PRAXIS

EHDM design management toolkit testing

2015

The analysis was commissioned by the Estonian Association of Designers.

Authors:

Jane Matt is an analyst in the Governance and Civil Society Programme in Praxis. Jane's main fields of interest include issues related to participatory democracy, capability, impact and internal democracy of civil society organisations. Jane has also experience with studies concerning public (electronic) services (such as evaluation of the impact of the public e-services, e-services accessibility, etc.). She has good knowledge on research design, carrying out surveys, consulting and training of CSOs. Role in the project: project manager, coordination of the testing in EHDM partners' countries, carrying out the testing in Estonia, analysing the data and writing the report.

Geroli Peedu is an independent User Experience Designer. She has professional experience in user research, strategy development, concept development and wireframing. She also has wide knowledge in developing and managing design programmes in public, private and third sector. Geroli's field of interest includes strategic design, interaction design, and service design. Role in the project: expert, developing the testing strategy, carrying out the testing in Estonia, analysing the data and writing the report.

Praxis Center for Policy Studies is an independent nonprofit think tank in Estonia that supports engagement and analyses-based policymaking. Praxis has conducted policy research for more than ten years and is one of a kind in Estonia. The mission of Praxis is to improve and contribute to the policymaking cycle by conducting independent research and promoting public debates.

Abstract

The *European House of Design Management* (EHDM) has developed a web-based design management toolkit that helps to plan and deliver user-centred policy decisions, public services and communications. The toolkit represents an approach that is essential for achieving an improved outcome and better engagement of citizens in the context of decreasing public resources and rapidly changing environment.

At the request of the Estonian Association of Designers, Praxis Center for Policy Studies has coordinated the testing of the EHDM toolkit in its four partner countries – Estonia, Italy, Denmark and the United Kingdom. Praxis was also responsible for carrying out the testing process in Estonia.

The present report offers an overview of the testing that took place from August until December 2014. In **the first part** it introduces the objective of the testing, its main phases and methods used. In **the second part** the main findings on the toolkit's content are described, i.e. what was the respondent's opinion on different parts of the toolkit (on assessment questions, strategic planning stages, operational planning steps, etc.)? **The third part of** the report concentrates on the toolkit's interface, i.e. how attractive and easily navigable the toolkit was found. In **the last section**, the most important conclusions have been pointed out that help to improve the toolkit so that it better meets the expectations and needs of the user.

In summary, it can be said that most of the testers saw great potential to improve the processes and outcomes of public sector organisations with the help of the EHDM toolkit – they were especially positive about its well- structured description of the process, about the fact that the toolkit includes lots of useful background information (tools, case studies, etc.) and that there are worksheets which help the user to put the theoretical knowledge into the practice. It was admitted, however, that the toolkit needs some substantial improvements before it could be integrated into the officials' everyday work. The most commonly mentioned critique concerned the need to reduce the amount of text (e.g. by visualising the information better), to enable the group work functionality and greater interactivity.

Table of Contents

1. Introduction

The European House of Design Management (EHDM) has developed a web-based toolkit to assist public sector employees in strategic and tactical design management, to support the creation of products, services and communications that are in line with the needs of the end user. The toolkit aims to deliver creative thinking and methods to public service projects across Europe. This enables public organisations to benefit from design management thinking and methods currently used by leading companies in the private sector.

It can be estimated that the design centred methodologies will become more relevant in supporting the public sector work, as existing working methods are becoming less effective in the increasingly complex environment in which the public sector operates.

The testing process has been undertaken to ensure better compliance with the user expectations and needs. The current report gives an overview of the testing process, its main objectives, methods used and the results. At the end of the report the main recommendations have been pointed out that can provide input for further improvement of the toolkit.

1.1. The objective and the outcomes of the testing process

The general objective of the testing is to get feedback and recommendations from the people who are (potentially) involved with the design of public services, products or communications in order to elaborate an EHDM toolkit website.

The outcomes of the testing process are the following:

- The testing strategy for the design management toolkit has been developed.

- The testing materials (e.g. questionnaires, report templates) have been developed and shared with EHDM partners.

- A quantitative survey, interviews with potential end-users and design experts have been carried out in EHDM partner countries involving public institutions from different governance sectors.

- The final report has been prepared and the findings based on testing results have been formulated.

1.2. Testing methodology

The testing period was August until December 2014.

The testing of the toolkit took place simultaneously in four EHDM partner countries – in the United Kingdom (UK), Denmark, Italy and Estonia[1]. The testing process was coordinated by Praxis Center for Policy Studies located in Tallinn, Estonia. The main tasks of Praxis included the elaboration of the testing strategy, preparation of the materials, consulting the EHDM partners during the testing process, carrying out the testing in Estonia and compilation of the final report.

The testing framework was built on two tiers that contribute equally to the user experience of the toolkit: **the content** and **the interface** (see Figure 1). For the content, the testing focused on its usefulness and credibility. For the interface, the testing concentrated on the usability, visibility and accessibility of the toolkit, plus its overall attractiveness. The information about whether the interface was easy to use, how easily was the content navigable, were the design elements used well to evoke emotion and appreciation etc., was collected through different methods.

FIGURE 1. THE STRATEGY OF THE EHDM TOOLKIT TESTING
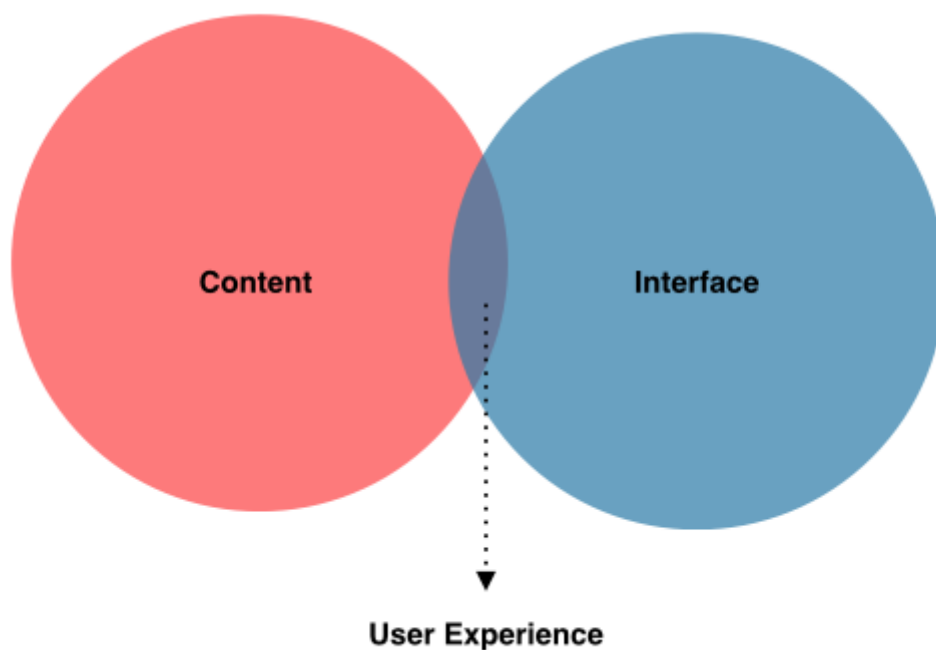
Source: The authors

Different methods were applied in order to find out the impressions and experiences of the toolkit users.

During **the first stage**, a quantitative survey was developed that addressed the aforementioned two dimensions of the toolkit – the content and the interface of the toolkit. The survey was inserted into a

---

[1] In addition, there was one respondent from the Netherlands.

web-based survey environment (SurveyMonkey) and disseminated by each EHDM partner among potential toolkit users (mostly public sector staff) in all partner countries. The respondents of the survey were either: 1) persons working on a fictional/hypothetical project or a project they have worked on in the past or (user panel); or 2) persons working on a live project (toolkit trials).

The structure of the questionnaire followed the structure of the toolkit – the questions concerning the content and the interface were about the overall impression, assessment questions, strategic and operational planning steps, worksheets, tools and case studies.

The survey questionnaire was in English (except in Estonia, where it was in Estonian). In addition, since the survey was launched in Estonia a few weeks earlier, there were minor modifications in the English version. The survey was carried out in Estonia from 9 September till 18 December 2014, in Denmark, Italy and the UK from 26 September till 19 December. All responses were directly collected by Praxis. **There were 36 respondents** who filled out the questionnaire: 16 from Denmark, 6 from Italy, 13 from Estonia. In addition there was one respondent from the Netherlands (see also Figure 2). There were no answers to the quantitative survey from UK.[2]

FIGURE 2: THE AMOUNT OF SURVEY RESPONDENTS, BY COUNTRY (IN PERCENTAGES, N=36)
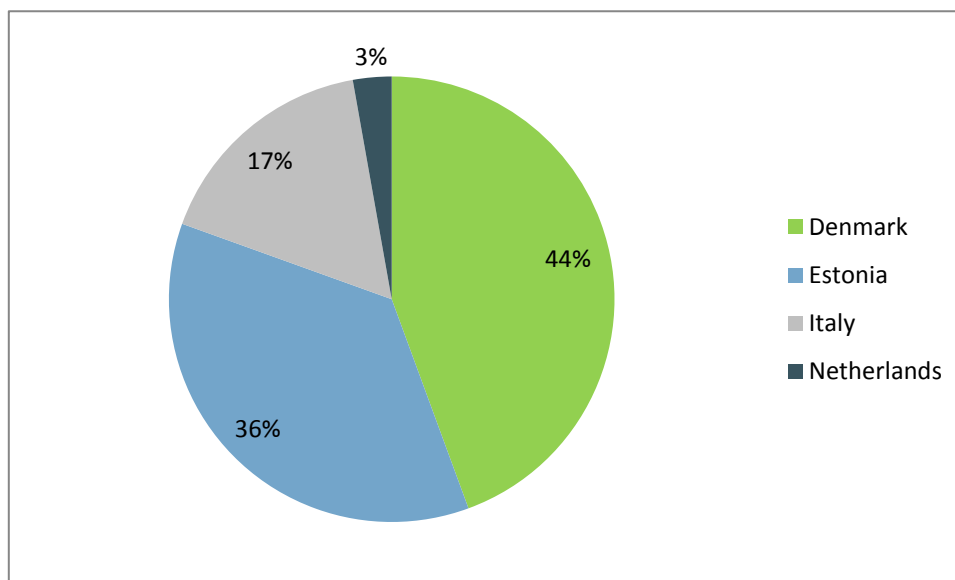
Source: authors, data from the surveys

Due to reasons mentioned above the responses to the Estonian survey are analysed separately from the survey that was carried out in Italy, Denmark and the UK – this survey will also be referred to separately throughout this report (correspondingly, the "Estonian survey" and the "IT_DK survey").

---

[2] The response rate can be regarded too low for any quantitative analysis. It has to be taken into account however that participation in the testing involved much more than filling out the survey. People needed to get acquainted with all parts of the toolkit and only then they could provide their feedback in the survey. That is probably one reason why many of them did not complete the survey. In any case, the partners were very actively involved in communication and asking for feedback from the potentials users of the toolkit.

During the **second stage** the interviews were carried out in all EHDM partner countries in order to get a more detailed account of the suggestions related to the toolkit. Similar to the first stage, in this stage some interviews were carried out with public sector staff members who tested the toolkit on a live project, while some performed the testing based on the fictional projects. The interviews also involved design experts who offered their professional view with regard to the toolkit. Altogether, there were **30 interviews** that took place during the testing period: 3 in Denmark, 7 in Italy, 7 in Estonia and 13 in the UK[3]. In the UK, Denmark and Italy the interviews were performed by an EHDM partner, in Estonia they were carried out by Praxis.

Each individual interview carried out by EHDM partners was synthesised by the partner according to: 1) the **interview analysis template** (for the interview with an end user); or 2) template for the **expert interview report**; and sent to Praxis. All questionnaires (for the quantitative survey as well as for qualitative interviews) and interview report templates were elaborated by Praxis in close collaboration with EHDM partners.

1.3.   The profile of the survey respondents

The background of the survey respondents was rather diverse. As mentioned above, the participants of the toolkit testing were from **different EU countries** (from all EHDM partner countries, plus one respondent from Netherlands). In addition, their organisational profiles were very different – in Italy and Denmark most of the respondents (correspondingly 50%; n=3 and 69%; n=11) worked for **a local government agency**. In Estonia, they were mostly working for private companies (46%; n=6) or **ministry** (23%; n=3), while a smaller number of people were representing other institutions.

In Denmark most of the testers were from the **health care or social protection/welfare sector (**50%; n=8). The respondents in Italy were engaged in very diverse fields of work (enterprise and transport, education and research, etc.). Many Estonian respondents were also from the health care sector (31%; n=4), while people from the field of culture and sport, enterprise and transport, etc. were represented as well.

Most of the respondents who participated in the surveys (IT_DK and Estonian) were **specialists with no direct subordinates** (53%; n=19) (see Figure 3). The position of the second largest group of people was head of a structural unit (28%; n=10). Somewhat less people belonged to the group whose position was head of the organisation.

In addition, in Italy and Denmark, most of the respondents were specialists with no direct subordinates (50%; n=3 in Italy and 69%; n=11 in Denmark). In Estonia, the position of most of the respondents (39%; n=5) was a head of a structural unit with direct subordinates. Similarly, there were quite many respondents who were specialists with no direct subordinates (31%; n=4) or who were head of the organisation (23%; n=3).

---

[3] In addition, there were several interviews carried out in Denmark and Italy before the testing period. The information gathered through these interviews was not directly used in the current report, but was taken into account by the authors as background information.

FIGURE 3: RESPONSES TO THE QUESTION: "WHAT IS YOUR POSITION IN THE ORGANISATION?" (IN PERCENTAGES, N=36)
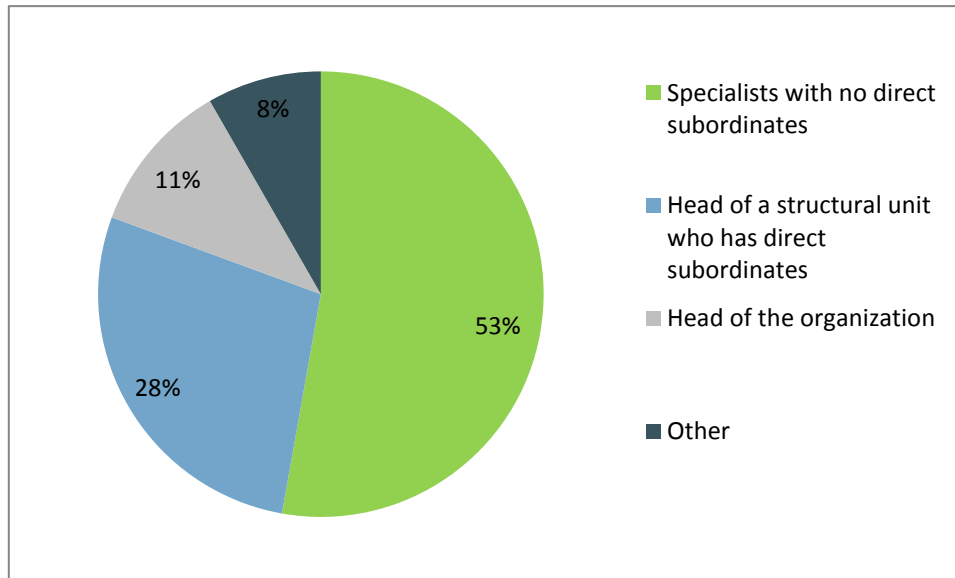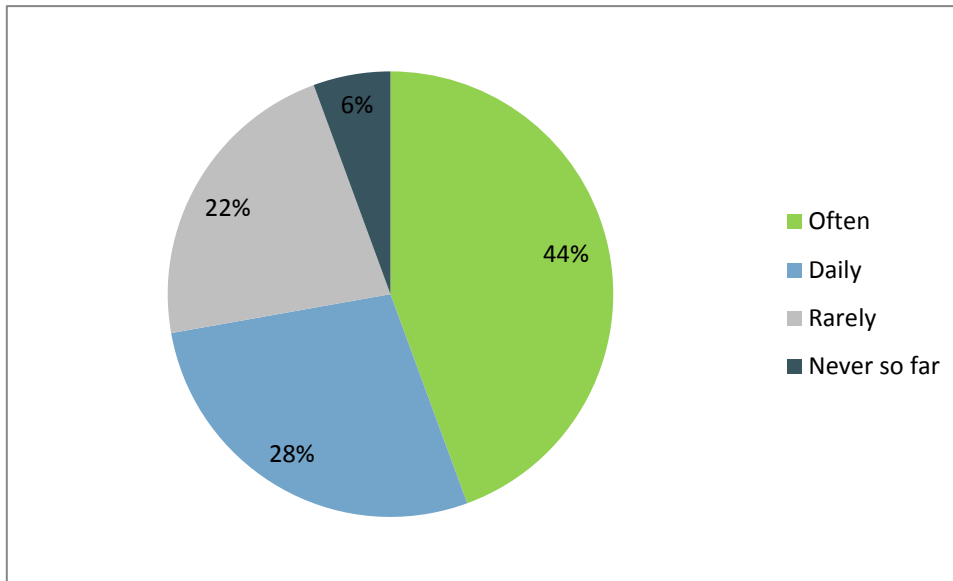

Source: authors, data from the surveys

As can be seen from Figure 4, the **largest part of the survey respondents** (Estonian and IT_DK) has been **engaged in design rather often** (44%; n=16) and also the share of daily users (28%; n=10) is quite large. The smallest group consists of people who have never so far been engaged in design (6%; n=2).

We can also see from the responses that people in the IT_DK survey have **rather frequent engagement in design** – namely, 83% (n=19) of the respondents indicated that they are engaged in product, service or communication design whether **often or daily** (n=19), this especially concerns the case of **Denmark** where the mean is 1.8, which indicates that people there are engaged with design rather "often". In case of Estonia and Italy, respondents seem to be somewhat less experienced in design – in Estonia the mean is 2.3 and in Italy 2.2 which indicates that people there are engaged with design rather rarely (NB! In the Estonian survey this question referred more specifically to the service design).

The **largest part** of the IT_DK survey respondents (46%; n=10) stated that they **have been engaged in products, services or communications design for 1–3 years**. In the respondents' group who are using design rather often or daily, the average period during which the respondent has been engaged with design was higher: 50% (n=4) of them had been engaged with design for 5 or more years. The most prominent answer among people who claimed that they deal with design rather often was 1–3 years (46%; n=5), but there were also quite many of those who had been engaged with design for 3–5 years (36%; n=4).

FIGURE 4: RESPONSES TO THE QUESTION: "HOW REGULARLY ARE YOU ENGAGED IN PRODUCTS, SERVICES OR COMMUNICATIONS DESIGN?" (IN PERCENTAGES, N=36)

Source: authors, data from the surveys

In addition, the self-evaluation of the people belonging in the group of daily users of design shows that their estimation to their understanding of design management is relatively higher compared with the groups in which people are engaged with design rarely or never so far. Namely, 100% (n=8) of the daily design users think that they have in-depth knowledge and practical experience in design. In contrast, people who are engaged with design rather rarely think that they have only basic knowledge or no knowledge at all (NB! The amount of responses was not enough to be analysed separately in the case of Estonia!).

In the IT_DK survey, it was asked from the respondents how did they become acquainted with the EHDM tool. **Most of them said that the toolkit was introduced to them by an expert** (n=10), there was an equal number of those who stated that they had participated in a workshop or seminar where the tool was introduced (n=6) or the link to the tool was sent to them by an e-mail (n=5).

2. General impression

Main findings:

- *Most of the users felt positive about the toolkit by stating that it has the potential to improve the public sector work and its outcomes.*

- *The added value of the toolkit was not clearly understood by the testers – the toolkit was, therefore, perceived rather as a supplementary or secondary resource.*

- *The heavy load of the information in text format should be reduced by lessening the verbal component and by narrowing the focus of the toolkit.*

- *The toolkit contains complex language for non-native English speakers and is missing a translation into local languages.*

2.1. Value proposition

The general feedback regarding the **usefulness and need** for the tool was rather **positive** and indicated that the potential users appreciate the toolkit. The description of the process was considered to be **thorough and very detailed**, but at the same time universal enough that enables it to be applied by the people working in different sectors and with very different challenges.

Most of the respondents admitted that the toolkit **has a great potential to facilitate the user-centred policy and service creation**, especially since the current services, policymaking and legislative processes, are carried out in a rather top-down manner (e.g. the planning and implementation are rather system-centred and not user-centred, there is a lot of information that the officials do not know how to use, the engagement of citizens is often rather formal). As an end user from Denmark comments:

> *"There is a need for tools/mechanisms to strengthen the user orientation and engagement in public service development processes – something that is almost non-existent in traditional project management tools and processes."*

Thus, almost all testers expressed their agreement with the fact that there is a need to further introduce design management principles and tools for public sector organisations.

Still, the majority of the respondents found they would use the tool **as an additional information source and not as a main tool** for everyday work. Sixty percent of the Estonian and 61% of IT_DK survey respondents mentioned that they would not use the toolkit as a whole, but some parts of it or in the case of some individual projects.

The reasons mentioned for using the toolkit as a supplementary resource were:

- It was repeatedly emphasised that using the toolkit in practice would be **too time-consuming** and exhausting, especially in case of smaller projects.

- Some of the respondents were sceptical about implementing the design management methodology as their everyday **work processes are highly regulated**. The Italian interviewees particularly emphasised this issue. In spite of this, they were interested in applying the user-centred methods that the toolkit represents. As one end user comments: "*The toolkit would enable to start a radical process of renovation of old-fashion approaches to services and introduce new services through a creative and collaborative process [...]*".

- It was believed that the **application of the design management principles** has to be a **well-deliberated** decision since it depends a lot on other important circumstances, e.g. partners' readiness.

- Some experts mentioned that the overall assumption of the toolkit seems to be that the public sector officials become design experts with the help of the toolkit. It was considered incorrect, however, since even if they read all the materials in the toolkit, **they still lack a lot of knowledge and professional experience**. Instead, therefore, the aim of toolkit should be making the officials more aware of the design principles that can be applied to a process and indicate clearly when to engage design experts into the process. For example, it should be clearly recommended to consult with designers in Touchpoint Analysis. Otherwise, by carrying out all the activities without expert knowledge, it may lead to inadequate outcomes and devalue the design management discipline.

- The impossibility to use the toolkit for **group work** was pointed out several times as an obstacle for integrating the toolkit into the everyday work.

The **added value of the toolkit** was raised several times by the interviewees, particularly since there are also some information resources in English and local languages[4] that help to create user-centred services and introduce design management principles. The suggestions how **to increase the value included**:

- The toolkit should be **more personalised** (e.g. a sort of "personalised checklist") that would provide a user suitable route with necessary methods, tools and checkpoints. Currently, many respondents claimed that there was too much information that they did not actually need.

- A toolkit should offer **a concrete output** based on the answers in the assessment and in worksheets, e.g. a visual that depicts the project, which can be edited and modified by the user if necessary and presented for example to the funder, to interest groups, etc.

Another topic of concern according to the interviewees was **the landing page attractiveness and visualised overview** of the toolkit value proposition. It is advisable to add a quick guide to understand how to proceed and what kind of benefits the toolkit offers, in order to create a landing page where interest converts into action, e.g. into registration. The user must be able to understand the value of

---

[4] For example, in Estonia there's a handbook for public sector about the design of user-friendly e-services (see https://www.ria.ee/public/publikatsioonid/E-teenuste_disainimise_kasiraamat.pdf) and the example of design process in Estonian Road Administration (see: https://www.ria.ee/public/publikatsioonid/E-teenuste_disainimise_kasiraamatu_lisa1_Maanteeameti_e-teenuste_disainiprotsess.pdf.) Some other examples of materials/ tools in English are: http://www.servicedesigntools.org/; http://www.servicedesigntoolkit.org/; http://www.designkit.org/.

the toolkit quickly after landing on the site (e.g. in the form of a short video/demo explaining the core value, features and quick overview of the process). As a design expert from Estonia suggests:

> *"The first impression when landing on the page was that I couldn't understand the value of the tool and it didn't generate interest. I didn't buy it. And the name EHDM toolkit does not say me anything. A good reference could be the landing pages of Strategyzer tools."*

2.2. Text intensity

A common concern of many respondents was the **volume of text in the toolkit and** it was suggested that it better suits larger projects with complex problems than smaller ones. The respondents highlighted that the toolkit has to be, above all, **a practical tool.** Currently, it was estimated that the presentation of the information is overly static and exhausting (see Figure 5).

FIGURE 5. EXAMPLE OF TEXT INTENSITY

Source: EHDM toolkit, test stage

One reason why there is too much text in the toolkit is that it aims to be **very comprehensive** which can be considered simultaneously as both positive and negative. The positive aspect is that people from very different types of organisations and fields of activity can use the toolkit. In addition, if users are interested they can find a lot of useful tips, tools and background information. As one end user in Estonia puts it:

"The most valuable thing of the toolkit is that all of the information is in the same place… So you don't need look for it anywhere else".

The negative result, however, is that while being too universal the toolkit **loses its focus and concreteness**. The questions such as who is the right target group for the toolkit, which processes could be improved with the help of it and which projects the toolkit is suitable for, were raised by several testers. For example, one expert pointed out that the toolkit did not seem to support working up the organisation's development plan that she had in mind while testing the toolkit. It was also referred that the toolkit does not provide help on **which tools exactly to use in case of certain challenges** – there are many of them, but the use of them is related to certain conditions. Therefore, it is advisable **to narrow the focus of the toolkit** and concentrate, for example, only on public services.

If the focus of the toolkit remains broad it was suggested that the pathway and **the amount of the information should be further customised** according to the size of the project and type of the activity. For example, drafting the legal acts and the impact assessment of legal acts could be improved through the application of the design management principles.

2.3. Use of language and terminology

The complexity of the language and terminology of the toolkit **was perceived differently** by the people depending on their previous experience in design management:

- The used terminology was c**onsidered rather difficult** by those who were **non-native English** speakers and **less familiar with design management discipline**.

- Those who had been previously engaged with service design or design management did not find the terminology too complicated.

In the IT_DK survey there were just 33% (n=6) of those who claimed that the toolkit was very convenient to use. A majority (slightly more than 44%; n=8) of the respondents admitted that the toolkit was somewhat inconvenient to use because of the specific design terminology, plus 17% (n=3) stated that the reason for the inconveniences was the English language. An additional 6% (n=1) of the testers said that the toolkit was very inconvenient to use both because of the terminology and English language. The question about the language and terminology was not asked in the Estonian survey – however, the problems of working with the toolkit in English were mentioned several times by the respondents in Estonia as well. An interviewee from Italy indicated to the same problem:

"A first suggestion is that of making the tool available in a different language to allow a better understanding and a wider adoption." (End user, Italy)

Therefore, it is suggested to analyse whether there are possibilities to simplify the text in the toolkit. In addition, translating the toolkit into the other languages (e.g. into the language of other EHDM partner countries) should be considered. If the objective is, however, that the toolkit would be used throughout the European Union, the selection of languages becomes difficult. Besides translation, of course, just reducing the amount of text and visualising it better makes the understanding of it easier.

3. Content evaluation

The main aspects regarding the content of the toolkit were the relevance and understandability of the information. The questions asked from the survey respondents and interviewees addressed all main parts of the toolkit, i.e. assessment phase, strategic planning and operational planning steps.

3.1.   Assessment questions

Main findings:

- *In general, the assessment questions were considered a relevant part of the toolkit that enables to personalise the process.*

- *There is, however, a need to assess critically the relevance of all the questions, as currently there are too many of them and the outcome of the assessment does not differ accordingly.*

- *The questions are currently overly subjective in their nature, which does not help to define objectively the right pathway for the user.*

The respondents considered the **assessment questions predominantly relevant** in order to think through the challenge under development. They were also thought to be **necessary so that the toolkit system could provide a suitable pathway** to the user.

At the same time, it was mentioned quite often by the survey respondents that they **did not understand the relevance** and necessity of some questions and what exactly was asked (69% in the case of the Estonian survey, n=9; 44% of respondents in the IT_DK survey, n=10). One of the reasons mentioned by some testers may lie in the fact that currently the toolkit somewhat follows **the operating logic of business organisations** (e.g. how to define objectives, budgets, target groups, etc.). In the public sector, however, these elements cannot be defined that easily (e.g. the objectives and budgets are more general).

In addition, during the interviews it was mentioned that the answers to the questions seemed to be **rather subjective** in their nature and therefore an objective result about the right route is doubtful (i.e. the question about the outcome). For example, an interviewee from the UK stated that:

> *"Some questions [are] too "fluffy" and not clear. Had to re-read some several times to make sure I understood what they were asking. This puts people off."*

Furthermore, in some cases the testers felt that there are several answers that suit the question and in some cases there is no suitable choice at all among the answers. For example, in practice it is **not possible to differentiate between the new development and the improvement of the existing product/service**. This raised questions, such as what happens if the answer is "wrong", does it affect the process, can some questions remain unanswered, etc.

Some other issues of concern were:

- **"The budget"** (small, medium, large) – some users did not understand why it was asked and how it helps to choose a route, also what is the reference point to evaluate the size of it. Another interviewee pointed out that it is not always easy to define the size of the budget, since the "projects" in the public sector do not always have a separate budget (or it is included indirectly within the budgets of all partner organisations).

- The question about "**decision makers**" – in the public sector decisions related to the same project (challenge) can be taken on a different level. Therefore, as was also suggested by an Italian end user, this question should allow multiple choices, if considered still necessary.

- "**The role of design**" – one Estonian interviewee would have liked to see an answer that "the design is involved in the development process, but not consciously and not daily", but such an answer did not exist. Another interviewee from the UK stated: "All answer options imply there will always be a consistent approach be it thorough or more casual; "sometimes", "depends on project" options might also be good to include here; found this question hard to answer".

- Several testers felt the need for a **definition of design management** at the very beginning.

One technical issue related to this phase is that when moving back to the assessment questions (from the introduction stage) **the answers were not recorded in the system**. The respondents pointed out that they would have liked to see how the answers influence the outcome, also, to change maybe some of the answers later on. This is especially because the toolkit already presents some terms at the start (in the assessment phase) that are actually defined later (during the description of the stages). Besides, it was pointed out that the presentation of the visualisation could be improved by using the latest web-design practices of scrolling instead of clicking. This would help to create more intuitive interaction concentrating on one question at a time. The web form of *"How much I should charge"* (http://thenuschool.com/how-much/#/start) was referred to as an example.

Besides a suitable pathway, the system provides an appropriate **level of information** (light, plus, extra) to the user. The problem is that most of the respondents did not notice the possibility to change the level. Those who did pointed out that the difference between the levels is rather little. It was also mentioned that it **should be explained what it takes/what it means to be a more advanced user**.

The responses on how easy was it to make a choice between answer options differed by countries. In Estonia there were **very few of those** (15%; n=2) who said that c**hoosing among answers was easy** for them. Most of the respondents thought that for some questions it was difficult to choose the appropriate answer (54%, n=7) or choosing the appropriate answer was quite difficult because it was impossible to understand the answer options; or the answers did not represent a realistic scenario (37%, n=7). In Denmark there were 50% of those who said that it was easy to find appropriate answer and 50% of those who claimed that it was difficult in some cases or quite difficult to make a choice. Italians were the most optimistic – among them were 80% of respondents who thought that finding the appropriate answer was easy.

The same trend applies to the question whether the outcome of the **evaluation was presented clearly** and understandably. In Estonia there was quite an equal amount of those who thought that the result of the assessment was presented clearly and those who thought that it was not. In

Denmark, 70% (n=9) of the respondents thought that the outcome of the presentation was clear and understandable, in Italy the percentage was 100% (n=5). During the interviews it was mentioned by few, however, that based on the project's features **the pathway provided by the system should have been different:**

> *"The questions … might need to be reviewed as the app project in question and answers based on a firm decision that the output is an app, still lead to the explore phase.." (End user, Denmark)*

It can be concluded that the **selection of the questions and the logic behind the outcome was not very clear to many respondents**. Given the fact that the users provide rather uncertain answers to the assessment questions in their current format, it should be critically thought out whether and which questions are necessary to ask in this stage. One option could be to integrate the assessment questions into the assignments (worksheets) within different stages.

It is recommended to think through what is the purpose of the assessment questions – namely, to raise the users' awareness on design management and the challenge that has been undertaken; or to use the information acquired through the answers for the personalisation of the toolkit.

In the first case, the questions and the answer options can be more flexible and there can be rather many questions by pointing out to the different aspects that the user should take into account while working with the challenge. The overly subjective nature and suitability for the public sector organisation should still be addressed however. In the second case, it should be critically deliberated which questions (and which formulation of them) can provide input for the toolkit so it could provide a customised and personalised pathway with a relevant amount of information for the user.
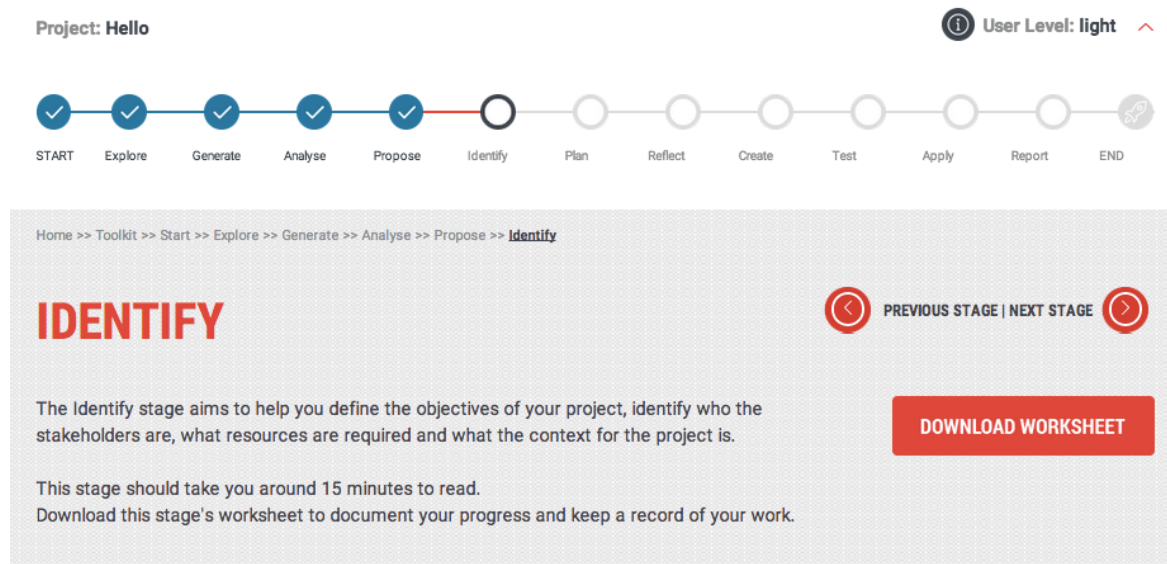
3.2. Stages

Main findings:

- *The step-by-step process was generally perceived as a useful, practical and logical.*

- *It should be made possible to navigate more easily between stages, e.g.to skip some stages.*

- *The information should be reduced and better structured – the obligatory part of the text should be clearly differentiated from the inspirational one. At the same time, it would be beneficial to add links to other (external) information sources for more experienced users.*

- *The amount of the information should be better customised according to the types of the activities, the size of the project and experiences of the user.*

The step-by-step process was considered logical and helpful by most of the respondents (see Figure 6). A positive aspect that was mentioned was that **the stages were fully visible**, i.e. all the time in front of the user as a whole, so they can see their location during the course of the process. A critique accompanied with that was that it **was not possible to skip any stage** (even if the project is completed and when revisiting it). This option was, however, considered necessary, if a user is already more familiar with the stages and is looking for certain kind of information, also to confirm whether

the toolkit offers an added value in a certain case. Many respondents said that they did not actually need all of the information that was presented.

FIGURE 6. EXAMPLE OF EHDM STEP-BY-STEP TOOLKIT LAYOUT

Source: EHDM toolkit

One of the main concerns was **the large amount of text** that is used for the description of the stages, which makes the differentiation between more and less important information and also finding specific information rather difficult. Especially in the case of strategic planning steps, many people in the survey pointed out that even if they found lots of good tips and information, **all of it was not actually necessary for them** (56% of the Estonian, n=5 and 35% of the IT_DK respondents, n=6). In addition, there were 15% (n=2) of the Estonian and 18% (n=3) of the IT_DK respondents who thought that **a large part of the information was not particularly useful for them**. Several interviewees said **they would not use the toolkit because of it**. It was admitted, however, that it might seem like that because of the test situation, which meant that all of the information had to be read through during a very short period of time. A similar tendency also applied to operational planning steps, in which a slightly higher share of the IT_DK respondents stated that they found lots of good and useful information (53%; n=10).

From the more technical side, some respondents stated that even if their project would not include the strategic planning stages it would be still be useful to see that these stages exist and, if there is an interest, to see the information there.

It is suggested, therefore, to reduce the amount of the text by **critically selecting what is the most important information** that the user has to receive **and structuring the text** accordingly. In addition, hiding part of the text (the explanations, tips, examples, etc.) was recommended by some testers, so that the information would be presented only if they want to. Furthermore, some definitions do not need explanations according to respondents, e.g. "budget – an estimate of income…" which was considered too trivial. While the information was considered generally exhaustive, some respondents

expressed that there still could be **more links** to some additional information materials. This was especially the case for the more proficient users.

In order to reduce the amount of text it could be considered whether the indications on **how much time it takes time to read the page** could be deleted. The time spent on a specific page may differ a lot depending on a user's previous experience, preparatory work that might be already done and the objective of using a tool (e.g. whether they just read the information or start to fill out the worksheets in parallel). This is also reflected in the survey respondents' experience. Altogether, there were 50% of those (in the IT_DK survey) who said that in some stages they needed more/less time or in most stages the estimation of time was incorrect. In addition, there were ca 28% of those who did not notice the estimation of time at all.

Some specific comments concerning the stages were:

Explore:

- *The explore stage – the blue front-end part of the guide – was perceived as not being open-ended enough. Thus, the suggestion was to strengthen and elaborate the stages before "explore" – to add a stage or two where the context is analysed and where possibilities are discussed.*

- *"The first parts of the process should encourage a certain degree of chaos, and then the discussion of what to do, which problem to solve, etc. can come."*

- *"I noticed that the starting point of this process started with "the problem". In my daily work we often start with "the challenge" instead, aiming to ensure the possibility of radical innovation".*

- *"The title "Explore" does not correspond to the content. I would rather describe it as "aligning"".*

- *"There is a need for the short version. Like the worksheet...Presented in a more graphic and helpful and inspiring way that gives an overview".*

Propose:

- *The last subsection ("Before continuing") should not be presented as a substantial part of the stage. Although this point is important it could be visualised differently (e.g. as a pop-up), in order to make the described process shorter."*

Plan:

- *"It is not until in this stage when it's talked about making a brief for hiring a designer – it should be already in the beginning."*

- *"Is there a need to define what a budget is?"*

- *"In the project plan it is unclear how the examples A and B emerged in the time allocation part?"*

Reflect:

- *"It is little bit annoying if it is asked all the time whether I'm sure if I want to carry out this project. At least here, there should not be so many check-questions, especially what concerns the right approach, timing, etc."*

Create:

- *"Shouldn't there be procurement for carrying out the research? It was considered necessary previously when engaging a designer."*

Apply:

- *"Why is the piloting separated from the testing?"*

- *"Ensure that your solution is launched at the most appropriate time. Try to make sure that your launch does not coincide with launches other public services from other authorities, and aim to avoid… – isn't it too much to write that down? It is a common sense!"*

- *"Monitoring – it is forgotten to mention here that the support of a professional (a designer or a researcher) is needed in this stage as well and it should be also calculated within the budget."*

The **checkpoints** that popped up between the stages were **predominantly thought to be useful** (although also somewhat irritating and annoying) that force the users to think over the process that has been gone through and to deliberate whether they are ready to move on. In connection with that, it was also mentioned that maybe it is not necessary to have separately the reflection stage that basically repeats the previous information. By cutting that, it also makes the process (visually) shorter. An option is to include the information in the "reflect" stage to the checkpoints. One comment by an expert indicated that the checkpoints are **valuable, but too lengthy** to read at the moment:

> *"Answers to the checkpoints are so long that I do not take time to read and they are really annoying."(Design expert, Estonia)*

In the final stage (the End), the possibility **to submit a project as a case study was not very clear** for several interviewees, i.e. what is being shared exactly and to whom. Some more specific guidelines on that issue would be therefore helpful (for example, what happens if a button "submit a case study" is pressed?). At the same time, it was considered a beneficial and inspiring way of learning about how someone has used the tool.

The issue of support was raised while testing the toolkit. Currently, **the function of support** seems not to be resolved. Thus, there should be some instructions on how to continue if a user has problems and does not know what to do next. According to experts, the support is one of the key issues with this kind of tools. For example, the support could be localised and offered by the local companies. In addition, there could be a user community so that people could change tips on how to benefit even more from the tool.

3.3. Worksheets, case studies, tools

Main findings:
- *Worksheets, tools and case studies were considered particularly useful and inspiring by the testers. Therefore, ways how to make these elements of the toolkit even more central could be considered.*
- *The visualisation and contextualisation of the case studies could be improved.*
- *There could be some more specific instructions added on which tool is the best to use and when, how to interpret the results, as well as an indication that working with a professional designer from the beginning guarantees better results.*

One of the m**ost commonly mentioned positive aspects of the toolkit was the existence of the worksheets** in the toolkit. It was even suggested by some interviewees that the worksheets could be central for the toolkit and the rest of the information would be presented only if user searches for it.

> *"I think I derived most benefit from diligently completing the worksheets. The questions posed are useful in structuring thoughts and leading me through a logical process." (Expert, UK)*

In addition, according to the IT_DK survey results the most valuable part of the tool was the worksheets (by having the highest mean 1.6). A Danish end user confirms:

> *"The worksheets are valuable and serve as a way of documenting the process. On the one hand, it could be practical to be able to work in the tool, but on the other hand, the word documents can easily function in and be imported into the digital environments that the public sector works within." (End user, Denmark)*

There was a critical attitude towards the issue that the worksheets have to be downloaded. The suggestion made by many testers was that the worksheets should be able to be completed online, also there should be a group work possibility (for more details, see section 4.3 "Usability and interactivity").

The Estonian respondents gave the highest rate to the description of the stages (mean 1.5) and the worksheets were in second position (mean 1.8).

In addition, the **tools** were appreciated by the testers as a source for inspiration and quite useful part of the toolkit – according to the estimations of the IT_DK survey respondents its mean was 1.7,the same as the description of the cases (according to the Estonian respondents the mean was slightly lower, 2.2).

A critical observation (mentioned already above) made by one design expert was that the decision **which tool to use in certain situations** has been left to the user who might not be very experienced in design management. This, however, can lead to a non-adequate outcome since every tool is usable under specific conditions and should be interpreted by the professional designer. The bottom line is that it should not be expected that all users of the toolkit want to be design experts. Therefore, it should be clearly indicated that when using certain tools and for an adequate outcome a professional designer should be consulted.

The least appreciated (moderately useful) part of the toolkit was the case studies (mean 2.3 in the IT_DK survey and 2.2 in the Estonian survey). The reason for this is that there was a slightly higher amount of people who answered "undecided" to this question.

The testers' recommendations were different concerning **the length of the case studies**: for some they were too brief, for some too long. A more substantial comment was that it may be difficult to link the case studies with the toolkit user's context. It was also mentioned that some case studies of failure might be useful since there may be something to learn from unsuccessful cases as well.

Some more specific issues of concern were:

- *"The stages and corresponding worksheets should be numbered to facilitate the organisation of the worksheets when saving them on the desktop or in a file. For those who are not 100% familiar with the terms used, the sequence of the worksheets is not self-evident..." (End user, Italy)*

- *"A minor suggestion: the case studies could be categorised." (End user, Italy)*

- *"Some of the URLs in the case studies are no longer active. It might be considered whether the source should be referred to in a different format". (Design expert, Estonia)*

- *"Perhaps the cases should be fewer but better documented – e.g. in the form of videos or interviews or other means. Another format could be cartoons or another visual support technique – even board-game thinking could improve the benefits of the references." (End user, Denmark)*

In summary, it could be said that **worksheets, case studies and tools were particularly appreciated** by the people participating in the testing. It could be thought through **how to make them even more beneficial**, e.g. by making the worksheets central for the toolkit, by visualising the case studies and making them more informative.

4. Interface analysis

The main aspects addressed regarding the interface of the toolkit were visual design, navigation and structure, intuitiveness, interactivity and collaboration.

Main findings:
- *The overall visual design of the toolkit was considered rather pleasant but the lack of visualisations and graphic elements makes it hard to follow.*
- *The structure of the toolkit was considered understandable and navigation was generally assessed to be clear but a common deficiency pointed out was the overload of elements on the screen that makes it difficult to orientate.*
- *The interactivity of the toolkit was considered low and, therefore, currently would not support the officials' everyday work.*
- *The need to collaborate online and project management function was considered a relevant function to be added.*

4.1.　The attractiveness of visual design

The visual design of the toolkit was considered **rather pleasant** by the survey respondents in Estonia (70% agreed; n=7). In addition, interviewees from Italy agreed that the **colours and graphics are nice** and do not need to be improved. However, due to the red/white and blue/white **colour contrast** some interviewees and survey respondents stated that the appearance of the toolkit is little bit exhausting (see Figure 7).

FIGURE 7. EXAMPLE OF INTENSIVE COLOUR CONTRAST IN THE EHDM TOOLKIT
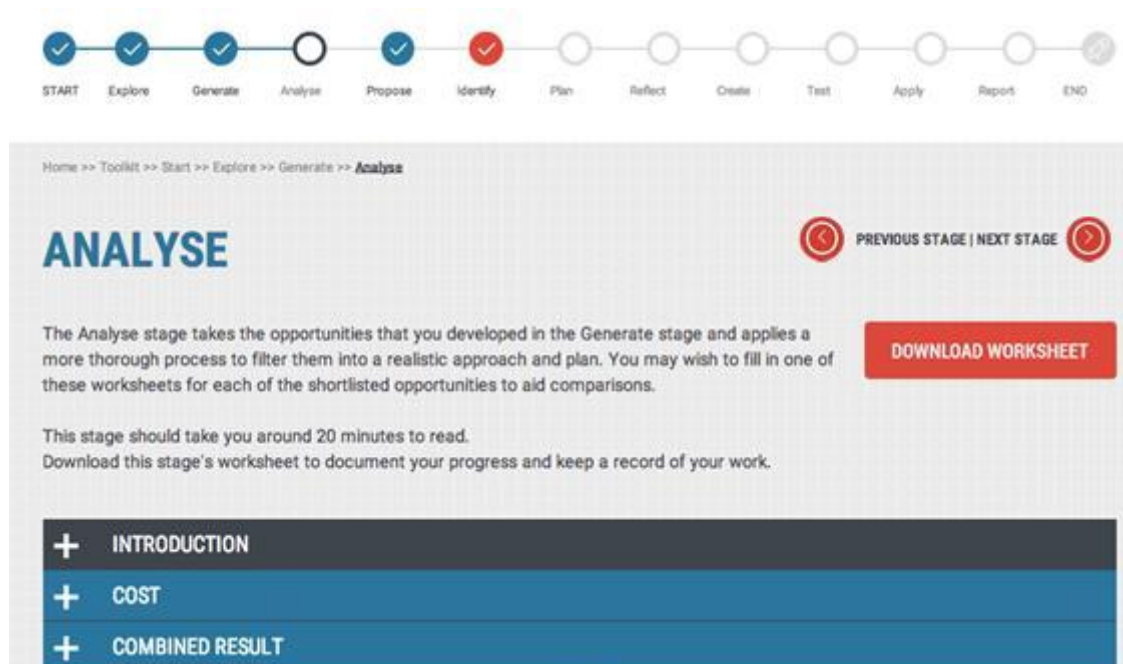
Source: EHDM toolkit

In addition, **the lack of visualisation** was mentioned repeatedly as the downside of the visual design since it makes the toolkit hard to follow and text heavy. As an Italian end user explains:

> *"The content is too "heavy". It would be better to use bullet points or maybe tables that would make the toolkit more visual and less textual."*

In order to reduce the amount of text, respondents suggested having:

- **Illustrations and infographics** – respondents mentioned that they would like to have the step-by-step instructions visualised, illustrations integrated into the text and models accompanied by diagrams to make the text **easier to follow**.

- **Graphic elements** – many respondents shared the opinion that there should be more graphic elements like symbols, icons, colour-codes, bullet points or tables used, in order to reduce the amount of text. *Validation Board* and *Experiment Board* were mentioned as a point of reference.

4.2. Navigation and structure

The **overall structure** of the toolkit was considered **understandable** and the **navigation** was generally assessed to be clear. Still, some of the below-mentioned disadvantages might be the reason why quite a large number of the survey respondents in Estonia (90%; n=8) assessed that the toolkit was **partly uncomfortable or rather uncomfortable to use**. The respondents in the IT_DK survey felt more positive about navigation. The largest share (67%; n=12) of the respondents answered that the tool was **most comfortable to use**, while 22% (n=5) stated that the tool was somewhat uncomfortable to use. Only 6% (n=1) thought that the toolkit was uncomfortable to use.

A common deficiency pointed out by the respondents in both surveys was the **overload of elements on the screen** that makes it **difficult to orientate** – which button to press, how to proceed, etc. There were also some cases when the user could not find the "start" button. An interviewee from Estonia comments:

> *"The overall navigation was clear, but I didn't understand what exactly I should do when I opened the first stage".*

As a solution to **improve the page navigation**:

- **Layout of the pages** – one idea mentioned would be to move the worksheet button to the end of the page, in order to be used as a way of summing up and reiterating the stage.

- **Use dynamic interactions** – this would mean using scrolling instead of clicking (the pages could be scrollable instead of using clicking to close and open parts of the page). Scrolling is more intuitive and easier way of interaction; it cuts down on page load time and allows more dynamic interaction to take place between the user and website [Ref: *webdesignledger.com*].

In addition, it was mentioned that **missing hyperlinks and vagueness** in the text is an issue. Currently, **the tools suggested to be used are not linked within the text** (e.g. "Identify" – "Analysis" subsection, "The 'stakeholder grouping tool' in the tools menu can provide you with more information") and it is

not possible to distinguish active links leading to tools and to the glossary and this causes confusion between the two facilities.

Furthermore, **the page header and footer were found to be disturbing** once toolkit is already being used. It was suggested that when the tool is already being used then there is no need for the page navigation. *Invision* service was mentioned for reference, where the sales pages are not visible once starting to work with the tool.

4.3. Usability and interactivity

The general opinion among survey respondents and interviewees was that the toolkits have to be intuitive to use without previous knowledge. It was admitted that currently it is rather complicated (e.g. it takes a lot of time to understand which buttons to push, how to enter the toolkit, what to do next, etc.), and, therefore, presumes some kind of training or guidance (the opinion was shared by 80% of the Estonian survey respondents, n=8). It especially concerns those users who are less experienced in design or project management methodologies. An expert from Estonia explains:

> *"Currently I see it more as a 'nice- to- have- tool', where you can find a lot of information, but it does not support growing a habit of using the tool. As the overall intuitiveness is low, there is a threat that I continue working as I'm used to".*

Many of the interviewed experts from Estonia and Italy highlighted that **the interactivity of the toolkit is low** and cannot currently support the everyday work because of that.

The overall **expectation** is that the toolkit would enable to perform one's everyday work online. The testers see the need **for filling out the worksheets online** and to download the worksheets as an additional feature – the possibility to download and share files via e-mail was considered not innovative enough nor user friendly. As already mentioned above, it was suggested that the worksheets should be central for the toolkit and the rest of the information should be offered on request, e.g. by clicking a certain symbol. An expert from Estonia refers to *Business Model Canvas* by *Strategyzer* that has a good integration between information and project execution (see Figure 8). This approach helps to assure that the learning and project execution goes hand in hand.

A negative aspect that was mentioned by several respondents was that **the collaboration function and project management are missing**. The need to collaborate during assessment and execution of the project is directly driven from the of public sector work methods where often more than one person is involved in the decision making. Currently, the tool was perceived rather as an information manual not a tool where the project communication would take place. However, the expectation is that it would be a place where all project members could communicate. The setup could be that once the project is created it would be possible to add project members who can contribute in assessment and follow up on the project execution. In addition, a task list feature would be useful to enable to manage the tasks, executors and deadlines.

FIGURE 8. EXAMPLE OF COLLABORATIVE BUSINESS MODEL CANVAS TOOL
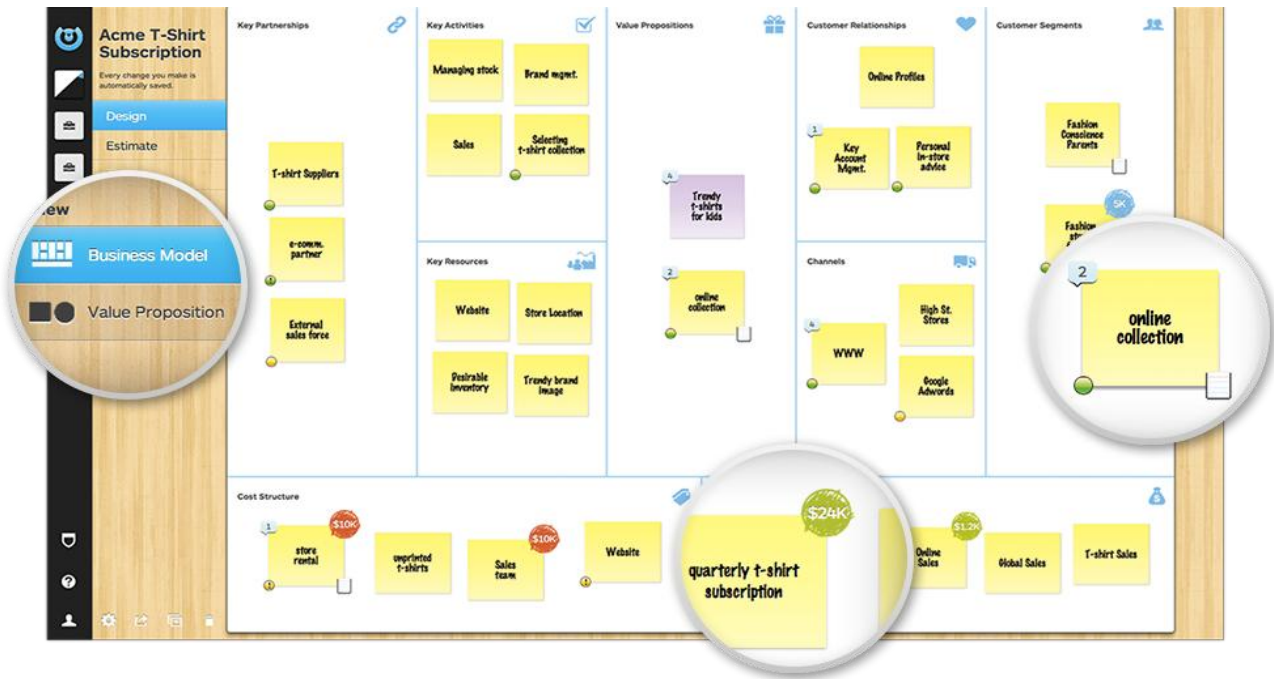
Source: Strategyzer tool, https://strategyzer.com/

Conclusions

It can be seen from the interviews as well as from the answers to the quantitative survey that people are feeling rather positive about the EHDM toolkit. It has been admitted that there is a great need for systematic strategic planning and innovative methods in the work of public sector organisations, also increasing focus on users/citizens needs and expectations is seen to be necessary. The toolkit has great potential to support both dimensions of needs.

Due to that, many testers expressed an expectation that the toolkit should be integrated into the officials' everyday work or that it could be used operatively at least partially. Before that there are, however, some substantial improvements that were seen as necessary to be carried out since currently the toolkit was perceived as too time and energy-consuming.

First of all, it should be clearly pointed out in the beginning what is the added value for using the toolkit, i.e. what is the end-product that the user will receive or what is helps to achieve that would be more difficult without the toolkit. In order to do that it should be considered whether the toolkit should be better targeted and personalised with regard to certain types of user-groups or processes.

Second, the amount of the text should be reduced by cutting some of it, making it more schematic, using more graphics, pictures and other visual elements. That should at least partially solve another problem that was mentioned, i.e. that the language of the toolkit is too complex for non-native English speakers.

Third, interactivity of the toolkit and navigation between stages should be improved. There could be the possibility to fill in the worksheets online and share them among team members who work with the same project. There is an expectation that the toolkit would become more practical, i.e. the worksheets are the central aspect and the explanatory information would be presented only if requested.

While taking into account these above mentioned user expectations, it can be generalised that **the main challenge of the toolkit seems to be a decision whether it aims to be a comprehensive digital information material or a highly practical tool.** Both solutions are realisable, but presume different approaches and decisions between options when carrying out the developments. If it aims to gather all the relevant information on design management then the amount of the text is not crucial. The effort should be directed on the collection of all the relevant information and on the question of how it should be structured. The central idea would be then that the users with a different background would search for the amount and type of information they need the most and process it accordingly.

If it aims to be a practical tool(kit) for public sector organisations, then the central issue would be how to turn it into the tool that requires as little time and energy as possible and that intuitively directs the users through the process without presuming that they are very motivated to learn about design management. It should be also clearly communicated then why the toolkit can be beneficial for a policy-maker or service provider. In this case, it should be thought through how it would be possible to personalise the information according to the users' answers (through critically selected, well-elaborated assessment questions and objective information provided by the answers). Another option is to narrow the focus of the toolkit, e.g. by concentrating only on the design of public services or policymaking processes.

Therefore, cutting down some of the information is necessary and making it more schematic so that the user would receive some of the information without actually reading it. This also makes it easier

to work with the toolkit for non-native English speakers who may be not so experienced in design management. If the aim is that the toolkit would be part of public officials' everyday work, then it is also expected to have a higher level of interactivity and group work functionality.

Annexes

1. The survey questionnaire in English
2. The survey questionnaire in Estonian
3. The interview questionnaire for end-users
4. The interview questionnaire for design experts
5. List of experts interviewed
6. The interview report template for end-users
7. The interview report template for design expert