being complete or regularly updated. Civil servants and officials heavily dominate the membership of these bodies. Generally, the establishment of advisory bodies in Croatia is more about transparency, inclusion and the interest representation of various societal stakeholders than about drawing evidence and including experts/academics. Academics are seriously under-represented and they are not appointed in all bodies.

([13]) Database of advisory bodies, available (in Croatian) at: https://savjetovanja.gov.hr/baza-savjetodavnih-tijela/1118 (accessed 03/10/2021).

Country	Practice
Finland	Liaison: While there is no chief science officer in Finland (it has been proposed, but not adopted), some ministries have research directors with responsibility for liaising with the research community in their sectors. Coordination and connection: Resulting from a 2014-2017 reform of state research institutes and research funding, the Prime Minister's Office (PMO) is responsible for coordinating the objectives of state sector research (public research institutes) to support decision making: • The PMO coordinates the government's analysis, assessment and research activities, including open calls for policy-related research on topics suggested by ministries, being relevant for the implementation of the government programme and decided by the government on an annual basis (see also BB5). • The Strategic Research Council (located in the Academy of Finland) makes an annual proposal for a decision by the government on the thematic areas and priorities of strategic research (see also BB5). • Networks are used to develop cooperation between ministries, research and survey data producers, research funders, industry and organisations. Furthermore, the Government working group for the coordination of research, foresight and assessment activities (14) serves to strengthen horizontal oversight of these activities, improve the information base for decision making, and develop new ways of disseminating information on these activities to decision makers and society at large. The members come from all ministries and it is chaired by the PMO's Head of Government Strategy (15) (also in charge of monitoring the implementation of the government programme). There is also the Research and Innovation Council, an advisory body chaired by the Prime Minister that discusses key issues relating to the development of research and innovation policy that support wellbeing, growth and competitiveness. As well as the PM, there are 12 members, including 5 ministers, 4 currently from universities or research institutes, and 3 from business At the ministerial level, each ministry has advisory boards, around 100 in total, with members from different ministries and public agencies relevant for the policy theme of the board, along with a variety of stakeholders (including researchers, but not always). All major advisory boards appear to have their own websites describing their activities and organisation.
Latvia	Connection: Within individual ministries, there are two standard options for policy makers: • First, officials can form a working group by the order of the State Secretary (the top civil servant in the ministry). The working group sets its own timeline according to the expected output (draft legislation). Most commonly, the working groups have several meetings once the legislative draft is produced. • Second, the ministry can form an advisory council, which is a more stable and permanent structure, as it might have a mandate for several years. Both working groups and advisory councils usually decide themselves on the working mode, frequency of meetings and other internal issues. Members are selected on professional criteria, non-applicability of conflicts of interest, reputation and no relationship with the ministry. The last criteria (good relationship) means that commonly ministries invite experts who have not been in strong opposition to a policy implemented by the ministry. This, in turn, questions to what extent the experts are independent.

To understand better whether such mechanisms are stable and sustainable, it would be helpful to consider their legal basis (in the case of working groups and advisory councils), their history (how long established), and their resourcing (including budget and staffing support, as applicable), although this information is not so readily accessible. Ideally, data would also be publicly available on the implementation rate of working group / advisory council recommendations.

While the above mechanisms typically have a particular focus on engaging with the research community, policy makers also organise consultative forums that involve expert inputs alongside other perspectives, for example those of social partners (employers, trades unions, businesses, and civil society). Here, invited experts can sometimes play a

(14) Government working group, available at: https://tietokayttoon.fi/en/government-working-group-for-the-co-ordination-of-research-foresight-and-assessment-activities (accessed 27/09/2021).

(15) Head of Government Strategy, available at: https://vnk.fi/documents/10616/1457236/Organisation+-structure+of+the+Prime+Minister%27s+Office%2C+Finland+10.5.2021.pdf/254bb29e-8a5f-a7e0-b0ce-88b47c96eff4/Organisation+structure+of+the+Prime+Minister%27s+Office%2C+Finland+10.5.2021.pdf?t=1620825154013 (accessed 27/09/2021).

dual role, both as sources of scientific evidence and as stakeholders with a direct interest in the consultation's outcome, especially if they are representing the research or higher education sector. There is a possibility that boundaries become blurred, and hence such forums would not be considered as formal and effective mechanisms for the purposes of this building block.

BB5: Policy makers have structures and processes in place to identify, seek and request evidence to meet their EIPM needs in a timely manner

If policy-making is politically supported (BB1), open and inclusive (BB2), both sides are willing and able to participate in EIPM (BB3), and formal mechanisms are established to bring the parties together and bridge differences (BB4), policy makers will need instruments to identify their evidence needs and to commission evidence, especially where it does not readily exist yet (new sources or lines of enquiry), or evidence gathering needs to be tailored to specific circumstances (re-orienting existing sources of lines of enquiry).

Identifying and conveying evidence needs

Policy makers may have various formal mechanisms to identify their evidence needs relating to key policy issues that are part of the government agenda. The systematic version from the case study countries appears to be Finland's model, which involves the PMO and the Government working group for the coordination of research, foresight and assessment activities (see BB4), which produce an annual plan that underpins policy decision making and steers analysis, assessment and research activities towards specific priority areas, and which has been subject to its own review ([16]). However, there are also other elements from country practices:

- In Belgium, the Flemish Government performs 'surroundings analysis', which is a form of environmental scanning to understand better the context and key factors in each policy field. It is produced every 5 years by the planning and statistics unit of the Department for Public Affairs and External Affairs, in view of the government's new legislative term and describes the current and future state of Flanders (demographics, macro-economics, socio-cultural, technological and ecological). It does not offer solutions but highlights possible opportunities and problematic developments ([17]).
- In Finland, the Foresight Panel ([18]) coordinates the government's joint foresight activities and serves as a cooperation network for ministries in preparing the Foresight Report. The federal government in Belgium also instigates foresight studies occasionally.

Both environmental scanning (however named) and foresight studies can be platforms for identifying evidence requirements to strengthen policy quality.

Ensuring a timely supply of evidence

This building block also touches on another important factor in EIPM, which again recognises that the two sides can have divergent interests and *modus operandi*, namely timing. Policy makers often need 'immediate' solutions, or at least quick responses to pressing challenges. Knowledge generators often do not have 'off-the-shelf' evidence and operate to standards which require sufficient time (as well as scale) to apply robust research techniques and subject findings to peer review. This mismatch can create ten-

([16]) Assessment of the research institutes and funding reform, available (in Finnish) at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161250/74-2018-TULA-arviointi.pdf (accessed 27/09/2021)

([17]) Surroundings analysis, available (in Dutch) at: https://www.vlaanderen.be/publicaties/algemene-omgevingsanalyse-vlaanderen (accessed 03/10/2021).

([18]) Foresight Panel, available at: https://tietokayttoon.fi/en/government-working-group-for-the-coordination-of-research-foresight-and-assessment-activities/foresight-panel (accessed 27/09/2021)

sions, and push policy makers towards pragmatic or political solutions, rather than soundly evidence-informed ones. Hence, this building block emphasises timeliness. To be effective, structures and processes need to ensure that the stream of evidence being commissioned and/or produced is both tailored to policy makers' needs, but also available at the appropriate times for those key points of intervention.

Policy makers may also have mechanisms to allocate funding to generate research information related to key policy issues of the government with processes that have a formal status. For example:

- The government may decide on the key topics of policy research and arrange an open call for competitive funding used for the research of predetermined topics identified by policy makers.
- Governments can also organise multi-annual framework contracts with universities and/or research institutes, so that they can call upon evidence on a timely basis.
- Ministries may have performance contracts with public research institutes, including some priorities for research information (e.g. currently, COVID-19).
- Ministries can use public procurement of (research) service contracts, including policy and programme evaluations, to request and generate scientific evidence (open to all eligible institutions, including private and publicly-owned companies, as well as universities, etc.).

Regarding evaluation, decision making rarely occurs in a policy vacuum. As noted in the 'foundations' section, policy choices typically take place in the context of past or ongoing policy measures, whether initiated by the current government or its predecessors, in which case there are lessons to be learned. An open-minded central government will commission policy and programme evaluations to gather evidence to inform future choices – and do so transparently, recognising the value of an independent and objective perspective.

Table 14 | Research financing

Category	Belgium	Croatia	Finland	Latvia
Open calls for research / evidence	(X)	–	X	X
Multi-annual framework contracts with universities / research institutes	X	–	–	–
Performance contracts with public research institutes	X	–	X	–
Central earmarked funding for strategic research	–	–	X	–
Public procurement of research services (including evaluations)	X	X	X	X

Please note, however, that central/federal government funding of research does not *necessarily* translate into evidence production for particular policies. For example, performance contracts enable research to be thematically guided by the government's grants, but this does not guarantee that the results will be used to inform policy making. It does, however, indicate that the financing means and conditions are in place to make that connection, where there is willingness. Whether the connection is made takes us back to the four previous building blocks. Similarly, the commissioning of policy evaluations does not necessarily lead to EIPM, especially if the conclusions are negative, and not all evaluations are scientific, if their terms of reference are impressionistic.

With these caveats in mind, the details of each country's approach to accessing evidence through these scenarios is set out below.

Table 15 | Financing policy-relevant evidence

Country	Practice
Belgium	The FPS Science Policy coordinates research calls; the other substantive departments also produce calls on an ad hoc basis. Large calls under procurement rules are open and accessible to all, published on the website, and communicated through the university channels. Consultancy-like assignments and calls can be allocated to one party, if the budget is small and does not exceed thresholds. Larger calls require three candidates or more.
Croatia	There are multi-annual framework contracts with universities and performance contracts with public research institutes, but these are intended to secure financing for their regular activities and they are not directly related to the supply of evidence in policy making or to commission specific research. Only sporadically will the government as a whole or individual ministries commission a specific research study from public institutes or universities. Research is almost always contracted from an institution, not individual academics. However, in most cases, this research is not required to inform policies, but rather individual decisions that the government makes (e.g. privatisation of a public-owned company, cost-effectiveness of certain infrastructure investment, environmental impact studies etc.). Only recently have these studies begun to serve a wider purpose – as empirical backbones of certain policies, and mostly through EU-funded projects, mainly in the area of public administration, judiciary reforms, regional development and tourism.
Finland	The Government's annual plan for research, foresight and assessment activities is allocated resources from the PMO for its implementation amounting to approximately EUR 10 million, also covering impact comparisons of various policy instruments, and evaluations of situation awareness scenarios. The projects can span from a few months to 3 years. The projects are expected to be transparent and the outcomes to be as widely applicable as possible. The Strategic Research Council (SRC) provides funding to long-term and programme-based research aimed at finding solutions to the major challenges facing Finnish society. Annual funding from the state budget is around EUR 55 million, The SRC selects the projects based on a review of their scientific quality, societal relevance and impact.
Latvia	Ministries procure necessary expertise via public procurement, and thus, the providers are private companies with academics in their teams. While there is continuity or regularity in the supply of evidence, public procurement is the ad hoc solution. The whole procedure is conducted via an electronic procurement system, accessible to everyone, and the results are published on a centralised government platform (19). Research activities are project-driven or call-driven, as there has not been stable public financing of research since the economic and fiscal crisis in 2008, when public funding for research was substantially cut and there has been no return to the previous level subsequently.

5. PROPOSED INDICATORS

For the purpose of proposing indicators, these principles have been elaborated as one or more key topics in each case. The following five sub-sections summarise the the 'low-hanging fruit' indicators have been elaborated and assessed by the TEG experts, and identify 'high-hanging fruit' issues for further research.

Each topic is explained by its rationale, and each 'low-hanging fruit' indicator is presented to a common format:

(19) Research and publications database, available at: http://petijumi.mk.gov.lv/ (accessed 03/10/2021).

Indicator	Name
Definition	The definition is formulated to be easily converted into a question, with either a 'binary' response (yes, no, not applicable) or quantitative response (e.g. number, %).
Response categories	This sets out the possible options for response to the posed question.
Explanatory factors	Here, we note whether there might be qualitative factors that should be taken into account in interpreting the response, and which would therefore require a box below the question to allow the expert to 'qualify' the information provided with context.
Sources	Here, we set out the expected source of information for this indicator (e.g. parliamentary websites, rule of procedure / standing orders, parliamentary reports, interviews, etc.), and any other confirmatory information that is appropriate.
Notes	Here, we provide any necessary guidance that is specific to the indicator, for example more detailed specifications for the question, such as clarify any terminology
Assessment of indicator	
Country coverage	Here, we summarise the country coverage of the indicator based on the sample of countries studied e.g. 'indicator measurable in five 5 of 6 countries' or noting when it arose out of discussions in the TEG roundtables and hence not covered by the country case studies.
Frequency of data availability	e.g. 'Annual', 'Once'
Overall indicator level	Based on country coverage, frequency of availability and any other qualifying factors, here we provide an assessment of the operability of this indicator on a score of 1-4, which will help to categorise it as hanging fruit that is very low (1), low (2), medium (3), medium-high (4).
Commentary	Here we provide any explanations that are useful to interpret the indicator score, including major differences in methodology across countries, and any further thoughts here regarding the indicator, especially any caveats or conditions for interpreting the finding.

Please note, the lower the indicator level, the higher the operability. Hence, beyond the practical and operable indicators, level '5' would be the equivalent of 'high hanging fruit', in other words, the most 'out of reach' currently.

BB1: Policy makers demonstrate their openness to EIPM

The previous section summarised the policy making system in the four countries and whether each one utilised scientific evidence, as far as it is possible to say within the time and resources of the thematic support. Hence, some of these moments are more accessible to data collection than others that require inside knowledge.

In this context, the TEG proposes four 'low hanging fruit' indicators, concerning governments' actual use of scientific evidence to inform policy discussions and decisions, as a practical demonstration of its political support for EIPM.

Indicator 1	Using evidence to inform the government's policy priorities
Definition	Scientific evidence is consulted in the preparation of the government's policy agenda for its term in office.
Response categories	1. When the central/federal government was formed after the most recent national elections, did it use scientific evidence to inform its overall policy priorities? • Yes, fully – the incoming government sought or invited evidence to inform all aspects of its proposed policy agenda • Yes, partly – the incoming government sought or invited evidence to inform some aspects of its proposed policy agenda • No • Data not available 2. Is yes, fully or yes, partly to 1), were the sources of scientific evidence made publicly available? • Yes • No • Data not available • Not applicable
Explanatory factors	If yes to 1), please note when the elections took place and describe the nature of the government's programme document (i.e. the extent to which it details individual policies, with measures, responsibilities timescales, indicators, etc or provides headlines only). Please also provide a reference / hyperlink to the document, if it is publicly available. Please also describe the process by which the (potential) policy priorities are brought forward and agreed, including the main actors responsible for the document's preparation, and how it draws on scientific evidence. Please also provide a commentary on the significance of this initial priority setting (i.e. whether the document is crucially influential on government policy going forward or is presentational). If no to 1), please provide any information you can regarding factors that prevent the incoming government from accessing and/or using such evidence. If data is not available as the response to 1), please briefly explain why, and if there is an alternative approach to setting government priorities, please describe it.
Sources	Government programme document(s) or equivalent, government website, interviews.
Notes	Please see JRC Science for Policy Handbook's definition of scientific evidence. This indicator concerns the preparation of the key policy document(s), following the formation of the central or federal government after national elections, which set out its policy priorities. Unless a single party has achieved a majority, the final consensus on the government's programme might be reached after a political negotiation among coalition parties, but whether single or multi-party government, the policy papers / process that feed into the programme's preparation should, ideally, be influenced by scientific evidence. 'Sources of scientific evidence' can include studies, but can also mean that the actual contributors of evidence are named publicly on a document and/or website.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries; 'yes' to 1) and also to 2) in only one country (Finland).
Frequency of data availability	Annual (in case of elections in the intervening period).
Overall indicator level	2 (low hanging fruit)
Commentary	While full-term government agendas /programmes (however named) tend to be aspirational and broad-based, they provide a window into the government's willingness to draw on evidential sources, especially if there is a well-established process for doing so that extends beyond individual electoral cycles. The indicator is assigned level 2, as it might be necessary to interview officials in the centre of government and/or research community to verify the response category, if it is not sufficiently clear from publicly available documentation. While 'sources' can be defined broadly, in reality the evidence for this indicator is most likely to be residing in experts (i.e. lists of contributors), rather than cofidied in documentation. Please note, while the indicator implies that evidence should always influence the policy priorities of incoming governments, the reality is that the policy agenda is always likely to be more driven by normative values and especially political factors, particularly in forming coalition governments when deal making can take precedent over policy making.

Indicator 2	Using evidence to inform ministerial decision making
Definition	Scientific evidence is consulted in the preparation of policy decisions for ministers in taking forward the central/federal government's agenda and their own mandates.
Response categories	1. Does the current government take a common approach to policy making in all ministries? • Yes • No • Data not available 2. If yes to 1), does this common approach involve consulting sources of scientific evidence? • Yes – routinely for all • Yes – occasionally for all • Yes – routinely, but only in specific sectors • Yes – occasionally, but only in specific sectors • No – not at all. • Data not available • Not applicable. 3. Is yes to 2), are the sources of scientific evidence made publicly available? • Yes • No • Data not available • Not applicable
Explanatory factors	If yes to 1), please describe these common policy making arrangements. If yes to 2), please describe in what way it is routine or occasional, and the regular arrangements and/or typical methods for drawing on scientific evidence. Please also describe any significant variances to this common approach across ministries (as far as this is feasible). If yes to 2), but only in specific sectors, please list them. If no to 2), please provide any information you can regarding factors that prevent ministries from accessing and/or using such evidence. If yes to 3), please provide a reference and weblink.
Sources	Interviews (if this is about convention, rather then legislation and/or documented practice), government documents of ongoing projects or taskforces (assignments, members) related to implementation of the government programme (or equivalent).
Notes	Please see JRC Science for Policy Handbook's definition of scientific evidence. A common approach might involve, for example, policy-making being assigned to cabinets and/or policy units, devolved to individual departments or officials, organised through working groups. 'Routinely' means it is a regular and accepted practice to consult scientific evidence. 'Occasionally' means scientific evidence is sometimes consulted, but it is not an accepted practice. Please see definition of 'sources' in indicator 1.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries.
Frequency of data availability	Annual.
Overall indicator level	4 (medium-high hanging fruit)
Commentary	This indicator could potentially be rated a level 5 indicator (high hanging fruit), depending on the accessibility of information from ministries, and the extent to which there is a common approach across central/federal government. The indicator refers to the 'current government' to reflect the reality that practices can change, rather than remain in perpetuity, and indeed the intended effect is to encourage governments to routinely consult evidence in its policy making, and hence this indicator should be assessed on an annual basis. In interpreting the indicator, 'yes - routinely for all' should be assessed as 'fully', while the other responses (apart from 'no') should be assessed as 'partly'. Compared to indicator 1, the sources for ministerial policy making are more likely to be set out more fully, especially if there are working groups (or similar) that present their findings in reports. In some countries, however (for example, Belgium and Croatia), these policy making processes are 'black boxes', internal only, and the outcome is only revealed when (in the case of Croatia) draft legislation is published.

Indicator 3	Using evidence to inform policy coordination
Definition	Scientific evidence is consulted when ministries need to coordinate to address policy challenges that cross ministerial boundaries.
Response categories	1. Does the current government have established arrangements and/or forums for (ordinary) policy discussions between two or more ministries that cross ministerial boundaries? • Yes • No • Data not available 2. If yes to 1), do these arrangements and/or forums draw on scientific evidence to inform their discussions and decisions? • Yes – routinely for all • Yes – occasionally for all • No • Data not available • Not applicable 3. Is yes to 2), are the sources of scientific evidence made publicly available? • Yes • No • Data not available • Not applicable
Explanatory factors	If yes to 1), please describe these established arrangements / forums. If yes to 2), please describe in what way it is routine or occasional, and the typical methods for drawing on scientific evidence. If no to 2), please provide any information you can regarding factors that prevent these forums from accessing and/or using such evidence.
Sources	Interviews (as this is about convention, rather then legislation and/or documented practice).
Notes	Please see JRC Science for Policy Handbook's definition of scientific evidence. Forums might include, for example, cabinet decision making, cross-ministerial working groups, inter-ministerial task forces, etc. 'Regular' excludes special arrangements for specific policy challenges (see next indicator). 'Routinely' means it is a regular and accepted practice to consult scientific evidence. 'Occasionally' means scientific evidence is sometimes consulted, but it is not an accepted practice. Please see definition of 'sources' in indicator 1. Compared to indicator 1, the sources for interministerial policy making are more likely to be set out more fully, especially if there are working groups (or similar) that present their findings in reports.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries.
Frequency of data availability	Annual
Overall indicator level	3 (medium hanging fruit)
Commentary	While individual ministries have their own mandates, there are also points at which two or more ministries have overlapping agendas. For example, social services for children can bring together social care, education services, healthcare providers and even police, justice and probation, which might involve up to five different ministries. These policy issues require inter-ministerial cooperation without necessarily being elevated to 'complex policy challenges' (like climate change), where governments tend to recognise that scientific evidence is a necessity to move thinking forward and search for new possibilities. Hence, this aspect of public governance can be opaque. This could potentially be rated a 4 or even 5 level indicator, depending on the accessibility of information from ministries. See comment on indicator 2 regarding 'current government'. In interpreting the indicator, 'yes - routinely for all' should be assessed as 'fully', while 'yes – occasionally for all' should be assessed as 'partly'. See also the comment under indicator 2 regarding the opaqueness of policy making and the contribution of scientific evidence.

Indicator 4	Using evidence to tackle complex policy problems
Definition	Scientific evidence is consulted in forums that are convened by government to try and address the most challenging policy dilemmas.
Response categories	1. Does the government have any special policy making arrangements to tackle particularly complex and/or long-term challenges (e.g. climate change, pensions reform), with consequences for future governments? • Yes • No • Data not available 2. If yes to 1), does this policy making process normally draw on scientific evidence? • Yes – routinely for all • Yes – occasionally for all • No • Data not available • Not applicable 3. If yes to 2), are the sources of scientific evidence made publicly available? • Yes • No • Data not available • Not applicable
Explanatory factors	If the answer to 2) is yes, please describe the policy making process and how it engages scientific evidence.
Sources	Government documents (e.g policy notes or reports of permanent or ad hoc committees established for coordinating inter-ministerial policies), interviews. Please see definition of 'sources' in indicator 1.
Notes	Please see JRC Science for Policy Handbook's definition of scientific evidence. Forums might include ad hoc commissions, special cabinet (sub) committees, extra-ordinary advisory bodies, etc. One example of complex policy problems is the impact of climate change.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries.
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	3 (medium hanging fruit)
Commentary	This indicator is rated as level 3, but might be higher in the absence of documentation, i.e. interviews only. In interpreting the indicator, 'yes - routinely for all' should be assessed as 'fully', while 'yes – occasionally for all' should be assessed as 'partly'.

There is also one potential 'high hanging fruit' indicator:

- *How do individual ministries make policy and use scientific evidence where every ministry has its own approach to policy making (there is no common system)?*
  The low hanging fruit indicators deal with the situation where there is a common system across government, but often ministerial policy making is more atomised, which makes assessing the role of scientific evidence more complicated.

BB2: Policy makers seek to access all available and relevant sources of scientific evidence to inform their decision making

Of the five building blocks, the second is the most difficult to develop practical and operable indicators, although it is a potentially rich source of information to understand better the evidence for policy eco-system in each country, underpinned by existing sources. For example, the annual European Innovation Scoreboard ([20]) provides compar-

([20]) European Innovation Scoreboard, available at: https://ec.europa.eu/info/research-and-innovation/statistics/performance-indicators/european-innovation-scoreboard_en (accessed 16/11/2021)

ative overviews of the strengths of research systems in each Member State, but only at the aggregate level, which the Research and Innovation Observatory (RIO) Country Reports ([21]) provide more detail, especially regarding the key actors, but are not produced annually.

As the case study report shows, it is possible to identify the main knowledge generators in each country, broken down by the following categories:

- Public universities
- Private universities
- Public research institutes
- Private research institutes
- Think tanks
- Other knowledge generators, including government regulatory and scientific agencies.

While research institutes and think tanks tend to have their subject specialisms, the public universities in particular can be highly diverse in their research coverage, which is more complicated to capture, particularly if the intention is to gauge the research strength of the university and its departments in specific fields, and to do so objectively. There are international metrics to assess university research performance, such as Scimago Institution Rankings, and The Times Higher Education World University Rankings. However, these are organised by private organisations, and hence their metrics might not be acceptable to Member States. There is also U-Multirank, however, which was developed and implemented on the initiative of the European Commission by an independent consortium led by the Centre for Higher Education (Germany), the Center for Higher Education Policy Studies at the University of Twente and Centre for Science and Technology Studies at Leiden University (both in the Netherlands), and the Foundation for Knoweldge and Development (Spain) ([22]).

Nevertheless, there is merit in conducting an inventory of the major knowledge generators in each Member State, investigating their sector coverage and hence the potential availability of scientific evidence at the national level, and identifying limited sector coverage, as a 'high hanging fruit' study. This information could then be used to map the knowledge generators' specialisms against the ministerial set-up, as the basis for a further step in the research, which would be to assess whether ministries are taking an inclusive approach to involving these expert sources or whether key players are overlooked, and if so, what are the explanatory factors. The information on formal mechanisms from the BB4 indicators, especially working groups and advisory councils, would also feed into this analysis, especially where membership data are accessible. This research could be extended to consider transparency, in terms of what evidence is collected and from which institutions / experts.

There is, however, one 'low hanging fruit' indicator that, while not capturing the full complexity of the policy–evidence dynamic described above, at least might reflect public administrations' attempts to bring available sources of evidence together, including and particularly publicly-funded studies, and make them more accessible for policy makers' deliberations. Such studies should also be available to the knowledge generators, as well as the wider public (citizens and interest groups) to underscore open government and to facilitate consultation and deliberative democracy. This also conveys the essence of evidence as codified in documentation, rather than residing in individual experts.

([21]) Example of 2017 Country Report for Romania: https://publications.jrc.ec.europa.eu/repository/handle/JRC111316 (accessed 16/11/2021).

([22]) U-Multirank, available at: https://www.umultirank.org/ (accessed 16/11/2021).

Indicator 5	Access to government's scientific evidence
Definition	The central/federal government have a repository of publicly-funded research studies for the purposes of EIPM that can be easily accessed by all.
Response categories	1. Does the central/federal government have a repository of publicly-funded studies intended to inform policy making? • Yes – at central government level (including all ministries) • Partly – some ministries have their own repositories • No – not at all • Data not available 2. If 'yes' or 'partly' to 1), how accessible are these repositories? • Fully – to all officials and the public (including the research community) • Partly – only to officials • Not at all • Data not available • Not applicable
Explanatory factors	If the answer to 1) is 'yes' or 'partly', please provide any available information on the repository which will help to better understand its nature (i.e. physical, digital, or both) and contents.
Sources	Government websites, policy making guidance, interviews
Notes	'Publicly-funded studies' can include the results of open calls, research funding, and policy and programme evaluations, inter alia.
Assessment of indicator	
Country coverage	This is a new indicator that emerged from discussions on the draft report, and hence is not reflected in the case study report. Nevertheless, it is measurable in all four countries.
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	2 (low hanging fruit), as existence or not should be easily proven, but might require interviews at the centre of government, if the existence is not promoted on a government website or publicly available policy making guide.
Commentary	The sources of scientific evidence potentially available for EIPM include many academic studies that are lodged in public libraries and accessible through online search engines. This indicator is about supplementing these already accessible sources by bringing together all the various publicly-financed studies into a central government information repository, which is not only usable to policy makers, but helps the research community to understand better what exists and how they can add knowledge value. This indicator only covers the existence, not the use, of such a repository, nor its coverage and quality, and whether it is regularly updated. The latter would require further research and hence falls into the 'high hanging fruit' category.

BB3: Both policy makers and knowledge generators are willing and able to play active roles in EIPM

As noted in section 4, both parties must be motivated, oriented and equipped to engage in EIPM. Hence, we propose three potential 'low hanging fruit' indicators here, all of which relate to the policy makers.

Indicator 6	Guiding ministries on evidence-informed policy making
Definition	The centre of government issues guidelines / instructions to all ministries and other relevant bodies regarding how to conduct policy making, and which includes specific provisions on EIPM.
Response categories	1. Does the centre of government (e.g. Prime Minister's Office, Cabinet Office) issue guidance to all ministries on policy making generally? • Yes, and the guidance is mandatory • Yes, and the guidance is advisory • No • Data not available 2. If yes to 1), does this central guidance include specific provisions on accessing and using evidence from institutions, individual experts and/or data sources? • Yes • No • Data not available • Not applicable 3. If yes to 2), is there a system to monitor whether the central guidance is followed? • Yes • No • Data not available • Not applicable
Explanatory factors	If the response to 2) is yes, please provide a link if this guidance is publicly available on a website, and please describe these provisions If the response to 3) is yes, please describe these monitoring arrangements.
Sources	Government websites, policy making guidance, possibly interviews
Notes	Provisions on accessing and using evidence might include, for example, whether it covers identifying / defining evidence needs and sources, organising working groups or other mechanisms, commissioning research, etc.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries. Three of four countries have central guidance (two mandatory, one advisory), but in one case (Belgium) it only covers RIAs. Of the three, just one includes provisions on EIPM (Latvia), but only as the expected approach (there are no guidelines on applying this approach).
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	1 (very low hanging fruit) for guidance only, moving to 3 (medium hanging fruit) for the monitoring system
Commentary	This indicator is one of the most important in the set, as '3 x yes' demonstrates that EIPM is embedded in the public administration, and it is taken seriously by the government. Less than 3 suggests there is still work to be done. For the purposes of assessing this indicator, 'yes, and the guidance as mandatory' should be interpreted as 'fully' and 'yes, and the guidance is advisory' as 'partly'.

Indicator 7	Recognising competencies in evidence-informed policy
Definition	Existence of competency-based approach that specifies EIPM skills as a core competency for relevant staff.
Response categories	1. Does the central/federal government operate a competency-based approach that specifies the knowledge, skills and behaviours that are expected of civil servants / public officials, for example during recruitment and selection, performance appraisal and/or promotion? Please tick as applicable. ● Yes, fully - for the whole of government (all officials) ● Yes, partly – only in (some) ministries or other relevant bodies ● Yes partly - only for specific levels (e.g. management) ● No ● Data not available 2. If yes to 1), does the competency-based approach include explicitly competencies in evidence-informed policy making? ● Yes ● No ● Data not available ● Not applicable
Explanatory factors	If yes to 2), please provide a link to the EIPM competencies, if they are publicly available online and common across the whole of government.
Sources	Government websites, possibly interviews.
Notes	For example of potential competencies, please refer to the draft competence framework for policy makers (op. cit.).
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries. In two cases, there is a competency-based approach that applies to all officials; in one, it applies to specific levels; and in the other, each ministry decides on its own competencies, and there is no competency framework per se.
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	2 (low hanging fruit)
Commentary	This indicator prompted extensive discussion in the TEG. The most easily measurable methodology would focus on the existence of government-wide competency framework(s), but this favours centralised human resources management (HRM) systems, while the TEG's view is that the indicator should be neutral on this point, and hence the emphasis on competency-based approaches across government. The first challenging aspect is: are such approaches promoted publicly available (in which case the indicator is easy to complete)? The second and more challenging aspect is determining whether 'EIPM competencies' are integrated into the competency-based approach and compatible with the JRC framework.

Indicator 8	Providing training opportunities on using evidence in policy
Definition	Formal courses on EIPM skills and knowledge are available to public officials involved in policy making.
Response categories	Are formal courses on EIPM-related competencies offered to public officials? • Yes, fully – there is a centralised offer available across government • Yes, partly – provision exists, but each ministry takes its own approach • No • Data not available
Explanatory factors	Please provide any further useful information on this provision, including any links to official website(s) with programmes featuring EIPM courses.
Sources	Websites, interviews.
Notes	'Formal' means that there is organised provision that public administrations make available to officials, who can apply and access them in the context of their jobs (professional time), rather than 'informal' options that they can access in their non-working hours (personal time). The centralised offer ('yes, fully') can also be supplemented by other sources, including at the ministerial level. EIPM courses might cover specific techniques (e.g. research skills, interpreting and visualising data), tools (e.g. drafting evidence-informed policy advice to ministers, managing policy evaluations) and/or themes (e.g. evidence-based medicine, effectiveness and efficiency of public spending) that emphasis the role of scientific evidence. Please also refer to JRC's framework of skills for evidence-informed policy making.
Assessment of indicator	
Country coverage	This is a new indicator that emerged from TEG roundtable discussions on EIPM competencies, and hence is not covered in the case study report. Nevertheless, it is measurable in all four countries.
Frequency of data availability	Annual
Overall indicator level	2 (low hanging fruit)
Commentary	The indicator takes a minimalist approach in that it relates to 'any' courses, rather than trying to quantify them, or propose a gold standard for comprehensive provision to which public adminstrations should aspire. However, it focuses on 'formal' courses to emphasise rigour and quality . More in-depth understanding of the scope, quality, and take-up of such formal courses would require further research.

There also four areas for more in-depth research ('high hanging fruit'), rather than immediately accessible indicators, as follows:

- *Is there explicit procedural guidance on policy making in place in line ministries that includes provisions for use of scientific evidence?*
  As noted under BB1, central / federal governments can comprise 10-20 ministries, and such guidance is not necessarily published for all, if any. While an interview programme might provide insights, this would be time and resource consuming.
- *To what extent do policy makers' in your country 'understand' the research community, in the sense of being aware of the mandates, interests (motivations) and modus operandi of the various institutions (with reference also to public universities)?*
  This is quite a subjective question, and unless it is posed as an 'expert opinion' matter for the researcher to answer, would require an extensive study to build a picture, probably including (anonymised) quotes.
- *Is there transparency about the interests, motivations and modus operandi of knowledge generators?*
  This is the counterpart to the previous question, and even more challenging to address. Hence it would definitely require an extensive study?
- *Which other education and training providers (beyond national schools of public administration) provide opportunities to strengthen EIPM competencies?*
  This is not a difficult question per se, but the sheer number of providers that could potentially be accessed by the public administration mean that it could not be answered quickly.

BB4: Policy makers and knowledge generators have formal mechanisms to bring them together

For this building block, the TEG proposes three potential 'low hanging fruit' indicators, covering institutional arrangements from the policy makers' side and the knowledge generators' side.

Indicator 9	Liaison function for policy makers
Definition	The government has dedicated resources to liaising with knowledge generators.
Response categories	Does the central/federal government have specific units and/or dedicated officials that are responsible for liaison with the research community (knowledge generators / evidence providers)? ● Yes – in the centre of government and/or all ministries ● Yes – in some ministries ● No ● Data not available
Explanatory factors	If yes, please provide further information, including whether they are units or individuals, their mandates (roles and responsibilities), how long they have been established (years), activities (reports, news), and funding (budgets), if available. If the response is yes – in some ministries, please specify which ones, if possible.
Sources	Government websites, interviews
Notes	The liaison units or officers (e.g. chief science officer) must be fixtures (i.e. this must be their primary function, not a temporary or ad hoc assignment of responsibilities). The centre of government includes, for example, the State Chancellery, Prime Minister's Office, Cabinet Office.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries.
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	1 (very low hanging fruit) for whether the government has a chief science officer, 3 (medium hanging fruit) for other / ministerial practices.
Commentary	This indicator is significant as it suggests the government is committed to EIPM, and hence it also contributes to BB1 (political support). Note, while an Internet search should quickly reveal whether the government has a chief science officer, for example, ministerial practices are not so easily accessible, as it would require a ministry-by-ministry check. However, liaison officers or offices primarily dedicated to this function should be visible in formal organisational structures. In assessing this indicator, 'yes – centre of government or all ministries' can be interpreted as 'fully', and 'yes – some ministries' can be interpreted as 'partly'.

Indicator 10	Coordination function for the research community
Definition	There is a body that coordinates knowledge generators on their behalf and which is recognised by government.
Response categories	Are there any bodies that act as recognised coordinators of the research community in their relationship with policy makers? • Yes • No • Data not available
Explanatory factors	If yes to Q1, please provide further information, including the name of the body, weblink if available, mandate (role and responsibilities), coverage (i.e. which institutions it represents), funding (budget), and how long it has been in place (years), if available.
Sources	Interviews
Notes	Such a body should be independent of government, even if it receives public funding. Examples might include academies, scientific councils or research networks. They should be established (not ad hoc) institutions and acknowledged as legitimate representatives, both by the research community (evidence providers) and the government (policy makers).
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries.
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	4 (medium-high hanging fruit)
Commentary	Like the liaison function above, this indicator is concerned with brokerage between policy makers and knowledge generators, but from the latter's perspective. The indicator is assigned level 4, as it should not involve many interviews to ascertain whether there is a coordination body or not, but the research community is diverse, and hence there might be different bodies representing different interests (e.g. universities, research institutes, etc.), and gaps in coverage (e.g. a body speaking for 'all' think tanks is highly unlikely). With regards to the 'signalling' aspect of indicators, it is clearly not in the central/federal government's control whether the research community has a coordination function; nevertheless, it is a key element of the evidence for policy eco-system, and hence the TEG believes it merits its own indicator.

Indicator 11	Forums for knowledge generators and policy makers
Definition	The government has established dedicated forum(s) to bring together policy makers with the research community.
Response categories	Are there any formal mechanisms that are organised from the policy makers' side that explicitly involve the research community (knowledge generators)? • Yes – in the centre of government and/or in all ministries • Yes – in some ministries • No • Data not available
Explanatory factors	If yes, please provide further information about how they are organised, how long they have been established, how often they meet (whether regular or not), who are members, and also whether they have a role in preparation of the overarching document for the whole of government, whether they contribute to the sectoral, cross-sectoral or extraordinary policy-making. Please also provide any weblinks to information on the forums
Sources	Interviews
Notes	Such forums might include advisory councils, working groups, and ministerial commissions.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries.
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	3 (medium hanging fruit)
Commentary	The existence, stability / sustainability, and operation of such forums is clearly central to EIPM. However, it might not be straightforward to obtain a complete picture of the forums across the whole of central / federal government, especially if there is diversity of practice. Hence, the indicator is assigned level 3, but might be level 2-4 in reality, depending on the situation in individual countries. In assessing this indicator, 'yes – centre of government or all ministries' can be interpreted as 'fully', and 'yes – some ministries' can be interpreted as 'partly'.

There are also two potential 'high hanging fruit' indicators:

- *What is the implementation rate of working group / advisory council recommendations?*
  This is certainly not readily accessible information, as it is highly unlikely that such data would be published. Some forums have a strong reputation and legacy, but this is impressionistic only.
- *How do policy makers navigate conflicting evidence?*
  This question concerns the outcome from forums that bring the two parties together, but which generate evidence from the side of the knowledge generators that is inconsistent or incompatible. To understand how such tensions are reconciled would require significant inquiry.

BB5: Policy makers have structures and processes in place to identify, seek and request evidence to meet their EIPM needs in a timely manner

For this building block, the TEG is proposing two potential 'low hanging fruit' indicators, with respect to the issues raised in section 4. The first relates to the policy makers' role, regarding the processes by which they identify their evidence requirements, and the processes by which they translate these requirements into a supply of evidence that fulfils their needs. The second concerns openness to evaluations as another source of scientific evidence for orienting policy design and implementation, whether such openness translates into both policy *and* practice, and whether the results are available to all (including the research community and the public, rather than just policy makers).

Indicator 12	Identifying and fulfilling evidence needs for policy making
Definition	The government has established structures and processes in place to anticipate its research-based evidence needs and ensure a supply of evidence as required.
Response categories	Are there any arrangements at the centre of government to ensure a continual supply of research-based evidence from knowledge generators? Please tick all that apply: • Yes, regular open calls for evidence • Yes, multi-annual framework contracts with universities / research institutes • Yes, performance contracts with public research institutes • Yes, earmarked funding for strategic research at the centre of government • Yes, other arrangements • No • Data not available
Explanatory factors	If the response is yes to any of the above, please describe these arrangements, and especially specify 'other'. Please provide links to government websites, where possible. Please also provide any commentary on the extent to which the results actually influence policy decision making.
Sources	Government decisions, documents and websites
Notes	Open calls refer to opportunities for researchers and experts to submit applications for competitive funding for providing research-based evidence. Framework contracts are multi-annual agreements with external providers for specific services within a particular theme that are required on a regular basis, which then do not require an open call among all potential suppliers, but can be drawn down within a short timeframe, possibly through a restricted call among selected contractors. Performance contracts mean formal agreements between government/ministries and research institutes on priorities of policy-related research during the term of the contract. Earmarked funding means budget allocation the purpose of which is designated.
Assessment of indicator	
Country coverage	Indicator is measurable in all four countries.
Frequency of data availability	Annual (or once + confirm)
Overall indicator level	2 (low hanging fruit)

Indicator 12	Identifying and fulfilling evidence needs for policy making
Commentary	The main purpose of this indicator is to gauge the extent to which governments' plan ahead, so that they have a steady supply of evidence on key policy challenges coming on stream when it is needed, rather than reacting to events and demanding inputs that take time to research and assemble. Each of the mechanisms in the response categories require the government to envisage what might be required as subjects for research evidence and put in place arrangements with varying degrees of flexibility (according to the instrument) to draw down evidence in a timely manner. As these processes are public by nature, then accessing information on them should be relatively straightforward, particularly as the indicator focuses on the centre of government (as the most likely host of these processes), not ministry by ministry. Please note the caveat, however, which was highlighted in section 4, that the existence of funding arrangements does not guarantee the results will be used to inform policy.

Indicator 13	Conducting policy evaluations
Definition	Central government is committed to policy and programme evaluations as inputs to EIPM.
Response categories	1. Is there a government-wide policy on conducting evaluations of past, ongoing and/or new policies? • Yes – upfront commitment to evaluate all policies and programmes • Partly – only in some sectors or some policies / programmes • No • Data not available 2. Is there evidence of evaluations having been launched in the last 12 months? • Yes • No • Data not available • Not applicable 3. Has the government published online the reports of evaluations that were completed in the last 12 months? • Yes • No • Data not available • Not applicable
Explanatory factors	If yes or partly to 1), please provide details of the policy (including the types of evaluation (see 'notes'), whether conducted internally (by evaluation units), externally (by commissioned experts), or a mix of both, and whether there are provisions to ensure the evaluation is independent of the policy 'owner'. If the policy is supported by central guidance for public administrations regarding how to prepare and manage evaluations, please provide further information including a reference / link to the document, if possible. If yes to 2) and/or 3), please provide the number if possible, and a link to a website or websites, if appropriate.
Sources	Government websites, possibly interviews.
Notes	The main types of evaluation relevant here are ex ante (prior to adopting the policy) and ex post (after a programme has ended or a policy has changed). However, evaluations can also include early stage (assessing its implementation just after the policy or programme is launched), interim (at a midpoint), or ongoing (on a continual basis, in parallel to design and implementation). Whether the evaluation is conducted internally or commissioned externally (in which case, there should be public tenders), the government should be able to provide a list of evaluations launched as evidence for 2) and publications as evidence for 3).
Assessment of indicator	
Country coverage	This indicator arose out of discussions in the TEG roundtables, and hence is not reflected in the case study report. Nevertheless, it is measurable in all four countries.
Frequency of data availability	Annual
Overall indicator level	2 – low hanging fruit
Commentary	Individual ministries might commission evaluations, but this would require much more research and takes us into 'high hanging fruit territory'. While tendering should be public under procurement laws, the results of evaluations might be kept purely internal.

There are also three potential 'high hanging fruit' indicators:

- *Irrespective of central guidance, are there any arrangements in individual line ministries to define evidence needs systematically, formally and regularly?*
  For reasons espoused under other building blocks, ministerial fragmentation means the answer is not readily accessible, if at all.
- *What are individual ministries' approaches to commissioning evaluation?*
  Where is no centralised, government-wide system, and hence individual ministries decide themselves whether to evaluate past policies and programmes, or even current ones, there are clearly resource implications from mapping the approaches in potentially 10-20 ministries.
- *How do governments (or individual ministries) actually use the findings of policy evaluations?*
  Unless there is a highly transparent process for publishing evaluation findings and their follow-up, which is rare, then such an indicator could only be tackled through a considerable interview programme and might still not yield reliable findings, especially where the commissioning of evaluations is itself opaque (e.g. small scale and below procurement threshold that requires open tenders). Unlike performance audits by supreme audit institutuions that are answerable to parliament, policy evaluations are solely at the government's discretion, unless mandated by parliament.

6. CONCLUDING THOUGHTS

Together, the foundations and the building blocks give us the ingredients for a conceptual model of quality EIPM. If the implicit logic is correct, and the five building blocks enable Member States to construct a robust EIPM system, then we can focus on whether those building blocks have been put in place, and whether they are solid and durable, in a way that can be tailored to different countries with different circumstances. In other words, it should be possible to apply the conceptual model to:

- the policy making system, whatever it is (if the system can be discerned);
- the machinery of government, however it is organised by sector;
- the community of knowledge generators, whichever institutions and experts it contains; and
- the mechanisms, whatever they are titled.

In summary, the 13 'low hanging fruit' indicators proposed by the TEG are as follows, with shorthand titles for the building blocks:

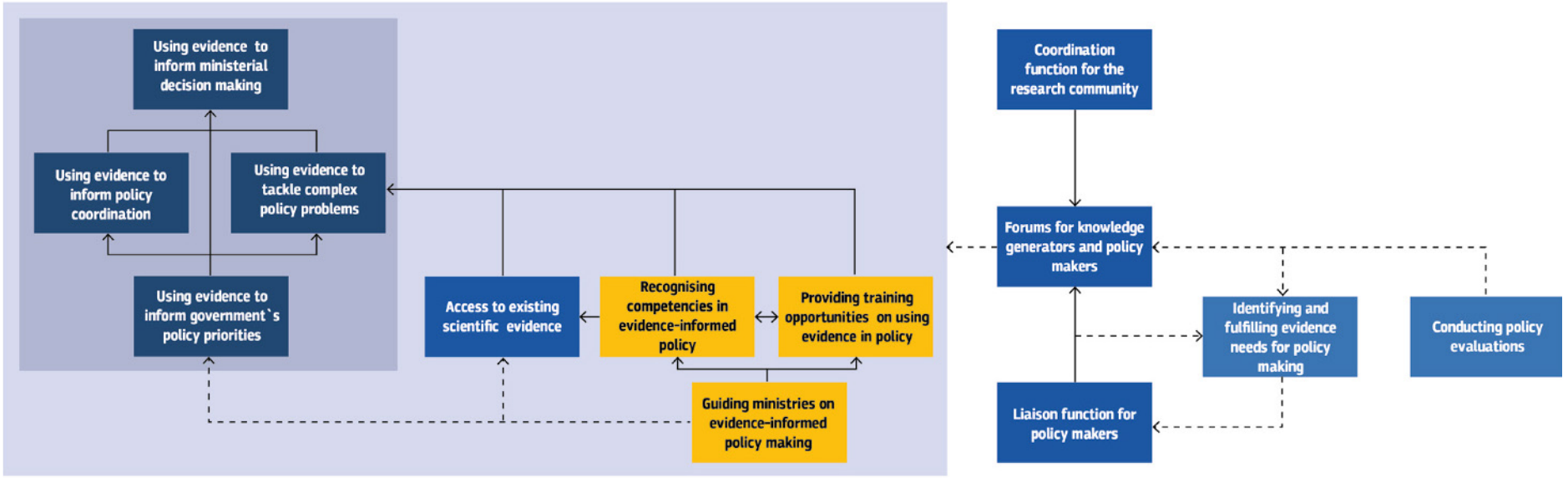
Table 16 | Summary of proposed practicable and operable indicators

Building block	Indicator
1. Policy makers' openness to EIPM	1. Using evidence to inform the government's policy priorities 2. Using evidence to inform ministerial decision making 3. Using evidence to inform policy coordination 4. Using evidence to tackle complex policy problems
2. Availability and inclusiveness of knowledge generators	5. Access to existing scientific evidence
3. Willingness and ability to play active roles in EIPM	6. Guiding ministries on evidence-informed policy making 7. Recognising competencies in evidence-informed policy 8. Providing training opportunities on using evidence in policy3.
4. Formal and effective connecting mechanisms	9. Liaison function for policy makers 10. Coordination function for the research community 11. Forums for knowledge generators and policy makers
5. Structures and processes to identify and fulfil evidence needs	12. Dentifying and fulfilling evidence needs for policy making 13. Conducting policy evaluations

It should be emphasised that, even as 'low hanging fruit' indicators, the extensive interview requirements for many mean that they will require a substantial allocation of time to generate reliable data. The indicators should also be seen as a set (see final figure overleaf, which presents each indicator according to its 1-4 level), as some are not just relevant to one building block (shown by colour coding), but inform others too, which is clear from the linking arrows.

Finally, to integrate 'evidence for policy' into mainstream PAG thinking, the practices of EIPM need to be normalised. The TEG considered one example of mainstreaming, outside the remit of this thematic support, is regulatory impact assessments (RIAs), which are well integrated into the policy making process, at least in some countries. While not every Member State conducts RIAs to the standard set out in the European Commission's better regulation toolbox ([23]), they are nevertheless well established as a policy making tool, in part due to the prominence given to the 'better regulation' framework by EU institutions and the promotion of the practice throughout Europe. More systemically, the Finnish public administration was offered as an illustration of an administrative culture which routinely consults experts and evidence. Such normalisation is not easy to quantify, but it is apparent in daily activities, and once it is evident to all, it does not need to be measured.

([23]) Better regulation toolbox, available at: https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en (accessed 18/09/2021)


Using evidence to inform ministerial decision making
Using evidence to inform policy coordination
Using evidence to tackle complex policy problems
Using evidence to inform government`s policy priorities
Access to existing scientific evidence
Recognising competencies in evidence-informed policy
Providing training opportunities on using evidence in policy
Guiding ministries on evidence-informed policy making
Coordination function for the research community
Forums for knowledge generators and policy makers
Identifying and fulfilling evidence needs for policy making
Conducting policy evaluations
Liaison function for policy makers

ANNEX

COUNTRY CASE STUDY: BELGIUM

1. POLICY MAKING SYSTEM

Overarching policy framework

As a federal country, some important policy fields in Belgium (education, housing, preventative healthcare, culture and sports) come under the competence of the federalised entities, such as the Flemish government or the Walloon government. Financially, the regions manage about half of the total state budget. At the federal level, pensions, work and social security are the main sectors in terms of size and budget. This case study will largely focus on the federal level.

In the context of a plethora of political parties representing the different entities and communities, the negotiations after national elections to form a coalition tend to be complicated and can be very lengthy. For example, while Belgium held federal elections in May 2019, the government coalition agreement dates from September 2020 ([24]). Parties were still negotiating while the COVID-19 crisis was in full swing.

The coalition government agreement is the key document setting the federal government's policy direction and reflects the compromises reached between the governing parties during the process of government formation. It covers the official term in office, which is 5 years in principle from the moment the elections have been held, and hence every time that fresh elections are held, a new governmental agreement is made. As it would be politically problematic to re-open these negotiation, it is not reviewed while the government is in office. Hence, the coalition agreement provides the framework for the government's policy making processes, which then limits the scope for new policies to emerge, even in light of new evidence.

Since Belgian federal governments are usually made up of a coalition of political parties - currently seven - the government agreement is broad, covering the cabinet's diverse goals and priorities and the issues it wishes to resolve or achieve. The current government agreement, which was adopted in September, was untypically short, because of the COVID-19 crisis. Nevertheless, while it is usually a long document, the government agreement does not include 'technical' details of its implemention, such as measures, indicators, detailed timescales, etc, but refers instead to more general policy frames (eg. reducing CO^2 emissions by 80 % by 2050) and policy goals (eg. 'better informing' citizens about the quality of health care providers by setting up a platform and measuring performance).

Belgium is a 'partitocracy' – a democracy dominated by political parties in the executive. Political parties discuss and negotiate the government agreement, represented by their most important political figures and the party leadership, supported by the heads of their own study centres and other (personal, partisan) advisers. Party members need to officially ratify the agreement, but they are not involved in the process and are assumed to vote in favour if their party leadership has concluded the negotiations. The civil service

([24]) Governmental Agreement, September 2020, available at: https://www.belgium.be/sites/default/files/Accord_de_gouvernement_2020.pdf (accessed 27/09/2021)

and other actors (scientists, stakeholders) may be asked to provide inputs for the text, but the governmental agreement is essentially a political document resulting from political negotiations.

Ministerial policy making and coordination

The federal executive consists of 12 federal public services (FPSs) and two public planning services (PPSs) ([25]), currently as follows:

- Chancellery of the Prime Minister FPS
- FPS Policy and Support
- Finance FPS
- Foreign Affairs, Foreign Trade and Development Cooperation FPS
- Home Affairs FPS
- Mobility and Transport FPS
- Employment, Labour and Social Dialogue FPS
- Social Security FPS
- Health, Food Chain Safety and Environment FPS
- Justice FPS
- Economy, SMEs, Self-Employed and Energy FPS
- Ministry of Defence (FPS)
- Social Integration, Fight against Poverty and Social Economy PPS
- Science Policy PPS

The government agreement is translated into concrete policies via sectoral policy documents produced by each minister. He/she presents a 'policy note' which is valid for the upcoming year and which provides a more detailed overview of policy priorities, goals and actions. Policy notes are very detailed in terms of priorities, goals and activities, but they appear to be largely 'wish-lists', rather than evidence-based policies and detailed policy trajectories with timetables etc.

Ministers' political cabinets play a particular important role in Belgium's policy making system ([26]), and comprise 30-50 advisors, appointed by the minister when he or she takes office. Most advisers are partisan, with a link to the party or a personal link to the politician, but they can also include seconded civil servants with subject expertise (and sometimes also some party affiliation) ([27]).

The role of the civil service is confined and often framed within the political compromises reached by the governing parties (e.g. preferred policy alternatives to policy problems are communicated or even decided upon by cabinets). The civil service does take up policy design activities, such as assessing financial impacts or technical aspects such as juridical assessments. However, strategic analyses and the assessment of political risks to the minister are usually the prerogative of the ministerial cabinets. Often, stakeholders also prefer to seek access to ministerial cabinets because of their role in decision making, rather than to the civil service.

Hence, ministerial cabinets are sometimes labelled as 'shadow administrations', because they take up much of the policy design and policy formulation functions that traditionally are the domain of the civil service. Even though the cabinets' staffing is relatively large, they must process a lot of information and analysis from the civil service and

([25]) List of FPS and PPS, available at: https://www.belgium.be/en/about_belgium/government/federal_authorities/federal_and_planning_public_services (accessed 27/09/2021)

([26]) Aubin and Brans (2017), Policy Analysis in Belgium. Bristol: Policy Press.

([27]) Source: European Commission's Joint Research Centre (JRC), 'Science for policymaking in Belgium: Draft country profile, 2021' (working document).

(directly from) societal stakeholders, scientists, etc, within the political boundaries of the compromises between governing parties.

Scientific advice is only one type of information and knowledge for the policy process in Belgium. Scientific advisers, such as academics in universities conducting applied research, often compete with other actors for access to policy makers, such as stakeholders and their technical evidence and normative/ideological values and interests, or the political compromises between the governing parties. In Belgium, societal stakeholders are regularly involved in policy-making (typically, labour unions and business associations, but also education providers, mutualities, doctor's associations, and 'newer' societal organisations and NGOs in different policy areas). Quite often, these actors are responsible for implementing public policies, and in many cases they have institutionalised access to the policy process via the many (predominantly societal) advisory bodies or via regular consultations with decision makers.

The key moments in time to influence policies are the negotiations over the government agreement and, before that, when elections are about to take place. Most societal stakeholders produce memorandums to outline critical subjects for (future) policy makers in view of the elections. Crisis events and sudden media attention also generate a window of opportunity to put policy problems and preferred solutions on the policy agenda. Occasionally, commissioned research might also have an impact on policies.

Policy making in Belgium is mostly incremental in nature, however, and big changes are difficult to achieve. In the policy making process, the federal parliament is relatively weak, the members of the political parties vote in block nearly all the time, and they have little positive legislative power, as most bills are introduced by the government. The MPs of the governing parties typically vote in favour of legislative proposals, while MPs of opposition parties vote against. Initiatives by the opposition (and often also individual initiatives by MPs of governing parties) will be voted down, if not supported by the executive, or they will simply not make it onto the parliamentary agenda.

The civil service does play an important role in the continuity of policies, especially during times of 'caretaker governments' ([28]). Unlike the United States for instance, there is no 'shut down' of government when the budget has not yet been approved by Parliament. Together with the civil service, the caretaker cabinet is responsible for implementing policies that have been agreed upon while government coalition negotiations are ongoing. (The concept of 'caretaker government' has been stretched, however, during the past couple of elections because the government formation process took a very long time to be completed and some 'new' policies had to be urgently decided upon (e.g. COVID-19 crisis measures).

Variance in practices across ministries depends on the political and personal affiliation of the minister and top civil servants.

- First, ministers can be more or less experienced, and their ministerial cabinet advisers may be new or hardened in politics, which may determine whether they work closely with the civil service or not. For ideological/personal reasons, ministers might also be more or less inclined to rely on the public service, scientific evidence and/or input from societal stakeholders.
- Second, as regards the civil servants at the top, there is no 'spoil system' in Belgium. Instead, top civil servants have a mandate and are selected based on their competencies. Notwithstanding, their appointment is political in the sense that the governing parties decide who will be nominated, and they will apply (ideological) balance in assigning the top mandates. Very often, former cabinet members become heads of the civil service, mainly because they have both administrative ánd political skills. The duration of their mandates, which extend beyond the electoral cycle, implies that top

([28]) The Belgian government formation process is notorious and has lasted up to 542 days. During negotiations, the former government stays in place (although ministers can leave office and partake in the negotiations, while other party representatives take up the position as 'caretaker' minister).

civil servants can be nominated at one point in time by a minister with the same party affiliation, and then stay on after that minister has left office and is replaced by someone from a different party. It will depend on their personal relationship as to how closely the civil service will be involved in policy making, and how dominant the cabinet of the minister will be. It is possible to imagine that a formerly loyal political adviser turned top civil servant will not automatically be trusted by a minister of a difficult political 'colour'.

Variance also depends on sectoral culture and historical institutionalism regarding structures and procedures for EIPM, or regarding the degree of stakeholder involvement in government policies.

- Health policies are quite often evidence-informed. There is a high council for health (an advisory body made up of mostly scientific advisers) that advises the minister, as well as the public research institute, Scienscano, which conducts studies, and several other institutes at the universities etc. Bringing in scientific evidence is evident and politicking is less common here.
- However, that is not the case in several other sectors at the federal level. Social security policies are the historical prerogative of 'social partners' i.e. doctors' associations, hospitals, mutualities (health insurance funds, historically non-profit), and patients' associations regarding anything relating to healthcare. Similarly, unemployment benefits and employment policies (partly regionalised) are the prerogative of labour unions and employers' associations. These large stakeholder organisations can officially decide upon policies and are also responsible for implementing them (neocorporatism).
- Justice is dominated by the independent judiciary itself (judges), which has regularly held back on important reforms. Of course, the pressure by the public also makes it very difficult to implement evidence-informed policies in the field of justice, for instance regarding the penitentiary system (as is the case in many countries as well).
- External affairs and internal affairs mostly deal with day-to-day issues, although police reforms have been built on some input from scientific experts.
- Defence is distinct from the others. This sector is known for its internal data analysis capacity and technical expertise. Historically, this policy area has been associated with systems analysis and planning. Nonetheless, political decision makers decide on the budget and disinvestments in defence have been quite extensive (military equipment, personnel, etc.).

Each sector has its own characteristics, but the general process of policy-making dominated by political parties and political cabinets still stands.

For cross-sectoral issues, policies are prepared and negotiated between political cabinets.

On all important matters, ministerial cabinets hold discussions and attempt to reach compromises. One cabinet will take the lead and then coordinates with the other ministerial cabinet(s). Representatives from the civil service departments will do the same and set up a working group where the issue is discussed, agreed upon and coordinated. While the governmental agreement forms the reference document for new policies, such inter-ministerial policy making is a weakness, because the silo-based structure of government means that the policy content is not developed jointly.

If there is a high level of political urgency or importance of a dossier, because it affects public service delivery, for instance, the cabinet will take the lead and coordinate more strictly. Urgent and new issues may also be discussed during 'core cabinet' meetings (i.e. a reduced government cabinet, which the prime minister presides over and all vice-prime ministers of all government parties participate). Compromise between the parties is key to decide upon any new policies. Without such urgency and novelty, there will be looser

coordination arrangements ([29]). Similarly, coordination will be looser if there are high dependencies between the sectors. There is also a federal plan for transversal setting up and tackling issues on sustainable development ([30]). In theory, it has the potential to develop cross-sectoral policies or to keep into mind a number of general considerations (sustainability, equality, etc) when formulating sectoral policies.

It may be that the civil service or the ministerial advisers look for scientific evidence to frame policy decisions, but the political compromise matters most of the time, as does the support by stakeholders, especially in politically salient dossiers. The civil service has more room for manoeuvre in dossiers that are of low importance. Due to cultural differences and historical legacies in policy-making, some policy areas draw more frequently on scientific evidence than others.

'Extra-ordinary' policy challenges

Obviously, such complex issues cannot be resolved overnight, and they require intense negotiating between the governing parties. In many cases, the government will 'outsource' such a tedious task to a commission first. There is no written procedure, this is based on common practice.

Outsourcing can imply that one of the already existing advisory bodies (eg the high council for health) looks into a complex issue, but it may be the case that a new commission is created with varying membership, but typically comprising experts and societal stakeholder representatives (often a mix), and an equal number of Flemish-speaking and French-speaking members. Such an *ad hoc* commission is created especially for this task alone (eg the pension reform commission or fiscal/tax reform commission). The commission or advisory body takes some time (several months or even 1-2 years) to study the subject, to gather scientific evidence, to discuss with stakeholders and consult with experts, to consider scenarios for reform, and to come up with a final report and conclusions. The report is in principle signed and agreed upon by all members of the commission, or may not be, if the commission's experts had a conflict themselves and did not agree upon one solution. In that case, a 'minority' standpoint is included in the report.

Unfortunately, it has happened quite regularly that governing parties disregard all of this valuable work on complex policy decisions ([31]) and come up with solutions themselves in addition to the advice by special commissions, or decide *not* to take action after all. Note, climate change is a subnational competence in Belgium ([32]) and at the time of writing, there have been no special commissions devoted to this subject, although the calls for coordinated action are growing louder.

Scientific evidence is used for policy formulation, and perhaps for the policy decisions that will result from that preparatory work. Expert commissions and advisory bodies look for scientific evidence to frame a problem and to come up with (scenarios that hold different) solutions to a problem. Often, they also assess other aspects while providing advice, such as feasibility and stakeholder support, financial impacts, and even the ideological preferences of governing parties.

([29]) See: Molenveld, A. (2016). Organizational adaptation to cross-cutting policy objectives. Leuven : Faculty of Social Sciences [PhD].

([30]) Federal Sustainable Development Strategy, available at: https://www.duurzameontwikkeling.be/fr/politique-federale/strategie-federale (accessed 27/09/2021).

([31]) For example, the pension commission report, available at: https://socialsecurity.belgium.be/sites/default/files/rapport-pensioencommissie-2040-nl.pdf (accessed 27/09/2021).

([32]) . The (regional) environmental advisory council has regularly published advice on how to tackle climate change and which measures to take (evidence based mostly, although the council's members are societal stakeholders). The advisory body has in the past also produced a foresight study on the subject, applying a long term horizon (2010-2030) for policies and impacts of climate change on Flanders. But the advice of advisory bodies is not binding, and climate change policies still mostly remain absent in the regions in Belgium.

Please note also that scientific evidence may not always be available on *particular* matters: e.g. the *costs* of tax reform can be *calculated*, but quite often there is no scientific *evidence* on the societal *effects* of the reduction of subsidies/tax deductions, for instance. Scientific evidence can also be inconclusive or it can hold uncertainties that make it difficult for policy-makers to *know* what to decide.

2. Knowledge generators: sources of evidence

There are 10 universities in Belgium, as follows ([33]). There are also 'university colleges' that conduct research in some fields of expertise as well.

- Catholic University of Leuven (KUL)
- Ghent University
- University of Antwerp
- Free University of Brussels
- University of Hasselt
- University of Liège
- University of Mons
- University of Namur
- Saint-Louis University, Brussels
- Royal Higher Institute for Defence

Some university research institutes have a strong tradition of conducting applied research and answering research calls from government, while others focus more on fundamental research. In that case, they apply for other types of research grants than the ones provided via applied research calls. For example, the Belgian Science Policy Office, BELSPO, coordinates calls for applied research, such as BRAIN-be ([34]). Commissioned research (e.g. evaluations or audits) is also a way of obtaining funds for the researchers that universities employ and who only have a temporary appointment.

As with most higher institutions, publications matter, especially scientific publications in high-ranking journals. This implies that some researchers will be less focused on providing evidence to policy makers, as it is not especially of value for their academic careers. Of course, researchers are inherently motivated to contribute to society and to provide evidence for policy, if asked and needed. They can maintain personal networks with civil servants/policy-makers and advise on *ad hoc* issues, or they can conduct applied research projects and consultancy-like assignments. There is also the professional recognition ([35]) that academics receive for providing expert advice to government and conducting research on interesting topics with the goal of improving or strengthening policies and their practical application/implementation.

Belgium has 10 Federal Scientific Institutes (FSI), royal institutes and museums, which are public agencies under the PPS Science Policy ([36]). Please not that in comparison to the German institutes, the funding for these public organisations is much more limited. Moreover, just a few provide scientific advice to policymakers. Rather than focusing on

([33]) Please note, the difference between private and public higher education institutions is diffuse in Belgium. All recognised institutions are funded by the government (for their educational activities) and they have to meet certain quality standards to receive that funding and to officially provide educational degrees to their students. Education is a regional competence, therefore there is a distinction between Dutch-speaking and French-speaking universities located in Flanders and Wallonia respectively. Brussels is home to a French and a Dutch speaking university. Private universities exist, but they are not known for their research activities.

([34]) BRAIN-be call for research projects, available at: https://www.belspo.be/belspo/fedra/prog.asp?l=en&COD=BR#projects (accessed 16.11.2021).

([35]) This can sometimes form part of the performance evaluation of the academic.

([36]) Museums and FSIs, available at: https://www.belspo.be/belspo/fsi/index_en.stm (accessed 27/09/2021)

this, they are mostly responsible for documentation, public education, knowledge transfer to industry, and other activities of societal relevance.

Name	Research strengths
Royal Museums for Art and History	Located in Brussels, Antwerp, etc. Cultural-historic research (though mainly conservation, tourism)
Royal Museums of Fine Arts of Belgium	Cultural-historic research (though mainly conservation, tourism)
Royal Institute for Cultural Heritage	Conservation of artistic and cultural heritage
Royal Belgian Institute of Natural Sciences	• Biodiversity and mechanisms involved in the evolution of life • Land, freshwater and marine ecosystems • History of life, the climate and human settlements • Geology of Belgium and modelling the North Sea
Royal Museum for Central Africa	• Languages, colonial history, ancient societies, political systems, cultural productions, music, etc. of populations from Africa or with African roots. • Biodiversity of various animal groups, promotion of sustainable management of Africa's tropical forests. • Mineral resources, geodynamics, surface environments and natural hazards in Central Africa.
Royal Belgian Institute for Space Aeronomy	Space aeronomy, physics and chemistry of the atmosphere of the Earth and other planets, and of outer space
Royal Meteorological Institute of Belgium	The ozone layer, the climate, meteorological satellites and radars and numerical weather prediction.
Royal Observatory of Belgium and the Planetarium	astronomy, astrophysics, geophysics, seismology, space geodesy and solar physics
State Archives	Historical research and documentation on war and society
National scientific library	Research of the collections and collaborating with researchers from other scientific institutions.
Visitors Observatory of the Federal Scientific Institutes	Collecting data about (potential) users and clients of the 10 FSIs
Royal Film Archive	Film heritage
Belgian Healthcare Knowledge Centre	Health care
Institute of Tropical Medicine (Prince Leopold Institute for TM)	Travel medicine, HIV/AIDS
Belgian Nuclear Research Centre	Nuclear power

Other important, autonomous public organisations conduct research and employ their own researchers. These institutes conduct research on themes that seem to have more practical implications or are more 'relevant' to policy makers because they touch upon societal problems/needs.

Name	Research strengths
Sciensano (37)	Animal health Effectiveness and safety of vaccines, medicines and health products Quality of medical laboratories Food consumption and food safety Health and disease monitoring Health and environment Quality of healthcare
Belgian Healthcare Knowledge Centre	Health care
Institute of Tropical Medicine (Prince Leopold Institute for TM)	Travel medicine, HIV/AIDS
Belgian Nuclear Research Centre	Nuclear power

(37) Some areas of expertise relate to regional competencies.

There are two further institutes that are partly funded by the federal government and partly come under the responsibility of the two regional agencies for scientific research.

Name	Research strengths
Inter-university institute for nuclear sciences	Nuclear power
Foundation for Medical Scientific Research	Medicine

There are also two private research institutes below. There are also spin offs from universities, such as IMEC (KU Leuven) or Centre Spatial de Liège (University of Liège). These spin-offs convert the results of scientific research into practical and commercial applications. Presumably, some large pharmaceutical companies and other parts of industry have their own private research institutes. There is a list of 'recognised' institutions by the FPS Science Policy ([38]), which contains both public and non-public organisations that are allowed to recruit foreign researchers and to issue research visas for particular research assignments.

Name	Research strengths
Research Centre for Road Works	Road work innovation
Scientific and Technical Research Centre for Diamonds	Diamond gemstone industry

There are also 15 'think tanks' that focus on policies in Belgium ([39]). Some are predominantly orientated towards the regional competences, whereas others are also concerned with policies at the federal level. Please also note that, as is the case for many organisations in Belgium, some of these think tanks are organised on a national scale, whereas the others are regional and non-bilingual. The ideological underpinnings, policy sector focus, history and legacy of these think tanks varies extensively.

Name	Research strengths
Itinera	Broad focus, mainly economics
De Vrijdaggroep	Economics
Aula magna	Brussels
iD	Conservative – societal challenges for sustainability
Libera!	Classic liberalism: mainly issues of freedom, economic policies
Liberales	Progressive liberalism: freedom, empowerment, press freedom, democracy and unequality
Logia	The Christian pillar in Belgian society: role of religion, Christian Democratic Party and its politics and position, poverty
Minerva	Progressive: climate change, social and financial justice, social security
Oikos	Green party roots, focus on Socio ecological change: sustainability, biodiversity, etc
Poliargus	Freedom, equality democracy, solidarity, sustainability – macroeconomics against free market liberalism
Pro Flandria	Regionalism, entrepreneurialism – financial and economic policies
VKW metena	Ethical and value based entrepeneurialism
Vooruitgroep	Progressive anti-liberalism, redistribution, solidarity and empowerment, state reform
WeCitizens	Direct democracy, e-voting
Werkgroep Taal en Onderwijs VVA	Language and education

There are also five federal agencies that generate evidence and that operate across sectors and across all levels of government and their institutions. While not 'scientific' in nature, these institutes have strong legacies and are known for their quality analyses.

([38]) List of approved bodies, available at: https://www.belspo.be/belspo/visa/list_nl.stm (accessed 27/09/2021)
([39]) There are many more active in Belgium, if you include those working on European Union policies as well.

Name	Research strengths
Court of Audit	Broad
National Bank of Belgium	Macro and micro economic policy, finance
Federal Planning Bureau	Broad
Federal Institute for Sustainable Development	SDGs
Institute for the Equality of Women and Men	Gender equality statistics

There are more than 1 000 advisory councils, making it impossible to list them all, but the following table lists the most well known, largest and impactful at the federal level. Not all of these councils are *scientific* advisory boards, probably only the High Council for Health. Most have a representative membership of societal stakeholders, while others have a mixed membership, also including scientists and/or public servants. In most cases, advisory councils connect with the scientific community and ask for input on the issues they discuss. Nonetheless, the advice provided by most of the councils draws strongly on technical and value-based inputs from stakeholders.

Name	Research strengths
High Council for Health	Health and medicine (close cooperation with Sciensano and the Belgian Healthcare Knowledge Centre)
High Council for Justice	Policing and justice
High Council for Finance	Financial topics, taxes, budget
High Council for Employment	Work, inclusion, diversity
Federal Human Rights Institute	

There are five regulatory agencies that can provide scientific evidence:

Name	Research strengths
Federal Regulator for Gas and Energy	Promoting research on gas and energy; gathering evidence
Belgian Institute for Postal Services and Telecommunications	BIPT can take decisions, impose sanctions, and launch consultations and studies
Federal Agency for Medicines and Health Products	Approve of medicines
Federal Agency for the Safety of the Food Chain	Inspection + assessment and management of risks that may be harmful to the health of consumers as well as the health of animals and plants
Financial Services and Markets Authority	Banking regulator

In addition, some of the foundations that stimulate and fund scientific research operate at the border of the public and private spheres. These are 'public institutions with a societal use' that pursue philantropical goals. Their organisation and funding is completely independent and autonomous, yet they are public organisations in nature and established by law ([40]). While they do not conduct research themselves in most cases, they fund university researchers and others to conduct research projects on certain themes/societal problems. The royal foundations are the most important ones and financially the largest, and are listed below.

([40]) Belgian Federation of Philanthropic Foundations, available at: https://www.stichtingen.be/nl/page/8-leden (accessed 27/09/2021)

Name	Research strengths
King Baudouin Foundation	Social policies, poverty, well-being; broad issues
Queen Fabiola Foundation	Mental health
Queen Elisabeth Medical Foundation	Neurosciences
Prins Laurent Foundation	Animal wellbeing

3. Formal mechanisms to connect evidence to policy

There is no chief science officer and scientific council in Belgium. Liaison with the research community is the responsibility of the ministries in coordination with the Belgian Science Policy Department. Each ministry has a (more or less) centralised policy unit that (also) looks for scientific evidence during policy design. This practice is established more strongly in some departments than in others. Some civil servants are also more practiced and willing to consult with the research community than others. This is left to their discretion or communicated from the top.

Institutions like Sciensano, the High Council for Health and the Health Care Knowledge Centre certainly liaise with the scientific community. There is no specific budgetary information nor any report on how/what liaising with the research community entails exactly.

The research community is as diffuse as any other sector in Belgian society. There are no coordinating institutes where all the universities, think tanks etc. are gathered. There is, however, VLIR-UOS ([41]), which supports partnerships between higher education institutes, but it does not coordinate to facilitate EIPM.

There are also no permanent platforms for conveying scientific evidence to government at the federal level ([42]). The Royal Academies of Science and the Arts in Belgium ([43]) prepare position papers on topics selected by the scientists (not policy makers) to secure their governmental funding ([44]).

Depending on what type of call may be formulated by the Belgian policy science department, universities may establish research consortia, which then coordinate projects within a multi-annual research programme, but only in response to a specific call and on an *ad hoc* basis

The FPS Science Policy (BELSPO) coordinates research calls; the other substantive departments also produce calls on an ad hoc basis. The department works horizontally and in close cooperation with the other departments, but officially it is an individual ministry, not an entity situated at the PM's Office.

4. Processes to make mechanisms effective

The only central guidance on policy making concerns RIAs, which is issued by the Agence pour la Simplification Administrative, situated at the Prime Minister's Office. However, even

RIAs are rarely used as a tool for assessing policy alternatives. The document is made *pro forma*, often post hoc, after (political) decisions have been made and preferred alternatives have been selected. Aside from this, there are no official guidelines on how

([41]) VLIR-UOS, available at: https://www.vliruos.be/en/about_vlir_uos/2 (accessed 27/09/2021).
([42]) These are more *ad hoc* in nature. While in Flanders, for example, there are policy research centres with a 4-5 year horizon and research agenda, there is no equivalent at the federal level.
([43]) Royal Academies of Science and the Arts, available at: https://www.rasab.be/index.php/en/ (accessed 27/09/2021).
([44]) Source: JRC, op. cit.

policies should be made, either from the centre or ministerially, as far as can be ascertained within the time and resource limitations of this thematic support.

With respect to defining evidence needs, the Flemish Government has a document called the 'surroundings' analysis, and there are some foresight studies from time to time that apply a long term horizon, but their impact on the definition of needs is limited. The surroundings' analysis or environment analysis is produced every five years by the Planning and Statistics Unit of the Flemish government's Department for Public Affairs and External Affairs. It is produced in view of a new legislative term of the Flemish government and describes the current and future states of Flanders (demographics, macro-economics, socio-cultural, technological and ecological). It does not offer solutions, but highlights possible opportunities and problematic developments ([45]).

Access to evidence at the federal level is mostly coordinated by the FPS Science Policy, op. cit. Large calls under procurement rules are open and accessible to all, published on the website, communicated through the university channels. Consultancy-like assignments and calls can be allocated to one party, if the budget is small and does not exceed thresholds. Larger calls require three candidates or more.

Regarding policy makers' competencies, the recruitment and selection of civil servants is done through a basis of 'normal' assessments and tests by the centralised recruiting office ([46]), but without consideration for EIPM, as 'experts' or 'advisers' are expected to be able to analyse problems and assess solutions, to consult relevant information etc. There is no explicit mentioning of the scientific or research community in any of the functional classifications.

There are also few training opportunities and little guidance, therefore policy workers have to learn on the spot and draw on their own experiences and education. They will also look to what their colleagues are doing, thereby continuing an organisational culture that may or may not base its practices on the principle of evidence-informed policies.

5. Commentary

It should be noted that much of what goes on in policy making in Belgium happens at the subnational level. Belgium has fully autonomous subnational governments that are responsible for a wide number of competencies and not hierarchically subordinate to the federal level. Through decades of state reform in Belgium, these governments have developed into separate administrative entities with their own policy making cultures and institutions. While knowledge production structures differ somewhat at the subnational levels of government in Belgium, most of the characteristics found at the federal level regarding the policy system also apply to the subnational administrations and governments, and how policy making is conducted there.

As in many other countries, there is a gap between science and politics. Scientific research asks questions and attempts to provide answers that are certain up to the point where they are no longer. Policy makers require certainty on many occasions. Moreover, changes to the status quo are difficult to achieve, even for policy makers who look for such grand changes. They are often themselves restricted by their environment (multi-party governments, many stakeholders) and the consideration that policies may generate opposition and negative media attention. Policy makers also rarely have roots in academia; they have no connection to the experts, to what academics do, and to the standards and best practices for scientific research. At times, as a result, what academics say and advise is considered as just another 'opinion' among many other views and consid-

([45]) Surroundings analysis, available (in Dutch) at: https://www.vlaanderen.be/publicaties/algemene-omgevingsanalyse-vlaanderen (accessed 03/10/2021)

([46]) Fedweb, available at: https://fedweb.belgium.be/fr/parcours_de_carriere/descriptions_de_fonction (accessed 27/09/2021)

erations. The same remarks can be made for academics who believe that policy making is based on rational and neutral scientific analysis. Quod non. Academics are on many occasions relatively unaware of the political context of policy decisions.

Overall, the link between scientific knowledge production and policy making in Belgium is relatively weakly institutionalised. The demand for scientific evidence from policy-makers is non-systematic and non-strategic. Moreover, scientific advice faces strong competition from other types of evidence, provided by stakeholders and/or interest organisations. Additionally, Belgium lacks key structures and actors that perform important knowledge brokerage functions between science and policy making and that are present in other countries ([47]).

COUNTRY CASE STUDY: CROATIA

1. POLICY MAKING SYSTEM

Overarching policy framework

The Government's Programme is formulated for each new government's inauguration after national elections ([48]) and covers the full term, which is expected to be four years. It identifies goals and policies in a broad way, without specifying measures, responsibilities timescales or indicators ([49]). Hence, its purpose is largely presentational. Its nature does not allow immediate implementation of its goals, nor is it typically referenced by the cabinet or individual ministries in their later policy making, and is not reviewed or renewed during the government's lifespan.

The process of preparing the Government's Programme is purely political, involving negotiations between (potential) coalition partners. Usually the dominant party in the coalition dictates the content, while smaller participating parties intervene with some specific priorities whose inclusion guarantees their parliamentary support. The document is usually drafted internally within the dominant party, but formal institutions within the public administration are also included, especially if a new government is merely a continuation of previous one. However, as the Government's Programme proclaims only political goals, evidence is never drawn into this stage of policy-making.

Ministerial policy making and coordination

There are currently 16 ministries in Croatia's central government, as follows:

- Ministry of Agriculture
- Ministry of Culture and Media
- Ministry of Defence
- Ministry of Economy and Sustainable Development
- Ministry of Finance

([47]) Pattyn, Valérie; Blum, Sonja; Fobé, Ellen; Pekar-Milicevic, Mirjam; Brans, Marleen; 2019. Academic policy advice in consensus-seeking countries: the cases of Belgium and Germany. International Review Of Administrative Sciences (accessed 04/10/2021), https://doi.org/10.1177/0020852319878780.

([48]) Formal (i.e. written) coalition agreements are very rare in Croatian political practice

([49]) The most recent is Government's Programme 2020-2024, available (in Croatian) at: https://vlada.gov.hr/UserDocsImages/ZPPI/Dokumenti%20Vlada/Program%20Vlade%20Republike%20Hrvatske%20za%20mandat%202020.%20-%202024..pdf (accessed 25/09/2021).

- Ministry of Foreign and European Affairs
- Ministry of Health
- Ministry of Interior
- Ministry of Justice and Administration
- Ministry of Labour, Pension System, Family and Social Policy
- Ministry of Regional Development and EU Funds
- Ministry of Sea, Transport and Infrastructure
- Ministry of Science and Education
- Ministry of Spatial Planning, Construction and State Property
- Ministry of Tourism and Sport
- Ministry of Veterans

Each ministry is a rather autonomous policy unit in the Croatian public administration system, and while some might be more open in the early stages of policy-making, all ministries have a similar internal organisation and process. In most cases, policy initiatives come from political officials within the ministry, who channel ideas and goals developed within their parties, constituencies or lobbying groups. In rare cases, the initiative originates in civil service (bottom-up). In the early stages, policy making is usually assigned to individual departments (sectors) within the ministries, but as soon as the drafting phase of a law proposal or a strategic document begins, the minister usually appoints a task force (working group) comprised of civil servants from the resident department and from other relevant departments. Depending on the policy issue in question, these task forces can also involve civil servants from other ministries, other public institutions, external stake+98holders and experts.

In the formalistic and legally-oriented administrative culture in Croatia, it has to be possible to discern which institution is responsible for each policy issue, so there is always a lead ministry in policy making, even if it is clearly a cross-sectoral issue.

If there are just two or three ministries involved, then the coordination role and the appointment of working groups is performed by the lead ministry, but when there are numerous institutions, then an inter-ministerial commission is usually established to coordinate the efforts of individual institutions, and which appoints and oversees the work of task forces (working groups).

The representatives of the non-lead institutions tend to be passive during the process of policy making, often not attending meetings of working groups. After the policy document is drafted and before it is adopted by the government, the affected institutions must approve the draft and issue their formal opinion. If there are disagreements among institutions, these are resolved by the government itself.

Working groups involving representatives of various ministries are quite common, even when an issue clearly belongs within the scope of a particular ministry. There are frequently representatives of the Ministry of Finance present, and to a slightly lesser extent those of the Ministry of Regional Development and EU funds.

Whether cross-sectoral policy making normally draws on scientific evidence cannot be answered with a simple yes or no. It is likely that some evidence is always presented and discussed, at least if it supports the previously-chosen policy direction. As a rule, there is often one or more external experts in a working group, and hence whether scientific evidence is brought into consideration is usually up to them. In cross-sectoral policy issues, there is probably a greater chance for evidence to be brought forward since it involves a wider group of people and institutions. Also, when there are confilicting views or competitive relations among ministries in cross-sectoral issues, evidence is more likely to be used, at least tactically as a mean to support (or impose) standpoints of individual institutions, rather than instrumentally or conceptually. In general, there is an

increasing trend to draw on evidence, mostly due to obligatory public consultations, impact assessments and overall greater transparency of the public administration system. Evidence is also drawn from the data that public institutions possess, so civil servants naturally bring them to the table, usually when they support policy goals.

'Extra-ordinary' policy challenges

There are no special arrangements for specifically tackling government-wide policy development and particularly complex and/or long-term challenges, other than those set out in the previous sub-sections. For such issues, the government usually establishes an inter-ministerial commission comprised of senior (political) officials from the affected ministries (state secretaries or assistant ministers), and often also external stakeholders, but not always researchers. Otherwise, the process is essentially the same; drafting of individual legislative proposals or sectoral strategic documents is organised within ministries through working groups that naturally, in these cases, have a more inter-ministerial character.

Additionally, when the government is considering complex or long-term challenges, it usually assembles advisory councils as permanent bodies that are comprised of external experts and stakeholders that monitor, analyse and advise on policy making in these areas.

Exceptional policy making definitely draws on scientific evidence more than in regular policy issues. It is not rare that the government or the lead ministry commissions an *ad hoc* research study or report on the matter in question, which then serves as an empirical basis for policy planning. Scientific evidence in these matters is brought forward in a more systematic and continuous way by the aforementioned advisory councils.

2. Knowledge generators: sources of evidence

There are nine public universities in Croatia, of which four are new, which are set out below, along with an assessment of their research strengths.

Name	Research strengths
University of Zagreb	All disciplines
University of Split	Medicine, maritime sciences
University of Rijeka	Social sciences
University of Osijek	Agriculture
University of Zadar	Humanities, linguistics
University of Pula	Only recently established
University of Dubrovnik	Only recently established
University of Slavonski Brod	Only recently established
University Sjever (North)	Only recently established

There are no direct disincentives, but the absence of incentives is discouraging for academics to engage in providing evidence to policy makers. Participation in the government's or line ministries' working groups, advisory councils or commissions is never financially compensated. Equally, individual academics are never relieved of their workload at the university to participate in policy making bodies; this is something they do in their spare time. There is a certain (non-negligible) share of researchers that *a priori* refuse to participate in policy making.

However, there is a strong sense of 'duty' and 'honour' among academics to provide evidence when invited. Furthermore, many academics and their institutions gladly invite policy makers (senior officials and civil servants) to conferences and symposiums, even

providing their latest publications freely for public institutions. Providing evidence in policy making in any capacity increases professional recognition and informal status within a research community. Additionally, the motivation for participation can be networking and greater visibility for academics that will pay off in future commercial projects (EU-funded or not).

As well as the public universities, there are three private universities, set out below:

Name	Research strengths
Croatian Catholic University	Humanities
Libertas – international university	Economy, management, diplomacy
Algebra University	IT

There are also 26 public research institutes, set out below, whose specialisms are signalled by their names in most cases:

- Institute of Oceanography and Fisheries
- Institute of Economics
- Institute for Development and International Relations
- Croatian Institute of History
- Institute of Art History
- Institute for Medical Research and Occupational Health
- Croatian Forest Research Institute
- Institute of Physics
- Croatian Veterinary Institute
- Agricultural Institute
- Institute for Migration and Ethnic Studies
- Old Church Slavonic Institute
- Institute for Adriatic Crops and Karst Reclamation
- Ruđer Bošković Institute ([50])
- Institute for Social Research
- Institute for Tourism
- Institute of Agriculture and Tourism
- Institute of Public Finance
- Croatian Geological Institute
- Institute of Ethnology and Folklore Research
- Institute for Philosophy
- Institute of Social Sciences 'Ivo Pilar'
- Institute for Antropological Research
- Institute of Archaeology, Zagreb
- Energy Institute 'Hrvoje Požar'
- Institute of Croatian Language and Linguistics

There are also 10 private research institutes, each of which again has a specialism:

- KONČAR - Institute for Electrical Engineering
- Institute of Immunology

([50]) This institute specialises in natural sciences, most notably physics, biochemistry, and bio-medicine.

- Ericsson - Nikola Tesla Institute
- Tobacco Institute Zagreb
- Institute for Breeding and Production of Field Crops
- INSTITUT IGH, Joint-stock Company for Research and Development in Civil Engineering
- Philosophical Theological Institute of the Society of Jesus
- Marine Research and Special Technologies
- Institute of Transportation and Communications
- Mediterranean Institute for Life Sciences

Croatia also has non-governmental organisations that could be categorised as 'think tanks', including the following examples below:

Name	Research strengths
Institute of Public Administration	Public administration, law, political science
Centre for Public Policies and Economic Analysis	Policy analysis, economic policy, fiscal policy
GONG	Elections, political systems, civic participation in political process
Green Action	Environment
Croatian Academy of Legal Sciences	Law
Centre for Peace Studies	Human rights
Croatian Legal Centre	Human rights, law, political science

Finally, there are other knowledge generators, including public bodies, that do not fit neatly into the above categories, but nevertheless have expertise and evidence in areas of interest to government. Three examples are set out overleaf.

Name	Research strengths
Croatian Academy of Arts and Sciences	Basically all fields and disciplines
Croatian National Archive	History, records management
Ombudsman institutions	Human rights

3. Formal mechanisms to connect evidence to policy

From the government side, liaison with the research community is not formal or systematic. It depends on the personal ambitions and preferences of political officials/civil servants and their backgrounds. There has been a trend that more and more academics assume political offices, especially in the executive (ministers and state secretaries) and they are keen to cooperate with knowledge generators, which unfortunately often produces conflicts of interest. Civil servants that attend post-graduate studies provide the other important link between the government and evidence providers, which might also be made sometimes by political/policy advisors of the ministers (or prime minister) that are appointed from the research community, although this is not a universal practice by any means. There is no recognised body to coordinate the knowledge generators from their side.

Regarding forums to connect the two sides, these are organised by both the centre of government and individual ministries.

At the centre of government, the aforementioned advisory councils are established by either the government's decision or the individual decision of the Prime Minister, mostly of a permanent character, to cover horizontal policies, cross-sectoral issues or complex problems. These currently include the Council for the Development of Civil Society, Coun-

cil for Youth, National Council for the Digital Economy, Commission for Human Rights, Council for Fighting the COVID-19 Pandemic, *inter alia*. They are in most cases of permanent character.

At ministerial level, there is a common approach (noted in the previous section) that ministers may establish advisory bodies or working groups whenever they want, except in cases when the establishment of an advisory council / commission is mandated by the law or a strategy. As a rule (but not always), advisory councils are permanent bodies, established to monitor and supervise certain policy and to propose new solutions, while working groups are *ad hoc* collectives, established for a single purpose to draft a law proposal or a strategic document. Naturally, meetings of working groups are more frequent (estimated as from once a week to once a month), while meetings of advisory bodies happen one to six times a year.

If a formation of an advisory council is envisaged in a law or strategic document, it might also prescribe which institutions and stakeholders should be represented, so the minister's discretion is limited. When establishing a working group, discretion is higher: previously, the dominant practice was that minister appoints whoever he or she wants, especially regarding researchers/academics, who participated individually and not as representatives of an institution. However, a new practice has developed and became dominant: the minister calls for experts, and the institutions themselves recommend and nominate who they want and the minister usually follows these proposals. Nevertheless, the minister retains the discretion over which institutions are asked to nominate representatives.

There is an online database of advisory bodies (i.e. advisory councils, working groups and inter-minsterial commissions) ([51]), but unfortunately it is far from being complete or regularly updated. Civil servants and officials heavily dominate the membership of these bodies. According to the data for 2019, the composition of working groups and advisory bodies comprises 4 253 members, broken down as follows (excluding minor stakeholders):

- Political officials / civil servants: 66 %
- Other public employees (e.g. teachers, doctors): 9 %
- NGO sector: 6 %
- Professional chambers: 6 %
- Research community (academics): 3.4 %
- Public companies: 2.3 %
- Unions: 1 %
- Employers' association: 1.5 %

Generally, the establishment of advisory councils and working groups in Croatia is more about transparency, inclusion and the interest representation of various societal stakeholders than about drawing evidence and including experts/academics. Academics are seriously under-represented and they are not appointed in all bodies.

There are no formal differences among the ministries, the practice is similar in the whole public administration and individual differences that may exist are a result of various circumstances or the personal affiliations of ministry personnel that organise such activities.

([51]) Databased of advisory bodies, available (in Croatian) at: https://savjetovanja.gov.hr/baza-savjetodavnih-tijela/1118 (accessed 02/09/2021).

4. Processes to make mechanisms effective

There is no single central document that serves as a guidance on policy making, but there are several pieces of primary and secondary legislation that guide policy making procedures, including in particular: Law on the Government; Law on the System of Strategic Planning and Development Governance; Law on Regulatory Impact Assessment; and the Government's Rules of Procedure. These mostly address the formal aspects of policy making and procedures to follow when adopting a law proposal or a strategic document.

These texts do not mention 'evidence' or 'data' *per se*; they only indicate the possibility for assembling working groups or advisory councils, thus implicitly referring to evidence. As noted in the previous section, ministers are completely autonomous in deciding when to form a working group, advisory council or commission and who to include in such a body. There are very few instances (in some sectoral legislation) when forming such a body is mandatory, most commonly for establishing advisory councils that monitor policy implementation and advise future polices that gather external stakeholders including researchers/academics. However, the Law on the System of Strategic Planning contains a provision according to which academics as external experts *must* be included in the process of drafting and monitoring national strategic plans. There are no instances when commissioning research is mandatory.

The monitoring system only ensures that policy making complies to the formal procedural aspects of proposing policy and legislation that the government adopts. It does not cover the issues of accessing and using evidence, since there are no obligatory provisions in this matter to be followed.

At the ministerial level, individual ministries do not have specific guidance on policy making, as far as can be ascertained without research beyond the remit of the thematic support, but there might be some internal (non-written) customs. Regarding rules on how to access and use the evidence from the existing or commissioned research, there are no such provisions written anywhere.

There are no arrangements that define evidence needs systematically, formally or regularly. It is all situational, depending on the will and needs of the minister or whole government at the time.

In general, there are no arrangements that ensure a continual supply of evidence to policy makers. There are multi-annual framework contracts with universities and performance contracts with public research institutes, but these are intended to secure financing for their regular activities and they are not directly related to the supply of evidence in policy making or to commission specific research. Only sporadically will the government as a whole or individual ministries commission a specific research study from public institutes or universities. Research is almost always contracted from an institution, not individual academics. However, in most cases, this research is required to inform individual decisions that the government makes (rather than to inform its policies), such as privatisation of a public-owned company, cost-effectiveness of certain infrastructure investment, environmental impact studies, etc. Only recently have these studies begun to serve a wider purpose – as empirical backbones of certain policies, and mostly through EU-funded projects, mainly in the area of public administration, judiciary reforms, regional development and tourism.

When the government or a ministry will commission a piece of research is usually unknown in advance, so this aspect of transparency does not exist. Rules on public procurement 'force' policy makers to make these procedures transparent, at least formally, but they are usually not proactively advertised and made known to the general (academic) public/community. Arguably, in all cases, the government knows in advance who they want to conduct the research. However, the level of transparency is usually higher when research is commissioned through EU-funded projects.

There is no universal competency framework, but each central government institution decides on its own which competencies will be required for recruitment and selection. Such 'competencies' are in most cases formalised and narrowly formulated as qualifications, i.e. formal education is required. There is a document (manual) which was drafted by a project around 7-8 years ago, titled 'Recommended competencies for civil servants', which was supposed to serve as a basis for the development of a comprehensive competency framework for the whole civil service, but this never happened. Only sporadically this document serves as a guidance for some ministries, but it is not formal nor mandatory. As far as can be ascertained, EIPM competencies are never required of civil servants in recruitment, selection or other human resources practices.

5. Commentary

As the number of researchers/academics that engage in politics and win political offices increases, the understanding of the scientific community among policy makers also improves. In general, however, policy makers are not aware of the nature of scientific research, often expecting direct, concrete solutions and recipes from researchers which they do not always possess. Policy makers would like to be provided clear inputs without caveats and reservations. Sometimes, researchers are labelled as political opponents, if they advocate policy solutions that are contrary to those of the ruling political officials. Policy makers are often sceptical about academics, saying that they deal only with 'theories' and are not trained to solve practical problems. Generally, there is a significant level of distrust between research community and policy practice in this regard.

COUNTRY CASE STUDY: FINLAND

1. POLICY MAKING SYSTEM

Overarching policy framework

The Government Programme is the government's most important document, as it guides its work throughout its entire period in office (unless the government resigns) ([52]). It is drawn up during the government formation phase, often in days-long negotiations, which are led by a 'government former' (i.e. person responsible for forming new government), chosen by the newly elected parliament, who is normally the leader of the party with most seats after the election. He or she is a government 'prober', who interviews all party group leaders (in parliament) and picks up those parties that are willing to cooperate in government. This exploration phase can take weeks, if it is difficult to find a majority for a coalition.

Once the parties involved in the government are clear, the negotiations begin over the Government Programme ([53]). These are attended by the leaders of each party and experts in various fields close to the parties. Negotiations are organised by groups addressing different policy sectors (or phenomena, as was the case last time). Civil servants will be consulted during the negotiations, as well as academics and researchers from public and

([52]) The current Government Programme, available at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161935/VN_2019_33.pdf?sequence=1&isAllowed=y (accessed 28/09/2021). Note: the PM changed in less than one year after the most recent election, but the Government Programme did not.

([53]) Finnish government, appointment and organisation, available at: https://valtioneuvosto.fi/en/government/appointment-and-organisation (accessed 28/09/2021).

private research institutes whose focus of research is linked to anticipated policy goals and reforms.

Much of the negotiation material comes from ministries, which compile data and policy papers on important policy issues in their respective administrations in advance. This material includes also results of policy research linked to different policy issues and foresight analyses. The Ministry of Finance pays a key role, because it has drafted a framework for future economic development and public sector finances. All parties have their favourite topics, and all have difficult topics. The goal is, of course, a balance that is bearable for all. The tradition of majority governments in multi-party system with large input from stakeholders in policy formulation and implementation has resulted in a relatively consensual policy style.

The last two governments have pursued a shorter and more strategic Government Programme, because very detailed and long ones make it difficult to adapt to the changing policy environment. The main text may be 40-100 pages, but annexes add around 100 pages more. After Parliament has adopted the the composition of the government, the PM and the Government Programme with a majority of MPs from the governing coalition, the government starts to develop a Government Action Plan ([54]), which normally takes around three months. The specific policy projects under the Action Plan are prepared using the same materials as those used to draft the Government Programe, along with additional materials and expert interviews. Both the Government Programme and Government Action Plan are instrumental in guiding the work of the whole government and individual ministries. Both cover the full mandate of the government's expected stay in office, namely 4 years. The Government Action Plan specifies the main means, responsible ministries, and schedule (month and year) for each goal.

The Government Programme is produced only once, and not reviewed and revised. In situations of dispute (after it has been adopted), the guidelines of the Government Programme are always invoked as reminders that 'we have made the choice already'. The Prime Minister (PM) and other ministers are careful not to imply any need to change the guidelines, because then the whole package will open, and the political balance of the package may be upset. Hence, the formulation of the Government Programme is the first phase in using evidence-based material as the basis of policy making. By contrast, the Government Action Plan is reviewed annually, modified at the halfway point, and monitored on a monthly basis throughout the government's term.

The materials given by the top civil servants of ministries to government negotiations may refer to scientific evidence, based on previous policy research projects and collaboration with research institutes and universities. The negotiations of the new Government Programme include interviewing large groups of experts. The names and background organisations of around 400 experts interviewed in the negotiations of the current Government were published when the Parliament elected the PM, and the President of the Republic formally appointed the Government ([55]). Most experts in this list are from ministries (142) ([56]). There are also 32 experts from universities and 23 from public research institutes, a few from private research institutes, and 10 from the SITRA Foundation ([57]) that specialises in innovations. All experts may refer to codified scientific evidence, but representatives of universities and research institutes can provide also person-bound expertise.

([54]) The current Government Action Plan, available (in Finnish) at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161823/Hallituksen_toimintasuunnitelma.pdf?sequence=4 (accessed 28/09/2021).

([55]) Consulted experts, available at: https://valtioneuvosto.fi/-/10616/hallitusneuvotteluiden-asiantunti-jakuulemiset (accessed 28/09/2021).

([56]) Most came from the Ministry of Finance (40), followed by the Ministry of Economic Affairs and Employment (23), and the Ministry of Social Affairs and Health (17).

([57]) SITRA, available at: https://www.sitra.fi/en/ (accessed 28/09/2021).

Ministerial policy making and coordination

There are currently 12 offices and ministries in Finland's central government with policy making powers as follows:

- Prime Minister's Office (centre of government, but responsible also for some specific policy issues)
- Ministry of Agriculture and Forestry
- Ministry of Defence
- Ministry of Economic Affairs and Employment
- Ministry of Education and Culture
- Ministry of the Environment
- Ministry of Finance
- Ministry of Foreign Affairs
- Ministry of the Interior
- Ministry of Justice
- Ministry of Transport and Communication
- Ministry of Social Affairs and Health

Each ministry has one or more ministers, who have a division of labour specified by their appointment documents ([58]). Each minister has policy advisors who form his or her political 'cabinet'(3-6 advisors per minister and 7 advisors for the Prime Minister in 2021; numbers vary by Government). The work of civil servants is led by the Permanent Secretary (always only one in each ministry). The leaders of each ministry's departments are led by the department head (who is led in turn by the Permanent Secretary) and in turn, they lead the heads of ministerial units (each department has them).

Each ministry's work is organised in projects according to the Government Action Plan. In addition, ministries have permanent responsibilities that are set by legislation, and they also have documents, sometimes called strategies, that prioritise what they will do in the areas that are not tightly related to the current Government Programme (these are processes driven by the civil service).

In addition, there are working groups for projects in the Government Action Plan (currently about 200). One of the ministries has full responsibility of the implementation of the goals (projects) and one or more other ministers are partly responsible. This structure for implementing government policy has existed for many years. Ministerial working groups are set by the responsible ministry (i.e. the minister) and the composition includes civil servants and stakeholders from different organisations.

The most corporatist policy sector has long been agriculture and forestry, which means that the role of stakeholders and clientelist structures have been relatively strong; energy policy is another one (e.g. nuclear power, peat). The approach in using scientific evidence may vary to some extent across ministries, as some policy sectors are more 'technical' in nature and difficult to apply a so-called 'common sense' approach (e.g. defence, health, transportation, energy). Nevertheless, there are still very political choices in each sector that are publicly debated and where the role of scientific evidence is not clear (e.g. what kind of army is the best, government support for health services of different parts of the country; where to build new rails or roads, pure and renewable energy, etc.).

The implementation of the Government's Action Plan is led by ministerial committees and seven minister groups. The instrument for collaboration, whether related to the Government Programme or not, is a ministerial working group, comprising civil servants

([58]) There are no deputy ministers; all ministers have equal status.

from one or more ministries, and representatives of government agencies and stakeholders (depending on the nature of the working group's mission). Working groups draft their report to the minister or the top civil servant that appointed it.

For inter-ministerial policy, there are also four statutory ministerial committees ([59]):

- Ministerial Committee on Foreign and Security Policy;
- Ministerial Committee on European Union Affairs;
- Ministerial Finance Committee; and
- Ministerial Committee on Economic Policy.

Ad hoc ministerial committees may also be appointed to prepare other than statutory matters. The Prime Minister designates the members of these committees after having consulted the parties in the ruling coliation. Each committee's mandate is also defined at the time of the government's appointment. An extraordinary ministerial committee is appointed by a government plenary session.

The implementation of the Government's Action Plan is led by seven minister groups ([60]), with a civil servant acting as secretary. Each set of goals of the Government Programme is organised in strategic themes, with the Government Action Plan specifying the main means, responsible ministries and schedule (month and year) for each goal. For this purpose, ministerial working groups are set up by the responsible ministry (i.e. minister) and the composition includes civil servants and stakeholders from different organisations. The responsibility of these projects is shared, in the sense that there is one ministry having full responsibility and other ministries being partly responsible.

The members of these working groups bring in the expertise. Normally, scientific evidence is also used, if it is (known to be) available by the members and secretaries. Researchers may be invited for interviews. The members themselves may be researchers and even academics. However, based on empirical research in 1980-2018 ([61]), their share in parliamentary committees set by government (i.e. not parliament's standing committees) and broad-based policy preparatory ministerial working groups (i.e. also external stakeholders may be members) has been declining since 2010. These results are based on all policy preparation, both sectoral and cross-sectoral.

'Extra-ordinary' policy challenges

For very complex reforms, the current government has established parliamentary committees (e.g. reform of social security, child strategy, compulsory military service), whose

([59]) Minsterial committees, available at: https://valtioneuvosto.fi/en/government/ministerial-committees. There is also the line-up for the current government, available (in Finnish) at: https://valtioneuvosto.fi/marinin-hallitus/ministerivaliokunnat?p_p_id=56_INSTANCE_5SKDNE5ODInk&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_count=1&_56_INSTANCE_5SKDNE-5ODInk_languageId=en_US (both accessed 28/09/2021).

([60]) Minister groups, available at: https://valtioneuvosto.fi/en/marin/ministerial-working-groups (accessed 27/09/2021).

([61]) Anne Holli & Saara Turkka (2021), 'The changing role of science in corporatist policy advice: a longitudinal study of the inclusion of researchers in Finnish policy preparatory working groups in 1980–2018', published in Politiikka 63:1, pp. 54-81, 2021 (in Finnish). Abstract: 'The role of academic knowledge in policy making has received increasing attention in scientific communities and among policymakers. This article analyses longitudinal changes in the inclusion of researchers in an important institution of policy advice, namely state committees and broad-based policy-preparatory working groups. In Finland, as in other Nordic countries, important laws and policies have traditionally been prepared in such corporatist institutions. Besides interest groups, they also appoint researchers as members. Based on both primary and secondary data, the study results show that, in the 2010s, the proportion of researchers in working groups more than halved compared with the previous decade, and their status as chairpersons deteriorated in particular. They suggest that the role of researchers as corporatist partners has been eroding. Hence, unlike in some other Nordic countries, there is no trend of 'scientisation' apparent in this corporatist institution. The results indicate that the Finnish policy advisory system is becoming more hybrid, with a notable strengthening of neoliberal elements, as the ways in which the state generates and utilises knowledge for policy-making are changing'.

members come from all the parties represented in Parliament, plus the main interest organisations and citizen associations ([62]). The term of these committee may last more than the mandate of parliament and government (i.e. more than 4 years, although this has only been the case with the reform of social security so far). The committee secretariats are relatively large, mostly staffed by civil servants of different ministries, but external experts can also be appointed. The role of scientific evidence has not been publicly addressed in relation to parliamentary committees (so far), but it seems that the topics are quite controversial and normative by nature.

For example, pensions were reformed in recent years, but the reform's preparation - namely the main solutions or compromises - was delegated to labour market interest groups (employer and employee associations). Their agreement was channelled to Parliament through civil servants, ministries, and government (technical preparation carried out by civil servants). The Parliament adopted the laws as such.

Scientific evidence is drawn into policy making in the same way as all working groups, but in principle there is more time and some research may be commissioned by the government for the purposes of these committees. There is no evidence of this happening so far. However, the memorandum for setting up the committee on reforming social security ([63]), for example, explicitly stated that the committee may commission research and use experts, the costs of which will be covered. In the 1970s and 1980s, parliamentary committees set up by governments commissioned research as a rule.

2. Knowledge generators: sources of evidence

There are 14 public universities in Finland, which are named below, along with an assessment of their research strengths, and quotes from the institutions themselves. There are no private universities.

Name	Research strengths
Aalto University	Engineering, applied arts and architecture, business. 'Our research focuses on seven key areas combining four core competences in the fields of ICT, materials, arts, design and business together with three grand challenges related to energy, living environment, and health'.
University of Helsinki	Comprehensive university with 11 faculties (no business school and engineering), the oldest, largest, and most successful in international rankings. Themes: • A meaningful life, human well-being and a healthy environment • A humane and fair world • A sustainable and viable future for our globe • A universe of ideas and opportunities Faculties: • Faculty of Agriculture and Forestry • Faculty of Arts • Faculty of Biological and Environmental Sciences • Faculty of Educational Sciences • Faculty of Law • Faculty of Medicine • Faculty of Pharmacy • Faculty of Science • Faculty of Social Sciences • Faculty of Theology • Faculty of Veterinary Medicine • Swedish School of Social Science

([62]) Parliamentary committees, available (in Finnish) at: https://valtioneuvosto.fi/marinin-hallitus/hallitusohjelma/parlamentaariset-komiteat (accessed 27/09/2021).
([63]) Memorandum, available at: https://valtioneuvosto.fi/delegate/file/68574 (accessed 28/09/2021).

Name	Research strengths
University of Eastern Finland	'Our strategic research is focused on four profile areas: • Ageing, lifestyles and health • Environmental change and sustainable use of natural resources • Cultural encounters, mobilities and borders • Diversifying learning and interaction'
University of Jyväskylä	Strategic core fields of research • Basic natural phenomena and mathematical thinking • Information technology and the human in the knowledge society • Language, culture and society • Learning, teaching and interaction • Physical activity, health and wellbeing • Sustainable business and economics
University of Lapland	Arctic and northern change • Sustainable development, law and justice • Northern well-being, education and work • Responsible tourism • Culture-based service design
LUT University	LUT School of Energy Systems' areas of expertise are energy engineering, electrical engineering, sustainability science and mechanical engineering. LUT School of Engineering Science acts as an international source of expertise in the fields of separation, purification and process technology, as well as machine vision and pattern recognition, industrial mathematics and different branches of physics. LUT School of Business and Management combines business, industrial engineering and management, as well as software expertise in a unique way. The focus of both education and research is on building sustainable competitiveness and promoting green technology.
University of Oulu	Sustainable materials and systems Lifelong health Digitalisation and smart society Changing climate and northern environment Understanding humans in change
Hanken School of Economics	Economics and business administration. Areas of strength, 2019-2023: • Competition economics and service strategy • Financial management, accounting, and governance • Responsible organising • Leading for growth and well-being
University of the Arts Helsinki	'We are an open meeting place for the arts and a critical university community for bold reformers and experts of tradition, based at the Academy of Fine Arts, Sibelius Academy and Theatre Academy.'

Name	Research strengths
Tampere University	The Tampere Universities community is made up of the research-intensive Tampere University and the development-focused Tampere University of Applied Sciences. Faculty of Built Environment • Architecture • Civil engineering Faculty of Education and Culture • Tampere University Teacher Training School Faculty of Engineering and Natural Sciences • Automation and mechanicaleEngineering • Materials science and environmental engineering • Physics Faculty of Information Technology and Communication Sciences • Communication sciences • Computing sciences • Electrical engineering • Language studies Faculty of Management and Business • Administrative studies • Business studies • Industrial engineering and management • Information and knowledge management • Politics Faculty of Medicine and Health Technology Faculty of Social Sciences • Health sciences • History, philosophy and literature • Social research • Welfare sciences
University of Turku	Faculty of Humanities Faculty of Law Faculty of Medicine Faculty of Science Faculty of Social Sciences Faculty of Technology Turku School of Economics
University of Vaasa	The School of Management • Human resources management • Public policy and organisations • Strategic business development • Complexity The School of Accounting and Finance • Financial markets, risk measurement and management, responsibility and sustainability, governance and compliance, and financial analysis. The School of Marketing and Communication • International business and marketing strategies • Marketing and consumption research • Communication studies The School of Technology and Innovations • Smart electric systems • Renewable energy • Networked value systems • SC-research (industrial management) • Mathematics and statistics

Name	Research strengths
Åbo Akademi University	Strategic research profiles • Minority research • Technologies for a sustainable future • Solutions for health • The Sea
National Defence University	Special status as Military Academy, working under Commander of the Finnish Defence Forces (not Ministry of Education and Culture) At the National Defence University, the main research interest is above all future threat scenarios and the development of the national defence system. The four core multidisciplinary research areas are: • War and the development of the art of war • Military development in Finland's neighbouring areas • The Defence Forces as part of Finnish society • Finland as part of the international security community

Universities have a working plan template for academic staff (based on collective agreement with universities as employer and trade unions), which has a section on 'third mission'. It is expected that academics are active in 'societal interaction', which means collaboration with social partners like policy makers. The allocation of time is estimated annually, freely, and superiors approve the plan. In practice, this is a formality, but in competitive recruitment, this experience is addressed to some extent (much less than research output). These activities are not needed for a successful academic career. However, many academics are invited to membership or interviews in ministerial working groups, and they agree to contribute, although this is happening less frequently ([64]).

There are also 13 public research institutes, set out below, whose specialisms are signalled by their names in most cases:

- Geological Survey of Finland
- Finnish Meteorological Institute
- Natural Resources Institute Finland
- National Land Survey of Finland
- Finnish Food Authority
- Finnish Environment Institute
- Radiation and Nuclear Safety Authority
- Technical Research Centre of Finland VTT
- National Institute for Health and Welfare
- Finnish Institute of Occupational Health
- Finnish Institute of International Affairs
- VATT Institute for Economic Research
- Institute for the Languages in Finland

Furthermore, state research institutes ([65]) 'conduct solution-oriented research that supports societal decision-making and business sector. In addition to research activities, these institutes perform a variety of expert and official tasks, as well as fee-based and other service activities. Research institutes maintain significant research infrastructures, datasets and long time series from different sectors of society. Research institutes provide services horizontally for most administrative branches, the public sector, companies and third sector actors. International cooperation plays a key role both in research and in expert and official tasks. Finland's 12 state research institutes operate in seven differ-

([64]) Holli, A, and Turkka, S. (2021), op. cit.
([65]) State research institutes, available at: https://research.fi/en/science-innovation-policy/research-innovation-system (accessed 27/09/2021).

ent administrative branches. Of these research institutes, 10 are performance-based agencies, one is a limited liability company owned and controlled by the state, and one is an independent body governed by public law. The departments define the research priorities together with the ministry steering the performance. The research itself is independent and its funding increasingly comes from several sources from the domestic public and private sectors as well as from international funders.'

Tulanet ([66]) is the cooperation body of 10 Finnish government research institutes. Its main objective is 'to promote cooperation between our members and with other actors in the scientific research field. We bring the collective voice of research institutions to the Finnish research policy discussion'.

There are also eight main, private research institutes set out below, along with their research specialisms:

Name	Research strengths
Labour Institute for Economic Research	Labour market and education, Public economy and finances Macroeconomics and forecasts
ETLA Economic Research	Impacts of Economic Policy, Impact of Driving Forces (Megatrends)
Pellervo Economic Research PTT	Globalisation and regional development, food, forestry, housing, and Welfare
Väestöliitto – Population Research Institute	Fertility, well-being of families and ageing. It also coordinates two European Research Infrastructures in Finland: Survey of Health, Ageing and Retirement in Europe (SHARE) and Generations and Gender Survey (GGS).
UKK-institute	• Monitoring the physical activity, sedentary behaviour and fitness of the population • Promoting health-enhancing physical activity • Safety of physical activity
Migration Institute of Finland	Migration flows and their impacts. 'We study both present and past migration flows. The special task is to highlight Finnish migration flows, and data related to Finns living abroad and their offspring'.
Niilo Mäki Institute	Learning and learning difficulties
KIHU – Research Institute for Olympic Sports	Its mission is to promote Finnish top-level sport through advanced, innovative and ethically responsible applied research and development and expertise activities

Further small private institutes are hard to find, as no data are collected. Their contribution to policy making role is not strong, as their resources are very limited. There are many small institutes as part of university organisations, but they may not be part of the published strategic focus areas.

There are also 12 'think tanks' with their own specialisms, as summarised below:

Name	Research strengths
SITRA-foundation	Innovation relevant for the future – no party affiliation
Demos	Funding from competitive research and consultation market – no party affiliation. In Demos Helsinki, new interdisciplinary understanding and solutions for the future are by academically merited researchers in futures studies, urban studies, political studies, organisations and management, human rights and economics, and everyday developers of governance, democracy, cities and technological innovations.
EVA – Finnish Business and Policy Forum	A pro-market think tank – aiming to promote the long-term success of the Finnish society; focus on open society and free market economy; conducting large surveys on societal issues
E2 Research	Politically independent, focus on 'phenomena, human being and society' and 'food and environment', political perspective
Kompassi	Close to Cristian Democrats party

([66]) Tulanet, available at: http://tulanet.fi/english/ (accessed 27/09/2021).

Name	Research strengths
Magma	Focus on Finnish-Swedish culture and society
Toivo	Close to National Coalition Party
Kalevi Sorsa Foundation	A social democratic think tank. Themes: democracy support, reducing inequalities, human impacts on planet earth.
Libera	An independent and politically unaffiliated think tank that supports and advances individual liberty, free enterprise, free markets and a free society. Non-profit foundation, does not accept public funding or do consultancy work. Much based on voluntary work.
SaferGlobe	An independent peace and security think tank, studying and developing tools for the promotion of lasting peace and security. Through our network of researchers, we have expertise on a wide range of topics from local security priorities to conflict sensitive business, arms control and development of crisis management.
Suomen Perusta Foundation	A Finnish political think tank. 'Our main focus areas are immigration/multiculturalism, European integration and economics'. Close to Finns Party
The Left Forum	A collaborative network sharing a leftist set of values and extending from political parties to universities, research institutions and expert organizations.
UNU-WIDER	United Nations University, coordinated from Helsinki. The United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development for all. The Institute began operations over 30 years ago in Helsinki, Finland, as the first research centre of the United Nations University. Today, it is a unique blend of think tank, research institute, and UN agency, providing a range of services from policy advice to governments as well as freely available original research.

Finally, there are other knowledge generators from inside government (e.g. FGI) or outside government but within the wider public arena (e.g. the national bank), or non-governmental societies.

Name	Research strengths
Bank of Finland	Research department, focus: the interaction between and stability of the macro economy and the financial markets, and, the emerging economies, particularly Russia and China.
Finnish Geospatial Research Institute (FGI)	Institutionally part of National Land Survey of Finland (public agency). Research: • Spatial Data Solutions Supporting Digitalisation • Dynamic Earth • Smart Environments and Interaction • Robotics and Intelligent Transportation Systems
The Council of Finnish Academies	The Council of Finnish Academies works to promote high quality scientific research and the impact of research in society. The Council represents the Finnish academies of science in international scientific organisations and promotes the international visibility of Finnish science. It participates actively in domestic and international debates on science policies. The Council works to create interfaces for researcher-policymaker dialogues in order to advance the use of scientific knowledge in policymaking
Federation of Finnish Learned Societies	A national co-operative body for learned societies in Finland. It contributes to the co-operation between learned societies, supports and develops scholarly communication and publishing, and promotes awareness and usage of research results. It also supports and develops the role of its members in science policy discussion.

3. Formal mechanisms to connect evidence to policy

There is no chief science officer in Finland; it has been proposed, but not adopted. Some ministries, however, have research directors with responsibility for liaising with the research community in their sectors.

Instead, an operating model was developed in 2014-2017, as part of overall reform of state research institutes and research funding, which was later subject to a 2018 review ([67]). Under this model, the Prime Minister's Office (PMO) is responsible for coordinating the objectives of state sector research (public research institutes) to support decision making:

- The PMO coordinates the government's analysis, assessment and research activities by PMO, including open calls for policy-related research on topics suggested by ministries, being relevant for the implementation of the Government Programme and decided by the government on annual basis.
- The Strategic Research Council (located in the Academy of Finland) makes an annual proposal for a decision by the government on the thematic areas and priorities of strategic research.
- Networks are used to develop cooperation between ministries, research and survey data producers, research funders, industry and organisations.

In more detail, the Government working group for the coordination of research, foresight and assessment activities ([68]) serves to strengthen horizontal oversight of these activities, improve the information base for decision making and develop new ways of disseminating information on these activities to decision makers and society at large. The members of the group come from all ministries and it is chaired by the PMO's Head of Government Strategy ([69]) (also in charge of monitoring the implementation of the Government Programme). The responsibilities of the working group are:

- Through horizontal cooperation between the ministries, to provide a proposal to the PMO on an annual basis for an analysis, assessment and research plan in support of the Government's decision-making procedures ([70]);
- To guide the analysis, assessment and research process of the Government in the respective ministries;
- To coordinate and monitor the implementation of the analysis, assessment and research plan and achievement of its objectives;
- To take part in the dissemination of information and knowledge created in the respective ministries and administrative branches;
- To prepare a joint proposal for the Government for a decision on the thematic areas and priorities for strategic research on an annual basis, after consultation with the Research and Innovation Council ([71]) and based on an initiative of the Strategic Research Council ([72]);
- To coordinate the drafting of a description of the context of operations and other foresight work as a basis for the futures reports of the ministries; and
- To facilitate the utilisation of analysis, foresight, assessment and research knowledge and public information repositories in political decision-making prodecures.

([67]) Assessment of the research institutes and funding reform, available (in Finnish) at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161250/74-2018-TULA-arviointi.pdf (accessed 27/09/2021)
([68]) Government working group, available at: https://tietokayttoon.fi/en/government-working-group-for-the-coordination-of-research-foresight-and-assessment-activities (accessed 27/09/2021)
([69]) Head of Government Strategy, available at: https://vnk.fi/documents/10616/1457236/Organisation+-structure+of+the+Prime+Minister%27s+Office%2C+Finland+10.5.2021.pdf/254bb29e-8a5f-a7e0-b0ce-88b47c96eff4/Organisation+structure+of+the+Prime+Minister%27s+Office%2C+Finland+10.5.2021.pdf?t=1620825154013 (accessed 27/09/2021)
([70]) Analysis, assessment and research plan, available at: https://tietokayttoon.fi/government-plan-for-analysis-assessment-and-research (accessed 27/09/2021).
([71]) Research and Innovation Council, available at: https://valtioneuvosto.fi/en/research-and-innovation-council (accessed 27/09/2021).
([72]) Strategic Research Council, available at: https://www.aka.fi/en/about-us/decision-making-bodies/strategic-research-council/ (accessed 27/09/2021).

There is also a Foresight Panel ([73]), operating in connection with the aforementioned working group, which coordinates the government's joint foresight activities and serves as a cooperation network for the ministries in their work related to preparation of the Government foresight report.

The Research and Innovation Council is an advisory body chaired by the Prime Minister. The Council discusses key issues relating to the development of research and innovation policy that supports the wellbeing, growth and competitiveness. There are 13 members, nearly half of them ministers (the PM and five others), with the remainder coming from universities or research institutes (currently four) and business (currently three). It has a secretariat of eight persons, coming from the Ministry of Education and Culture (three), the PMO (one), the Ministry of Economic Affairs and Employment (one), Academy of Finland (one), and Business Finland, which fund innovations of business organisations (one).

At the ministerial level, each ministry has advisory boards, around 100 in total. Some of them may have functions related to public authority, along with making policy recommendations which is their main task. Members come from different ministries and public agencies relevant for the policy theme of the board, along with a variety of stakeholders (including researchers, but not always). All major advisory boards appear to have their own websites describing their activities and organisation.

4. Processes to make mechanisms effective

The Government Programme is implemented by ministries (mandatory) and agencies (guided by ministries). Monitoring of the implementation of the government programme/action plan is conducted on a monthly basis, and the information published on the PMO's website ([74]). There is no guide for policy making as such, but there are bill drafting instructions published in 2006 ([75]) and impact assessment guidelines instructions published in 2008 ([76]). The former indicates the need for impact assessment and the latter describes how it is done, also referring to sources and providers of methodology and research information in different policy areas. The Finnish Council of Regulatory Impact Analysis ([77]) aims at improving the quality of bill drafting as an independent authority. Each year, it selects the 20-30 most important government bills for its analysis, and does not analyse the impacts, but reviews instead the impact analyses of the bills and conveys statements to relevant ministries. Ministries are not bound by the statements, but the statements and how they have affected the completion of the bill have to be mentioned in the bill in order to inform Parliament of the process.

Moreover, there is 'Minister's Handbook' that was published for the first time in 2015 and then updated in 2018 ([78]), which serves as 'a comprehensive information source on the organisation and functioning of the Finnish Government, primarily intended to support the work of members of the Government and their aides and advisers'. It also describes

([73]) Foresight Panel, available at: https://tietokayttoon.fi/en/government-working-group-for-the-coordination-of-research-foresight-and-assessment-activities/foresight-panel (accessed 27/09/2021).

([74]) PMO website, available (in Finnish) at: https://valtioneuvosto.fi/marinin-hallitus/hallitusohjelman-seuranta/toimintasuunnitelma/tilannekatsaus (accessed 27/09/2021).

([75]) Bill Drafing Instructions. Ministry of Justice 2006:3, available at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/75937/omju_2006_3_bill_drafting_instructions.pdf?sequence=1&isAllowed=y (accessed 29/09/2021).

([76]) Impact Assessment in Legislative Drafting. Guidelines. Ministy of Justice publication 2008:4., available at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/76118/omju_2008_4.pdf?sequence=1&isAllowed=y (accessed 29/09/2021).

([77]) More information on Finnish Council of Regulatory Impact Analysis (in Finnish), available at: https://vnk.fi/arviointineuvosto (accessed 29/09/2021).

([78]) Minister's Handbook 2019. How the Finnish Governmetn Works. Publications of the Finnish Government 2021 :61, available at : https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163209/VN_2021_61.pdf?sequence=1&isAllowed=y (accessed 29/09/2021).

the mechanisms of providing government with information and knowledge in support of government decision-making (specified below).

Ministries may have their own guidance on evidence-informed policy making, as part of its strategy, or a similar document for each policy sector, but there is no established practice.

The Government's annual plan for analysis, assessment and research underpins policy decision making and steers analysis, assessment and research activities towards specific priority areas selected by the Government. The resources available for implementing the plan amount to approximately EUR 10 million. The appropriations are used for analyses, assessments, foresight reports, impact comparisons of various policy instruments, and evaluations of situation awareness scenarios. The analysis, research and assessment projects can span from a few months to three years. The projects are expected to be transparent and the outcomes to be as widely applicable as possible (reports are available at the designated website ([79]).

The Strategic Research Council (SRC) at the Academy of Finland provides funding to long-term and programme-based research aimed at finding solutions to the major challenges facing Finnish society. Annual funding from the state budget is around EUR 55 million. The projects to be funded are selected by the SRC. The SRC is also responsible for project follow-up and impact assessment. The projects are selected based on a review of their scientific quality, societal relevance and impact. The main themes of SRC research programmes are decided by the Finnish Government. The scientific activity of the first completed strategic research programmes has been recently evaluated ([80]). According to the results of the evaluation, the SRC funding instrument has, through its multidisciplinary approach, brought added value both to the research field and to societal decision-making. At the same time, a more strategic and long-term approach has been created to cooperation between research and society's actors.

In terms of eligibility conditions, competencies are defined by law for each position in the public administration. However, they tend to be very general, referring to experience in similar jobs (substance) and in leadership, language skills, and suitable higher education degree (BA or MA in most positions). HRM is mostly decentralised to agencies themselves and they may have more detailed frameworks. As for managerial positions, there are guidelines for leaders' selection and career management ([81]), which include skills criteria (specified by the Ministry of Finance in the section 'Government as Employer'):

'Common selection criteria: A master's degree and practical evidence of management skills are required for all managerial positions in central government. A broad evaluation of the individual's performance and abilities in actual management tasks or in the management of a demanding project must carried out in the selection situation. When the appointment is considered, it is assessed how the different areas of management skills are emphasised in the tasks of the future manager. These areas also include familiarity with the management of EU affairs and the capacity and willingness for continuous personal development.'

Under the Civil Servants Act, the management skills of the most senior civil servants must be demonstrated in the following areas:

- achieving results and coordinating the organisation
- leadership and building of work communities
- improving the efficiency and quality of processes and monitoring the activities
- participation in the operating environment and managing changes

([79]) Project reports, available at: https://tietokayttoon.fi/en/frontpage (accessed 27/09/2021).

([80]) Evaluation, available at: https://www.aka.fi/en/strategic-research/strategic-research/for-knowledge-users/whats-new/2021/evaluation-report-multidisciplinary-strategic-research-supports-society-as-a-whole/ (accessed 27/09/2021).

([81]) Guidelines, available at: https://vm.fi/en/leaders-selection-and-career-management (accessed 27/09/2021).

As well as management skills, diverse experience required for the position is necessary. In addition, all of the most senior civil servants are required to have practical management experience.

The knowledge management aspect of public management has been addressed in policy discourse for many years. It is partly related to production of relevant data and use of information systems and creating new ones. Recently, competencies (knowledge, skills, values) have not been outlined in relation to whole staff, as more emphasis has been given to knowledge-based management.

There are many training services focused on the development of the competencies of state personnel organised by HAUS Finnish Institute of Public Management Ltd. ([82]), also within the digital learning environment, eOppiva. ([83]) Knowledge-based management is one of competence areas where HAUS organises training including courses relevant to evidence-informed policy making. The relevant topics in this area are as follows:

- Research literacy ([84])
- Better decisions with location information ([85])
- From knowledge to action ([86])
- Data visualisation ([87])

There is no training that is directly related to evidence-based policy making as a general theme, but the goal of using research evidence is widely shared.

5. Commentary

Civil servants with MAs or PhDs are normally very qualified in understanding the role of applied research, mostly also basic research. Many attend domestic and international conferences of academics; many are networked with academics and invite them to seminars, and, in turn, academics invite civil servants to their seminars and study classes to talk about the practical side of academic issues. It is impossible to quantify this networking and collaboration, but it is possible to say that the Finnish governance culture is 'research friendly'.

([82]) HAUS Finnish Institute of Public Management, available at: https://haus.fi/en/home/ (accessed 27/09/2021).
([83]) eOppiva, available at: https://haus.fi/en/training-services/eoppiva/ (accessed 27/09/2021).
([84]) Research literacy, available (in Finnish) at: https://koulutuskalenteri.haus.fi/Koulutushaku-ja-ilmoittautuminen/Koulutustuote/id/4729 (accessed 27/09/2021).
([85]) Better decisions with location information, available (in Finnish) at https://koulutuskalenteri.haus.fi/Koulutushaku-ja-ilmoittautuminen/Koulutustuote/id/4814 (accessed 27/09/2021).
([86]) From knowledge to action, available (in Finnish) at: https://koulutuskalenteri.haus.fi/Koulutushaku-ja-ilmoittautuminen/Koulutustuote/id/4819 (accessed 27/09/2021).
([87]) Data visualisation, available (in Finnish) at: https://koulutuskalenteri.haus.fi/Koulutushaku-ja-ilmoittautuminen/Koulutustuote/id/6225 (accessed 27/09/2021).

COUNTRY CASE STUDY: LATVIA

1. POLICY MAKING SYSTEM

Latvia is a unitary state with just two levels of government: central level and local level. The regular electoral cycle is 4 years, and have produced coalition governments since independence in 1991. However, as governments are approved by parliament, their life-cyle depends on political consensus: they can stay in power for the full period or less (e.g. just one year).

Ministries are allocated among the coalition parties. Sometimes, a position of minister of special affairs is created to reach political consensus on particular issues (like e-government, integration, EU structural support). Ministries are the main policy designers, and hence the 'clients' for evidence for policy making, while subordinated agencies and municipalities are responsible for service delivery.

Overarching policy framework

There are three main documents that set out the whole government's overarching policy priorities, which are prepared by each newly-formed government to reflect their political composition and ideological consensus:

- The cooperation agreement ([88]) commits the political parties in power to certain policy actions.
- This results in a government declaration of intended activities ([89]).
- The government declaration is accompanied by an implementation plan ([90]) (in excel).

All three documents (a cooperation agreement, a declaration, the plan) are produced once the government takes power. There is no review process or updating of the cooperation agreement or government declaration during the government's term. If the composition of the government changes, then a new agreement, declaration and implementation plan are produced.

Each of these documents is prepared with support from ministries and civil servants. Even through the government declaration includes political commitments (for example, to produce a new legal framework for municipalities), it is discussed with the responsible ministry for its general feasibility and bureaucratic acceptance.

The process is as follows:

- The President invites the potential Prime Minister (in most cases, a representative from the political party with the largest representation in the parliament) to form a government. However, there is no regulation to govern who the President invites, which can representatives from the political parties themselves or even non-partisan representatives.
- The potential Prime Minister start negotiations with political parties that might be included in the coalition. During this stage, political parties negotiate the outline of the government, along with the draft coalition agreement.

([88]) Cooperation agreement, available (in Latvian) at: https://www.mk.gov.lv/sites/mk/files/media_file/sadarbibas_ligums_gala-redakcija_red-1.pdf (accessed 18/09/2021).

([89]) Declaration on intended activities of the Cabinet of Ministers chaired by Arturs Krišjanis Kariņs, available (in Latvian) at: https://www.mk.gov.lv/sites/mk/files/media_file/kk-valdibas-deklaracija_red-gala-1.pdf (accessed 18/09/2021).

([90]) The plan for the implementation of the intended activities of the government, available (in Latvian) at: https://mk.gov.lv/lv/content/darbibu-regulejosie-dokumenti (accessed 18/09/2021).

- Once the parties have agreed on the government's composition and share of parliamentary seats, the coalition agreement is formulated. Afterwards, the government begins to prepare the declaration with the involvement of the civil servants. The Cross-Sector Coordination Centre is the key bureaucratic organisation that coordinates the process.

Once the government is approved by parliamentary voting, the declaration and the implementation plan become the main documents to structure its actions.

The implementation plan is legislative planning and covers the entire expected period of the government (usually until the next regular elections). The plan's activities are structured and updated on annual basis, and serve as the main legislative and work plan for the ministries. However, the plan does not provide details on what types of legislative initiatives should be applied. It is at the discretion of the ministries to decide on the types. In general, the plan is a tool for allocating resources to strategic policy initiatives agreed n at the political level.

The preparation of these key documents does not normally draw on scientific evidence. The negotiation process (inside the coalition, as well as with civil servants) is more politically driven. There is limited time for preparing the government declaration and the implementation plan, and hence the government relies on the civil servants' knowledge and there is a rather strong path-dependency.

Ministerial policy making and coordination

The implementation plan provides the framework for annual ministerial plans with a higher degree of detail, including timelines and responsibilities. However, there is a general tendency to avoid setting precise indicators.

There are currently 13 ministries in Latvia's central government, as follows:

- Ministry of Agriculture
- Ministry of Culture
- Ministry of Defence
- Ministry of Economics
- Ministry of Education and Science
- Ministry of Environmental Protection and Regional Development
- Ministry of Finance
- Ministry of Foreign Affairs
- Ministry of Health
- Ministry of Interior
- Ministry of Justice
- Ministry of Transport
- Ministry of Welfare

There are also some centre of government institutions, namely the State Chancellery and the Cross-Sectoral Coordination Centre.

As a rule, there are policy planning departments in all ministries. These are departments responsible for inter-sectoral policy coordination during the policy design stage, both horizontally and vertically, including communication with interest groups and subordinated institutions. For example, the Ministry of Agriculture designs a new white paper on rural development; the main responsibility lies with the policy coordination department, which negotiates the white paper within the ministry, as well outside it - with the Ministry of Economy, or Ministry of Transport. The weak point here is the use of evidence. Mostly, civil servants rely on their technical expertise and information accumulated inside

the ministry in preparing *ex ante* assessments. It is still rare for ministries to conduct *ex post* assessments (policy evaluation).

If there is no EU-wide information or comparison available, there is the tendency to contextualise and justify policy choices based on factors specific to the national or local contexts relying on the technical expertise accumulated at the ministries and municipalities.

Policy design and coordination units become a reality after the policy design and planning system was established around 2004. The Law on Development Planning came into force in 2009, so the system was institutionalised in all ministries. Variances among ministries are insignificant.

As the policy planning department and units are responsible for both horizontal and vertical coordination, most commonly they also coordinate cross-ministerial working groups. However, in some ministries, this coordination role might be taken up by substantive departments as well. Such inter-ministerial policy does not normally draw on scientific evidence.

'Extra-ordinary' policy challenges

There are special arrangements to tackle government-wide policy development and particularly complex and/or long-term challenges. The Cross-Sectoral Coordination Centre was established in 2011 to be a key policy coordination body in Latvia to overcome fragmented policy-making, sector-specific policy focus and lack of performance measurement. It is an active participant in preparing the government declaration and also active in tackling the wicked problems.

In most cases, the Cross-Sectoral Coordination Centre relies on scientific evidence, as it is common for them to invite field experts to share their knowledge. When the institution was set up, the evidence-based approach was promoted by the Coordination Centre as a key policy-making rule.

2. Knowledge generators: sources of evidence

There are five public universities in Latvia, which are set out below, along with an assessment of their research strengths. There are no private universities.

Name	Research strengths
University of Latvia	IT, chemistry, social sciences, economics, biology, linguistics, business, psychics, astronomy, theology
Riga Stradins University	Medicine, public health, pharmacy
Latvia University of Life Science and Technologies	Rural development, food processing, veterinary, agriculture, forestry
Riga Technical University	IT, construction sector, engineering, economics
BA School of Business and Finance	Banks, finances, insurance, financial sector

There are no incentives for university departments to engage with the government, unless the latter commissions research with clear funding. Individual academics do engage with central government and individual ministries in their fields of expertise as participants in advisory groups and working groups, however, these activities are not supported by the universities – there are no allocations of staff time or financial incentives. Any engagement with government is purely at the discretion of the academics in their free time. Most commonly, the academics are members of consultancy teams formed by private companies participating in public procurement for delivery of scientific evidence to the ministries. The main structural and policy problem in Latvia is: low research funding.

There are also several public research institutes, set out below, with their research strengths, but no private research institutes.

Name	Research strengths
Latvian Institute of Organic Synthesis	Pharmacy
Latvian State Forest Research Institute 'Silava'	Forestry
Latvian Biomedical Research and Study centre	Medicine, molecular biology
Latvian State Institute of Wood Chemistry	Chemistry, construction
Institute of food safety, animal health and environment 'BIOR'	Food safety, public health, animal health, environmental issues

There are also three 'think tanks' currently, although their number tends to be more fluid, as it is easier to establish and disband such non-governmental organisations.

Name	Research strengths
Public policy research centre 'Providus'	Corruption prevention, inclusive society, social entrepreneurship, public policy
Certus	Economy, taxes
Delna	Corruption prevention

3. Formal mechanisms to connect evidence to policy

The central government does not have a liaison function (i.e. unit or officer) with the research community, and equally there is no equivalent body to coordinate the knowledge generators from their side, or formal mechanism at the centre of government.

Within individual ministries, there are two standard options for policy makers:

First, officials can form a working group by the order of the State Secretary (the top civil servant in the ministry). The working group sets its own timeline according to the expected output (draft legislation). Most commonly, the working groups have several meetings once the output (i.e. draft regulation) is produced.

Second, the ministry can form an advisory council, which is a more stable and permanent structure, as it might have a mandate for several years. For example, the State Audit Office (not part of government but reporting to Parliament) has a permanent advisory public council.

Both working groups and advisory councils usually decide themselves on the working mode, frequency of meetings and other internal issues. Members are selected on professional criteria, non-applicability of conflicts of interest, reputation and relationship with the ministry. The last criteria (good relationship) means that commonly ministries invite experts who have not been in opposition to a policy implemented by the ministry.

4. Processes to make mechanisms effective

The Cross-Sectoral Coordination Centre issues a central manual ([91]) on policy making ([92]) that is obligatory for all ministries, which includes a general description of the policy

([91]) Manual for policy making, available (in Latvia) at: https://www.pkc.gov.lv/sites/default/files/inline-files/pkc_rokasgramata_090316_web.pdf. There is also a manual on *ex ante* assessment produced by the State Chancellery, available (in Latvian) at: https://www.mk.gov.lv/lv/media/5351/download (both accessed 03/10/2021).

([92]) General description of the policy making system, available (in Latvian) at: https://www.mk.gov.lv/lv/valsts-parvaldes-attistibas-politika (accessed 03/10/2021).

making system provisions for accessing and using evidence. The manual describes EIPM as the general approach recommended for public administration; ministries do not have their own individual guidelines. However, there is no guidance on particular methods on how to introduce or use evidence. There is no monitoring system to check if the manual is followed.

On the demand side, there are no specific arrangements either at the centre of government or within individual ministries to define their evidence needs, except the procurement process when the detailed terms of reference are being designed. Ministries procure necessary expertise via public procurement, and thus, the providers are private companies with academics in their teams. While there is continuity or regularity in the supply of evidence, public procurement is the *ad hoc* solution. The whole procedure is conducted via an electronic procurement system, accessible to everyone, and the results are published on a centralised government platform ([93]).

Research activities are project-driven or call-driven, as there has not been stable public financing of research since the economic and fiscal crisis in 2008, when public funding for research was substantially cut and there has been no return to the previous level subsequently. While the research community has adjusted to the call-driven approach, which requires outputs from researchers as needed for ministries, there remains a general gap in perspective between the public administration and the research community in two respects:

Timing. While the public administration requests short-term research (up to 6 months) with immediate results in the form of policy recommendations, the research community works on medium-term projects (up to 3-4 years) with the outputs being international publications with a certain citation index. The citation index and several publications are key criteria for public financing of universities.

As a rule, ministries also expect that academics will provide quite precise recommendation on legal amendments and policy tools, while academics are more inclined to provide generalised recommendations.

The central government has a competency framework that applies to all officials. Human resource management (HRM) policies are autonomous and hence, ministries have a large degree of discretion in the implementation of HRM tools in recruitment, selection, promotion, appraisal and training. ([94]) Nevertheless, an e-based performance management system (NEVIS) was introduced at the central level in 2013, and competency-based performance evaluation has been conducted in this electronic system since this time, ensuring a whole-of-government approach. The competency framework does not, however, include competencies in EIPM.

5. Commentary

There is growing demand for scientific and evidence-based knowledge in policy making, but it varies between ministries and their policy fields, and the policy issue has to be justified. Still, the evidence-based approach has a limited impact on strategic policy making processes (e.g. strategic documents like Latvija 2030) and at the highest level of policy making (e.g. considering policy alternatives).

There is not a single stable provider of evidence to the government in Latvia. Actors, such as ministries themselves, think tanks, universities, and individual academics, generate

([93]) Research and publications database, available at: http://petijumi.mk.gov.lv/ (accessed 03/10/2021).

([94]) 'Vocabulary of competencies: Descriptions of competencies of public administration positions, available at: https://nevis.mk.gov.lv/Uploads/CompetenceDictionary.6310fce38bd842a3b5a769030b30042a.pdf; 'Employee performance appraisal: the latest trends', available at: https://www.mk.gov.lv/lv/media/807/download; Data on wages and salaries and employees in public administration, available at: https://www.mk.gov.lv/lv/dati-par-darba-samaksu-un-nodarbinatajiem-valsts-parvalde (all accessed 03/10/2021).

ad hoc knowledge based on their resources, ideological views and interests. EU experience, EU-based knowledge, good practices and comparisons are relevant for developing policy alternatives. However, there is another tendency to transfer the good practices (actions, programmes) without prior assessment and analysis of the context factors, which can lead to policy failure.

Getting in touch with the EU

In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online (european-union.europa.eu/contact-eu/meet-us_en).

On the phone or in writing

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: european-union.europa.eu/contact-eu/write-us_en.

Finding information about the EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website (european-union.europa.eu).

EU publications

You can view or order EU publications at op.europa.eu/en/publications. Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre (european-union.europa.eu/contact-eu/meet-us_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex (eur-lex.europa.eu).

EU open data

The portal data.europa.eu provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.

Publications Office
of the European Union