Coherent Policy Development for High-Quality and Sustainable Living Environment

Deliverable 5 Report: Recommendations to improve governance and coordination system for spatial decisions

Final

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Trinomics SEI Stockholm Environment Institute HENDRIKSON & KO SWECO TAL TECH

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Trinomics

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In association with:

SEI Stockholm Environment Institute

HENDRIKSON & KO

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TAL TECH

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Glossary

Baukultur	The concept of Baukultur emphasises the importance of creating a sustainable and coherent living environment that enhances the well-being and quality of life for individuals. It encompasses all aspects of the built environment and full life circle of space creation from planning and design, through construction and operation to reuse. The German concept is currently in use e.g. in Davos Baukultur Quality System. *Mõiste „Baukultur" rõhutab jätkusuutliku ja sidusa elukeskkonna loomise tähtsust, et parandada inimeste heaolu ja elukvaliteeti. See hõlmab kõiki ehitatud keskkonna aspekte ja ruumi loomise täielikku eluringi alates planeerimisest ja projekteerimisest läbi ehitamise ja toimimise kuni taaskasutuseni välja. Saksamaalt pärit mõistet kasutatakse näiteks raamistikus Davos Baukultur Quality System.*
Circular economy ***EE: Ringmajandus***	An economic model that prioritises design that minimises waste and maximises recycling and sustainable use of resources for as long as possible. *Majandusmudel, mis seab esikohale disaini, mis minimeerib või välistab jäätmete tekke ning maksimeerib materjalide ringlussevõttu ja ressursside säästvat kasutamist.*
Competence Centre for Spatial Creation ***EE: Ruumiloome kompetentsikeskus***	A proposed institution to be located under the new Land and Spatial Board (MaRu) for supporting local municipalities on questions regarding spatial development for sustainable and good quality living environment. *Maa- ja Ruumiameti (MaRu) alla kuuluv välja pakutud allüksus, mis toetab eksperte ja kohalikke omavalitsusi ruumilise arengu küsimustes seoses säästva arengu ja kvaliteetse elukeskkonna teemadega.*
Genius loci	A Latin term often used in the field of spatial planning and urban design, referring to the genius or spirit of a place, with an authentic feel, character, and qualities, forming an identity of a place. In Estonia, the city of Tartu has been often described as having a special *genius loci*. *Ladinakeelne termin, mida sageli kasutatakse ruumiloome kontekstis viidates mingi koha erilisele vaimule või hingusele, mille ainuomane tunne, iseloom ja omadused moodustavad koha identiteedi. Eesti kontekstis on sageli räägitud Tartu linna erilisest kohavaimust ehk genius loci'st.*
Governance system ***EE: Valitsemissüsteem***	A system that provides a framework for managing and structuring institutions, allocating responsibilities, and guiding decision making, implementation and assessment processes. *Süsteem, mis loob raamistiku institutsioonide juhtimiseks ja struktureerimiseks, vastutuse jaotamiseks ning otsustusprotsesside, rakendamise ja hindamise suunamiseks.*
Healthy Street in Tartu ***EE: Tervislik tänav Tartus (TTT)***	A project from 2021 for developing a guideline to support spatial decision-making for a more sustainable, healthy, and high-quality public street space in Tartu. *2021. aastast pärit projekt töötamaks välja juhend, mis toetaks ruumiliste otsuste tegemist jätkusuutlikuma, tervislikuma ja kvaliteetsema avaliku tänavaruumi saavutamiseks Tartus.*
HQSLE	Acronym for High Quality and Sustainable Living Environment. The aim our recommendations is the integration of HQSLE as a strategic spatial vision with sectoral policies in practice. *Lühend inglisekeelsest mõistest high quality sustainable living environment ehk kõrge kvaliteediga jätkusuutlik elukeskkond. Meie soovituste eesmärk on HQSLE kui strateegilise ruumilise visiooni integreerimine valdkondlike poliitikatega praktikas.*
Institutional framework	A system of regulations, laws, procedures, roles and norms that is reflected in the organisational structures, shaping socio-economic behaviour and actions.

EE: Institutsiooniline raamistik	*Määruste, seaduste, menetluste, rollide ja normide süsteem, mis kajastub organisatsioonilistes struktuurides, kujundades sotsiaalmajanduslikku käitumist ja tegevusi.*
Land and Spatial Board	Land and Spatial Board is the name we use for the emerging spatial office throughout this document, although the final name is yet to be known as of 23.06.2023 (the deadline of the report). We suggest that MaRu would act as a state spatial office in Estonia encompassing different units, including a strategic steering board akin to the state spatial office or state architect function, as well as a competence centre for spatial creation among others. An alternative name would be Spatial Board/Agency to mark that the emerging office would have new tasks and a new identity compared to the Land Board which makes up part of the new entity.
EE: Maa- ja Ruumiamet (MaRu)	*Maa- ja Ruumiamet (MaRu) on nimi, mida kasutame käesolevas dokumendis loodava ruumiasutuse kohta, kuna lõplik nimi on veel aruande tähtajaks juuni lõpus teadmata. Pakume välja, et MaRu toimiks Eestis riikliku ruumiasutusena, mis hõlmaks erinevaid üksusi, sealhulgas riigi ruumiasutuse või riigiarhitekti funktsioonile sarnast strateegilist juhtrolli ja ruumiloome kompetentsikeskust. Alternatiivne nimi oleks Ruumiamet, mis aitaks eristada uut ametit oma uute ülesannete ja identiteediga juba olemasolevast Maa-ametist.*
Ministry of Climate (MoC)	A new ministry, formed from the former Ministry of the Environment and the Ministry of Economic Affairs and Communications.
EE: Kliimaministeerium	*Endisest Keskkonnaministeeriumi ning Majandus- ja Kommunikatsiooniministeeriumi struktuuriüksustest moodustatud uus ministeerium.*
Ministry of Environment (MoE)	A former ministry now reorganised as Ministry of Climate (MoC).
EE: Keskkonnaministeerium	*Endine ministeerium, mis reorganiseeriti ümber Kliimaministeeriumiks.*
Ministry of Economic Affairs and Communications (MEAC)	A ministry which took part in the reorganisation of functions and structural units in spring/summer 2023 but retained its name form.
EE: Majandus- ja Kommunikatsiooniministeerium	*Ministeerium, mis osales funktsioonide ja struktuuriüksuste reorganiseerimises kevad-suvel 2023, kuid säilitas oma nimekuju.*
Ministry of Finance (MoF)	A ministry that will transfer its regional tasks to the Ministry of Regional Affairs and Agriculture (MoRAA).
EE: Rahandusministeerium	*Ministeerium, mis annab oma regionaalsed ülesanded üle Regionaal- ja Põllumajandusministeeriumile.*
Ministry of Rural Affairs (MoRA)	A former ministry now reorganised as Ministry of Regional Affairs and Agriculture (MoRAA).
EE: Maaeluministeerium	*Endine ministeerium, mis nüüd reorganiseeriti ümber Regionaal- ja Põllumajandusministeeriumiks.*
Ministry of Social Affairs (MoSA)	A ministry that will transfer its labour and social tasks to the Ministry of Economic Affairs and Communication and its accessibility coordination to the Ministry of Regional Affairs and Agriculture (MoRAA).
EE: Sotsiaalministeerium	*Ministeerium, mis annab oma tööjõu- ja sotsiaalülesanded üle Majandus- ja Kommunikatsiooniministeeriumile ning ligipääsetavuse koordineerimise Regionaal- ja Põllumajandusministeeriumile.*
Ministry of the Interior (MoI)	A ministry that focuses on internal security and safety.
EE: Siseministeerium	*Ministeerium, mis keskendub sisejulgeolekule ja ohutusele.*
New European Bauhaus (NEB)	The NEB is a creative and interdisciplinary initiative that connects the European Green Deal to our living spaces. The NEB initiative calls on all of us to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls. The three core principles of NEB are enriching (inspired by art and culture, responding to needs beyond functionality); sustainable (in harmony with nature, the environment, and

	our planet) and inclusive (encouraging a dialogue across cultures, disciplines, genders and ages).
EE: Euroopa Uus Bauhaus	*Euroopa Uus Bauhaus on loominguline ja interdistsiplinaarne algatus, mis ühendab Euroopa rohelise kokkuleppe meie eluruumiga. NEB algatus kutsub meid koos üles ehitama jätkusuutlikku ja kaasavat tulevikku, mis on ilus meie silmadele, meelele ja hingele. NEB kolm põhiprintsiipi on rikastav (kunstist ja kultuurist inspireeritud, funktsionaalsusest kaugemale minevate vajaduste rahuldamine); jätkusuutlik (kooskõlas looduse, keskkonna ja meie planeediga) ja kaasav (ergutab dialoogi kultuuride, erialade, sugude ja eagruppide vahel).*
Participatory planning	A planning approach where community is included and engaged in the process of urban design to a lesser (e.g. consultations) or greater extent (e.g. co-design and co-creation).
EE: Kaasav planeerimine	*Planeerimisvorm, kus kogukonda kaasatakse linnaplaneerimise protsessi vähemal (nt konsultatsioonid) või suuremal määral (nt ühisdisain ja koosloome).*
Performance area	A long-term planning level determined by the state budget strategy for describing the resources and measures to achieve the set goals.
EE: Tulemusvaldkond	*Pikaajalise arengueesmärgiga planeerimise tase, mis on määratud riigieelarve strateegiaga, et kirjeldada ressursse ja meetmeid seatud eesmärkide saavutamiseks.*
Ministry of Regional Affairs and Agriculture (MoRAA)	A newly established ministry that was reorganised from the former Ministry of Rural Affairs together with structural units from MoF, MoSA and MEAC.
EE: Regionaal- ja Põllumajandusministeerium	*Vastloodud ministeerium, mis reorganiseeriti endisest Maaeluministeeriumist koos struktuuriüksustega Rahandusministeeriumist, Sotsiaalministeeriumist ja Majandus- ja Kommunikatsiooniministeeriumist.*
Rural-urban gradient	Differentiation of places based on the urbanisation level and ordering these based on the predominance of buildings and infrastructure, coupled with dense human population, in contrast with sites having sparse infrastructure and low human population density.
EE: Maa- ja linnapiirkondade gradient	*Kohtade eristamine linnastumise taseme alusel ja nende järjestamine vastandades hoonete ja infrastruktuuri ülekaalu ja tiheda inimasustusega alasid ning hõreda infrastruktuuri ja madala rahvastikutihedusega alasid.*
SDGs - Sustainable Development Goals	17 integrated development goals covering ecological, social and economic dimensions, part of the global UN Agenda 2030 (2015-2030).
EE: Säästva arengu eesmärgid)	*17 integreeritud arengueesmärki, mis hõlmavad keskkonna, ühiskonna ja majanduse mõõtmeid ning mis on osa ÜRO ülemaailmsest Säästva Arengu tegevuskavast aastani 2030 (2015-2030).*
Spatial Agency	A proposed unit under MaRu (Land and Spatial Board) with the responsibility to coordinate data management and studies.
EE: Ruumiagentuur	*Välja pakutud üksus MaRu all, mille ülesandeks on koordineerida andmehaldust ja uuringuid.*
Spatial creation	A process of spatial development and design of the living environment.
EE: Ruumiloome	*Elukeskkonna ruumilise arengu ja kujundamise protsess.*
Spatial decision	Decisions made by different governmental institutions, local municipalities, private actors and interest groups about the locations or spatial interactions of phenomena or factors in their specific fields. Often spatial decisions are made independently of spatial planning processes.
EE: Ruumiotsus	*Erinevate valitsusasutuste, kohalike omavalitsuste, eraisikute ja huvigruppide otsused nähtuste või tegurite asukoha või ruumilise vastastikmõju kohta oma valdkonnas. Sageli tehakse ruumiotsuseid ruumilise planeerimise protsessidest sõltumatult.*
Spatial Inspection	A proposed unit under MaRu (Land and Spatial Board) with the responsibility to carry out monitoring-related tasks.

EE: Ruumiinspektsioon	*Välja pakutud üksus MaRu all, mis teostab seirega seotud ülesandeid.*
Spatial planning	The main task of spatial planning is to help the parties agree on the principles and conditions for the development of specific land areas. To reach such an agreement and ensure its acceptance, spatial development must be planned democratically and on a long term, coordinating and integrating the development plans of various areas of life. The long-term trends and needs of the development of the economic, social, cultural and natural environments must be considered in a balanced way when creating comprehensive spatial solutions. Spatial planning includes strategic spatial planning that unites sectoral objectives and actions under a shared long-term vision.
EE: Ruumiline planeerimine	*Ruumilise planeerimise peamine ülesanne on aidata pooltel kokku leppida konkreetsete maa-alade arendamise põhimõtetes ja tingimustes. Sellise kokkuleppe saavutamiseks ja selle aktsepteerimise tagamiseks tuleb ruumilist arengut kavandada demokraatlikult ja pikaajaliselt, koordineerides ja integreerides erinevate eluvaldkondade arengukavasid. Terviklike ruumiliste lahenduste loomisel tuleb tasakaalustatult arvestada majandus-, sotsiaal-, kultuuri- ja looduskeskkonna arengu pikaajalisi suundumusi ja vajadusi. Ruumiline planeerimine hõlmab strateegilist ruumilist planeerimist, mis ühendab valdkondlikud eesmärgid ja meetmed ühise pikaajalise visiooni alla.*
Spatial planning system	Spatial planning system is understood here as a broader system that consists of spatial policy, spatial creation and spatial planning processes. It consists of both the 'formal institutions', i.e. legal and administrative frameworks and structures, and 'informal institutions' to include the perception, beliefs, shared values and behaviour of stakeholders involved in the spatial creation and planning process, i.e. the socio-economic, political and cultural structures and dynamics in a country.[1]
EE: Ruumilise planeerimise süsteem	*Ruumilise planeerimise süsteemi all mõistetakse siinkohal laiemat süsteemi, mis koosneb ruumipoliitikast, ruumiloomest ja ruumilise planeerimise protsessidest. See koosneb nii "ametlikest institutsioonidest", st õiguslikest ja haldusalastest raamistikest ja struktuuridest, kui ka "mitteametlikest institutsioonidest", mis hõlmavad ruumi loomise ja planeerimise protsessis osalevate sidusrühmade arusaamu, uskumusi, ühiseid väärtusi ja käitumist, st riigi sotsiaalmajanduslikke, poliitilisi ja kultuurilisi struktuure ja dünaamikat.*
Territorial governance	Active cooperation across government, market and civil society actors to coordinate decision-making and actions that have an impact on the quality of places and their development.
EE: Territoriaalne juhtimine	*Aktiivne koostöö valitsuse, turu ja kodanikuühiskonna vahel, et koordineerida otsuste tegemist ja meetmeid, mis mõjutavad kohtade kvaliteeti ja arengut.*
Two Estonias	The concept of "two Estonias" has been used in Estonia for decades to describe the social, cultural, and economic differences between the capital region and the rest of the country. The concept was coined by 26 social scientists in a public appeal in the Postimees national daily newspaper on April 23rd 2001 stating that because of the political, social, and ethical crisis we can talk about two Estonians expressed in differences of mindsets and quality of life across Estonia. Academics have found proof for "two Estonias", speaking of the need to increase socio-cultural cohesion, to foster political trust and participation, and to involve more experts in policymaking, but politicians tend to dismiss it as a harmful division that should be discarded.
EE: Kaks Eestit	*Kahe Eesti mõiste on olnud kasutusel aastakümneid kirjeldamaks sotsiaalseid, kultuurilisi ja majanduslikke erinevusi pealinnapiirkonna ja ülejäänud Eesti vahel. Seda kasutati esmakordselt avalikkuses 23. aprillil 2001 üleriigilises päevalehes Postimees ilmunud 26 sotsiaalteadlase*

[1] Reimer, M., Getimis, P., & Blotevogel, H. (Eds.). (2014). *Spatial planning systems and practices in Europe: A comparative perspective on continuity and changes*. Routledge.

avalikus pöördumises, kus leiti, et poliitilise, sotsiaalse ja eetilise kriisi tõttu võime rääkida kahest Eestist, mis väljendub mõtte- ja eluviisi ning elukvaliteedi erinevustes üle riigi. Teadlased pigem toetavad mõiste kasutust, rääkides vajadusest suurendada sotsiaal-kultuurilist ühtekuuluvust, edendada poliitilist usaldust ja osalust ning kaasata poliitika kujundamisse rohkem eksperte, samas kui poliitikud pigem taunivad mõiste kasutust, nähes selles kahjulikku eristust.

1 Introduction

Over the last 30 years, Estonia has gone through rapid changes in various aspects, from rebuilding democracy in the country after the Soviet occupation to becoming a leader in digitalisation in the EU. Well-functioning governance and a proper institutional framework have played a crucial role in reaching these accomplishments.

Achieving a good living environment is one of the five value-based goals set in the national long-term development strategy “Estonia 2035” (2021). These goals aim to support Estonia in becoming a competitive, climate-neutral country by 2050 with a knowledge-based society, green economy, and high-quality living environment in accordance with the objectives set by the UN Sustainable Development Goals (SDGs, 2015). This project builds upon insights that emerged when the strategy "Estonia 2035" was prepared. Specifically, it highlights the importance of considering the fundamental needs of society and emphasises the need for more efficient organisation in development of the living environment.

Currently, Estonia is facing significant challenges in developing a comprehensive approach to spatial development. Estonian spatial governance approach is fragmented and focuses on narrow sectoral objectives, as discussed in the Deliverable 3 and 4 reports. As identified in Deliverable 2, there is still a lack of understanding and consensus among the ministries regarding what high-quality living environment means and what it takes to build a high-quality space and sustainable living environment in Estonia. This lack of clarity persists despite discussions on this topic that have been ongoing for the past ten years. Furthermore, there is no comprehensive and coherent spatial policy at the national level which could be the basis for guiding regional spatial development and decisions made at the local level, covering both the natural and the built environment, as discussed in Deliverable 4. Considering the significant challenges that Estonia is facing due to its sparse and declining population and the phenomenon described as “two Estonias” with relevant services being increasingly sparse in more remote areas, such as kindergartens, schools, medical facilities, fire brigades, etc. This type of spatial development pattern has consequently led to a less sustainable and more car-dependent living style as well as aggravating the already existing spatial and social segregation. This reduces the quality of life, increases inequality, and has negative impacts on human as well as ecological health and well-being.

Therefore, developing a more coherent spatial governance approach is critical for supporting reaching the ecological and social sustainability goals and ensuring a just transition that leaves no one behind. Deliverable 5 has been developed to address issues and propose solutions for enhancing the overall framework responsible for governing and coordinating spatial decisions, while also ensuring a unified and coherent approach to policy development and monitoring. This framework aims to support the creation of a high-quality and sustainable living environment (HQSLE) in Estonia.

1.1 Scope and objectives

This report sets out to:

- ✓ Describe and analyse the Estonian institutional framework and governance system for making spatial decisions;

- ✓ Provide recommendations on how Estonia can improve its governance and coordination system for making spatial decisions among ministries and institutions, including how to avoid gaps, overlaps and inefficiencies and improve cooperation. This would help to ensure that sectoral objectives and actions are united under a shared long-term vision, and to support the implementation of the Spatial Development Strategy Concept developed in Deliverable 4.

It is important to mention that the analysis carried out for this report was conducted amid ongoing changes in the governmental structure resulting from the national elections that took place in March 2023. This also means that the governance system as described in Deliverable 2 has since undergone changes. The initiated reforms led to changes in the governance system related to spatial development topics, transforming the decision-making landscape, and reorganising the work division between several ministries, including the Ministry of Economic Affairs and Communications (MEAC) and Ministry of Finance (MoF). However, the full outcome of this reform, including the new work division, remained in development at the time of submission of this report, even though legislative decisions had been made to accommodate the new governance system.[2]

Consequently, the originally intended scope of Deliverable 5 changed. Instead of focusing on analysing and suggesting improvements to the existing system as initially planned, this report will:

- ✓ Describe the lessons learned from the previous governance system;
- ✓ Assess possible bottlenecks in the emerging governance system;
- ✓ Provide suggestions for reaching optimal solutions.

The problems of the previous governance system are briefly elaborated in Chapter 2 along with those of the emerging system, but the main focus of this report remains on facilitating the development of an optimal spatial governance and coordination system in Estonia (Chapter 4), integrating best practices from international cases (Chapter 3) and discussing indicators for measuring progress and monitoring the quality of space in Estonia (Chapter 5).

Some of the suggestions made by our project consortium have already been implemented when designing the new, emerging system. The suggestions that were not picked up can be considered again when the new system will be revised in 2025. This means that also the rest of the suggestions could still be possibly implemented in the near future.

1.2 Methodology

This report is based mainly on three types of sources. First, the work carried out so far in the framework of this project, primarily in Deliverable 2 “State of play”, Deliverable 3 “Policy recommendations” and Deliverable 4 “Proposal for the preparation of a spatial development strategy concept”. This also includes the insights from the five stakeholder workshops[3] that were carried out in autumn 2022 and two workshops[4] that took place in April 2023.

[2] On 20th of June 2023, Riigikogu approved the reorganisation of ministries as requested by the Government of the Republic in March 2023 resulting in changes in the functions of the ministries and the hierarchy of government departments. Estonian Public Broadcasting: https://news.err.ee/1609012670/riigikogu-approves-reorganization-of-ministries-as-requested-by-government, accessed in June 2023

[3] These took place on 15 November in Lihua, 16 November in Rapla, 22 November in Kääriku, 23 November in Kiviõli and 12 December in Tallinn.

[4] On 11 April, a bottom-up expert meeting involving associations, cities and municipalities representatives took place, and on 12 April, a top-down meeting was held with MEAC (now Ministry of Climate).

Second, input for this deliverable was gathered by conducting desk research. This includes analysing existing working documents developed in Estonia, such as internal ministerial documents discussing the creation of the new Land and Spatial Board (MaRu) along with a possible list of tasks dating between 2020 and 2023. The analysis also included public documents such as the "Green Book of Spatial Planning" (2020) by the Ministry of Finance,[5] the 2021 EU Spatial Creation Expert Group report,[6] or the report of the research project "Spatial design leadership: The role, instruments and impact of state architect teams in fostering spatial quality and a place-making culture across five European states" (2019)[7] and "State and city architects – The role of design leadership in fostering spatial quality and place-making culture" (2022)[8]. In addition, extensive research on existing approaches to understanding and measuring high quality sustainable living environment (HQSLE) was conducted. When talking about HQSLE in this report we align with the New European Bauhaus[9] (NEB) principles enriching, sustainable, and inclusive. Analysed strategic documents include "Estonia 2035", as well as EU Quality of Life approach as well as the Davos Baukultur Quality System. The analysis also considered international case studies with relevant examples for Estonia.

Third, due to the rapidly changing circumstances to the reorganisation of ministries and work division arising from the new coalition agreement, direct communication with the beneficiaries as well as official statements from the Government Office were highly relevant sources of information that gave insights about the emerging governance structure.

2 Overview and gaps of the previous spatial governance system

This chapter sums up the analysis of the previous governance system (running up to 1 July 2023), which provides an overview of the key actors of the previous spatial governance system. Thereafter, gaps, inefficiencies, and bottlenecks of the former system are described. A similar analysis for the emerging governance system (from Summer to Winter 2023) is made in the following chapter.

The aim of this section is to provide an enhanced overview of the spatial governance system as it was at the beginning of the project up to 1 July 2023, when the national election results and the subsequent new coalition agreement changed the scene.

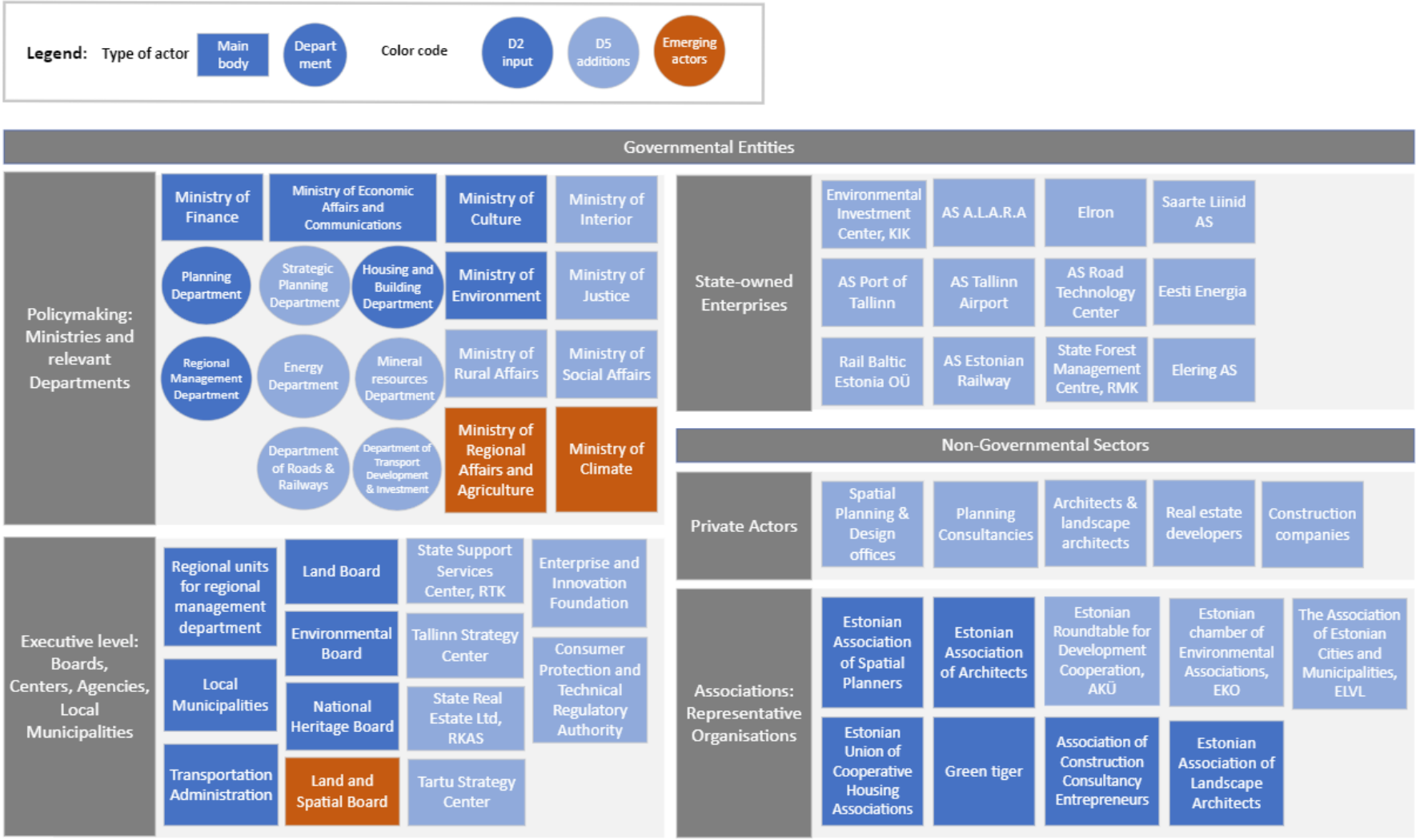
It includes additional actors that were previously not listed in Deliverable 2. The selection of representatives for each category is not meant to be exhaustive and represents rather an estimation of key actors. The actors are divided into five categories, namely:

[5] Ruumilise planeerimise roheline raamat (Green Book of Spatial Planning). Accessible at: https://planeerimine.blogi.fin.ee/wp-content/uploads/2021/05/Ruumilise-planeerimise-roheline-raamat.pdf, accessed in June 2023
[6] European Commission, Directorate-General for Education, Youth, Sport and Culture. (2021). Towards a shared culture of architecture: investing in a high-quality living environment for everyone: executive summary, Publications Office of the European Union. Accessible at: https://data.europa.eu/doi/10.2766/98888, accessed in June 2023
[7] Spatial design leadership: The role, instruments, and impact of state architect teams in fostering spatial quality and a place-making culture across five European states. (2019). Accessible at: https://www.kul.ee/media/809/download, accessed in June 2023
[8] João Bento. (2022). State and city architects. The role of design leadership in fostering spatial quality and place-making culture. Accessible at: https://www.academia.edu/104291142/State_and_city_architects_The_role_of_design_leadership_in_fostering_spatial_quality_and_place_making_culture, accessed in June 2023
[9] https://new-european-bauhaus.europa.eu/index_en, accessed in June 2023

- ✓ **Policymaking level** (ministries and their departments);
- ✓ **Executive level** (boards, centres, agencies, local municipalities);
- ✓ **State enterprises**;
- ✓ **Private actors**;
- ✓ **Associations**.

The figure below gives an overview of relevant existing and emerging actors of spatial creation in Estonia, building on, and complementing the findings of Deliverable 2 in the light of recent changes. It encompasses both governmental entities and non-governmental actors.

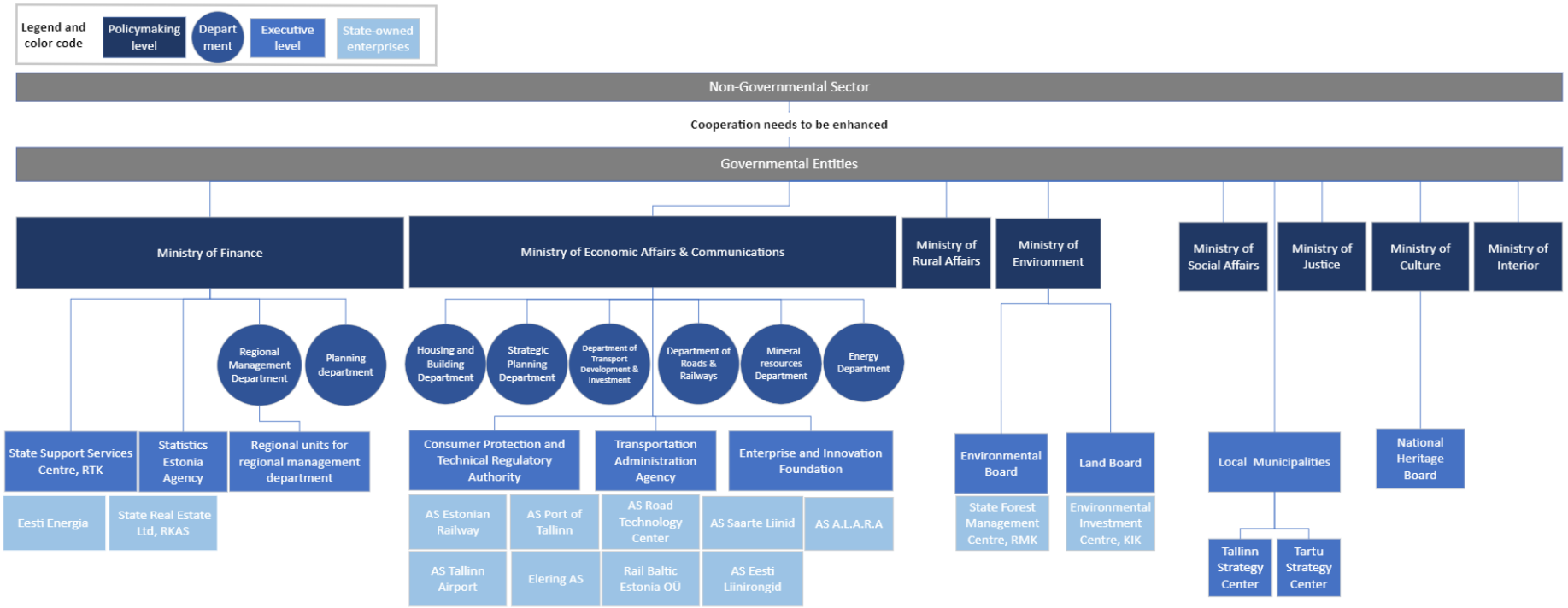
Figure 2-1 Enhanced organogram of key spatial creation actors in the institutional framework in Estonia



Source: own illustration

Figure 2-2 below shows the connections and interactions between the governmental and non-governmental actors as presented in Figure 2-1 above.

Figure 2-2 Organogram of the relations of previous key spatial creation actors in the institutional framework in Estonia (running up to 1 July 2023)



Source: Own illustration

2.1 Tasks of previous spatial creation actors (up to 1 July 2023)

To provide a comprehensive overview, a summary of the tasks of key spatial creation actors up to 1 July 2023 is included in the Annex A of this report.

2.2 Identified gaps, inefficiencies, and bottlenecks of the previous system of the previous spatial creation governance system

The disconnect between the National Spatial Plan and the actual spatial development in the country has been a long-time problem in Estonia. Several reasons contribute to this, including a lack of consensus on what constitutes quality and sustainable spatial development in Estonia, difficulties in reaching consensus among different ministries, silo thinking and working, undervaluing regional-level planning, insufficient expertise in architecture and spatial planning, limited resources at the local government level, inadequate incorporation of criteria for improving the living environment in investments, a lack of structure for ensuring compliance and plan implementation, and a lack of political will. Below, the key gaps, inefficiencies, and bottlenecks observed in the previous system are listed.

#1 Incoherence in spatial planning system

Estonia has been lacking a comprehensive and coherent strategic spatial policy at the national level. The absence of legislation that effectively and cohesively addresses spatial creation processes, coupled with a lack of corresponding political will, hinders the establishment of a solid foundation for regional spatial development guidance and decision-making at the local level. This deficiency encompasses both the natural and built environment, impeding the creation of a high-quality sustainable living environment. In the face of the challenges posed by the incoherence in spatial policy and development, the Ministry of Finance was entrusted with the responsibility of enhancing the linkage between the National Spatial Plan and the actual spatial development. This is due to its oversight of public budget allocation, which grants it the ability to exert influence. However, the outcome has been severely limited. Upon closer examination, several factors have contributed to this issue, as outlined below. Deliverable 2 identified that there is still a lack of understanding between the ministries on what high-quality living environment means. As a consequence, reaching a consensus among the various ministries is often challenging. Considering the significant challenges that Estonia is facing due to its sparse and declining population and the phenomenon of “two Estonia’s” with relevant services being increasingly sparse in more remote areas, developing a more coherent spatial governance approach is critical to achieve the social sustainability goals.

Moreover, as analysed in Deliverables 3 and 4, Estonian spatial planning policy has been too fragmented and focused on narrow sectoral objectives. This approach has resulted in hindering the crucial role of national and regional-level planning. The sectoral policies influencing spatial planning often do not follow the guidelines provided in the National Spatial Plan and do not necessarily consider a comprehensive view on high-quality sustainable living environment. The work is often being done in silos without having a holistic approach and overview of the problems and solutions. Consequently, due to the lack of coordination and harmonisation in the current institutional framework, the resources are used inefficiently, and spatial decision-making does not reflect the needs and interests of the spatial users. For example, several government agencies at state level give out similar subsidies for renovations, which might be overlapping with the already existing initiatives of local municipalities. Furthermore, certain functions / issues are not picked up and responsibilities are split between

different departments (*e.g.*, socially affordable housing issues). In addition, the roles and responsibilities among stakeholders involved in spatial planning are rather blurry.

Additionally, the existing structure for ensuring compliance and plan implementation is weak. Especially, when it comes to investments, there is lacking considerations of incorporating criteria for improving the living environment. A function similar to a state architect office that is responsible at the national level to oversee and guarantee a comprehensive, sustainable and high-quality living environment is missing in Estonia. It results in poor spatial decision-making that lacks strategic perspective and comprehensive oversight as well as in disconnected public space and fragmented living environments. In addition, an official body to ensure better spatial development coherence by coordinating spatial development related policies, research and activities is currently missing.

#2 Imbalance between centralisation and de-centralisation

There is a need to find a balance point between centralisation and de-centralisation, and the roles and scope of spatial planning to be tackled at different levels need to be defined. Currently, the administrative institutional framework is rather centralised and local municipalities are highly dependent on the national government legislatively and financially. While local authorities make individual decisions regarding their own territory, they are only the executive body which localises and implements conditions set by the state and the solutions specified by the grants given. More authority should be given to local municipalities on medium-level decisions such as local funding for circular economy and tactical urbanism projects need to be de-centralised.

On the other hand, key national level spatial policy and decisive factors which have a significant influence on the quality of living need to be centralised. Developing renewable energy and power grids, or smart shrinkage related aspects such as efficient service networks including hospital, schools and other key services are processes that need to be steered by the government on the strategic level.

However, the ratio of labour force on the state and local level in the public sector is unbalanced making the de-centralisation process more complicated. The ratio in Finland and Denmark between people working in the public sector on state and local level is around 1:3, in the Netherlands around 1:1.5 and in Estonia it is 3:1.[10] The lack of local competence and capacity makes it difficult to address planning issues in a more creative way, which is why it is necessary to build up the local know-how competence and increase the local capacity as the “Long-term View in Construction 2035” also sets the goal of improving the municipalities’ long-term planning capacities.

#3 Insufficient professional competence coupled with limited capacity

Due to the abolishment of the county municipalities in the beginning of 2018, the cooperation between different municipalities has been reduced, which further complicates creating a coherent high-quality and sustainable living environment (HQSLE). Parallel to the need for capacity building in local municipalities, there is an overall lack in professional competence in Estonia. Creating a coherent HQSLE is a complex and multidisciplinary endeavour. Several areas of expertise are highly relevant to achieving this goal, although urban planning and design would often be considered the most crucial and

[10] Olev Raju. (2005). Kohalike omavalitsuste rahastamisest Eestis. Accessible: https://rito.riigikogu.ee/wordpress/wp-content/uploads/2016/03/Kohalike-omavalitsuste-rahastamisest-Eestis.pdf, accessed in June 2023

fundamental areas of expertise for creating HQSLE due to its pivotal role in shaping the physical layout of living environments. Professional planners in Estonia mainly come from these study programmes:

- ✓ Architecture and Urban design at Estonian Academy of Arts (EKA);
- ✓ Architecture at Tallinn University of Technology (TalTech);
- ✓ Geography, Geoinformatics for Urbanised Society at University of Tartu (UT);
- ✓ Environmental planning and landscape design, Landscape Architecture at The Estonian University of Life Sciences (EMÜ);
- ✓ Urban governance at the Tallinn University (TLU).

The demand for planning professionals exceeds what these programmes offer. Currently there is notable absence of a robust emphasis on fostering planning specialists with the ability to work across diverse planning scales while maintaining a comprehensive and holistic view of sustainable and high-quality living. Moreover, on the local level, politicians often interfere with professional planners, which creates ambiguity in the division of tasks and does not necessarily support moving towards HQSLE. The establishment of HQSLE is inherently a multidisciplinary endeavour. Thus, there is an imperative to not only enhance the professional capacity of planning specialists, but also to cultivate greater interdisciplinary collaboration in related fields, such as Architecture, Landscape Architecture, Civil Engineering and others to alleviate silo thinking.

In addition, the private sector needs to be more involved in the spatial planning processes, so its awareness of the importance of high-quality sustainable living environment should be raised. Further, the cooperation among the state, local authorities, and entrepreneurs should be fostered as almost 25% of total companies registered in Estonia[11] are in the field of real estate and construction which have direct impact on the quality of the living environment. The quality of spatial creation could be largely improved with improved competency and capacity of the private sector.

#4 Lack of consensus on principles of HQSLE across sectors

There continues to be a lack of consensus on what constitutes quality and sustainable spatial development in Estonia. For example, the Estonian Planning Act[12] articulates its aim to foster a high-quality living environment through sustainable spatial planning, while the Estonian Building Code[13], in contrast, does not incorporate the pursuit of a high-quality built environment as part of its objectives. This incongruity highlights the absence of a unified understanding and commitment to the principles of HQSLE in the spatial creation process from planning to construction. There is no statewide consensus on principles to guarantee high-quality sustainable living environment or fighting the climate change. Unfortunately, there are no regulations in key areas such as precipitation management systems or replacement planting on a higher level, so all the municipalities can set their own rules. This should be changed as such principles should be strategically discussed and agreed upon at the national level.

#5 Lack of strategic funding for HQSLE

Besides capacity building, financial resources should not be overlooked. Currently, good quality living environment is not prioritised in the state budget although Estonia has recognised the importance of

[11] Statistics Estonia. EM001: ettevõtete majandusnäitajad tegevusala ja tööga hõivatud isikute arvu järgi. Availaible: https://andmed.stat.ee/et/stat/majandus__ettevetete-majandusnaitajad__ettevetete-tulud-kulud-kasum__aastastatistika/EM001, accessed in June 2023

[12] Planning Act. § 1. Aim and scope of regulation of this Act. (2023). Available: https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/504072023008/consolide, accessed in June 2023

[13] Building Code. § 1. Aim of the Code. (2015). Available: https://www.riigiteataja.ee/en/compare_original/511082015002, accessed in June 2023

sustainable and high-quality living environment in its national long-term strategy "Estonia 2035" and in the Green Transition Action Plan for 2023-2025 as one of its fundamental goals. Therefore, it is imperative that funding dedicated to actualisation of a HQSLE should become a top priority in the forthcoming national budget strategy for 2024-2027.

3 Overview and gaps of the emerging spatial governance system

The previous chapter provided an analysis of the previous governance system (running up to 1 July 2023). This chapter offers the same analysis carried out from the emerging governance system (from Summer to Winter 2023), where the key actors, gaps, inefficiencies, and bottlenecks are described.

3.1 Tasks of emerging spatial creation actors (from Summer to Winter 2023)

Significant changes are taking place in the governance system resulting from the new coalition agreement after the governmental elections in March 2023. Five ministries, Ministry of Environment (MoE), Ministry of Finance (MoF), Ministry of Economic Affairs and Communication (MEAC), Ministry of Rural Affairs and Ministry of Social Affairs (MoSA) have been reorganised,[14] in particular:

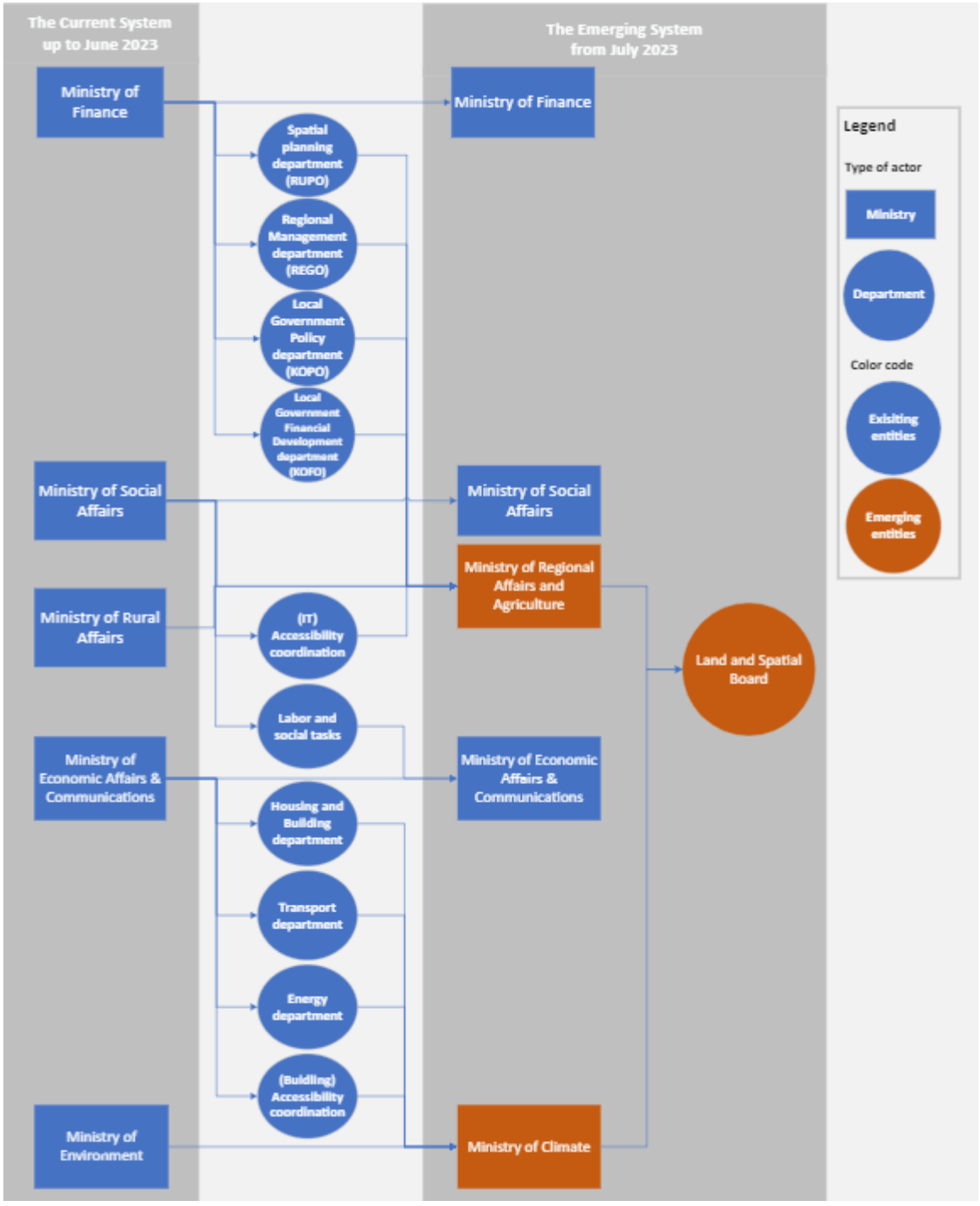
- A new Ministry of Climate was formed in June 2023, which combines functions of the former Ministry of Environment and Ministry of Economic Affairs and Communication. Structural units from MEAC, namely the Construction and Housing Department, Department of Mineral Resources, Transport Department and Energy Department, were merged with the former Ministry of Environment;
- The Ministry of Rural Affairs has been reorganised into the Ministry of Regional Affairs and Agriculture (MoRAA). Structural units from the MoF, including the Spatial Planning Department and Regional Management Department will join the new Ministry of Regional Affairs and Agriculture.
- MoSA's labour and social tasks will be transferred to the new Ministry of Economic Affairs and Communications (MEAC); and
- Accessibility coordination will be transferred to the Ministry of Regional Affairs and Agriculture (MoRAA).

These changes are illustrated in Figure 3-1.

The colours used on Figure 3-1 follow a similar logic to the institutional framework organogram. Dark blue marks the existing entities (Ministries and their departments mapped out in D2 and D5), whereas orange marks the still emerging governance system. The departments on the light grey background are from the previous governance system that are currently being reorganised within the emerging system. The blue arrows indicates the unfolding reforms.

[14] ERR. (2023). Valitsus korraldab uueks aastaks ümber viie ministeeriumi töö. Accessible at: https://www.err.ee/1608948859/valitsus-korraldab-uueks-aastaks-umber-viie-ministeeriumi-too, accessed in June 2023

Figure 3-1 Restructuring of the governance system as of July 2023



Source: own illustration

The names of the new ministries were finalised on 20 June and will enter into force from 1 July 2023. However, the relocation of staff and tasks, transfer of all technology enhancements to shared platforms, identification of the requisite competences for the new ministries, and the establishment of the new organisational structure would take more time. The transition period will run until the end of 2023 and the new ministries are expected to be fully operational from the beginning of 2024.

3.2 Possible gaps, inefficiencies and bottlenecks in the emerging system (stand Summer 2023)

#1 Lack of priority on spatial topics in the reorganisation

In the recent restructuring of ministries, the responsibilities and potential tasks related to HQSLE are divided between the Ministry of Regional Affairs and Agriculture (MoRAA) and the Ministry of Climate (MoC). MoRAA oversees a larger scale of spatial planning and regional development policies while MoC is in charge of more specific aspects, including building and construction as well as housing policy, mobility, biodiversity, environmental protection and others. A potential challenge that may arise is the inadvertent neglect of spatial quality concerns due to insufficient collaboration and communication between these two ministries. To avoid this bottleneck, spatial quality topics must be given special attention in the Ministry of Climate. This entails the need to keep spatial development in focus, and to ensure that the necessary support is provided for cohesive strategic spatial planning and decision making, and to foster cooperation that is needed to reduce the impact of working in silos between departments. As a positive development, the Minister of Climate, together with the Ministry of Regional Affairs and Agriculture, agreed upon the work plan of the Spatial Planning Department as well as Regional Development and Policy Department (located within the new MoRAA), based on the government's Green Transition objectives (amendment adopted on 19 June 2023).[15] This marks a significant stride in breaking down silos and encouraging collaboration for a more sustainable future. It is crucial to emphasise that the pursuit of a high-quality sustainable living environment remains an equally essential facet of spatial planning and overlooking it could pose a potential risk within the emerging system.

The second issue is related to semantics. The initial name of the reorganised Ministry of Environment was the Ministry of Climate and Living Environment. However, due to short title being more convenient, the latter part was omitted from the official name of the new Ministry. The power of naming should not be underestimated as it channels attention, actions as well as finances towards certain topics. The urgency of creating a sustainable and high-quality living environment has been overlooked and de-prioritised in Estonia for decades (similarly to climate topics), so adding "living environment" back to the name of the Ministry of Climate would greatly increase the importance, visibility and potentially facilitate financing related work in the emerging ministry and in society as well. A positive update to this issue is that by the end of the summer, it has become clear that despite the term "living environment" being omitted from the name of the new ministry, it is included to the position of the respective undersecretary "Deputy Secretary General for Living Environment and Circular Economy" as well as in the name of the responsible department "Department of Construction and Living Environment".

#2 Independence and power of the Land and Spatial Board (MaRu)

Ensuring that the development of high quality and sustainable living environment would remain a priority regardless of shifts in political power is necessary in order to maintain a long-term consistent development trajectory. The change ensuing the March 2023 elections and the following reorganisation serve as a stark reminder of how spatial topics continue to hinge on the presence or absence of political will. Within the new reorganisation, a key challenge lies in optimising the collaboration between two Ministries – the Ministry of Climate and the Ministry of Regional Affair and Agriculture. The ultimate goal is to ensure that this collaboration serves the best interests of the new MaRu on prioritising spatial matters.

[15] Details on this amendment can be found on the Riigikogu page: https://www.riigikogu.ee/tegevus/eelnoud/eelnou/71725a83-5d9b-4c52-a649-f3bd4f9f8bc7/vabariigi-valitsuse-seaduse-ja-sellega-seonduvalt-teiste-seaduste-muutmise-seadus, accessed in June 2023

Another critical concern is related to the question of how much and what kind of power should the emerging spatial office MaRu have regarding spatial policy formulation, land use regulations, budget and funding allocation, and decision-making particularly in scenarios involving competing interests and power dynamics among different stakeholders including national entities, developers and local communities. For example, in Flanders, Belgium, the equivalent body for MaRu is a clear change leader, but in other countries like Austria, Denmark or Scotland, this body acts as a design advisor. In Estonia, there has been a significant amount of independence on the executive level (*e.g.*, Environmental Board, Land Board), but the opinions on the amount of optimal independence or autonomy differ. Although Estonian local governments have in principal a relatively high level of autonomy, the practical reality is that the local governments have very limited resources and capacity, resulting in relatively constrained autonomy in practice. So, there is a lack of an objective basis to decide on the optimal levels of autonomy, which could be solved with the development of a solid set of indicators.

#3 Lack of capacity for participatory planning

Lacking engagement opportunities and public interest is a general planning issue in Estonia. Even though in recent years, spatial creation topics have gained increased attention through (social) media in the public, it can sometimes still be difficult to get people to participate in the public discussion meetings that are part of the planning process. Furthermore, organising the participatory processes needs a lot of resources, including time and workforce. Consequently, these processes in decision-making are sometimes underused or done only formally as an obligatory part of the process, meaning that the participation can remain superficial, on the level of being informed or consulted with. Although public awareness of these topics has been increasing, it remains relatively low. Thus, besides engaging the public in decision-making (through traditional informative public meetings), more focus should be put also on the awareness raising and creation of ownership for spatial solutions. In this context, the emerging spatial creation governance system needs to prioritise active planning engagement. It is important to note that merely reshuffling existing departments among different ministries does not automatically equate to expanding the capacity for active participation in the planning process. Therefore, there is a critical gap, and if done right, the organisation of the emerging spatial creation governance system could significantly enhance the ability to facilitate participatory planning process – a capability and capacity currently lacking in Estonian local governments.

#4 Incoherent and suboptimal governance: overlapping and deficient responsibilities

One area of deficient responsibilities relates to state-owned companies, such as Tallinna sadam, Eesti Raudtee, Riigi Kinnisvara, Rail Baltic, Transport Administration Agency (TRAM) etc. (see Figure 2-2 for an overview). Currently these companies do not have the aim or obligation of ensuring that their developments also contribute to creating good quality sustainable space. State-owned companies have a significant role-model function as well as the responsibility to perform tasks arising from public interest. For several of these state enterprises, changing and developing the use of space in Estonia is one of their main functions and thus their role should not be overlooked when considering the management of spatial creation. Such companies are often responsible for large-scale developments that are affecting many people in Estonia and the spaces they are creating or developing are mostly public spaces, making the consideration of sustainable and good quality space particularly important. A lack of understanding of their role and responsibilities makes it significantly more difficult to create quality space in the country as it also sets bad examples for private companies. Considering their special status, best practice guidelines as well as minimal requirements should be provided for such

companies to clarify their responsibility and steps should be put in place to ensure that they participate in creating sustainable good quality living environment. The indicators for measuring good quality sustainable living environment that are discussed in Chapter 6 are of high relevance for ensuring a systematic approach, clarity of understanding and accountability of these actors.

Another example of deficient and unclear responsibilities is that of affordable housing in Estonia. Just transition has raised the relevance of social sustainability issues in European Union in the light of efforts to make the European Green Deal happen. Taking care that green transition does not leave anybody behind is a relevant task that directly impacts the quality of life. However, in Estonia it has remained unclear, who exactly is or should be responsible for the strategic vision of shaping the affordable housing policies. While at the operational level it is the responsibility of local municipalities, it is imperative that a more comprehensive approach should be adopted at the strategic level. This should encompass the entire spectrum of tasks, from spatial vision creation, affordable housing policy making, budget allocation, project development to long-term maintenance. Ideally, affordable housing should be recognised as a crucial subtopic under the broader umbrella of HQSLE. This approach would allow for a coherent and rational framework that maximises efforts to minimise negative social impacts such as segregation, gentrification, etc.

4 Good international practices for institutional and governance systems

The chapter below presents relevant good international practices that may be relevant to draw insights from and to find solutions to the gaps and inefficiencies identified in the previous chapters, that are suitable for consideration in the Estonian context. It builds upon the results of Deliverable 3, which resulted in the identification of five case studies of relatively small European countries which were most relevant for the Estonian case: the Netherlands, Ireland, Flanders in Belgium Denmark and Sweden.

Out of these five countries, the Netherlands, Ireland, Sweden and Flanders in Belgium have State Architect's Offices responsible for suggesting and ensuring the spatial quality of building projects. Even though Denmark does not have a State Architect Office, the institutional framework of delivering sustainable and high-quality living environment is comparably more integral and viable. The presence of such a body generally contributes to improved quality of space and the creation of more sustainable living environments. The institutional frameworks and spatial planning frameworks of these countries were studied and compared to those of Estonia. To derive recommendations for Estonia, a systematic approach was employed using five questions:

- How does the case study relate to Estonia?
- What are the tasks for the state architect’s office or the equivalent body?
- What is the organisational structure of the state architect’s office?
- How is its relation to the institutional framework and the governance system?
- How are the spatial decisions made?

The section below will present the key lessons learned and the resulting recommendations for Estonia. In all cases, the insights and lessons learned are provided. More detailed case study analysis of each national case can be found in Annex B.

4.1 Lessons learned from the Netherlands

1. **Setting up a strategic advisory board.** In 2005, the Netherlands was facing a similar challenge of spatial quality like Estonia is facing. Although they had the Chief State Architect's office in place, they were overloaded. They established the Board of Government Advisor (BGA) to upgrade the competency and capacity of the State Architect's Office, facilitate spatial planning and safeguard the quality of living environment more broadly. Estonia is now in a fairly similar situation: sustainable and high-quality living environment is one of the main goals set in the long-term national strategy "Estonia 2035", but there is currently still no position or an office at the state level to safeguard spatial quality in the Estonian living environment. **Estonia could start by setting up a up an interdisciplinary expert team consisting of diverse experts,** including but not limited to architects, urban planners, urban designers, landscape planners and architects as well as visual artists and other specialists with a background in spatial practices. Their main task would be to advise the ministries on spatial quality and to work on urgent topics such as sustainable urban development and transformation, clean and sustainable mobility, clean energy transition, preservation of cultural landscapes, etc. This advisory board could be integrated into the emerging spatial office (MaRu) as its strategic board. To ensure the quality of their work, it is suggested that **the main work would focus on generating a strategic vision, spatial visualisation guidance and public involvement** rather than dealing with the mundane legal permitting processes, or spatial data collection and analysis. Such tasks could be the responsibility of subunits of the emerging MaRu.
2. **The benefits of setting up a state spatial office.** From the Dutch example, there are spatial offices at the national, regional and the local level. Given the low population density and a lack of professional planning specialists in Estonia, it would not be possible to have the exact same set up as the Netherlands. Nevertheless, Estonia would still benefit from the idea of setting up a spatial office, which would be responsible for supervising and dealing with spatial development quality issues regarding policy making, planning and design of the living environment. **Estonia could set up such a spatial creation office at the national level which roles and responsibilities should be advised by planning authorities, with an emphasis on improving spatial quality.** A clarification of the roles and responsibilities, as well as ensuring a coherent workflow between this office and the planning authorities should be **made.** A quote from The Board of Government Advisors of the Netherlands: 'So the focus is not on a plan, but on **the process of design-based thinking and acting**, and the search for **a shared perspective'**.[16]
3. **Spatial Creation Action Programme funded directly by a national budget plan.** Estonia has recognised the importance of sustainable and high-quality living environment in its national long-term strategy "Estonia 2035" and in the green transition action plan for 2023-2025 as one of the main fundamental goals. To further elevate these efforts and bring about transformative change, it is imperative to explore the possibility of establishing a dedicated budget line within the forthcoming state budget strategy for 2024-2027. Prioritising adequate funding for this goal is

[16] The 22nd century starts now: The Board of Government Advisors Agenda 2021-2024. Accessible at: https://english.collegevanrijksadviseurs.nl/binaries/collegevanrijksadviseurs-en/documenten/publications/2022/05/31/the-22nd-century-starts-now/CRa+-+The+22nd+century+starts+now_EN.pdf

crucial. The state funded Spatial Creation Action Programme would facilitate reaching the spatial topics of national interests, effectively supporting the realisation of the goal of sustainable and high-quality living environment.

4. **Spatial experiments as a tool for agile planning.** Concepts of tactical urbanism, guerrilla urbanism, pop-pup urbanism, urban acupuncture, planning-by-doing etc. have been associated with specific keywords that aim to address the limitations of traditional urban planning. These keywords encompass attributes such as agility for faster implementation, cost-effectiveness, connectivity through networks, and a grassroots, community-driven approach. One notable example is the 'Pop-Up City' (PUC) movement in Amsterdam.[17] PUC is an agency for urban transformation based in Amsterdam since 2008. It collaborates with Dutch state and local governments to strategise future-proof spaces and develop liveable, authentic and sustainable living environments. The scope of their projects ranges from a macro level, involving initiatives like assisting the Ministry of the Interior and Kingdon Relations in boosting shrinking rural regions and shaping the first Town Deal. This initiative allows municipalities to think out of the box and experiment with creative ideas and methods through co-creation events stepping off the beaten track. At a micro level, the PUC assists local municipality of Amsterdam with placemaking endeavours, including but not limited to the creation of pop-up urban parks, revitalisation of vacant industrial area, and the infusion of art, culture and public space activation to breathe new life into local neighbourhoods.

   The PUC is just one among several similar initiatives in the Netherlands. Allowing room for such initiatives to grow in planning coordination system is extremely important. These initiatives provide a valuable avenue for the practice of agile, cost-effective, and community-driven approaches to urban development which can contribute significantly to capacity building for professionals in the field of HQSLE.

More details about the Dutch case study can be found in Annex B (Case study 1).

4.2 Lessons learned from the Flemish region in Belgium

1. **Political neutral state spatial office. It is important for the state spatial office to be politically neutral** to best represent the interests of the public. Therefore, the selection of the members of the spatial office should be based on the professional background and competence of dealing with spatial problems instead of political affiliations.
2. **Appropriate and proportionate legislative and administrative power of the state spatial office. It is also important for the proposed state spatial office to have a certain legislative, authoritative, or administrative power** to push through spatial decisions that reflect the genuine needs of general public when there are conflicts among different stakeholders in a democratic capitalist society.

More details about the Flemish case study in Belgium can be found in Annex B (Case study 2).

[17] See https://popupcity.net/about/

4.3 Lessons learned from Ireland

1. High level of collaboration amongst relevant actors. An essential element for achieving sustainable and high-quality environmental outcomes in Ireland involves the collaboration of diverse agencies that propose planning solutions, provide support throughout the planning process, and oversee the planning standards. These agencies operate in a systematic manner and are subject to a regulatory framework designed to maintain checks and balances, as depicted in Figure B-0-4 and Figure B-0-5 in Annex B. Noteworthy examples of such agencies include the State Architect of Ireland which is under the Office of Public Works (An Bord Pleanála, equivalent to the Estonian Planning Department under MoF), and the Office of the Planning Regulator. **Estonia would greatly benefit from starting by setting up an institution aimed at ensuring spatial quality for specific plans and projects.** By doing so, Estonia can gradually expand its institutional framework and incorporate more comprehensive planning mechanisms that incorporate checks and balances. This would ultimately contribute to the stable and high-quality execution of spatial initiatives.
2. Open to international pool of spatial professionals. The selection process for the State Architect of Ireland is designed to embrace candidates from around the world, enabling Ireland to tap into a broader pool of talent on an international level. By adopting a similar strategy, Estonia could benefit in several ways. Firstly, it would help address the issue of limited professional competence in spatial planning by bringing in qualified individuals from abroad. Secondly, it would bring in new ideas and approaches, enriching Estonian spatial creation scene. Thirdly, it would create new opportunities in the job market for foreigners with diverse international professional backgrounds, thereby diversifying the field of planning in Estonia.
3. Developing of a national spatial design criteria and/or indicators. The latest architectural policy in Ireland has placed a strong emphasis on the establishment of national design quality criteria. Recognising that sustainable and high-quality spatial indicators in Estonia are very limited and there is no mechanism of implementation in planning process, it becomes evident that Estonia could greatly benefit from the implementation of similar indicators across various planning levels, ranging from national to local planning with the support by MaRu. And Estonia would be able to enhance its spatial planning practices and ensure the development of sustainable and high-quality environments throughout the country.
4. In Deliverable 4, the national strategy Project Ireland 2040 was mentioned and researched. Project Ireland 2040 includes a National Planning Framework and a 9-year National Development Plan with common objectives and six strategic outcomes. There are 75 National Policy Objectives in 11 areas to guide long-term investments, considering the country's regional characteristics. An interactive map application supports the strategy, and was praised in the 2020 Green Paper on Spatial Planning which was published by the Department of Spatial Planning under the Estonian Ministry of Finance.

For more details about the case study of Ireland, please refer to the Annex B (Case study 3).

4.4 Lessons learned from Denmark

1. Centralise spatial planning institutional structure. **A unified spatial planning-related institutional structure** leads to more effective and coordinated spatial decision-making.

2. **Facilitate cross-border cooperation between municipalities.** **Cross-border cooperation** between municipalities is the key to sustainable spatial planning. A long-term cooperation of city-regions in settlement planning is demonstrated by Copenhagen's Five Finger Plan.
3. Preserve national heritage and culture in spatial development. Heritage-centred development allows a cohesive approach for revitalising living environments and fostering a sustainable and culturally rich society. By seamlessly blending the old with the new, this approach creates vibrant communities that harmoniously integrate historical significance with contemporary living standards. In Denmark, the department of urban renewal and the department of public housing were put under one office. This grants the office a vision of an economically efficient path to affordable housing by strategically repurposing historic structures alongside considering new construction when cost-effective. By doing so, the use of existing resources is optimised and the demand for costly new development is reduced. Heritage-centred development not only diversifies housing options but also can potentially contribute to housing affordability while preserving cultural heritage and local community identities with unique and appealing urban spaces.
4. Tailored regulations to manage the housing market. In Denmark, the Summer House Act effectively governs the housing market, ensuring sustainability and a high-quality living environment. Approximately one in five Danish homeowners rent their second homes.[18] Specific regulations, which dictate the number of weeks per year each house can be rented and restricts foreign nationalities to purchase a second home, has effectively managed the housing market. Estonian and other international buyers also enjoy owning second homes in Estonia. As a result, Estonia faces a significant challenge related to seasonal residency coupled with sparse settlement structures when planning residential development. This challenge manifests as a substantial surge in demand for public infrastructure during the summer, contrasting with reduced demand in the winter, leading to financial pressures for public service maintenance. Additionally, the absence of up-to-date regulations allows foreigners to freely buy and sell apartments, potentially destabilising the housing market, particularly in regions such as Harju County, Saaremaa and Ida-Viru County.[19] Therefore, **Estonia would greatly benefit from a comprehensive examination of this issue and the implementation of regulatory measures to ensure a healthier housing market.** Acquiring accurate data will be crucial in facilitating this process, enabling more precise planning of infrastructure, optimising public transportation systems to reduce car commuting, enhancing water management, fortifying electricity grids, improving telecommunications, and optimising the efficiency of rescue teams, among other vital aspects of community life.

For more details about the case study of Denmark, please refer to the Annex B (Case study 4).

4.5 Lessons learned from Sweden

1. Tasks and power of the state spatial creation office. Boverket, also known as the Swedish National Board of Housing, Building and Planning, operates under the Ministry of Rural Affairs and Infrastructure. The state architect, who leads and coordinates the questions regarding architecture and built living environment, is also employed in Boverket.

[18] Danish summer house rules. (2020). Accessible at: https://www.the-intl.com/post/danish-summer-house-rules#:~:text=During%20the%20summer%20season%2C%20from,in%20their%20cottages%20year%2Dround.
[19] ERR News: Russians selling real estate in Estonia, Americans buying. (2023). Accessible at: https://news.err.ee/1608989725/portal-russians-selling-real-estate-in-estonia-americans-buying.

Boverket's responsibilities include but are not limited to:

- **Issuing Swedish Building Regulations**, mandated by the Planning and Construction Act, with the authority to create regulations as authorised by the government;
- **Providing general policies, guidelines, roadmaps for planning and construction legislation**, exemplified by the Boverket Building Code (BBR);
- Ensuring compliance with EU regulations when drafting building codes;
- Offering guidance and advice for planning activities at both the state and local levels;
- **Overseeing Municipal and County Planning** from legal, procedural, and architectural angles;
- Supervise energy declarations and application of Planning and Construction Act;
- **Administrate national subsidies and grant**s;
- Collaborating with regional county councils and county administrative boards on regional development planning;
- Promoting coordination between Regional Development Plans, Regional Growth Programmes, and municipal comprehensive plans to achieve cohesive regional spatial planning;
- Addressing infrastructure, mobility, urban, and social challenges within the planning process;
- Collecting national and international statistics and conducting spatial impact assessments at both national and regional levels to inform policy decisions;
- Focusing on improving the quality of life and fostering sustainable development in regions and communities;
- **Acting as a knowledge and competence dissemination organisation**.

2. Initiating collaboration and cooperation among different state agencies. Since the newest architectural policy, i.e. the "policy for designed living environment"[20] emphasises cross-sector collaboration and cooperation nationally and internationally, a collaboration was formed among four state agencies that cover the main perspectives from the new architectural policy of designed living environment, including architecture, design, urban design, art, and cultural heritage. The four state agencies are Boverket, the National Heritage Board, the National Architecture Centre and Design (ArkDes), and the Swedish Arts Council. This approach can enhance the co-creation and co-decision-making among different sectors and agencies, which can lead to a more holistic solution to achieving a sustainable and high-quality living environment.
3. Bridging research and policy making. ArkDes Think Tank[21] was established to monitor and support the national architecture and design goals outlined in the policy for design the living environment. Financed by the government's policy, through exploratory practice-based research projects, ArkDes Think Tank generates new knowledge in the field of designed living environment and applies them to fulfil the UN sustainable development goals.
4. Creating a council for sustainable and high-quality living environment. The council for sustainable cities[22] represents the Swedish government's visionary commitment to fostering sustainable urban development. Established in 2017, the council facilitates collaboration

20 Policy for designed living environment. (2017). Accessible at https://www.government.se/contentassets/c008469d86b848f3918a1efcd7d7fb2f/policy-for-designed-living-environment.pdf
21 ArkDes Think Tank. Accessible at https://arkdes.se/en/arkdes-think-tank/
22 Website of the council for sustainable cities and communities. Accessible at https://www.hallbarstad.se/radet-for-hallbara-stader/

among various governmental bodies, enhancing municipalities' capacities to cultivate vibrant and sustainable cities and communities. One of the council's primary objectives is to foster synergistic relationships among governmental entities that contribute to the realisation of SDG11 Sustainable cities and communities by 2030. Additionally, it plays an important role in developing and managing an online platform which serves as a central hub for valuable resources, knowledge support, and funding opportunities dedicated to the growth of sustainable cities and communities. Boverket has been commissioned to establish an office to support the council's work. The tasks of the council[23] for achieving socially, environmentally, and economically sustainable urban development with a holistic approach include aspects such as spatial planning, building and housing, transportation and infrastructure, cultural landscape, digitalisation and technology development, accessibility, regional growth, environment, energy and climate challenges, etc.

For more details about the case study of Sweden, please refer to the Annex B (Case study 5).

5 Recommendations for optimising the spatial creation governance system

Integrating the lessons learned from the gap analysis, the international best practice case studies, the policy recommendations from Deliverable 3 and conclusions of Deliverable 4, we propose the following recommendations to enhance the coherence and quality of spatial creation governance and coordination system in Estonia.

5.1 Keeping up the political momentum to optimise the spatial governance and coordination system for HQSLE

The creation of high-quality sustainable living environment has not been prioritised in Estonia. There has been a lack of political interest and willpower to implement initiatives related to improving the quality of living environment in Estonia. The March 2023 elections changed this situation, which saw the political willpower to revise the spatial creation system. The question and challenge now is how to make the most of this moment to achieve the best possible results.

A political agreement has been made to reorganise the institutional framework and consolidate most of the spatial creation units under two ministries undergoing restructuring: the Ministry of Climate (MoC) and the Ministry of Regional Affairs and Agriculture (MoRAA). This is a positive step as it is likely to pave way for smoother and improved cooperation. The emerging Land and Spatial Board (MaRu) is planned to be co-managed by these two ministries (MoC and MoRAA). Co-management is an unusual solution, but it is also a smart solution that helps to step away from working in habitual silos, and create new, innovative solutions and cooperations. The double management also creates a much-needed discussion space on the strategic level on HQSLE issues which will be beneficial to ensure more balanced and mature (negotiated and mutually useful) spatial decisions and outcomes. We suggest that MaRu would be led by a strategic group for HQSLE that would be optimally placed for facilitating such discussions, leading to well-informed and more coherent decision-making. Another benefit of the double-

23 Task of the sustainable cities council. Accessible at https://www.vinnova.se/en/m/sustainable-built-environments/council-for-sustainable-cities/

management is that the emerging MaRu would have due to this arrangement a stronger legislative, authoritative and/or administrative power to push through spatial decisions that reflect the genuine needs of general public in case there are conflicts among different stakeholders, a lesson learned from the Flemish example.

The suggestion of Deliverable 4 to create a HQSLE spatial development strategy, acting as a guiding principle for growth and development in Estonia and formulating a vision for Estonia's spatial development in alignment with the goals of long-term strategy "Estonia 2035" would be an optimal way forward to prolong the momentum and political interest in spatial creation issues beyond on-going reorganisation of ministries which should be done by the end of 2023. As the processes around creation of spatial development strategy require a lot of cooperation between different stakeholders, it also helps to foster a sense of ownership for the decisions that have to do with creating high quality and sustainable living environment.

In addition, indicating a deadline for revising the results of the ongoing institutional reform and reorganisation would be useful for keeping up the momentum and opportunity to implement further adjustments and improvements into the currently emerging spatial governance and coordination system. However, it would make sense to be more specific regarding the deadline for the revision period, instead of the current vague deadline of "in the first half of 2025".

Another small, but semantically meaningful step towards keeping the momentum would be to expand the name of the Ministry of Climate again into **the Ministry of Climate and Living Environment**. This was the original name form shortened for the sake of simplicity. Considering the complexity and urgency of existing sustainability challenges, it could be argued that renaming the Ministry of Environment into the Ministry of Climate bears the danger of narrowing the scope too much. Climate change is a very serious threat that needs to be addressed, but it is only one of the nine planetary boundaries and equally relevant in its negative impact to biodiversity loss. Adding the term "living environment" to the name of the ministry would give a clear signal of the strategic relevance of HQSLE, helping to bring more attention to the interrelated nature of sustainability challenges we need to tackle to ensure a stable and good quality of life. However, at the time of writing this report (spring to autumn 2023), the reorganisation of MEAC and MoE to MoC has already brought substantial positive changes in prioritising climate as well as living environment topics. The restructuring is not only the case in Estonia; a recent piece of news published from the website of Board of Government Advisors from the Netherlands stated that for the elections in November 2023, sixteen pieces of advice for a valuable living environment from the advisors to the Dutch government were published, among which **the 15th advice is to appoint a Minister of Spatial Development and Living Environment in a new cabinet.**[24] This new Minister of Spatial Development and Living Environment will coordinate all urgent tasks and long-term thinking about the living environment.

[24] Zestien adviezen voor een waardevolle leefomgeving. (22.08.2023). Accessible at: https://www.collegevanrijksadviseurs.nl/actueel/nieuws/2023/08/22/zestien-adviezen-voor-een-waardevolle-leefomgeving

5.2 Establishing a state spatial office to coordinate and improve coherence in spatial creation system

In Estonia, where a significant portion of land is privately owned, the adoption of participatory planning approaches at all governmental levels is crucial for the sustainable development of the country. To ensure long-term sustainability, Estonia should embrace both top-down and bottom-up spatial decision-making approaches, drawing inspiration from the successful example set by the Netherlands. To ensure that the proposed governance framework is agile and flexible enough, it is suggested to allow more room for **tactical urbanism** to take place along the planning procedure when needed. Tactical urbanism is a cost-effective planning approach that uses inexpensive short-term small-scale interventions at local level for a long-term national goal, e.g. to bypass slow official planning procedure for faster changes. It departs from small actions and serves larger purposes for the society. With the rise of fast-paced energy development projects in Estonia, the newest amendment in the Planning Act (entry into force 17.03.2023) shows the necessity to simplify planning procedure and shorten planning time. Amending the Planning Act alone might not be effective enough to cater the desired outcome of sustainable and high-quality living environment. Therefore, integrating tactical urbanism in the governance framework is necessary for a more agile and effective planning system, which take grassroots' demands into account and allows prompt spatial adjustments. There have been several successful examples of integrating tactical urbanism/ urban acupuncture into urban planning governance. One is 'Pavement to Parks'[25] which is an initiative directly driven by the San Francisco Planning Department, the Department of Public Works, the Municipal Transportation Agency and some non-profit organisations. It is conducted with the active participation of neighbourhoods to give streets another use for the benefit of citizens. The other significant example is the weekly Ciclovía event in Bogota, Colombia, which originated from 1974 and then recognised as an official program of the city government.[26] As a result, every Sunday between 7 a.m. to 2 p.m., more than one million people come to cycle, jog, skate and walk along the car-free roads. This event has inspired permanent infrastructure improvements for cyclists and pedestrians.

The current changes in the previous governance and coordination system are steering towards bringing the bulk of functions related to the broad field of spatial creation together under two ministries. To achieve efficient management, minimise confusion, and eliminate duplicative efforts, **we propose the establishment of a centralised, independent spatial office at the national level, which would also support the regional and local levels. This office could be called Land and Spatial Board (Maa- ja Ruumiamet, MaRu) or Ruumiamet.** The benefit of calling it Ruumiamet would be that a new name would enable creating a new identity for the entity, distinguishing it more clearly from the current Maa-amet, giving more equal priority to both fields of activity the new body would be standing for. **MaRu's primary objective is to effectively coordinate and improve coherence within the new spatial creation system. The key tasks for MaRu encompass spatial vision creation, spatial data collection and management, spatial creation process control and monitoring, as well as support for regional and local level planning.**

Currently, only the MaRu is proposed at the implementation level that would act as a state spatial office. However, the list of tasks to be addressed which are not yet in the responsibility area of any

[25] Pavement to Parks. San Francisco, United States,Towards the Human City. Accessible at: https://towardsthehumancity.org/initiative-55-pavement-to-parks-san-francisco-usa/#:~:text=Description,for%20the%20benefit%20of%20citizenship.
[26] La Ciclovia de Bogota. Accessible at: https://www.atlasobscura.com/places/la-ciclovia-de-bogota

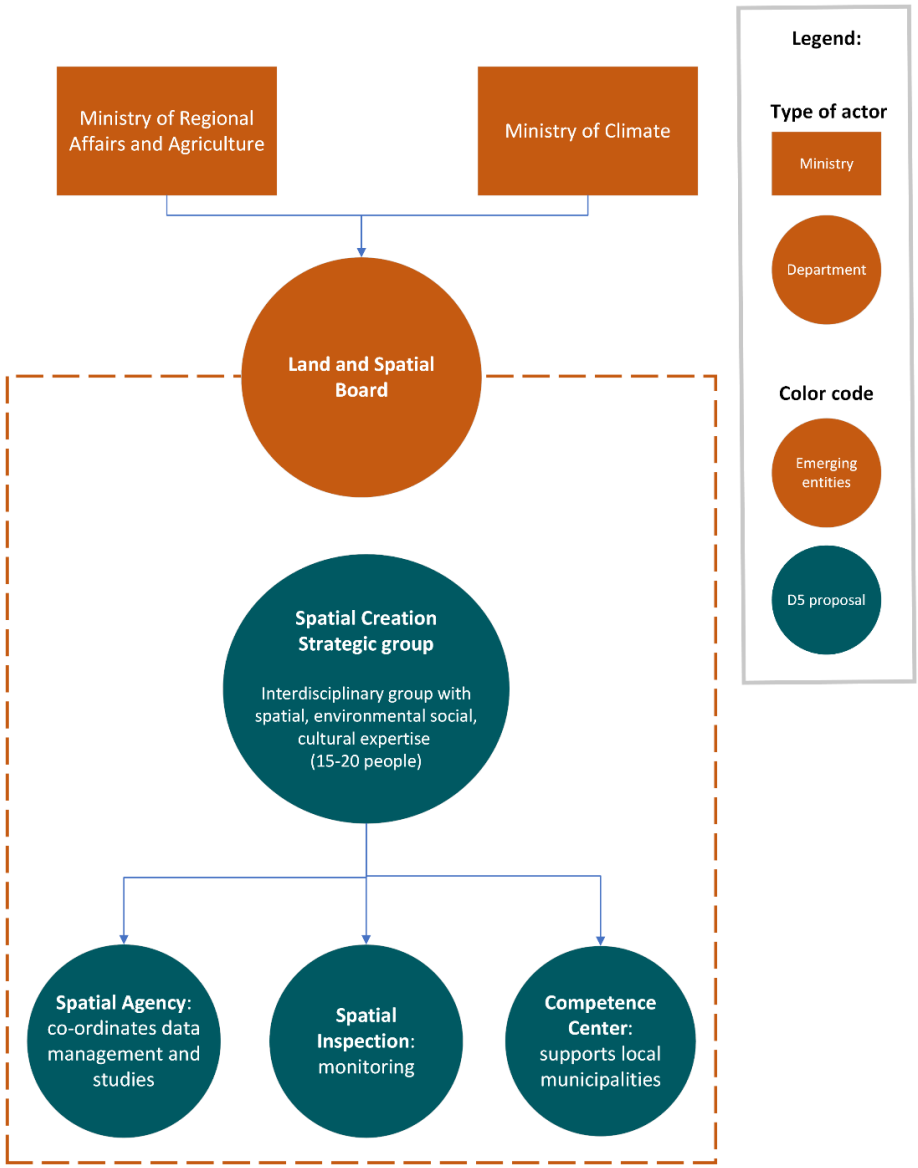
current governance body is quite extensive. We suggest to structure **MaRu into four main units to fulfil its purpose and enhance the governance of spatial decisions. MaRu would be led by a Spatial Creation Strategic Group that would act as a steering body for the Land and Spatial Board. Additionally, MaRu would include three subdivisions working on different fields and solving previously mapped out barriers, namely:**

- ✓ ***A Spatial Agency*** that will coordinate data management and studies;
- ✓ ***A Spatial Inspection Agency*** that will carry out monitoring functions;
- ✓ ***A Competence Centre*** that will provide support, monitoring and data management.

These would work on specific tasks previously mapped out in „Maa-, regionaal- ja planeeringute valdkonna ühendameti moodustamise analüüsi uuendus" (2020, Land, Regional and Planning field joint office creation analysis update).

The suggested structural arrangement of MaRu can be seen in in Figure 5-1 below. The orange marks the currently emerging bodies, while the teal corresponds to our complementing proposals.

Figure 5-1 Proposed alternative solution for the governance system on the implementation level



Source: own illustration

In our view, the **Spatial Agency (EE: *Ruumiagentuur*)** could be responsible for coordinating data management and conducting studies (helping the ministry(s) gain important insight and updated data to make the best possible comprehensive spatial decisions). High-quality spatial planning also requires high-quality datasets and registries and good IT services and cooperation between registries and institutions using them. This supervision could also be a part of Spatial Agency's duties. Tasks for the **unit of** Spatial Agency could include the following:

- Support state level planning;
- Facilitate cooperation of institutions;
- Advice on the organisation of settlements and administrative division
- Management of registries, portals, databases and systems, which includes:
    - Place name registry;
    - Building register;
    - e-ehitus (e-construction) portal,
    - State real estate register;
    - Road register;
    - Spatial and geological data;
    - Planning processing information system.
- Creation and updating of spatial plans and datasets, which includes:
    - Creation of spatial data, currently under transportation institutions land, hydrology and cartography departments;
    - Creation of waterway maps;
    - Carrying out of aero surveying and laser scanning;
    - Cadastral surveying and control;
    - Execution and coordination of hydrographic surveying works.
- Acquisition of lands in the public interest, which includes:
    - Administration of state lands;
    - Complete the land reform;
    - Expropriation of property.

The **Spatial Inspection Agency (EE: *Ruumiinspektsioon*)** would carry out monitoring and prevention tasks. This involves data collection for assessing the quality of space and spatial creation processes as well as monitoring the progress through the use of indicators that are introduced in the following chapter. In order to effectively monitor and ensure that development aligns with the established plan, the inspection division must possess the necessary powers to address any issues that arise.

The inspection agency should firstly have the authority to conduct thorough inspections and assessments of development projects. This includes the ability to access relevant documents, visit project sites, and gather necessary information to evaluate compliance with the plan. Secondly, it should also have the power to issue formal notices if any deviations from the plan are identified. These notices should clearly outline areas of non-compliance and specify the required corrective actions. Thirdly, it should have the power to impose penalties in cases of significant non-compliance or repeated offenses. This could include fines, revocation of permits or licenses, or other appropriate disciplinary actions. Finally, it should be empowered to engage in dialogue and dispute resolution processes with relevant stakeholders. This allows for the resolution of conflicts that may arise during

the inspection process, ensuring fair and transparent decision-making. The tasks for the department of Spatial Inspection could include:

- Development of state investment support measures;
- Establishment of spatial design conditions;
- Audit of real estate and land policy;
- Issuance of road infrastructure permissions;
- Issuance of construction and application for use permits;
- Process applications for development permits;
- Ensure inclusive implementation and monitoring of the basic principles of quality space,
- Management of the spatial and legal scope of the real estate;
- Carry out valuation and analysis of real estate, supervision of planning;
- participation in the creation and implementation of investment and development plans;
- Notification of building construction or commissioning;
- Acknowledgment of environmental impact assessment reports.

The Competence Centre (*e.g., Ruumiloome kompetentsikeskus* in EE) would mainly offer support to local municipalities on questions regarding spatial creation. As mentioned above, local municipalities in Estonia often lack competence, skills and expertise in all the necessary fields. Spatial planning is one of the topics that is often dealt with by a politician or an expert from another field in the local municipalities who lacks expertise in these topics. Thus, support from the state is highly necessary. One possibility is also to establish a cooperation network of planning specialists in addition to or along with the Competence Centre for municipalities to be able to share the experts in spatial planning. In this way, each of the smaller municipalities would be able to share human resources with other municipalities and would not suffer due to the lack of experts. Or in other cases, local experts would just benefit from the expertise and advice from their peers.

Tasks for the **Competence Centre could include:**

- Architectural and spatial creation consulting;
- Smart procurement: advising the public sector, as a contracting authority for real estate and development, on the vision for spatial planning;
- Promote cooperation between authorities, particularly in infrastructure planning;
- Organise idea competitions;
- Provide advice on location choices and other important individual spatial decisions,
- Provide consultation, support and capacity building in issues related to circular economy and other sustainability and green transition related complex topics;
- Enhance capacity for participatory planning, including public engagement and communication with citizens on spatial quality;
- Coordinate educational, research, development and innovation actions.

Overall, the Spatial Agency unit would work with data management, the Spatial Inspection unit would be responsible for spatial monitoring as this is currently lacking in Estonia, and the Competence Centre would act as a spatial resource, training and solution hub providing guidelines, support, and trainings to local municipalities for capacity building and problem solving. **The** Land and Spatial Board (MaRu) itself would mainly focus on resolving spatial conflicts and ensuring the implementation of goals and actions set in the action plans and strategies regarding the sustainable development of a high-quality living environment.

The Land and Spatial Board and its departments or units would be led by the **Spatial Creation Strategic Group**, which **would be interdisciplinary in nature and consist of 15-20 people with expertise in a broad spectrum of fields related to creation of high quality and sustainable living environment**. This would include sociologists, environmental psychologists, biologists, geographers, environmental managers, spatial planners and urbanists, architects, landscape planners and architects, mobility, communication and participation experts, engineers as well as specialists from the field of culture including artists and heritage protection experts, and representatives from the economic sector including real-estate development and construction. **Together, these experts would form an advisory board functioning as the strategic brain of the Land and Spatial Board.**

This strategic group would be led by a person **jointly selected by the Ministry of Regional Affairs and Agriculture and the Ministry of Climate. This should not be a political position but rather a position based on professional merit and experience in the field of HQSLE.** As learned from the Flemish case, it is important for the state spatial office to be politically neutral to best represent the interests of the public. Therefore, the selection of the members of the Spatial Creation Strategic Group should be based on the professional background and competence of dealing with spatial and sustainability problems and solutions instead of political affiliations. By bringing together diverse skillsets, the Land and Spatial Board could play an important role in coordinating and managing spatial creation-related issues effectively and innovatively, heading the way towards HQSLE in the context of the green transition.

Creating such divisions in the Land and Spatial Board would help create structure and determine responsibilities for specific sets of tasks, while keeping these units/departments still under the Board and not as separate bodies for smoother cooperation. The names of the proposed divisions are inspired by the management system of the environmental field in Estonia.

5.3 Supporting professional competence and capacity building

To fill the current gap pointed out above, **we suggest that the Land and Spatial Board (MaRu), and more specifically its Competence centre unit, should effectively start coordinating the thematic educational, research and innovation activities in Estonia to enhance spatial professional competences and innovation capacity.** To achieve this, various practices and tools can be employed, such as open calls, pilot projects, open research etc. For example, the Flemish Government Architect office has successfully implemented “pilot projects” as a primary instrument to bridge the gap between design research and policy preparation. Additionally, they have also implemented “open calls” to safeguard the realisation of high-quality spatial projects. To further support research, knowledge-creation and innovation, Estonia could also take inspiration from the Dutch digital platform called “openresearch.amsterdam”.[27] This platform serves as a valuable resource by facilitating the exchange of knowledge, showcasing relationships between different areas of expertise, and enabling collaboration among researchers and specialists in various projects to tackle the most urgent challenges in creating sustainable and high-quality living environments. Such measures have multiple benefits, where, among others, specific funding may be secured for explorative and innovative HQSLE projects and where cross-sectoral cooperation can be promoted, an area that currently presents a challenge for Estonia.

[27] Openresearch.amsterdam. Accessible at: https://openresearch.amsterdam/en/, accessed in June 2023

We also suggest that **this Competence Centre could establish close collaborations with universities as well as other research institutes in the field working for sustainable and high-quality living environment.** This includes a broad field of disciplines ranging from, among others, environmental psychology, sociology and biosemiotics to real estate development, engineering and building, construction, from architecture and protection of cultural heritage to economics, landscape design and environmental management and impact assessments.

By fostering partnerships with academic institutions, MaRu can support professional training as well as facilitate the development of new study curricula in spatial creation areas as needed. In areas of special lack of competent workforce scholarships could be set up and additional financial support could be given to universities and other educational institutions for taking on more students or developing their curricula further. Another option would be to create a combined study programme joining the forces and know-how of existing centres of expertise. This approach would enable the cultivation of specialists with an interdisciplinary and comprehensive yet specific understanding of spatial creation, surpassing the perspectives of architects, urban designers, landscape architects, planners and geographers alone. A notable example of this approach is the Dutch Chief Government Architect office, which actively encourages the training and professional competences of architects within the context of the Architect Title Act.

In addition, it would also be a **meaningful step for MaRu to establish a collaboration with the Estonian Business and Innovation Agency**,[28] as one of the bottlenecks for many architecture and engineering offices is lacking financial support and talent capacity to carry on innovation research and development, which is highly needed in green and digital transitions. In this context, the Estonian Business and Innovation Agency, whose aim is to develop entrepreneurship and the living environment in Estonia, fits right to the needs.

MaRu could also coordinate the systematic regular cooperation, mutual support and sharing between professionals in related fields, e.g. in the form of yearly summer or winter schools on relevant topics for Estonia or smaller regular workshops and training sessions. This could also be done internationally **by** forming a systematic approach of exchange with leading experts from abroad that could take up temporary residence in MaRu or/and teach in local universities. Taking this one step further is the Irish example, where the selection process for the State Architect is designed to embrace candidates from around the world, enabling Ireland to tap into a broader pool of talent on an international level. By adopting a similar strategy, Estonia could benefit in several ways. Firstly, it would bring in new ideas and approaches, enriching Estonian spatial creation scene and secondly, it would create new opportunities in the job market for foreigners with diverse international professional backgrounds, thereby diversifying the field of HQSLE creation in Estonia.

By implementing such strategies, MaRu could promote interdisciplinary cooperation, enhance the education and training quality and mutual networking and learning among the professionals which all help to foster innovation in research and development and increase capacity of spatial creation specialists. It would also help to ensure the availability of well-rounded specialists in the field of spatial and urban planning.

[28] The Estonian Business and Innovation Agency, which is a joint organisation of KredEx and Enterprise Estonia. Accessible at: https://eas.ee/en/about-the-organisation/

5.4 Prioritising HQSLE in the state budget

The **addition of an 18th performance area (EE: *tulemusvaldkond*) to the national budget strategy is strongly recommended, specifically focusing on creating sustainable and high-quality living environment.** The introduction of this new performance area, which would be located under the Living Environment Development Plan as suggested in Deliverable 4, can help to ensure a more realistic and inclusive approach to achieving the goals outlined in the long-term national strategy plan "Estonia 2035". It would also demonstrate the state's ambition to develop HQSLE and underscore its commitment to raising social awareness regarding spatial design quality. This proactive approach would contribute to the long-term satisfaction and well-being of people who live in Estonia and promote a sustainable future for Estonia.

Under this new performance area, various programmes could be implemented to promote sustainability of the living environment and improve the overall quality of life. In addition to the policy recommendations proposed in Deliverable 3, such as the development of a long-term vision for spatial development (The Dutch Vision Plan is a good example)[29] and a Spatial Development Action Plan, the new performance area can encompass tasks related to service availability, affordability, (public) transportation, green areas, and much more. By transferring relevant responsibilities from other performance areas to the proposed added 18th performance area, we could enhance the overall coherence and focus on sustainable and high-quality living environment.

It is essential that these programmes adopt a participatory planning approach, ensuring effective engagement with diverse target groups and addressing their most urgent needs. By doing so, we can strategically target areas that require immediate improvement, resulting in a higher rate of ownership from involved stakeholders as well as improved quality of living environment for all residents.

Also essential for success is that **a set of indicators for measuring progress towards sustainable and high-quality spatial development in Estonia**. The country would greatly benefit from the implementation of such indicators across various planning levels, ranging from national to local planning. By adopting such criteria, Estonia would be able to ensure a systematic monitoring of the development of HQSLE across the country and have a much better understanding of the regional needs and developments.

5.5 Strengthening local-regional-state collaborations and addressing local needs through territorial governance

One area that needs improvement in Estonia is the cooperation between state and the municipalities. To foster a sustainable and high-quality living environment in connection to strengthening the cooperative capacity, it is **highly recommended to embrace the territorial governance approach in the institutional structure, which effectively combines the advantages of a place-based approach and multi-level governance.**[30]

By *adopting a place-based approach*, territorial governance considers the spatial context, the unique *genius loci* of a place, and most importantly, the needs of its daily space users. This approach allows

[29] https://maps.amsterdam.nl/omgevingsvisie/?LANG=en
[30] Territorial governance and Cohesion Policy. (2015). Accessible at: https://www.europarl.europa.eu/RegData/etudes/STUD/2015/563382/IPOL_STU%282015%29563382_EN.pdf

for tailored solutions that reflect the specific requirements of local communities. Additionally, ***multi-level governance*** is essential to achieve a unified understanding of sustainable and high-quality living environment at the national level. By coordinating and aligning planning outcomes at the local, regional, and national levels, reflected in detail plans, comprehensive plans, county plans and national strategic plans, it assures that the diverse needs of different communities across the country are addressed in a holistic and systematic way.

To facilitate effective implementation, it is recommended that **the Land and Spatial Board takes an active role as a mediator, fostering intensive cooperation and communication between state and local levels**, safeguarding the objectives of sustainable and high-quality living environment by addressing conflicting interests and promoting consensus-building across the country.

The national government holds the responsibility of constructing national policy frameworks with the support from the state spatial office (the Land and Spatial Board), raising awareness about territorial governance options, mapping the relevant stakeholders with key policy roles, utilising various tools and processes to facilitate consensus-building and clarity of roles as well as retaining a focus on the objectives of building sustainable and high-quality living environment.

Local governments play a central role in implementing spatial decisions and monitoring changing processes. **To empower local governments, a shift in working culture from a compliance-oriented attitude to a result-oriented one is necessary.** However, this requires having a joint understanding and vision of HQSLE as well as further financial, technical, and educational resources. Local planning authorities should be encouraged and supported by the Competence Centre of the Land and Spatial Board to make informed spatial decisions and find creative, adaptive, and resilient solutions that address local needs.

Effective communication and collaboration among local governments are equally important. **Encouraging knowledge exchange platforms at the local planning level facilitates the sharing of lessons learned and where the transferability of successful solutions for potential upscaling could be explored.** In this case, the networks of professionals that could be coordinated by the Land and Spatial Board could be very helpful.

In addition, while spatial planning and design processes are crucial for delivering sustainable and high-quality living environment, **incorporating perspectives from construction and management are equally important for long-term sustainable future**. Considering aspects such as the selection of local building materials and technology to support circular economy and local entrepreneurs as well as incorporating strategies for reusing building materials at the end of their lifecycle, **will also help to** support the sustainable transformation of the construction sector.

5.6 Streamlining common understanding about HQSLE supported by a long-term counter-cyclical construction investment plan

Public investments are recommended to be made within the framework of a comprehensive long-term spatial vision, aimed at fostering HQSLE. This vision should be embedded in a strategic document like the National Spatial Plan and updated regularly (developing this vision is further explained in Deliverable 3).

To ensure success, it is crucial to support the spatial vision with a long-term counter-cyclical construction investment plan. Implementing counter-cyclical construction investments by state is a feasible and beneficial approach to address economic fluctuations. Numerous studies have demonstrated the positive impact of public investment during economic downturns, with a 1% increase resulting in approximately 3.4% GDP growth surpassing the 2.3% growth observed during the upswing period.[31]

It is evident that the approach to public investments should shift from the currently individual project-based decision-making to a more holistic, comprehensive, and systematic process, which is always carried by the long-term spatial vision and informed by the economic prognosis.

The feasibility of counter-cyclical construction investments relies on several factors, including cross-sectoral collaboration, strategic planning and coordination among governments and relevant stakeholders such as developers, construction companies and financial institutions, establishing robust mechanisms for economic forecasting and risk management as well as maintaining sufficient financial resources (1-1.5 billion euro/year during economic downturn) to support counter-cyclical investments which should be indicated in the national budget plan.

It is also worth noting that during the economic downturns, integrating socially affordable housing development quota with private investment as a tool to steer the market demand, prioritising renovations instead of new construction projects, etc. are other beneficial aspects to take into consideration.

6 Preliminary analysis of indicators to measure and monitor the quality of space

The beneficiary had requested for suggestions on indicators to measure and monitor the quality of space, which is in addition to the scope of work indicated in the terms of reference for Deliverable 5. A set of indicators were provided in Deliverable 4, although they are more broadly related to specific topics related to HQSLE. The indicators proposed in this chapter focuses on the *spatial creation process* and decoding the quality of space. Below, we compiled spatial indicators for measuring the status quo and development of quality of space in Estonia to assist spatial planning and decision-making. It is important to note that due to the project capacity, this chapter only provides a preliminary analysis of indicators. Further development and refinement of these indicators will continue in the forthcoming research project, supported by the Ministry of Rural Affairs and Agriculture, "Spatial Planning Toolbox for Sustainable and High-quality Environment in Estonia" (EE: *Kestliku ja kvaliteetse ruumi planeerimise tööriistaskast*) running from June 2023-December 2024.

To promote coherence in the selection of the indicators, we align the work with the national long-term development strategy "Estonia 2035" and build upon the findings of Deliverable 2 and Deliverable 4. More specifically, this section is based on the analysis of the existing indicators from "Estonia 2035"[32],

[31] Long-Term View on Construction 2035. (2021). Accessible at: https://eehitus.ee/wp-content/uploads/2021/09/Ehituse-pikk-vaade-2035-v1_7en.pdf
[32] Accessible at: https://valitsus.ee/en/estonia-2035-development-strategy/strategy/strategic-goals

EU Quality of Life indicators from Eurostat[33], Gehl's Quality Criteria[34] and Healthy Streets in Tartu project and contextualising the results into the Davos Baukultur Quality System[35]. To review the preliminary list of proposed indicators, please refer to Annex D.

The criteria for selecting these indicators were based on the following considerations:

- ✓ The indicators should align with the UN Sustainable Development Goals;
- ✓ The indicators should be able to measure the quality of life;
- ✓ The indicators could be applicable in spatial planning and design directly or indirectly.

To contextualise the indicators, we also analysed Estonian policy and action plans, as well as local spatial design guidelines. To ensure the practicability of the suggested indicators, we recommended that they should undergo validation by practitioners through a participatory process. This could take place in preparation of the spatial development strategy described in Deliverable 4. The proposed indicators could be tested for their feasibility and effectiveness in addressing the specific needs of the public and the professionals in measuring and improving the quality of spatial creation processes in Estonia. Further details regarding guiding questions for developing indicators and methodological approach, please see Annex C.

6.1 The Quality of Space Framework for measuring high-quality sustainable living environment

We begin by establishing an assessment framework for conducting a scoping exercise on spatial indicators within the context of sustainable and high-quality living environments to examine the existing indicators in Estonia and beyond. Following this scoping exercise, a preliminary list of potential indicators designed to measure and monitor improvements in spatial quality is given, accompanied by suggestions for further development. For the sake of clarity, we call this emerging assessment system Quality of Space Framework, which is built upon the concept of HQSLE.

While the Sustainable Development Goal 11 "Sustainable Cities & Communities - Make cities and human settlements inclusive, safe, resilient and sustainable" is the main building block to this framework, we identified the Davos Baukultur Quality System as an instrumental foundation for a more coherent and cohesive proposal in the perspective of spatial planning and design.

Davos Baukultur Quality System sets eight criteria for assessing high-quality Baukultur that assist decision making for high-quality living environment.[36] In addition to taking the traditional planning values of political, economic, social, cultural and environmental perspectives into consideration, the framework also takes account of the perceptual and emotional aspects, which are vital characteristics of creating HQSLE that is beneficial to the health and well-being of people and society. The eight criteria include governance, functionality, environment, economy, diversity, context, sense of place and beauty.

[33] Quality of life indicators is a Eurostat online publication providing recent statistics on the quality of life in the EU. Accessible at: https://ec.europa.eu/eurostat/web/quality-of-life/information-data, accessed 18 May 2023
[34] Accessible at: https://civitas.eu/tool-inventory/twelve-quality-criteria
[35] Accessible at: https://davosdeclaration2018.ch/en/davos-baukultur-quality-system/
[36] Davos Declaration, 2018. Eight criteria for high-quality *Baukultur*. https://baukultur--production--storage.s3.amazonaws.com/baukultur/2022-06-17-174034--dbqs-en.pdf accessed on 18.05.2023

6.2 Existing indicators in Estonia

To include the broader perspective and improve the policy coherence of the spatial decision-making, the national long-term strategy "Estonia 2035" was analysed first. Most of the indicators from "Estonia 2035" are indirectly related to good quality of functional, environmental and economic perspective of a space. However, the human perceptions in terms of spatial context, sense of place and beauty are missing. Therefore, additional refinement of these indirect indicators is necessary to contextualise them within the process of space creation.

Relevant indicators from Estonia 2035 strategy for a HQSLE were identified and integrated in the Quality of Space Framework described above (based on SDG 11 and Davos Baukultur Quality System). All the identified indicators are shown in the inventory list of identified indicators (more details in Annex D).

Next, the indicators proposed in Deliverable 4 "Proposal for a concept for a quality-of-life development plan" were analysed. They cover the following aspects:

- ✓ Sustainable settlement structure and infrastructure regarding smart shrinkage;
- ✓ Sustainable mobility;
- ✓ Interconnectedness of space and accessibility;
- ✓ Culture-heritage-led urban development;
- ✓ Housing and energy efficiency;
- ✓ Urban nature, green and blue infrastructure;
- ✓ Competence building in creative labour force for quality of space;
- ✓ Digital solutions;
- ✓ Co-creation and participatory planning processes.

Nevertheless, not all the proposed indicators in Deliverable 4 are directly applicable to the spatial creation process. This is because they primarily focus more broadly on high-quality living environment rather than specifically addressing the quality of space during the spatial creation process. For instance, indicators such as ratio of housing costs to average wages and salaries, Construction Price Index, Estonian car fleet and fleet mileage, etc. cannot be directly applied to the spatial creation process. Therefore, in Deliverable 5, we present a follow-up evaluation of the indicators suggested in Deliverable 4, indicating their applicability in the inventory list of possible indicators in Deliverable 4 (more details in Annex D). However, the work of evaluating the indicators from Deliverable 4 has not been entirely finalised yet as it requires further detailed analysis of the proposed indicators in terms of spatial quality and integration into the Davos Baukultur Quality System evaluation framework.

Indicators in "Estonia 2035" and Deliverable 4 mainly cover the planning perspective at large territorial scale. To bring in indicators which are more relevant to site-specific design scale, we included the indicators from the project "Healthy Street in Tartu" [37] (TTT) in the analysis. However, it is important to note that the TTT project is still under testing period and waiting for approval. The goal of the TTT project was to develop a guideline to support spatial decision-making for a more sustainable, healthy, and high-quality public street space in Tartu. Despite being developed specifically for Tartu, its methodology and most of the metrics can be applied to measure the quality of space in other locations

[37] Karin Bachmann. (Winter 2023). The Guideline "Healthy Streets in Tartu" (Nõustik Tervislik tänav Tartus). *Maja magazine*.

in Estonia with minor modifications. The four main measuring dimensions for quality of space in TTT are:

- ✓ Walkability;
- ✓ Cycling;
- ✓ Biodiversity;
- ✓ Coherence.

Further subdivisions are made under these four dimensions, these can be seen in the inventory list of indicators from TTT (more details in Annex D).

It is worth noting that walkability encompasses more than just safety. It also considers the human experience and the diverse needs of different user groups within a given space. It is also important to highlight that, when promoting the concept of a 15-minute walkable city, the significance of the destination is not the only focus. Equally important is the human experience during the journey along the way towards the destination, as it greatly enhances the overall enjoyment of the living environment. To enhance the joyful experience along the journey, it is important to pay attention to the planning and the design of public space, where people could encounter and unfold their life stories. Therefore, the number of available spatial programs can be considered a potential indicator in assessing the quality of space. Spatial programs often are social life activators that are interactive, educative and fun, such as the curative biodiversity project in Tartu[38] or the Green Tracks in Tallinn[39].

6.3 Relevant international indicators

When it comes to HQSLE, it is necessary to understand how quality of life is perceived by people and how it is possible to measure sustainability, well-being and the quality of living environment. Eurostat presents recent statistics on the quality of life in the European Union in its "Quality of Life indicators".[29]

In addition to the traditional indicators for measuring economic and social development, the "Quality of Life indicators" adopted an overarching framework of nine dimensions which include various related aspects of well-being to achieve a more comprehensive understanding of quality of life. These dimensions include material living conditions, productive or main activity, health, education, leisure and social interactions, economic and physical safety, governance, and basic rights, natural and living environment as well as overall experience of life. Through the lens of the Quality of Space Framework, we first identified 15 relevant indicators for spatial planning from the following six dimensions, defined in the ''Quality of Life indicators'':

- Material living conditions;
- Productive or main activity;
- Leisure and social interactions;
- Economic and physical safety;
- Natural and living environment;
- Overall experience of life.

[38] See https://tartu.ee/en/news/biodiversity-growing-tartu-s-city-centre-parks
[39] See https://greentallinn.eu/en/green-tracks/

Next, we evaluated and integrated these **15 relevant indicators** into the Quality of Space Framework, which is shown in the inventory list of identified indicators from EU Quality of life (more details in Annex D).

While "Estonian 2035" and "EU Quality of Life" offer a foundational comprehension of sustainable and high-quality living environment, they lack straightforward indicators on space, which could be adopted immediately for spatial planning and design. The "Twelve Quality Criteria" approach developed by Gehl Institute, a Denmark-based international architecture firm, aims to assess urban space liveability[30]. Gehl's "Twelve Quality Criteria" suggest that urban quality of life can be perceived along three main criteria:

- ✓ Protection;
- ✓ Comfort;
- ✓ Enjoyment.

These criteria emphasise a people-based planning of urban public spaces which is a widely accepted and recognised approach in contemporary urban planning and design (further details can be found in Annex D). Therefore, these criteria provide a strong foundation for developing spatial indicators that are specifically tailored to spatial planning in urban settlements. By contextualising spatial design elements with the *genius loci*, enhancing spatial coherence and readability, and adding the aspects of human spatial perception from the Gehl's criteria, we can greatly complement the EU Quality of Life indicators. This integration would narrow down the focus from HQSLE to Quality of Space and facilitate the spatial creation process, which is the aim of this subchapter.

6.4 Suggestions for further development of spatial indicators

As discussed in the previous sections, a diverse set of existing indicators was selected focusing on spatial planning and design perspective. These indicators aim to fill in the gaps and complement the existing spatial creation process in Estonia and ensure a systematic and holistic approach for achieving HQSLE.

Analysis showed that the existing indicators fell short on the following important aspects:

1. Insufficient indicators to monitor progress in spatial governance, particularly in participatory planning;
2. Insufficient availability of indicators to measure sense of place;
3. A lack of indicators that emphasise and measure the *process* of improving spatial coherence within the spatial governance and coordination system, for example whether there is a specific authority responsible for regulating, overseeing and managing the process.

On this basis, necessary improvements to these indicators have been made accordingly as follows.

1. **Spatial governance to make spatial creation process more inclusive**.
   Proposed improvement: Indicators that measure participatory planning processes should be developed, such as creative approaches to activate local community networks, governance capacity building programmes, increase the number of stakeholder engagements and the diversity of co-design workshops etc.
2. **Sense of place to make spatial creation process more heartwarming, inclusive and co-creative**.

Proposed improvement: Indicators that measure factors which might evoke human sentiments should be developed, such as number of spatial interventions, public activation programs and community engagement events.

3. **Prioritising the implementation of the proposed state spatial office (MaRu) to make spatial creation process more coherent and efficient.**
   Proposed improvement: Indicators that facilitate better coordination of the planning systems should be developed, such as setting legislation for implementing state spatial office, allocating national budget for the field of HQSLE, establishing a national zoning plan, etc.

Furthermore, due to the distinctive differences between urban and rural lifestyles in Estonia, it is essential to consider the rural-urban gradient when developing spatial indicators in order to maximise the potential of diverse ways of living, with particular focus on addressing the needs of vulnerable social demographic groups, thereby fostering a more inclusive society. This will help achieve higher satisfaction with the living environment and support achieving social sustainability goals.

Taking the aforementioned considerations into account, we put forth a preliminary set of indicators categorised into two groups catering to different potential user groups (see Table 6-1 and Table 6-2):

- **Group A** indicators pertain to the *planning system* and are intended for urban policymakers and administrators within planning authorities;
- **Group B** indicators are associated with the ***planning process*** and target planning specialists, including urban planners, urban designers, landscape architects, and architects, among others. The Group B indicators are further subcategorised based on **different stages of the spatial life cycle**, encompassing the planning phase at the territorial scale, project design phase at specific site scale, construction phase, operational phase, and finally, the decommissioning phase.

As indicated above, this preliminary list of indicators has certain limitations:

1. The proposed indicators address the specific aspects that currently require attention in spatial creation in Estonia. As a result, Group B indicators *do not currently encompass the complete range of steps* throughout the whole planning process. Instead, they emphasise the areas within planning that are currently weak and in need of support by developing and monitoring them with specific indicators.
2. The proposed indicators will re*quire validation by planning experts from different sectors and regions* across Estonia. It is essential to incorporate their feedback and make necessary changes and updates based on their input prior to finalisation of the indicator framework.

Table 6-1 Group A indicators (Planning System)

Name of indicators	Unit of Measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Group A: Indicators regarding planning system (for Urban policy makers, administrators)									
Establishment of a national and regional landscape character profiles (See pp.41 suggestion b for further development)	Number	•	•	•	•	•	•	•	•
Set legislation for implementing the state spatial office (MaRu)	…	•	•	•	•	•	•	•	•
Securing the national budget for implementation of the central spatial office (MaRu)	% / Euro	•							
Share of local government expenditure among the administrative sector expenditure	%	•	•	•	•	•	•	•	•
Percentage of municipalities employing a qualified architect and/or a planner meeting the competence requirements of the Planning Act	%	•	•	•	•	•	•	•	•
Co-creation Workshop with Stakeholders	Number	•	•	•	•	•	•	•	•
Increasing number of stakeholders using the digital services across the hierarchy (local, regional, national) and functions (private vs public stakeholders)	%	•	•	•	•	•	•	•	•
Percentage of design and construction companies using innovative digital solutions	%			•	•				
Number of web-based two-way communication information systems facilitating participatory planning and empowerment	Number	•	•			•	•	•	•

Table 6-2 Group B indicators (Planning Process)

Name of indicators	Unit of Measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Group B: Indicators regarding Planning Process (For Planning specialists)									
Planning Phase (Territorial scale)									
Sustainable and effective land use	…	•	•	•	•	•			
Smart Growth: Expansion of land in human use (settlement area) (the share of the built environment in the total territory of the municipality or settlement)	%	•	•	•	•				
Smart Decline: Percentage of municipalities with a declining population where a spatial and action plan, supported by a master plan and/or other relevant strategy document, has been established to adapt space to a declining population	%	•	•	•	•				
Percentage of monuments and buildings of cultural value that are in use, in active use or renovated	%		•		•	•	•	•	•
Quality of green and blue spaces in urban areas	%	•	•	•				•	•
Spatial accessibility of public and commercial services and public transport within 15 min cycling or walking	Kilometre/km	•	•	•	•	•	•	•	•
Reduced share of car-use by urban dwellers	%	•	•	•	•	•	•	•	•
Percentage of energy efficient buildings	%			•	•				

Name of indicators	Unit of Measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Group B: Indicators regarding Planning Process (For Planning specialists)									
Linking the results of the nationwide environmental satisfaction surveys more closely to policy and intervention planning at national and local level, including quality of life in different areas, access to services and green spaces, and the environment	…	●	●	●	●	●	●	●	●
Participation Workshop	Number	●	●	●	●				
Project Design Phase (Site scale)									
Spatial Coherence and Continuity	…	●				●	●		●
Spatial Readability	…	●				●	●	●	
Safety / Comfort in Walkability & Cycling	…	●	●		●	●	●		
Inclusive Design	…	●	●		●	●	●		
Human Scale Enjoyment	…	●	●		●	●	●	●	●
Aesthetic qualities and positive sensory experiences	…						●	●	●
Biodiversity	…	●	●	●	●	●	●	●	●
Level of energy labelling of residential buildings	…			●	●				
Citizen engagement workshop	Number	●	●	●	●	●	●	●	●
Increasing percentage of vulnerable social demographic groups to participate in planning co-creation workshop (e.g., children, adolescence, elderly, immigrants, people with disabilities, etc.)	%	●	●	●	●	●	●	●	●
Construction Phase									
Energy efficient building material and technology	%	●		●	●				
Nature-based solution construction technology	%			●	●				

Name of indicators	Unit of Measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Group B: Indicators regarding Planning Process (For Planning specialists)									
Construction Waste Management	…			●	●				●
Increasing percentage of design and construction companies using innovative digital solutions	%	●			●				
Operational Phase									
The share of expenses for housing accounts for max. 30% of a household's income	%	●			●				
Spatial interventions: public space activations	Number	●	●	●	●	●	●	●	●
Community Engagement	Number	●	●	●	●	●	●	●	●
Green space management	…	●	●	●				●	●
Decommisioning Phase									
Flexible Land Use: Temporary usage of the site	…	●	●		●	●	●	●	●
Reuse building materials	%		●	●	●			●	

Source: own illustration

To conclude, the following steps for further developing the indicators are suggested:

a. To ensure sustainable spatial development and decision-making and to achieve HQSLE objectives in a systematic and holistic manner, it is crucial for the **proposed indicators to cover the full life cycle of spatial creation process**. This includes spatial planning with co-creative participatory approach, individual project design, project construction, project management and maintenance during the operational phase. Additionally, consideration should be also given to strategies for site reuse and the responsible handling of building materials when the project reaches the end of its life cycle. Further development in both Groups A and B based on this proposed preliminary list is needed.
b. It is important to acknowledge that Estonia is divided into 15 counties which are administrative regions which does not necessary align with the boundaries of different landscapes. When reflecting on spatial quality, creating a sense of place is an important aspect. There should be **indicators that encompass the specific landscape characters and dynamics of each region, considering the diverse needs and challenges they present**. It is suggested to establish both national and regional landscape character profiles in Estonia and incorporate them at the administrative level as one of bases for regional cooperation. Many European countries have taken similar approaches. In the UK, it is called "*National Character Area Profiles",* while in France, it is called *"Atlas Paysage"*(Landscape Atlas), and in Switzerland, it is called "*Landschaftskonzeption"* (Landscape concept), which is an integral part of spatial planning. Additionally, it is **crucial to incorporate the rural-urban gradient within each region**. This entails addressing the distinct features and challenges of rural, semi-urban, and urban areas. By incorporating both regional factors and rural-urban gradient with the validation from participatory process, the indicators can accurately reflect the diverse living environments and lifestyles across Estonia, enabling the implementation of tailored strategies for promoting sustainability and quality of life in each specific context.
c. The further development and refinement of the indicators will continue within in the ongoing project "Spatial Planning Toolbox for Sustainable and High-quality Environment in Estonia" (EE: *Kestliku ja kvaliteetse ruumi planeerimise tööriistaskast*).

The indicators are also relevant for overcoming the ideological bias around the phenomena of "two Estonias" and having a comprehensive – systematic and holistic – set of criteria for measuring progress towards high quality and sustainable living environment in Estonia. They are also essential to guide state budget planning and facilitate state budget allocation in the future. Hence, the recommendation is to make "living environment" as one of the national performance areas in budgeting and propose indicators that are relevant in assisting the state budget planning and monitoring in this area.

7 Conclusions

This report integrates the insights from desk research, best international case studies and findings of Deliverables 3 on policy recommendations and Deliverable 4 on creating a high quality and sustainable spatial development strategy and development plan into suggestions to enhance the emerging governance framework.

The conclusions are divided into two parts. The first part provides a short overview of the main gaps and bottlenecks identified in the institutional framework and governance levels in the existing and

emerging systems as well as suggestions for overcoming these gaps to support the creation of a more coherent governance and coordination system for high-quality sustainable living environment (HQSLE). The second part presents the findings of the additional work that was done on the indicators for measuring progress towards HQSLE.

7.1 Suggestions for solving the identified gaps and inefficiencies

The existing and emerging governance frameworks and coordination systems were analysed, and gaps, overlaps and inefficiencies were identified. Suggestions for enhancing the governance system and strengthening the institutional framework to overcome these challenges were also provided. Optimal alternative solutions and descriptions of optimal structures with the aim of enhancing the implementation of the spatial development strategy ensuring the priority status for spatial issues were given. Suggested measures include consensus-building for HQSLE, establishing a state spatial office (MaRu) with a strategic interdisciplinary steering group as well as several units/departments to deal with specific tasks in order to improve coherence in spatial planning and build professional competence and capacity, strengthen collaborations across the local, regional and state levels and secure long-term funding for the field of high quality and sustainable spatial creation.

In terms of existing inefficiencies in the *existing (previous)* institutional framework, five gaps were listed, namely:

1. Incoherence in spatial planning system;
2. Imbalance between centralisation and de-centralisation;
3. Insufficient professional competence coupled with limited capacity;
4. Lack of consensus on principles of HQSLE among different sectors;
5. Lack of Strategic funding for HQSLE.

In addition to these issues also the possible bottlenecks of the *new, currently emerging* governance system were considered and the following bottlenecks were found to be central:

1. Lack of priority on spatial topics in the reorganisation;
2. Independence and power of the Land and Spatial Board;
3. Lack of capacity for participatory planning;
4. Incoherent and suboptimal governance system: overlapping and deficient responsibilities.

After analysing the existing shortcomings and conducting an analysis of the international best practices in Europe to find solutions for the identified issues, the results were distilled into six key recommendations, as discussed in Chapter 5. The key messages behind each recommendation is summed up below:

- ✓ **Recommendation #1: Keeping up the political momentum to optimise the spatial governance and coordination system for HQSLE**. To keep the newfound political will to move towards HQSLE we suggest that the currently considered double management of the Land and Spatial Board (*Maa ja Ruumiamet, MaRu*) by the Ministry of Climate and the Ministry of Regional Affairs and Agriculture as a viable solution as it creates a high-level discussion space on the strategic HQSLE issues and also paves way for new ways of cooperation beyond the silos of business as usual. Another benefit of the double-management is that the emerging MaRu would have more leverage and a stronger legislative, authoritative, or administrative power to push through spatial decisions that reflect the genuine needs of general public. Also the creation of a HQSLE

spatial development strategy, as suggested in Deliverable 4 and formulating a vision for Estonia's spatial development in alignment with the goals of long-term strategy "Estonia 2035" would be an optimal way for prolonging the momentum and political interest in spatial creation issues. As these processes also require a lot of cooperation between different stakeholders, it also helps to foster a sense of ownership for the decisions that have to do with creating HQSLE.

- ✓ **Recommendation #2: Establishing a state spatial office to coordinate and improve coherence in spatial creation system.** To achieve efficient management, minimise confusion, and eliminate duplicative efforts, we propose the establishment of a centralised, independent spatial office at the national level under the emerging MoC and MoRAA, which would also support and cooperate closely with the regional and local levels. This suggested Land and Spatial Board (MaRu), would be steered by the interdisciplinary Spatial Creation Strategic Group with further subdivisions working on different previously mapped out barriers: support, including education, capacity building, R&I would be covered by the Competence Centre, the Spatial Agency would be responsible for coordinating data management and conducting studies, while the Spatial Inspection would carry out monitoring tasks. Creating such division in MaRu would help create structure and determine responsibilities for specific sets of tasks, while keeping these functions still under one institution for smoother cooperation.
- ✓ **Recommendation #3: Supporting professional competence and capacity building.** We suggest that MaRu, and more specifically its Competence Centre, should start coordinating the thematic educational, research and innovation activities in Estonia to enhance spatial innovation capacity and professional competences, promote cross-sectoral cooperation and offer specific funding for explorative and innovative HQSLE projects. MaRu could promote interdisciplinary cooperation, enhance the education and training quality and mutual networking and learning among professionals which will contribute to fostering innovation in research and development and increasing the capacity of spatial creation specialists. A closer cooperation with universities would also help to ensure the availability of well-rounded specialists in the field of spatial and urban planning.
- ✓ **Recommendation #4: Prioritising HQSLE in the state budget.** It is strongly recommend adding an 18th performance area (EE: *tulemusvaldkond*) to the national budget strategy, specifically focusing on creating sustainable and high-quality living environment. This would ensure a more realistic and inclusive long-term approach to achieving the goals outlined in the long-term national strategy plan "Estonia 2035". The new performance area would be located under the new development strategy Deliverable 4 argued for and would not only demonstrate the state's ambition to develop a sustainable and high-quality living environment but also underscore its commitment to raising social awareness regarding spatial design quality.
- ✓ **Recommendation #5: Strengthening local-regional-state collaborations and addressing local needs through territorial governance.** A territorial governance approach should be applied to improve the cooperation between state and the municipalities. This approach combines the advantages of a place-based approach and multi-level governance. By coordinating and aligning planning outcomes at the local, regional, and national levels, reflected in detail plans, comprehensive plans, county plans and national strategic plans, it assures that the diverse needs of different communities across the country are addressed in a holistic and systematic way. To facilitate effective implementation, it is recommended that MaRu takes an active role as a mediator, fostering intensive cooperation and communication between state and local levels, safeguarding the objectives of sustainable and high-quality living environment by addressing conflicting interests and promoting consensus-building across the country.

- ✓ **Recommendation #6: Streamlining common understanding about HQSLE supported by a long-term counter-cyclical construction investment plan.** Public investments should be made, within the framework of a comprehensive long-term spatial vision, to foster sustainable and high-quality living environment. This vision should be embedded in a strategic document like the National Spatial Plan and updated regularly. To ensure success, it is advised to support the spatial vision with a long-term counter-cyclical construction investment plan.

Table 7-1 below sums up the relationship between the observed gaps, overlaps and inefficiencies and corresponding recommendations for overcoming these deficiencies in order not to transfer them into the emerging system.

Table 7-1 Existing gaps and recommendations for the existing (previous) institutional framework for spatial development in Estonia

Existing gaps, overlaps and inefficiencies in existing (previous) institutional framework	Recommendations for overcoming the deficiencies
1. Incoherence in spatial planning system	#2: Establishment of a state spatial office to improve coherence in spatial planning system
2. Imbalance between centralisation and de-centralisation	#5: Strengthening local-regional-state collaborations and addressing local needs through territorial governance
3. Insufficient professional competence coupled with limited capacity	#3: Supporting professional competence and capacity building
4. Lack of consensus on principles of HQSLE among different sectors	#6: Streamlining common understanding about HQSLE supported by a long-term counter-cyclical construction investment plan
5. Lack of Strategic funding for HQSLE	#4: Prioritising HQSLE in the state budget

In addition to the risk of taking over some of the deficiencies listed above into the emerging new governance and coordination system, there were also certain further risk factors that need special attention to achieve an optimal system to support the development of high quality and sustainable living environment. These risks are matched with recommendations for tackling them in the table below to optimise the spatial creation governance and coordination system.

Table 7-2 Existing gaps and recommendations for the emerging/new institutional framework for spatial development in Estonia

Assessment of the possible bottlenecks in the new governance system	Recommendations for optimising the system
1. Lack of priority on spatial topics in the reorganisation	#1: Keeping up the political momentum to optimise the spatial governance and coordination system for HQSLE; #6: Streamlining common understanding about HQSLE supported by a long-term counter-cyclical construction investment plan.
2. Independence of the Land and Spatial Board	#2: Establishing a state spatial office to coordinate and improve coherence in spatial creation system.
3. Lack of capacity for participatory planning	#3: Supporting professional competence and capacity building;

Assessment of the possible bottlenecks in the new governance system	Recommendations for optimising the system
	#4: Prioritising HQSLE in the state budget; #5: Strengthening local-regional-state collaborations and addressing local needs through territorial governance.
4. Incoherent and suboptimal governance system: overlapping and deficient responsibilities	#1: Keeping up the political momentum to optimise the spatial governance and coordination system for HQSLE.

Ensuring the long-term priority status of HQSLE topics by prioritising them in the state budget and ensuring the optimal functioning of the Land and Spatial Board steered by an interdisciplinary Strategic Group for Spatial Creation, aiming to build capacity and improve cooperation between the state and local municipalities (including educational, R&I actions) is of key importance for achieving a well-functioning spatial creation system.

7.2 Conclusions on spatial creation indicators

In terms of indicators, our analysis shows a lack of indicators for spatial governance. Such indicators are needed to ensure the intentional creation of sustainable and high-quality spaces. To achieve this, indicators need to be developed that measure participatory planning processes, such as creative approaches to activate local community thinktanks, governance capacity building programmes, increase the number of stakeholder engagements, the diversity of co-creation workshops etc.

This report encompasses a basic scoping exercise that explores indicators and provides a preliminary list of potential indicators which are crucial for measuring and monitoring the progress towards HQSLE. These indicators are categorised in two main groups:

- The planning *system*, which pertains to policy makers and administrators,
- The planning *process*, which is divided into different planning phases that are relevant to planning specialists.

Furthermore, to ensure the development of effective indicators for HQSLE in Estonia, **it would be useful to divide the country into four regions**. A simple solution would be to do it according to the conventional way: North-Eastern Estonia, South-Eastern Estonia, South-Western Estonia and North-Western Estonia. In addition to quantitative aspects also qualitative aspects play an important role in high-quality living environment. When reflecting on the spatial quality, the sense of place – *genius loci* - is an important aspect. **Indicators for measuring HQSLE should encompass the specific socio-cultural and landscape character and dynamics of each region, taking into account the diverse needs and challenges they present**. We suggestion creating indicators that encompass the specific landscape characters and dynamics of each area, considering the diverse needs and challenges they present. It is suggested to establish both national and regional landscape character profiles in Estonia. Many European countries have taken similar approaches, including the UK, Germany, France and Switzerland, where they are an integral part of spatial planning.

The analysis found that to ensure a systematic and holistic approach to spatial creation policy and decision-making, it is crucial that **the indicators used to measure progress cover the full life cycle of**

spatial creation process including initial spatial planning with co-creative participatory approach, individual project design, project construction, project management and maintenance during the operational phase. Consideration should be given to strategies for site reuse and the responsible handling of building materials when the project reaches the end of its life cycle.

Additionally, it is crucial to **incorporate the rural-urban gradient within each region**. This entails addressing the distinct features and challenges of rural, semi-urban, and urban areas. By incorporating both regional factors and rural-urban gradient with the validation from participatory process, the indicators can accurately reflect the diverse living environments and lifestyles across Estonia, enabling the implementation of tailored strategies for promoting sustainability and quality of life in each specific context.

The integration of the recommendations and further development of indicators suggested in Deliverable 5 is instrumental for establishing a more robust and efficient governance framework and coordination system. These elements synergise to facilitate well-informed, transparent, and inclusive spatial decision-making throughout the Estonian transition towards high quality sustainable living environment.

Annexes

Four annexes are provided in this report. Annex A includes actors previously mapped out in Deliverable 2 as well as actors of the previous system identified in this report. Annex B contains an overview of five case studies on good practices for institutional and governance systems. Annex C contains the background research for the preliminary indicator analysis including the scoping, research questions and methodology. Annex D presents an inventory of possible indicators to measure and monitor the quality of space in Estonia.

Annex A: Actors' tasks in the previous governance system

For the sake of providing a comprehensive overview, a short summary of the tasks of key spatial creation actors up to 1 July 2023 is included in this annex. The following section describes broadly the roles and responsibilities of the different actors, prior to the reorganisation following the March 2023 governmental elections.

The Government Office

The Government Office is a governmental institution responsible for supporting the Government of the Republic and the Prime Minister, coordinating strategic planning, recruiting senior civil servants, and overseeing crisis management. It is led by the **Secretary of State** and has ca 160 staff members, including a team serving the Prime Minister. **The Strategy Bureau**, a unit within the Government Office, facilitates the development and implementation of strategic plans to enhance Estonia's competitiveness and ensure sustainable development. The Government Office also coordinates cross-cutting topics like the European Green Deal, which requires facilitation of cooperation amongst ministries.

Initially coordinated by the Ministry of Finance, strategic planning was later transferred to the Strategy Bureau to ensure impartiality. The Government Office acts as a coordinator, not a leader, in strategic planning, which is the responsibility of the ministries. Additionally, the Government Office is the main author of the "Estonia 2035" National Long Term Development Strategy document and its action plan.

Policymaking level: ministries and their departments

Ministry of Culture

The Ministry of Culture is responsible for the preservation and promotion of national culture, sport and heritage. This includes protection of, amongst others, physical monuments and archaeological sites. The Ministry is also responsible for the protection of architectural heritage and architecture as an art form.

Ministry of Economic Affairs and Communication (MEAC)

The overall objective of the MEAC is to increase the competitiveness of Estonian companies and the prosperity of people. Within the MEAC, there are several departments working on various aspects.

Construction department

The construction sector has an important role to play in the socio-economic development of society. Contributing to the quality of life, construction activities, together with the real estate sector. MEAC is responsible for the ensuring that the construction law is respected throughout the entire life cycle of the building, from the planning, usage, and demolition phases, such that principles of good practice, safety, environmental sustainability and expertise are being applied.

Digital state and connectivity

MEAC is also responsible for preparing the digital society development plan 2030, a plan which has a long-term objective of ensuring the success of Estonian digital society, where people are able to get the best digital experience. MEAC will also create an action plan to reduce the environmental footprint of digital services in the Estonian public sector.[40] The Ministry is also actively looking into the digitalisation of the construction and real estate sector to increase quality and productivity throughout the entire lifecycle of buildings, i.e. during the stages of planning, procurement, design, construction and maintenance.

Energy and mineral resources department

The energy department within the MEAC is responsible for energy policies and for coordinating the implementation of the National Development Plan for the energy sector. This department cooperates with the Construction and Housing Department for matters related to improving the energy efficiency of the housing stock and district heating. It is also responsible for the implementation of the EU Renewable Energy Directive and other EU legislations related to the topic on energy.

Housing department

The MEAC is responsible for the housing policy, the implementation of the renovation wave. In terms of housing, the long-term objectives are to ensure the availability of housing for Estonian residents, the energy efficiency, quality and sustainability of housing, and the diversity of residential areas and sustainable development. Currently, local governments are the key decision-makers concerning the organisation of housing and communal services leading to diverging policies.

Strategic Planning department

Their main tasks are to:

- ensure the functioning of the development plans of the ministry's governance area;
- organise direct public services;
- ensure the effective use of foreign aid funds;
- prepare economic analysis and economic forecasts in the areas of the ministry's core activities;
- monitor the impact of policies;
- coordinate the development of parts of the EU's structural funds strategy;
- protect the state interests with the participation of the state, governed by the ministry coordinating the activities of legal entities and preparing draft legislation regulating the field.[41]

[40] MEAC: Estonian Ministry of Economic Affairs and Communication. Rohedigi. Retrieved from https://www.mkm.ee/digiriik-ja-uhenduvus/rohedigi

[41] Ministry of Economic Affairs and Communication, Department of Strategic Planning (2023). Accessible here: https://www.mkm.ee/ministeerium-uudised-ja-kontakt/ministeerium-ja-ministrid/ministeeriumi-tutvustus-ja-struktuur#strateegilise-planee, accessed in June 2023

Transport and mobility department

The goal of the transport policy is to ensure convenient, safe, fast and sustainable movement options for residents and businesses. The MEAC has also prepared a transport and mobility development plan that supports the achievement of the transport policy; it has the long-term vision to develop a safe, fast and technologically innovative transport sector, infrastructure and a competitive logistics sector.

Road maintenance and construction department

The main goal of this department is to maintain roads to ensure the safety of users.

Ministry of Environment (MoE)

MoE is responsible for creating conditions to ensure that the current and future generations will still have the diverse nature and clean living environment. The three key focus areas are: climate and environment protection; water, forest and resources; waste, emissions and circular economy. The National Environmental Strategy 2030 is one of the important documents produced by the Ministry of Environment. It aims at defining long-term strategy for the preservation and improvement of the Estonian living and natural environment while considering the socio-economic needs of the country. The Environmental Protection and Use Programme for 2020-2023 is also an important strategic document which states that a policy on the provision of public water supply and sewerage services will be developed to guarantee sustainability and continuity of these services in all regions. Their area of responsibility includes: organising and coordinating environmental policy and strategic documents; organising national environmental and nature protection; organising the use, protection, re-production and registration of natural resources; management of land, including the land cadastre; management of spatial databases; monitoring of the quality of the environment; organise meteorological observations, nature and marine research, as well as geological, cartographic and geodetic operations; creating awareness and educating the public about the value of the environment; coordinating and management of EU funds that impacts the environment. The wide range of activities within the purview of the Ministry of Environment is carried out through a variety of entities.

Ministry of Finance (MoF)

In Estonia, unlike other countries, the Ministry of Finance has an additional role in spatial planning and regional policy, which is carried out through its internal departments like the **Department of Regional Development** and the **Local Government Policy Department**. As per the **Planning Act**, the Ministry of Finance is responsible for organising the work on spatial planning, which includes ensuring the presence of appropriate spatial plans, overseeing their preparation, commissioning their creation if necessary, undertaking necessary procedural steps, evaluating the economic, social, cultural, and environmental impact of the spatial plan, and implementing adopted spatial plans within the scope of its legislative duties. Additionally, the Ministry of Finance has the authority to issue guidelines that define the principles and directions of spatial development. These guidelines aim to promote the creation and preservation of high-quality integrated environments, harmonise practices related to spatial plan preparation, maintain a balance between different interests and values, and provide further explanations regarding the application of the Planning Act.

The Ministry of Finance is responsible for the preparation of national spatial plans, county-wide spatial plans, and national designated spatial plans.

- ✓ National spatial plans, along with county-wide spatial plans, are reviewed at least once every five years, and the findings of the review are presented to the government within six months.

- ✓ National designated spatial plans focus on construction projects with significant spatial impact and national or international interest.
- ✓ County-wide spatial plans are primarily aimed at expressing interests that go beyond individual local authorities and balancing national and local spatial development needs and interests.

Despite these processes, there is still a disconnect between the national spatial plan and the actual spatial development in the country. To address this, the Ministry of Finance was entrusted with the spatial planning portfolio to improve coordination and cooperation among ministries, as it oversees public budget allocation and can exert influence. While this has led to increased cooperation, the desired outcomes in terms of the quality of the living environment have not been achieved optimally. Several reasons contribute to this, including a lack of consensus on what constitutes quality and sustainable spatial development in Estonia, difficulties in reaching consensus among different ministries, silo thinking and working, undervaluing regional-level planning, insufficient expertise in architecture and spatial planning, limited resources at the local government level, inadequate incorporation of criteria for improving the living environment in investments, a lack of structure for ensuring compliance and plan implementation, and a deficiency in political will.

Ministry of Interior (MoI)

The Ministry of Interior, along with its administrative area aims to ensure that it is good and safe to live in Estonia.[42] MoI oversees internal security and the institutions in the ministry's governance area like the Rescue Board, Police and Border Guard Board, or Internal Defence Academy. These organisations have a significant influence on the perceived quality of life, sense of well-being and security as well as the country's land use. MoI is the largest public sector organization in Estonia (over 8,000 employees in total) with nearly 200 people working in the ministry, designing and implementing internal security policies. Their tasks and responsibilities are:

- ✓ to ensure public order and internal security;
- ✓ to be responsible for crisis management and rescue operations;
- ✓ to organise border guards and manage border crossings;
- ✓ to organise citizenship, migration, and identity management issues;
- ✓ to organise population management, issues of personal names, and marital status;
- ✓ to support the development of civil society, including internal security volunteers and religious associations.

Relevant to the quality of living and well-being in Estonia is that according to the 2022 Turu Uuringute AS survey, Estonians perceive their living and home environment to be safer now than it has been since the restoration of independence in 1991.[43] In addition, based on the same survey, 93% of residents trust the Rescue Service and Emergency Centre, and 84% trust the Police and Border Guard Board, meaning that people's trust in security and internal security agencies is very high. Furthermore, the number of people who consider Estonia to be a safe place to live in has steadily increased in recent years.

[42] Ministry of Interior structure (2023). Accessible at: https://www.siseministeerium.ee/ministeerium-ja-kontaktid/ministeerium-ja-minister/ministeeriumi-tutvustus-ja-struktuur?view_instance=0&current_page=1#struktuur-joonis, accessed in June 2023
[43] Ministry of the Interior structure and responsibilities: https://www.siseministeerium.ee/ministeerium-ja-kontaktid/ministeerium-ja-minister/ministeeriumi-tutvustus-ja-struktuur?view_instance=0&current_page=1#valdkonnad-joonis

Ministry of Justice (MoJ)

The Ministry of Justice is an important actor in spatial development and planning as they coordinate government law-making and supervise the creation of new laws by other ministries, ensuring that they are in accordance with the Constitution, other laws, and general principles of public and private law.[44] Their main duty is to plan and carry out the legal and criminal policy of the state, which helps to ensure an open and secure society, where people may be assured of the use and protection of their rights. To that end, the MoJ:

- ✓ coordinates, together with other institutions, the combat against crime to reduce the damage inflicted upon society by crime and to increase the feeling of security among the population;
- ✓ guarantees smoothness of case management by quick and effective proceedings, and by high-quality and available legal assistance – this is relevant as spatial planning topics often lead to disputes that make it to court;
- ✓ guarantees legal certainty and creates prerequisites for economic growth by insuring protection of economic rights, effective execution proceeding, availability of notarial services, and quality of court registers;
- ✓ strengthens the principles of a democratic state based on the rule of law by helping to guarantee the fundamental rights of the people and by structuring state management.

Ministry of Rural Affairs (MoRA)

Ministry of Rural Affairs is relevant for sustainable and good quality spatial creation as it is responsible for a wide variety of topics including organising and supervising spatial planning activities, counselling, development and financial management of local municipalities, planning and coordinating regional development and investment, including sectoral activities related to public transport within the competence of the local government. Their tasks and responsibilities were:

- ✓ designing and implementing the rural and agricultural policy, including coordination of Estonian Rural Policy, Rural Development Plan and EU Common Agricultural Policy and ensuring the sustainability of agricultural production, farmers' market orientation development;
- ✓ designing and implementing the Estonian Fisheries Policy, to increase the competitiveness of the fishing industry;
- ✓ coordinating activities related to animal and plant health and protection, designing Estonian feed safety and farm animal breeding;
- ✓ organising agricultural research and development activities as well as agricultural education and draft legislation;
- ✓ ensuring food safety and compliance;
- ✓ formulating land policy, registration, collection and management of land data, updating and ensuring its public availability.

As of this report's drafting in spring 2023, MoRA is currently in the process of being reorganised into the Ministry of Regional Affairs and Agriculture.

Ministry of Social Affairs (MoSA)

Ministry of Social Affairs aims to contribute to the development of a high-quality living environment where everyone has equal opportunities to live with dignity and enjoy a high standard of living, while maintaining the quality of the living environment by using environmental resources sustainably.

[44] Ministry of Justice structure (2023). Accessible here: https://www.just.ee/tutvustus-ja-struktuur, accessed in June 2023

Operating in the field of social well-being and social security, MoSA works towards achieving five strategic objectives:

- ✓ to ensure people's economic prosperity and their good work;
- ✓ to ensure people's social coping and development;
- ✓ to support the well-being of children and families;
- ✓ to promote people's mutual care, equal opportunities, and gender equality; and
- ✓ to ensure people's long and high-quality life.

MoSA's tasks and responsibilities include:

- ✓ compiling solution plans for the state's social issues and management of their implementation;
- ✓ designing and implementing policy in the field of social security, ensuring timely and targeted granting and payment of social insurance benefits;
- ✓ managing social insurance and welfare services;
- ✓ developing and implementing work and labour market policy, supporting long-term employment and working capacity and employment;
- ✓ organising the protection of public health, as well as medical care;
- ✓ promoting the equal treatment of women and men, integrating different social groups into social life;
- ✓ dealing with social welfare and social security issues of disabled people;
- ✓ coordinating formulation of children's rights and protection policies;
- ✓ shaping the family policy, prioritising work-life balance and parental education.

Many connections between social affairs and high-quality living environment are made, for example "due to the improvement of the living environment and the greater appreciation of health, people are able to work more efficiently and are economically and socially active to a high age".[45] Another example is the "Welfare development plan 2023-2030" (Heaolu arengukava 2023–2030)[46] approved by the government in February 2023, which sets the strategic goals of family, social and labour policy for the following years and determines the necessary directions of action to achieve them. In comparison to the previous plan, both children and families as well as the elderly receive increased attention as separate target groups. The welfare development plan helps to implement the goals and objectives set in the country's long-term development strategy "Estonia 2035", supports the achievement of the UN's global sustainable development goals and takes into account the directions of the EU and internationally accepted commitments. The well-being development plan 2023-2030 covers the performance area "Well-being" in the state budget strategy (allocating ca. 45 billion euros for 8 years) and is implemented via five programs. **This serves as a good example for similar action that we suggest taking for prioritising spatial creation in the state budget - by adding a new performance area focusing on financing actions towards creating sustainable and high-quality living environment in Estonia**.

[45] Ministry of Social Affairs structure (2023). Accessible at: https://www.sm.ee/asutus-ja-kontakt/asutus/ministeeriumi-tutvustus-ja-struktuur, accessed in June 2023
[46] "Heaolu arengukava 2023-3030". Accessible at: https://www.sm.ee/heaolu-arengukava-2023-2030, accessed in June 2023

Executive level: Boards, Agencies and Centres

Consumer Protection (Tarbijakaitseamet) and Technical Regulatory Authority (Tehnilise Järelvalve Amet)

These two agencies were merged with the National Support Services Centre on 1.4.2021. The new office performs all the tasks previously held by the two agencies. Among other tasks, it carries out national supervision and issues orders for the fulfilment of obligations arising from the law concerning consumer protection, electronic communication, services of information society, railways, mining, explosive materials and handling of pyrotechnic products, hazardous chemicals, safety of fuel gas, electricity, pressure and lifting equipment, as well as construction and legal metrology[47].

Enterprise and Innovation Foundation (Ettevõtluse ja Innovatsiooni Sihtasutus)

The Foundation was created in early 2022 by merging Enterprise Estonia, EAS (Ettevõtluse Arendamise Sihtasutus) and KredEx. It supports entrepreneurship and the improvement of living conditions in Estonia. It also aims to increase the international visibility, competitiveness, and attractiveness of the country as a place for business, living and studying. The newly merged organisation will play a key role in the implementation of the digital, green and innovation revolution and in the development of the Estonian capital market.[48]

Estonian Transport Administration

The Ministry of Economic Affairs and Communications is the parent ministry of the Estonian Transport Administration. The Transport Administration is a result of the merger of the Civil Aviation Administration, Road Administration and the Maritime Administration. This Administration aims to become a competence centre combining all modes of transport and to drive forward a safe, comfortable, comprehensive and fast traffic environment in Estonia. It will design smart mobility solutions and implement policies and projects covering various transportation modes.

Geological Survey of Estonia (EGT)

The Geological Survey of Estonia is under the governance and administration of the MEAC and is responsible for geological mapping, surveys, preservation of and ensuring access to geological information, advising of government authorities, and informing the public about matters concerning the earth's crust. The agency monitors and gathers information on the resources present in Estonia's environment. Its tasks related to mapping are thus crucial for other agencies to build upon when determining spatial planning related policies.

Land Board

The Estonian Land Board is the national mapping and cadastral agency, and with its 30 years one of the oldest. It works under the purview of the Ministry of Environment. It helps to ascertain land that is suitable for inclusion into the state land reserve, and land that will remain in state ownership. It deals with the following:

- **Land transactions, land cadastre.** It consists of the cadastral register and maps, which aims to record and preserve information regarding the value, natural status, and uses of the land, and to avail this information to the public. The Land Board is the authorised cadastral registrar who registers cadastral parcels, restrictions and rights of land use, and to collect and process

[47] Ministry of Economic Affairs and Communication. (2023). Institutions of the administrative area. Accessible at: https://www.mkm.ee/ministeerium-uudised-ja-kontakt/haldusala-asutused#riigi-osalusega-ariu
[48] Idem

data necessary for land valuation. The Land Board also performs land assessments and valuation for public land, which serves as a basis for land related transactions and investments, taxation, compensation and planning procedures in land consolidation. It also maintains the land quality and assessment map, raises the competencies and quality of land valuers, manages and develops the real estate transactions database, informs the public on the state of the real estate market, and consults other state agencies on real estate related matters.

- **State land transactions.** Besides managing state land that is in their possession, the Land Board administers the state land managed by the Ministry of Environment and performs land transactions on their behalf. This includes the sale and lease of state-owned land via auctions, land consolidation participation in spatial planning procedures, processing civil engineering projects within its limits of authorisation and making spatial planning data available for the public. The Land Board is also the main structural unit in the realisation of Rail Baltic. The Board carries out land acquisition based on the established county plans, the preliminary design documentation and basic project for the railway, and the detailed plans prepared at the local level.

  Spatial data and maps. The Land Board is also responsible for geodesy, which deals with the accurate measurement and representation of space. It is also responsible for managing the Address Data System which supports the maintenance of other datasets. One of the major tasks of the Land Board is to produce national topographic data and maps but also to maintain and update them in the databases and to facilitate data exchange between different data systems. It also carries out photogrammetry and makes and/or update maps of wide areas using aerial photography and laser scanning.
- **Geoportals and spatial data catalogue.** The Land Board manages the depository of spatial data and maps, which are made available through the Geoportal. The portal provides public access to spatial data that are owned by the state, local governments, and other legal persons governed by public law. These data comply with the EU INSPIRE Directive and are thus compatible and usable in a transboundary context.

Local authorities / Municipalities (Kohalikud Omavalitsused, KOV)

Municipalities are, under the Constitution, responsible for dealing with all local issues which include: education (nursery, primary, and secondary levels); upkeep of public areas; social welfare and services; welfare services for the elderly; youth work; provision of public services and amenities; housing and utilities; water supply and sewer maintenance; local planning; maintenance of local public roads; local public transport; municipal libraries and museums; sports and leisure facilities. Municipalities also have great autonomy in land-use decisions, being responsible for drawing up a Comprehensive Plan, the Local Government Designated Spatial Plan, and the Detailed Plans. This has led to problems in developing a high-quality living environment due to the fragmentation of decisions and the lack of common objectives in developing spatial living environment. One reason for this is that they lack the expertise for planning and monitoring the architectural quality of the spatial environment and the financial resources to do so. Despite their autonomy, the local governments are sometimes dictated spatial decisions by the central government, which means that they are not always based on the local needs.

National Support Services Centre (Riigi Tugiteenuste Keskus, RTK)

The Centre works with nationwide financial, personnel and salary accounting, conducting public procurements and organising the use of EU grants.[49] Read more under **Consumer Protection and Technical Regulatory Authority** below.

Rural Development Foundation (Maaelu Edendamise Sihtasutus, MES)

Founded in 1993, the Foundation is dedicated to fostering and reinvigorating entrepreneurship in rural Estonia. Its overarching objective is to enhance access to capital and elevate the competitiveness of rural businesses. In pursuit of this mission, the foundation offers housing co-loans, facilitating the construction of homes in rural areas for private individuals.

Statistics Estonia (Statistikaamet)

This department carries out various spatial data analysis. Among other topics, they analyse spatial distribution of people in Estonia as well as demographics and statistics about the economy, tourism etc. This information is crucial for spatial planning decisions. Statistics Estonia is part of the Ministry of Finance.[12]

The Strategy Centre of Tallinn (Tallinna Strateegiakeskus) and The Spatial Creation Departments of Tartu and Tallinn (Tartu ja Tallinna Ruumiloome osakonnad)

These are special units in terms of personnel, know-how and financing capacity in Estonia. Their expertise and activities are directly related to the field of spatial development and creation of HQSLE. If there are available funds for a more decentralised approach, the spatial creation department of Tallinn's Strategy Centre would be one example worth looking into when creating similar institutions in other regions of Estonia. However, as the current approach is rather centralised and the smaller local municipalities often lack funds for keeping and/or attracting qualified spatial creation personnel competent in tackling the current sustainability challenges, we suggest creating a competence centre to advise and support regions across Estonia under MaRu (more info in Chapter 5).

State-owned enterprises

AS A.L.A.R.A (As Low as Reasonably Achievable)

AS A.L.A.R.A is a 100% state-owned company whose main activities are management and decontamination of the Paldiski former nuclear facility and the Tammik radioactive waste repository, and the handling and storage of radioactive waste generated in Estonia.[50]

Eesti Energia

This is a state-owned international energy company whose main businesses are in the production, distribution and sale of electricity, liquid fuels and in the management of power and communications networks.[51]

[49] Ministry of Finance. (2023). Institutions of the administrative area. Accessible at: https://www.fin.ee/ministeerium-uudised-ja-kontakt/organisatsioon/haldusala-asutused
[50] Ministry of Economic Affairs and Communication. (2023). Institutions of the administrative area. Accessible at: https://www.mkm.ee/ministeerium-uudised-ja-kontakt/haldusala-asutused#riigi-osalusega-ariu
[51] Ministry of Finance. (2023). Institutions of the administrative area. Accessible at: https://www.fin.ee/ministeerium-uudised-ja-kontakt/organisatsioon/haldusala-asutused

Elering AS

Elering is an energy transmission company that combines Estonia's largest power plants, distribution networks and large consumers into a complete energy system. The sole shareholder of Elering AS is the Republic of Estonia, the representative of the sole shareholder is the Minister of Economy and Communications as the minister governing the shareholding.[19]

Elron (AS Eesti Liinirongid) and Estonian Railway AS (AS Eesti Raudtee)

Both enterprises are 100% state-owned. AS Eesti Liinirongid is a public transport company, which organises Estonian passenger train traffic under the Elron brand and AS Eesti Raudtee deals with the management and maintenance of the railway infrastructure.[17]

Environmental Investment Centre (Keskkonnainvesteeringute Keskus, KIK)

The Centre was created in 2000 and is the central financier of environmental projects in Estonia. More than 27 000 environmental projects costing more than 2.9 billion euros have been implemented with the support of various funding sources in KIK. KIK belongs to the administrative area of the Ministry of the Environment.[52]

Island Lines AS (AS Saarte Liinid)

This is a 100% state-owned company. It manages the ports of Western Estonia.[17]

Port of Tallinn (AS Tallinna Sadam)

This company became a listed company since June 13, 2018, whose shares are listed on the Nasdaq Tallinn Stock Exchange. The state owns 67% of the company's shares and 33% is in the hands of investment and pension funds and retail investors. The composition of AS Tallinna Sadam includes Old Port, Paljassaare Port, Saaremaa Port, Muuga Port and Paldiski South Port.[17]

Rail Baltic Estonia OÜ

This is a 100% state-owned company, whose main purpose is to exercise shareholder rights in RB Rail AS, a joint venture established in the Republic of Latvia for the development of the Rail Baltic project (railway design, construction, and marketing).[53]

Real estate management of State properties (RKAS)

A real estate development and management company which contributes to the maintenance and monitoring of state property assets. It develops real estate for ministries and state agencies, provides facilities management services, and conducts project management activities as needed on their behalf. Once a new development is approved via the budget process, RKAS is mandated to implement the project. Upon completion, the constructed asset is owned by RKAS and occupied at an agreed rent by the client ministry. RKAS also works towards creating sustainable and efficient buildings, they are considering introducing the concept of accessibility based on the principle of inclusive design, which is beyond the Building Code, and also support research and development activities that attracts young people to the field to increase innovation, human-centredness, environmentally sustainable and efficient future of Estonian real estate and construction sector.

[52] Environmental Investment Center. (2023). Who are we? Accessible at: https://kik.ee/et/kes-me-oleme
[53] Ministry of Economic Affairs and Communication. (2023). Institutions of the administrative area. Accessible at: https://www.mkm.ee/ministeerium-uudised-ja-kontakt/haldusala-asutused#riigi-osalusega-ariu

Road Technology Centre (AS Teede Tehnokeskus)

This is a 100% state-owned company, whose main fields of activity are the design and supervision of construction and road maintenance works and the testing and certification of construction materials.[19]

State Forest Management Centre (Riigimetsa Majandamise Keskus, RMK)

This centre mainly focuses on forest management (timber marketing, guarding the state forest and growing them, seed and plant management). They also handle land management, nature conservation, nature education and visitor management. Besides that, RMK maintains forest roads and drainage systems.[54] Approximately 30% of Estonia's land is managed by the RMK.

Tallinn Airport AS (AS Tallinna Lennujaam)

This is a 100% state-owned airline service company which serves both cargo and passenger airlines.[17]

These state-owned enterprises play an important role in spatial creation in Estonia because a significant area of land is shaped by their activities. However, the creation of sustainable and high-quality space is often not considered among their aims and project development criteria. There are also positive examples, like the 45-meter-high voltage line design masts Soorebane and Sookurg ordered and erected by Elering. State enterprises have symbolic power and role, i.e., they have the ability to shape social norms and values and act as role models. Therefore, they have the potential to initiate positive changes to improve the quality and sustainability of the living environment.

Associations: Representative organisations

Association of Estonian Cities and Municipalities (Eesti Linnade ja Valdade Liit, ELVL)

This is a national association of local authorities that entails all Estonian cities (15) and municipalities (64)[55]. The aim of the association is to represent and protect the interests of the members in the country as well as the world. The association is guided by the Act on Associations of Local Authorities (KOLS). EU policies are pursued through the EU Committee of the Regions (CdR), which ensures the representation of local and regional authorities in the EU.

Estonian Association of Architects (Eesti Arhitektide Liit, EAL)

This Association joins architects, landscape architects and architecture researchers[56]. The Association initiated the development of the official architecture policy of Estonia and proposed a concept for a state architect etc. Their activities include offering architecture expertise and expert assessments on special case and spearheding initiatives to improve the quality and sustainability of the living environment. There are also various workgroups set up, which include for example the Building and Planning Legislation Workgroup and the Energy Efficiency Workgroup. In 2017, they participated in the space creation expert group which operated at the State Chancellery, to map the state of space creation in the public sector and suggest improvements[57].

[54] State Forest Management Center. (2023). Areas of Activities. Accessible at: https://www.rmk.ee/organisatsioon/tegevusvaldkonnad
[55] Eesti Linnade ja Valdade Liit. (2023). Accessible at: https://www.elvl.ee/tutvustus
[56] Eesti Arhitektide Liit. Building and planning legislation workgroup. Retrieved from http://www.arhliit.ee/english/association/groups-commissions/building-planning-legislation/
[57] Eesti Arhitektide Liit (2022). Arhitektuuripoliitika / Ruumiloome ekspertgrupp 2017/2018. Retrieved from http://www.arhliit.ee/arhitektuuripoliitika/ruumiloome_ekspertgrupp/

Estonian Association of Landscape Architects (Eesti Maastikuarhitektide Liit, EMAL)

This is a voluntary professional association which represents the interests of landscape architects and landscape-architecture researchers. They define landscape architects as certified specialists who oversee the spatial design of the landscape. The aims of the association is to represent and promote the specialty of landscape architecture in Estonia; protect the creative, professional and economic interests of its members; cooperate with other organisations; organise professional competitions; develop landscape architecture training and support members' self-improvement; participate in the organisation of landscape architecture profession in Estonia; make proposals for the protection of landscape architectural heritage, organisation of protection and preservation of documentary material; convey information to members of the union and issue publications; and share recognition for outstanding achievements in the field of landscape architecture, and to award scholarships.

Estonian Association of Construction Entrepreneurs (Eesti Ehitusettevõtjate Liit, EEEL)

This is a voluntary association of construction enterprises created to support and coordinate its members' actions on industry related economic issues and relations with employees and employee unions. Members of the association include 100 active companies accounting for more than 45% of the construction turnover in Estonia. Members include developers who often interact with planners and architects on spatial development plans.

Estonian Association of Spatial Planners (Eesti Planeerijate Ühing)

An NGO which encompasses spatial planners from different vocations and fields. The objective is to elaborate and promote best spatial planning practices, develop cooperation within Estonia, share empirical and theoretical information between different specialists in varied fields and planning levels, enable regular communication, and systematise and spread planning know-how. The Association has also been actively organising and participating in various activities, such as organisation of workshops, seminars and conferences on the topic of spatial planning; collaboration in the creation of planning and other relevant fields of law; monitor and spread information on judicial practices and decisions; providing expert opinions and acting as opinion leader in spatial planning. These activities are carried out voluntarily, although projects are funded.

Estonian Chamber of Environmental Associations (Eesti Keskkonnaühenduste Koda, EKO)

This is a non-legal, politically independent cooperation network that helps environmentalists to achieve environmental protection goals through joint efforts.[58] It was formed by 10 Estonian environmental organisations in 2002. Currently, there are eleven members. EKO members have mainly cooperated to make Estonian forestry, agriculture and energy policies and plans more environmentally friendly.

Estonian Roundtable for Development Cooperation (Arengukoostöö Ümarlaud, AKÜ)

This is an NGO platform comprising 34 Estonian NGOs that work in the field of development cooperation and sustainable development, as well as humanitarian aid and citizen education[59]. They carry out both national and EU-level advocacy on development issues, and on SDGs and policy coherence. This Roundtable is also the founder and lead partner of the Estonian Coalition for Sustainable Development, a cross-sectoral network for promoting SDGs and other global issues. Their work includes public campaigns and research on public opinion. AKÜ is a strategic partner for the Government Office and the

[58] Eesti Keskkonnaühenduste Koda. (2023). Accessible at: https://eko.org.ee/eko
[59] Terveilm. About us. Retrieved from: https://www.terveilm.ee/leht/about-us/?lang=en

Estonian Ministry of Foreign Affairs, as a representative of civil society on the Commission for Sustainable Development, and the Commission Development Cooperation respectively.[60]

Estonian Union of Co-operative Housing Associations (Eesti Korteriühistute Liit, EKYL)

This is an independent non-profit association to support apartment associations and to represent their interests on local, national and international level. It is involved in shaping housing policy agendas, observing and contributing to the development of legislative and other acts of law related to sustainable development and housing in Estonia and EU. Among other roles, it also conducts trainings for managers, board members and apartment owners/ tenants, and has a wide network to which they disseminate and share information with. The key objective is to support the development of apartment associations in Estonia, through knowledge-based activities likes training, consulting, advisory services, research, national and international cooperation projects; engage apartment associations to energy efficient renovations, energy poverty alleviation programs and sustainability commitments; disseminate best practices and promote using EU funds to achieve Estonian and EU climate ambition.

Green tiger (Rohetiiger)

This is an independent, apolitical, multidisciplinary platform that provides support to companies and organisation for environmentally conscious development and developing proposals to policymakers.[61] Their activities include applying systematic and knowledge-based approaches to companies and organisations; representing and gathering companies on environmental topics; mapping of regulations that hinder companies, local governments and organisations from acting in an environmentally friendly way; providing input and creating proposals for policymaking; organising and implementing climate assemblies.

To support their work, they have also set up a 'Green Tiger Think Tank' comprising Estonian entrepreneurs with a common goal of finding environmentally friendly while having a realistic economic vision that is based on future technologies, i.e. supporting the green turn in areas like energy, transport and agriculture. They have also launched the 'Green Energy Roadmap' which gathers the proposals of entrepreneurs and experts to achieve carbon-neutrality in the energy sector in Estonia and are currently preparing the Construction Green Roadmap 2040[62] which envisages a strategy for embedding green practices in the Estonian construction sector. They are a member of the Estonian Government's Green Policy Steering Committee.

[60] Arengukoostöö Ümarlaud. (2023). Accessible at: https://www.terveilm.ee/leht/
[61] See https://rohetiiger.ee/?lang=en.
[62] Green Tiger. (2023). Green Tiger Construction Roadmap 2040. Accessible at: https://rohetiiger.ee/valjaanne/rohetiigri-ehituse-teekaart-2040/

Annex B: Case Studies

Case study 1: The Netherlands

How does the Dutch example relate to Estonia?

Since Estonia and the Netherlands have similar territory size and the Dutch planning system is considered as one of the most advanced one in Europe, it is essential to examine the Dutch institutional framework and governance system related to spatial planning and learn from the lessons which already have been taught.

When looking at the institutional framework of the Dutch example, the Board of Government Advisor (BGA) can be seen as a potential model for the proposed Estonian Land and Spatial Board. It is an independent and interdisciplinary advisory board, whose main task is to advise the ministries on spatial quality as well as working on the urgent topics such as urban development and transformation, mobility, energy transition, cultural landscapes, etc.

In 2005, the challenge of spatial quality in the Netherlands was on the rise overloading the Chief State Architect's tasks. Consequently, the establishment of the Board of Government Advisor (BGA) was aimed at upgrading the competence and capacity of the State Architect's Office, facilitating spatial planning and safeguarding the quality of living environment on a broader term. Estonia is now finding its situation fairly similar to the one which the Dutch was facing. As sustainable and high-quality living environment is one of the main goals set in the long-term national strategy 'Estonia 2035', currently there is still lacking a position or an office at the state level to safeguard spatial quality in the Estonian living environment. It is believed that the Dutch BGA could set as a very positive and convincing role model for Estonia's structural change.

In addition to the role of the BGA, there is an incentive programme, which aims at strengthening the engagement of spatial design and facilitating the design thinking in spatial planning, called Spatial Design Action Programme 2021-2024.

This four-year programme is funded by one of the six national funds - the Creative Industries Fund NL, which is the cultural fund for design, architecture, digital culture and any crossovers between them. The Estonian counterpart would be the Cultural Endowment of Estonia, which supports architecture, visual and applied arts as well as inter-disciplinary projects.

This programme is supervised by the Creative Industries Fund NL, which is under the responsibility of the Ministry of the Interior and Kingdom Relations and the Ministry of Education, Culture and Science. The BGA is placed under the Ministry of the Interior and Kingdom Relations, which gives the BGA a steering power in the programme.

What are the tasks for the Board of Government Advisor (BGA)?

The BGA facilitates spatial planning with nonpartisan and comprehensive advice and safeguards the state-level decision makings which have impacts on spatial quality. It ensures spatial design is well-addressed in legislation and education to sustain the professional competency. It stimulates 'spatial thinking' with the help of design.

Not only does BGA advise the central government and the ministries, but also other governmental agencies including the Central Government Real Estate Agency, Rijkswaterstaat and the Netherlands Agency for Cultural Heritage.

However, it is also important to note that BGA does not make any plans or designs itself but offers an interdisciplinary view from different perspectives related to spatial quality.

Some tasks of the BGA are formulated by the ministries which are involved in the Action Program on Spatial Design (Actieprogramma Ruimtelijk Ontwerp/ARO).

The Organisational Structure of the Dutch BGA

To guarantee BGA's multidisciplinarity and to achieve more comprehensive spatial advisory results, the BGA is presented by three chief members: one Chief Government Architect, and two Government Advisors for physical environment (one Landscape Architect and one Urban Planner). Its members are appointed by three governmental departments: Ministry of the Interior and Kingdom Relations, Ministry for Infrastructure and the Environment and the Ministry for Economic Affairs and Agriculture Environment. The total team consists of approximately 40 employees.

The Chief Government Architect is the chairman of the BGA. Apart from being the chairman of the BGA, he has an independent position as an advisor to the Minister, who appointed him as the Chief Government Architect, and he also gives advice to the director of the Central Government Real Estate Agency.

One Government Advisor for physical environment is an urban planner by profession, who advises on spatial programmes and projects of the State involving themes such as mobility and urbanisation.

The other Government Advisor for physical environment is a landscape architect by profession, who advises on spatial programmes and projects of the State involving themes such as landscape and water.

The BGA's relation to institutional Framework and Governance System

The institutional framework in the Netherlands is divided into state and sub-state level. At the state level, there is the central government that consists of different ministries. At the sub-state level, there are provinces, municipalities, and the water authorities.

The three chief members are appointed by one ministry or multiple ministries separately. It depends on how the government is formed and how the tasks related to spatial quality are distributed among the ministries.

Because some tasks of the BGA is formulated by ARO, the ministry or ministries which are responsible for ARO are identified as a higher authority or authorities to BGA.

How are the spatial decisions made?

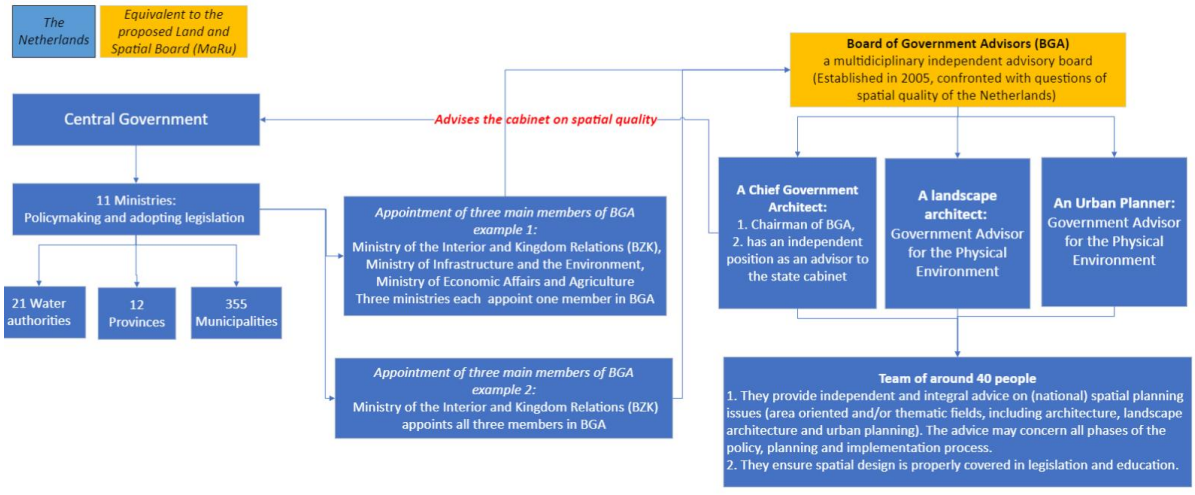
Spatial Planning in the Netherlands is more comprehensive compared to Estonia. Spatial planning decisions are made at the national level by the state, regional level by the provinces and local level by the municipalities. All the spatial decisions are expressed by spatial visions which are consensual and coherent through all planning levels.

When spatial decision is made at the national level, the abovementioned BGA is involved in the preparation of policymaking, focusing on national interests such as strengthening the economy, maintaining the network of roads, improving the quality of water, soil, and air, protecting the country against waterlogging and flooding, preservation of unique culture and nature.

When the spatial decision is made at the regional level, the focus will be on the provincial interests such as landscape management, balancing urbanisation, and preservation of green spaces. An association of, for and by the provinces which is called IPO (Interprovinviaal Overleg) is worth noting. It functions similarly to the BGA at regional level. It informs and guides the formal preparations of provincial spatial policy, provides a knowledge exchange platform for all provinces. All the provinces are the members of the IPO. Estonia can really benefit from such association because it can improve the equality and quality of spatial planning through knowledge and experience sharing among different counties. Consequently, the coherence of the governance system could be improved through better communication and the competence and know-how of different regions in Estonia can be strengthened through 'peer-learning'. In addition, IPO also maintains an extensive network among other actors, like the ministries, parliament, the European Union as well as various civil society organisations in the field. This extensive network is very beneficial to strengthening the planning competence at regional level among different provinces.

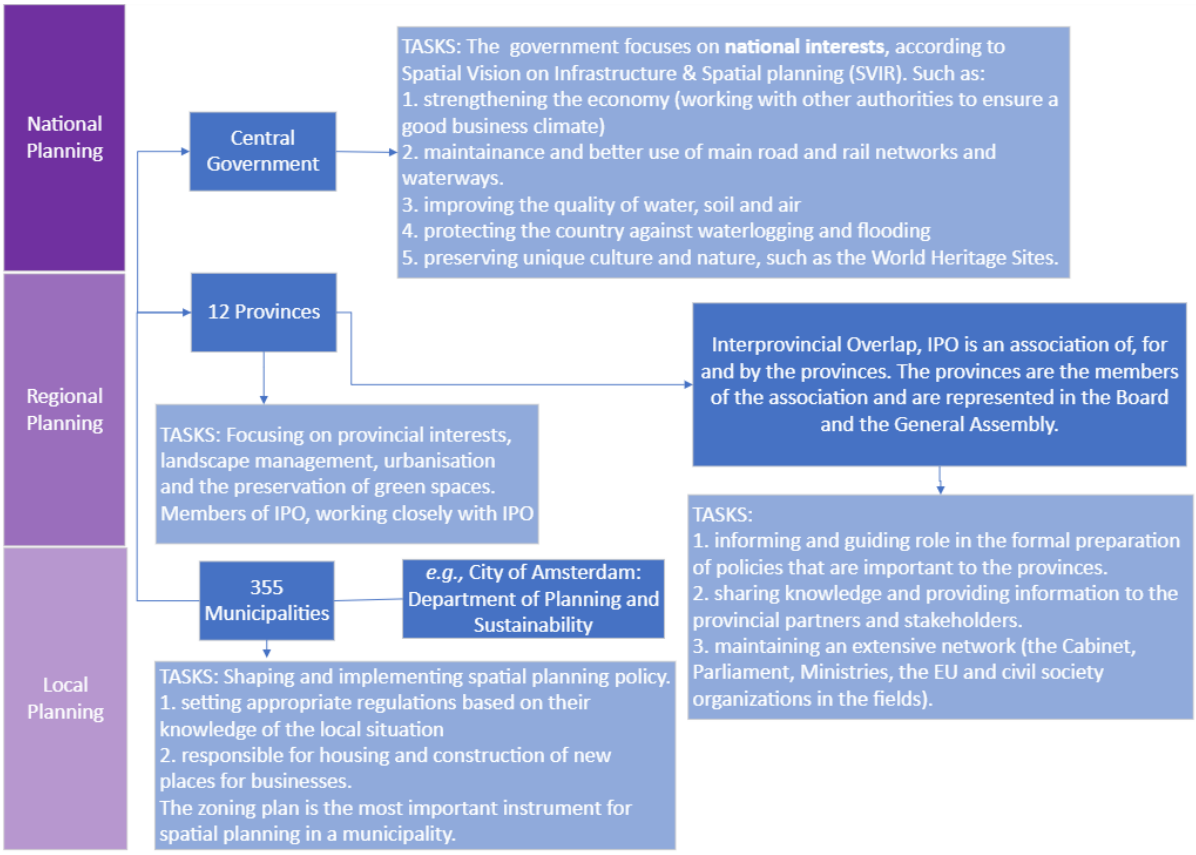
When the spatial decision is made at the local level, the municipalities can set appropriate regulations based on their knowledge of the local situation. In this way, the spatial policy can be better contextualised, and the spatial decision-making can better meet the needs of local inhabitants. However, to achieve this, the local municipalities should be equipped with resourceful competence and knowledgeable specialists. Unfortunately, challenging by the shortage of highly skilled professionals, Estonia will need time to build up a greater talent pool or establish competence centre(s) before taking further major steps such as de-centralization of decision-making.

Figure B-0-1 The Organisational Structure of the BGA and its relation to the Dutch institutional framework and governance system on national level planning.



Source: Own illustration

Figure B-0-2 The Spatial Planning Framework in the Netherlands



Source: Own illustration

Case study 2: The Flemish Region in Belgium

How does the Flemish example relate to Estonia?

Estonia has been longing for higher quality of living environment for the past decade. Similarly, after the constitutional reform in 1993, Flanders was facing the same challenges. Flanders is the Dutch-speaking northern part of the Kingdom of Belgium; all the Belgium three regions are highly autonomous. Despite that, the Federal Government includes foreign affairs, national defence, justice, finance, social security, etc.

The concept of “spatial quality” was announced in the “Spatial Structure Plan for Flanders” as a milestone in the Flemish planning history. However, there was little evidence of higher quality in the built environment, especially when it comes to public buildings regardless of the government’s advocacy for higher spatial quality. That was because Belgium has a complex political and administrative structure with fragmented system of spatial planning. Consequentially, this fragmentated community-based administrative structure results in the poor criteria of architect selection for public projects. The selection criteria were mainly based on the architect’s community background and his competence for being an engineer in infrastructures rather than his professional competence for being an architect especially including the spatial aesthetics and art education. Therefore, in order to stimulate and inspire Flemish architectural awareness in spatial decision, the Flemish Government Architect (FGA) was established.

What are the tasks for the FGA?

The aim of the FGA is to promote spatial quality in the living environment and raising the architecture culture in Flanders. The FGA acts as an advisor to the entire Flemish Government.

Therefore, one of the main tasks for the FGA is to provide support and guidance to public developers. The FGA has a role of mentor, who guides the development, but is not necessarily involved in the actual planning and design actions. In this way, it was believed that the FGA is then able to suggest a more balanced design solutions between price and quality without needing always to choose the 'cheapest' offer.

Another main task for the FGA is to develop visions and research on the high-quality spatial design. The applied research should be based on the developed vision, involving the network of professionals and project partnerships.

At the start of the FGA's mandate, a multi-annual program needs to be developed and submitted to the Government for approval. There is also need for reporting periodically to the Flemish Government and to the Expert Group. In addition, an evaluation report at the end of each FGA's mandate needs to be submitted.

The Organisational Structure of the FGA

The institutional structure of the FGA consists of the position as FGA, the FGA team and an expert group. The FGA position is appointed as a contractual staff member. The FGA is expected to be unbiased and politically neutral although the position is place directly under the Department of Chancellery and Foreign Affairs. It is believed that not having authoritative power is a challenge, but also gave the FGA freedom of expressing its viewpoints based on pure professional and technical grounds. However, this might cause some complications in practice. There seems to be a lacking mechanism of making sure the advisory from the FGA is certainly politically neutral. The FGA team consists of fifteen public officials who have broad experiences in architecture and urban development to assist the FGA's work.

The Expert Group consists of a maximum of four experts from different disciplines. It provides the FGA an external reviews and validations for strategic views, decisions or some important projects. The members are appointed by the government and are remunerated on the operating resources of the FGA. Hence, it is not considered as part of the FGA.

The FGA's relation to institutional Framework and Governance System

The institutional Framework and governance system for quality of space in Flanders is highly scattered in the responsibilities of different ministers. For example, the Minister of Justice and Enforcement, Environment, Energy and Tourism is responsible for spatial planning, environment and rural policy, the Minister of Finance and Budget, Housing and Immovable Heritage is responsible for housing policy, the Minister for Mobility and Public Works is responsible for mobility and the Minister for Economy, Innovation, Social Economy and Agriculture is responsible for agriculture and fundamental, strategic and policy-oriented research.

Since 2020, the FGA is placed under the Department of Chancellery and Foreign Affairs and under the political responsibility of the Prime Minister. The reason for placing the FGA directly under the PM is to

overcome the shortcomings of incoherence in the Flemish planning system and the nature of the quality of space being multi-dimensional issues. In this way, the FGA can offer advice to all public departments by answering or addressing specific questions proposed by the Government or any minister.

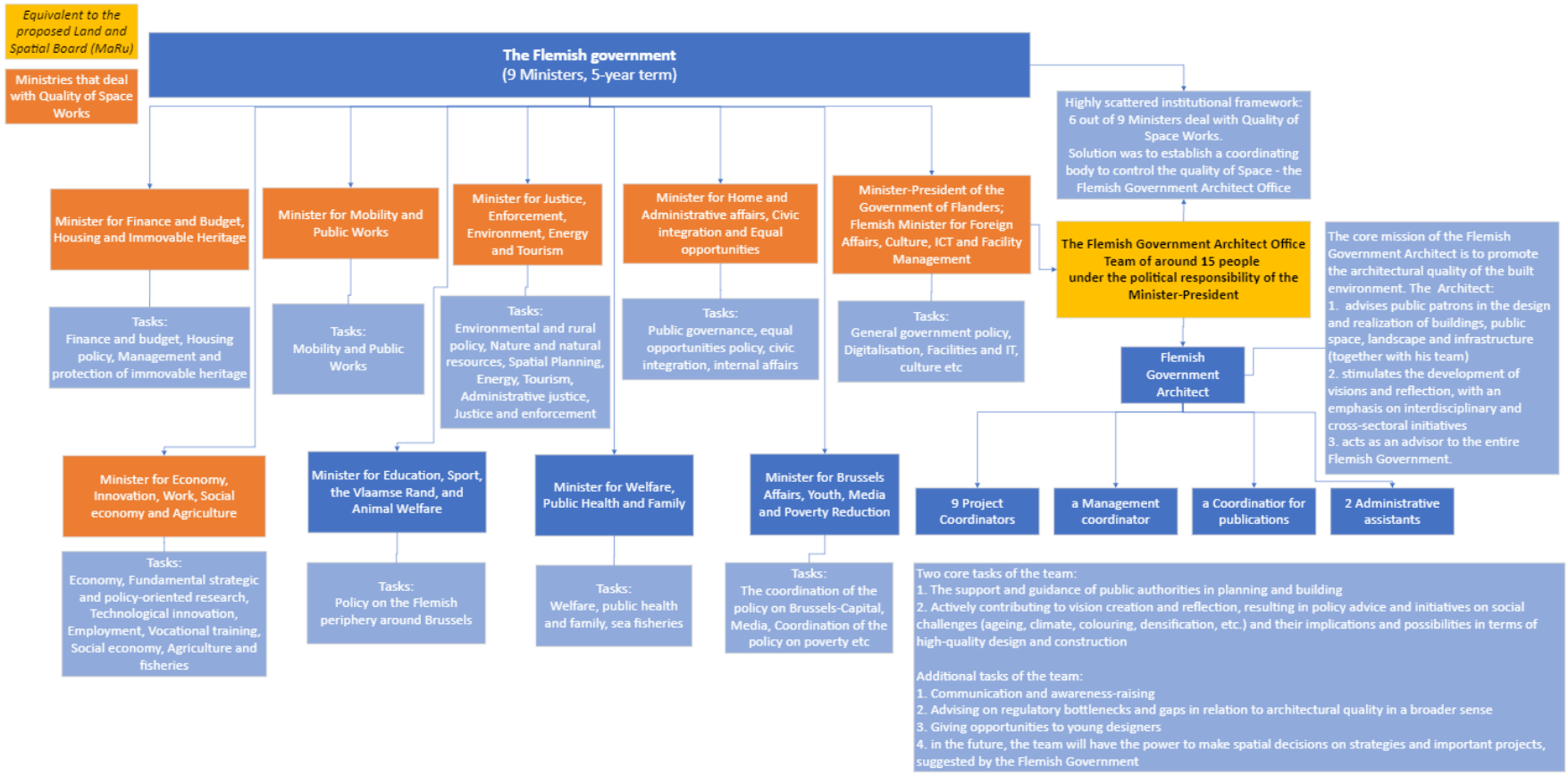
How are the spatial decisions made?

Given the FGA does not have any administrative or legislative power, the spatial decisions are still made by the planning authorities. FGA only plays an advisory role and offering platform for knowledge pooling and exchange.

However, the FGA has a series of instruments to deploy to support the planning authorities to make the planning decisions. Two main instruments of the FGA are as follows:

1. “Open Call” is an instrument to publish public projects internationally and recruit a qualified design team through the standard European procurement process. The FGA monitor and steer the design quality of the projects and help the design team contextualize the design idea into the local context.
2. “Pilot Project” is another instrument of FGA to connect research by design carried out in the policy preparation phase to the realisation of pioneering projects. It is a very effective tool for communicating referenced projects and addressing urgent spatial issues.

Figure B-0-3 The Spatial Planning-related Governance System in the Flemish Region

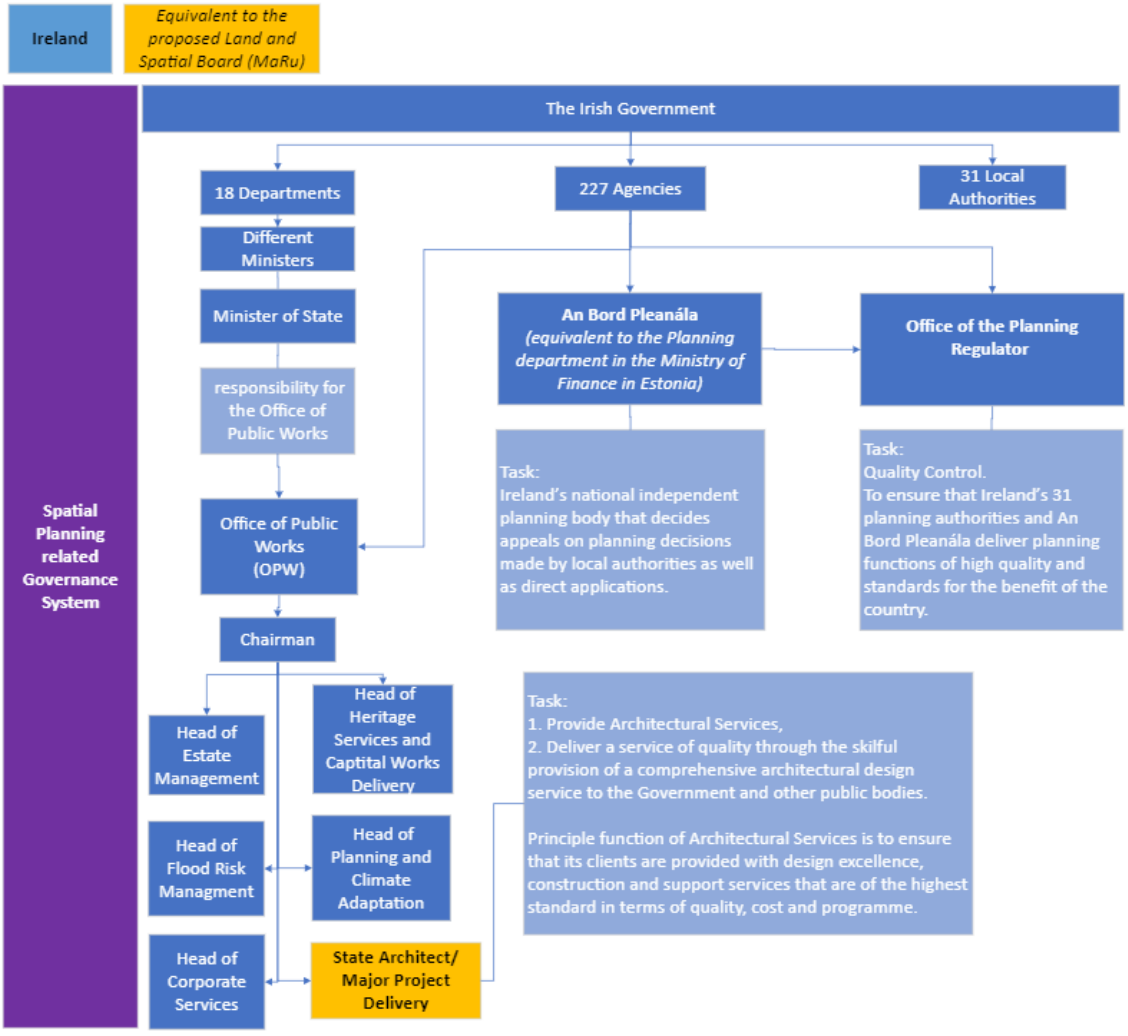


Case study 3 Ireland

Some description of the tasks for different agencies related to sustainable and high-quality spatial planning:

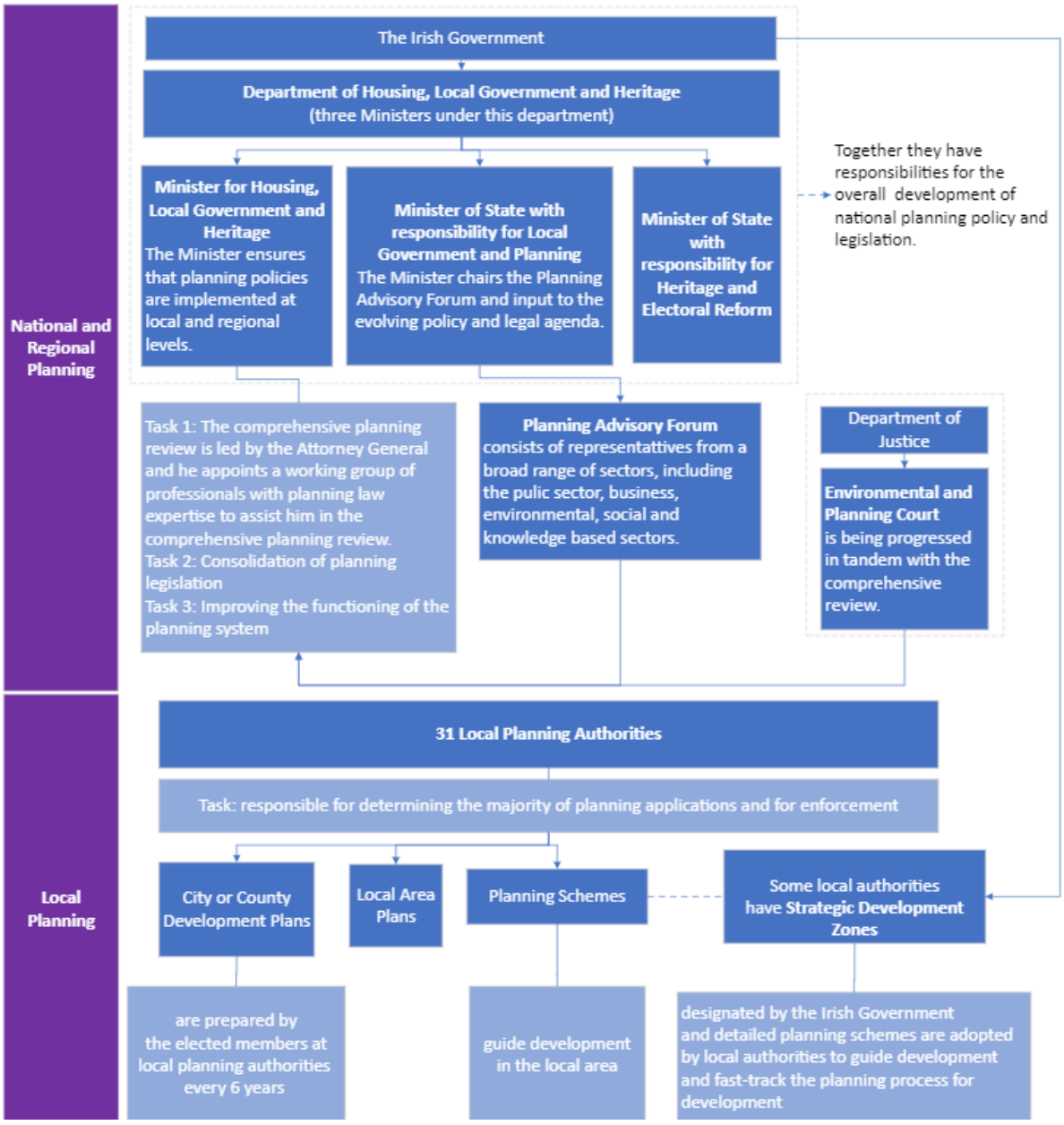
1. The state Architect under the Office of Public Works: State Architect provides Architectural Services, the architectural practice within the Office of Public Works delivers a service of quality through the skillful provision of a comprehensive architectural design service to the Government and other public bodies. The principle function of Architectural Services is to ensure that its clients are provided with design excellence, construction and support services that are of the highest standard in terms of quality, cost and programme.
2. An Bord Pleanala, which is an equivalent to the Estonian planning department under Ministry of Finance, is responsible for the determination of appeals and certain other matters under the Planning and Development Act 2000, as amended, and associated legislation, and determination of applications for strategic infrastructure development including major road and railway cases.
3. The Office of the Planning Regulator: The overall purpose of the Office of the Planning Regulator is to ensure that Ireland's 31 planning authorities and An Bord Pleanála deliver planning functions of high quality and standards for the benefit of the country.

Figure B-0-4 The spatial planning related governance system in Ireland



Source: Own illustration

Figure B-0-5 The planning system in Ireland



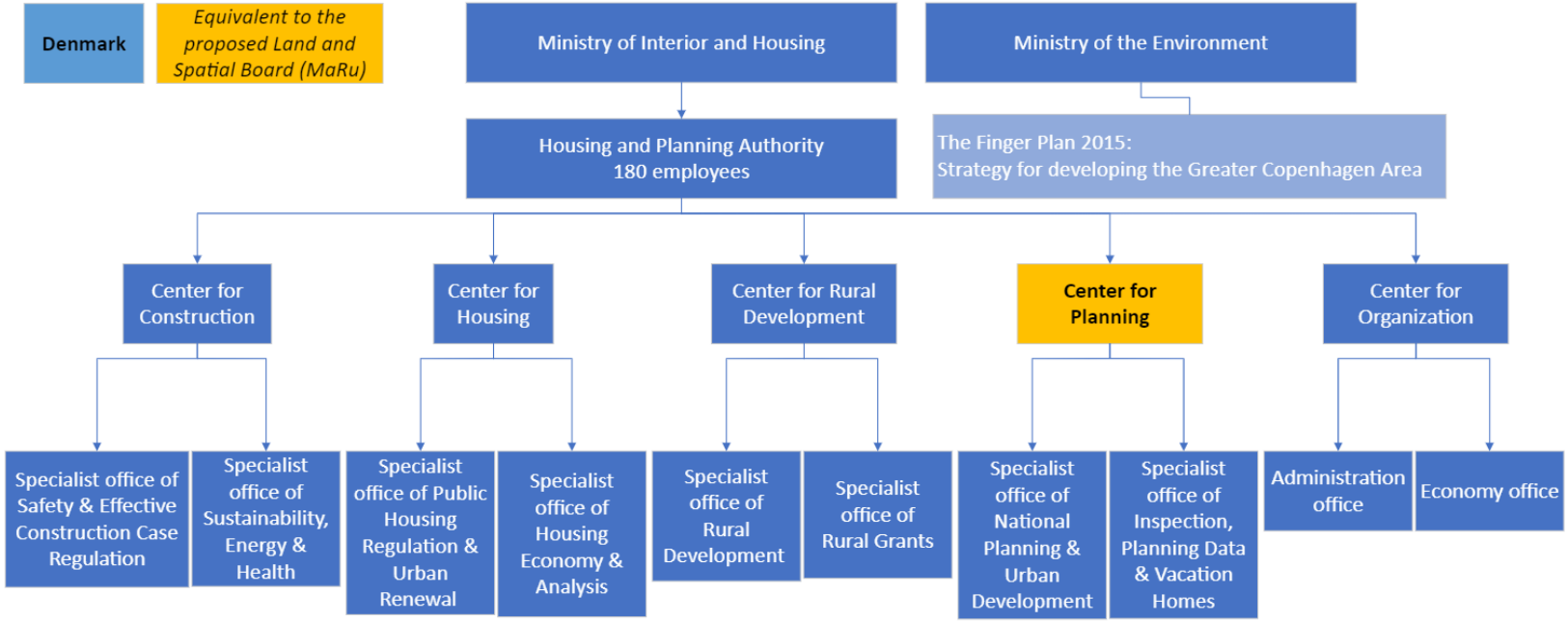
Source: Own illustration

Case study 4: Denmark

In Denmark, the spatial planning-related governance system exhibits a relatively unified structure, which sets it apart from Estonia. This system is designed to align with the unique Danish context. Both rural development and urban planning units fall under the purview of the Housing and Planning Authority, operating within the Ministry of the Interior and Housing. Consequently, spatial decision-making in Denmark tends to be more effectively coordinated and comprehensive.

Similar to Estonians, Danish people also enjoy owning summerhouses. In addition to the Planning Act, Denmark boasts the presence of the Summer House Act (sommerhusloven). This legislation plays a crucial role in regulating the housing market in Denmark, a facet currently absents in Estonia. By implementing the Summer House Act, Denmark ensures proper oversight and management of summerhouse properties, contributing to the stability and sustainability of the housing sector.

Figure B-0-6 The spatial planning related governance system and planning system in Denmark



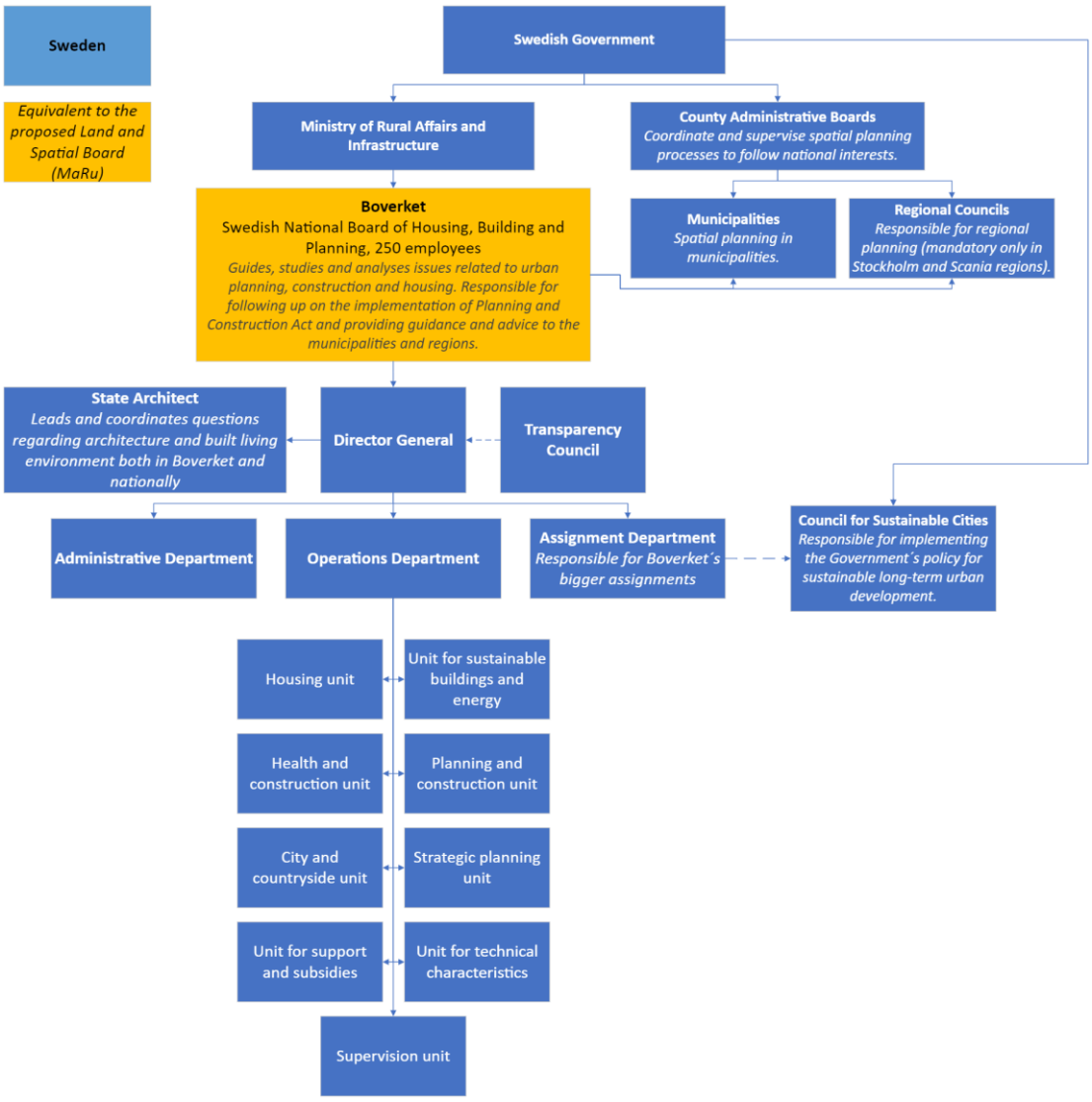
Source: Own illustration

Case study 5: Sweden

Sweden has a decentralised unitary state structure with three levels of government: national, county councils, and municipalities. The national government is responsible for legislation related to land-use planning, providing guidelines for municipalities, defining the national building code, and overseeing areas with special protected status and sectoral policies affecting land use. County Administrative Boards represent the central government's interests and appoint Regional Councils that develop regional plans. However, municipalities play a crucial role in the Swedish planning framework. They create Comprehensive Plans with strategic objectives (non-legally binding) and Detailed Plans (legally binding) for zoning and building permits. Municipalities also manage technical infrastructure and often own substantial land, giving them a significant role in shaping their territories.

In Sweden there is a similar state architect office to the proposed MaRu called Boverket - the Swedish National Board of Housing, Building and Planning. It is a central government authority that works with developments within housing, building and other planning-related topics. Boverket is located under The Ministry of Rural Affairs and Infrastructure. The state architect, who leads and coordinates the questions regarding architecture and built living environment, is also employed in Boverket.

Figure B-0-7 The Spatial Planning-related Governance System and Planning System in Sweden



Annex C: Scoping indicators for space quality: Background research for preliminary indicator analysis

The guiding questions for developing the indicators for measuring the sustainability and high-quality living environment were:

1. What are the existing assessment framework and indicators in Estonia and in other EU countries?
2. How can the existing indicators be improved through the lens of spatial planning and design?

To promote the coherence for the decision-making, this research work is built upon Deliverable 2 and Deliverable 4 and is in line with the national long-term development strategy 'Estonia 2035'. To answer the above-mentioned research questions, we structured the study in the following steps:

a. **Three key aspects** of selecting indicators are sustainability, high-quality of living environment and spatial planning and design;
b. Inventory list of suggested possible indicators in Deliverable 4;
c. **Inventory list** of indicators, grounded on the documents from Estonia 2035 incorporating sustainability aspects from the SDG 11:
    i. Identify direct and indirect existing indicators relevant to spatial planning (space, people and nature environment) in the document of 'Estonia 2035: Indicators'. By reading into the text, if there are any gaps or inconsistency between the text description and the indicators, modification of the existing indicators or proposal for new ones will be considered;
    ii. Compare the identified indicators and further analyse potential conflicts and repetitiveness among them.
d. **Inventory list** of indicators, grounded on the publication of the EU Quality of Life:
    i. Identify direct and indirect existing indicators relevant to high quality of living environment.
e. **Searching suitable framework** in spatial planning and design to accommodate the identified indicators:
    i. Identify the framework from two main aspects: Sustainable Development Goal 11 and high-quality living environment;
    ii. Categorise and evaluate the existing indicators into the identified framework;
    iii. Conduct further research on the relevant indicators from other sources.

Annex D: Inventory list of suggested possible indicators

From Deliverable 4

Table C-1 Indicators suggested in Deliverable 4

Name of indicator	Unit of measure	Remarks/applicable for quality space
Percentage of municipalities with a declining population where a spatial and action plan, supported by a master plan and/or other relevant strategy document, has been established to adapt space to a declining population	%	yes
Spatial accessibility of public and commercial services and public transport at regional level	…	yes
Population density (density increase) near rail stops or other public transport nodes	…	yes
Percentage of monuments and buildings of cultural value that are in use, in active use or renovated;	%	yes
Linking the results of the nationwide environmental satisfaction surveys more closely to policy and intervention planning at national and local level, including quality of life in different areas, access to services and green spaces, and the environment	…	yes
Distribution of modes of transport (In points 3.-5. suggests a Green Tiger Road Map.)	%	yes
Estonian car fleet and fleet mileage	…	no
Accessibility to destinations by public transport, walking and cycling	…	yes
Satisfaction with the home and the surrounding environment	…	yes
Share of housing costs in household expenditure for owner-occupied and rented dwellings	%	no
Ratio of housing costs to average wages and salaries	%	no
Construction Price Index	…	no
Proportion of owned and rented homes	%	no
Physical accessibility of the dwelling for all population groups	…	yes
Level of energy labelling of residential buildings	…	yes
Eurostat's regular publication of the Construction Confidence Indicator, which describes the outlook for the construction sector.	…	no
Greenhouse gas values of buildings	…	yes
Percentage of energy efficient buildings	%	yes
Smart readiness indicator, which describes the readiness of buildings to implement smart energy solutions, both in terms of occupants and technical solutions	…	no
Expansion of land in human use (settlement area) (the share of the built environment in the total territory of the municipality or settlement)	%	yes
Percentage of renovated and new residential, public or commercial areas that use nature-based solutions	%	yes
Indicators describing the accessibility and quality of green spaces in urban areas: e.g., area of green spaces per capita, proximity of green spaces to	…	yes

Name of indicator	Unit of measure	Remarks/applicable for quality space
residents (in minutes or metres), abundance of native species, proportion of green spaces in the densely populated area in a given location, indicators describing accessibility and availability of infrastructure		
Number of mining authorisations issued (decreasing or increasing depending on trends and targets)	nr	no
Number of multifunctional quarries	nr	no
Reuse rate of construction materials	%	no
Proportion of green building contracts	%	no
Percentage of sectoral experts regularly attending in-service training	%	no
Percentage of municipalities employing a qualified architect and/or a planner meeting the competence requirements of the Planning Act	%	yes
Percentage of design and construction companies using innovative digital solutions	%	yes
Number of web-based two-way communication information systems facilitating participatory planning and empowerment	nr	yes

From Estonia 2035 strategy

Table C-2 Indicators relevant for good quality space from Estonia 2035 in the framework of Davos Baukultur Quality System

Davos Baukultur Quality System									
Name of indicator	Unit of measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Estonia 2035 Indicators of basic principles									
Population, proportion of people living outside Harju and Tartu Counties	%		•		•				
Participation in cultural life	…					•		•	
Share of people who consider Estonia safe	%		•	•					
Gender equality index (EIGE Gender Equality Index)	%	•				•			
Net emissions of greenhouse gases in CO2 equivalent tones (incl. The LULUCF/ Land Use, Land-Use Change and Forestry sector)	tCO2e		•	•					
Estonia 2035 Indicators of 5 Goals									
People: Participation in the labour market, culture, sports, and volunteer work (active person indicator)	%	•	•			•		•	
Society: The indicator of caring and cooperation	%	•						•	
Society: Contacts between different groups in society	nr		•			•			
Economy: GDP per capita created outside Harju County compared to the EU-27 average	%		•		•				
Economy: Resource productivity	eur/kg	•	•	•	•				
Living environment: Satisfaction (satisfied or rather satisfied)	%	•	•	•	•	•	•	•	•
Living environment: Environmental trend index	%			•					
Living environment: Number of people who have died due to accidents, poisonings, and injuries per 100 000 residents	nr		•	•					

Davos Baukultur Quality System									
Name of indicator	Unit of measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Governance: Share of local government expenditure among the administrative sector expenditure	%	•	•	•	•	•	•	•	•
Estonia 2035 Indicators of 5 necessary changes									
Sustainability of the population, health and social protection: Percentage of overweight people	%		•	•					
Space and Mobility: Accessibility indicator	%		•	•	•				
Space and Mobility: Percentage of people who consider their neighbourhood safe	%		•	•	•				
Space and Mobility: Greenhouse gas emissions in the transport sector	tCO2e		•	•	•				
Space and Mobility: Share of people commuting via public transport, cycling or walking	%		•	•	•		•		
Space and Mobility: Energy consumption of residential and non-residential buildings	TWh			•	•				
Governance: Satisfaction with public services	%	•	•						

From Healthy Street in Tartu (TTT)

Table C-3 Indicators from Healthy Street in Tartu

Healthy Street in Tartu									
Name of indicator	Unit of measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Walkability									
Human Scale - 5 metrics		•		•	•	•	•	•	•
Inclusive design - 7 metrics		•	•		•	•	•		
Safety/Comfort - 8 metrics		•	•		•	•	•		
Cycling									
Safety/Comfort - 7 metrics		•	•		•	•	•		
Biodiversity									
Green Areas - 7 metrics		•	•	•	•	•	•	•	•
Coherence									
Continuity - 4 metrics		•				•			
Readability - 4 metrics		•				•			
Linkage - 6 metrics		•			•	•			

From EU Quality of life

Table C-4 Indicators from EU Quality of Life

EU Quality of Life									
Name of indicator	Unit of measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Material living condition									
Structural problems of the dwelling			•		•		•		
Space in the dwelling (overcrowding or under-occupation)			•						
Satisfaction with accommodation		•	•	•	•	•	•	•	•
Productive or main activity									
Satisfaction with commuting time			•	•					
Leisure and social interactions									
Quality of leisure			•	•	•	•	•	•	•
Access to leisure			•	•	•	•			
Social interactions		•				•		•	
Economic and physical safety									
Perception of crime, violence or vandalism in the living area		•	•						
Safety feeling			•		•				

EU Quality of Life									
Name of indicator	Unit of measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place	Beauty
Natural and living environment									
Pollution				•					
Access to green and recreation areas			•	•		•	•		
Landscape and built environment		•	•	•	•	•	•	•	•
Overall experience of life									
Life satisfaction		•	•	•	•	•	•	•	•
Being happy		•	•	•	•	•	•	•	•
Meaning and purpose of life		•	•	•	•	•	•	•	•

From Gehl's "Twelve Quality Criteria"

Table C-5 Indicators from Gehl´s "Twelve Quality Criteria"

Gehl´s "Twelve Quality Criteria"								
Name of indicator	Unit of measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place
Protection								
Protection against traffic and accidents		•	•					
Protection against harm by others		•	•					
Protection against unpleasant sensory experiences		•	•		•	•	•	•
Comfort								
Comfort: options for mobility		•	•	•	•	•		
Comfort: options to stand and linger		•	•	•			•	•
Comfort: Options for sitting		•			•		•	•
Comfort: options for seeing		•	•		•	•	•	•
Comfort: options for talking and listening		•			•		•	
Comfort: options for play, exercise and activities		•	•	•	•	•		
Enjoyment								
Enjoyment: human scale		•	•		•	•	•	•
Enjoyment: positive aspects of climate			•			•		

Gehl´s "Twelve Quality Criteria"								
Name of indicator	Unit of measure	Governance	Functionality	Environment	Economy	Diversity	Context	Sense of Place
Enjoyment: aesthetic qualities and positive sensory experiences						•	•	•