



SOCIETAL ENGAGEMENT  
WITH KEY ENABLING TECHNOLOGIES

## DELIVERABLE 3.1

# First concept and draft layout for the SocKETs toolbox



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<b>AUTHORS</b>	Mette Marie Simonsen (DBT), Eskil Welan (DBT)
<b>REVIEWERS</b>	Lucie Steigleder (ECSITE), Lisa Augustijn (VU), Willemine Willems (VU), Gustavo Gonzales (AIRI), Kathrine Collin Hagan (DBT)
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				shared with coordinator
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## 1. Introduction

What is a toolbox, and especially a digital toolbox? Is a tool a specific process, a method, a philosophical approach, perhaps a little of each? And what is it in relation to societal engagement in the development of key enabling technologies? Who would use such tools, and how do we make sure that the right tools are presented to the right people in the right way in a digital toolbox?

These questions are not easy to answer, and this report will not be trying to. But in order to build the SockETs toolbox, these are questions that need addressing as soon as the data required to answer them has been collected.

As the title says, this report will present the first concept and draft design of the SockETs toolbox. According to Annex A of the Grant Agreement, the toolbox should feature:

- An easy-to-use website
- Resources, tools, methods used by different stakeholders to engage citizens compiled from WP1: Best practices of citizen engagements: Context, culture and sensemaking dimensions & WP2: Testing tools for industry to work with citizens
- A search engine

Furthermore, it states that the toolbox should be based on:

- Requirements and a framework produced in WP1 and recommendations derived from WP2
- Feedback from the participants in the case studies

These features and requirements steer the logic behind the development of the toolbox, but the Annex A of the grant agreement also makes it clear that the development of the toolbox should be: 1) an iterative process, 2) based on co-creation, both with the close involvement of project partners and stakeholders. After all, these approaches to innovation are the DNA of the SockETs project.

When defining the content of the toolbox and designing the digital layout and user interface, we will therefore make sure that no features are set in stone. First of all, we will focus on the requirements of close cooperation with the consortium partners and the stakeholders, especially WP1 & 2 and the participants of the SockETs Labs.

When we present the first concept of the SockETs toolbox in this report, it is presented as the concept of gathering the data needed to answer the questions above and not a series of answers to the questions.

Following this short introduction, chapter 2 will map what has been done, written and talked about relating to the toolbox so far in the project. This includes the conclusions from D1.3 on the framework, a desktop study on other toolboxes and main takeaways from the discussions on the target group and the role of citizens at the recent Consortium Meeting in Bilbao, including thoughts from the SockETs advisory group.

Chapter 3 outlines how we see the process of developing the toolbox from where we are now, taking into account the coming milestones and deliverables as presented in the project handbook. The development process is presented as three distinct phases, running from the turning in of this deliverable until the turning in of D3.3 – SockETs Toolbox in M29, marking the finalization of the toolbox and the achievement of MS6 – Final version of the SockETs toolbox.

In the last chapter, we present a draft storyboard of how a toolbox could be designed. This is purely meant as an example, as none of the features or logic introduced in the draft is set in stone but thought of as inspiration.

## 2. Scope of the SockETs Toolbox

In this chapter, we take stock of the work that has been done so far concerning the toolbox and set the stage for the proposed development process presented in chapter 3.

Overall, this chapter is a discussion on the scope of the toolbox, based on the presented framework in D1.3, a desktop study on other toolboxes out there, feedback from the working group and project partners at online Consortium Meetings (CM) and the recent, physical CM in Bilbao (see Annex 1).

### 2.1. D1.3 on the framework of the project

In the deliverable on the framework of the toolbox, D1.3, it is concluded that there are at least two important discrepancies between our framing of engagement and that of industrial stakeholders:

1. Involving users versus engaging citizens and,
2. The right timing: as late as possible versus early enough to have substantial influence.

In the approach of the SockETs project as presented in this deliverable, the preferred content of the toolbox is seen from a theoretical angle on societal engagement, where the involvement of citizens in development processes is universally meaningful and beneficial. Therefore, the main goal of the toolbox content is to shift the perception of industry/inspire industry towards engaging citizens at large instead of their current focus on perceived users of their products.

Furthermore, the content should not try to fit all situations and needs, but focus on the right content at the right time and place. The toolbox should not try to replace existing user engagement processes, but aim to supplement them with citizens-focused exercises, methods, and procedures.

The deliverable concludes with a recommendation for WP3: To develop the toolbox in several stages, interact with stakeholders in an iterative process, and co-create the toolbox to align with the needs and interests of actors in the innovation ecosystems, including citizens<sup>1</sup>.

### 2.2. How to make a successful toolbox

From our preliminary desk research on other toolboxes, in addition to feedback from the SockETs advisory group, we found two major challenges to generating a toolbox to support industry in performing societal engagement:

- 1) There are already many toolboxes available on topics within or with close relation to co-creation and societal engagement. What can the SockETs toolbox offer?

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<sup>1</sup> D1.3 – A framework for the SockETs toolbox, p. 16

2) The risk of developing something that the users may not need because it is either too complex, simple, not relevant to their specific situation or simply because a toolbox on societal engagement is not something they find relevant or necessary.

These challenges invariably led us to ask ourselves the fundamental question: Why are we building another toolbox? This section reflects a bit more upon the above challenges as they are important to articulate and touch upon before developing the framework and design of a toolbox. These reflections are important to determine clearer definitions of the scope of the SockETs toolbox and define the goal and objective of developing a toolbox that will be put to actual use by the industry.

The purpose of the toolbox is to make a free and available resource that industrial companies will use as a source of inspiration to do more societal engagement. It should enable KETs innovations to be developed in meaningful engagement with citizens and society. It is beneficial to engage citizens because they have the expertise to spot the risks that the industry might be missing. Having more voices around the table is better for the design of innovation. And more legitimacy on the outcomes makes the outcome more trustworthy.

But what is a citizen then?

At the CM in Bilbao (see Annex 1), a common definition of what we think of when we say citizen was defined as opposed to the user of a product. A citizen is defined as someone with a relevant right, interest or desire at stake. A citizen has a relevant contribution to make. He/she/they have knowledge, needs and concerns that can benefit the innovation processes in the KETs industry.

To include these citizens, industry actors need inspiration to how they can design their processes in a way that can accommodate citizens' perspectives directly on the table. The project will build a toolbox to showcase concrete examples of societal engagement in KETs innovation and give inspiration. Toolboxes can be a great way to share and showcase innovative methods and practices. According to the OECD OPSI, who have scanned +400 toolkits in their work to build "The toolkit navigator" the beneficiaries a toolbox can potentially bring include:

1. *"They provide an easy means of identifying other methods that can be applied, and thereby help increase the range of options that people might consider"*
2. *They help provide an introduction (and sometimes much more) to different methods, which can provide a useful entry point for people with little or no experience in them"*
3. *They can give a confidence boost to people (and organisations) trying something different, a reassurance of what steps to take"*
4. *They can act as a validation of a tool or approach – "see, they use it" – that can provide reassurance that this isn't a totally out-there thing."*<sup>2</sup>

These are some of the elements we assume the SockETs toolbox to provide. However, in our initial work, we have been challenged by the SockETs advisory group and stakeholders questioning if

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<sup>2</sup> Have we reached peak-toolkit? Written by Angela Hanson, Innovation Lead on 1 February 2018  
<https://oecd-opsi.org/have-we-reached-peak-toolkit/>

another toolbox is really needed. To face this challenge, we will, throughout the remaining part of the project, explore whether the end-product will benefit from a reframing on the wording 'toolbox' and instead be open to alternative approaches to an online product that can inspire the industry to initiate societal engagement activities. As the development of the SockETs toolbox is part of a co-creation process, we have the possibility to define it as we develop it and use a problem-based approach.

We accept that a lot of toolboxes already exist and that a lot of them are rarely used. The SockETs project is fairly specific as it focuses on societal engagement in developing key enabling technologies. By keeping this focus in mind, we will explore the possibilities of developing a toolbox that could be beneficial to developers of specific key enabling technologies, thus avoiding the trap of trying to make the classic 'one-size-fits-all' solution that ends up fitting none.

### 2.3. A SockETs tool

At the CM in Bilbao (See Annex 1), the consortium also discussed a common understanding of what a tool is. A SockETs tool is the guidance or explanation of an activity that engages citizens and stakeholders to co-create. For example, the use of scenarios is a tool, and different brainstorming methods are tools. But more a complex process such as a SockETs lab can also be a tool, guiding the user of the toolbox through the entire process of setting up their own Lab.

As such, the tools presented in the SockETs toolbox will not necessarily be new ones. In the labs, we take inspiration from tools and methods used in other projects and settings and configure them to the context of the SockETs labs. From the learnings in the labs, the tools will then be evaluated and configured to be best suitable in a context that is relevant for the industry actors using the toolbox.

### 2.4. The target users

A huge part of the work in front of us is to be acutely aware of our target group. One of the main barriers and resistance to using toolboxes is that they are not relevant to the problems the targeted users are facing. As the saying goes, if all you have is a hammer, all problems start to look like nails. In our context, this means that if we try to define the problems of our target group based on our own capabilities and understanding of the world, and design our solutions based on this, we risk producing something that solves a problem as it is perceived by us, instead of as it is perceived by the potential users of the toolbox. A classic example of this is handheld medical equipment being designed to fit the hand of a mid-thirties male, while the end-users are much more often female nurses with smaller hands and increasingly relatives of all ages at home.

To make a toolbox that is relevant for the target users and the problems they are facing, we need to gain a much better understanding of who we identify as our target users: Who are they, what do they do, how do they work, and where? How big are their hands?

If we fail to properly identify our target users, we will invariably end up producing something that we think is a great solution to a lot of problems, but without any certainty that developers of key enabling technologies agree.

### 2.4.1. Who are the target users?

According to the DoA, the toolbox should aim at industry actors such as manufacturers and suppliers of Key Enabling Technologies. Secondly, the toolbox can also be targeted towards procurers (e.g., cities, regions) and other stakeholders (e.g., NGOs, funders, policy, community organization). When making the toolbox, the main priority should be developing a toolbox relevant for the industrial actors, manufacturers, and suppliers. According to the OECD OPSI, who have scanned +400 toolkits in their work to build “The toolkit navigator”, the most valuable toolkits are the ones that have been adapted to the context<sup>3</sup>. Therefore, procurers and other stakeholders will be second priority.

In WP1, the targeted users in the ecosystems were identified. In WP2, some different industry actors are currently being engaged in the SockETs labs. WP3 partners will have a close collaboration with the work in WP2 to get a better understanding of the industry actors in the SockETs labs and thereby adapt the toolbox to their context.

### 2.4.2. Additional questions to explore

#### **Do we understand how our users actually learn?**

We need a better understanding of how our targeted users prefer to learn. What is the ideal delivery vehicle for the industry actors, and how does it fit into their organisation? Some organisations utilize e-learning courses, and others perhaps prefer in-house training, a simple PDF or video material. We should explore how and where a toolbox fits into the organisations’ workflow.

#### **Do we understand their needs and motivations?**

We need to continuously gain a better understanding of the targeted users’ needs and motivations in order to have a problem-oriented approach. The SockETs project has identified that there is a need for more societal engagement in the KETs industry and wants to deliver it in the form of a toolbox, but if the targeted users see an alternative solution to this need or have a completely different need, a reframing of the toolbox could potentially be more valuable.

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<sup>3</sup> Prototyping the Toolkit Navigator, Written by Angela Hanson, Innovation Lead on 30 July 2018  
<https://oecd-opsi.org/prototyping-the-toolkit-navigator/> <https://oecd-opsi.org/prototyping-the-toolkit-navigator/>

### 3. The toolbox development process

In the previous chapter, we argue that the development of the SocketTs toolbox is part of a co-creation process. To be true to this approach, we will have to define both the content and the design of the toolbox as we develop it, using a problem-based approach. The main goal here is to combine the theoretical approach to societal engagement that sees input from citizens as fundamentally beneficial for innovation and development with a practical approach to identify the added value a toolbox on societal engagement could bring to various parts of the industry, e.g., the target groups.

To do this, we will develop the toolbox in three phases, as illustrated below, and described more in detail in the following sections.

M14 – 24	M18 – 25	M25 - 29
<b>First phase</b>	<b>Second phase</b>	<b>Third phase</b>
Involvement of partners, development of content	Involvement of stakeholders, definition of target group	Building the toolbox

#### 3.1. The first phase – definition of content

The overall goal here is to make sure that we are not hammers on the lookout for nails but carpenters for something useful to build. By this, we mean that while our job is to build a toolbox, we need to be ready to fit our solution to the developed content and not the other way around. Therefore, in this first phase, we will focus on the content being developed in the SocketTs lab, saving design and user interface for the second and third phases.

We will use the reflexive evaluation of the labs coordinated by partner 4/VU, as a way to involve the partners in the definition of the toolbox content.

This will be done by partner 1/DBT taking part in the reflexive evaluation meetings coordinated by partner 4/VU and the lab partners, or by having separate meetings with partner 4/VU, in between their meetings with the lab partners.

Monthly meetings with participation by all WP leads will also be planned at least for the duration of the first phase, with an agenda focused on the needed output and content for the toolbox and the living exhibitions from the labs. The SocketTs labs partners will be kept informed on these meetings by partner 3/TEC.

Thirdly the participants of the SocketTs labs will be involved directly, if possible through a separate toolbox session during workshop 3 of the labs, or through a survey conveyed to the participants through the labs. The main goal of this will be to learn more about the target group, by evaluating different forms of content together with them.

This phase concludes no later than M24, giving us time to sufficiently absorb the findings of the final case report on the labs, D2.2 due M22.

## 3.2. The second phase – definition of learning goals, storyboards and target group

The overall goal here is to make sure that we know how our audience actually learns. Like any form of learning, we need a good understanding of how and why our audience learns and make sure our proposed learning is compatible with this. In this way, we aim to “relieve the pains” of our target group. “Relieving pain” is an expression developed in the dialogue with the SockETs advisory group, as they advised the consortium to use the toolbox to offer help in industry partners’ challenges of complying with various rules and expectations.

The second phase will start around M18, following the development of D2.2 closely, and will conclude with the multi-stakeholder workshop to be held no later than M25.

Leading up to the stakeholder workshop, partner 1/DBT assisted by partner 3/TEC will be drafting a set of learning goals based on the defined learning gap identified through feedback and output from the SockETs labs. By learning gap, we mean the difference between an industry stakeholder who only engages with users and a stakeholder who engages with both citizens and users. The learning goals will be aimed at how to close this learning gap.

Furthermore, a selection of storyboards will be drawn up, like the example provided in chapter 4, showing different user interfaces and formats of an interactive toolbox.

The gathered content from the first phase and the draft learning goals and storyboards will form the detailed draft of the concept and layout of the toolbox, T3.1.3 led by partner 1/DBT, achieving MS5 – draft of the concept and layout of the SockETs toolbox.

As mentioned, the second phase concludes with the multi-stakeholder workshop, T3.2.3, arranged by partner 1/DBT along with partner 5/AIRI. The report from the workshop, D3.2, will be delivered by partner 1/DBT in M25. At this workshop, stakeholders not involved in the SockETs labs along with other communities of interest outside the consortium such as RRI, CSR, consumer representatives, gender equality networks, networks of manufacturers, researchers, industry, risk governance framework, project and initiatives will provide feedback on the detailed draft of the concept and layout of the toolbox. The workshop could ideally be held in conjunction with a CM, securing active participation from the project partners as well.

## 3.3. The third phase – building the toolbox

The toolbox will be built in the third and final phase. This includes T3.1.1 led by partner 3/TEC, in which the digital layout of the toolbox is built and integrated into the webpage or chosen platform, based on the detailed draft produced in phase two.

The phase will start immediately following the completion of D3.2, and will conclude with the final version of the toolbox being presented in M29, achieving MS6, in the form of an interactive digital toolbox and a report describing the features of the toolbox, D3.3 delivered by partner 1/DBT.

## 4. Storyboard (draft design / layout)

The development of the toolbox will be an iterative process based on co-creation. That is why this report has focused on defining the development process, rather than on what the final toolbox will contain or how it will look.

But as the report's title includes "draft layout", the following is an example of how one of the storyboards drawn in phase two could look like, along with the logic behind the frames of the storyboard.

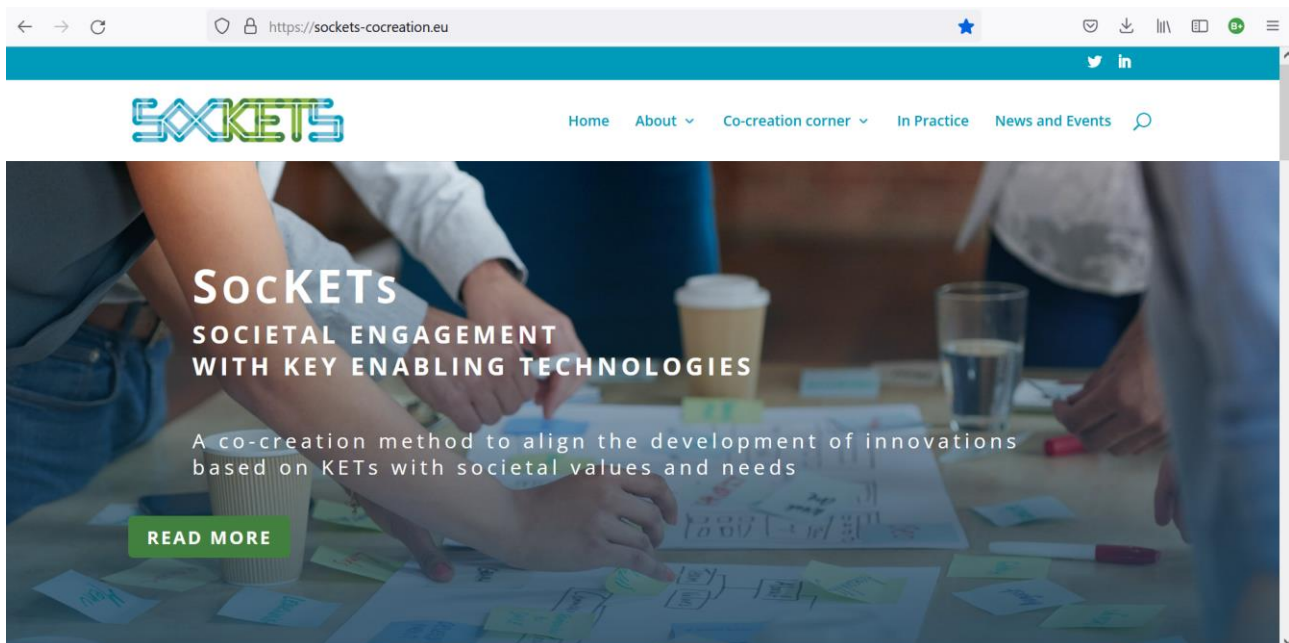
This is at this stage not defining how the final toolbox will look or work, and the crude layout in frame 3 is only meant as an illustration of the logic, not as a concrete example of how the final layout could look. The storyboards developed during phase two will be drawn using the SockETs graphical colours and layout.

### 4.1. The SockETs Toolbox as an interactive playground

In this example, the SockETs Toolbox is not presented as a "traditional" toolbox where the user starts with an overview of all of the content and then dives into the parts of special interest. Instead, it is presented as an interactive playground that the user can fill with relevant content.

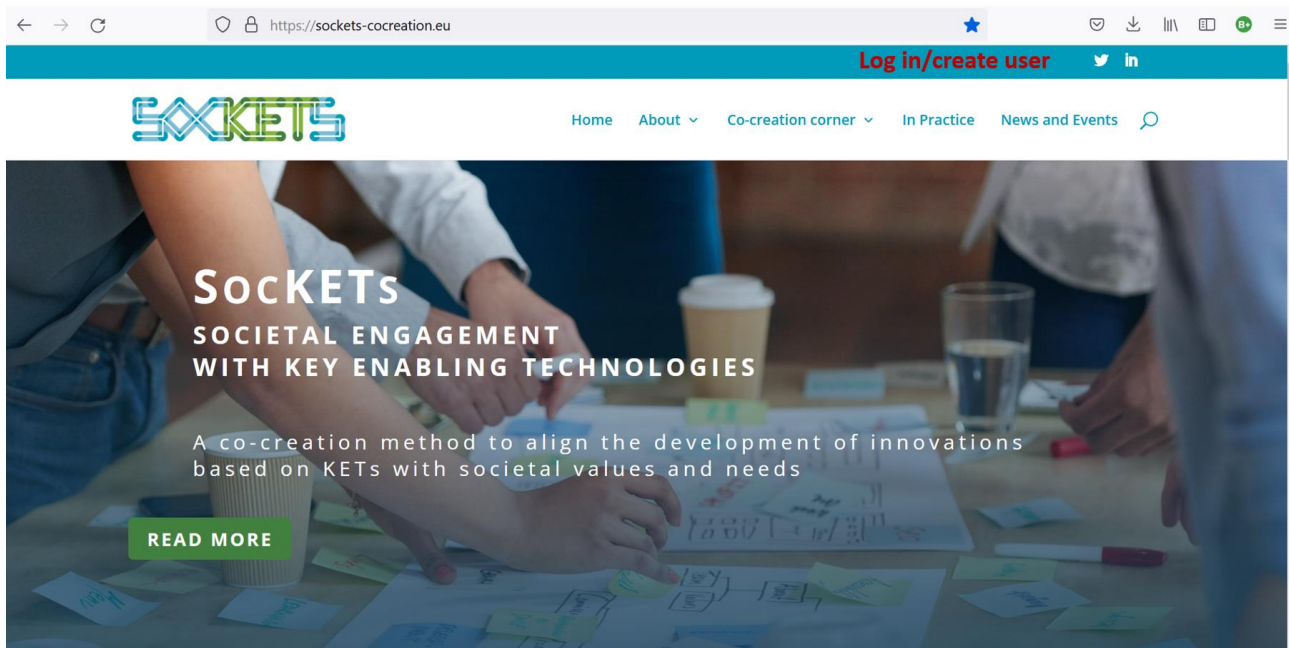
The main logic is to build on the existing SockETs webpage, in which a lot of information and inspiration on societal engagement can already be found, and in which content on the SockETs labs will be added as the labs' progress. What the user needs is in this example provided by giving them the option to create or add their own projects and fill them with content from the Sockets webpage.

#### Frame 1: The landing page of the SockETs webpage as it looks like now



The webpage will stay the same, with further content added as planned when the project progress. As such, the visitor will be able to browse toolboxes and best practices from other projects in the "co-creation corner" menu, follow the progress of the Sockets labs in the "in Practice" part of the menu and keep updated on "News and Events".

## Frame 2: The landing page of the SockETs webpage with added login to toolbox

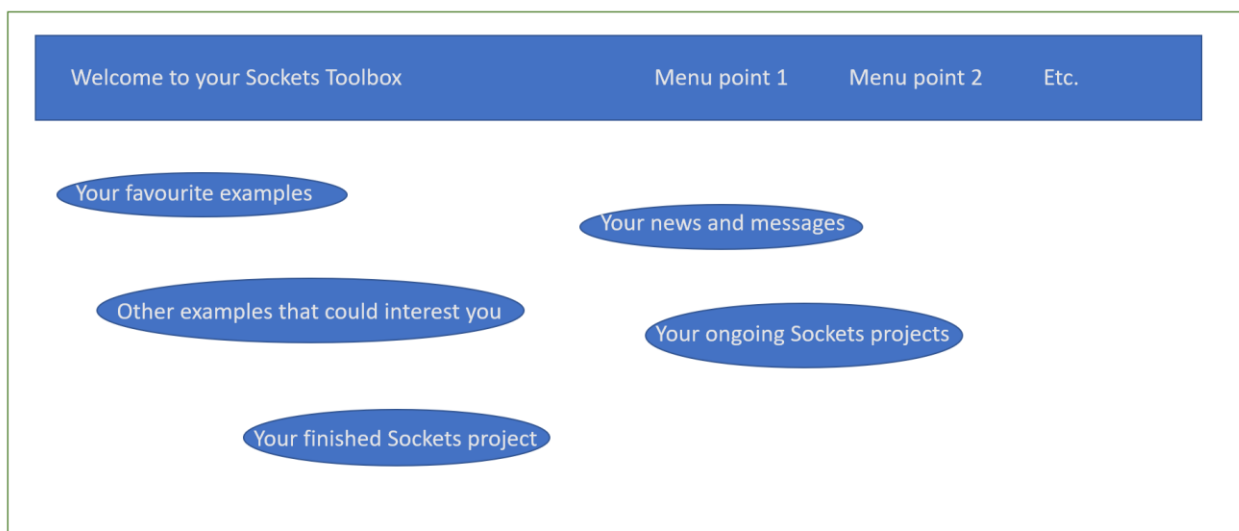


Here, the Sockets Toolbox will be accessible by clicking a menu point in the upper right corner of the screen (marked in red), separated from the existing menu points.

Technically this will be done by adding a plug-in to the existing webpage created in WordPress. This is fairly easy to do, requiring little if no coding, and when done, needs no updating depending on the plug-in.

By clicking the menu point, the user will be taken to a “create user” page or directly to the toolbox if a user is already in place.

## Frame 3: Sketch of a personalised SockETs Toolbox



Using a so-called LMS (Learning Management System) as the added plug-in, we allow the web page to store and remember each unique user. This allows the users to personalise the content of the toolbox page to fit their needs and possibly enable a user to copy content from the SockETs webpage to their personal toolbox.

In the above example, the user can see what content they have marked as favourite, can access a separate page where their ongoing projects are displayed as well as a page with their finished projects, and it also suggests other examples to serve as alternatives to the ones they already marked as a favourite. When the user logs off and on again, they will be able to continue where they left off.

A possible downside of using an LMS like this is that you need to create a user and log in with that user to access it. And no matter how intuitive it is, you need to set some time off to get familiar with it before you can start using it.

This all comes down to the target group's preferences, as discussed in chapter two, and several storyboards like the one presented here will be produced and tested during the second phase of the toolbox development.

A storyboard like the one presented here often creates more questions than answers regarding the layout and user interface, but it serves as a common starting point to base coming deliberations on the design of the toolbox.

## 5. Concluding remarks

With this report, we kickstart the development of the SockETs toolbox by having described an iterative, problem-based process in three phases. In a project with co-creation as a huge part of its DNA, this process will naturally have a focus on co-creation of the content, layout and user interface of the toolbox through close interaction with the project partners, stakeholders invited to various activities in the project, and end-users as we identify them. This approach stays true to the work that has already been done in the project, as outlined in the report.

We consider the report a living document, as adjustments to the development phases could very well be necessary. This depends on the progress of the labs, the concrete nature of the content being developed in the labs, and the continuous feedback from industry stakeholders, project partners and our advisory group.

The handing in of this deliverable marks the start of the first phase, with WP3 taking an active role in the reflexive evaluation of the ongoing SockETs labs.



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