

# Government data-driven decision-making (DDDM) framework implementation. Test case: crisis management

Deliverable 1.2: DDDM Catalogue of requirements

**Technical Support Instrument**

*Supporting reforms in 27 Member States*



Funded by  
the European Union



REPUBLIC OF ESTONIA  
GOVERNMENT OFFICE

This document was produced with the financial assistance of the European Union. Its content is the sole responsibility of the author(s). The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

The project is funded by the European Union via the Technical Support Instrument, managed by the European Commission Directorate-General for Structural Reform Support.

This report has been delivered in June 2022, under the EC Contract No. REFORM/SC2021/076. It has been delivered as part of the project "Government data-driven decision-making (DDDM) framework implementation. Test case: crisis management".

© European Union, 2024



The Commission's reuse policy is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39 – <https://eur-lex.europa.eu/eli/dec/2011/833/oj>).

Unless otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed, provided that appropriate credit is given and any changes are indicated.

**Directorate-General for Structural Reform Support**  
REFORM@ec.europa.eu  
+32 2 299 11 11 (Commission switchboard)  
European Commission  
Rue de la Loi 170 / Wetstraat 170  
1049 Brussels, Belgium

# Executive summary

## Scope of the Project

This report has been developed within the Project carried out by PricewaterhouseCoopers EU Services EESV (hereinafter – PwC) on behalf of the DG REFORM, according to the specific contract No. REFORM/SC2021/076 (21EE02), signed on October 14, 2021. The report covers the items required in the Request for Service (RfS).

This report covers Outcome 1 of this Project – **Government data-driven decision-making**. Separate reports are issued for Outcome 2 and 3 which all combined make up the complete package of deliverables.

## Purpose and scope of the Report

The report has been drafted for the purpose to describe the best practices of government data-driven decision-making process and analytical tools used in Finland, the Netherlands and Ireland; catalogue of requirements; and observations together with constraints and recommendations.

The countries were selected considering different studies, subject matter expert recommendations and discussions held with the Beneficiary. The reason to select these countries was their high ranking in Digital Economy and Society Index – Finland's e-Governance maturity is 85%, the Netherlands' 82%, Ireland's 69%; comparability with Estonia – number of institutions, level of data governance centralization; and clearly established data governance policies, procedures and roles and responsibilities among stakeholders.

As digitalisation and technical solutions are becoming an integral part of data-driven decision-making process, the best practice analysis gives an overview of the government decision making process in the selected countries and innovative IT systems and solutions, including artificial intelligence (AI) used to support/drive the decision-making process.

## Key findings

During the best practice research and knowledge sharing meetings, a variety of observations were made regarding the positive impact and benefits, as well as risks and constraints of considering and deploying information systems, including AI-enabled innovative solutions in the governmental decision-making processes.

Introducing innovative technological solutions to government decision-making process can improve the quality of processes, systems, and services. The use of IT systems brings efficiency to decision-making processes by saving the time on data collection and analysis. All researched countries have placed great emphasis on data governance, have selected base registers and introduced innovative technological solutions that support the government. Many significant government decisions are taken on the basis of information and data derived mostly from the base registers.

Meanwhile, it is important to acknowledge that use of innovative solutions in governmental decision-making process require careful consideration as the pursuit of decision transparency through using AI or other technological advancements can create an opposite – decision-making black box – effect.

When the decision-making thought process and analytical reasoning or calculations done by or within the AI remain mostly unknown to the users of the decision-making system, the decisions proposed or made by the AI are often not trusted. Therefore, communication with IT system users combined with user-friendly onboarding on how the systems work and how they are supporting the government data-driven decision-making process, help to build trust and raise the accountability of innovative tools.

## Recommendations

### General recommendations

To ensure an effective and sustainable deployment of innovative tools, including AI-enabled decision-making system, several recommendations are given below.

## Recommendations to deploying AI:

- Time – ensure there is plenty of time to planning and developing the system;
- Money – dedicate a generous budget to develop and continuously improve the system;
- People – create a dedicated team to drive the development of the system as well as take care of communication, involving the users and stakeholders to the development process;
- Relevant competences and expertise – assure the driving team possesses relevant competences and AI-specific expertise to provide oversight of the development throughout the process;
- Consulting with end users and listening to their feedback – invite, involve, and consult the end users to develop system that meets their needs and helps to solve important problems in and around decision-making process;
- Involving stakeholders to achieve the acceptance of innovative system - invite, involve, and consult the stakeholders to build trust and achieve the acceptance of innovative AI system;
- Share stories and practices – build a knowledge-sharing environment where the focus is learning from each other's AI-related experiences;
- Data governance – share data governance principles, practices and responsibilities to govern the data used in AI system;
- High quality data – continuously work on raising the data quality;
- Technical infrastructure – provide sufficient and well-functioning technical infrastructure that could run the AI system;
- Constant maintenance of AI systems – build skilled team and agree on maintenance rules and procedures to keep the system up to date and maintained at all times;
- Experimental mindset and permission to experiment – allow the development team and system to make mistakes and learn from them.

## Lessons learned from benchmarking best practices

### Data Sharing Framework in Ireland

Ireland has initiated Data Sharing Framework which provides Public Service Bodies with a common set of practices to follow when they wish to use the Data Sharing and Governance Act as their legal basis for data sharing. The Data Sharing Framework includes several documents that guide officials through the data sharing procedures step by step.

The framework is a key tool to the Data Officers Network which has over 139 members from Irish Public Sector Bodies, of which 39 are full time nominated data officers. Data Officers are the data stewards in their organisation, and they ensure the data sharing practices are compliant with national regulations. The Data Sharing Framework includes Data Sharing Playbook, Data Sharing Guidelines, Data Sharing Agreement Template and Communications Suite.

A nine-stage process with multiple sub-activities is described in the Data Sharing Playbook to guide the Data Officers in Public Service Bodies through the process of acquiring the data sharing agreement. The stages are following:

- Stage 1: Data Sharing Preparation
- Stage 2: Data Officers Review (All Public Sector Bodies, 39 Data Officers)
- Stage 3: Preparing the Data Sharing Agreement (Lead Public Sector Body)
- Stage 4: Public Consultation (28 days)
- Stage 5: Public Sector Bodies' Review (21 days)
- Stage 6: Data Governance Board Review
- Stage 7: Public Sector Bodies' Address Recommendations and Sign
- Stage 8: Publication
- Stage 9: Data Sharing Agreement Implementation.

Data Sharing Framework provides clarity and guidelines to the complex process of data sharing. The stages explained in the Data Sharing Playbook help the officials to go through the data sharing procedure in a user-friendly and standardised manner, and therefore make the complex process easier to follow.

### Virtual Data Room Initiatives in Finland and Ireland

Both Finland and Ireland are developing virtual data spaces – a dedicated virtual environments (also called “Data Rooms”) created containing the specific data requested by government officials and the approved tools for its analysis, where data can be viewed and analysed, but data cannot be removed from the virtual data room.

In Ireland, virtual data rooms include all the most popular business intelligence and data analytics software tools within the virtual space, so that the officials working in the virtual room can select their preferred tool to conduct the analysis.

In Finland, a 3-year pilot project called Dataroom is recently initiated to develop the public sector ability to give fast data-based decision-support. Dataroom initiators emphasise that there is a lot of data-material that is under-used or not used at all, and the dialogue between the decision-maker and data expert is a pivotal issue.

In Finland, the Dataroom initiative pilots on January 1st, 2023, and will continue until December 31st, 2025. The pilot is led and technically developed by the researchers and supported and financed by the government. The State Institute for Economic Research (VATT) is the responsible actor and Statistics Finland together with Helsinki Graduate School of Economics are the central collaborators.

In both Ireland and Finland, the virtual data rooms are specific to a certain analysis topic. For example, in Finland, the data rooms are created for analysing trade and energy consumption data. In Ireland, the virtual data spaces are developed for analysing climate, energy, and agriculture data.

Data-security and handling of data are important aspects of virtual data room operations. In Finland, the data room will use data through the audited and secure system provided by Statistics Finland with remote access. The access to the data is through specific permits and no person-sensitive information can be removed from the remote access system. Reports do not include materials, from which it is possible to specify individual actors.

In Ireland, the data analysis conducted by the official in the data room is then reviewed by the statistician from Statistics Ireland, who confirms the conclusions drawn from the data analysis are correct or suggests changes in the analysis approach to arrive at the accurate conclusion.

# Lühikokkuvõte

## Aruande eesmärk ja ulatus

Aruanne on koostatud Euroopa Komisjoni struktuurireformide toe peadirektoriaadi (DG REFORM) tellimusel PricewaterhouseCoopers EU Services EESV (edaspidi PwC) poolt läbiviidud Projekti raames vastavalt 14. oktoobril 2021. aastal allkirjastatud lepingule nr REFORM/SC2021/076 (21EE02). Aruande koostamisel on lähtutud Projekti lähteülesandes esitatud nõuetest.

Aruandes kajastatakse ainult Projekti esimese tulemiga piiritletud teemasid – **andmepõhise otsustusprotsessi edendamine**. Eraldi aruanded väljastatakse Projekti teise ja kolmanda tulemi kohta, mis kokku moodustavad lepingus ettenähtud väljundid.

Käesolev aruanne on koostatud eesmärgiga anda ülevaade parimatest andmepõhise otsustusprotsessi praktikatest ja analüüsitöövahenditest Soomes, Hollandis ja Iirimaa; nõuete kataloogist ning tähelepanekutest, piirangutest ja soovitudest, mis tulenevad parimate praktikate analüüsist.

## Tähelepanekud

Parimate praktikate analüüsi koostamise ning teadmiste jagamise eesmärgil toimunud kohtumiste järgselt tehti mitmesuguseid tähelepanekuid infosüsteemide, sealhulgas avalikus sektoris ja valitsussektoris tehisintellekti toega lahenduste kaalumise ja kasutuselevõtmisega kaasnevate positiivsete mõjude ja eeliste, samuti riskide ja piirangute kohta.

Uuenduslike tehnoloogiliste lahenduste kasutuselevõtt valitsuse andmepõhises otsustusprotsessis saab parandada protsesside, süsteemide ja teenuste kvaliteeti. IT-süsteemide läbimõeldud arendamine ja kasutamine toob avaliku sektori tööprotsessidesse efektiivsust, säästes aega andmete kogumisel ja analüüsimisel. Kõik uuritud riigid on pannud suurt rõhku andmehaldusele, valinud välja baasregistrid ja võtnud kasutusele valitsust toetavad uuenduslikud tehnoloogilised lahendused. Paljud olulised valitsuse otsused tehakse baasregistritest saadud teabe ja andmete põhjal.

Samal ajal on oluline teadvustada, et uuenduslike lahenduste kasutamine valitsuse otsustusprotsessis nõuab hoolikat kaalumist, kuna otsuste läbipaistvuse taotlemine tehisintellekti või muude tehnoloogiliste lahenduste kaasabil võib tekitada vastupidise – otsustamise musta kasti – efekti.

Kui tehisintellekti otsuste tegemise protsess, analüütiline arutluskäik või arvutused ei ole otsustussüsteemi kasutajate jaoks läbipaistvad, võib tekkida olukord, kus tehisintellekti pakutud või tehtud otsuseid ei usaldata, sest otsuse aluseks olev lahenduskäik on teadmata.

Süsteemide kasutuselevõttu ja usaldusväärset toetavad mitmekülgsed kommunikatsioonitegevused süsteemi tulevaste kasutajatega. Kui süsteemi töö- ja andmepõhise otsustusprotsessi põhimõtted on kasutajatele teada, nad on saanud piisaval hulgal koolitust ja tuge süsteemi kasutuselevõtul, tekib usaldus loodud innovaatiliste lahenduste vastu.

## Soovitused ja head praktikad

### Üldised soovitusused

Uuenduslike tööriistade, sealhulgas tehisintellekti toega otsustussüsteemi tõhusa ja jätkusuutliku kasutuselevõtu tagamiseks on tehisintellekti kasutuselevõtuks järgmised soovitusused:

- Aeg – süsteemi planeerimiseks ja arendamiseks on vajalik piisav ajaline ressurss;
- Raha – süsteemi arendamiseks ja pidevaks täiustamiseks on vajalik eelarve eraldamine;
- Inimesed – meeskonna moodustamine, kes juhivad süsteemi arendamist ja hoolitseb arendustega seotud suhtluse eest, kaasates arendusprotsessi kasutajaid ja sidusrühmi;
- Asjakohased pädevused ja teadmised – juhtmeeskonnal asjakohaste kompetentse ja AI-spetsiifilised teadmiste tagamine, et teha arendusprotsessi üle järelevalvet;

- Lõppkasutajatega konsulteerimine ja nende tagasiside kuulamine – lõppkasutajate kutsumine kohtumistele, nende kaasamine ja soovide kuulamine, et arendada välja süsteem, mis vastab nende vajadustele ja aitab lahendada olulisi otsustusprotsessiga seotud probleeme;
- Sidusrühmade kaasamine uuendusliku süsteemi heakskiitmiseks – sidusrühmade kaasamine usalduse loomiseks ja uuendusliku tehisintellekti süsteemi omaksvõtu saavutamiseks;
- Kogemuste ja praktikate jagamine – luua teadmiste jagamist soodustav tööine keskkond, kus keskendutakse üksteise tehisintellektiga seotud kogemustest õppimisele;
- Andmehaldus – andmete haldamise põhimõtete ja tavade jagamine ning kohustused hallata tehisintellekti süsteemis kasutatavaid andmeid;
- Kvaliteetsed andmed – pidev töötamine andmete kvaliteedi tõstmise nimel;
- Tehniline infrastruktuur – piisava ja hästi toimiva tehnilise taristu tagamine, mis suudaks AI süsteemi käitada;
- AI-süsteemide pidev haldamine – kvalifitseeritud meeskonna moodustamine ning süsteemihaldusega seotud reeglites ja -protseduurides kokku leppimine, et süsteem oleks alati töökorras ja toimiv;
- Eksperimentaalne mõtteviis ja luba katsetada – toetava õhkkonna loomine, kus arendusmeeskonnal ja süsteemil on lubatud vigu teha ja neist õppida.

## Õppetunnid parimate praktikate kaardistamisest

### Andmete jagamise raamistik Iirimaa

Iirimaa on avaliku sektori asutustele väljatöötanud andmete jagamise raamistiku, mis koosneb kokkulepitud juhistest ja suunistest juhiks, kui asutused soovivad andmeid jagada ning kasutada õigusliku alusena andmejaagamise- ja haldamise seadust. Andmete jagamise raamistik koosneb paljudest juhendavatest dokumentidest, mis abistavad ametnikke samm-sammult andmete jagamise teekonnal.

Raamistik on võtmetähtsusega töövahendiks andmeametnike võrgustikule, kuhu kuulub üle 139 liikme iiri avaliku sektori asutusest, kellest omakorda 39 ametnikku töötavad täiskohaga andmete valdkonnas. Andmeametnikud on andmevaldkonna eestvedajad oma organisatsioonis ning and seisavad hea selle eest, et andmete jagamise praktikad on kooskõlas kohaliku seadusandlusega. Andmete jagamise raamistik koosneb erinevatest abistavatest dokumentidest, mille hulgas on näiteks andmejaagamise samm-sammulised juhised, andmejaagamise kokkuleppe näidisdokument ja kommunikatsioonikanalist.

Andmejaagamise juhistes on esitatud paljude alategevustega rikastatud 9-etapiline protsess, mis juhendab avaliku sektori asutuste andmeametnikke andmejaagamise kokkuleppe saavutamise teekonnal. Juhistes esitatud üheks etappi on järgnevad:

- Etapp 1: Andmete jagamise ettevalmistamine
- Etapp 2: Andmeametnikkega kooskõlastamine (kooskõlastajateks on 39 täiskohaga töötavat andmeametnikku)
- Etapp 3: Andmejaagamise kokkuleppe ettevalmistamine (toimub andmeid sooviva asutuse eestvedamisel)
- Etapp 4: Avalik konsultatsioon (28 päeva)
- Etapp 5: Avaliku sektori asutustega kooskõlastamine (21 päeva)
- Etapp 6: Andmehalduse nõukoguga kooskõlastamine
- Etapp 7: Avaliku sektori asutused vastavad esitatud soovitudele ja allkirjastavad kokkuleppe
- Etapp 8: Kokkuleppe avalikustamine
- Etapp 9: Andmejaagamise kokkuleppe elluviimine

Andmete jagamise raamistik on ametnikke toetav meede, mis selgitab ja lihtsustab andmete jagamise keerukat protsessi. Juhiste loomise kaudu on andmejaagamise protsess muutunud ametnike jaoks

kasutajasõbralikumaks ja standardiseeritumaks, tänu millele on protsessi läbimine eri osapooltele varasemast lihtsam.

### Virtuaalsete andmeruumide arendamine Soomes ja lirimaal

Nii Soome kui lirimaal on algatanud virtuaalsete andmekeskondade ("andmeruumide") arendamise, mis sisaldavad spetsiifilisi ametnike soovitud andmeid ja kokkulepitud andmeanalüüsi töövahendeid. Andmeruumis on võimalik soovitud andmeid vaadata ja analüüsida, kuid andmeid ei ole võimalik virtuaalkeskkonnast välja viia.

lirimaal loodud virtuaalsed andmeruumid sisaldavad kõiki populaarsemaid ärianalüütika ja andmeanalüüsi tarkvarasid ning ametnik, kes virtuaalruumis töötab, saab valida analüüsi teostamiseks endale sobivaima analüüsi töövahendi.

Soomes on äsja käivitatud kolmeaastane pilootprojekt "Dataroom," mis on ellu kutsustud selleks, et arendada avaliku sektori võimekust pakkumaks kiiret andmepõhist otsustustuge. Dataroom'i pilootprojekti eestvedajate sõnul on Soomes palju selliseid andmeid, mis on alakasutatud või mida ei kasutata üldse ning dialoogi loomine otsustaja ning andmeeksperdi vahel on võtmetähtsusega.

"Dataroom'i" pilootprojekt stardib Soomes 1.01.2023 ja kestab kuni 31.12.2025. Pilootprojekti juhivad ning arendavad teadlased, keda toetab ja rahastab valitsus. Projekti vastutav osapool on Riiklik Majandusuuringute Instituut (VATT) ning Soome Statistikaamet koos Helsinki Graduate School of Economics'iga on peamised koostööpartnerid.

Nii lirimaal kui Soomes on virtuaalsed andmeruumid spetsiifilise analüüsivaldkonnakesksed. Näiteks Soomes on loodud virtuaalsed andmeruumid kaubanduse ning energia valdkondade andmete analüüsiks ning lirimaal on sarnased virtuaalsed ruumid loodud näiteks kliima-, energia- ja põllumajanduse valdkondade andmete analüüsiks.

Andmeturve ja andmete töötlemine on virtuaalse andmeruumi toimimise olulised aspektid. Soomes loodavad andmeruumid saavad soovitud andmeid kasutada vaid Soome Statistikaameti auditeeritud ja turvalise kaugjuurdepääsuga süsteemi kaudu. Andmetele antakse ligipääs ainult spetsiaalsete lubade olemasolu korral ja kaugjuurdepääsuga süsteemist ei saa eemaldada isikutundlikku teavet. Andmeruumis loodud analüütilised aruanded ei sisalda infot, millest oleks võimalik välja lugeda üksikisikutega seotud andmeid.

lirimaal on rakendatud täiendav andmekvaliteedi tagamise meede, nimelt vaatab kohaliku statistikaameti statistik andmeruumis üle ametniku koostatud andmeanalüüsi ja kinnitab, et andmeanalüüsist tehtud järeldused on õiged või kes vajadusel annab soovitusi analüüsi lähenemisviisi muutmiseks, et ametnik jõuaks korrektse järelduseni.

# Table of Contents

<b>1. Introduction.....</b>	<b>10</b>
1.1 Purpose and Scope of the Report .....	10
<b>2. Best Practice Analysis .....</b>	<b>13</b>
2.1 Methodology .....	13
2.2 Finland .....	15
2.3 The Netherlands .....	27
2.4 Ireland.....	36
2.5 Comparisons.....	47
<b>3. Catalogue of Requirements .....</b>	<b>49</b>
3.1 Methodology .....	49
3.2 Catalogue .....	51
<b>4. Observations.....</b>	<b>52</b>
4.1 Observations and constraints .....	52
4.2 Recommendations.....	53
<b>5. Appendices .....</b>	<b>55</b>
5.1 List of conducted Interviews .....	55
5.2 Research Topics and Questions for the Best Practice Analysis .....	56
5.3 Duties of the PMO's departments in Finland .....	57
5.4 Duties of Dutch government ministries.....	59
5.5 Duties of government departments in Ireland .....	60
5.6 Catalogue of Requirements.....	62

# 1. Introduction

## 1.1 Purpose and Scope of the Report

### 1.1.1 Purpose of the Report

The report has been drafted for the purpose to introduce the following topics:

1. to give an overview of decision-making processes and practices in Finland, the Netherlands and Ireland (see Paragraph 2 Best Practice Analysis);
2. to outline the catalogue of the requirements for data-driven decision-making (see Paragraph 3 Catalogue of Requirements).

The approach and results of the topics are described in respective paragraphs.



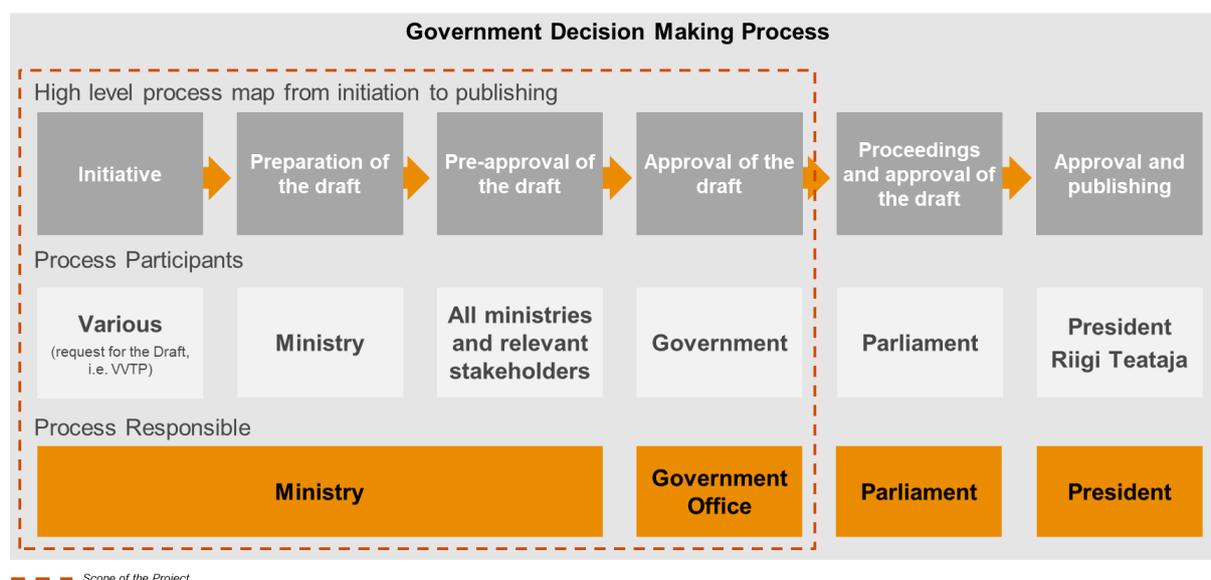
**This report covers only Outcome 1** – Government data-driven decision-making framework implementation. Separate reports are issued for Outcome 2 and 3 which all combined make up the complete package of deliverables.

### 1.1.2 Scope of Outcome 1

Decision-making process in general involves number of institutions (Ministry, Government Office, Parliament, President) as described on Figure 1. As there are a lot of different legal types of Documents and decisions in Estonia (described in Deliverable 1.1.), the level, extent and course of the decision-making process varies.

**The Project Scope** approved in Deliverable 1.1. **covers the areas of responsibility of Ministries and Government Office** as shown on Figure 1.

Figure 1. Scope of the Project by Institutions in Outcome 1



It was acknowledged that certain types of Documents are handed over to the Parliament for proceedings and approvals as well as Legal Drafts go to the President for announcement and publishing at Riigi Teataja, but considering the purpose of the Project, **the working process and practices at the Parliament and President are not covered.**

In short, the Project Scope covers the following:

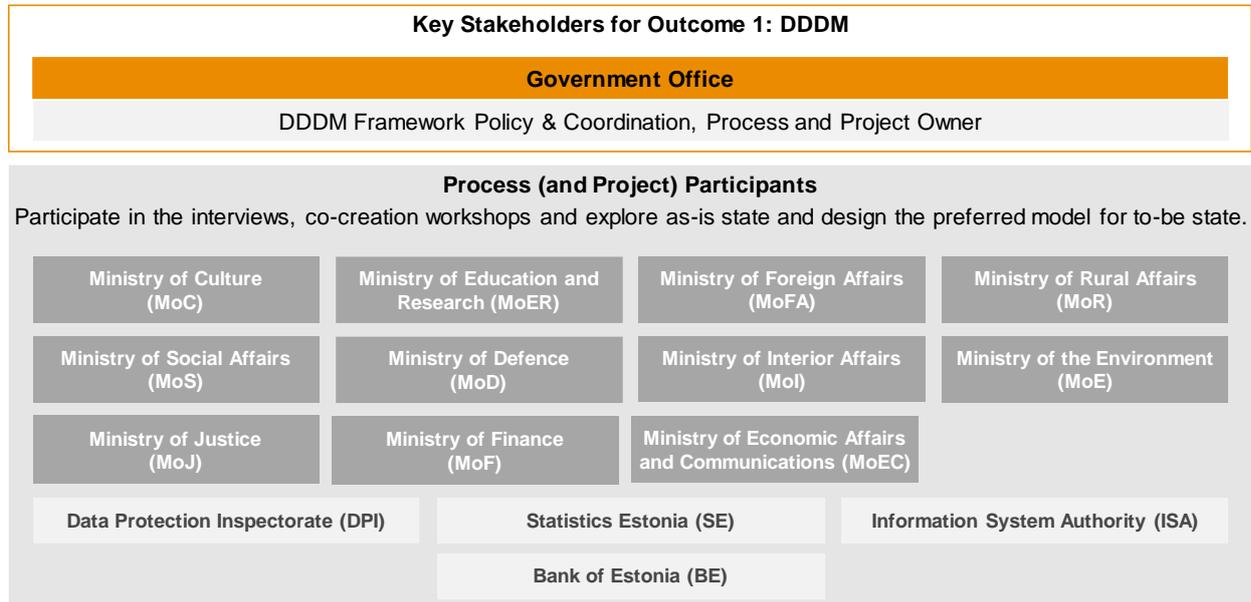
Table 1. Project Scope

Area	Description
<b>1. Institutions</b>	Process Responsible: <ul style="list-style-type: none"> <li>Ministries</li> <li>Government Office</li> </ul>
<b>2. Document Type</b>	<ul style="list-style-type: none"> <li>Government Memorandum</li> </ul>
<b>3. Process</b>	<ul style="list-style-type: none"> <li>End-to-End process of Government Memorandum</li> <li>End-to-end describes a process that takes the process from beginning to end and delivers a complete output for Government decision-making</li> </ul>
<b>4. Data and Technology</b>	<ul style="list-style-type: none"> <li>Data and Technology used in the process of Government Memorandum</li> </ul>
<b>5. People</b>	<ul style="list-style-type: none"> <li>Participants and decision-makers such as public servants and/or third parties (i.e., subject matter experts) involved in the process of Government Memorandum</li> </ul>

### 1.1.3 Project Stakeholders for Outcome 1

To conduct an effective stakeholder engagement, we have identified the following key stakeholders and process participants for the Outcomes 1 (Figure 2) who are participating in the Project work.

Figure 2. Outcomes 1: Key Stakeholders and Project Participants

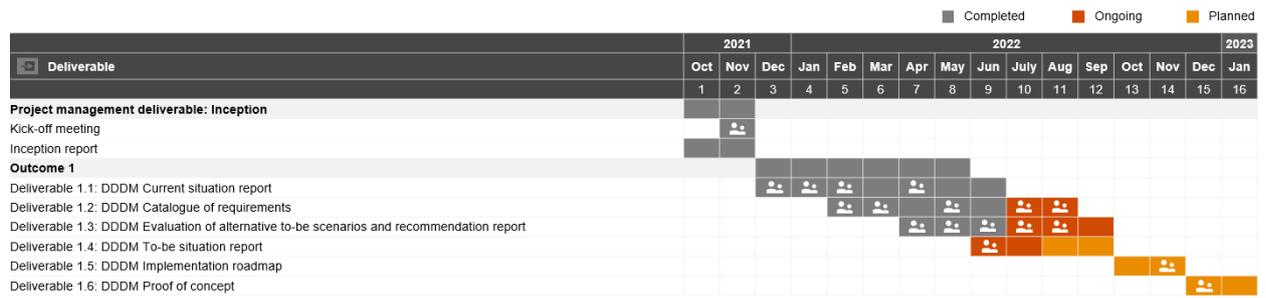


■ Ministries primarily involved in Outcome 1    ■ Authorities involved in Outcome 1

### 1.1.4 Timeline

Figure 3 gives a high-level overview of the project activities and timeline.

Figure 3. Project Activities and Timeline



The activities of the second deliverable took place from February 2022 to August 2022.

# 2. Best Practice Analysis

## 2.1 Methodology

### 2.1.1 Country Selection

When selecting countries for foreign best practice analysis, we have considered not only the analysis based on the criteria mentioned below, but also conducted conversations with experts representing Estonian public authorities: Veiko Berendsen (Statistics Estonia), Aivar Rahno (previous manager of the Government Sessions Department at the Estonian Government Office) and Ott Velsberg (Chief Data Officer at the Ministry of Economics and Communications).

Country selection criteria:

1. Digital Economy and Society Index (DESI) – DESI summarises indicators on Europe's digital performance and tracks the progress of EU countries. We have selected those countries that are ranked higher than Estonia (Finland's e-Governance maturity is 85%, the Netherlands' 82%, Ireland's 69%);
2. Comparability with Estonia – number of institutions, level of data governance centralisation;
3. Clearly established data governance policies, procedures and roles and responsibilities among stakeholders.

Considering different studies, subject matter expert recommendations and discussions held with the Beneficiary the following countries were selected for the best practice analysis:

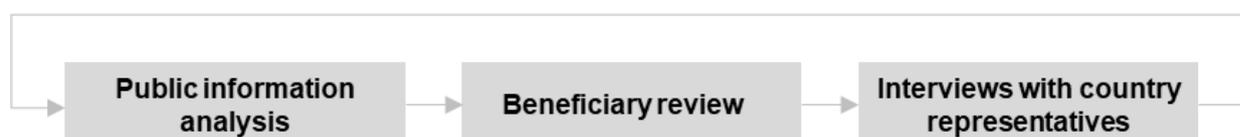
Figure 4. Countries selected for best practice analysis



### 2.1.2 Our Approach

To deliver the foreign case analyses of the three selected countries a joint approach was used that was individually adapted for each country (Figure 5). The topics and research questions are introduced in greater detail in Appendix 5.2 Research Topics and Questions for the Best Practice Analysis.

Figure 5. Methods used to analyse selected countries



The initial draft contained an analysis from the publicly available information, for example, local legislation, regulations of the government operations and other acclaimed sources. The publicly available information differed between the selected countries; therefore, the initial base was adjusted case by case.

The emphasis was put on information that would serve as a unique best practice model; however, it was ascertained that the estimated added value most of all came from the interviews with the country representatives that posed key positions in the analysed public authorities.

Before these interviews and in-depth analysis, the Beneficiary provided a first draft reviewal by highlighting practices by country, that were most distinctively interesting and special for Estonia. These ideas were addressed during the interviews with the country representatives.

### **2.1.3 Purpose for the best practice analysis**

Best practices are a set of guidelines, practices, or ideas that represent the most efficient or prudent course of action in a given situation. The aim of the current best practice analysis is to identify and highlight efficient ways to govern the government data-driven decision-making process and to share best practices among EU countries.

The public sector is an important data user but also a key source of data. Greater access to and more effective use of public-sector information can generate benefits across the economy. Estonian Government wishes to learn from others and maximize the benefits of the data-driven ecosystem.

## 2.2 Finland

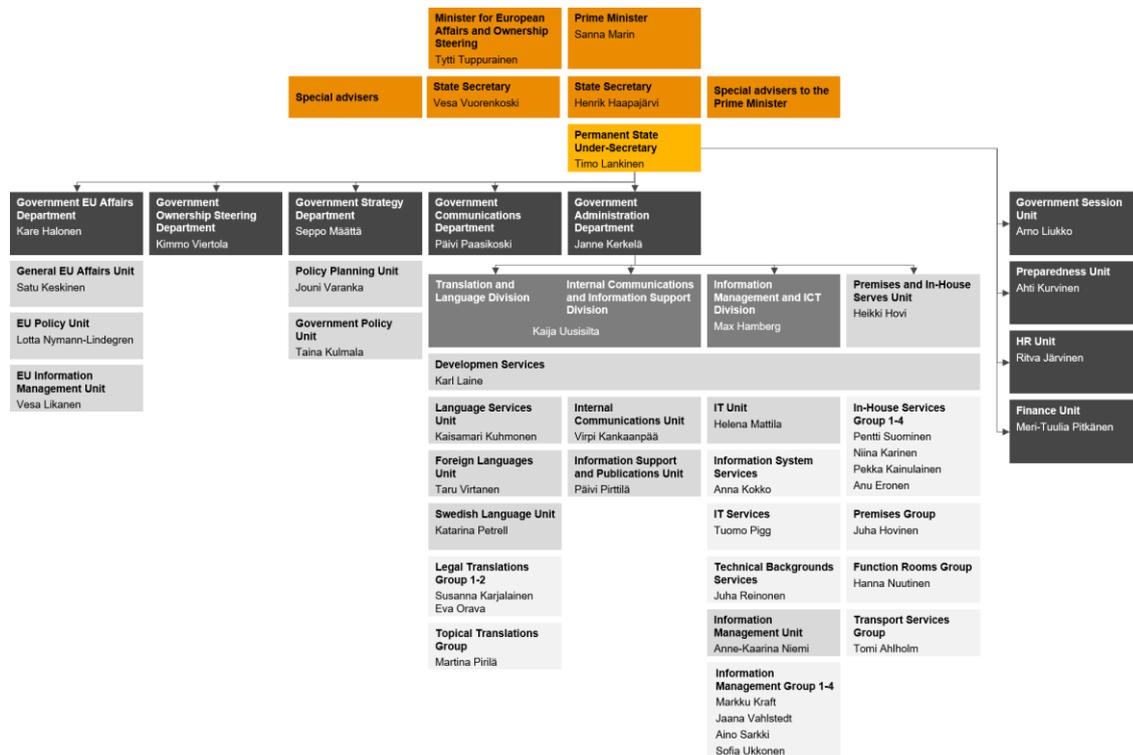
### 2.2.1 Government office of the country

In Finland, monitoring of the implementation of the Finnish Government's political programme and contribution to the day-to-day management of Government functions is under the responsibility of the **Prime Minister's Office (PMO)**, one of the twelve ministries of Finland. Working closely with the Ministry of Finance, PMO carries out whole-of-government co-ordination functions.<sup>1</sup> It also oversees planning of social policy legislation that does not fall within the competence of any other ministry.

Considering all scope of responsibility, Finnish PMO corresponds to the standard **Centre of Government** definition accepted in international practice. PMO coordinates Cabinet meetings, as well as overall policy across government and ensures strategic planning for the whole government, which are the most common responsibilities usually delegated to the Centre of Government according to the OECD Survey on Organisation and Functions of the Centre of Government.<sup>2</sup>

The PMO is led by the Prime Minister (currently Sanna Marin)<sup>3</sup> and directed by the State Secretary (whose term of office is the same as of the Prime Minister). The Permanent State Under-Secretary assist to perform the State Secretary's duties managing and monitoring the work of the PMO's departments, units and officials. In total, the PMO employs over 600 people. Organisation structure of the PMO is shown below.

Figure 6. Organisation structure of the PMO<sup>4</sup>



<sup>1</sup> OECD, "OECD Public Governance Reviews: Finland," accessed April 28, 2022, <https://www.oecd.org/gov/key-findings-finland.pdf>

<sup>2</sup> Dr. Rolf Alter, "The Center Of Government in Finland: how to prepare better (for) the future," Sitra, published March 2019, <https://www.sitra.fi/app/uploads/2019/04/center-of-governmentreport.pdf>

<sup>3</sup> Prime Minister's Office (Government of Finland), "Ministry – Duties and objectives," accessed April 28, 2022, <https://vnk.fi/en/ministry>

<sup>4</sup> Prime Minister's Office (Government of Finland), "Organisation structure of the Prime Minister's Office," published January 2022, <https://vnk.fi/documents/10616/1457236/Organisation+structure+of+the+Prime+Minister's+Office,+Finland,+1+January+2022.pdf/16dfc6b2-8639-5418-e55a-f344bf604864/Organisation+structure+of+the+Prime+Minister's+Office,+Finland,+1+January+2022.pdf?t=1643269977517>

The PMO consists of five departments and four separate units, whose description is attached in Annex 5.3. **The Government Strategy Department is most closely associated with the government decision-making process**, as its duties include, inter alia:

- preparation of the Government's action plan,
- reporting on Government policy,
- serving as secretariat for the Government's strategy sessions and meetings of permanent secretaries.<sup>5</sup>

Specifically, **Government Session Unit** is deeply involved in the government decision making process. It is in charge of providing expert services related to decision-making by the Government and the President; making practical arrangements for decision-making at presidential sessions and government plenary sessions, and taking minutes of these sessions; guiding and developing the decision-making procedures; publishing the Government Annual Report etc.

In addition, Government Session Unit assists the **Council of Regulatory Impact Analysis** (Council), an independent regulatory oversight body responsible for issuing statements on government proposals and their regulatory impact assessments (RIAs), as well as on the impact assessments of other draft legislation (e.g. including significant decree-level provisions or EU legislation) if needed. The PMO established the Council in 2016, and in 2019 the government appointed the second term of the Council till April 2022.<sup>6</sup>

It should be noted that the Council evaluates assessments that have been already conducted and provides recommendations on how to improve them, rather than carrying out impact assessments itself. The Council assesses proposals only after the consultation round but before they are submitted to the Government for adoption. There are about 30-40 statements issued each year, but they constitute only around 10% of the total submitted government proposals.<sup>7</sup> More information about the RIA is provided in the next sub-chapter.

## 2.2.2 Government decision making process

The number of ministries in Finland has remained unchanged for years and decades. There are 12 ministries: PMO, Ministry of Foreign Affairs, Ministry of Justice, Ministry of the Interior, Ministry of Defense, Ministry of Finance, Ministry of Education, Ministry of Agriculture and Forestry, Ministry of Transport and Communications, Ministry of Trade and Industry, Ministry of Social Affairs and Health, Ministry of Labor and Ministry of the Environment. Each of them is involved in the decision preparing and implementing process, whereas decisions themselves are being made in joint sessions composed of the President of the Republic and the ministries, including PMO.<sup>8</sup>

Historically, the decision-making process in the Finnish Government could be characterised as collegial, but after administrative reforms carried out in the 1990s the ministries have received more autonomy within their own policy domains. For example, the Ministry of Finance is no longer carrying out detailed ex ante control of the budgetary process, personnel policies and resource management – now every ministry and agency implements budgetary appropriations itself and afterwards reports to the Ministry of Finance. Nevertheless, the Ministry of Finance still draws up the policy framework for overall economic and financial policies.<sup>9</sup>

---

<sup>5</sup> Prime Minister's Office (Government of Finland), "Ministry: Management and organisation," accessed April 28, 2022, <https://vnk.fi/en/management-and-organisation>

<sup>6</sup> Bertelsmann Stiftung, "SGI 2017: Finland: Executive Capacity", accessed April 28, 2022, [https://www.sgi-network.org/2017/Finland/Executive\\_Capacity](https://www.sgi-network.org/2017/Finland/Executive_Capacity)

<sup>7</sup> Prime Minister's Office (Government of Finland), "Services to the government: Finnish Council of Regulatory Impact Analysis," accessed April 28, <https://vnk.fi/en/council-of-regulatory-impact-analysis>,

Prime Minister's Office (Government of Finland), "Finnish Council of Regulatory Impact Analysis, Annual review 2020," Helsinki, 2021, [https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163417/VNK\\_2021\\_8.pdf?sequence=1&isAllowed=y](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163417/VNK_2021_8.pdf?sequence=1&isAllowed=y)

<sup>8</sup> Seppo Tiihonen, "6: Finland," World Bank, accessed April 28, 2022, <http://www1.worldbank.org/publicsector/civilservice/rsFinland.pdf>

<sup>9</sup> Seppo Tiihonen, "6: Finland," World Bank, accessed April 28, 2022, <http://www1.worldbank.org/publicsector/civilservice/rsFinland.pdf>

At the same time, if previously each of the ministries had its own state research unit heavily depending on their in-house budget and capacity, then **in 2013** the PMO passed a resolution **to reform state research institutes** and re-allocate funding. As a result, funding for the state ministry research units was redistributed to establish:

1. The Strategic Research Council	2. The Government Policy Analysis Unit at PMO
<p>Led by PMO and the Ministry of Education and Council, it focuses on long-term and multi-disciplinary research areas across multiple ministries. The PMO develops a <b>yearly plan for realising strategic research objectives</b> and calls for the systemic use of research projects and data for decision-making, steering and operating procedures. Research projects themselves are managed by the Strategic Research Council at the Academy of Finland.<sup>10</sup></p>	<p>Managed by Government Strategic Department of PMO, it focuses on short-term strategic research decisions that serve the Cabinet and ministries and also <b>trains researchers on how to communicate their study results</b> to make them accessible to politicians and decision makers.<sup>11</sup></p>

These reforms together with other initiatives contribute to the **whole-of-government evidence-based policymaking**, a positive feature of the government decision-making process in Finland. In order to support regulatory quality, Finnish government has worked on various solutions, for instance, it introduced **the Impact Assessment Guidelines** for legislative proposals.<sup>12</sup> Using RIA guidelines, law drafters in ministries can describe economic, social, administrative and environmental benefits and justify the costs of the proposed legislation.<sup>13</sup> Guidelines recommend the use of statistical data, questionnaire data, expert analyses and when necessary, qualitative methods.<sup>14</sup> RIAs do not replace policy decision-making, but rather support the decision making process by providing valuable empirical data.

RIA is formally required and conducted for all primary laws and for some subordinate regulations. Although RIAs are used systematically, this approach is only used for ex ante evaluation and there is no such strategy for ex post analysis.<sup>15</sup> However, the government-wide instructions for drafting regulatory acts were renewed in 2019 and reforms on RIA and ex post evaluations are underway. Thus, a renewal of the RIA Guidelines was initiated in 2020, and new guidance is expected to be available this year.<sup>16</sup>

<sup>10</sup> Bertelsmann Stiftung, "SGI 2017: Finland: Executive Capacity," accessed April 28, 2022, [https://www.sgi-network.org/2017/Finland/Executive\\_Capacity](https://www.sgi-network.org/2017/Finland/Executive_Capacity)

<sup>11</sup> KSI, "Finland: Government Policy Analysis Unit. Poliitiikka-analyysiyksikkö," accessed April 28, 2022, [https://www.ksi-indonesia.org/file\\_upload/Evidence-Policy-Unit-in-Finland-the-Government-Po-14Jun2017163532.pdf](https://www.ksi-indonesia.org/file_upload/Evidence-Policy-Unit-in-Finland-the-Government-Po-14Jun2017163532.pdf)

<sup>12</sup> On 1 November 2007, the Government adopted the RIA guidelines upon presentation by the Ministry of Justice. The Guidelines supersede the earlier Government resolutions on economic impact assessment (1998), environmental impact assessment (1998), business impact assessment (1999) and regional development impact assessment (2003).

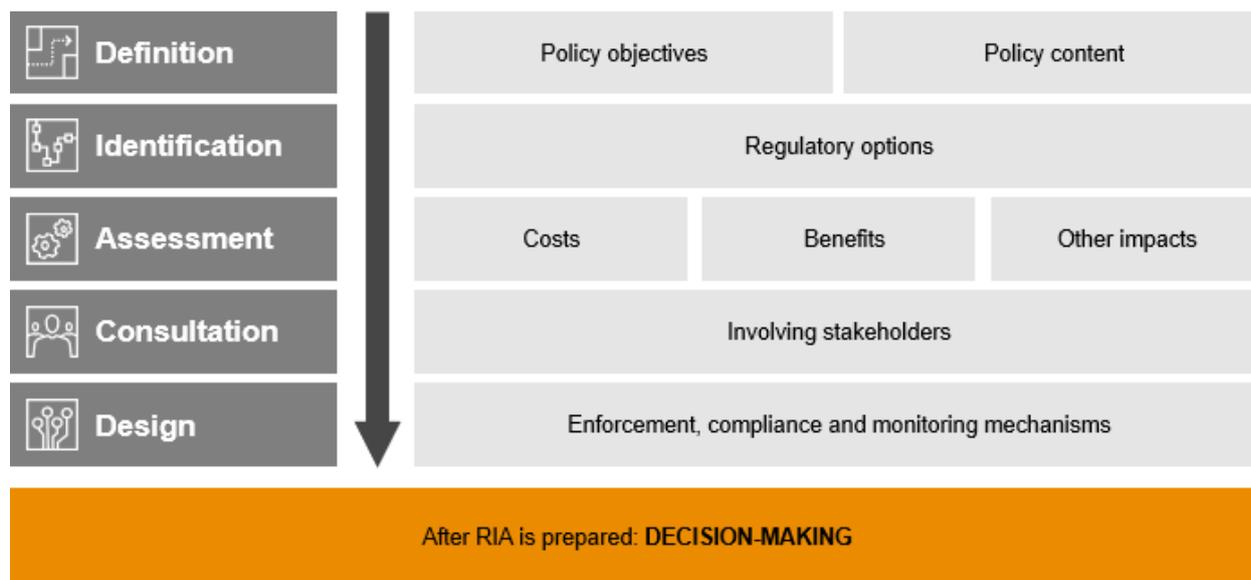
<sup>13</sup> OECD, "OECD Public Governance Reviews: Finland," accessed April 28, 2022, <https://www.oecd.org/gov/key-findings-finland.pdf>

<sup>14</sup> Bertelsmann Stiftung, "SGI 2017: Finland: Executive Capacity," accessed April 28, 2022, [https://www.sgi-network.org/2017/Finland/Executive\\_Capacity](https://www.sgi-network.org/2017/Finland/Executive_Capacity)

<sup>15</sup> Bertelsmann Stiftung, "SGI 2017: Finland: Executive Capacity," accessed April 28, 2022, [https://www.sgi-network.org/2017/Finland/Executive\\_Capacity](https://www.sgi-network.org/2017/Finland/Executive_Capacity)

<sup>16</sup> OECD, "OECD Regulatory Policy Outlook 2021: Finland," OECD iLibrary, accessed April 28, 2022, <https://www.oecd-ilibrary.org/sites/4d760ced-en/index.html?itemId=/content/component/4d760ced-en>

Figure 7. The process of RIA<sup>17</sup>



The Impact Assessment Guidelines state that the RIAs should cover the economic impact of proposed regulation, its administrative impact, environmental impact and social impact.

Table 2. Aspects and extent of impact assessment<sup>18</sup>

	Economic impact	Impact on public administration	Environmental impact	Social impact
<b>Nature and types of impact</b>	<ul style="list-style-type: none"> <li>Impact on households</li> <li>Impact on businesses</li> <li>Impact on public finances</li> <li>Impact on the economy and assessment of overall economic impact</li> </ul>	<ul style="list-style-type: none"> <li>Impact on inter-authority relationships</li> <li>Impact on duties and procedures</li> <li>Impact on organisation and personnel</li> <li>Administrative tasks and costs</li> </ul>	<ul style="list-style-type: none"> <li>Impact on human health, living conditions and comfort</li> <li>Impact on the soil, waters, air, climate, vegetation, animals and natural diversity</li> <li>Impact on community structure, the built environment, landscapes, cityscapes</li> <li>and cultural heritage</li> <li>Impact on the use of natural resources</li> </ul>	<ul style="list-style-type: none"> <li>Impact on the status of citizens and on the functioning of democratic society</li> <li>Impact on social affairs and health</li> <li>Impact on equality, children and gender equality</li> <li>Impact on employment and the working life</li> <li>Impact on crime prevention and security</li> <li>Impact on regional development</li> <li>Impact on the Information Society</li> </ul>
<b>Methods</b>	<ul style="list-style-type: none"> <li>Quantitative assessment in money terms</li> <li>Qualitative assessment of the emergence of the impact, the factors influencing the impact,</li> </ul>	Recommendations are not provided.	Qualitative assessment	<ul style="list-style-type: none"> <li>Cost-benefit analyses of the various regulatory options</li> <li>Qualitative assessment</li> </ul>

<sup>17</sup> OECD, "OECD Public Governance Reviews. Finland: Working Together to Sustain Success," OECD (2010): 111-127, <https://books.google.lv/books?id=X6cVRM2XTWcC&pg=PA111&pg=PA111&dq=horizontal+foresight&source=bl&ots=O6DvfTggW o&sig=ACfU3U0JRPu8h0npFiDhf4n3uQwoVDEZsg&hl=en&sa=X&ved=2ahUKEwiT3pTW9o33AhWQYcAKHSNNB1IQ6AF6BAgrEAM#v=onepage&q=horizontal%20foresight&f=false>

<sup>18</sup> Ministry Of Justice (Government of Finland), "Impact Assessment in Legislative Draftings Guidelines," Ministry Of Justice no.4, (2008), [https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/76118/omju\\_2008\\_4.pdf?sequence=1&isAllowed=y](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/76118/omju_2008_4.pdf?sequence=1&isAllowed=y)

	Economic impact	Impact on public administration	Environmental impact	Social impact
	chains of causation, direction and magnitude <ul style="list-style-type: none"> <li>• Methods of economic analysis (such as numerical equilibrium models, econometric models, cost-benefit analysis)</li> </ul>			
<b>Information sources</b>	<ul style="list-style-type: none"> <li>• Benchmarking data (numbers of outputs and customers)</li> <li>• Adequate statistical data (e.g. Statistics Finland business register, "Toimiala Online" service of the Ministry for Employment and the Economy and the Ministry of the Interior)</li> <li>• Questionnaire data (business panels, direct online questionnaires, interviews of businesses)</li> <li>• Expert data (e.g. accounting and budgetary information produced by the State Treasury; statistics on the Finnish national accounts; expert advice of the Government Institute for Economic Research)</li> </ul>	Recommendations are not provided.	Expert analyses, checklists and matrices drawing from existing data, such as statistics and longitudinal environmental studies	<ul style="list-style-type: none"> <li>• Case-law of the European Human Rights Court and other judicial decisions relevant to Finland</li> <li>• Materials published by the National Research and Development Centre for Welfare and Health</li> <li>• Handbook on the assessment of impact on children</li> <li>• Opinion of children</li> <li>• Statistical data</li> <li>• Quarterly market reviews</li> </ul>

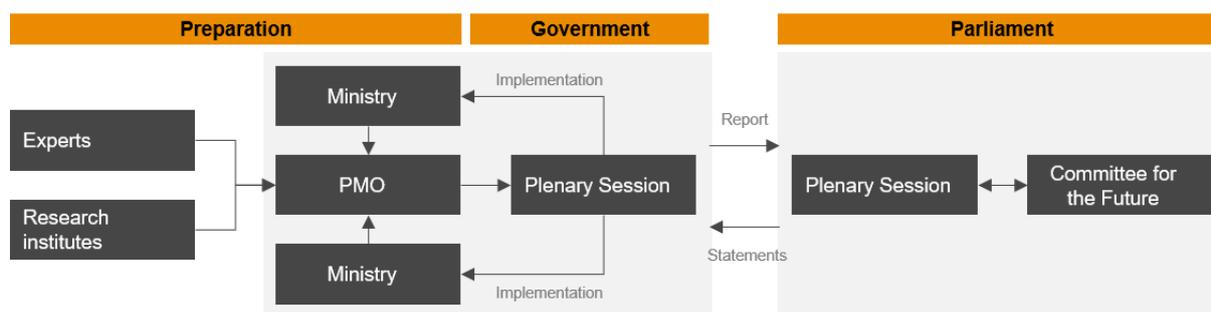
Moreover, Finnish government carries out **foresight activity** (in form of the horizontal foresight report and the Ministries' Future Reviews coordinated by the PMO) to ensure strategic foresight in informing the development of the government strategies<sup>19</sup>. It should be noted that Finland has one of the most highly developed strategic foresight systems with involvement of different institutions holding formal and informal roles in fostering anticipatory governance.<sup>20</sup>

**Horizontal government foresight** reporting provides dialogue between Parliament and the government on long-term objectives and choices.

<sup>19</sup> OECD, "OECD Public Governance Reviews: Finland," accessed April 28, 2022, <https://www.oecd.org/gov/key-findings-finland.pdf>

<sup>20</sup> OECD, "Towards an anticipatory innovation governance model in Finland," accessed April 28, 2022, <https://oecd-opsi.org/wp-content/uploads/2021/09/Anticipatory-Innovation-Governance-in-Finland.pdf>

Figure 8. Horizontal government foresight reporting procedures<sup>21</sup>



### Preparation

PMO is responsible for the horizontal government foresight reporting and prepares the report in collaboration with individual ministries. The development of the report is directed by the Steering Group and project manager in close co-operation with such organisations as ministries, universities and research centres and using data and information (e.g. statistics, surveys, studies) from individual researchers and research institutes.

It should be noted that Finnish government uses scholarly advice (e.g. by consulting scientific experts on committee report drafts or organising temporary working groups, ad hoc committees and permanent councils) to gain insights for government decision-making.<sup>22</sup>

### Government

The subject of evaluation is selected by Prime Minister in consultation with Cabinet ministers in the plenary sessions. Plenary sessions are used to report on progress to the Prime Minister and other Cabinet members, to define the subject matter in more detail, as well as to review initial findings and positions.

### Parliament

The foresight report is then presented to Parliament as government decision outlining the government's aims and administrative actions. The Committee for the Future assesses policies outlined in the horizontal foresight reports and evaluates the social impact.

**Vertical foresight reporting** (or **future reviews** carried out at the end of each electoral term) evaluate projections and social situations and study issues regarding political decision-making. Their aim is to promote public debate and provide information to support political parties and future governments in their government formation talks. The future reviews are prepared by public officials under the leadership of each ministry's permanent secretary. PMO has been coordinated the development of ministries' reviews since 2014, so they can be completed and published at a joint event at the same time. Starting from 2022, the reviews are published as a single publication (not 12 separate ones).<sup>23</sup>

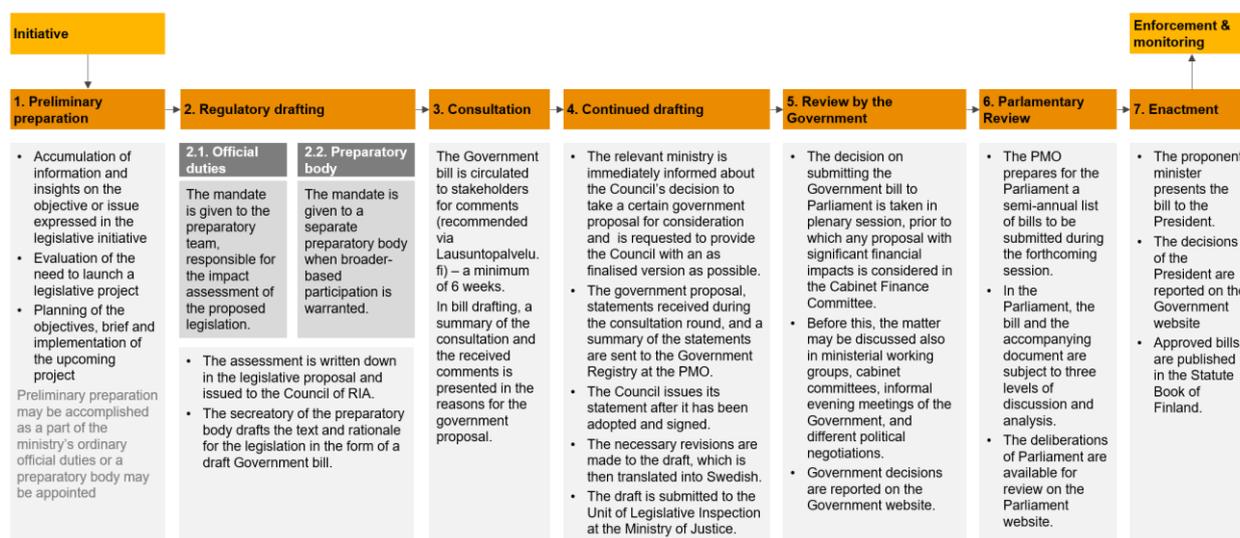
The overall **legislative drafting process** in Finland is shown in Figure 9 below. Legislative bills are drafted by the Government and prepared by the ministries. The organisation of law drafting is also accomplished in a different way in different ministries, e.g. by law drafting departments or civil servants whose task is drafting. Projects of wider general significance are prepared in Committees with representatives from the various organs of government, political parties and other interest groups.

<sup>21</sup> OECD, "OECD Public Governance Reviews. Finland: Working Together to Sustain Success," OECD (2010): 111-127, <https://books.google.lv/books?id=X6cVRM2XTWcC&pg=PA111&lpg=PA111&dq=horizontal+foresight&source=bl&ots=O6DvfTggW o&sig=ACfU3U0JRPu8h0npFiDhf4n3uQwoVDEZsg&hl=en&sa=X&ved=2ahUKewiT3pTW9o33AhWQYcAKHSNNB1IQ6AF6BAgrE AM#v=onepage&q=horizontal%20foresight&f=false>

<sup>22</sup> Bertelsmann Stiftung, "SGI 2017: Finland: Executive Capacity," accessed April 28, 2022, [https://www.sgi-network.org/2017/Finland/Executive\\_Capacity](https://www.sgi-network.org/2017/Finland/Executive_Capacity)

<sup>23</sup> Government Communications Department (Government of Finland), "Ministries' work on joint futures review gets underway", published November 09, 2021, <https://valtioneuvosto.fi/en/-/10616/ministries-work-on-joint-futures-review-gets-underway>

Figure 9. Legislative drafting process in Finland<sup>24</sup>



In 2006 the Ministry of Justice issued Bill drafting instructions (HELO) covering the specifics of structure and style of a proposal for a decision to be made by the Parliament, description of the stages of a legislative project and of project scheduling. It is mandatory to comply with the rules described in this document, unless there is a special reason for not doing that.<sup>25</sup>

### 2.2.3 Innovative solutions used to support/drive the decision-making process

#### Access to data

In Finland, demand for the data from base registers is high. Many significant administrative and judicial decisions are taken on the basis of information derived from the base registers.<sup>26</sup> There are four statistical authorities that are entitled to collect data for statistical purposes<sup>27</sup>:



Thanks to various population and business registers, Finland possesses a comprehensive base for data analytics and public-policy evaluation.<sup>29</sup> These includes such registers as<sup>30</sup>:

- Population Information Register containing basic information about both Finnish and foreign citizens living in Finland, buildings, construction projects, residences and real estate;
- Register of Associations, containing information on registered associations, their rules and details of persons entitled to sign for associations;

<sup>24</sup> Finlex, "Legislative Drafting Process Guide," accessed April 28, 2022, <http://lainvalmistelu.finlex.fi/en/aloite/#esittely>

<sup>25</sup> Ministry Of Justice (Government of Finland), "Bill drafting instructions," Ministry Of Justice no.3, (2006), [https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/75937/omju\\_2006\\_3\\_bill\\_drafting\\_instructions.pdf](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/75937/omju_2006_3_bill_drafting_instructions.pdf)

<sup>26</sup> Ministry for Foreign Affairs of Finland (Government of Finland), "E-democracy, E-governance and public sector reform revisited: Experiences of The Main Themes of the PADOS project in Finland and Estonia," accessed April 28, 2022, [https://um.fi/documents/35732/48132/e\\_democracy\\_\\_e\\_governance\\_and\\_public\\_sector\\_reform\\_revisited\\_\\_experiences\\_of](https://um.fi/documents/35732/48132/e_democracy__e_governance_and_public_sector_reform_revisited__experiences_of)

<sup>27</sup> OECD, "OECD Public Governance Reviews: Finland," accessed April 28, 2022, <https://www.oecd.org/gov/key-findings-finland.pdf>

<sup>28</sup> Collects and provides statistics for approximately ¾ of Finland's official statistical needs.

<sup>29</sup> OECD, "OECD Public Governance Reviews: Finland", accessed April 28, 2022, <https://www.oecd.org/gov/key-findings-finland.pdf>

<sup>30</sup> European Commission, "Digital Government Factsheet 2019 Finland," accessed April 28, 2022, [https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital\\_Government\\_Factsheets\\_Finland\\_2019.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital_Government_Factsheets_Finland_2019.pdf)

- Trade Register containing information on traders and businesses;
- Register for Foundations containing information on foundations, their by-laws and financial statements;
- Land Information System containing data related to property, mortgages and registrations of title to property;
- Business Information System containing basic information about limited liability companies, housing companies, co-operatives, insurance and public limited companies;
- Topographic Data System containing aerial photographs and scanning data;
- Digiroad containing the geometry of the Finnish road and street network;
- Incomes register containing information on individuals' wages, pensions and benefits;
- Register of housing company shared containing electronic holding and mortgaging certificates.

The government actively collaborates with think-tanks and research institutions to develop policy advice.<sup>31</sup> There are many world-class universities, research facilities, technical and private sector organisations, whose knowledge and research could be used to develop policy and programmes.<sup>32</sup>

### Open digital platforms

The Finnish citizens are invited to comment on draft proposals online.<sup>33</sup> When developing government's policy proposals, key stakeholders are welcome to elaborate their views on open digital platform (**lausuntopalvelu.fi**) launched in 2015. Lausuntopalvelu.fi service was created to collect official requests for statements online, that always has to be done before the government sends a bill to parliament. Requests for statements may be submitted by ministries, local governments and government agencies. Statements may be given by NGOs, private individuals, companies and public sector organisations. Via the service, public officials can send requests for comments, monitor the stage of the consultation process and compile summaries of comments by utilising the online tool provided for this purpose.<sup>34</sup>

One more e-tool which can be used in consultation, the law-drafting process, and policy preparation is **Otakantaa.fi**. The website allows both public officials and members of the general public to start discussions on various topics. These include anything, from drafting new laws to mapping needs and ideas for new policies. Stakeholder engagement is possible through comments and is facilitated by tools like polls and discussions. Input that has been gathered on the website can be used by public officials to inform further policy-making. The service has been highlighted as an example of good practice by the OECD.<sup>35</sup>

There are similar initiatives carried out on ministry level. For instance, the Ministry of Justice has introduced a **participation platform (demokratia.fi)**, that gathers together data from various democracy-related websites and news and encourages stakeholder dialogue and citizen participation to support policy preparing and planning.<sup>36</sup>

<sup>31</sup> OECD, "OECD Public Governance Reviews: Finland," accessed April 28, 2022, <https://www.oecd.org/gov/key-findings-finland.pdf>

<sup>32</sup> OECD, "OECD Public Governance Reviews. Finland: Working Together to Sustain Success," OECD (2010): 111-127, <https://books.google.lv/books?id=X6cVRM2XTWcC&pg=PA111&lpg=PA111&dq=horizontal+foresight&source=bl&ots=O6DvfTggW o&sig=ACfU3U0JRPu8h0npFiDhf4n3uQwoVDEZsg&hl=en&sa=X&ved=2ahUKewiT3pTW9o33AhWQYcAKHSNNB1IQ6AF6BAgrEAM#v=onepage&q=horizontal%20foresight&f=false>

<sup>33</sup> Bertelsmann Stiftung, "SGI 2017: Finland: Executive Capacity," accessed April 28, 2022, [https://www.sgi-network.org/2017/Finland/Executive\\_Capacity](https://www.sgi-network.org/2017/Finland/Executive_Capacity)

<sup>34</sup> Government of Finland (Government of Finland), "E-democracy, E-governance and public sector reform revisited: Experiences of The Main Themes of the PADOS project in Finland and Estonia," accessed April 28, 2022, [https://um.fi/documents/35732/48132/e\\_democracy\\_\\_e\\_governance\\_and\\_public\\_sector\\_reform\\_revisited\\_\\_experiences\\_of](https://um.fi/documents/35732/48132/e_democracy__e_governance_and_public_sector_reform_revisited__experiences_of)

<sup>35</sup> Ministry for Foreign Affairs of Finland (Government of Finland), "E-democracy, E-governance and public sector reform revisited: Experiences of The Main Themes of the PADOS project in Finland and Estonia," accessed April 28, 2022, [https://um.fi/documents/35732/48132/e\\_democracy\\_\\_e\\_governance\\_and\\_public\\_sector\\_reform\\_revisited\\_\\_experiences\\_of](https://um.fi/documents/35732/48132/e_democracy__e_governance_and_public_sector_reform_revisited__experiences_of)

<sup>36</sup> Directorate-General for Employment, Social Affairs and Inclusion (European Commission), "Public administration characteristics and performance in EU28 : Finland," Hammerschmid, G.(editor), Thijs, N.(editor), Publications Office, published 2018, <https://op.europa.eu/en/publication-detail/-/publication/621cfe5-9611-11e8-8bc1-01aa75ed71a1/language-en>

One more stakeholder engagement platform is the **Governments Register for Projects and Initiatives**, which was revamped in 2017 (valtioneuvosto.fi/hankkeet).<sup>37</sup> The Register outlines current ministerial project and programmes and contains information about law drafting, the reduction of regulatory burdens and assessment of the impact of legislation on businesses, working life and employment.<sup>38</sup>

Moreover, Finland is going to be the first Nordic country to establish an electronic **transparency register** in order to improve the transparency of decision-making. With such a register the legislative drafting process will involve experts and stakeholders who are specialised in the subject matter. It is planned to launch the register in 2023, when organisations and individuals engaged in lobbying activities could register in a register and will be obliged to report on their lobbying activities twice a year. Having access to information on lobbying activities, Finnish government would be able to better evaluate the decision-making process and the underlying interests.<sup>39</sup>

### Digitalization for interministerial coordination

Information management and ICT division of the Government administration department within the PMO works on developing various ICT technology to support internal administrative processes. For instance, the government plenary session adopted an **electronic tool for session materials** in 2015. Now ministers follow the progress of decision-making at plenary sessions on tablet computers (see Figure 10).<sup>40</sup>

Figure 10. Tablet computers<sup>41</sup>



Table 3. Recent public governance reform projects<sup>42</sup>

Reform	Year	Description
--------	------	-------------

<sup>37</sup> OECD, "OECD Regulatory Policy Outlook 2021: Finland," OECD iLibrary, accessed April 28, 2022, <https://www.oecd-ilibrary.org/sites/4d760ced-en/index.html?itemId=/content/component/4d760ced-en>

<sup>38</sup> Ministry of Economic Affairs and Employment of Finland (Government of Finland), "Projects and legislation," accessed April 28, 2022, <https://tem.fi/en/projects-and-legislation>

<sup>39</sup> Tuomo Yli-Huttula, "Finland will be the first Nordic country to establish a statutory transparency register," Finance Finland, published January 31, 2022, <https://www.finanssiala.fi/en/columns/finland-will-be-the-first-nordic-country-to-establish-a-statutory-transparency-register/>

<sup>40</sup> Bertelsmann Stiftung, "SGI 2017: Finland: Executive Capacity," accessed April 28, 2022, [https://www.sgi-network.org/2017/Finland/Executive\\_Capacity](https://www.sgi-network.org/2017/Finland/Executive_Capacity)

<sup>41</sup> Flickr, "Valtioneuvoston yleisistunnossa otettiin 15. tammikuuta käyttöön sähköinen istutokäsittely. Jatkossa ministerit," accessed April 28, 2022, <https://www.flickr.com/photos/finnishgovernment/sets/72157647981264153/with/15663203234/>

<sup>42</sup> OECD, "Towards an anticipatory innovation governance model in Finland," accessed April 28, 2022, <https://oecd-opsi.org/wp-content/uploads/2021/09/Anticipatory-Innovation-Governance-in-Finland.pdf>

Reform	Year	Description
KOKKA Project for Monitoring the Government Programme	2010-2011	The aim of the project was to transform the centre of government steering functions to improve the translation, implementation and monitoring of the Government Programme. The recommendations of the project draw attention to need for <b>evidence-informed decision making</b> .
Governments for the Future	2012-2014	The aim of the project launched by the PMO and the Ministry of Finance and in pco-operation with Sitra (the fund for innovation operating directly under the Finnish Parliament) was to find new solutions to execute key state administration reforms. Inter alia, the project draws attention to need to <b>increase the use of systems approaches</b> in the Government of Finland.
OHRA project	2014-2015	The aim of the project was to develop recommendations for the next parliamentary term in order to improve the impact and effectiveness of government actions. The recommendations draw attention to need for <b>evidence base in policy making</b> and <b>gap in the feedback loop within the policy-making system</b> from policy implementation to policy design.
Experimental Finland project	2016-2019	The aim of the project designed by the PMO and implemented together with the OECD Observatory of Public Sector Innovation and the European Commission was to analyse the reasons within the policy making and steering system that may prevent an innovation approach and to develop anticipatory innovation capacity or structures within the Government of Finland, intertwining the two topical issues of experimenting and <b>evidence-based policy</b> .
Pakuri project	2019	The aim of the project led by the PMO and the Ministry of Finance, and supported by a parliamentary group, was to develop recommendations for <b>better coordination of policymaking processes</b> and strengthened joint government communications.

### Dataroom pilot project

In Finland, a 3-year pilot project called Dataroom is initiated to develop the public sector ability to give fast data-based decision-support and to act as a catalyst and an evangelist within the state sector on the benefits of data-analysis and digitalisation in supporting decision-making. Dataroom initiators emphasise that there is a lot of data-material that is under-used or not used at all, and the dialogue between the decision-maker and data expert is a pivotal issue. State Institute for Economic Research (VATT) is the responsible actor and Statistics Finland together with Helsinki Graduate School of Economics are the central collaborators. Dataroom pilots on January 1<sup>st</sup> 2023 and will continue until December 31<sup>st</sup> 2025.

Dataroom is based on the Helsinki Graduate School of Economics “situation room” established to help in the information need during the COVID-19 pandemic. The situation room showed in an undisputable way that it is possible to support economic decision-making with data at a fast pace. As the pandemic subsided the situation room was run down, and a multi-governmental group was set up to consider and plan how to continue from the situation room. The group decided to propose that State Institute for Economic Research (VATT) would be nominated as the home organisation for the Dataroom-pilot and that a steering group composing of delegates from across the ministries be set up to assist it.

Dataroom makes fast investigations to support fast decision-making by utilising person- and company-level data. Dataroom includes several analysis groups, for example “trade group” and “energy consumption group.” Within the existing groups, answers to simple questions can be answered in few hours, when data is already available and prepared for the analysis beforehand. Dataroom enables doing more complex investigations in days or weeks and the development of data-based decision-making in the state sector, by providing relevant information, developing necessary processes, and facilitating collaboration. The utilisers of the Dataroom are ministries and government offices, municipal and private sector.

Data-security and handling of data are important aspects of Dataroom operations. Dataroom will use data through the audited and secure system provided by Statistics Finland with remote access. The access to the data is through specific permits and no person-sensitive information can be removed from the remote access system. Reports do not include materials, from which it is possible to specify individual actors. Reports published are public, but the data is not.

## 2.2.4 Data governance

Finland performs above the OECD average in data accessibility. The need for open government data is underlined in such policy planning documents as the current **Government Programme**<sup>43</sup> (issued in December 2019), which sets openness of public information, including open data, APIs and open source software, as key goals of the administration; and in the Finnish **2019-2023 OGP National Action Plan**<sup>44</sup>, which has several open data commitments, such as ensuring a good user experience, high data quality and ethical guidelines on AI.

There are two main authorities in charge of governance of open government data in Finland<sup>45</sup>:

1. The Finnish Ministry of Finance is in charge of the Public Sector ICT Policy, covering open data. It has several ongoing projects and programmes implementing the objectives regarding openness in the Government Programme.
2. The Digital and Population Data Services Agency<sup>46</sup>, established in 2020, is responsible for developing and maintaining **the national open data portal avoindata.fi**. Any user can add their own organisations and datasets to the portal, thus promoting the crowdsourcing of data and ideas and following OECD best practices. At the end of April 2022, there are 2074 datasets available.<sup>47</sup>

The mentioned open data portal has several aims, one of which is strengthen knowledge-based decision-making. With public information resources being opened up, the government is shifting to utilising data and strengthening information skills as part of the digitalisation of administration and services.<sup>48</sup>

There are two legal and regulatory instruments ensuring the availability of public sector information in digital and data formats, as well as mandating it to be available in machine-readable formats via APIs: the 1999 Act on the Openness of Government Activities and the 2019 Act on Public Administration Information Management.<sup>49</sup>

In addition, the Ministry of Finance maintains and makes publicly available a regularly maintained dataset – **the information management map of public administration**. The map explains how information management is organised in public administration. Its aim is to provide a general overview of what the key information pools in public sector are, what information is maintained and how the information is utilised (incl. the disclosure and accessibility). According to the Act on Information Management in Public Administration, other ministries must ensure the up-to-datedness of the contents of the information management map, and are encouraged to use the map when preparing legislation on information pools.

The first version of the map, published in January 2022, contains information on:

- the shared information pools in public administration: name, purpose, information content and the authorities responsible for maintenance;
- the disclosure of information from shared information pools: what information is disclosed, to whom and for what purpose.

Users can use different views to explore the content of the map (see in the Figure 11 below).

---

<sup>43</sup> Government of Finland, "Programme of Prime Minister Sanna Marin's Government 10 December 2019: Inclusive and competent Finland – a socially, economically and ecologically sustainable society," Publications of the Finnish Government no. 33 (2019), [http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161935/VN\\_2019\\_33.pdf?sequence=1&isAllowed=y](http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161935/VN_2019_33.pdf?sequence=1&isAllowed=y)

<sup>44</sup> Open Government: Finland, "Open government National Action Plan for 2019-2023: Finland," published September 24, 2019, [https://www.opengovpartnership.org/wp-content/uploads/2019/09/Finland\\_Action-Plan\\_2019-2023\\_EN.pdf](https://www.opengovpartnership.org/wp-content/uploads/2019/09/Finland_Action-Plan_2019-2023_EN.pdf)

<sup>45</sup> OECD, "OECD OURdata Index: 2019. Finland," accessed April 28, 2022, <https://www.oecd.org/gov/digital-government/ourdata-index-finland.pdf>

<sup>46</sup> Digital and Population Data Services Agency, accessed April 28, 2022, <https://dvv.fi/en/individuals>

<sup>47</sup> Avoindata, "Open data," accessed April 28, 2022, <https://www.avoindata.fi/en>

<sup>48</sup> Ministry of Finance (Government of Finland), "Open data: Opening up access to data for innovative use of information," accessed April 28, 2022, <https://vm.fi/en/opendata>

<sup>49</sup> OECD, "OECD OURdata Index: 2019. Finland," accessed April 28, 2022, <https://www.oecd.org/gov/digital-government/ourdata-index-finland.pdf>

Figure 11. Information management map of public administration



The data quality framework project is part of the project on opening up and using public data coordinated by the Ministry of Finance. Statistics Finland is in charge of this project aimed to improve the usability of public data resources, as well as to extend the use of data for decision-making in society and by enterprises. It is planned that a set of quality criteria for data opened up by government entities and publicly owned companies will be created and introduced by the end of 2022.<sup>50</sup>

<sup>50</sup> Statistics Finland, "Planning, monitoring and development: Data quality framework project increases use of data," accessed April 28, 2022, [https://www.stat.fi/org/tilastokeskus/vuosiohjelma\\_en/data-quality-framework-project-increases-use-of-data.html](https://www.stat.fi/org/tilastokeskus/vuosiohjelma_en/data-quality-framework-project-increases-use-of-data.html)

## 2.3 The Netherlands

### 2.3.1 Government office of the country

The Netherlands is a parliamentary constitutional monarchy with a head of government – the prime minister, and a head of state – the monarch. The **monarch's** role is limited to the formation of the government. The basis of the structure of the Dutch government is the **Council of Ministers** that includes the Prime Minister (currently Mark Rutte<sup>51</sup>), the Deputy Prime Minister (currently Sigrid Kaag<sup>52</sup>) and the Cabinet ministers. While most **ministers** head government ministries, the government of the Netherlands may appoint ministers without portfolios<sup>53</sup>. There are all together 12 Dutch ministries (whose description is attached in Annex 5.4) – each of them has at least one minister, although many have two.<sup>54</sup> Some ministries have also **state secretaries**, who may support ministers – they are allowed to stand in for ministers in case of their absence, however, do not have the voting power; they also attend Cabinet meetings if the agenda includes a topic for which they are responsible.<sup>55</sup> Ministers are accountable to parliament, both collectively and individually. Although this also applies to state secretaries, ministers bear final responsibility.

**The Dutch Parliament**, known as the *Staten-Generaal der Nederlanden* or the States-General of the Netherlands, consists of two houses: the Eerste Kamer (Senate, 75 seats) and the Tweede Kamer (House of Representatives, 125 seats).<sup>56</sup>

In the Netherlands, both the government and parliament have legislative powers. There is, however, still a dualist system as ministers and state secretaries may not be members of parliament. The only exception to this rule is following elections, during the formation of a new government.<sup>57</sup>

There are three other levels of government in the Netherlands, governing the provinces, municipalities and the water:<sup>58</sup>

Dutch provincial governments	Dutch municipalities	Water boards
Each of the Netherlands' 12 provinces has its own regional government, with executive power in the hands of the Monarch's Commissioner (or governor) and the College of the <i>Gedeputeerde Staten</i> . The Monarch's Commissioner is appointed by Cabinet and is responsible to the province's States Provincial (provincial legislature). The legislature is directly elected by the province.	As of January 1, 2022, there are 345 <i>gemeenten</i> (municipalities) in the Netherlands, also known as local governments. The Dutch municipalities are governed by the College of Mayor and Aldermen, and each municipality's mayor is appointed by Cabinet. The Aldermen are appointed by the Municipal Council, which is elected by the municipality.	Water boards are responsible for the country's polders, dikes, and other waterworks. These boards are also directly elected and have the power to tax their residents.

<sup>51</sup> Government of the Netherlands. Members of the government – Mark Rutte. Available: <https://www.government.nl/government/members-of-cabinet/mark-rutte>

<sup>52</sup> Government of the Netherlands. Members of the government – Sigrid Kaag. Available: <https://www.government.nl/government/members-of-cabinet/sigrid-kaag>

<sup>53</sup> A minister without portfolio is a government minister who does not head a particular ministry. He or she works for a ministry headed by a different minister.

<sup>54</sup> IamExpat Media B.V. The Dutch government. Available: <https://www.iamexpat.nl/expat-info/the-netherlands/dutch-government>

<sup>55</sup> Government of the Netherlands. About the government. Available: <https://www.government.nl/government/about-the-government>

<sup>56</sup> IamExpat Media B.V. The Dutch government. Available: <https://www.iamexpat.nl/expat-info/the-netherlands/dutch-government>

<sup>57</sup> Government of the Netherlands. Relationship between government and parliament. Available: <https://www.government.nl/topics/parliament/relationship-between-government-and-parliament>

<sup>58</sup> IamExpat Media B.V. The Dutch government. Available: <https://www.iamexpat.nl/expat-info/the-netherlands/dutch-government>

The government's task is to make laws in collaboration with the two chambers of parliament. The government also signs international treaties, lays down foreign and defence policies and appoints mayors, provincial governors, and members of the judiciary. Of particular importance is the Prime Minister's role as he or she not only chairs the Council of Ministers, but also is responsible for the coordination of the government policy. He or she also is the government's public spokesman, represents the Netherlands in the European Council and overall plays a major role in foreign policy.<sup>59</sup> In addition, the Prime Minister is also the minister of General Affairs.

### 2.3.2 Government decision making process

In the decentralised unitary state, which the Netherlands is today, different tasks are carried out at different levels whereby daily practice involves the **three government levels making work agreements**. These might cover such tasks as construction of roads, railway lines, houses or general protection and enhancement of the living and working environment. These work agreements ensure municipalities and provinces possess a degree of autonomy. Due to their unique position close to the population, the municipalities over time received an increasingly central position in creating and implementing policy. This is a distinct consequence and prominent feature of the operation of a decentralised unitary state: listen to and then act on what is happening in the heart of society, also when it regards national issues, from the construction of a new railway line to care for the elderly.<sup>60</sup>

In relation to creating and implementing policy, this is directly connected with drafting Acts. Usually, an Act of Parliament is a response to a problem that demands government action. All sorts of people and organisations may be involved in placing an item on the political agenda: political parties, ordinary citizens, interest groups, the media, experts (inside or outside the public sector) and, of course, the members of government. The decisions and directives of the European Union are another factor, with ever greater consequences for national legislation.<sup>61</sup>

**The House of Representatives and the Dutch government are responsible for making or amending existing laws** following the changes in society. The House of Representatives regularly receives warning signs of all kinds of problems in society: from social organisations, from citizens or via the media. If the Cabinet, like the House of Representatives, is of the opinion that new legislation is needed, civil servants are instructed to draft a bill. **The civil servants draft the text of a bill and an accompanying explanatory memorandum**. They explain in detail why the new law is deemed necessary and what its contents are. The minister has the final responsibility for these draft texts.<sup>62</sup>

Before drafting a bill, ministry officials often look into what forms of expertise, and what opinions, about the issue at hand are present in the Netherlands. Public or private research institutes might be commissioned to conduct investigations. Permanent or temporary advisory committees might be asked for advice or might submit recommendations on their own initiative. Interest groups might be consulted (in some cases via permanent consultative bodies) and broad public debate could take place. This kind of debate is sometimes conducted on the Internet. Other ministries, too, often have to be consulted, through one of the permanent interministerial committees that serve as 'antechambers' to the Cabinet. After this preparatory stage, the minister responsible for the bill deliberates with his fellow ministers. The assembly of all the ministers, the Council of Ministers, decides on the introduction of the bill. Any disagreements that could not be resolved by officials then have to be worked out. This process begins in one of the Cabinet's permanent subcommittees and then continues at a full Cabinet meeting. However, the Cabinet must ask advice from the Council of State first. **The Council of State checks whether the bill is well-drafted and not unconstitutional**. The advice from the Council of State is followed by a response from the minister and by an amendment of the text, if necessary. After this, the proposal for the new law is

---

<sup>59</sup> Netherlands Institute for Multiparty Democracy. The Dutch Political System in a Nutshell. Available: <https://nimd.org/wp-content/uploads/2015/02/Dutch-Political-System.pdf>

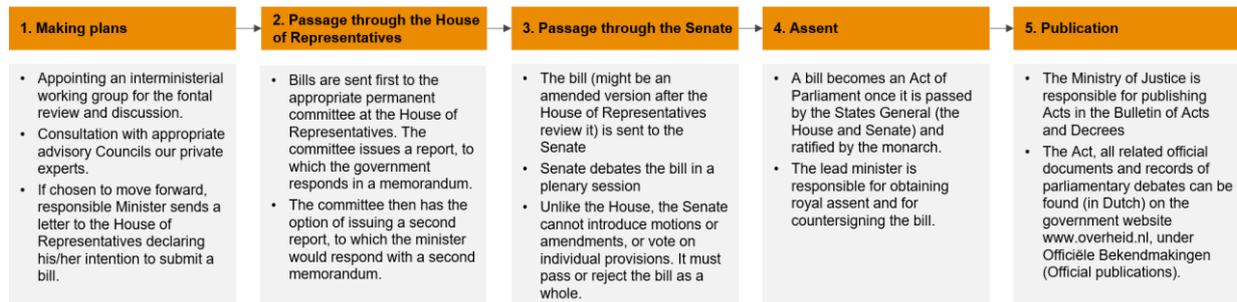
<sup>60</sup> Netherlands Institute for Multiparty Democracy. The Dutch Political System in a Nutshell. Available: <https://nimd.org/wp-content/uploads/2015/02/Dutch-Political-System.pdf>

<sup>61</sup> Overheid. How an Act becomes law. Available: <https://www.overheid.nl/english/about-the-dutch-government/what-government-does/how-an-act-becomes-law#EN001>

<sup>62</sup> House of Representatives. How a bill becomes law. Available: <https://www.houseofrepresentatives.nl/how-parliament-works/how-bill-becomes-law>

introduced in the House of Representatives by "Royal Message". An Act goes through several, often overlapping, stages before becoming law (see Figure 12).<sup>63</sup>

Figure 12. Decision making process on an Act<sup>64</sup>



Thus, similarly to Finland, **horizontal foresight activities** are carried out in Netherlands. Horizon scanning methods are utilised to improve organisations' capabilities to deal with an uncertain and complex future by systematically gathering a broad range of information and evidence about upcoming issues, trends, advancements, ideas, and events in its political, economic, social, technological, and ecological environment. Horizon scanning expands awareness of emerging issues and situations, and supports strategic thinking, by presenting a range of possible future scenarios. It should be noted that the Netherlands were at the forefront of horizon scanning, initiating its Horizon Scan Project in early 2005.

The first Netherlands Horizon Scan was carried out by a specially established project under the communal responsibility of the Consultative Committee of Sector Councils for research and development (known as the COS). The aim of the COS Horizon Scan was to help decision makers and agenda setters, researchers and developers think about future societal problems, threats, and opportunities. In February 2008, the tasks of the COS were transferred to the Knowledge Directorate of the Netherlands Ministry of Education, Culture and Science. The Knowledge Directorate functions as a provisional facility for the continuation of the national scan and the European Horizon scanning activities.<sup>65</sup>

<sup>63</sup> Overheid. How an Act becomes law. Available: <https://www.overheid.nl/english/about-the-dutch-government/what-government-does/how-an-act-becomes-law#EN001>; House of Representatives. How a bill becomes law. Available: <https://www.houseofrepresentatives.nl/how-parliament-works/how-bill-becomes-law>

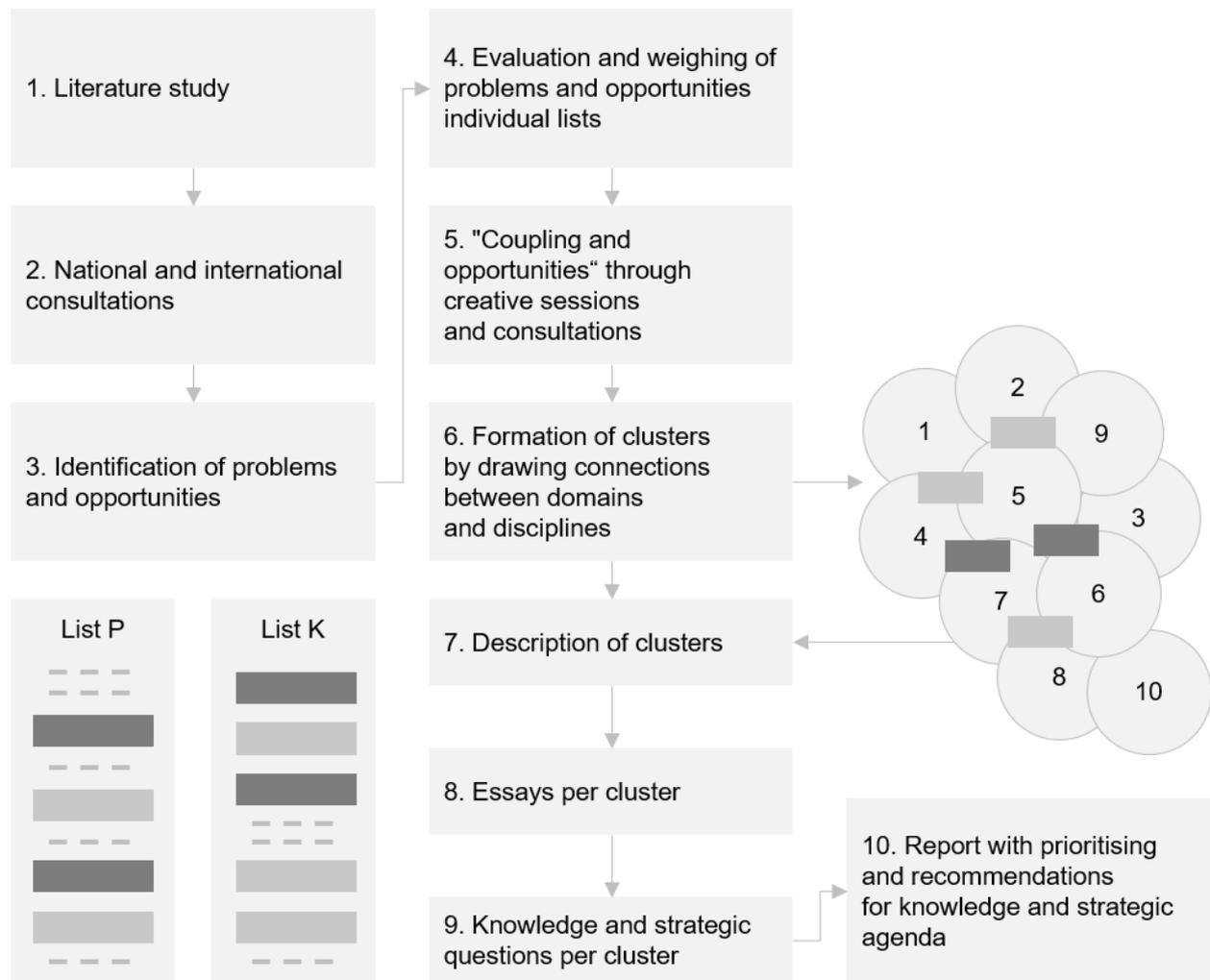
<sup>64</sup> Overheid. How an Act becomes law. Available: <https://www.overheid.nl/english/about-the-dutch-government/what-government-does/how-an-act-becomes-law#EN001>

<sup>65</sup> OECD, "OECD Public Governance Reviews. Finland: Working Together to Sustain Success," OECD (2010): 111-127,

<https://books.google.lv/books?id=X6cVRM2XTWcC&pg=PA111&lpg=PA111&dq=horizontal+foresight&source=bl&ots=O6DvfTggWo&sig=ACfU3U0JRPu8h0npFiDhf4n3uQwoVDEZsg&hl=en&sa=X&ved=2ahUKEwiT3pTW9o33AhWQYcAKHSNNB1IQ6AF6BAgrEAM#v=onepage&q=horizontal%20foresight&f=false>

The Horizon Scan Project included four steps, or stages (see Figure 13):

Figure 13. Schematic presentation of the Dutch Horizon Scan process (example of the first Horizon Scan Project in 2007)<sup>66</sup>



### Phase 1 (steps 1-3)

During the first phase, a list of threats and opportunities was constructed based on an extended study of general future literature. This list was separated into threats and opportunities and tested before a broadly constituted panel of specialists. The selection criteria for problems and threats were the chance of damage; seriousness and size of the (possible) damage (lives, quality of life, economic damage, etc.); and responsibility/who owns the problem (to what extent it is a public issue). The selection criteria for opportunities in the horizon scan were the size of possible consequences (saving lives, improvement of welfare, benefit to nature, etc.); and the probability that these positive consequences might actually occur.

<sup>66</sup> OECD, "OECD Public Governance Reviews. Finland: Working Together to Sustain Success," OECD (2010): 111-127,

<https://books.google.lv/books?id=X6cVRM2XTWcC&pg=PA111&lpg=PA111&dq=horizontal+foresight&source=bl&ots=O6DvfTggWo&sig=ACfU3U0JRPu8h0npFiDhf4n3uQwoVDEZsg&hl=en&sa=X&ved=2ahUKEwiT3pTW9o33AhWQYcAKHSNNB1IQ6AF6BAgrEAM#v=onepage&q=horizontal%20foresight&f=false>

## Phase 2 (step 4)

The list of some 150 opportunities and threats was made available to sounding board members and to the public via the Internet. Visitors to the website were asked to give their view of the importance of the listed developments and the probability of their occurrence.

## Phase 3 (steps 5-7)

Opportunities and threats were linked to one another and ordered into trans domain and trans-disciplinary clusters to reveal the coherence between expected developments with potentially major social consequences. The results of this first clustering attempt were reviewed by the sounding board group for refining. Ten clusters were established to search for other problems and opportunities that strongly interacted with the original 10 clusters.

## Phase 4 (steps 8-10)

Cluster decisions were presented to several scientists, journalists, and politicians, who were asked to present their views in essays about possible future developments. The clusters and essays provided building blocks for the recommendation of strategic policy and knowledge questions and spurred insight into new relevant (knowledge) questions based on broad future analyses; and gaps in knowledge in relation to knowledge questions for research and strategic questions for policy making. Based on this exercise, a final report was drafted to kick-off an intense dialogue within and across government on the results and their implications.<sup>67</sup>

### 2.3.3 Innovative solutions used to support/drive the decision-making process

The Netherlands has much to gain from a fast-paced switch to digital. The basic digital infrastructure (Generic Digital Infrastructure, GDI) is considered vital infrastructure for the Netherlands. It has come into existence for several reasons. Initially, it was about a better quality of service, cost saving and fewer administrative burdens for residents and entrepreneurs. Complexity reduction was also a driving force. The facilities in the current GDI are located in four clusters. Every cluster has its own function<sup>68</sup>:

- 1) Digital identification and authentication (e.g. eHerkenning (eRecognition)<sup>69</sup> and DigiD<sup>70</sup>);
- 2) Data (basic registrations and associated system facilities);
- 3) Interconnectivity (e.g. networks and coupling standards);
- 4) Service provision (e.g. the digital *ondernemersplein* (entrepreneurial plaza)<sup>71</sup> and the *Berichtenbox* (message box)<sup>72</sup>).

The GDI is ultimately not an isolated entity and forms part of a more comprehensive digital, national, European, and even global infrastructure, consisting of an ecosystem of technologies, protocols, hardware, software and content. There are several ways to make this ecosystem more transparent, but

---

<sup>67</sup> OECD, "OECD Public Governance Reviews. Finland: Working Together to Sustain Success," OECD (2010): 111-127,

<https://books.google.lv/books?id=X6cVRM2XTWcC&pg=PA111&lpg=PA111&dq=horizontal+foresight&source=bl&ots=O6DvfTggWo&sig=ACfU3U0JRPu8h0npFiDhf4n3uQwoVDEZsg&hl=en&sa=X&ved=2ahUKEwiT3pTW9o33AhWQYcAKHSNNB1IQ6AF6BAgrEAM#v=onepage&q=horizontal%20foresight&f=false>

<sup>68</sup> Information Society and Government Study Group. Make it Happen! Available: <https://www.digitaleoverheid.nl/wp-content/uploads/sites/8/2017/09/Make-it-Happen.pdf>

<sup>69</sup> The public-private login system based on the standardised login that organisations can use to make their services securely accessible online.

<sup>70</sup> Digital identity system used in dealings with Dutch government bodies.

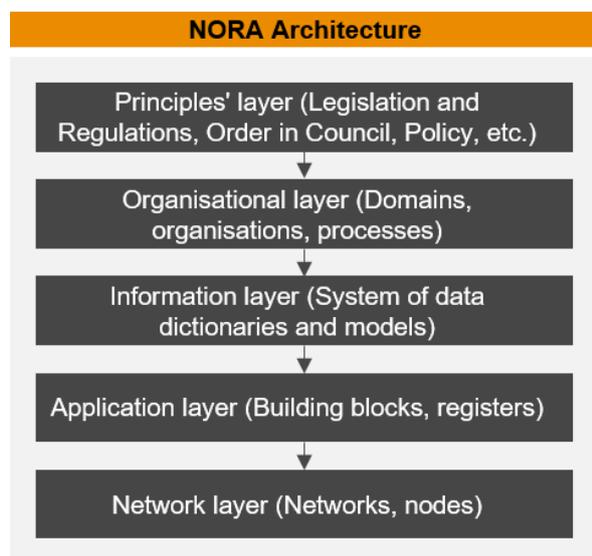
<sup>71</sup> National information hub for entrepreneurs in the Netherlands containing all information of the (semi)-government that an entrepreneur needs to establish a business or do business in the Netherlands.

<sup>72</sup> Personal mailbox for receiving digital post from the government.

the most common way is to distinguish between different layers, for which different layouts can be used (e.g. WRR 2015: 37; GCIG 2016: 5).<sup>73</sup>

Within the government, the Dutch Government Reference Architecture (NORA) is often used, which distinguishes five different layers at the national level (see Figure 14). The GDI includes all layers in this model, excluding physical facilities such as hardware and cables.<sup>74</sup>

Figure 14. Dutch Government Reference Architecture Layer Model<sup>75</sup>



#### Access to data<sup>76</sup>

The smart exchange of data from the system of base registries enables the government to operate more efficiently and to improve its service. From 2000 and onwards, work has been done to realise the current operational system of 10 base registries, each anchored in legislation according to 12 agreed common principles. Already in 2003, principles were agreed to the selection of base registers, and the requirements for the legislation for each base register. The systems of base registries comprise the following registers:

- Personal records base register (BRP) – base register for personal data within the base registers system. The Dutch government uses the data recorded in the BRP. Amongst other things, these are: name, date and place of birth, address, and familial relations. The Municipal personal records register (GBA) and the register non-residents (RNI) together constitute the personal records base register (BRP). Responsible ministry: Ministry of the Interior and Kingdom Relations.
- Trade Register (HR) contains all businesses, legal entities, and other economic actors. All government bodies will be required to make use of this register. For instance, a municipality will have to consult the Trade Register when searching for a company's details. Responsible ministry: Ministry of Economic Affairs and Climate Policy.
- Base register for Addresses and Buildings (BAG) contains municipal basic data of all addresses and buildings inside the municipality. Responsible ministry: Ministry of the Interior and Kingdom Relations.

<sup>73</sup> Information Society and Government Study Group. Make it Happen! Available: <https://www.digitaleoverheid.nl/wp-content/uploads/sites/8/2017/09/Make-it-Happen.pdf>

<sup>74</sup> Information Society and Government Study Group. Make it Happen! Available: <https://www.digitaleoverheid.nl/wp-content/uploads/sites/8/2017/09/Make-it-Happen.pdf>

<sup>75</sup> NORA. Vijflaagsmodel. Available: <https://www.noraonline.nl/wiki/Vijflaagsmodel>

<sup>76</sup> European Commission. Digital Public Administration factsheet 2020 The Netherlands. Available: [https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital\\_Public\\_Administration\\_Factsheets\\_Netherlands\\_vFINAL.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital_Public_Administration_Factsheets_Netherlands_vFINAL.pdf)

- Base registers Topography (BRT) – a unique source of information for all mid- and small-scale topographic maps (scale of 1:10.000 or smaller scale maps) with which government authorities can easily exchange geographic information. It is kept by the Land Registry. Responsible ministry: Ministry of the Interior and Kingdom Relations.
- Base register large scale topography (BGT) – a digital map of the Netherlands, which records buildings, roads, waterways, land, and railway lines in a uniform way. Responsible ministry: Ministry of the Interior and Kingdom Relations.
- Base register Cadastral Records (BRK) consists of the cadastral registration and the cadastral map (*Kadastrale Kaart*). Responsible ministry: Ministry of the Interior and Kingdom Relations.
- Base register Vehicle records (BRV) lists data of vehicles, vehicle registration documents, and persons to whom the vehicle registration document was assigned. Responsible Ministry: Ministry of Infrastructure and Water Management.
- Base register Income (BRI) contains the total income or taxable annual income of everybody who files an income tax return. Government organisations use the BRI to determine supplements, subsidies, or benefits. Responsible ministry: Ministry of Finance.
- Base register Property Valuation (WOZ) consists of several data, needed to relate this value both to an immovable property and to a stakeholder. Responsible ministry: Ministry of Finance.
- Base register subsoil (BRO) contains all public data on the Dutch subsoil. Responsible ministry: Ministry of the Interior and Kingdom Relations.

### Digital platforms<sup>77</sup>

**Overheid.nl** was introduced in the first eGovernment action plan of 1999. It contributed to transparency in public administration. Overheid.nl is the main portal at the subnational level as it connects local and regional websites together. It serves as the central access point for all information relating to government organisations. The portal provides information about services for persons and businesses, divided by themes, life events and location. It provides consolidated national legislation, official publications, local and regional legislation and offers internet consultation services. The portal links to EU legislation, the open data portal and the common website of the ministries, with documents, publications and news items on all domains. The portal also offers access in the form of a personalised environment. In 2019, there were a total of 37 million visits to the portal.

**Ondernemersplein** is the point of contact for businesses and entrepreneurs in areas such as legislation, subsidies and permits. The information provided covers all levels of government. It is made available through various channels (websites, email, telephone and chat) and focuses on the issues and needs of the business community. In 2017, a new website was launched to assist English speaking entrepreneurs in the Netherlands and abroad. In 2018, the portal Ondernemersplein was reorganised better respond to users' needs.

Through **Digipoort**, the electronic post office for businesses, government organisations and businesses can quickly and efficiently exchange structured digital information. Every business that is connected can exchange digital information with the government. Digipoort complies to the highest criteria for trust, availability, and security. Messaging over Digipoort is secured by a government certificate. This is how the authenticity of messages is secured and public bodies and businesses know where messages originate from and are delivered. The certificate also secures that messages cannot be altered. Digipoort is a messaging hub which supports large messages. Standards like eDelivery are being used to make sure the message will arrive as intended. In 2018, about 21 thousand (inter)national businesses and intermediaries used Digipoort to send 192.7 million messages to 158 Dutch public bodies. Thanks to Digipoort, the administrative burdens for businesses and governments decreased significantly. Digipoort is used in a variety of environments, like finance, logistics, transport, social security, etc.

---

<sup>77</sup> European Commission. Digital Public Administration factsheet 2020 The Netherlands. Available: [https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital\\_Public\\_Administration\\_Factsheets\\_Netherlands\\_vFINAL.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital_Public_Administration_Factsheets_Netherlands_vFINAL.pdf)

The **open data portal** provides an **overview of all available datasets** held by governmental organisations in the Netherlands. The portal and registry are initiated and governed by the Dutch Ministry of the Interior and Kingdom Relations. The Netherlands Publication Office (KOOP) is responsible for site maintenance and development. Over 150 Dutch government organisations list their available data in **about 15 000 datasets**. The data portal **is updated daily** by harvesting processes, API updates and individual users. The DCAT standard for data exchange is used and has been extended for use in the Netherlands (DCAT-AP-NL).

**Diginetwerk** connects (existing) physical government organisation networks to one another. This results in a single closed virtual government network. Within that network, governments can securely exchange data. Diginetwerk provides connectivity and increases efficiency, because one organisation requires just one connection to be able to exchange data with various government organisations.

### Automation in the public sector and rule-based systems

The use of **automated decision-making (ADM)** in the Netherlands came to international attention in late 2019 and early 2020. Both ADM and artificial intelligence (AI) are discussed as part of the larger Dutch strategy on digitization. The Dutch government has published a national Strategic Action Plan for AI, with actions including major government investment in research on the legal aspects of decision-making algorithms, and the transparency, explainability, and supervision of algorithms.

Over the past few years in the Netherlands, the use of online and automated dispute resolution systems as an alternative to costly and time-consuming court cases has increased. Organizations, such as the E-Court and *Stichting Digitrage* (Digitrage Foundation), are the most well-known examples. Legally, these dispute resolution mechanisms are a kind of automated arbitration, where both parties contractually agree to use one specific automated method to resolve a dispute. At the E-Court, the entire process is conducted online. The parties upload the required documents, and an ADM system creates a verdict. A (human) arbiter then reviews that verdict and signs it. Especially in sectors with a high turnover of small court cases, these fast and cheap alternatives are attractive.<sup>78</sup>

The Dutch developments in computerized, semi-intelligent assistance for legislators have been significant. Information technology is used throughout the legislative process in the Netherlands. In the 1990's experiments into computer based legislative drafting were conducted, resulting in the Dutch Leda system, a system developed by the Dutch Ministry of Justice, which offers support for drafting by offering easy and context sensitive access to the Dutch drafting directives. In addition, one more drafting-support system (OBW) has been developed by the Dutch Ministry of Education and Science. Both systems support users by pre-structuring the drafting process and offering knowledge-based access to relevant information. They do this by using knowledge-based drafting-templates (LEDA) combined with hypertext-based information access and document-assembly (LEDA and OBW).<sup>79</sup>

Government agencies may use **rule-based systems** to support (mass) legal decision-making. Dutch legal practice has also seen a clear increase of the use of rule-based systems. Rule-based systems are only able to fully automate decisions in situations where data are objective and available and choices are binary: above or under a certain age, income, speed, etc. Because many administrative decisions are of a binary nature, the Dutch government uses rule-based systems extensively to support or automate the execution of legislation.<sup>80</sup>

---

<sup>78</sup> Algorithm Watch. Automating society report 2020. Available: <https://automatingsociety.algorithmwatch.org/report2020/netherlands/>

<sup>79</sup> Voermans, W. J. M. (1993). Leda: a semi-intelligent legislative drafting support system.

<sup>80</sup> Timmer, I., & Rietveld, R. (2019). Rule-based systems for decision support and decision-making in Dutch legal practice. A brief overview of applications and implications. *Droit et societe*, (3), 517-534.

### 2.3.4 Data governance

The Government of the Netherlands processes personal data to carry out its public tasks based on principles set out in the GDPR.<sup>81</sup> The most important laws regarding open government and transparency are the following:

- The Government Information (Public Access) Act ('Wet openbaarheid van bestuur' / Wob);
- The Reuse of Government Information Act ('Wet hergebruik overheidsinformatie' / Who);
- The private member's bill/proposal on the Open Government Act (proposal is under discussion in the Senate) ('Initiatiefwetsvoorstel Wet open overheid (voorstel ligt ter behandeling in de Eerste Kamer)' / Woo).

In 2019, the Ministry of the Interior and Kingdom Relations published the Government Data Agenda ('Data Agenda Overheid') on behalf of the cabinet. This agenda follows the National Open Data Agenda. The Government Data Agenda is an intergovernmental agenda that sets out what the government will do to better deal with personal data, open data, and big data. The agenda describes how data can better benefit policy-making and the solution of social issues by the government.<sup>82</sup>

Government organisations in the Netherlands make various data sets available as open data. These data sets are made freely available for use. **In the Netherlands, it is compulsory for public administration to share and reuse data from the base registries**, and some of the base registries are open to the public. Six base registries, the BAG, BRK, BRT, BGT, and BRV are in part or completely available as open data. But beside these base registries, there are no strong compliance mechanisms.<sup>83</sup>

---

<sup>81</sup> Government of the Netherlands. Privacy declaration. Available: <https://www.government.nl/privacy>

<sup>82</sup> Overheid.nl. Open data policy. Available: <https://data.overheid.nl/en/ondersteuning/open-data/beleid>

<sup>83</sup> Deloitte. D01. Study on public sector data strategies, policies and governance. Available: [https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/2020-06/DIGIT%20-%20D01%20-%20Study%20on%20public%20sector%20data%20strategies%2C%20policies%20and%20governance%20Task%201%20Workshop%20Version\\_0.pdf](https://joinup.ec.europa.eu/sites/default/files/custom-page/attachment/2020-06/DIGIT%20-%20D01%20-%20Study%20on%20public%20sector%20data%20strategies%2C%20policies%20and%20governance%20Task%201%20Workshop%20Version_0.pdf)

## 2.4 Ireland

### 2.4.1 Government office of the country

In Ireland, the government is formed by a group of **senior ministers** responsible for the executive power of the state. Meaning that the government is responsible for giving effect to laws. Executive power includes the power to execute or carry out laws with the assistance of the civil service, police force and military. The government decides major questions of policy and carries out several different and important functions. The head of the government is the **Taoiseach** (currently Micheál Martin<sup>84</sup>), who acts as a communication between the government and the **President**. The Taoiseach nominates a deputy as the **Tánaiste** (currently Leo Varadkar<sup>85</sup>) and a cabinet of ministers to take responsibility for the departments of government. The Taoiseach is nominated by the **Dáil** – one of the **Houses of the Oireachtas**. The upper house of the Oireachtas is the **Seanad** that is the senate of Ireland. The Oireachtas consists of these two houses (Dáil and Seanad) and the president that together form the **National Parliament**.<sup>86</sup>

Each minister of the government is responsible for running and managing the department they have been allocated. As well as the cabinet minister assigned to the department, the Taoiseach may also appoint junior ministers, or ministers of state to help run departments. Each department employs many civil servants, including a **Secretary General**, who remain in their positions regardless of changes in the government. These officials advise and assist the minister in the running of the department. Ministers participate in cabinet meetings, where decisions about government policy and proposals for new government bills are decided. Ministers also have a power to make Statutory Instruments which are also known as delegated or secondary legislation. However, they are if they are authorized to make them only if permitted to do so in primary legislation.<sup>87</sup>

As the leading public figure in the government, the Taoiseach acts as a spokesperson for the government on major policy issues and chairs cabinet meetings. They take an interest in the affairs of all the Departments of State and make sure that the plans of departments are co-ordinated. They make sure that cabinet decisions are carried out by the ministers and that the ministers fully understand the implications of different government policies. The Taoiseach also has a major role to play in our relations with foreign countries. They represent Ireland abroad and regularly meets with the other heads of state of the European Union to help shape European policy. The Taoiseach is Ireland's representative on the European Council. The Taoiseach and all the ministers are answerable to Dáil.<sup>88</sup>

There are all together 18 government departments, whose description is attached in Annex 5.5. The **Department of the Taoiseach** (see Figure 15) is **most closely associated with the government decision-making process**.

---

<sup>84</sup> Ireland Government. Government Ministers. Available: <https://www.gov.ie/en/organisation-information/9b5048-government-ministers/>

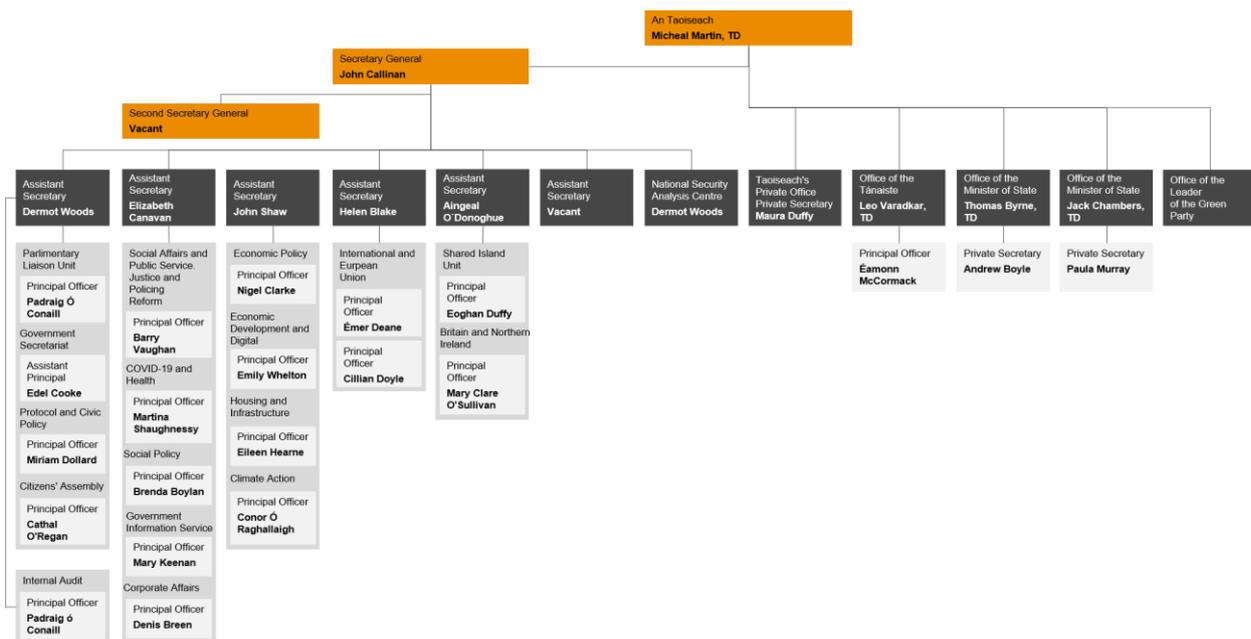
<sup>85</sup> Ireland Government. Government Ministers. Available: <https://www.gov.ie/en/organisation-information/9b5048-government-ministers/>

<sup>86</sup> Citizens Information. Government of Ireland. Available: [https://www.citizensinformation.ie/en/government\\_in\\_ireland/national\\_government/the\\_irish\\_government/the\\_government\\_introduction.html#114f8d](https://www.citizensinformation.ie/en/government_in_ireland/national_government/the_irish_government/the_government_introduction.html#114f8d)

<sup>87</sup> Citizens Information. Ministers and Government departments. Available: [https://www.citizensinformation.ie/en/government\\_in\\_ireland/national\\_government/the\\_irish\\_government/departments\\_of\\_state.html](https://www.citizensinformation.ie/en/government_in_ireland/national_government/the_irish_government/departments_of_state.html)

<sup>88</sup> Citizens Information. Government of Ireland. Available: [https://www.citizensinformation.ie/en/government\\_in\\_ireland/national\\_government/the\\_irish\\_government/the\\_government\\_introduction.html#114f8d](https://www.citizensinformation.ie/en/government_in_ireland/national_government/the_irish_government/the_government_introduction.html#114f8d)

Figure 15. Organisation structure of the Department of the Taoiseach<sup>89</sup>



In department of the Taoiseach Strategy Statement 2021-2023 their purpose is stated as helping the Taoiseach and the government to ensure a sustainable economy and a successful society, pursuing Ireland’s interests abroad, implementing the government’s programme and to building a better future for Ireland and all its citizens. The core activities of this department include delivering the executive functions of the Taoiseach and the overall government.<sup>90</sup>

## 2.4.2 Government decision making process

Key decisions are mostly made during **weekly cabinet meetings** but are then adjusted (but rarely overturned) by the Oireachtas. Decisions are normally **preceded by a Memorandum** to the government by a minister and his or her department proposing a particular course of action which is then agreed and which all members of the government then support, under the principle of collective responsibility.<sup>91</sup> Government approval is required for significant new or revised policies or strategies. The fact that a specific decision or function may be expressly vested in a Minister or Minister of State does not serve to set aside collective responsibility.<sup>92</sup>

Despite the importance of cabinet government and the Oireachtas, many decisions and proposals emerge from government departments. Each department will have an agenda of business which it will build up over time, developing its own momentum of reform and desirable improvements in public administration, most of which will be uncontroversial.<sup>93</sup> **Proposals requiring a government decision should be the subject of a Memorandum from the responsible Minister.** At the government, Ministers normally make a short oral presentation, based on the memorandum. Good practice in the presentation of issues to the government requires that there be clarity about the decision required, that key information be highlighted and that all the considerations involved are dealt with in a clear and concise manner. Matters that require an urgent decision may be accepted at the Taoiseach’s discretion

<sup>89</sup> Ireland Government. About the Department of the Taoiseach. Available: <https://www.gov.ie/en/organisation-information/0f55fb-work-of-the-department-of-the-taoiseach/>

<sup>90</sup> Department of the Taoiseach. Strategy Statement 2021-2023 for Department of the Taoiseach. Available: <https://www.gov.ie/en/organisation-information/46ece-department-of-the-taoiseach-strategy-statement-2021-2023/>

<sup>91</sup> Ferris, T. Reflections on the public policy process in Ireland. Administration, vol. 62, no. 4.

<sup>92</sup> Department of the Taoiseach. Cabinet Handbook. Available: <https://assets.gov.ie/6813/2a580791a7b24decb97a550539a0faff.pdf>

<sup>93</sup> Ferris, T. Reflections on the public policy process in Ireland. Administration, vol. 62, no. 4.

for an imminent government meeting, without the usual notice, if accompanied by a prescribed request for urgency on behalf of the sponsoring Minister (see Figure 16).<sup>94</sup>

Figure 16. Preparation and submission of a memorandum to government<sup>95</sup>



In the case of a proposal that relates to new legislation (see Figure 17), the **Attorney General's Office** must be consulted in advance about any proposed submission to government seeking authority to draft a bill.

Where proposals for legislation relate to matters on which government policy has not already been laid down or where they involve a new development or a material departure from existing policy, they should first be submitted to the government by way of a memorandum for a decision in principle of the policy at issue. **It is of critical importance that policy issues are resolved before the drafting process ever begins.**<sup>96</sup>

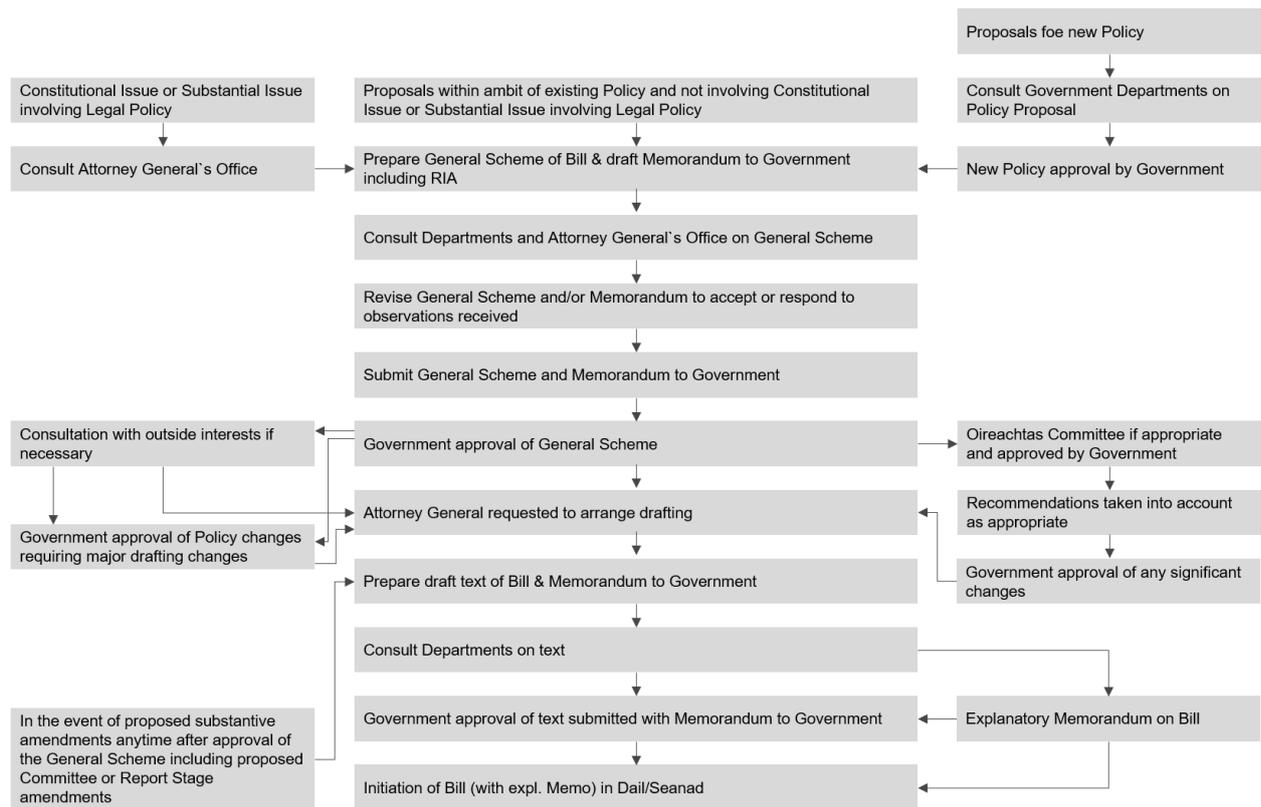
The government also creates and/or approves orders. The term "orders" covers all statutory instruments e.g., orders, regulations, rules, schemes, Bye-Laws and proclamations to be made or approved by the government.

<sup>94</sup> Department of the Taoiseach. Cabinet Handbook. Available: <https://assets.gov.ie/6813/2a580791a7b24decb97a550539a0faff.pdf>

<sup>95</sup> Department of the Taoiseach. Cabinet Handbook. Available: <https://assets.gov.ie/6813/2a580791a7b24decb97a550539a0faff.pdf>

<sup>96</sup> Department of the Taoiseach. Cabinet Handbook. Available: <https://assets.gov.ie/6813/2a580791a7b24decb97a550539a0faff.pdf>

Figure 17. Preparation of legislation<sup>97</sup>



A large part of the activities mentioned previously that directly involve the government require RIA; however, the need for this assessment is decided case by case. As previously mentioned in chapter 2.2.2, RIA involves a detailed analysis to ascertain whether the new regulation would have the desired impact. It helps to identify the side effects and any hidden costs associated with regulation.

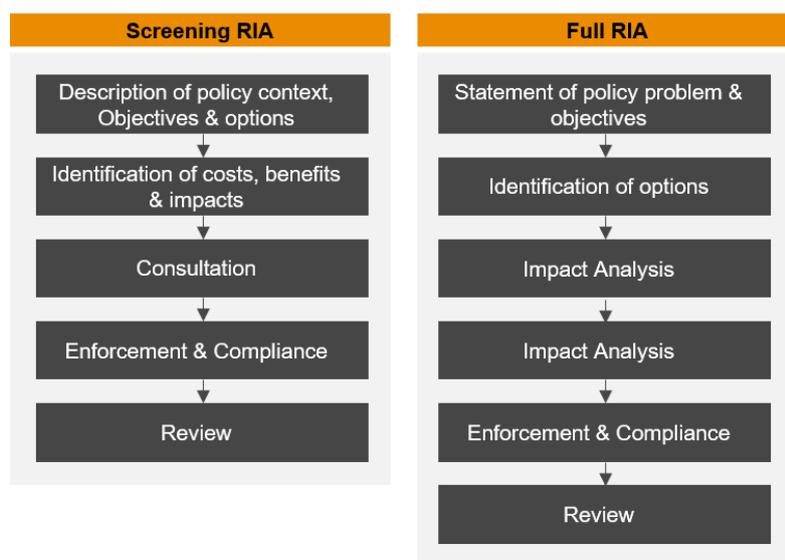
RIA clarifies the desired outcomes of the proposed regulatory change. It also provides for consultation with stakeholders to ensure that their views and interests are understood during the regulatory process. In Ireland two levels of RIA are used (see Figure 18) – a Screening RIA and a Full RIA (the significance and impacts of the proposal determines which should be applied in a particular case).

A Screening RIA should be applied to all proposals for primary legislation involving changes to the regulatory framework and to significant ministerial and departmental orders. A Full RIA is essentially a more detailed version of the Screening RIA.<sup>98</sup>

<sup>97</sup> Department of the Taoiseach. Cabinet Handbook. Available: <https://assets.gov.ie/6813/2a580791a7b24decb97a550539a0faff.pdf>

<sup>98</sup> Department of the Taoiseach. Cabinet Handbook. Available: <https://assets.gov.ie/6813/2a580791a7b24decb97a550539a0faff.pdf>

Figure 18. The two levels of RIA<sup>99</sup>



### Good policy making

Policy making has been defined as the process by which governments translate their political vision into programs and actions to deliver 'outcomes'. For good policy, solutions should be produced only after the problem has been defined, the options evaluated, consultation undertaken, and a course of action identified. However, politicians do not always have sufficient time for all these stages. Decisions often must be taken quite quickly, and sometimes with unexpected, adverse consequences. Moreover, enough time is not always given to do the 'check-back', to see if the course of action chosen has been the right one.<sup>100</sup> Therefore, it is useful to follow a good policy making guide (see Table 4) to avoid any slip ups. The features overlap and need to be considered collectively. Taken together they reflect the type of analysis which needs to be applied in any given area.

Table 4. The ten features of good policy making<sup>101</sup>

1. Forward looking	2. Outward looking	3. Innovative, flexible, and creative
<p>The policy-making process clearly defines outcomes that the policy is designed to achieve. Where appropriate, it takes a long-term view based on statistical trends and informed predictions of social, political, economic, and cultural trends, for at least five years into the future of the likely effect and impact of the policy. The following points demonstrate a forward-looking approach:</p> <ul style="list-style-type: none"> <li>• a statement of intended outcomes is prepared at an early stage;</li> <li>• contingency or scenario planning;</li> <li>• considering the Executive's long-term strategy; and</li> <li>• use of the Foresight programme</li> </ul>	<p>The policy-making process takes account of influencing factors in the regional, national, European, and international situation; and draws on experience in other regions and countries. The following points demonstrate an outward looking approach:</p> <ul style="list-style-type: none"> <li>• makes use of OECD, EU mechanisms, etc;</li> <li>• looks at how other countries have dealt with the issue; and</li> <li>• recognises variation within Northern Ireland.</li> </ul>	<p>The policy-making process is flexible and innovative, questioning established ways of dealing with things, encouraging new and creative ideas; and, where appropriate, making established ways work better. Wherever possible, the process is open to comments and suggestions of others. Risks are identified and actively managed. The following points demonstrate an innovative, flexible, and creative approach:</p> <ul style="list-style-type: none"> <li>• uses alternatives to the usual ways of working (brainstorming sessions etc);</li> <li>• defines success in terms of outcomes already identified;</li> <li>• consciously assesses and manages</li> </ul>

<sup>99</sup> Department of the Taoiseach. Cabinet Handbook. Available: <https://assets.gov.ie/6813/2a580791a7b24decb97a550539a0faff.pdf>

<sup>100</sup> Ferris, T. Reflections on the public policy process in Ireland. Administration, vol. 62, no. 4.

<sup>101</sup> Office of the First Minister and Deputy First Minister. A Practical Guide to Policy Making in Northern Ireland. Available: <https://www.policynl.ca/policydevelopment/documents/A-Practical-Guide-to-Policy-Making-in-Northern-Ireland.pdf>

and/or other forecasting work.		<p>risk;</p> <ul style="list-style-type: none"> <li>• takes steps to create management structures which promote new ideas and effective team working; and</li> <li>• brings in people from outside into the policy team.</li> </ul>
<b>4. Evidence-based</b>	<b>5. Inclusive</b>	<b>6. Joined up</b>
<p>The advice and decisions of policy makers are based upon the best available evidence from a wide range of sources; all key stakeholders are involved at an early stage and through the policy's development. All relevant evidence, including that from specialists, is available in an accessible and meaningful form to policy-makers. Key points of an evidence-based approach to policy-making include:</p> <ul style="list-style-type: none"> <li>• reviews existing research;</li> <li>• commissions new research;</li> <li>• consults relevant experts and/or uses internal and external consultants; and</li> <li>• considers a range of properly costed and appraised options.</li> </ul>	<p>The policy-making process takes account of the impact on and/or meets the needs of all people directly or indirectly affected by the policy; and involves key stakeholders directly. An inclusive approach may include the following aspects:</p> <ul style="list-style-type: none"> <li>• consults those responsible for service delivery/implementation;</li> <li>• consults those at the receiving end or otherwise affected by the policy;</li> <li>• carries out an impact assessment; and</li> <li>• seeks feedback on policy from recipients and front line deliverers.</li> </ul>	<p>The process takes a holistic view; looking beyond institutional boundaries to the administration's strategic objectives and seeks to establish the ethical, moral, and legal base for policy. There is consideration of the appropriate management and organisational structures needed to deliver cross-cutting objectives. The following points demonstrate a joined-up approach to policy-making:</p> <ul style="list-style-type: none"> <li>• cross cutting objectives clearly defined at the outset;</li> <li>• joint working arrangements with other departments clearly defined and well understood;</li> <li>• barriers to effective joining up clearly identified with a strategy to overcome them; and</li> <li>• implementation considered part of the policy making process.</li> </ul>
<b>7. Learns lessons</b>	<b>8. Communication</b>	<b>9. Evaluation</b>
<p>Learns from experience of what works and what does not. A learning approach to policy development includes the following aspects:</p> <ul style="list-style-type: none"> <li>• information on lessons learned and good practice disseminated;</li> <li>• account available of what was done by policy-makers as a result of lessons learned; and</li> <li>• clear distinction drawn between failure of the policy to impact on the problem it was intended to resolve and managerial/operational failures of implementation.</li> </ul>	<p>The policy-making process considers how policy will be communicated with the public. The following contribute to effective communication of policy:</p> <ul style="list-style-type: none"> <li>• communications/presentation strategy prepared and implemented; and</li> <li>• Executive Information Service involved from an early stage.</li> </ul>	<p>Systematic evaluation of the effectiveness of policy is built into the policy-making process. Approaches to policy-making that demonstrate a commitment to evaluation include:</p> <ul style="list-style-type: none"> <li>• clearly defined purpose for the evaluation set at outset;</li> <li>• success criteria defined;</li> <li>• means of evaluation built into the policy-making process from the outset; and</li> <li>• use of pilots to influence final outcomes.</li> </ul>
<b>10. Review</b>		
<p>Existing/established policy is constantly reviewed to ensure it is really dealing with problems it was designed to solve, taking account of associated effects elsewhere. Aspects of a reviewing approach to policy-making include:</p> <ul style="list-style-type: none"> <li>• ongoing review programme in place with a range of meaningful performance measures;</li> <li>• mechanisms to allow service deliverers/customers to provide feedback direct to policy-makers set up; and</li> <li>• redundant or failing policies scrapped.</li> </ul>		

For policy making to be fully effective, civil servants are involved in policy development not only need all the 'traditional' attributes (knowledge of relevant law and practice, understanding of key stakeholders' views, ability to design implementation systems), but they must also understand the context within which they (and the policy) must work. This means understanding not only the way organizations 'structures, processes and culture can influence policy-making, but also understanding Ministers' priorities and the way policies will work out in practice.<sup>102</sup>

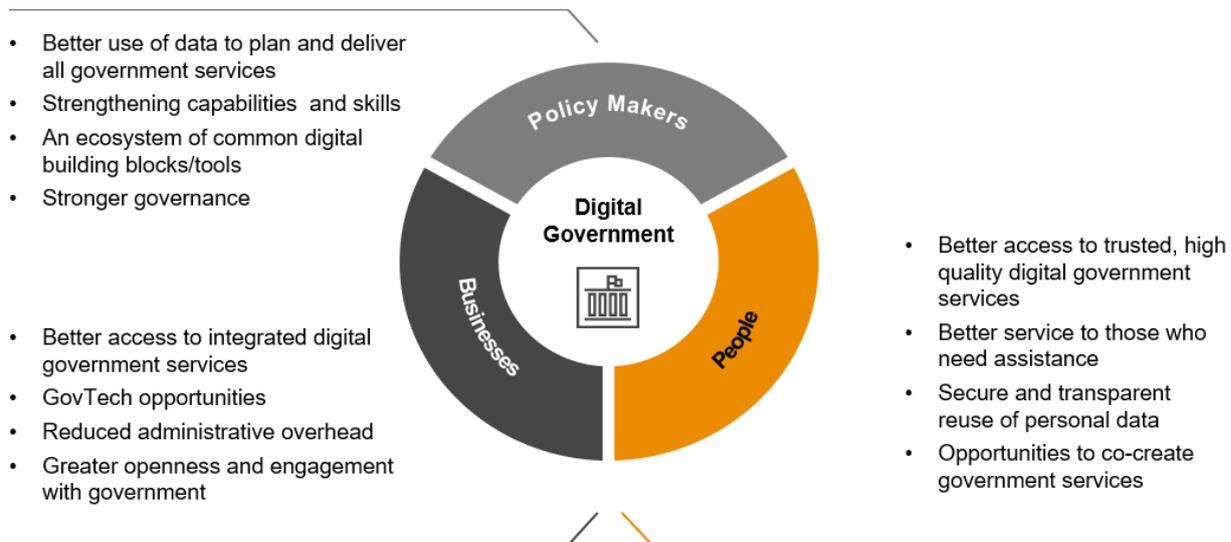
<sup>102</sup> Office of the First Minister and Deputy First Minister. A Practical Guide to Policy Making in Northern Ireland. Available: <https://www.policyni.ca/policydevelopment/documents/A-Practical-Guide-to-Policy-Making-in-Northern-Ireland.pdf>

### 2.4.3 Innovative solutions used to support/drive the decision-making process

#### Connecting Government 2030<sup>103</sup>

A Digital and ICT Strategy called **Connecting Government 2030** (CG2030) for Ireland’s Public Service was published in the start of 2022. It sets out an approach to deliver digital government for all, benefiting both society and the broader economy. The Public Service in Ireland must harness digitalisation to drive a step-change in how people, businesses, and policy makers interact, ensuring interoperability across all levels of government and across public services. It should be ensured that in digitizing the public services a “user first” and “business first” approach is taken. CG2030 will also drive the wider GovTech priorities as well as bring significant public value benefits. The Public Service in Ireland must harness digitalisation to drive a step-change in how people, businesses, and policy makers interact, ensuring interoperability across all levels of government and across public services (see Figure 19).

Figure 19. CG 2030 Digital Government goals for people, businesses, and policy makers<sup>104</sup>



To deliver on the ambitions of CG 2030, Ireland has identified six priority action areas (see Table 5) and several key objectives.

Table 5. CG 2030 priority action areas

A Human-Driven Digital Experience	Harnessing Data Effectively	Government as a Platform
<b>Key objectives</b>		
<ul style="list-style-type: none"> <li>Ensuring that 90% of applicable Government services are consumed online by 2030;</li> <li>Building towards 24-7 services providing consistent, integrated and end-to-end digital solutions and taking a digital building block approach;</li> <li>Application of the once-only principle (including for</li> </ul>	<ul style="list-style-type: none"> <li>Improve public services by implementing structures to deliver more and better re-use of data;</li> <li>Provide individuals with better access to their data and transparency in its use;</li> <li>Drive better data sharing and interoperability to streamline service delivery;</li> </ul>	<ul style="list-style-type: none"> <li>Drive service simplification through an ecosystem of standards, resources and tools;</li> <li>Use digital building blocks to deliver an interoperable all-of-government digital environment, e.g. verified MyGovID, etc;</li> <li>Expand the Build to Share Programme to transform service delivery capacity, enhance cyber</li> </ul>

<sup>103</sup> Department of Public Expenditure and Reform. Connecting Government 2030: A Digital and ICT Strategy for Ireland’s Public Service. Available: <https://www.gov.ie/en/publication/136b9-connecting-government-2030-a-digital-and-ict-strategy-for-irelands-public-service/>

<sup>104</sup> Department of Public Expenditure and Reform. Connecting Government 2030: A Digital and ICT Strategy for Ireland’s Public Service. Available: <https://www.gov.ie/en/publication/136b9-connecting-government-2030-a-digital-and-ict-strategy-for-irelands-public-service/>

<p>authentication) enabling proactive delivery of services;</p> <ul style="list-style-type: none"> <li>Promoting standards and guidance for driving digital change and equipping organisations to evolve their digital maturity.</li> </ul>	<ul style="list-style-type: none"> <li>Expand the range of data sets published to generate insights for public policy and research.</li> </ul>	<p>security, and deliver economies of scale;</p> <ul style="list-style-type: none"> <li>Take a cloud-first approach to delivery of services – public facing and back office;</li> <li>Identify and maximise opportunities to re-use Government assets;</li> <li>Align with the EU Green Deal and the UN Sustainable Development Goals.</li> </ul>
Evolving Through Innovation	Strengthening Digital Skills	Focusing on Governance and Leadership
Key objectives		
<ul style="list-style-type: none"> <li>Challenge ourselves to look afresh at solving difficult problems to build innovative solutions which put the public and users at the centre;</li> <li>Develop partnerships with industry and academia and seek fresh approaches to how we, in the Public Service, do our business;</li> <li>Make it easier for Start Ups and SMEs to work with Government to improve digital public services;</li> <li>Support experimentation of new and emerging technologies to address old problems.</li> </ul>	<ul style="list-style-type: none"> <li>Update the competence model to include a core digital and data competence at all levels of the Public Service;</li> <li>Develop a new Civil Service ICT HR Professionalisation Strategy which recognises the critical dependency on digital in enabling government services;</li> <li>Build sustainability into the talent pipeline for digital and ICT professionals across the Civil and Public Service;</li> <li>Look for opportunities to collaborate on the development of digital and ICT professionalisation and talent development programmes.</li> </ul>	<ul style="list-style-type: none"> <li>Put in place governance structures to drive digital transformation across government;</li> <li>Identify and track progress on priority projects and remove any blockers to progress;</li> <li>Foster public trust in the safety, transparency and value of digital solutions through effective communications and engagements with key stakeholders;</li> <li>Consult individuals and businesses to determine their priorities for digital government services.</li> </ul>

Underpinning the mentioned priority action areas will be a set of core design principles (see Figure 20).

Figure 20. CG 2030 core design principles

 <b>Digital by Default and Cloud-First</b>	Building towards the targets for 2030 that 90% of applicable services are consumed online and being more proactive and progressive in embracing cloud
 <b>All-of-Government Approach</b>	Ensuring an integrated and richer experience for individuals and businesses and that digital considerations are embedded in policy processes
 <b>New Ways of Working</b>	Enabling working environments that empower our people to give of their best, promoting the sharing of ideas, designs and innovations
 <b>Privacy-Driven and Secure by Design</b>	Design and build systems that are aligned with best practice in security and cyber defence

Collective responsibility to drive digital transformation of public services falls to the Boards of all Departments, Offices and State Bodies across all sectors. In turn, every Chief Information Officer, Head of ICT/ Digital or equivalent will play a leading role in identifying, preparing for, and navigating future challenges and opportunities both for their organisation and in the context of all-of-government initiatives.

### Digital platforms<sup>105</sup>

The government portal is in the **gov.ie** website that is a central portal for online government services, providing citizens with the ability to search and find all government services in a convenient manner. Services have been aggregated from across the public sector, and new services are constantly being added.

<sup>105</sup> European Commission. Digital Public Administration Factsheet 2020 Ireland. Available: [https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital\\_Public\\_Administration\\_Factsheets\\_Ireland\\_vFINAL.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital_Public_Administration_Factsheets_Ireland_vFINAL.pdf)

The **Open Data Portal**, implemented in 2014, promotes innovation and transparency through the publication of Irish public sector data in open, free, and reusable formats. Ireland was ranked 1st across the EU28 in the Open Data Maturity Benchmark for 2019.

The **Citizens Information Website** is run by the Citizens Information Board, Ireland's national agency responsible for providing information and advice on social services, operating under the time of the Department of Employment and Social Protection. The Website provides guidance on a wide range of subjects, such as employment rights, buying a home, moving abroad and education. The subjects covered are divided into 14 categories, representing life events and activities, allowing users to readily access a relevant topic. Sourced from a wide variety of service providers and agencies, the information is backed up by case studies, supporting documentation and downloadable forms.

The **Irish Government News Service Portal** affords a view of government from the vantage point of Government Buildings itself, reviewing the wide range of government activity and then reporting certain key events as news. The site's central task is to select a variety of events and report on them objectively. In other words, the Portal enables people with an interest in government dealings to view the latest developments on one website. All government press releases are accessible either via RSS feed or links to all government Departments. The Portal also features a section called 'Issues', where useful thematic information, not tied to a particular date, is presented. It is produced by a team in Government Buildings, involving the Government Information Service, Government Press, and IT.

Separately from the previously mentioned platforms there is a **Government Network (GN)** that is a privately managed, wide area multi-carrier, national network (WAN) connecting public service agencies on a data, voice and video capable network. It is designed primarily to facilitate easy, efficient, secure and reliable communication between government agencies, and to support existing and future government applications. A mechanism for providing agencies with a secure access to the Internet is included, as well as a means for agencies to securely host Internet services. GN offers a number of potential cost and operational benefits: inter agency collaboration and delivery of joined-up government services; access for all agencies to network capability and products/technology (regardless of size); execution of a number of standard day-to-day infrastructure services allowing agencies to focus on their core programmes and services; improvement of security of government information systems; incorporation of Internet access costs for government agencies into one highly resilient infrastructure; and commercial advantages of an aggregated procurement approach, resulting in reduced costs.

#### 2.4.4 Data governance<sup>106</sup>

The government recognises and supports the EU Commission's position that the free flow of data across sectors and borders is not only a driver for better Public Services but can also drive research and innovation, the commercial sector, and the training of AI systems to the benefit of sectors such as Health, Transport, Environment, and Agriculture. This is in line with the Government's Open Data Strategy 2017-2022, with core objectives of:

- Increasing the publication of high value government data in open format, making it publicly available and freely reusable; and
- Engaging with a broad community of stakeholders to promote its social and economic benefits and its reuse.

The cohesive approach to Public Service data as outlined in the Public Service Data Strategy 2019-2023 aligns well with the European Data Strategy regulation on Data Governance. A Data Governance Board has been established to direct, oversee, and drive data governance across the Public Service. Through good data governance, Public Service Bodies will ensure their data is accurate, consistent, complete, available, discoverable, and secure.

The main goal is for the government is recognising the importance and value of public service held data, develop, and fully implement a Public Service Digital Strategy, to ensure such data is harnessed and used safely and effectively. The focus for the upcoming years will be on:

- Improving Public Services by implementing structures to deliver more and better re-use of data;

---

<sup>106</sup> Government of Ireland. Harnessing Digital -The Digital Ireland Framework. Available: <https://www.gov.ie/en/publication/adf42-harnessing-digital-the-digital-ireland-framework/>

- Providing individuals with better access to their data and transparency in its use;
- Driving better data sharing to streamline service delivery; and
- Expanding the range of data sets published, generating insights for public policy and research.

### Data Governance Board

Data Governance Board was established by the Minister of Public Expenditure and Reform in December 2021. The goal of the Department of Public Expenditure and Reform is to serve the public interest through sound governance of public expenditure and by leading and enabling reform across the Civil and Public Service. Within the Department, the office of the Government Chief Information Officer is located. The Government Chief Information Officer is the chair of the Data Governance Board. Data Governance Board plays a pivotal role in delivery of the new framework for data governance across the Public Service. The Board is independent in the performance of its functions with support provided by the Data Governance Unit. Under the legislation, the Board has a clearly defined set of legal powers and obligations. The Board can:

- advise the Minister on the introduction of data management standards and guidelines,
- promote and report on compliance with standards and guidelines,
- advise the Minister on the prohibition of collection of certain data by public bodies,
- advise the Minister on directing public bodies to share data under the Act,
- advise the Minister on the designation and operation of base registries,
- review all data sharing agreements under the Act<sup>107</sup>.

### Data Sharing and Governance Act

OECD Digital Government Policy Framework denotes that a mature digital government is 1) data-driven, that values data as a strategic asset and establishes the governance, access, sharing and re-use of data, and 2) open by default, by making government data and policy making processes available to the public.

The Department of Public Expenditure and Reform responded to this need and put in place a number of measures to improve public service data and its use. Responsive measures were the Data Sharing and Governance Act in 2019, The Public Service Data Strategy 2021 – 2023, Connecting Government 2030. Main themes of the Act are 1) transparency, 2) work to complement the Data Protection Act and the GDPR, 3) create a culture of data innovation.

Data Sharing and Governance Act covers the aspects showed on Figure 21.

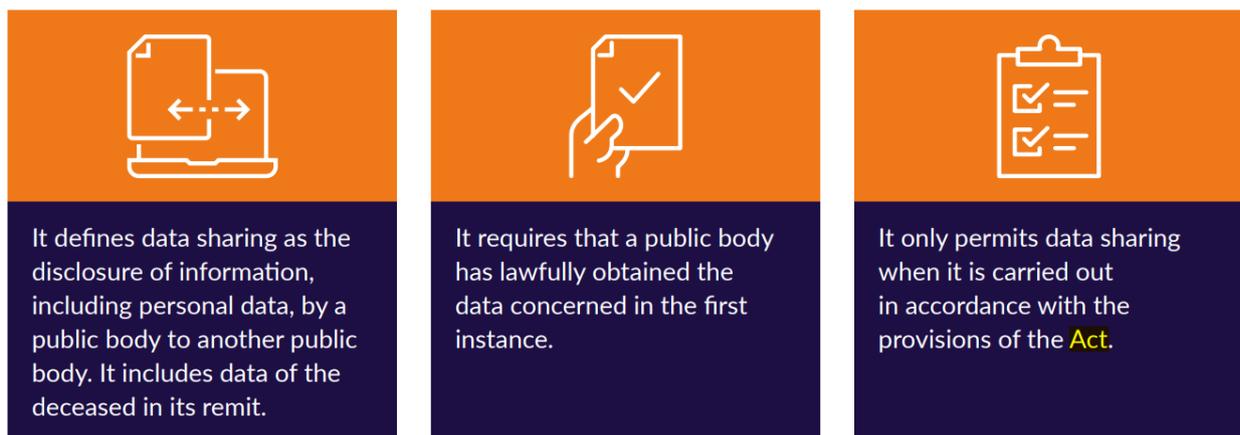


Figure 21. Data Governance Act covers the following aspects. Annual Report 2022 of Data Governance Board

<sup>107</sup> Government of Ireland. Policy information, Data Governance Board: <https://www.gov.ie/en/policy-information/72309-data-governance-board/>

Irish government's aim is to 1) ensure all personal data handled by the public service is collected, stored, processed and shared in a manner that puts the right to privacy and data protection at the heart of how they design and deliver all their digital services; 2) increase the public's awareness as to why their data is collected and stored and used through public consultations, and 3) the safe handling of data through an appropriate governance framework giving transparency to the data sharing agreements in place.

### **Data Sharing Framework**

Data Governance Board initiated the following supports which provide Public Service Bodies with a common set of practices to follow when they wish to use the Act as their legal basis for data sharing:

- Data Sharing Playbook,
- Data Sharing Guidelines,
- Data Sharing Agreement Template,
- Communications Suite.

A nine-stage process with multiple sub-activities was described in the Data Sharing Playbook to guide the Public Service Bodies through the process of acquiring the data sharing agreement. The stages are following:

- Stage 1: Data Sharing Preparation
- Stage 2: Data Officers Review (All Public Sector Bodies, 39 Data Officers)
- Stage 3: Preparing the Data Sharing Agreement (Lead Public Sector Body)
- Stage 4: Public Consultation (28 days)
- Stage 5: Public Sector Bodies' Review (21 days)
- Stage 6: Data Governance Board Review
- Stage 7: Public Sector Bodies' Address Recommendations and Sign
- Stage 8: Publication
- Stage 9: Data Sharing Agreement Implementation.

### **Data Analytics Next Steps in Ireland**

Ireland is developing virtual data spaces – a dedicated virtual environments (also called “Data Rooms”) created containing the specific data requested by government officials and the approved tools for its analysis, where data can be viewed and analysed, but data cannot be removed from the virtual data room. Virtual data spaces are created so that they include all the most popular business intelligence and data analytics software tools within the virtual space, so that the officials working in the virtual room can select their preferred tool to conduct the analysis.

The data analysis conducted by the official in the data room is then reviewed by the statistician from Statistics Ireland, who confirms the conclusions drawn from the data analysis are correct or suggests changes in the analysis approach to arrive at the accurate conclusion. Virtual data spaces are topic-specific, for example next spaces to be developed are focused on climate, energy, and agriculture.

Ireland is also working on creating public service data catalogue and defining base registers, to reduce the need for public sector bodies to collect, store, manage, and secure their own copies of data. Where, what, and how data is collected directly from citizens and businesses would be essential:

- identify data related bottlenecks in existing processes,
- identify and eliminate unnecessary data collection directly from citizens and businesses,
- engage with willing public bodies to transform processes.

Data sharing ethics framework and data quality framework are also in the making.

## 2.5 Comparisons

To compare different countries, the Indicators of Regulatory Policy and Governance (iREG) surveys can serve as evidence of countries' regulatory policy and governance practices (Table 6). The iREG survey investigates in detail three principles: stakeholder engagement, regulatory impact assessment (RIA) and ex post evaluation. The indicators for stakeholder engagement and RIA relate to regulations initiated by the executive, while the indicator on ex post evaluation relates to all regulations. Whilst the indicators provide an overview of a country's regulatory policy system, they cannot fully capture the complex realities of its quality, use and impact. In-depth country reviews are therefore required to complement the given information.<sup>108</sup>

Table 6. Comparison of the countries analysed in terms of transparency throughout the policy cycle<sup>109</sup>

 - All / always / yes     
  - Major / frequently     
  - Some/ sometimes     
  - Never / no

	 Country	 Netherlands	 Finland	 Ireland	 Estonia
Inform the public in advance that:	A public consultation is planned to take place				
	Regulatory impact assessment (RIA) is due to take place				
	Ex post evaluations are planned to take place				
Consult with stakeholders on:	Draft regulations				
	Evaluations of existing regulations				
Publish online:	Ongoing consultations		 Publish on a single central government website		
	Views of participants in the consultation process				
	RIAs				
	Evaluations of existing regulations				
Policy makers use:	Interactive website(s) to consult with stakeholders				
	Website(s) for the public to make recommendations on existing regulations				
Policy makers provide a public response to:	Consultation comments				
	Recommendations made in ex post evaluations				

**Estonia** places a strong focus on accessibility and transparency of regulatory policy by making use of online tools. Ex post evaluation has been mandatory for some regulations since 2012. Preliminary RIAs are prepared for all primary laws and selected subordinate regulations. Full RIAs tended to be conducted rarely, and while that remains the case, simplified RIAs are included in every explanatory letter of draft laws. The level of analysis contained within them has deepened over time.

<sup>108</sup> OECD, "Indicators of Regulatory Policy and Governance Survey 2021," accessed April 28, 2022, <http://oe.cd/ireg>.

<sup>109</sup> OECD, "Indicators of Regulatory Policy and Governance Survey 2021," accessed April 28, 2022, <http://oe.cd/ireg>.

**Ireland** is developing, and currently trialling as a prototype, a single central government website on which some of the ongoing consultations are published. Despite this recent improvement, Ireland's consultation practices do not yet operate on a systematic basis across government departments. Ireland conducts mandatory RIA for major primary laws and subordinate regulations.

**The Netherlands** has made some progress in its regulatory practices over the past years. Most notably, it saw an improvement in oversight and quality control for periodic ex post evaluation of the effectiveness and efficiency of regulations. The Integraal Afwegingskader (IAK) combines existing requirements and instructions for ex ante regulatory impact assessment. The IAK was updated in 2018 to strengthen requirements on ministries to monitor and evaluate regulations after implementation.

As part of its broader strategic objective of consolidating a well-functioning democracy, the current Finnish Government Programme in place since 2019 pledges to strengthen the role of **Finland's** regulatory oversight body, introduce government-level system for ex post assessments, and draw up a comprehensive action plan for Better Regulation. RIA is formally required and conducted for all primary laws and for some subordinate regulations.

# 3. Catalogue of Requirements

## 3.1 Methodology

### 3.1.1 Structure of the catalogue

The Catalogue of Requirements (CoR) consists of the following categories of requirements:

1. User and General Requirements
2. Technical Requirements

As it is expected that new system will be introduced in the future to support the decision-making process and enable better and easier use of data, perspective requirements are gathered from the process participant (the user) and system perspectives.

User requirements (often referred to as user needs) describe **what** the user must and/or should do while the system (technical) requirements describe **how** will the user achieve user requirements when interacting with the system. Furthermore, user requirements aim to satisfy user's needs, therefore it is important to engage the process participants as early as possible and encourage dialogue for introducing and discovering the needs.

#### User Requirements

Users are Government Memorandum process participants (individuals) who are expected to use the system and perform their tasks. User requirements are categorized by functions such as planning of the analysis project, data search, data preparation, data analysis, data publishing etc. User specific roles will be further developed during the Project, but the following accessibility-enabled roles are considered: edit, view, comment.

#### Technical Requirements

In this deliverable the word "system" can refer to different options:

1. new software being developed;
2. new software being purchased;
3. new module or component being developed in the existing Government system.

At the time of issuing the Deliverable it has not been agreed how the new system will be arranged, hence the technical requirements are introducing the minimum criteria for all infosystems part of the catalogue for the state's information system (RIHA) and governed by the Estonian Information System's Authority (ISA).

Technical requirements are grouped by categories such as the supporting functionalities, general non-functional requirements. Adjustments can be considered throughout the Project while developing and validating the CoR.

#### Location of the Catalogue of Requirements

CoR is prepared and managed in Excel file, separately from this Deliverable and referred in the Appendix 5.4 Catalogue of Requirements. CoR file has multiple worksheets of which one refers to User Requirements and another Technical Requirements. Please see the File Index on Figure 22 in below.

Figure 22. File Index of the Catalogue of Requirements

File Index

#	Worksheet	Subject	Link	Notes	Page
1	DDDM Process	Government Memorandum Process (Generic)	<a href="#">View</a>		2
2	DDDM System	DDDM System Functionalities	<a href="#">View</a>		3
3	Requirements	List of Requirements	<a href="#">View</a>		4
4	Methodology	Prioritisation and Evaluation	<a href="#">View</a>		5
5	GSBPM	Generic Statistical Business Process Model	<a href="#">View</a>		6
6	Lists	Drop-down lists	<a href="#">View</a>		7
7	Sources	Guidelines	<a href="#">View</a>		8

### 3.1.2 Process of developing and validating the Catalogue of Requirements

Individual interviews were conducted with the users of all ministries during March and April 2022, and first extended workshop held on April 22, 2022. Further meetings and discussions developing and validating the content of the requirements were organised in May-September 2022. Final version of the CoR is expected to be approved as part of the Deliverable 1.4 considering the input from the Deliverable 1.3 (vision of the DDDM system).

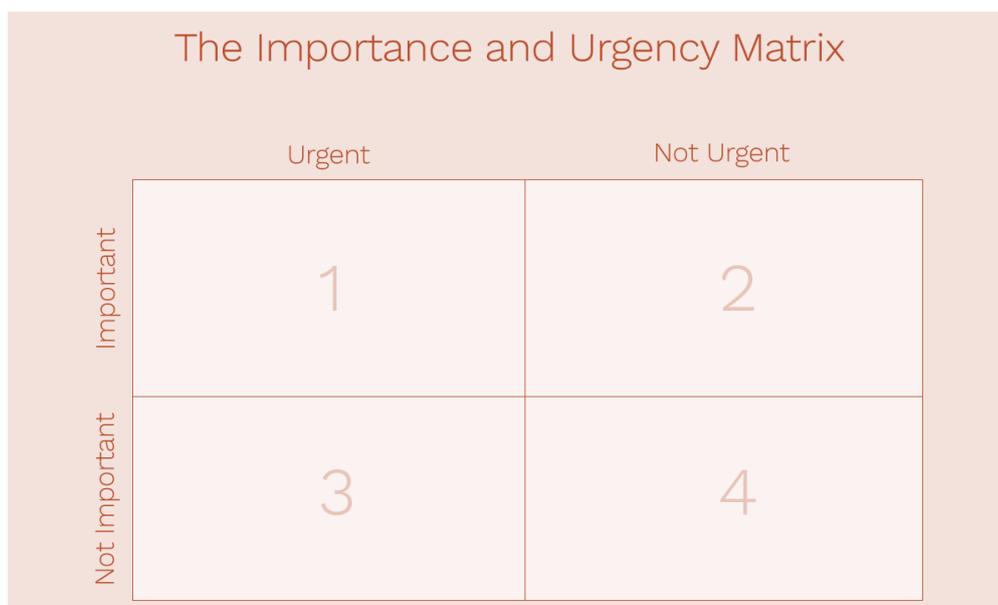
### 3.1.3 Prioritization of Requirements

To spend time, resources, and budget effectively and efficiently both importance and urgency aspects need to be considered:

- **Important** activities have an outcome that leads to us achieving our goals, whether these are professional or personal.
- **Urgent** activities demand immediate attention and are usually associated with achieving someone else's goals. They are often the ones we concentrate on and they demand attention because the consequences of not dealing with them are immediate.

It is expected that during the validation of both user and technical requirements, prioritisation shall be introduced following the 2-dimensional importance and urgency matrix, also known as the Eisenhower Method.

Figure 23. The Importance and Urgency Matrix<sup>110</sup>



**The Moscow method**<sup>111</sup> is a prioritisation technique used in management, business analysis, project management, and software development to reach a common understanding with stakeholders on the importance they place on the delivery of each requirement.

The term Moscow itself is an acronym derived from the first letter of each of four prioritization categories:

- M - Must have,
- S - Should have,
- C - Could have,

<sup>110</sup> MindTools, "Eisenhower's Urgent/Important Principle: Using Time Effectively, Not Just Efficiently," accessed April 28, 2022, [https://www.mindtools.com/pages/article/newHTE\\_91.htm#:~:text=Important%20and%20Urgent&text=You%20can%20eliminate%20last%2Dminute,issues%20and%20unplanned%20important%20activities](https://www.mindtools.com/pages/article/newHTE_91.htm#:~:text=Important%20and%20Urgent&text=You%20can%20eliminate%20last%2Dminute,issues%20and%20unplanned%20important%20activities)

<sup>111</sup> Wikipedia, "MoSCoW method," last modified April 15, 2022, [https://en.wikipedia.org/wiki/MoSCoW\\_method](https://en.wikipedia.org/wiki/MoSCoW_method)

- W - Won't have.

In new product development, particularly those following agile software development approaches, there is always more to do than there is time or funding to permit (hence the need for prioritisation). All requirements are important, however, to deliver the greatest and most immediate business benefits early the requirements must be prioritised. Developers will initially try to deliver all the Must have, Should have and Could have requirements, but the Should and Could requirements will be the first to be removed if the delivery timescale looks threatened.

## **3.2 Catalogue**

Located in separate Excel file "DDDM\_D1.2\_Catalogue\_of\_Requirements"

# 4. Observations

## 4.1 Observations and constraints

During the best practice research and knowledge sharing meetings, a variety of observations were made regarding the positive impact and benefits, as well as threats, risks, and constraints of considering and deploying information systems, including AI-enabled solutions in the public sector and governmental decision-making processes. The observations are outlined by the topics in next paragraphs.

**Introducing innovative technological solutions to government decision-making process can improve the quality of processes, systems, and services.** By analysing and structuring the processes and building supportive IT systems around key processes, a variety of manual tasks can be minimised therefore resources can be made available to use in more complex analytical and decision-making tasks.

The use of **IT systems bring efficiency** to public sector work processes by saving the time on data collection and analysis. The efficiency is fully made use of when systems' users are involved into the development process, when their needs and wants are listened to and integrated into the system functionalities. Being part of the development procedures and collaboration activities, helps to **sustainably create the interest and ownership in the developed IT system**. When users are involved more throughout the system development phase, they require less training and minimal onboarding to start use the system when it is ready.

Both **ease of use** and **convenience are great benefits** and arguments to introduce more technology into the decision-making process as it **enhances the responsiveness** in public sector service delivery, both within public sector to officials who are preparing the decisions for the government and to the citizens using public services. Ease of use can be achieved when users' needs, and requirements are well understood and taken into consideration when designing the IT systems functionalities.

Considering the use of AI in governmental decision-making process requires careful consideration as the pursuit of decision transparency through AI can create an opposite effect, because the unknown nature algorithms and rules will create a **"decision-making black box"**. The **decisions proposed or made by the AI are often not trusted**, because the decision-making thought process and analytical reasoning or calculations done by or within the AI remain mostly unknown to the users of the decision-making system. Trustworthiness and accountability of the work of AI rises mostly because of the lack of transparency and lack of knowledge about how the artificial intelligence operates.

There is often **little interest and/or resistance to using the new AI-enabled systems**. The resistance is mostly caused by not having a relevant amount of information about how the AI works, what are the system's decision-making principles or rules, and how it could be useful and valuable to the public sector official.

**The value and benefits of using AI, as well as potential risks and constraints are often not explained and communicated in well-enough manner to the users and stakeholders of the system.** High-level introductions to the AI, brief explanations and little training, and limited or no support of deploying the AI can lead to situation, where the number of users may stay modest, and the system does not reach all the initially targeted potential users.

The **use of AI also entails risks related to data**, how it is collected, processed, governed, and eventually analysed by the AI to suggest a decision to be made. Both poor data quality and biases in initial data collection methods can have an impact on the AI-enabled decision, as the AI is presenting a biased point of view.

The **deployment of AI-based decision-making systems in public sector and specifically in governments has been limited because of various challenges**. It is important to outline that political decision-making and policymaking can be highly contextual, and it may not always follow a mathematical or structured reasoning that would be the case for AI. Even if the AI suggests a mathematically correct decision, it may not be a politically suitable decision because the system may not be aware or include contextual or culturally important factors that influence the final decision made by the government. In case more decision-making power is given to the AI, the current power dynamics and power relationships may start to change, as the system is proposing decision based on data only that may not align or correspond with the previous power-based decision-making practices.

AI system could be relatively successfully adopted by the users when it is neatly integrated into existing work practices, but **if the new system is operating separately from existing processes** and the touchpoints with current workflows are limited, then **the adoption to AI system is expected to be relatively low** as the users may not be willing to do extra steps to learn and apply the new system for decision-making.

A constraint to applying the innovative technological systems, including AI, in governments has been the **lack of in-house AI-expertise** to lead the developments and be the driver of large-scale information system building. The **lack of management support** can hinder the innovative developments and when the AI system is not providing excellent performance at the beginning of the deployment, as poor results and mistakes are common, the support can decline further. Also, when there is not enough AI-expertise and professional oversight in the development of AI systems in governmental level, a variety of challenges and risks may realise and the “black box” effect in AI-enabled decision-making may become even greater.

## 4.2 Recommendations

### 4.2.1 General recommendations

To ensure an effective and sustainable deployment of innovative tools, including AI-enabled decision-making system, several recommendations are given below.

Recommendations to deploying AI:

- Time – ensure there is plenty of time to planning and developing the system;
- Money – dedicate a generous budget to develop and continuously improve the system;
- People – create a dedicated team to drive the development of the system as well as take care of communication, involving the users and stakeholders to the development process;
- Relevant competences and expertise – assure the driving team possesses relevant competences and AI-specific expertise to provide oversight of the development throughout the process;
- Consulting with end users and listening to their feedback – invite, involve, and consult the end users to develop system that meets their needs and helps to solve important problems in and around decision-making process;
- Involving stakeholders to achieve the acceptance of innovative system - invite, involve, and consult the stakeholders to build trust and achieve the acceptance of innovative AI system;
- Share stories and practices – build a knowledge-sharing environment where the focus is learning from each other’s AI-related experiences;
- Data governance – share data governance principles, practices and responsibilities to govern the data used in AI system;
- High quality data – continuously work on raising the data quality;
- Technical infrastructure – provide sufficient and well-functioning technical infrastructure that could run the AI system;
- Constant maintenance of AI systems – build skilled team and agree on maintenance rules and procedures to keep the system up to date and maintained at all times;
- Experimental mindset and permission to experiment – allow the development team and system to make mistakes and learn from them.

### 4.2.2 Lessons learned from benchmarking best practices

#### Data Sharing Framework in Ireland

Ireland has initiated Data Sharing Framework which provides Public Service Bodies with a common set of practices to follow when they wish to use the Data Sharing and Governance Act as their legal basis for data sharing. The Data Sharing Framework includes several documents that guide officials through the data sharing procedures step by step. The framework is a key tool to the Data Officers Network which

has over 139 members from Irish Public Sector Bodies, of which 39 are full time nominated data officers. Data Officers are the data stewards in their organisation, and they ensure the data sharing practices are compliant with national regulations. The Data Sharing Framework includes Data Sharing Playbook, Data Sharing Guidelines, Data Sharing Agreement Template and Communications Suite.

A nine-stage process with multiple sub-activities is described in the Data Sharing Playbook to guide the Data Officers in Public Service Bodies through the process of acquiring the data sharing agreement. The stages are following:

- Stage 1: Data Sharing Preparation
- Stage 2: Data Officers Review (All Public Sector Bodies, 39 Data Officers)
- Stage 3: Preparing the Data Sharing Agreement (Lead Public Sector Body)
- Stage 4: Public Consultation (28 days)
- Stage 5: Public Sector Bodies' Review (21 days)
- Stage 6: Data Governance Board Review
- Stage 7: Public Sector Bodies' Address Recommendations and Sign
- Stage 8: Publication
- Stage 9: Data Sharing Agreement Implementation.

Data Sharing Framework provides clarity and guidelines to the complex process of data sharing. The stages explained in the Data Sharing Playbook help the officials to go through the data sharing procedure in a user-friendly and standardised manner, and therefore make the complex process easier to follow.

### **Virtual Data Room Initiatives in Finland and Ireland**

Both Finland and Ireland are developing virtual data spaces – a dedicated virtual environments (also called “Data Rooms”) created containing the specific data requested by government officials and the approved tools for its analysis, where data can be viewed and analysed, but data cannot be removed from the virtual data room.

In Ireland, virtual data rooms include all the most popular business intelligence and data analytics software tools within the virtual space, so that the officials working in the virtual room can select their preferred tool to conduct the analysis.

In Finland, a 3-year pilot project called Dataroom is recently initiated to develop the public sector ability to give fast data-based decision-support. Dataroom initiators emphasise that there is a lot of data-material that is under-used or not used at all, and the dialogue between the decision-maker and data expert is a pivotal issue.

In Finland, the Dataroom initiative pilots on January 1<sup>st</sup>, 2023, and will continue until December 31<sup>st</sup>, 2025. The pilot is led and technically developed by the researchers and supported and financed by the government. The State Institute for Economic Research (VATT) is the responsible Authority and Statistics Finland together with Helsinki Graduate School of Economics are the central collaborators.

In both Ireland and Finland, the virtual data rooms are specific to a certain analysis topic. For example, in Finland, the data rooms are created for analysing trade and energy consumption data. In Ireland, the virtual data spaces are developed for analysing climate, energy, and agriculture data.

Data-security and handling of data are important aspects of virtual data room operations. In Finland, the data room will use data through the audited and secure system provided by Statistics Finland with remote access. The access to the data is through specific permits and no person-sensitive information can be removed from the remote access system. Reports do not include materials, from which it is possible to specify individual actors.

In Ireland, the data analysis conducted by the official in the data room is then reviewed by the statistician from Statistics Ireland, who confirms the conclusions drawn from the data analysis are correct or suggests changes in the analysis approach to arrive at the accurate conclusion.

# 5. Appendices

## 5.1 List of conducted Interviews

Table 7. List of Interviews conducted during the best practice analysis

Date	Organisation	Participants
29.06.2022	Texta, Estonia	<b>Silver Traat</b> , AI-powered Text Analytics Expert <b>Dmitri Burnašev</b> , Deputy Strategy Director of Government Office <b>Erik Ernits</b> , Head of Data of Government Office
20.07.2022	AI Watch of European Commission	<b>Colin Pascal van Noordt</b> , AI External Expert <b>Dmitri Burnašev</b> , Deputy Strategy Director of Government Office <b>Erik Ernits</b> , Head of Data of Government Office <b>Ivar Hendla</b> , Strategy Adviser of Government Office
26.07.2022	Cybernetica, Estonia	<b>Baldur Kubo</b> , High Security and Privacy Requirements Expert <b>Andres Lille</b> , ICT Expert, Tieto <b>Dmitri Burnašev</b> , Deputy Strategy Director of Government Office <b>Erik Ernits</b> , Head of Data of Government Office
04.08.2022	Cybernetica, Estonia	<b>Baldur Kubo</b> , High Security and Privacy Requirements Expert <b>Andres Lille</b> , ICT Expert, Tieto <b>Dmitri Burnašev</b> , Deputy Strategy Director of Government Office <b>Erik Ernits</b> , Head of Data of Government Office
26.08.2022	Ministry of Finance, Finland	<b>Aleksi Kopponen</b> , Special Advisor, Public Sector ICT <b>Erik Ernits</b> , Head of Data of Government Office <b>Ivar Hendla</b> , Strategy Adviser of Government Office
07.09.2022	Prime Minister's Office, Finland	<b>Seppo Määttä</b> , Director General, Prime Minister's Office <b>Hanna Kivistö</b> , Chief Specialist, Prime Minister's Office <b>Olli Kärkkäinen</b> , Chief Specialist, Ministry of Finance <b>Dmitri Burnašev</b> , Deputy Strategy Director of Government Office <b>Erik Ernits</b> , Head of Data of Government Office <b>Ivar Hendla</b> , Strategy Adviser of Government Office
27.09.2022	Government Department of Public Expenditure and Reform, Ireland	<b>Barry Lowry</b> , Chief Information Officer to the Government, Chairman of the Data Governance Board <b>Bernadette Dempsey</b> , Head of the Data Governance Unit <b>Nuala Byrne</b> , Head of Data Governance Support <b>Annette Denvir</b> , Head of Data Policy <b>Audrey Pender</b> , Head of Data Analytics <b>Erik Ernits</b> , Head of Data of Government Office <b>Arturo Rivera</b> , OECD, Lead, Data-driven public sector & South-East Asia, Digital Government and Data Unit

## 5.2 Research Topics and Questions for the Best Practice Analysis

Table 8. Research Topics and Questions for the Best Practice Analysis

Area	Questions
<b>1. General information</b>	<ul style="list-style-type: none"> <li>Name of the country</li> <li>Population</li> </ul>
<b>2. Government Statistics of the Country</b>	<ul style="list-style-type: none"> <li>Number, names and brief description of the ministries and institutions, central and local Government roles and responsibilities, the role of the Central Government</li> <li>Quantitative data (tables or graphs) of government work statistics in 2019-2021</li> </ul>
<b>3. Government Office of the Country</b>	<ul style="list-style-type: none"> <li>Structure of the Government Office organization</li> <li>Government Office's tasks</li> </ul>
<b>4. Policy documents</b>	
<b>4.1. General policy documents and legal acts</b>	<ul style="list-style-type: none"> <li>List and descriptions of main documents (with web links) that guide the decision-making process in the central government area</li> <li>List of legal acts that regulate policy and decision-making processes</li> </ul>
<b>4.2. Data and digitization documents</b>	<ul style="list-style-type: none"> <li>List of development plans and/or other documents that govern data and/or digitalization initiatives</li> <li>List of legal acts that regulate the use of data and technology</li> </ul>
<b>5. Data governance</b>	<ul style="list-style-type: none"> <li>Leading Public Authorities related to Data Governance and main tasks of each authority</li> <li>Data Governance initiatives in the country, brief description and web link to the source which support the decision making process</li> <li>Description of information systems that support government's work (discussion of the matters, approval, signing, publishing, archiving etc)</li> </ul>
<b>6. Government decision making process</b>	<ul style="list-style-type: none"> <li>Stakeholders who are part of the decision making process</li> <li>Types of decision documents (for example legal acts, development plans, memos etc)</li> <li>Description of the steps of the process, how the decision document is created, working principles</li> <li>How do civil servants find and analyse data for preparing decision drafts for government (incl. search engines; technical solutions – software or platforms; central websites, databases, technologies used etc)</li> </ul>
<b>7. Relevant facts or insights regarding data governance and decision making, including innovative solutions in practice</b>	<ul style="list-style-type: none"> <li>Unique innovative solutions used to support/drive the decision-making process and which stand out as the best practice</li> </ul>

## 5.3 Duties of the PMO's departments in Finland

Table 9. Duties of the PMO's departments in Finland<sup>112</sup>

Department	Duties								
<b>1. Government EU Affairs Department</b>	<ul style="list-style-type: none"> <li>To ensure an efficient system for coordinating EU policy functions and a coherent Finland's EU policy;</li> <li>To prepare EU affairs for the Prime Minister and the Minister for European Affairs;</li> <li>To serve as the secretariat for the Ministerial Committee on EU Affairs (to prepare meetings of the European Council, to direct the Committee for EU Affairs and participate in the work of preparation sections);</li> <li>To amend EU Treaties and coordinate matters related to basic treaties of the EU, including covering other treaties and international obligations handled by the EU.</li> <li>To handle any horizontal and institutional matters of key importance to the EU's development and certain appointments to EU institutions.</li> </ul>								
<b>2. Government Administration Department</b>	<ul style="list-style-type: none"> <li>To manage the government's and its ministries' common administrative and specialist services (incl. issues that are deemed to be part of the general discharge of duties within the mandate of the PMO and do not fall within the mandate of another department or unit);</li> <li>To manage, coordinate and develop the government's and its ministries' common practices and procedures; to provide joint services and promote shared organisational culture.</li> </ul> <p>The Department is headed by a director general and divided into three divisions:</p> <table border="1"> <thead> <tr> <th>Division</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>Information Management and ICT Division</td> <td> <ul style="list-style-type: none"> <li>ICT Unit</li> <li>Information Management Unit</li> </ul> </td> </tr> <tr> <td>Internal Communications and Information Support Division</td> <td> <ul style="list-style-type: none"> <li>Internal Communications Unit</li> <li>Information Support and Publications Unit</li> </ul> </td> </tr> <tr> <td>Translation and Language Division</td> <td> <ul style="list-style-type: none"> <li>Swedish Language Unit</li> <li>Foreign Languages Unit</li> <li>Language Services Unit</li> </ul> </td> </tr> </tbody> </table> <p>Moreover, the Department's director general oversees the work of Premises and In-house Services Unit and Development Services (in total seven units).</p>	Division	Unit	Information Management and ICT Division	<ul style="list-style-type: none"> <li>ICT Unit</li> <li>Information Management Unit</li> </ul>	Internal Communications and Information Support Division	<ul style="list-style-type: none"> <li>Internal Communications Unit</li> <li>Information Support and Publications Unit</li> </ul>	Translation and Language Division	<ul style="list-style-type: none"> <li>Swedish Language Unit</li> <li>Foreign Languages Unit</li> <li>Language Services Unit</li> </ul>
Division	Unit								
Information Management and ICT Division	<ul style="list-style-type: none"> <li>ICT Unit</li> <li>Information Management Unit</li> </ul>								
Internal Communications and Information Support Division	<ul style="list-style-type: none"> <li>Internal Communications Unit</li> <li>Information Support and Publications Unit</li> </ul>								
Translation and Language Division	<ul style="list-style-type: none"> <li>Swedish Language Unit</li> <li>Foreign Languages Unit</li> <li>Language Services Unit</li> </ul>								
<b>3. Government Ownership Steering Department</b>	<ul style="list-style-type: none"> <li>To handle duties relating to state ownership steering (incl. state ownership policy, the ownership steering of state-owned companies, the expansion of the ownership base, ownership restructuring arrangements, share investments, the coordination of ministries' ownership steering procedures and inter-ministerial cooperation).</li> </ul>								
<b>4. Government Communications Department</b>	<ul style="list-style-type: none"> <li>To ensure the Prime Minister's and the Government's communications, the external and internal communications of the PMO and coordination of the Government's EU communications;</li> <li>To provide information on Government decisions;</li> <li>To ensure communications management and planning in emergency conditions;</li> </ul>								

<sup>112</sup> Government of Finland (Prime Minister's Office), "Ministry: Management and organisation," accessed April 28, 2022, <https://vnk.fi/en/management-and-organisation>

Department	Duties			
	<ul style="list-style-type: none"> <li>• To coordinate and develop central government communications;</li> <li>• To ensure the ministries' joint intranet.</li> </ul>			
<b>5. Government Strategy Department</b>	<ul style="list-style-type: none"> <li>• To foresee and plan long-term social policy foresight;</li> <li>• To analyse and assess the Government's activities;</li> <li>• To coordinate the national implementation of sustainable development;</li> <li>• To handle Government's strategy work;</li> <li>• To prepare the Government's action plan;</li> <li>• To report on Government policy;</li> <li>• To serve as secretariat for the Government's strategy sessions and meetings of permanent secretaries.</li> </ul> <p>The Department has two units.</p>			
	<table border="1"> <thead> <tr> <th data-bbox="504 689 756 748">Unit</th> <th data-bbox="762 689 1394 748">Duties</th> </tr> </thead> </table>	Unit	Duties	
	Unit	Duties		
<table border="1"> <tbody> <tr> <td data-bbox="504 752 756 1433">Government Session Unit</td> <td data-bbox="762 752 1394 1433"> <ul style="list-style-type: none"> <li>• To provide expert services related to <b>decision-making</b> by the Government and the President of the Republic;</li> <li>• To make practical arrangement for decision-making at presidential sessions and government plenary sessions and take minutes of these sessions;</li> <li>• To guide and develop the decision-making procedures;</li> <li>• To assists in all activities related to the end and start of government terms, changes in the Government's composition, and its day-to-day work;</li> <li>• To coordinate the work of the Government and Parliament and contacts between the two institutions (e.g. the coordination and maintenance of the Government's legislative programme);</li> <li>• To publish the Government Annual Report;</li> <li>• To support the Council of Regulatory Impact Analysis in its work;</li> <li>• To manage legislative matters of the Office of the President of the Republic of Finland, honorary titles awarded by the President of the Republic, and general matters related to the enforcement of the Emergency Powers Act within the Government.</li> </ul> </td> </tr> <tr> <td data-bbox="504 1438 756 1693">Finance Unit</td> <td data-bbox="762 1438 1394 1693"> <ul style="list-style-type: none"> <li>• To steer, develop and coordinate the ministries' joint operational and financial planning, finance management, procurement and travel administration;</li> <li>• To provide centralised support and guidance to other ministries concerning procurements and travel;</li> <li>• To handle matters related to granting party subsidies;</li> <li>• To oversee and coordinate joint data protection for the Government and its ministries.</li> </ul> </td> </tr> </tbody> </table>	Government Session Unit	<ul style="list-style-type: none"> <li>• To provide expert services related to <b>decision-making</b> by the Government and the President of the Republic;</li> <li>• To make practical arrangement for decision-making at presidential sessions and government plenary sessions and take minutes of these sessions;</li> <li>• To guide and develop the decision-making procedures;</li> <li>• To assists in all activities related to the end and start of government terms, changes in the Government's composition, and its day-to-day work;</li> <li>• To coordinate the work of the Government and Parliament and contacts between the two institutions (e.g. the coordination and maintenance of the Government's legislative programme);</li> <li>• To publish the Government Annual Report;</li> <li>• To support the Council of Regulatory Impact Analysis in its work;</li> <li>• To manage legislative matters of the Office of the President of the Republic of Finland, honorary titles awarded by the President of the Republic, and general matters related to the enforcement of the Emergency Powers Act within the Government.</li> </ul>	Finance Unit	<ul style="list-style-type: none"> <li>• To steer, develop and coordinate the ministries' joint operational and financial planning, finance management, procurement and travel administration;</li> <li>• To provide centralised support and guidance to other ministries concerning procurements and travel;</li> <li>• To handle matters related to granting party subsidies;</li> <li>• To oversee and coordinate joint data protection for the Government and its ministries.</li> </ul>
Government Session Unit	<ul style="list-style-type: none"> <li>• To provide expert services related to <b>decision-making</b> by the Government and the President of the Republic;</li> <li>• To make practical arrangement for decision-making at presidential sessions and government plenary sessions and take minutes of these sessions;</li> <li>• To guide and develop the decision-making procedures;</li> <li>• To assists in all activities related to the end and start of government terms, changes in the Government's composition, and its day-to-day work;</li> <li>• To coordinate the work of the Government and Parliament and contacts between the two institutions (e.g. the coordination and maintenance of the Government's legislative programme);</li> <li>• To publish the Government Annual Report;</li> <li>• To support the Council of Regulatory Impact Analysis in its work;</li> <li>• To manage legislative matters of the Office of the President of the Republic of Finland, honorary titles awarded by the President of the Republic, and general matters related to the enforcement of the Emergency Powers Act within the Government.</li> </ul>			
Finance Unit	<ul style="list-style-type: none"> <li>• To steer, develop and coordinate the ministries' joint operational and financial planning, finance management, procurement and travel administration;</li> <li>• To provide centralised support and guidance to other ministries concerning procurements and travel;</li> <li>• To handle matters related to granting party subsidies;</li> <li>• To oversee and coordinate joint data protection for the Government and its ministries.</li> </ul>			

## 5.4 Duties of Dutch government ministries

Table 10. Duties of Dutch government ministries<sup>113</sup>

Department	Duties
<b>1. Ministry of General Affairs</b>	Functions as the ministry of the Prime Minister, who is also the Minister of General Affairs. It coordinates Dutch government policy and communications and all matters that are not expressly dealt with by other ministries.
<b>2. Ministry of Finance</b>	Oversees government spending, the financial system and the quality of financial institutions. Also responsible for tax legislation and through the Dutch Tax Administration, which is part of the ministry, levies and collects taxes in the Netherlands.
<b>3. Ministry of Justice &amp; Security</b>	Responsible for justice and public safety in the Netherlands, with policy areas including legislation, crime prevention, child protection, law enforcement, administration of justice and legal aid, victim support, immigration regulation and counter-terrorism.
<b>4. Ministry of Health, Welfare &amp; Sport</b>	Responsible for public health and healthcare, welfare and social-cultural work and sports in the Netherlands.
<b>5. Ministry of Social Affairs &amp; Employment</b>	Responsible for labour market policy, including migration and the free movement of workers, benefits and re-integration, income policy, work-life balance, and policy on working conditions and inspection in the Netherlands.
<b>6. Ministry of Education, Culture &amp; Science</b>	Responsible for education (kindergarten, primary, secondary, vocational training and higher education); culture, arts and public broadcasting; and science and innovation in the Netherlands.
<b>7. Ministry of Economic Affairs and Climate Policy</b>	Responsible for economics, industry, mining, trade, energy policy, agriculture, fishery and tourism in the Netherlands.
<b>8. Ministry of Infrastructure &amp; Water Management</b>	Responsible for Dutch roads, railways, waterways and airways, effective water management to protect against flooding, and improving air and water quality, and environmental policy.
<b>9. Ministry of the Interior &amp; Kingdom Relations</b>	Responsible for Home Affairs, the civil service, the intelligence services and relations with the other countries in the Kingdom of the Netherlands.
<b>10. Ministry of Foreign Affairs</b>	Promotes the interests of the Netherlands abroad by coordinating and carrying out Dutch foreign policy at its headquarters in The Hague and through its foreign missions. It is also the channel through which the Dutch Government communicates with foreign governments and international organisations.
<b>11. Ministry of Defence</b>	Comprises the ministry itself (Central Staff), the four armed forces (the Royal Netherlands Navy, the Royal Netherlands Army, the Royal Netherlands Air Force and the Royal Military and Border Police), Support Command and the Defence Materiel Organisation. Responsible for different aspects relating to the safety of the country.
<b>12. Ministry of Agriculture, Nature and Food Quality</b>	Stands for fair and responsible agriculture and fisheries. It also stimulates the vitalisation of the rural regions in the Netherlands.

<sup>113</sup> Government of the Netherlands. Ministries. Available: <https://www.government.nl/ministries>

## 5.5 Duties of government departments in Ireland

Table 11. Duties of government departments in Ireland<sup>114</sup>

Department	Duties
<b>1. Department of Agriculture, Food and the Marine</b>	<ul style="list-style-type: none"> <li>• Regulates the agriculture and marine sectors.</li> <li>• Operates schemes and delivers supports to people who work in these sectors.</li> <li>• Maintains a register of food business operators.</li> <li>• Runs the Green, Low-Carbon, Agri-Environment Scheme (GLAS).</li> <li>• Operates the Forest Service and issues forest licences.</li> <li>• Controls the entrance to Ireland of animals.</li> </ul>
<b>2. Department of Children, Equality, Disability, Integration and Youth</b>	<ul style="list-style-type: none"> <li>• Responsible for the Child and Family Agency (TUSLA), which oversees child welfare in Ireland.</li> <li>• Operates the Early Childhood Care and Education Programme (ECCE) and the National Childcare Scheme</li> <li>• Funds local Family Resource Centres</li> <li>• Operates the Irish Youth Justice Service</li> </ul>
<b>3. Department of Defence</b>	<ul style="list-style-type: none"> <li>• Responsible for the Irish Army, Air Corps and Navy</li> <li>• Responsible for the Civil Defence</li> <li>• Runs the Office of Emergency Planning</li> </ul>
<b>4. Department of Education</b>	<ul style="list-style-type: none"> <li>• Responsible for education policy in Ireland</li> <li>• Operates the Higher Education Authority</li> <li>• Operates the State Examinations Commission</li> <li>• Operates the Teaching Council</li> <li>• Operates Solas (platform for building world class Further Education and Training (FET))</li> </ul>
<b>5. Department of Enterprise, Trade and Employment</b>	<ul style="list-style-type: none"> <li>• Promotes investment in Ireland through the IDA (Ireland investment platform)</li> <li>• Supports businesses through grants and funding</li> <li>• Assesses applications for employment permits</li> </ul>
<b>6. Department of Environment, Climate and Communications</b>	<ul style="list-style-type: none"> <li>• Responsible for the Government's plans to tackle climate change</li> <li>• Responsible for postal services and Eircodes (postcode system)</li> <li>• Oversees home energy grants through the Sustainable Energy Authority of Ireland</li> <li>• Licences and regulates industry through the Environmental Protection Agency</li> </ul>
<b>7. Department of Finance</b>	<ul style="list-style-type: none"> <li>• Sets the annual budget</li> <li>• Oversees the Revenue Commissioner</li> <li>• Oversees the State's shareholdings in financial services</li> </ul>
<b>8. Department of Foreign Affairs</b>	<ul style="list-style-type: none"> <li>• Promotes Ireland internationally</li> <li>• Runs Irish consulates and embassies abroad</li> <li>• Oversees the Passport Service</li> <li>• Provides consular services for Irish people living abroad</li> </ul>
<b>9. Department of Further and Higher Education, Research,</b>	<ul style="list-style-type: none"> <li>• Responsible for further education policy and funding</li> <li>• Oversees the recognition of foreign qualifications</li> </ul>

<sup>114</sup> Citizens Information. Ministers and Government departments. Available: [https://www.citizensinformation.ie/en/government\\_in\\_ireland/national\\_government/the\\_irish\\_government/department\\_s\\_of\\_state.html](https://www.citizensinformation.ie/en/government_in_ireland/national_government/the_irish_government/department_s_of_state.html)

Department	Duties
<b>Innovation and Science</b>	
<b>10. Department of Health</b>	<ul style="list-style-type: none"> <li>• Responsible for health policy in Ireland</li> <li>• Funds the HSE (health service)</li> <li>• Promotes healthier lifestyles and policies to improve the health of people in Ireland</li> <li>• Issues Medical Cards and GP visit cards through the HSE</li> </ul>
<b>11. Department of Housing, Local Government and Heritage</b>	<ul style="list-style-type: none"> <li>• Oversees the Residential Tenancies Board</li> <li>• Oversees local government</li> <li>• Responsible for public housing policy</li> </ul>
<b>12. Department of Justice</b>	<ul style="list-style-type: none"> <li>• Oversees the Courts Service</li> <li>• Oversees Immigration Service Delivery and the International Protection Office</li> <li>• Responsible for national security and intelligence</li> </ul>
<b>13. Department of Public Expenditure and Reform</b>	<ul style="list-style-type: none"> <li>• Oversees government spending</li> <li>• Promotes reform across the civil and public service</li> <li>• Co-ordinates the Office of the Government Chief Information Officer (OGCIO) which has responsibility for the government's digital services</li> </ul>
<b>14. Department of Rural and Community Development</b>	<ul style="list-style-type: none"> <li>• Oversees a range of programmes intended to promote social integration and sustainable community development</li> <li>• Bodies overseen by the Department include Irish Water, Pobal, and the Charities Regulator</li> </ul>
<b>15. Department of Social Protection</b>	<ul style="list-style-type: none"> <li>• Provides income supports, such as Jobseeker's Benefit and Illness Benefit</li> <li>• Operates employment support services, such as the Community Employment programme and Tús (community work placement scheme)</li> <li>• Investigates fraud and abuse in the social protection system</li> </ul>
<b>16. Department of the Taoiseach</b>	<ul style="list-style-type: none"> <li>• Works with other government departments to implement policy, primarily through the cabinet committee structure</li> <li>• Responsible for liaising with the President and the Houses of the Oireachtas on behalf of the government</li> </ul>
<b>17. Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media</b>	<ul style="list-style-type: none"> <li>• Supports the tourism industry in increasing revenue and employment</li> <li>• Oversees programmes to promote Ireland's culture and arts</li> <li>• Promotes use of the Irish language among the general public and supports the development of the Gaeltacht</li> <li>• Promotes sports participation among general public and develops high performance facilities for elite athletes</li> <li>• Develops broadcasting and media policy and oversees organisations such as the Broadcasting Authority of Ireland (BAI), RTÉ and TG4</li> </ul>
<b>18. Department of Transport</b>	<ul style="list-style-type: none"> <li>• Oversees the work of a range of agencies responsible for the development and operation of Ireland's transport infrastructure</li> <li>• Bodies overseen by the Department include the National Transport Authority, the Road Safety Authority (RSA), the Coast Guard and the Air Accident Investigation Unit (AAIU)</li> </ul>

## **5.6 Catalogue of Requirements**

Located in separate Excel file “DDDM\_D1.2\_Catalogue\_of\_Requirements”



Funded by  
the European Union

Visit our website:



Find out more  
about the Technical  
Support Instrument:

