Summary
Integrated Portfolio Management of Public Services

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Summary of the study “Integrated Portfolio Management of Public Services”

The study “Integrated Portfolio Management of Public Services” was commissioned by the Government Office and was carried out in October 2013 – March 2014 with the support of the Foundation of Smart Decisions that operates at the Government Office and is funded by the European Social Fund. The partners of the study were the Information System Authority, the Ministry of Economic Affairs and Communications, the IT and Development Centre of the Ministry of the Interior, the Estonian Association of Information Technology and Telecommunications. The study was conducted by AS PricewaterhouseCoopers Advisors.

The results of the study is recommended material for all public sector organisations (including local governments) who are defining or plan to define public services or processes.

Background of the study

Provision of public services is based on the need to perform state functions (e.g. national defence) or specific objectives (achieving certain performance capacities). The state has to provide and offer a wide spectrum of services in very different sectors, while being cost-effective and efficient, and keeping in mind citizen preferences and balanced development between different sectors. At that, citizens and entrepreneurs have high expectations towards the choice, availability, and quality of public services (including user-friendliness).

Public services divide into general benefits (e.g. national defence, legal order) and services provided by the state to people, including entrepreneurs, at their initiative (including potential initiative) for performing their legal obligations or enabling them to exercise their rights. The latter is called transactional services. This study focuses on transactional services in which the service user turns or has a reason to turn to the service provider or mediator, usually at their own initiative. The study focuses on central government public services and it does not specifically address the public services provided by local governments.

However, one public service provided by the city of Tallinn participated in the testing of the study results with an aim of seeing whether the results would also be suitable for local governments.

Public services can be provided either as over-the-counter-services or via electronic channels. Although the general trend is towards taking services to electronic channels (e-services) and developing background services (proactive services), a diversity of channels must be ensured to ensure access to services. It is due to both the special nature of the services and their users with different preferences and possibilities. According to Statistics Estonia, approximately 215,000 people of employable age do not use the internet in Estonia. It means that both electronic and physical channels will have their place in bringing services to people – the question is in the proportions and options for each service.

For implementing the state’s objectives and solutions for improving public service quality, several tasks were solved during the study, based on the following needs:

1. The need for integrated development of the “portfolio” of public services, i.e. to manage services in a uniform manner, always considering certain elements, in mutual joint influence and by taking into consideration the best manners for providing services.
2. The need to direct e-service development towards achieving objectives set to public services and measuring these results.
3. The need to develop public service provision in various channels, both electronic and physical, by selecting the best options for each service.
Management of the services as a “portfolio”

Portfolio management of services is a methodologically standardised approach in describing services and is a precondition for service development. If authorities that are responsible for the services (service owners) describe the information about public service provision in a uniform manner and in the agreed language, it can lead to various benefits over time. For instance: services are developed in a more balanced way because it enables impacts of the development to be assessed better; overlapping services are reduced because they can be identified; service development is coordinated and organised better because several authorities benefit from single effort; and finally, service development via portfolio management supports their more cost-effective and transparent functioning.

Measuring the benefit of public service and choosing the channel

The following components were developed during the study to enable portfolio management: common principles and methodology on how to describe public services (vocabulary of public services or meta-database, its data model, and technical architecture); framework based on single vocabulary (benchmark model) for creating an integrated dynamic portfolio of the state’s public services: the concept of the catalogue and architectural alternatives, their comparative assessment on the infotechnological, organisational, and legal implementability.

Benefiting from portfolio management requires methodology that allows the benefit of various public services to society to be assessed.

Provision of public services requires informed choice of a channel. This requires a methodology and corresponding benchmarks that can assess the suitability of a specific channel for meeting the expectations set for a public service.

During the study, a benchmark model was created for assessing the services and selecting channels, and a methodology for implementing that model. The methodology includes both the effectiveness of service provision and its wider impact on the society, and the effectiveness of the service provision and use. The methodology enables decisions to be made on the need for public services and their development – which services and in which directions to develop so that they function most efficiently. The methodology is based on common and generally used benchmarks or performance indicators aimed at supporting portfolio-based service development (including the comparison of services). The model is linked to the different-level national strategic benchmarks. The model takes into consideration that due to national/social need, it is also necessary to offer so-called vital public services that may have low benefit if measured by performance indicators.

The model for the choice of channel was created on the basis of the service assessment model. This means that a similar set of benchmarks can be used both in assessing the impact of services and the choice of a channel. The universal model enables it to be implemented in a cost-effective way. The methodology enables objective assessment of the performance of different channels, including the provision of e-services. It is possible to calculate the cost of providing service in different channels which enables a price to be set that may be the basis for making a choice between alternative channels.

Implementing recommendations

Implementation of the methodology was tested on seven services. The aim of the case study was to test the developed methodology on a variety of services to ensure that the method is suitable and to bring out the bottlenecks that need to be solved. On the basis of the results, recommendations were drawn up for implementing the model.

As a result of the study, implementing recommendations were submitted on the developed methodologies. Among others, they included recommendations on the organisational aspects of implementing the
methodologies and managing an integrated portfolio of services (responsibility, motivational systems, sufficiency of the existing organisational system vs. amending it, etc.).

The methodologies of measuring the impact of public services and choosing the channels can be implemented immediately for services that fall under the definition of a public service (transactional services). Implementation of the methodologies is expected to achieve a big breakthrough in the field of managing and developing public services. The need for further investigation of the implementation suggestions does not prevent to start describing public services and measuring impacts based on the proposed models.

**Study results**

**Overview of the Estonian practice**

**The concept of public service**

The concept of public service has been described in the Green Paper on Organisation of Public Services (GPOPS), but this concept is nevertheless addressed very differently in authorities/organisations. Services are described based on the aim of the organisation and there are also those who do not know or use the concept of public services within the organisation, preferring the terms “function”, “process”, “main process”, “proceeding”, “task”, etc. Public services are also often not differentiated from other services due to the wish to address all the services on the same basis within the authority.

The aim of this study was not to harmonise the concept of public services, but it needs to be stated that the definition of the service provided in the GPOPS is not sufficiently widespread, making the understanding of the nature of public services vary between organisations. Any public service, support service, or a service arising from the authority’s function is addressed, described and measured the same way within an authority, but each authority does it differently based on its needs.

When only using the definition of the GPOPS in addressing public services, the so-called other public services need to be explained in the future. There is no direct beneficiary in other types of services and the service may also not have an ordering party.

**Service management maturity model**

Service management maturity model was determined in the course of the project. It is based on the commonly used Capability Maturity Model\(^1\) (CMM). Based on the maturity of an organisation, five levels can be identified when describing services:

Drawing 1. Organisation’s maturity in service management

Completing the requirements of each following level requires better structure, transparency, and organisation, and the necessary effort to establish the procedure. For each organisation, determining the level of describing services is individual. So it can be assessed instead what level is being worked towards or which levels the organisation fits between.

The Estonian public sector is mainly making the first steps in the service management evolution, moving to the second and some to the third level. Few authorities qualify for the fourth and the fifth level.

According to the service management maturity in an organisation, different recommendation can be made for the development of service management. It is clear that when the information related to the services is unorganised, it is not reasonable to set measuring instruments to the services because it is unknown what should be measured exactly and how. As a result of the study it was concluded that the maturity of an organisation also largely depends on the way its leaders think. It means that in the evolution of service management, one of the big challenges lies in the change of the way of thinking when moving from one maturity level to another.

In a very brief summary, an overall guideline can be given to organisations:

1. Make a list of the services.
2. Set objectives for service management and organise the service information accordingly. Create descriptions, divide responsibility.
3. Set important measuring instruments for the services. Introduce the measuring and analysing procedures. Create the dataset needed for service management. Implement a service-orientated change management process within the organisation.
4. Enrich the measuring instruments, analyse the results, and optimise the services. Implement a constant service improvement process within the organisation. Analyse your efficiency in comparison with the state’s objectives.

Describing the services

To describe services, thematic glossaries have been compiled, strategic starting points for service management created, and software solutions introduced in Estonian public sector authorities, but each authority is completely unique in these activities. Depending on the objective of describing the services, the number of attributes describing it also vary.

Organisations have completely different approaches to target groups depending on the services provided. No recurrent classifiers are used for describing the target groups. Determining the target groups is also not equally important to all authorities.
It is also not always possible to determine the client when providing a service because the client does not have to be the direct beneficiary. Thus, for some services, the client can be clearly established as the direct beneficiary, whereas in some other cases, the client may be just one person but there may be one or more direct or indirect beneficiaries.

**Service provision channels**

An overall trend in Estonia, also supported by international practice, is to transfer the services to an e-channel. A clear position has been taken that service provision is more effective via an e-channel.

The question is not if, but when to go to an e-channel. Channels are mostly selected based on the needs of the target group, but also on the preparedness to introduce a new channel. Preparedness is assessed based on the feedback from the target group and the volume of services.

The most commonly seen single point of contact for services is the information gateway eesti.ee. Since eesti.ee only contains the services that are using the X-road platform, it only has a small part of all the public services out there.

*The aim of the state should be to provide less services that a client has to apply for, and more proactive, invisible services.*

So that clients do not get lost while searching for a service, the presentation and search mechanisms of services should also be changed. It means that when a client has identified themselves, the system is already able to suggest what types of services they may be needing. There are also many services that should not be specially applied for, but should be provided to people by the state invisibly.

**Measuring and assessing public services**

Measuring of public services has not been a common practice in Estonia because there are not many authorities on the needed level of maturity. Some exemplary authorities in measuring services are the Estonian Tax and Customs Board, the Police and Border Guard Board, the Rescue Board, and the city of Tallinn.

*Measuring is a cost.*

An important factor needing attention is the cost of measuring. Any measuring is a cost for an authority and if it has not been planned from the start as a part of the service, it is difficult to implement later. So numerous information systems have been established without considering the measuring instruments, making monitoring of the service difficult or impossible.

Measuring possibility is a big challenge in the Estonian context.

**Public service portfolio**

Although Estonian public sector authorities do not knowingly perform portfolio management of services (it is an unknown concept), its elements can be seen in practice. Authorities have described the services, gathered the respective documentation, and established the rules for monitoring the life cycle and updating the services.

*Portfolio management of public services starts with legislative drafting.*
The life cycle of public services is often determined by legislative drafting – new services are created, reshaped, and ended by changes in legislation. Although the initiative for creating, reshaping, or ending the services may come from several places, first the laws need to be created and only then the services.

The study sharply pointed to the restricting aspects of legislation in the development of services. Creating legislation and creating services are two independent processes with different participants. As a result, the outcome may be “paper service” in which the legislation prescribes numerous doubling activities or strict procedural acts that may not be in the interests of the client. Client goes out of focus because the legislation does not enable the client to be served better, or have their interests put first. However, authorities have already created so many specific laws that the need for the Administrative Procedure Act (APA) in its current form is put into question.

In designing the services, it is important to change the “paper” way of thinking because it hinders development of the services. Authorities are unable to distance themselves from the existing legislation when creating new services, and the restrictions are overly taken into account. If the legislation does not allow something, it is taken as a rule and a novel service may be left unimplemented for legal reasons.

Uniform descriptive language of public services

Overview of the methodology

One of the prerequisites for creating a dynamic portfolio of public services is the availability of a common glossary, description standard that can also be used in a machine readable form.

The foundation of the glossary is the EU initiative Core Public Service Vocabulary (CPSV) that has been extended with other practices. The glossary was compiled in a way that it could be suitable for describing all public services, including those of local governments. The study showed no need to profile the glossary to different types of services.

The following principles have been taken into consideration when compiling this glossary:

- It can be viewed as a conceptual data model.
- The glossary can be extended according to the needs of the service manager. It means that new attributes can be added. The extension should take place in a way that preserves the simplicity of the glossary without the need to create new hierarchical layers (sub-attributes).
- The vocabulary can be narrowed by making a specific sub-selection (profiling).

Suggestion on the Estonian public service glossary

The objectives of the proposed Estonian public service glossary are:

- Harmonisation of the practice of describing public services in the Estonian public sector.
- Enabling the creation and use of metadata on public services, including e-services in the state information system.
- Promotion of the practice of using public service metadata.
- Supporting the cross-border interoperability of public services in the European Union.

The planned uses of the glossary are:

- Presentation of the service information to users, including in the state portal and other public and private sector portals.
- Automatic gathering of service information to the transnational public service portfolio.
Comparing service information.
Developing public sector information systems.

The following restrictions need to be taken into consideration when using the glossary:

- The current version of the glossary is a test version. The need to expand or restrict the glossary may emerge during the testing process.
- The glossary aims to explain the terms, not to define them conclusively. It is not possible to create a universal vocabulary that fits all contexts and that was not the aim of this glossary.
- It is meant to function as a data model that serves as a foundation for creating information systems. The way data is coded is important in information systems.
- The glossary is aimed at describing the state’s general level public service portfolio. It is not meant to cover the needs of every single service owner, for example to design or improve a service.

The glossary contains 27 descriptive attributes that are divided into four classes:

- Agent – the attributes of this class describe a person or an organisation that provides or uses a service and sets the rules.
- Public service – the attributes of this class describe a service.
- Rule – the attributes of this class describe the rules according to which a public service is functioning.
- Assessment – the attributes of this class are meant for assessing the service and the channel.

Table 1. Estonian public service glossary

<table>
<thead>
<tr>
<th>No</th>
<th>Class</th>
<th>Attribute</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agent</td>
<td>Role</td>
<td>The role of the related agent (person, group, organisation) in service provision.</td>
</tr>
<tr>
<td>2</td>
<td>Agent</td>
<td>Service provider</td>
<td>Connection between the public service and the agent who is responsible for its provision. Responsibility and authorisation is determined by the role's attribute.</td>
</tr>
<tr>
<td>3</td>
<td>Agent</td>
<td>User (target group)</td>
<td>Connection between the public service and the agent who is using the public service output but is not directly responsible for the service.</td>
</tr>
<tr>
<td>4</td>
<td>Public service</td>
<td>Mark</td>
<td>Service acronym or some other local classifier or abbreviation.</td>
</tr>
<tr>
<td>5</td>
<td>Public service</td>
<td>Name</td>
<td>Name of the public service.</td>
</tr>
<tr>
<td>6</td>
<td>Public service</td>
<td>Description</td>
<td>Free description of the public service.</td>
</tr>
<tr>
<td>7</td>
<td>Public service</td>
<td>Type</td>
<td>Service type according to the classificator.</td>
</tr>
<tr>
<td>8</td>
<td>Public service</td>
<td>Language</td>
<td>Language or languages in which the service is provided.</td>
</tr>
<tr>
<td>9</td>
<td>Public service</td>
<td>Channel</td>
<td>References to channels where a service is provided, including the channels that provide information (e.g. information phone).</td>
</tr>
<tr>
<td>10</td>
<td>Public service</td>
<td>Webpage</td>
<td>URL, service, or in its absence, service information.</td>
</tr>
<tr>
<td>11</td>
<td>Public service</td>
<td>Physical location</td>
<td>The location through which clients can use the service.</td>
</tr>
<tr>
<td>12</td>
<td>Public service</td>
<td>Related service</td>
<td>Connection to other public services.</td>
</tr>
<tr>
<td>13</td>
<td>Public service</td>
<td>Input</td>
<td>Public service may need a specific input from another service to function. It may be any resource, for instance, a document.</td>
</tr>
<tr>
<td>14</td>
<td>Public service</td>
<td>Output</td>
<td>Output given to other services by a public service. It may be any resource, for instance, a document.</td>
</tr>
<tr>
<td>No</td>
<td>Class</td>
<td>Attribute</td>
<td>Explanation</td>
</tr>
<tr>
<td>----</td>
<td>-------------</td>
<td>-----------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>15</td>
<td>Rule</td>
<td>Service level regulation (related documents)</td>
<td>References to the applied documents needed to ensure the functioning of the service, including documents that describe the service (e.g. process drawings).</td>
</tr>
<tr>
<td>16</td>
<td>Public service</td>
<td>Restrictions</td>
<td>Attributes are used for stating the areas and time where and when the service is being provided (e.g. in a certain country, county, only in wintertime).</td>
</tr>
<tr>
<td>17</td>
<td>Public service</td>
<td>Function</td>
<td>Description of the lawfully established tasks it performs.</td>
</tr>
<tr>
<td>18</td>
<td>Public service</td>
<td>Service status</td>
<td>The location of the service at its life cycle. Not connected to channels.</td>
</tr>
<tr>
<td>19</td>
<td>Public service</td>
<td>Deadline</td>
<td>Deadline of the life cycle when the status changes.</td>
</tr>
<tr>
<td>20</td>
<td>Rule</td>
<td>State level regulation</td>
<td>Reference to the regulation based on which the rule has been established.</td>
</tr>
<tr>
<td>21</td>
<td>Public service</td>
<td>Service involving administrative proceeding</td>
<td>Definition of whether the service is linked to an administrative proceeding or it is an amenity service.</td>
</tr>
<tr>
<td>22</td>
<td>Public service</td>
<td>Authentication level</td>
<td>Definition of the level of authentication needed to provide the service. Does not indicate the real level.</td>
</tr>
<tr>
<td>23</td>
<td>Public service</td>
<td>Financing</td>
<td>Type of financing.</td>
</tr>
<tr>
<td>24</td>
<td>Public service</td>
<td>Payment</td>
<td>Payment types.</td>
</tr>
<tr>
<td>25</td>
<td>Public service</td>
<td>Security</td>
<td>The service description contains confidential information.</td>
</tr>
<tr>
<td>26</td>
<td>Public service</td>
<td>Web service</td>
<td>WSDL</td>
</tr>
<tr>
<td>27</td>
<td>Public service</td>
<td>The grade given to the service based on the analysis</td>
<td>Classifier: retain, replace, rationalise, refract, renew, retire.</td>
</tr>
</tbody>
</table>
Reference model of the Estonian public service glossary
Drawing 2. Reference model of the Estonian public service glossary

Reference model is a conceptual model of glossary data that can be taken as a basis in all initiatives that describe public services. Widespread use of the model in creating data sets with service descriptions creates good conditions for the implementation of transnational portfolio management.

Public service dynamic portfolio framework

Organisational vision

Portfolio management usually consists of regular (for example, annual) implementation of the following four main activities.

Mapping

- Describing the services in an agreed language together with determining the values of the respective attributes.
- Measuring the benefit of public services.
- Linking the services with the strategy and objectives of the service provider.

Analysis

- Assessment on the functional and technical preparedness of the mapped services. Functionality covers what the service enables one to do, what kind of operations to carry out, what results to achieve. Technical preparedness means the level of both ICT (hardware and software) and the external platforms on which the service functions.
- Calculating the benefit of the public service.
- Submitting a summary for the following assessment.

Assessment, using an analysis to evaluate the services based on the following sample selection.

- Retain – largely independent, well-specified service as to the infrastructure and the processes, is in compliance with the organisation’s strategy and is important to it.
- Replace – service that does not even meet the required minimum requirements technically and functionally.
- Rationalise – service that contains excessive doubling and the important operations need to be picked for optimisation. For example, a service that supports too many different technical platforms or access channels that are not used or necessary. It would also include the services that have unclear functionality or that overlap with other services.
- Refractor – service that is technically and functionally necessary but could be built more clearly and in a more standardised manner by using the existing support services or consolidating the services. For example, a service that does not use a centralised authentication service but has its own.
- Renew – services with good functionality but insufficient technical level. For example, services that function on outdated software or hardware platforms or do not use any ICT solutions.
- Retire – service that no longer corresponds to the objectives or the strategy of the service provider.

Verifying
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- Documenting the decision made on the service. It will be the basis for initiating future development projects.
- Verifying the decision and linking it to the budget.

In the course of the study, four parties were determined, all of them interested in the successful functioning of the portfolio management system:

- Citizen – to whom all of this is done.
- Service provider – state authority or local government providing public services.
- Central portfolio manager – authority that leads the entire system and represents the interests of the state, for example, the Department of Information Society Services Development (DoISSD) at the Ministry of Economic Affairs and Communications.
- Central information system manager – authority that manages the central service database and a citizen portal, for example ISA, its eesti.ee portal, and the RIHA database.

Definitions of organisational vision and role distribution:

**Service owner** – it is the decisive role in service provision, so it should be performed by someone who understands the main process that supports the service. The person should be interested in the levels of service functioning, quality, benefit, and design, and be motivated to improve them. He/she should be the initiator of improvements to service quality and the necessary changes in legislation. Each service should have an owner, but different services in the same field may easily be owned by the same person.

The role of a **channel owner** is to handle the development and management of the channel. They have to ensure a balance between different service owners and the general interests of the organisation, also taking into account the strategic objectives of the organisation. They are responsible for defining and characterising the target groups of the channel and ensuring that the expectations regarding their user experience are met. The channel owner role has been described in detail in the e-service design handbook Chapter 2.3.2.

A **portfolio manager** should be appointed at each service provider. The main task of a portfolio manager is to ensure the entire functioning of portfolio management at the service provider, especially for measuring, analysing, and assessing the benefit of the services. Secondly, a portfolio manager acts as a link with central portfolio management. On the one hand, he/she is a partner to the central portfolio management providers, and on the other, he/she communicates with the owners of single services.

For the successful introduction and further functioning of public service portfolio management, finding the party interested in central portfolio management is decisive, as well as appointing the central **owner responsible for portfolio management**. In the first stage, they are responsible for starting the entire system, training single service providers, and linking service providers with the information system. For that, they need to cooperate with the manager of the central portfolio management information system.

It would be realistic for the service providers to join the central portfolio management one by one, according to their level of maturity. The first benefit for service providers should be getting an overview of their services. Only then can the services be optimised and improved with the next steps.

**Legal vision**

The valid legal framework on public services is decentralised, but keeping datasets is mostly legally regulated. Suggestions, recommendations, and observations do not include legislation that regulates datasets that do not have a public content or are not meant for intra-authority use. The changes suggested in the report can be implemented without making amendments to the legislation stipulating the activity of the Department of Information Society Services Development (DoISSD) at the Ministry of Economic Affairs and Communications or the Information System Authority (ISA).

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The main functions of the DoISSD according to the statutes of the MoEAC are to coordinate the development of public services and electronic records management in accordance with the means of the state information system and information technology. The statute of the DoISSD supports the recommendation given in the organisational vision of the report since the activities stated in the statute generally enable performance of the recommended functions.

Considering that ISA is a government authority under the jurisdiction of the MoEAC and its main tasks according to the statute include maintaining the information gateway eesti.ee, data exchange layer of the state information system x-road (developing and administering) and maintaining the administration system for the state information system RIHA, ISA is a suitable institution for performing the function of managing the central information system.

It is recommended to consider supplementing the statutes of the related agencies (DoISSD and ISA) so that they clearly reflect, in addition to the existing functions and areas of responsibility, the performance of specific needs and objectives of dynamic portfolio management of public services, if the concept suggested in this document is realised.

In addition to adding the functionality provisions of dynamic portfolio management to the statutes of respective state authorities and issuing the necessary legislation (regulations of the Government of the Republic or the Minister of Economic Affairs and Communications) that serve as a foundation for establishing the necessary changes in the structures of the authorities, we also suggest carrying out the following activities to amend the field-specific legislation:

To carry out a thorough analysis of the legislation regulating the activities of all the institutions providing public services in Estonia and the public services provided by these institutions. The aim of the analysis is to establish the restrictions and responsibilities in the provision of public services. We recommend a client-based approach and consideration of the possible conjunctive impact of indirect legislation (e.g. the potential impacts from the General Part of the Civil Code Act, the Local Government Organisation Act, the Administrative Procedure Act, or the Administrative Co-operation Act).

Based on the results of the legal analysis, a legislative proceeding can be initiated to prepare a law that establishes a clear and uniform public service structure and a list of activities/services, and states the rights, obligations, and responsibilities of the agencies related to public service provision. The abovementioned legal instrument can regulate:

- the concept of a service, including both a public service and another service provided under public administration;
- the principles of division of service provision obligation between the providers;
- time limits in the provision of public services;
- the principles of intra-authority cooperation;
- the principles of service provision channels;
- the principles of a service register.

The aim of the law would be to organise the existing judicial area. In addition to determining the concept of public service and the environment, it would create a uniform and clear legal framework that would be taken as a reference in the provision of all public services.

Depending on the results of the legislation analysis, it may be purposeful to also implement the necessary supporting measures to the other related legislation – e.g. to the Administrative Procedure Act, the Local Government Organisation Act, the Response to Memoranda and Requests for Explanations Act, the Archives Act, etc.

It is recommendable to consider some other term as an abbreviation to the public service glossary than the acronym ATS because it is used in the Estonian judicial area as an abbreviation for the Civil Service Act and may thus cause confusion.
Technological architecture vision

A technological architecture implementation proposal was developed in the course of the study.

![Architecture implementation proposal diagram]

Drawing 3. Architecture implementation proposal

Since similar functionality has already been developed as the Topics module of the www.eesti.ee portal created by ISA, the proposal is to supplement this module with public service reference model data so that it is in compliance with what is described in this analysis. The managing functionality should be created in the riha.eesti.ee portal that is already being used as a tool for managing e-services.

If possible, the management component should be created in a way that it can be separated from the riha.eesti.ee information system and the interested service providers can use it and if necessary, supplement it. The latter is, of course, optional.

Additionally, x-road services should be created to renew the respective data and service providers should be enabled to manage their data through these services.

Public service assessment methodology

In order to develop the methodology, the efficiency management practices of different Estonian public sector services were gathered and analysed in the context of international public service efficiency assessment methodologies. The Estonian practices have been described in the subsection Analysis of the Estonian practice.

To ensure harmony with the earlier methodologies developed in Estonia and the European Union, the European Commission public service impact assessment methodology was taken as a methodological basis. The same document also served as the basis in developing the Estonian e-service impact assessment.

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methodology. The methodology was supplemented in accordance with the comments of the steering group of this project.

**Drawing 4. Public service assessment model**

The model contains 60 measuring instruments in three fields of impact. Measuring instruments have been brought out by the fields of impact together with their definitions, and the measuring values have been added. In addition, it has been stated for each measuring instrument whether it is suitable for gathering channel-specific data and usable in channel selection. It is important to point out that contrary to the methodologies used by Codagnone, Boccardelli, the Institute of Baltic Studies, and Praxis, where metering instruments have been described as change, this model contains conditions. This approach was selected because it enables the

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determination of the change and also the comparison of the services. The latter is especially important when filtering services from a portfolio (e.g. it is possible to filter out the services with the highest staff expenses, etc.).

The measuring instruments gathered to the model enable decisions to be made both during service creation (e.g. the potential size of the target group, profitability of the investment) and afterwards (the degree of achieving the activity objectives, the actual size of the target group). The model takes into consideration the need to assess services from different points of view (e.g. emergency service vs. the cost price of the service) and enables assessment of the effectiveness of service provision by the state’s objectives (e.g. the extent of achieving the result objectives), as well as the wider impact on society (e.g. the rate of achieving the impact objectives). It also ensures the capability to determine the level of priority of service development by using the model.

**Applicability of the methodologies**

Implementation of the methodology was tested on the example of seven services selected based on certain selection criteria.

The aim of the case study was to test the developed methodologies on as diverse services as possible to determine the suitability of the methodology and to bring out the bottlenecks that need to be solved. Descriptive information was gathered on the selected services and the services were described according to the developed uniform describing language. Then, information was gathered on service measuring instruments and indicators and it was analysed what kinds of statistics are available on the service, what data is gathered and how they are used.

On the basis of the results, recommendations were drawn up for implementing the model.

No significant problems occurred in describing the services. Therefore, the model can be declared suitable to a large extent. The overall feedback received on the model has been mostly positive. The work volume in describing the services is considered reasonable.

*The plan is to describe not only public services but all services provided by the authority on a uniform basis.*

The amount of descriptive attributes was considered sufficient by the case study participants, although the use of international classifiers that connect a service with an international service description and the function of the authority was described as difficult to understand. In the implementation of the model, international classifiers need to be replaced with local ones.

Naming the service providers and the responsible authorities is complicated when service provision is diffused or there is more than one channel. The most common example brought was different responsible authorities among different channels (e.g. IT department is responsible for e-services, ISA is responsible for esti.ee portal, customer service manager is responsible for service provision in an office, etc.). The responsibilities are divided and just one authority clearly responsible for a service as a whole cannot be named.

Describing the legislation related to the service has been less difficult than expected since services are usually created as a result of legislative drafting, not vice versa.

Services were assessed in two stages – first, their maturity was assessed and then the specific measuring instruments. A questionnaire from Tartu City Government was used to assess the maturity of the services. Filling in the questionnaire was seen as a simple and fast way of getting an overview of the state of the service. However, in the context of the public service portfolio, service maturity assessment does not provide significant added value which is why the questionnaire is recommended to be used within the authorities if necessary, to get an overview of the current state of services.
Using service assessment measuring instruments proved to be no easy task. Generally easily measurable things are measured. One of the important aspects stated was that the measuring cannot be done manually, but the information to be measured has to gather by itself during the work process. By that, it is the automatic statistics from information systems that is mainly meant. People do not need to do any additional tasks to get that information. As to manually collected information, there is always the question as to whether the information is complete and the data reliable and high-quality. Therefore, services that are fully or partly provided via e-channels can be measured better. Services with a low technological maturity level cannot be measured very easily. According to the general assessment on the measuring instrument model, there are clearly too many instruments and for many of them, a clear methodology needs to be agreed upon beforehand, e.g. cost-benefit analysis, indirect costs, or assessment of satisfaction with the service.

The measuring instruments are set to services based on the objectives of the organisation. It can be said that when the need for measuring is not seen or acknowledged, no measuring instruments are used. Also, a clear correlation can be seen between the use of the measuring instruments and the assessments on their importance – when no measuring instruments are used, the assessment to their importance is usually “do not know” or “not important”. And vice versa – when a measuring instrument is used, the benefits of it are also acknowledged. In summary: the possibility of implementing the model is in direct correlation with the service management maturity in the organisation.

**Implementation suggestions on methodologies**

**Creating conditions for implementation of the methodologies**

In order to enable the implementation of methodologies for describing and assessing public services, the following higher level preconditions need to be created.

- **Determining the benefits of public service portfolio management.** Before initiating transnational public service portfolio management, it is reasonable to find out the exact usage situations of portfolio management, the expected benefits from these uses, and determine the measure instruments for assessing these benefits.

- **Settling diffused ownership relations.** There are situations in which the ownership, responsibility, and roles of public services are diffused. Such situations complicate managing, describing, and measuring the services.

- **Involvement of the best practices.** Involving the best local practitioners, key persons, and role models is the key to the successful implementation of methodologies. It is recommended to constantly map service management success stories and to effectively expand the useful experiences in a transnational initiative.

**Public service portfolio management**

- **Development of an organisation.** Organisational division of roles and responsibilities is needed for transnational public service portfolio management. For that, the following needs to be done: agreeing on the central portfolio manager who is in charge of the entire operation, organises trainings, standardises and promotes; agreeing on the central information system manager who develops and maintains it and is a technical partner to service providers. The service providers join the system voluntarily, according to their maturity level. The proposed RACI model should be taken as a basis in determining other roles and responsibilities.

- **Development of technical architecture.** The proposed hybrid solution is recommended as a basis when developing technical architecture. See chapter *Technological architecture vision. Implementation proposal.*

- **Development of a legal environment.** See chapter *Legal vision.*
Describing the services

- **Harmonisation of the definitions.** Before a more extensive service description or classification projects, a transnational agreement must be in place on the definitions of public and other services, as well as the objectives and semantics of service description attributes. When only using the definition of the GPOPS in addressing public services, the so-called other public services need to be explained for future use.

- **Creating local classifiers.** Generally, organisations are good at describing the services and the reference model does not cause much confusion. However, it is complicated to find suitable equivalents to the attributes from international classifications, and the interest in implementing international classifications is low and the need for it unclear. International classifications are also mainly written in English, making their everyday use complex for both the service managers and service users. There is no food reference model for several classifiers. A manager needs to be found for each classifier.

- **Creating working tools.** Simple working tools need to be created, for example, on the basis of widespread spreadsheet software, so that organisations with low service management maturity can easily start with the first steps of service management. It needs to be in harmony with the transnational needs in service portfolio management and the portfolio also needs to include the services from organisations that lack other technological means, possibilities, and skills.

- **Selecting the suitable service management software.** Software needed for portfolio management is recommended to be analysed first to determine the solutions suitable for satisfying different needs.

Service and channel assessment

- **Creating the service impact assessment capacity.** For creating service impact assessment capacity, it is recommended to develop a training programme for public sector organisations to motivate the implementation of benchmarks that enable the functioning of public services to be assessed. The training programme should introduce different impact assessment indicators through practical cases. The training can be targeted, that is, as a support programme in the organisations in which the need for service assessment is already acknowledged and a clear desire to introduce measuring exists. In that case, introduction can be done with the assistance of an external mentor. It is important to explain the importance of the use of benchmarks to the executives, since service measuring and benchmarking are set to fail without their support.

- **Evening out the motivational differences.** Since measuring brings about costs, the conflict needs to be solved between the need to measure service functioning for giving trans-service assessments (e.g. to use the possibilities of uniting or cross-using them), and the lack of motivation for that.

- **Creating service assessment infrastructure.** One of the important preconditions for success is creating an infrastructure for assessing the service. By that, mainly info-technological automated solutions are meant, improving the quality of the data gathered and significantly reducing the effort needed for measuring and its implementation. Since the creation of many local systems is expensive, state support is expected in developing, implementing, and funding a system across all authorities. Introducing suitable accounting methods is also important in creating systems. Promoting activity-based cost accounting and service-based management methodologies are of key importance.

- **Optimisation of the benchmark model for assessing services and the deployment of a “starter kit”.**