

Interreg BSR OSIRIS

PROJECT PERIOD 4

GA 3.3 Realising an Open Innovation Toolkit

REPORT

GA 3.3 Leader: **VIA University College**
DENMARK



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DEVELOPMENT
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1. INTRODUCTION

Objectives

The main output of GA 3.3 is the Open innovation toolkit. It is composed of a set of tools and services that are used for supporting co-creation and co-evolution of project regions. The toolkit will support each region to grow a stronger innovation ecosystem, by connecting to transnational networks and to innovation systems. The toolkit covers the whole open innovation journey from setting a strategy for collaboration to implementing mutually beneficial business models or policy models (RIS3). It supports the case for open innovation and shows how to co-create or crowd-source relevant ideas, prototype the best ones and construct strong partnerships. The open innovation toolkit will help organizations and regions to involve the quadruple helix innovation actors and end-users in developing news ideas to everyone's satisfaction.

2. WORK PLAN

GA 3.3 set out to create a collection of tools and methodologies relevant to quadruple helix actors, through methods of co-creation, transnational and joint working groups. To succeed, the activity leaders created five initial milestones to be accomplished, and produced a working plan for their sequential completion. These initial milestones where:

- Milestone 1: Locating and distributing relevant articles on innovation tools and methodologies. Assessing tools and methodologies by local experts. (Completed April 3rd, 2020)
- Milestone 2: Review of literature by local experts. (Completed May 1st, 2020)
- Milestone 3: Pooling of best reviewed tools and methodologies for presentation at camp. (Completed May 29th, 2020)
- Milestone 4: Reviewing knowledge from the first open innovation camp, and creating recommendations. (Completed Summer, 2020)
- Milestone 5: Completing the list of reviewed and recommended tools and methodologies for description, dissemination and final validation. (Completed November 10th, 2020)

The completion of milestone 3, 4 and 5 were followed by three innovation camps, with the purpose of disseminating and further developing the knowledge for the toolkit. Originally, these camps were to be held in Tallinn, Klaipėda and Aarhus but due to the Covid-19 virus, the camps were all altered to virtual innovation camps instead. Further elaboration on the content of each camp, will be presented in the following. After the final camp, the activity leader completed the draft for the Open innovation Toolkit, including a proposal for visual and digital representation, to be decided in GA 6.1.

The purpose of the Open Innovation Toolkit is to serve quadruple helix cooperation at both a regional- and transnational level. Tools and methodologies were selected on the basis of their applicability in open processes of innovation in order to facilitate the smooth flow of ideas inside and outside of organizations, and in our case inside & outside of the regions. In an open innovation process, an organization can gain advantages from both the exploration of external resources and the exploitation of internal resources (including knowledge).

The selection of tools was based on a scoping review produced by the activity leader. The findings of the review were made available to the other partners of the project, and the process of selection were divided among the activity participants. In the following, the methodology for each milestone will be explained, and in conclusion the toolkit will be presented, including the premises for finalization and validation

3. RESULTS – The Open Innovation Toolkit

Proposed toolkit

In the following, each overall part of the toolkit will be described, followed by a depiction of the toolkit in its entirety, to be made available (in a visually altered form) on the website.

The collection of tools, that make up the primary part of the open innovation toolkit, is based on a matrix produced with inspiration from the IMPACT tool, by the activity leader (PP11) and LP. The matrix provides four categories/phases and four overall actors within a quadruple helix perspective. The four stakeholder groups were discerned and further four categories or phases of innovation are used as metrics for the placement of tools or methodologies, additionally based on relevance. Each tool is further elaborated in its own section, where the description from the responsible partner is viewable. Other than the mentioning of specific tools and methodologies, categories for assessment is also evident.

The categories are: *Survey tools, Community Feedback tools, Voice of the Customer Tools, Online Review Tools, User Testing Tools and Visual Feedback Tools*. The categories are further elaborated based on *Type, Ease of use for customer, ease of administration, customization, native language, advantages, disadvantages, most relevant to actors and purpose*. Each category further elaborates on up to seven different tools, based on *product details, best for, contact details, pricing overview, starting price, free demo, deployment and features*. These assessment categories can be viewed in the toolkit below, a further in-depth document on assessment tools, is available.

All visual representations are merely placeholders, and will be finalized together with the digital hub, in order to obtain a streamlined visual expression. It is the recommendation of the working group, that the toolkit is produced as an interactive kit, where the matrix is the basis for selection and presentation of the tools. A presentation file can be provided for further dissemination and exemplification of how the toolkit should be reproduced, per request.

The abovementioned perspectives make up the integral parts of the toolkit, the following is a presentation of the entire toolkit.

Gør tanke til handling
VIA University College



Toolkit for an open innovation ecosystem

- A preliminary, digital prototype

*all placements of tools and categories are provisional

*all visual representations are provisional and should be altered in the final digital hub

* This is mainly a visual representation; all descriptions are available in the "collection" of materials from GA.33"-file



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Purpose of the tool/methodology:				
	Discovering & Ideating	Designing & Prototyping	Assessing & Going to market	Scaling up & Networking
Business 	Design Thinking House of Quality Ecosystem Pie Model Survey tools Community Feedback tools	Design Thinking House of Quality Ecosystem Pie Model Survey tools Community Feedback tools Voice of the Customer Tools	House of Quality Alcotra Harmonization Cube Ecosystem Pie Model Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools	Ecosystem Pie Model Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools
Academia 	Design Thinking Ecosystem Pie Model Survey tools Community Feedback tools	Design Thinking Survey tools Community Feedback tools Voice of the Customer Tools	Alcotra Harmonization Cube Ecosystem Pie Model Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools	Ecosystem Pie Model Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools
Policy makers 	Design Thinking Survey tools Community Feedback tools	Design Thinking Survey tools Community Feedback tools Voice of the Customer Tools	Alcotra Harmonization Cube House of Quality Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools	Ecosystem Pie Model Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools
Civil society 	Design Thinking Survey tools Community Feedback tools	Design Thinking Survey tools Community Feedback tools Voice of the Customer Tools	Alcotra Harmonization Cube Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools	Ecosystem Pie Model Survey tools Community Feedback tools Voice of the Customer Tools Online Review Tools User Testing Tools Visual Feedback Tools



Design Thinking

	Relevance of the tool/methodology (Task and actor)			
	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business	X	X		
Academia	X	X		
Policy makers	X	X		
Civil society	X	X		

Description of the tool/methodology

Design thinking (DT) is a management tool and could be described as a non-linear way of thinking about solving problems, e.g. to improve the well-being of seniors and create better environment for living, a tool for simplifying and humanizing and also as a process. DT is a fluid, research and data-driven approach to identifying a problem, the people it affects, exploring solutions with users, and continually improving the solution with the end users. DT as a mindset can be applied to find a solution for a real need. DT is the most useful to tackle problems that are ill-defined or unknown. It helps to frame a problem so that one can innovate faster using systematic methods. There are dozens of DT methods available for applying DT in practice. The DT tool is especially relevant to the following tasks: Better understanding users and their unmet needs, challenging assumptions, redefining problems, creating innovative solutions to prototype, testing and delivering to the user, reducing the risk associated with launching new ideas, products and services, generating solutions that are revolutionary, not just incremental, learning and iterating faster, etc.

Prospective uses

DT is especially relevant when companies doing market research related to better understanding users and their unmet needs, to adopt value delivery channels, to improve customer relationships, to update value propositions, etc.

DT could be applied by policy makers themselves to make better decision to encourage Silver economy development, to foster application of design thinking driven solutions in its broader sense educational offer to seniors to improve, e.g. digital literacy thus allowing to deliver targeted solutions, etc.

DT could be applied by seniors organizations to improve their services to seniors, as well to initiate ideas to business for delivering solutions to better meet senior's needs.

DT could be applied by HEIs to deliver Life long programs targeting seniors and providing necessary training on DT application for QH actors.

References and links to tool

Arnold, J.E. (2016) [1959]. *Creative Engineering: Promoting Innovation by Thinking Differently*. Stanford Digital Repository.

Kumar, V. (2013). *DT Design Methods: A structured approach for driving innovation in your organization*, Wiley.

<http://designthinking-toolkit.com/blocks/#main>



Ecosystem Pie Model

Relevance of the tool/methodology (Task and actor):				
	Discovering & Ideating	Design/Prototyping	Assessment	Scaling up & Networking
Business	X	X	X	X
Academia	X	X	X	X
Policy makers	X			X
Civil society	X			X

Description of the tool/methodology

The Ecosystem Pie Model (EPM) is a tool for supporting businesses (or other actors) in: Mapping, Analyzing and Designing innovation ecosystems. The tool is designed for increasing actor collaboration as well as making relevant actors within each innovation ecosystems visible to others.

The tool is used for mapping both current and potential ecosystems. In case of the latter, one would actually be involved in designing an ecosystem through the composition of actor constellations and relationships, that do not yet exist. Our stakeholders could make use of the tool when exploring new markets, analyzing current ones, or in the initial parts of development or discovery.

The tools weigh risks in relation to actor-involvement and value capture. The tool therefore provides an easy to use basis for the creation of an overview, wherein each actor is evaluated in relation to a specific value proposition.



Prospective uses

The tool is especially relevant when exploring new markets or new ventures or value propositions, where network-exploration is needed. The tool is highly relevant as an initiation tool, to be used for mapping pertinent parts of an ecosystem to an actor's production of (a/an) product/idea/need/knowledge etc. The tool could also be put to use in a collaborative scenario, wherein different actors come together in order to ascertain certain common interfaces/points of contact/intertwined production.

The tool can be used both digitally or analogously using post-its to fill in constructs

Link to tool: <https://ecosystempie.com/>

References:

Talmar, M. Walrave, B. Podoymitsyna, K. S. Holmström, J. Romme, A. G. L. (2020). *Mapping, analyzing and designing innovation ecosystems: The Ecosystem Pie Model*. Long Range Planning. International Journal of Strategic Management. Elsevier

Ecosystem Pie Model. *Methodological Guidelines for the qualitative modeling of innovation ecosystems*. Appendix to: Talmar et. al. 2020

Adner, R. (2017). *Ecosystem as structure. An actionable construct for strategy*. Journal of Management, 43(1), 39-58.



House of Quality

Relevance of the tool/methodology (Task and actor):				
	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business	X	X	X	
Academia			X	
Policy makers			X	
Civil society				

Description of the tool/methodology

The House of Quality tool is used for product or service development. The tool includes participatory design thinking, including customer desires in development of products or services. There are many dimensions to what a consumer and a developer mean by quality, and the House of Quality tool seeks to meet this challenge.

When using the House of Quality tool, the developers describe the needs of the customers and rate their desires from 1-5 (5 being the highest desire). The developers hereby get an overview of the customer's needs and are able to take this into account in the different stages of development. The developers also describe the functional/technical requirements and benchmark these in conjunction with the customers desires. This process provides the developers with the ability to prioritize steps of execution. The tool makes it possible to benchmark with other existing products on the market due to the specifications of the product/service. The visual "roof" of the house, describes the interaction between the specifications of the products. Some specifications can potentially conflict with each other and others can reinforce – this is shown as negative or positive correlations in the tool.

Prospective uses

The tool can be used in different stages of the development process: In the ideation stage, the design stage and/or when the product/service are going to the market.

To understand customer desires and priorities due to product/service development

To make an overview about priorities in the development of the product or service

To benchmark the product with other existing products or services

To display potential conflicts between product/service specifications

To allocate resources – define which resources are needed to develop the product

References and links to tool

House of Quality template can be downloaded for free as Excel file: <https://www.ieee.li/tmc/traditionalhoq.xls>

References

Çubukcu, A., Gümiş, B. (2015). *Systematic Design of an Open Innovation Tool*. Social and Behavioral Sciences

Prasad, B. (1996). Concurrent Function Deployment—An Emerging Alternative to QFD: Conceptual Framework. In *Advances in Concurrent Engineering: Proceedings of CE96 Conference*, Technomic Publishing Company, USA (pp. 105-112).



Harmonization Cube

Relevance of the tool/methodology (Task and actor):				
	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business			X	
Academia			X	
Policy makers			X	
Civil society			X	

Description of the tool/methodology

Alcotra's Harmonization Cube best practice criteria focus on how living labs function, and what their outcome are in terms of innovation. The six sides of the cube corresponds with key aspects: User involvement, Service Creation, Governance, Innovation Outcomes, Infrastructure and methods and tools. The three rows of the cube refer to the three development phases of a living lab: Set up, Sustainability and Availability. Finally, the three columns reflect three common aspects of a living lab: The organizational, The technological and the Contextual issues of a living lab.

It can be used as a self-assessment tool, which is aimed at helping Living Labs identify their development needs. This tool can assist Smart Labs to improve their testing activities and ensure that they deliver the best quality of services to companies within the field of innovation.

It is a practical tool for visual representation when used with spider diagrams, of existing strengths and the ones that need to be developed. It can help standardize the actions of the Lab in all stages of an innovation process.

Prospective uses

The original intent of the harmonization cube was to measure the compliance to best practices for projects and products in the Living Labs.

The Harmonization Cube is especially relevant when conducting a self-assessment to see whether an organization is following best practices related to all the aspects of good product or service creation. Adding spider web diagram usage, enhances this process because it allows the stakeholders to see the results in a clear visual representation.

References and links to tool



SOSI-tool

Relevance of the tool/methodology (Task and actor):				
	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business	X	X	X	X
Academia				
Policy makers				
Civil society				

Description of the tool/methodology

The SOSI Tool is a practical guide for managers to understand in which component of a business model to unleash sustainability-oriented service innovation and how pursuing it through changing macro and micro components of the business model. By employing this tool, companies can identify several SOSI opportunities, serve new markets and new customer segments and gain a competitive advantage. By leveraging opportunities highlighted through SOSI, new technological, organizational and social innovations can be implemented and new business models oriented to sustainability can be designed. SOSI tool is based on an Engineering Design Process (EDP), i.e. a detailed (Ertas and Jones, 1996) or simplified (Dym et al., 2014) procedure for creating innovative solutions to different problems or needs. It combines Sustainability-Oriented Service Innovation concept (SOSI) with dimensions of Business Model Canvas (BMC).

Prospective uses

SOSI can be generated through designing new service offers, establishing a new type of interactions with customers, setting new delivery systems, while taking holistically into account the environmental, social, and economic business dimensions. Particularly, companies in order to generate SOSI can: design new service value propositions, serve new customer segments, build new kind of customer relationships, adopt new channels for service deliver, use new resources, perform new organizational activities, establish new partnerships, reduce externalities and/or improve benefits for the whole of society.

References and links to tool

Calabrese, A. Forte, G. Ghiron, N.L. (2018) *Fostering Sustainability-Oriented Service Innovation (SOSI) through business model renewal: the SOSI Tool*. Journal of Cleaner Production. 201.



Survey tools

Relevance of the tool/methodology (Task and actor)

	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business	✗	✗	✗	✗
Academia	✗	✗	✗	✗
Policy makers	✗	✗	✗	✗
Civil society	✗	✗	✗	✗

An alternative way of collecting customer feedback is via traditional survey tools. Often in the form of a feedback button or email invite, these tools have become quite popular since the emergence of website feedback. Some of these tools are focused on particular niches whereas others have in on user experience. In the past, these customer feedback tools were well-known for their tendency to include a long list of questions, however nowadays, they are becoming shorter and shorter – which certainly makes them less of a hassle for respondents. There are simple solutions for creating surveys questionnaires. These tools usually can be easy (in most cases) integrated into online systems. And they are very flexible. Customers data is stored "somewhere". If you use these solutions, then you let sent customers data thru tool owners' servers. Starting price of these tools is very small, but the main expenses is using tool's service for surveys – for example for making survey of some region or some type of responders. Also, price grows if you want to some analysis of the answers.

Category	Type	Ease of use for customer	Ease of administration	Customization, native language	Advantages	Drawbacks	Most relevant to actors	Purpose
Voice of the Customer Tools	Customer Experience Management (CEM) Platform	Easy	Complicated	Small	Powerful, universal	Complex, heavy custom 3dM	Business, Academia, Policy makers	Design/prototyping, Assessment (example), Networking



Community feedback tools

Relevance of the tool/methodology (Task and actor)

	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business	✗	✗	✗	✗
Academia	✗	✗	✗	✗
Policy makers	✗	✗	✗	✗
Civil society	✗	✗	✗	✗

Also referred to as feedback forums, community feedback is a type of customer feedback tool that is collected via your website or mobile app and published either in your community or on a public forum. Visitors are usually able to comment on feedback that has been published which often turn into discussions. They can also provide suggestions or notify you of problems they're experiencing on your website. Thanks to their transparency and social effect, these tools have become quite popular. From one side these tools are forums and social networks bots – with all good and bad consequences of their use. From other side – there are tools that let business to track customers opinion from written form (forums, mails, sms, social networks) – as a part of voice of customers tools.

Category	Type	Ease of use for customer	Ease of administration	Customization, native language	Advantages	Drawbacks	Most relevant to actors	Purpose
Community Feedback tool	Tools for integration with Forums, social networks, etc.	Medium	Complicated	Medium	Can be used for quick feedback results on forums or social networks and distributed among actors	The functionality of the tool is limited by the rules of social network and forums	Business, Academia, Policy makers, Civil society	Discovering & Ideating, Design/prototyping, Assessment (example), Networking

Example	Product Details	Best For	Contact Details	Pricing Overview	Starting Price	Free Demo	Deployment Features
Feedback Hero	Supports large and small projects and allows users to provide and easy-to-use online survey tool. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.feedbackhero.com/	Feedback Hero pricing starts at \$200 per month per user.	Feedback Hero pricing starts at \$200 per month per user.	Feedback Hero pricing starts at \$200 per month per user.	Feedback Hero pricing starts at \$200 per month per user.
SurveyMonkey	SurveyMonkey is a leading provider of online surveys and analytics. It offers a wide range of survey types, including polls, quizzes, and more. SurveyMonkey also offers a variety of integrations with other tools and services.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.surveymonkey.com/	SurveyMonkey pricing starts at \$100 per month per user.	SurveyMonkey pricing starts at \$100 per month per user.	SurveyMonkey pricing starts at \$100 per month per user.	SurveyMonkey pricing starts at \$100 per month per user.
SurveyLab	SurveyLab is a professional online survey tool that offers a wide range of survey types, including polls, quizzes, and more. SurveyLab also offers a variety of integrations with other tools and services.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.surveylab.com/	SurveyLab pricing starts at \$200 per month per user.	SurveyLab pricing starts at \$200 per month per user.	SurveyLab pricing starts at \$200 per month per user.	SurveyLab pricing starts at \$200 per month per user.
Feedback	Feedback is a professional online survey tool that offers a wide range of survey types, including polls, quizzes, and more. Feedback also offers a variety of integrations with other tools and services.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.feedback.com/	Feedback pricing starts at \$200 per month per user.	Feedback pricing starts at \$200 per month per user.	Feedback pricing starts at \$200 per month per user.	Feedback pricing starts at \$200 per month per user.

Example	Product Details	Best For	Contact Details	Pricing Overview	Starting Price	Free Demo	Deployment Features
Feedback Hero	Supports large and small projects and allows users to provide and easy-to-use online survey tool. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.feedbackhero.com/	Feedback Hero pricing starts at \$200 per month per user.	Feedback Hero pricing starts at \$200 per month per user.	Feedback Hero pricing starts at \$200 per month per user.	Feedback Hero pricing starts at \$200 per month per user.
SurveyMonkey	SurveyMonkey is a leading provider of online surveys and analytics. It offers a wide range of survey types, including polls, quizzes, and more. SurveyMonkey also offers a variety of integrations with other tools and services.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.surveymonkey.com/	SurveyMonkey pricing starts at \$100 per month per user.	SurveyMonkey pricing starts at \$100 per month per user.	SurveyMonkey pricing starts at \$100 per month per user.	SurveyMonkey pricing starts at \$100 per month per user.
SurveyLab	SurveyLab is a professional online survey tool that offers a wide range of survey types, including polls, quizzes, and more. SurveyLab also offers a variety of integrations with other tools and services.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.surveylab.com/	SurveyLab pricing starts at \$200 per month per user.	SurveyLab pricing starts at \$200 per month per user.	SurveyLab pricing starts at \$200 per month per user.	SurveyLab pricing starts at \$200 per month per user.
Feedback	Feedback is a professional online survey tool that offers a wide range of survey types, including polls, quizzes, and more. Feedback also offers a variety of integrations with other tools and services.	Online feedback, customer feedback, and website analytics. Includes online engagement tools, analytics, and reports for growing teams. Also has a built-in feedback dashboard. Feedback Hero can also integrate your website with social media and other digital marketing tools.	https://www.feedback.com/	Feedback pricing starts at \$200 per month per user.	Feedback pricing starts at \$200 per month per user.	Feedback pricing starts at \$200 per month per user.	Feedback pricing starts at \$200 per month per user.



User testing tools

Relevance of the tool/methodology (Task and actor)

	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business			X	X
Academia			X	X
Policy makers			X	X
Civil society			X	X

User Testing Tools involve all aspects of user interaction – whether that is with your company, products and/or services. For many businesses, supplying a good user experience is only achievable by making use of user testing tools. These kinds of customer feedback tools do a good job of measuring these interactions for the user. However, these insights are limited to the amount of pageviews users are allotted and they also often lack in the analysis and action management area. This kind of tools can be used for tracking the finished or almost finished product – like portal, innovations catalogue, etc. These tools let to track mouse clicking, mouse-over, scrolling and other webpage-based product customer feedback. These tools depend on platform of webpage-based product.

Category	Type	Ease of use for customer	Ease of administration	Customization, native language	Advantages	Disadvantages	Most relevant to actors	Purpose
User Testing Tools	The measure of users' interactions with	Easy	Medium	Small (no more than 1000 users)	Products or services can be checked online (where users have mostly what types of activity they do on webpage).	The tools designed mostly for webpages and can be used only on finished or almost finished web-based product (portal, online, etc.) User Tracking	Business Policy makers	Assessment (evaluation) Networking



Visual feedback tools

Relevance of the tool/methodology (Task and actor)

	Discovering & Ideating	Design/Prototyping	Assessing & Going to market	Scaling up & Networking
Business			X	X
Academia			X	X
Policy makers			X	X
Civil society			X	X

Looking to capture user input on particular webpage elements? Then perhaps a visual feedback tool is something you should consider. These customer feedback tools work in many ways. Some provide the option submit a screenshot while others involve virtual sticky notes that highlight certain elements on the page such as text, images or buttons. While these provide a lot of support in terms of design, they are somewhat basic in terms of extracting deep customer experience insights. This kind of tools also can be used for tracking the finished or almost finished product.

Category	Type	Ease of use for customer	Ease of administration	Customization, native language	Advantages	Disadvantages	Most relevant to actors	Purpose
Visual Feedback Tools	Tools for capture user input on particular webpage elements	Medium	Medium	High	Designed for web-based products testing and feedback. Also can be used for web-based services feedback	Relatively narrow field of application mostly for testing the final product (or presentation of product)	Business Policy makers	Assessment (evaluation) Networking

Examples	Product Details	Best For	Contact Details	Pricing Overview	Starting Price	Free Demo	Deployment	Features
Mouseflow	Mouseflow is a behavior analytics platform used to optimize website experiences towards improving conversions. With Mouseflow, you can find answers that traditional analytics tools can't by allowing you to watch your website visitors' sessions, build hypotheses of heatmaps for all your pages automatically, set up funnels to watch where and why your visitors drop, use form analytics to improve your lead generation, and launch feedback campaigns to learn more about your visitors.	Mouseflow is perfect for UX professionals, Product Managers, Digital Marketers, startups, small businesses, and enterprises that are looking to improve their website experiences and conversions.	https://mouseflow.com/	Mouseflow pricing starts at \$29.95 per month	\$29.95/month Free trial available Free demo available	There is a free version (weekly updates) or a paid version (monthly updates)	Web-based, Cloud-based	See Website, Analytics, Heatmaps, Form Analytics, Feedback, Surveys, etc.
CrazyEgg	Heatmaps, User Recordings & A/B Testing 300,000 Customers. Heatmaps show you how customers scroll, click, engage and experience your website or application. They help you understand specific customer segments & use cases. User Recordings help you follow individual user journeys through your website or application. You can organize Recordings into playlists to quickly identify patterns. A/B Testing and Fitting helps you translate what you've learned into experiments to improve UX.	Designed for marketing and product teams, a web analytics solution that offers heatmaps, context snapshots, user recordings, A/B test results, engagement analysis, and more.	https://crazyegg.com/	CrazyEgg pricing starts at \$24.95 per month	\$24.95/month Free trial available Free demo available	There is a free version (weekly updates) or a paid version (monthly updates)	Web-based, Cloud-based	See Website, Analytics, Heatmaps, Form Analytics, Feedback, Surveys, etc.
FullStory	FullStory's digital experience platform empowers businesses to continuously improve the customer experience across all touchpoints. At the core of FullStory's platform is a powerful analytics engine that connects digital interactions to the insights that matter most to businesses. FullStory proactively surfaces top opportunities to optimize digital experience, making teams to understand issues, prioritize fixes, resolve bugs, and measure the impact of those changes.	FullStory's target markets range from product teams to engineering, customer experience, and more. FullStory empowers everyone in an organization to help build the best online experience.	https://fullstory.com/	FullStory pricing starts at \$24.95 per month	\$24.95/month Free trial available Free demo available	There is a free version (weekly updates) or a paid version (monthly updates)	Web-based, Cloud-based	See Website, Analytics, Heatmaps, Form Analytics, Feedback, Surveys, etc.

Examples	Product Details	Best For	Contact Details	Pricing Overview	Starting Price	Free Demo	Deployment	Features
DeBugMe	DeBugMe came into life because of the passion of effectiveness and productivity. DeBugMe developed for web developers and designers who spend too much time on solving bugs and tired of the endless e-mail conversations with the clients. The mission is to help focusing on what they do the best and make the communication with the clients shorter and more effective.	DeBugMe is perfect for UX professionals, Product Managers, Digital Marketers, startups, small businesses, and enterprises that are looking to improve their website experiences and conversions.	https://debugme.io/	DeBugMe pricing starts at \$14.95 per month	\$14.95/month Free trial available Free demo available	There is a free version (weekly updates) or a paid version (monthly updates)	Web-based, Cloud-based	See Website, Analytics, Heatmaps, Form Analytics, Feedback, Surveys, etc.
UserReport	UserReport helps you to easily identify your users and track their satisfaction while they are visiting your website.	SaaS, media news, brands, e-commerce, organisations, gaming platform, social networks.	https://userreport.io/	UserReport pricing starts at \$14.95 per month	\$14.95/month Free trial available Free demo available	There is a free version (weekly updates) or a paid version (monthly updates)	Web-based, Cloud-based	See Website, Analytics, Heatmaps, Form Analytics, Feedback, Surveys, etc.

4. CONCLUSION

GA 3.3. was conducted to realize a set of tools and services to be used by quadruple helix actors throughout the project regions. In collaboration, partners have created a toolkit based on open innovation, that can support co-creation and co-evolution across transnational regions. The toolkit will help organizations and regions when involving quadruple helix innovation actors and end-users in developing new ideas and supporting businesses and policy makers. It is furthermore a set of tools, that can be used actively by the coming Smart Silver Labs in their support of development and innovation regionally and transnationally. The toolkit was validated in the following ways.

Validation

The toolkit underwent internal validation and will undergo general validation when implemented in the digital hub, after finalization.

The internal validation process included the feedback given by the joint expert group at the third innovation camp, where the partners initially discussed their thoughts in breakout rooms, to obtain multidisciplinary feedback on both the toolkits visual presentation and technical make-up. I.e. *were the categories fitting and was it easy to navigate*. At this innovation camp, a few of the premises for the toolkit were found lacking, and a new version was produced by the activity leader (PP11).

The final version was validated in a second round of feedback, at a virtual meeting on the 9th of December. At the meeting, a select group of experts from the joint working group, gave feedback on the edited toolkit prototype. It was agreed that the toolkit could be finalized, and that specific, textual content would afterwards be altered by the responsible experts, to be ready for publishing on the digital hub. The open innovation toolkit was consequently deemed appropriately developed for stages of operationalization, primarily located in GA 6.1. The final prototype is mainly a visual representation, and all illustrations are provisional, to be altered when implemented in the hub, to fit the design of the final digital hub.