

Report on the development of the BRIGAIID Market Analysis Framework (MAF+) – Final update

Grant Agreement No.	700699
Project Start Date	01-05-2016
Duration of the project	48 months
Deliverable Number	D6.5
Deliverable Leader	Ecologic Institute
Dissemination Level (PU, CO, CI)	PU (an accompanying supplementary material file –Business Plans– is Classified)
Status	Final Version for submission to the EC
Submission Date	07/2020
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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 700699. The opinions expressed in this document reflect only the author's view and in no way reflect the European Commission's opinions. The European Commission is not responsible for any use that may be made of the information it contains.

Modification Control

VERSION	DATE	DESCRIPTION AND COMMENTS	AUTHOR
1.0	06.04.2020	Final draft submitted for internal review	Gerardo Anzaldua, Hugh McDonald, Laurens Duin Ecologic Institute
2.0	30/04/2020	Final Draft for submission to the EC (excluding six delayed business plans)	Gerardo Anzaldua, Hugh McDonald, Laurens Duin Ecologic Institute
Final	15/07/2020	Final version for submission to the EC (including all business plans collected)	Gerardo Anzaldua, Hugh McDonald, Laurens Duin Ecologic Institute

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Background

Europe is challenged by more severe droughts, floods and extreme weather events. Governments, investors and city planners are looking for new solutions to these new challenges. Meanwhile, researchers and developers are working on innovations to reduce the impact of climate change. However, many promising innovations never reach the market often due to a general lack of knowledge and consequent addressing of the requirements and constraints of end-users. BRIGAIID aims to bridge this gap by providing tools to support innovators in increasing the technical, social, and market readiness of their innovations and by setting up living-labs where innovators and end-users can come together.

The BRIGAIID Market Analysis Framework (MAF+) is one of the innovation support tools provided by BRIGAIID. It is a web-based toolbox that has been prepared to assess the market potential of BRIGAIID innovations and serve as a guideline with accompanying resources to assist product developers in identifying and exploiting business opportunities.

This deliverable provides a final update on the design of the MAF+ portal. It updates two previous interim versions of the report on the MAF+ development, published in month 18 and month 33 of the project. As such, Chapters 1 to 8 document and describe the MAF+ design, with a focus on explaining and justifying updates and changes since the previous reporting in month 33. In addition, Chapter 9 provides a summary of the results of our evaluation of the MAF+ portal, drawing on survey and interview results to evaluate the tool's effectiveness and impact. This opening section provides background on the previous versions of this report, and summarises the major changes since the last one.

Month 18: First interim report

As documented in the first version of this report (D6.2 - month 18)¹, the MAF+ is based on the Market Analysis Framework created within the SWITCH-ON FP7 project, which was specifically intended to analyse the market for water information products and services. As reported in D6.2, in BRIGAIID, the exercises in the framework were adapted to explore the market for climate adaptation innovations and migrated from MS Excel-based worksheets to an online portal that facilitates remote collaborative assessments. Moreover, the framework was streamlined and improved during the first year of BRIGAIID based on direct feedback from previous users and experts external to the project (e.g., SWITCH-ON product developers and experts in the field of innovation and capacity building) as well as from the own consortium members.

¹ See first interim version of D6.2 from month 18 of the project at https://brigaid.eu/wp-content/uploads/2018/06/BRIGAIID_WP6_D6.2_MAF.pdf

The updated framework exercises were applied to study the cases of the BRIGAIID frontrunner innovations as a means of initial testing and gap identification. This first round of applications was conducted using offline templates elaborated in MS Word. During this last period of the project these offline templates have also been updated, and their final versions can be found in the annex to this report. The feedback received from the frontrunner innovators focused mainly on the need for punctual and concise support that provided quick and practical results. For them, it was important that the exercises were presented in a practical manner and that the new concepts were explained thoroughly but succinctly. These inputs were taken into consideration during the preparation of the templates as well as in the development of the online platform. This resulted in leaner introductory texts for the individual exercises (following always the structure: overview, objective, and instructions) and a reduction in the number of exercises (four of the exercises originally included in the SWITCH-ON MAF were discarded and one was replaced).

Month 33: Second interim report

As documented in the second version of this report (D6.4 – month 33), in the first year of operation of the MAF+ online portal (maf.brigaid.eu) six innovators completed assessments using the tool and two more entered the final stages of their evaluations. This allowed for a thorough testing and preliminary validation of the portal and generated a breadth of feedback and ideas for improvement regarding its functionality, design, user interface and experience, as well as on the general aspects of the assessment process. This feedback and input was gathered systematically, and towards the end of the first period of operation it was incorporated into improvements to the portal and its associated support services. A brief overview of the specific actions undertaken has been included at the end of the next chapter and short highlights have been included directly in the sections describing the individual exercises (chapters 4-9).

Update M48 – Summary of major updates

Since M33, the total number of innovators that have completed an assessment using the MAF+ has moved from eight to twenty one. This has allowed for a further round of testing and validation of the portal, which has resulted in additional feedback and ideas for its fine-tuning. This feedback and input has been gathered systematically, prioritised, and incorporated into actual improvements to the portal and its associated support services. A brief overview of the specific changes to the exercises and the MAF+ overall are highlighted in the red boxes of each chapter 1-9.

Given that the previous round of revisions optimised most of the exercises, the focus in this last round of MAF+ revisions has been on user interface and usability. A driving concern has been to ensure that innovators can operate the MAF+ as a stand-alone tool after BRIGAIID (and the in-person support on the tool) come to an end. This has led us to prioritise a major change to the MAF+ landing page, so that new users receive a clear and visually attractive introduction to the purpose and value of the tool. We have also focussed on adding key functionalities requested by

innovators, including offline versions of the exercises, revised instruction text, a “print all results” function, and reduced clutter on the exercises.

To understand the performance and impact of the MAF+ and to guide our improvements, we surveyed innovators who completed a MAF+ assessment and followed some up with interviews. The results of this evaluation, including semi-quantitative survey results and impact narratives, are reported in chapter 10. Our evaluation found that innovators found the MAF+ tool fit-for-purpose (effective, user-friendly, and well-integrated into the BRIGAID Business Support Programme). They evaluated the portal overwhelmingly positively, emphasising its value as a way to structure thought, develop strategic business development plans, and frame insightful in-person discussions with BRIGAID support partners and internal staff. The evaluation also identified areas for improvement.

Based on the positive evaluation results, the functionality updates, and the MAF+'s ongoing life as part of new Horizon 2020 projects BE-Rural (<https://be-rural.eu/>), Digital Water City (<https://www.digital-water.city/>), and the BRIGAID Inc. initiative, we are confident that the MAF+ will continue to be exploited after BRIGAID's end.

1. Introduction

Successful innovations require more than a great idea and technical expertise – they need a market. The BRIGAIID Market Analysis Framework (MAF+) aims to support innovators to identify market opportunities, tune their innovations to meet actual market needs, and develop their business strategy.

The MAF+ is an online collaboration system that compiles 12 market analysis and business development exercises designed to be completed by non-specialists in these topics with guidance from the partners from Ecologic Institute. Each exercise supports innovators in the path towards evolving their climate adaptation innovation into a business. Succinct text explains each exercise's purpose, provides step-by-step instructions, and features relevant examples.

The MAF+ first guides the innovators and their team through the process of understanding the world around their innovation. It then helps define and prioritise market segments, and supports in estimating their size now and in the future. After assisting to gather and organize basic financial information to calculate a price and a break-even point, the MAF+ shifts to strategy, positioning the innovation relative to its competitors and identifying relative strengths and weaknesses. All of these steps are consolidated in the final exercise, which summarises the output in a business model canvas (Osterwalder & Pigneur, 2010).

Along the way, the MAF+ exercises help the innovators produce practical outputs that can feed straight into a business plan, marketing, and strategic planning documents. At the same time, the MAF+ aims to build the innovators' capacity and competitiveness by getting them acquainted with marketing and business concepts through practice.

While the MAF+ has been designed to be useful as a free stand-alone resource available to all, innovators who are part of the BRIGAIID project additionally receive personalised guidance and support in completing the exercises. Through the MAF+ portal and other BRIGAIID outlets, climate innovators interested in joining BRIGAIID are invited to join as well and run an assessment using the MAF+.

A note of caution: innovators should keep in mind that the MAF+ is meant to support and guide the identification of business opportunities and lay the groundwork for market entry. It cannot, however, guarantee success—there is not one “golden formula” for this as there are many internal and external factors at play. Also, the usefulness of the MAF+ ultimately depends to a great extent on the level of commitment and effort the innovators put into it as well as on their enthusiasm for developing their business.

This document proposes how an innovator, a supporting partner, and an observer (i.e. the intended users of the MAF+) will interact with the online portal. The aim is to clearly lay out the path these

users will follow and define the required software functionality at each step of the assessment. The document served as a blueprint to guide the web development of the MAF+ online portal. Detailed explanations of the 12 exercises are included in the annex, which compiles the final versions of the templates used to inform the development of the portal.

Update M48 – Overview of MAF+ revisions (M33 – M48)

Over the time period M33-M48, the MAF+ continued to be revised and fine-tuned based on ongoing development and feedback from its main users (i.e. innovators and BRIGAIID supporting partners). Feedback processes established in previous reporting periods to track bugs and gather ideas for improvement were continued: In each telco, supporting partners asked innovators for feedback on the previous week's exercises. Supporting partners then recorded this and their own inputs in an internal feedback Excel table managed by the WP6 leads, which included description of feedback, source, date, and action required. Any major issues or problems with functionality were immediately flagged with the web development team at Ecologic Institute, who responded quickly to ensure that the MAF+ was continuously operational. Generally, innovator and supporting partner feedback continued to be strongly positive during this period and focused mainly on extending functionality and sharpening the user experience.

The accumulated feedback was then transferred to the free online bug tracking tool Mantis Bug Tracker (<https://www.mantisbt.org/>). This enabled back and forth communication between the scientific and web development staff, and tracking of progress. All MAF+ changes identified in the time period M33-M48 are shown in Figure 1. In addition to these changes, more complicated updates (such as the new MAF+ landing page) were managed through in-person meetings with the web-designer, graphic designer, and BRIGAIID team.

Figure 1. Mantis Bug Tracker screenshot: MAF+ issues, M33-M48

Ecologic Bug Tracker - Brigaid

Viewing Issues(1 - 176)					Category	Severity	Status	Updated	Summary
	P	ID							
<input type="checkbox"/>	▲	0001743	1		Exercise 02: Value Proposition	minor	feedback (christian.bruhn)	2020-04-29	Better integration of value proposition statements
<input type="checkbox"/>	▲	0001770	2		Exercise 00: Business Model Canvas	minor	assigned (christian.bruhn)	2020-04-29	Downloadable offline exercises for all exercises
<input type="checkbox"/>	■	0001756	1		Exercise 09: Heat Map	minor	resolved (christian.bruhn)	2020-04-28	Comment style looks different
<input type="checkbox"/>	▲	0001766	9	4	General	minor	feedback (christian.bruhn)	2020-04-28	Adding the possibility to download the results as a PDF file
<input type="checkbox"/>	■	0001759			Exercise 11: SWOT Priority Score	minor	resolved (christian.bruhn)	2020-04-28	Better visual differentiation between Strengths/Weaknesses and Opportunities/Threats
<input type="checkbox"/>	■	0001674	2		Exercise 00: Business Model Canvas	minor	resolved (christian.bruhn)	2020-04-28	Enable create new innovation from scratch on our page (without having to create Climate Innovation Window innovation)
<input type="checkbox"/>	■	0001767			Exercise 11: SWOT Priority Score	minor	resolved (christian.bruhn)	2020-04-28	Add the SWOT Actions to the results section
<input type="checkbox"/>	■	0001769			Exercise 10: SWOT	minor	resolved (christian.bruhn)	2020-04-28	Remove red "+" with significant event(s)
<input type="checkbox"/>	■	0001750	1		Exercise 07: CVP	minor	feedback (laurens.duin)	2020-04-28	Adding comments
<input type="checkbox"/>	▲	0001779			Comment functionality	major	resolved (christian.bruhn)	2020-04-28	General comment function not working (i.e. comment balloon on top right)
<input type="checkbox"/>	■	0001778			General	minor	resolved (christian.bruhn)	2020-04-28	MAF+ home page - add new testimonial
<input type="checkbox"/>	■	0001737	1		Exercise 01: PESTEL	minor	resolved (christian.bruhn)	2020-04-28	Improve PESTEL boxes
<input type="checkbox"/>	■	0001751			Exercise 07: CVP	minor	resolved (christian.bruhn)	2020-04-28	Add commas to blue box
<input type="checkbox"/>	■	0001780			Exercise 02: Value Proposition	minor	assigned (christian.bruhn)	2020-04-27	Add hints (i.e. (?) hover buttons) to value proposition boxes
<input type="checkbox"/>	■	0001748			Exercise 06: Market Growth Rate	minor	resolved (hugh.mcdonald)	2020-04-27	Increased clarity for users on what to fill in
<input type="checkbox"/>	■	0001752			Exercise 07: CVP	minor	resolved (hugh.mcdonald)	2020-04-27	Improving "Extra Information" tab
<input type="checkbox"/>	▲	0001758	1		Exercise 11: SWOT Priority Score	minor	assigned (christian.bruhn)	2020-04-27	Change priority scores from numbers to "top", "high", "medium" and "low" priority
<input type="checkbox"/>	■	0001755			Exercise 08: Porter's Five	minor	resolved (hugh.mcdonald)	2020-04-20	Change "Extra Information" button into "Example" button
<input type="checkbox"/>	■	0001762	1		General	minor	resolved (hugh.mcdonald)	2020-04-20	Enable offline use of exercises by including word version
<input type="checkbox"/>	■	0001740			Exercise 02: Value Proposition	minor	resolved (christian.bruhn)	2020-04-20	Renaming different value-proposition options
<input type="checkbox"/>	■	0001741			Exercise 02: Value Proposition	minor	resolved (christian.bruhn)	2020-04-20	Move comment balloons into header of each block
<input type="checkbox"/>	■	0001764			General	minor	resolved (christian.bruhn)	2020-04-20	Adding separators (especiall relevant for exercises 6 and 7)
<input type="checkbox"/>	▲	0001771	1		Exercise 01: PESTEL	minor	resolved (christian.bruhn)	2020-04-20	Please add extra info sheets to ex 1, 5, 7, and 8
<input type="checkbox"/>	■	0001746	1		Exercise 05: Market Size Estimation	minor	resolved (hugh.mcdonald)	2020-04-20	Extra information tab

<input type="checkbox"/>	—	0001746	1	Exercise 05: Market Size Estimation	minor	resolved (hugh.mcdonald)	2020-04-20	Extra information tab	
<input type="checkbox"/>	—	0001739		Exercise 01: PESTEL	minor	resolved (hugh.mcdonald)	2020-04-20	Add extra info sheet – Eurostat links etc. with a sentence on what the document is	
<input type="checkbox"/>	^	0001760	1	General	minor	resolved (christian.bruhn)	2020-04-20	Standard design of exercises - apply to all exercises (based on exercise 5 example)	
<input type="checkbox"/>	—	0001768		General	minor	resolved (hugh.mcdonald)	2020-04-01	Line up the green and blue boxes on top of the "My Innovations" page	
<input type="checkbox"/>	—	0001763		General	minor	resolved (hugh.mcdonald)	2020-04-01	Create a general comment box on top of exercises	
<input type="checkbox"/>	—	0001761		General	minor	resolved (hugh.mcdonald)	2020-04-01	Make it possible to hide instructions of exercises	
<input type="checkbox"/>	—	0001757		Exercise 10: SWOT	minor	resolved (hugh.mcdonald)	2020-04-01	Limit significant event(s) to 3	
<input type="checkbox"/>	—	0001749		Exercise 06: Market Growth Rate	minor	resolved (hugh.mcdonald)	2020-04-01	Harmonize terminology (market growth rate - annual vs. annual growth rate)	
<input type="checkbox"/>	—	0001747		Exercise 05: Market Size Estimation	minor	resolved (hugh.mcdonald)	2020-04-01	Delete/extend limitations market size beyond 10 trillion EUR	
<input type="checkbox"/>	—	0001567		Exercise 04: Target Group Selection	minor	resolved (hugh.mcdonald)	2020-04-01	Indicate that the top two groups will be carried over to the next exercises	
<input type="checkbox"/>	—	0001736		Exercise 00: Business Model Canvas	minor	resolved (hugh.mcdonald)	2020-04-01	Add more colour options to the digital post-its (e.g. total of 8)	
<input type="checkbox"/>	—	0001738		Exercise 01: PESTEL	minor	resolved (hugh.mcdonald)	2020-04-01	Change all "E" hover boxes to "?" hover boxes. Only use "?" hover boxes throughout	
<input type="checkbox"/>	—	0001745	1	Exercise 03: Segmentation	minor	assigned (laurens.duin)	2020-04-01	Find examples for empty hover boxes	
<input type="checkbox"/>	—	0001753		Exercise 07: CVP	minor	assigned (hugh.mcdonald)	2020-03-25	Increase readability	
<input type="checkbox"/>	—	0001744		Exercise 02: Value Proposition	minor	assigned (hugh.mcdonald)	2020-03-25	Increasing canvas height/box height	
<input type="checkbox"/>	—	0001742		Exercise 02: Value Proposition	minor	assigned (hugh.mcdonald)	2020-03-25	Integrating instructions into exercise	
<input type="checkbox"/>	^	0001735	1	Exercise 00: Business Model Canvas	minor	resolved (christian.bruhn)	2020-01-16	"save canvase as image", "increase canvas height", and "decrease canvas height" buttons not working	
<input type="checkbox"/>	—	0001733	4	Exercise 12: BMC Revision	minor	resolved (hugh.mcdonald)	2019-12-10	Scenarios option for BMC ex 12	
<input type="checkbox"/>	—	0001715	4	Exercise 02: Value Proposition	minor	resolved (hugh.mcdonald)	2019-12-09	Scenarios in value proposition canvas	
<input type="checkbox"/>	—	0001732		Exercise 11: SWOT Priority Score	minor	resolved (christian.bruhn)	2019-11-11	Add comment balloons next to actions	
<input type="checkbox"/>	—	0001707	1	1	Exercise 00: Business Model Canvas	minor	feedback (hugh.mcdonald)	2019-09-13	Update landing page text to include instructions for external users on how to create account, innovation.
<input type="checkbox"/>	—	0001719		Exercise 11: SWOT Priority Score	minor	resolved (christian.bruhn)	2019-07-24	Simplify SWOT Priority Score actions and make them look nice	
<input type="checkbox"/>	—	0001714	3	Exercise 02: Value Proposition	minor	feedback (hugh.mcdonald)	2019-07-22	Exercise 2 (Value Proposition Canvas): scroll bars needed for all text input fields (only some have them)	
<input type="checkbox"/>	—	0001718		Exercise 07: CVP	minor	resolved (christian.bruhn)	2019-07-17	Exercise 7 (CVP Analysis): The tip bubbles for Fixed and Variable costs in the table on the left side do not display fully (firs	
<input type="checkbox"/>	—	0001717		Exercise 11: SWOT Priority Score	minor	resolved (christian.bruhn)	2019-07-17	Exercise 11 (SWOT Priority Score) - Relative strength / weakness tip bubble: change "stronger (weaker)" text	
<input type="checkbox"/>	—	0001716	1	Exercise 11: SWOT Priority Score	minor	resolved (christian.bruhn)	2019-07-17	Exercise 11 (SWOT Priority Score) - text input fields overlap when you expand them	
<input type="checkbox"/>	—	0001713	1	Exercise 01: PESTEL	minor	resolved (christian.bruhn)	2019-07-17	Exercise 1 (PESTEL Analysis): scroll bars needed for all text input fields (only some have them)	
<input type="checkbox"/>	—	0001712	1	Exercise 04: Target Group Selection	minor	resolved (christian.bruhn)	2019-07-17	Exercise 4 results are not displaying properly (segments are not shown in descending order according to the ranking)	
<input type="checkbox"/>	—	0001710	1	Exercise 07: CVP	minor	resolved (christian.bruhn)	2019-07-17	Results tab . only displays the first scenario	

2. MAF+ user types

The MAF+ is intended to have three user types: the innovator, the supporting partner from BRIGAIID Work Package 6 (WP6) and the observer of the process. These user types were defined on the basis of the necessary roles and responsibilities in an assessment (Table 1).

Table 1. Roles and responsibilities in a MAF+ assessment

Partner	Responsibility				
	Main responsibility in the application (i.e. use) of the MAF+	Providing support and guidance in the application of the MAF+	Conducting additional desk research	Elaborating a brief synthesis of the results	Following the process and providing external feedback
Innovator	✓		✓		
Supporting Partner (WP6)		✓	✓	✓	
Observer					✓

In an application of the MAF+, the innovator holds the main responsibility for running the assessment exercises. The innovator is given this central role for two main reasons. First, as the owner of the product idea and key member of her organisation, the innovator possesses in-depth knowledge on the features and specifications of the innovation as well as the assets, competences and goals of the firm. This insight is key to run the exercises and obtain results that are meaningful and actionable from the organisation's perspective. The MAF+ assessments are designed to build upon this existing knowledge and potentiate it through the advisory provided by the supporting partners from WP6. Second, the underlying objective of the MAF+ is to empower innovators and increase their competitiveness by getting them acquainted with business development and marketing concepts. The premise is that getting the innovator to know and use these concepts will result in a more conscientious consideration of the needs and wants of the target market during the product development process. The expected outcome is an increased awareness on the importance of demand-driven innovation that can ultimately result in products better responding to market demand.

As briefly pointed out above, the main role of the supporting partner is to potentiate the knowledge held by the innovator and streamline the efforts that are fed into the assessment. The supporting partner does this by providing advice and guidance on how to complete the

individual exercises and interpret the results. Supporting partners are members of the business development team in BRIGAIID (i.e. WP6) who have received specialized training on the application of the MAF+ and in some cases were involved in the framework's development.

The third user type, the observer of the process, was defined with the purpose of giving third parties chosen by the innovator or supporting partner (under consent of the innovator) access to the progression of the assessment and its results. Their main responsibility is to follow the process and provide punctual feedback from an outsider's perspective when this is requested. Examples of individuals falling into this user type could include: investors, consultants, board members, members of the firm who are interested but not directly involved in the development and decision-making on the innovation, BRIGAIID members receiving training on the application of the MAF+, and other guests.

3. MAF+ Portal

Landing page

The innovators' first interaction with the MAF+ will be arriving at the portal's landing page. This landing page features attractive, dynamic html 5 design, including background videos, sliding screens, hover over attributes, and a minimalist one-page design.

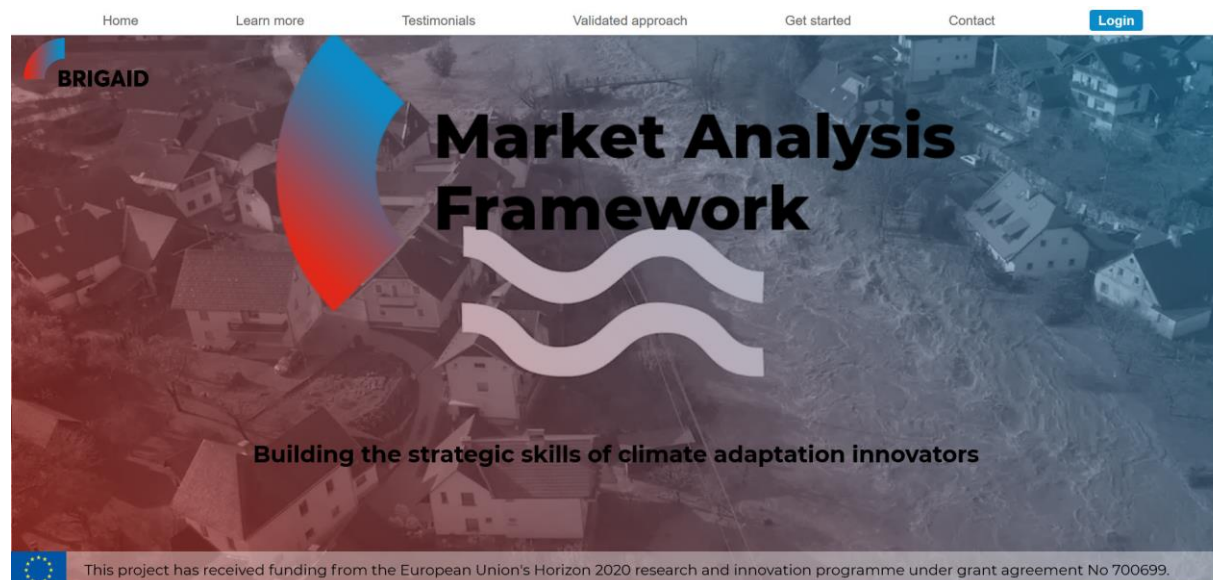


Figure 2. Screenshot of MAF+ landing page, showing freeze-frame of video in background and drop-down menu

The landing page features seven “pages”, which are bookmarked screens that the innovator can navigate between using the drop-down menu or by scrolling down. These pages are organised sequentially with the aim of introducing the MAF+ and encouraging visitors to register. The *Home* screen introduces the portal with text, images, and prompts the visitor to learn more or register immediately. The *Learn More* page demonstrates how the MAF+ works through text and a short embedded user video. The *Testimonials* page demonstrates the value of the MAF+ to site visitors by featuring headshots of innovators who have completed MAF+ assessments along with hover-over quotes that can be clicked to expand to a full innovator story. The *Validated Approach* page builds trust by showcasing a video that explains how the MAF+ fits into the full scheme of the BRIGAIID project. The *Get Started* page features calls to action for the key identified user groups: innovators seeking free access, innovators seeking in-person support, and policy/decision-makers interested in the BRIGAIID Business Support Programme. These are shown in the form of buttons that take the user to additional information pages or the registration page. The *Contact* page has contact details and an imprint with legal information.

User accounts at *maf.brigaid.eu*

The dropdown menu also features a login button, which allows existing users to login to the MAF+ or new users to register. As described earlier, users can be registered as an innovator, supporting partner, or observer. These different user types have different rights and levels of access within the portal (e.g. innovator and supporting partner have editing rights, observers only have commenting rights). User accounts can be linked to one or more innovation profiles and vice versa, so multiple innovators from the same team can all work together on the same innovation.

To access the MAF+, the user registers for an account. This can be done either manually by registering on the MAF+ website or automatically by creating an account on the BRIGAIID-hosted Climate Innovation Window (CIW) website (www.climateinnovationwindow.eu). If the innovator has registered their innovation on the CIW, their account details and the general specifications of their innovation will be automatically transferred to the MAF+. The MAF+ online portal has been designed so that innovators can use their same credentials to log in at maf.brigaid.eu. This will automatically populate their “My Innovations” web page with all innovations they have previously loaded on to the CIW (see Figure 3).

Users can also directly register on the MAF+ website. In this case, they register for a new account by clicking the login button and filling out the “Create new account” sheet. This sends a prompt to the site administrator, who reviews the information, approves the account, defines the account type, and links the user with one or multiple innovations.

Once their registration is approved, users can create a new innovation within the MAF+ website by completing a form that is linked to from the login page (see the green “Add your own innovation” button on top left of screen shot in Figure 3).

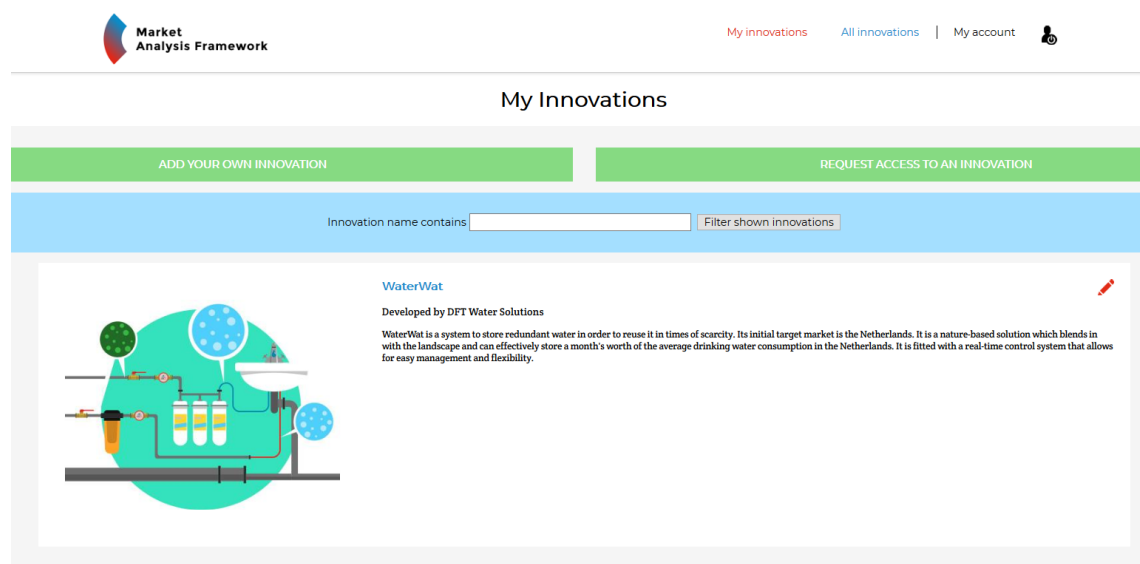


Figure 3. “My Innovations” page in the MAF+

MAF+ interface

Once logged in, the innovator can start an assessment. To do this they must go to the “My Innovations” page and click on the innovation profile of interest. This leads to the innovation profile page which displays the general specifications of the selected innovation (see

The screenshot shows the 'Market Analysis Framework' interface for a project named 'WaterWat'. The top navigation bar includes 'My innovations', 'All innovations', and 'My account'. Below this, a secondary navigation bar has tabs for 'Overview', 'Edit', 'Timeline', 'Assessment', and 'Results'. The main content area features a circular diagram on the left depicting a water storage and distribution system. To the right of the diagram is a metadata table:

Hazard:	Droughts
Topic:	Water - drought management
TRL Level:	5
Company:	DFT Water Solutions
Contact name:	John Doe

In the top right corner of the main content area, there is a blue button labeled 'START ASSESSMENT'. Below the metadata table, there are three sections of text: 'Issue/problem', 'Description', and 'Added value', each followed by a short paragraph of text.

Figure 4). The user must simply click on the “Start Assessment” button on the top right corner to access the timeline and exercises.

Market Analysis Framework My innovations All innovations | My account

Overview Edit Timeline Assessment Results

WaterWat

Hazard:	Droughts	START ASSESSMENT
Topic:	Water - drought management	
TRL Level:	5	
Company:	DFT Water Solutions	
Contact name:	John Doe	

Issue/problem
The Netherlands is mainly surrounded by water and is, for a big part, situated below sea level and prone to floods. The country, therefore, has developed a breadth of knowledge and capacity on flood protection. However, the Netherlands does not have a water surplus everywhere. Due to climate change and seasonal effects, increased temperatures are causing extreme and more frequent droughts.

Description
WaterWat is a system to store redundant water in order to reuse it in times of scarcity. Its initial target market is the Netherlands. It is a nature-based solution which blends in with the landscape and can effectively store a month's worth of the average drinking water consumption in the Netherlands. It is fitted with a real-time control system that allows for easy management and flexibility.

Added value
The innovation perfectly acts upon the trends present in the Dutch market. The Netherlands is now dealing with increasing digitalization of the economy, rapid, technological innovations and the severe consequences of climate change. The innovation can be categorized under each of these trends.

Figure 4. Innovation profile page

Assessment timeline and workflow

An assessment using the MAF+ is associated with a total time commitment by the innovator of 18-48 hours spread over 6-8 weeks. This entails a 1-2 hour phone call/teleconference with the supporting partners and observers fortnightly (for the 6-8 week period) plus 2-4 hours preparation/information collection (desk research). The exercises are laid out in the “Timeline” tab, which lists and links to all exercises, as well as indicating (on the right) when telcos will

OCCUR

(see

The screenshot displays the 'Market Analysis Framework' interface for 'WaterWat'. At the top, there are navigation tabs: Overview, Edit, Timeline (selected), Assessment, and Results. Below the tabs, the title 'Timeline for WaterWat' is centered. A red/blue drop-down menu is visible on the right. The main content area shows a vertical timeline of six exercises, each in a red bar with a green checkmark on the right:

- Exercise 0 | Business Model Canvas
- Exercise 1 | PESTEL
- Exercise 2 | Value proposition
- Exercise 3 | Market Segmentation
- Exercise 4 | Target Group Selection (Attractiveness Scorecard)
- Exercise 5 | Market Size Estimation

On the right side of the timeline, there are two teleconference markers:

- 1. TELECONFERENCE: 2017-11-10 11:00:00 CET
- 2. TELECONFERENCE: 2017-11-17 15:30:00 CET

Figure 5). The green ticks indicate that exercise has been initiated. The list of exercises can also always be accessed from every tab by clicking the drop-down list on the top right (red/blue button with lines), which allows easy access to any exercise from any page.

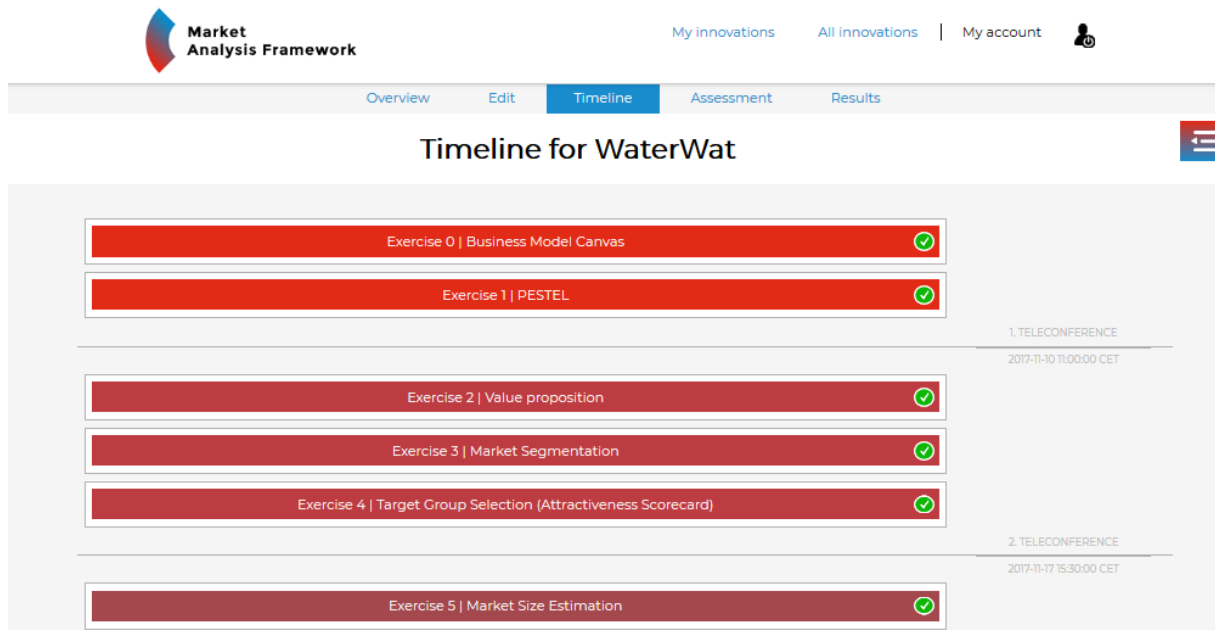


Figure 5. Excerpt of the assessment timeline page

Exercise layout

Clicking on an exercise button takes the user to the individual page for that exercise. The exercise pages have an introductory section at the top which follows always the same structure (1-2 paragraphs introducing the exercise followed by instructions on how to complete it) and a

unique user input form below (see example in

Market Analysis Framework

My innovations All innovations My account

Overview Edit Timeline Assessment Results

0 1 2 3 4 5 6 7 8 9 10 11 12

Exercise 5 | Market Size Estimation

INSTRUCTIONS EXTRA INFORMATION OFFLINE EXERCISE

After having selected a target group and conducted secondary research, the next task is to estimate the potential business that can be generated from addressing its needs. This exercise will help you estimate the size and value of a new market^(note), in four steps:

1. Estimate the number of customers in your target group
 - Depending on the nature of your target group, the necessary information upon which to base your estimate may be found in national/regional statistics databases (e.g., population levels in a certain area), industry association reports (e.g., number of customers of products/services analogous or complementary to yours), or other official documents (e.g., organization charts of administrative bodies in different countries)
2. Assume a market penetration rate
 - The penetration rate is the percentage of the target market that you think you will benefit from and ultimately take up your offer. This depends on the circumstances driving your target group's need (e.g., changes in EU regulation), how willing they are to act upon it, and the ease with which they can access and take up your offering.
3. Calculate the potential market size
 - This is simply the product of the number of customers in your target group and the penetration rate
4. Calculating the potential monetary value of the market
 - This is the product of the year potential market size and the price of your product [P]

As the market size estimation is highly dependent on the assumptions made in the first two steps, we strongly recommend establishing a range by developing estimations for best- and worst-case scenarios. Remember, the main purpose of this exercise is not to have a perfectly accurate result; it is to gain a better understanding of the factors that could influence the potential size and value of the target market, and apply that knowledge in the development of a market entry strategy.

Note: if you are analysing an established market, you can use your knowledge of the market – for example, based on a competitor's annual reports – to more quickly and accurately estimate the market size and its potential monetary value.

National authorities Score: 17

Location	Year of data collection	No. of customers	Penetration rate (%)	Potential market size	Price (€)	Potential monetary value	Comments
Berlin	2019	100	20	20	40,000	800,000 €	

SAVE CHANGES SAVE CHANGES AND GO TO NEXT EXERCISE

Figure 6). The introductory section features three buttons: “Instructions”, “Offline exercise”, and “Additional information” (see

Market Analysis Framework

My innovations All innovations My account

Overview Edit Timeline Assessment Results

0 1 2 3 4 5 6 7 8 9 10 11 12

Exercise 5 | Market Size Estimation

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National authorities Score: 17

Location	Year of data collection	No. of customers	Penetration rate (%)	Potential market size	Price (€)	Potential monetary value	Comments
Berlin	2019	100	20	20	40,000	800,000 €	

SAVE CHANGES SAVE CHANGES AND GO TO NEXT EXERCISE

Figure 6). By hovering the mouse over the button, a description of what will result if it is clicked is displayed. By default, the instructions are displayed. The “Instructions” button makes the instructions collapsible, so that after reading once, the user can hide this text. The default option remains to show the instructions, but enables users to reduce the amount of scrolling in case they are already familiar with the exercise. The “Offline Exercise” button opens up the exercise template in an MS Word document. This enables the innovator to download the

exercise and work offline, then subsequently copy and paste from the offline document back into the portal. The “Additional information” button opens .pdf files with additional information relevant to the exercises on a new tab, giving users more background information and worked examples for the exercises. In addition, at the top of each exercise a comment balloon is available, which allows for comments related to the exercise as a whole, instead of a specific section of the exercise. It can be used for other purposes as well, such as to document innovator’s overall questions related to the exercise. In addition, each exercise is topped by a banner featuring the numbers 0-12, each clickable links to the respective exercise. A floating footer is also always visible, which allows users to save changes, and when they are finished with the exercise, save changes and move on to the next exercise.

The screenshot shows the 'Market Analysis Framework' interface. At the top, there is a navigation bar with 'Overview', 'Edit', 'Timeline', 'Assessment', and 'Results'. Below this is a progress bar with numbers 0-12. The main content area is titled 'Exercise 5 | Market Size Estimation'. It contains a section with instructions and a list of steps:

1. Estimate the number of customers in your target group
 - o Depending on the nature of your target group, the necessary information upon which to base your estimate may be found in national/regional statistics databases (e.g., population levels in a certain area), industry association reports (e.g., number of customers of products/services analogous or complementary to yours), or other official documents (e.g., organization charts of administrative bodies in different countries)
2. Assume a market penetration rate
 - o The penetration rate is the percentage of the target market that you think you will benefit from and ultimately take up your offer. This depends on the circumstances driving your target group's need (e.g., changes in EU regulation), how willing they are to act upon it, and the ease with which they can access and take up your offering.
3. Calculate the potential market size
 - o This is simply the product of the number of customers in your target group and the penetration rate
4. Calculating the potential monetary value of the market
 - o This is the product of the your potential market size and the price of your product [P]

Below the instructions is a table for data entry:

Location	Year of data collection	No. of customers	Penetration rate (%)	Potential market size (No.)	Price (€)	Potential monetary value	Comments
Berlin	2019	100	20	20	40,000	800,000 €	

At the bottom of the table, there are buttons for 'SAVE CHANGES' and 'SAVE CHANGES AND GO TO NEXT EXERCISE'.

Figure 6. Screenshot of the exercise basic introductory section (using exercise 5 as example)

Results screen

The “Results” section, which can be found in the top menu bar, provides an abridged overview of the outputs of the assessment. Once innovators have finished the MAF+ assessment, they can use this functionality to get a clean and condensed overview of the results per exercise, leaving out the introductory text and working sections to focus on the key takeaways. It should be noted that this section is also accessible before the completion of the assessment, but only shows that which innovators have filled in. In instances where innovators used different scenarios or target groups (such as with the Cost-Volume-Profit Analysis), the results are stacked on top of each other, to ensure that all input is visible.

Here, users also have the option to print their results. The green “PRINT ALL RESULTS” button, which can be found in the top left corner next to guidance on how to achieve the best print results, prompts the printing options (see

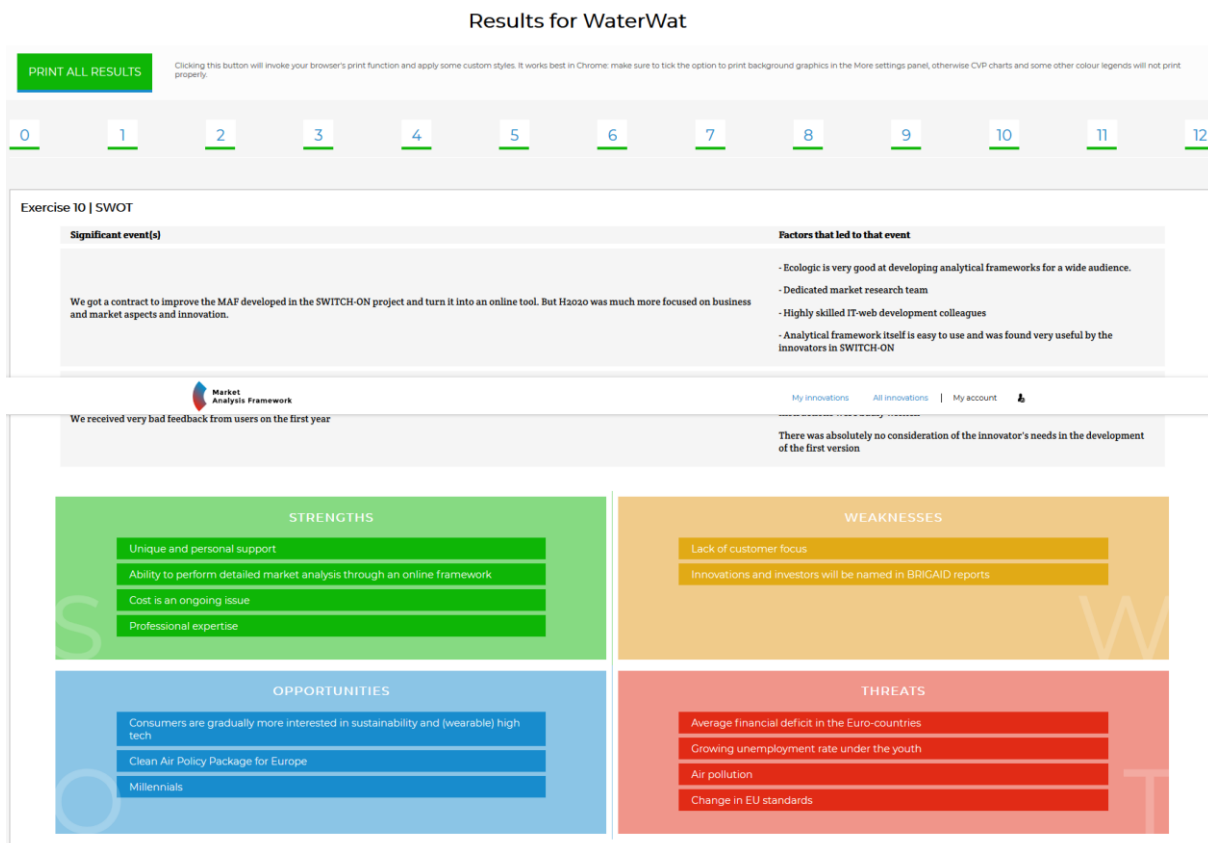


Figure 7). This allows innovators to share the results with their team more easily, but also could come in handy for dealing with external parties (e.g. when meeting with investors or applying for subsidies).

Results for WaterWat

PRINT ALL RESULTS Clicking this button will invoke your browser's print function and apply some custom styles. It works best in Chrome: make sure to tick the option to print background graphics in the More settings panel, otherwise CVP charts and some other colour legends will not print properly.

0 1 2 3 4 5 6 7 8 9 10 11 12

Exercise 10 | SWOT

Significant event[s]	Factors that led to that event
We got a contract to improve the MAF developed in the SWITCH-ON project and turn it into an online tool. But H2020 was much more focused on business and market aspects and innovation.	<ul style="list-style-type: none"> - Ecologic is very good at developing analytical frameworks for a wide audience. - Dedicated market research team - Highly skilled IT-web development colleagues - Analytical framework itself is easy to use and was found very useful by the innovators in SWITCH-ON

Market Analysis Framework My innovations | All innovations | My account

We received very bad feedback from users on the first year. There was absolutely no consideration of the innovator's needs in the development of the first version

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> Unique and personal support Ability to perform detailed market analysis through an online framework Cost is an ongoing issue Professional expertise 	<ul style="list-style-type: none"> Lack of customer focus Innovations and investors will be named in BRIGAIID reports
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> Consumers are gradually more interested in sustainability and (wearable) high tech Clean Air Policy Package for Europe Millennials 	<ul style="list-style-type: none"> Average financial deficit in the Euro-countries Growing unemployment rate under the youth Air pollution Change in EU standards

Figure 7. Excerpt of the “Results” section, showing the “PRINT ALL RESULTS” button (SWOT as an example)

Update M48 – General updates

Major changes were made to the overall functionality and visual design of the MAF+ tool over the period M33-M48, which are captured in this section.

Most significant was a new landing page for the MAF+. It was made visually more appealing and now includes instructions for external users on how to create a MAF+ account, along with testimonials of some innovators that went through the BRIGAIID Business Support Programme, among others. This included a revision to the *Create new account* and *Create new innovation* functions, to simplify and streamline them, as well as visual improvements. This will ensure that new innovators and new innovations can be added to the MAF+ with minimal supporting partner effort after BRIGAIID ends. It will also allow users who do not wish to publish their innovations on the Climate Innovation Window to easily create an

innovation profile on the MAF+ and run an assessment with it. This is especially relevant for the new H2020 projects who are already exploiting the MAF+.

Substantial changes were also made to the design and functionality of the introduction section of each exercise. This was done to increase visual clarity and simplicity, and to add three additional features that were requested by innovators. This top screen section now includes three buttons: “Instructions”, “Offline exercise”, and “Additional information”. We have also revised all introductory texts to simplify them and more clearly communicate the aim of each exercise, how it links to others, and its usefulness for business strategy development.

A final significant change is the addition of a “print all results” function. Several innovators indicated that it would be useful for the results to be downloadable as a PDF file, so that they can easily share them with their team and incorporate them into funding applications, presentations, etc. This is now possible.

4. MAF+ Section 1 – Setting the scene

The MAF+ is divided into six sections, with each section building on the last. These are shown in Figure 8. Each section features multiple exercises. Work on Section 1 of the MAF+ takes place during the first teleconference with the supporting partner. The section includes Exercise 0 – Business Model Canvas, and Exercise 1 – PESTEL Analysis.



Figure 8. Structure of the MAF+ assessment

Business Model Canvas

Once she has landed on the business model canvas exercise page, the innovator is presented with instructions on how to complete the exercise and a canvas template where to fill in the information necessary to describe the business model for the innovation being assessed (see example in Figure 9). The template has 9 main elements where the innovator is able to insert alphanumerical data to describe: a. The value proposition of her business idea; b. The customer segments targeted; c. The distribution channels necessary to connect and communicate with the target customers; d. The types of customer relationships to be developed; e. The revenue model for the business; f. The key resources necessary to operate the business; g. The key activities carried out by the business; h. The key partnerships to build upon; i. The cost structure of the business.

Partial work on the business model canvas template, or any other exercise, can be saved by clicking the “SAVE CHANGES” button. This allows for the template to be completed over multiple sessions. To access a previously started assessment after closing a session, the innovator must sign into the portal, navigate to the respective innovation profile, hover over the list of exercises icon in the top right corner of the page or click on the “Timeline” tab and select the respective exercise to resume. Once the innovator is done inserting all data into the template, she can save and close the exercise by clicking the “SAVE CHANGES AND GO TO NEXT EXERCISE>” button. A green checkmark is displayed next to the titles of the worked exercises in the timeline and the list of exercises.

Update M48 – Business Model Canvas (first draft)

There are now more colours available for the digital post-its (a total of seven), which makes it easier for innovators to convey the relationships between the different blocks in the Business Model Canvas.

We also updated the instructions text to simplify and clarify meaning, based on user feedback. The aim is to ensure that the MAF+ can continue to be used after the conclusion of the BRIGAD project with no personalised support. We also adjusted the standard design of the exercise layout, as with all exercises. Each exercise has three buttons above the user input form: instructions can be hidden/extended by clicking the “instructions” button; the “extra information” button links to a .pdf file with more information; the “offline exercise” button downloads a MS Word version of the exercise. These adjustments reduce visual clutter, increase consistency across exercises, and introduce changes suggested by users.

<p>7 Key partners 1 ?</p> <p>Who are you reliant on to carry out your key activities and deliver value to your customers?</p> <ul style="list-style-type: none"> Innovatoren Endverbraucher Investoren 	<p>6 Key activities 1 ?</p> <p>What activities must you complete to deliver your value proposition to your customers?</p> <ul style="list-style-type: none"> Marktforschung <p>5 Key resources 0 ?</p> <p>What strategic assets do you need to deliver value (by carrying out your key activities)?</p> <ul style="list-style-type: none"> Forscher Förderung Website 	<p>2 Value Propositions 2 ?</p> <p>What problem do we solve for our customer, what value do we bring them, and how do we differentiate ourselves from the competition?</p> <ul style="list-style-type: none"> Geld sparen Qualität Individualisierbar Benutzerfreundlichkeit Risikoreduzierung Neuheit Resultate Ökologische Wellness Zugänglichkeit Design 	<p>4 Customer relationships 0 ?</p> <p>How does the customer interact with you throughout the sales process (and after)?</p> <ul style="list-style-type: none"> E-Mail Telefon Persönlich <p>While all of these innovations are novel and ambitious, the Consortium is well-placed to achieve them. First... Second....</p> <p>3 Channels 1 ?</p> <p>What is the best way to reach customers – to raise awareness, enable them to purchase, and deliver our good/services?</p> <ul style="list-style-type: none"> Präsentationen Website Advertorials Handelsvertreter 	<p>1 Customer segments 1 ?</p> <p>Who are our most important customers?</p> <ul style="list-style-type: none"> Forscher (Universitäten oder außeruniversitäre Forschungseinrichtungen) Berater/Private Unternehmen (Produktentwicklung) Zwischschutz und Notfallschutzorganisationen Umweltverbände Nationale Behörden (Regierungen) Internationale und supranationale Behörden (Regierungen) 					
<p>8 Cost structure 1 ?</p> <p>What are the costs of running your business, and are they fixed or variable?</p> <ul style="list-style-type: none"> Produktentwicklungskosten Vertriebskosten Allgemeine Aufwendungen Anschaffungskosten - variabel 		<p>9 Revenue streams 2 ?</p> <p>How do all of the above building blocks come together to provide you with revenue?</p> <ul style="list-style-type: none"> Universitäten und Forschungseinrichtungen unterstützen den Marktforschung Berater und private Produktentwicklungsunternehmen entwickeln Innovationen Zwischschutz, Notfallschutzorganisationen und Umweltverbände unterstützen den Forschung um die Innovation zu benutzen Der Marktforschung wird von die Regierungen finanziert 							
<p>SAVE CHANGES</p>		<p>SAVE CHANGES AND GO TO NEXT EXERCISE ></p>		<p>SAVE CANVAS AS IMAGE</p>		<p>INCREASE CANVAS HEIGHT</p>		<p>DECREASE CANVAS HEIGHT</p>	

Figure 9. The Business Model Canvas template in the MAF+

PESTEL Analysis

In *Exercise 1 – PESTEL Analysis* the innovator is presented with instructions on how to complete the exercise and a table with pre-filled text in the first column, hover-over examples for each row and empty fields in a second column for text input (see Figure 10). The text in the first column briefly describes each of the six PESTEL elements and the hover-over buttons list examples for them (see red circles labelled “?”). In the second column the innovator can insert alphanumeric data to describe the six elements for the specific case of the assessment being carried out (i.e. political, economic, social, technological, environmental and legal conditions in the area of interest). An annotating function is available (see blue bubbles labelled with numbers next to the second column) for supporting partners and observers to provide feedback on the innovator’s responses.

Description	Your input
<p>P Political conditions refer to all existing or potential government policies and strategies (local, regional, national or supra-national level) that could impact your organization.</p>	<p>The MAF+ will be used by product developers and institutions amongst Europe. The European Union consists of 28 countries with whom they agreed on the right to free trade within the EU. Product developers can therefore use the MAF+ to assess the European Market and eventually transport the product to all countries that are lucrative regarding the innovation. (europa.eu, 2017) The USA and China are by far the European Union's main trading partners in terms of import and export. They are followed by Switzerland, Russia and Turkey. (European Commission, 2017) Four institutions of the European Union have influence on the decision-making. These institutions are: the European Parliament, the European Council, the European Commission and the European Court of Justice. The European parliament debates about the European laws and policy. The European Commission draws up the regulations. The European Parliament and the European Council approve the laws. And eventually, the European Court of Justice takes care of the implementation of the law. The prime-ministers of each EU member state are represented in the European Council which means that each member state can influence EU legislation. (europa.eu, 2017)</p> <p>The European Union was established as an economic union, named the European Economic Community, but has evolved into a political union. The European Union takes care of peace, stability and prosperity for 50</p>
<p>E Economic conditions include any issues related to the economy (local, national, and global) in your organization's home or target markets that could affect your organization and its success.</p>	<p>The European Union has the second world's largest economy. China takes first place and the USA takes third place in this ranking. Together they have almost half of the world's total economy. (The balance, 2017) The economy of the European Union is definitely growing. The Euro countries, however, have an average financial deficit of 1.4%. Moreover, there is an unemployment rate of 9.4% in the European Union. This, however, has decreased over the past years. (de Volkskrant, 2017)</p> <p>GDP</p> <p>The European Union had a GDP of \$16397.98 billion in 2016. This is 29.45% of the world economy. (Trading Economics, 2017) The GDP in 2017 was expected to be \$16,970 billion and a PPP of \$20,745.3. The real GDP growth was 1.9% in 2016 and 1.7% in 2017. (Global Finance, 2017) In 2018, it is expected to be 1.8%.</p>
<p>S Social conditions are those that arise from the side of consumers and can influence the demand for your organization's products and services.</p>	<p>Demography</p> <p>The birth rate has lowered over the past years and it causes the population to decrease. The decrease is not yet super visible due to the higher life expectancy. In a few years, when the older population has passed away, the population will probably sink drastically. However, the immigration and emigration has a huge influence as well and can prevent the population from sinking significantly but can also increase the decline. (Bundeszentrale für politische Bildung, 2011) People are especially leaving the south of Europe as there is a high unemployment rate (Citylab, 2017).</p> <p>In 2016, 65.3% of the population was in the economically active age range of 15 until 64 years. Rural areas in Europe tend to have older populations in comparison to capital cities where the population is much younger. (Citylab, 2017)</p>

SAVE CHANGES SAVE CHANGES AND GO TO NEXT EXERCISE >

Figure 10. Excerpt of the PESTEL Analysis template in the MAF+

Partial work on the PESTEL Analysis template can be saved by clicking the “SAVE CHANGES” button. Once the innovator is done inserting all data into the template, she can save and close the exercise by clicking the “SAVE CHANGES AND CLOSE>” button. This action closes the work on Section 1 of the assessment.

Update M48 – PESTEL Analysis

Previously, this exercise had an “Examples” icon labeled “E”, whereas other exercises had a “Tips” icon labeled “?”. These elements have now been merged and the different icons have now been made consistent across all exercises (all are now labelled “?”). This was done all throughout the MAF+ to ensure clarity and consistency. In addition, an extra info sheet with links to relevant data providers and sources (e.g. Eurostat) was included for the

PESTEL. Besides being able to hide the general instructions of the exercise, users can now also hide the descriptions of the PESTEL conditions. The latter was incorporated as an innovator request. It improves the user's experience during text formulation, as it was reported that innovators were drafting text for the exercise in a separate application (e.g. MS Word) and then copying it into the PESTEL form. Other minor technical issues were addressed.

5. MAF+ Section 2 – Identifying and selecting a target group

Work on Section 2 of the MAF+ takes place during the second teleconference with the supporting partner. The section includes *Exercise 2 – Value proposition*, *Exercise 3 – Market Segmentation* and *Exercise 4 – Target Group Selection (Attractiveness Scorecard)*.

Value proposition

In *Exercise 2 – Value proposition* the innovator is presented with instructions on how to complete the exercise and a template with text entry fields where they can define the features, benefits and experiences associated with the innovation, and assess the wants, needs and fears of the target customer. The template also includes a text entry field to note down the potential substitutes to the innovation that the target customer could use in order to address its wants, needs and fears.

Target group 1 Target group 2 Target group 3

NAME FOR TARGET GROUP 1
DEFAULT SCENARIO

SAVE CHANGES SAVE CHANGES AND CLOSE >

- Provides extensive and tailored support to each organization using the MAF+ individually
- Provides a pain-free introduction to market/business development topics

- Feeling confident and prepared to enter the new market

Features

- Detailed market analysis
- Online framework
- One on one consulting/telephone support

- Reduce or even eliminate damages as effect from natural hazards
- Save money

Fears

- Product developers might think it takes them too much time to cooperate with the BRIGAIID consortium
- Organisational information of BRIGAIID

Substitutes

- Marketing Webinar Series No. 1 by The Three Little Pigs Co.
- Marketing Analysis Tools for Managers by Harvard Business School
- Go to Market Tools by Harvard Business Review

Value Proposition Statement

Through the MAF+ BRIGAIID offers tailored and thorough support to product developers in order to research their market potential and be able to successfully launch their innovation.

Figure 11. Excerpt of the Value Proposition exercise in the MAF+.

Lastly, the template includes a text entry field where the innovator can formulate clear and concise value proposition statements based on the elements considered above. As with the PESTEL Analysis, the Value proposition has an annotating function for supporting partners and observers to provide feedback on the innovator's input. By clicking the "SAVE CHANGES AND GO TO NEXT EXERCISE" button, the innovator goes on to *Exercise 3 – Market Segmentation*.

Update M48 – Value proposition

In this exercise we added the possibility for users to complete up to three different value propositions focussing on three different target groups (three “scenarios”). This enables users to complete a custom, more refined value proposition for each individual target group. This change was motivated by user feedback and our recognition that the previous version of the tool did not encourage users to be specific in their focus on particular target groups, resulting in general, less focused formulations of their value proposition statement.

Minor changes were made to improve visual appearance and usability: comment balloons were repositioned and canvas height was also increased for improved readability. Some minor bugs were dealt with as well.

Market Segmentation

In the Market Segmentation exercise, the innovator is presented with instructions on how to complete the exercise, and a table showing a catalogue of stakeholder groups, their respective descriptions and hover-over examples (see Figure 12). The innovator needs to select as many stakeholder groups from the table as are relevant to the innovation being assessed and include new ones, which might not be listed already. When doing so, the innovator can add text into the description field of each additional stakeholder group. The innovator can provide a justification for each selection in the third column of the table. This justification is not compulsory to complete the exercise and continue the assessment. An annotating function is also available here for supporting partners and observers.

Stakeholder group	Description	Reasons for decision
<input type="checkbox"/> Local authorities	Local administrations and authorities such as city councils play an important role in building local resilience and responding to drought, floods, and extreme weather events (ICLEI and CEPS, 2013). Local authorities can act both as service providers and as regulators. Furthermore, local authorities have responsibility for the water quality and quantity security of their communities and their industrial base (CWP, 2013).	?
<input type="checkbox"/> Regional authorities	Regional administrations and authorities, such as states and river basin management administrators, are responsible for adaptation planning and implementation (ICLEI and CEPS, 2013). Furthermore, local authorities have responsibility for the water quality and quantity security of their communities and their industrial base (CWP, 2013).	?
<input checked="" type="checkbox"/> National authorities	Ministries and other government institutions (e.g., agencies) at the national level are responsible for climate policy, as well as managing and responding to droughts, floods, and extreme weather events (European Commission, 2013). Member States are obliged to develop flood and drought management plans under the WFD and its daughter directives.	?

SAVE CHANGES SAVE CHANGES AND GO TO NEXT EXERCISE >

Figure 12. Excerpt of the Market Segmentation template in the MAF+

As with the previous exercises, the Market Segmentation can be completed over multiple sessions. By clicking the “SAVE CHANGES AND GO TO NEXT EXERCISE” button, the innovator goes on to *Exercise 4 – Target Group Selection (Attractiveness Scorecard)*.

Update M48 – Market segmentation

In this exercise, the main updates were the general ones regarding the introduction and instructions section as described in detail in Chapter 2. No other major changes were flagged by users or considered necessary by the developer.

Target Group Selection (Attractiveness Scorecard)

In *Exercise 4 – Target Group Selection (Attractiveness Scorecard)* the innovator is presented with instructions on how to complete the exercise and a number of tables (one per each stakeholder group selected in exercise 3) showing a list of 5 pre-defined criteria.

The innovator is then prompted to rate each of the criteria according to their accuracy using a Likert scale (a rating of 1 denotes the statement is totally inaccurate, a rating of 5 denotes the statement is totally accurate). Additionally, the innovator is invited to provide a comment in the respective field to justify and further describe their rating. This justification is not compulsory to complete the exercise and continue the assessment. An annotating function is available for supporting partners and observers to provide feedback on the innovator’s input.

Out of the sum of the ratings for the 5 criteria, the system calculates a total score and develops a ranking of the stakeholder groups evaluated, both of which are displayed at the top of the page (see Figure 13). The two groups with the highest ranking will be the target customer groups considered in the following parts of the assessment.

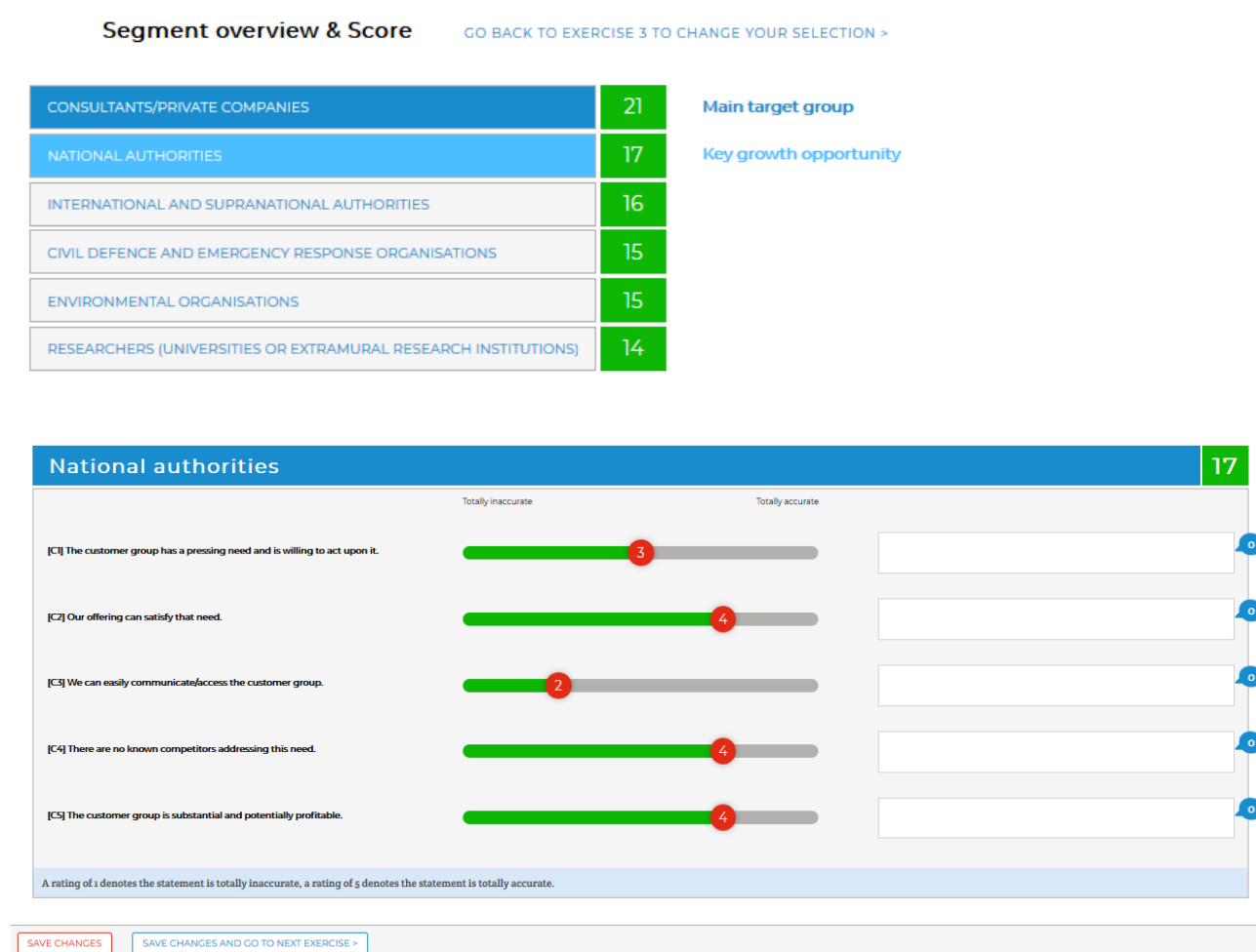


Figure 13. Excerpt of the Attractiveness Scorecard template in the MAF+

Once the innovator is done inserting all data into the template, they can save and close the exercise by clicking the “SAVE CHANGES AND CLOSE>” button. This action closes the work on Section 2 of the assessment.

Update M48 – Target group selection (Attractiveness scorecard)

In this exercise, the main updates were the general ones regarding the introduction and instructions section as described in detail in Chapter 2. No other major changes were flagged by users or considered necessary by the developer.

6. MAF+ Section 3 – Assessing market attractiveness

Work on Section 3 of the MAF+ takes place during the third teleconference with the supporting partner. The section includes *Exercise 5 – Market Size Estimation*, *Exercise 6 – Market Growth Rate and Exercise 7 – Cost-Volume-Profit Analysis*.

Market Size Estimation

In *Exercise 5 – Market Size Estimation* the innovator is presented with instructions on how to complete the exercise and spreadsheet tables where she will input data for the calculations (see Figure 14). The user is then prompted to add text into the “Location” and “Comments” fields, select a year from the “Year of data collection” drop-down list, and enter numbers into the “No. of Customers”, “Penetration Rate (%)” and “Price (€)” fields. The innovator has the option of including additional locations by clicking the “+” button, which will add rows at the bottom of the table. Filling in the comments field is not compulsory to complete the exercise and continue the assessment. The system then calculates the “Potential Market Size” and the “Potential Monetary Value” and displays the results in the respective columns. An annotating function is available for stakeholders and observers.

National authorities		Score: 17					
Location	Year of data collection	No. of customers	Penetration rate (%)	Potential market size	Price (€)	Potential monetary value	Comments
RO	2010	2,000	10	200	100	20,000 €	
Germany	2017	10,000	50	5,000	10,000	50,000,000 €	
	2019						
TOTAL				5,200		50,020,000 €	

Figure 14. Market size estimation template in the MAF+

By clicking the “SAVE CHANGES AND GO TO NEXT EXERCISE” button, the innovator goes on to *Exercise 6 – Market growth rate*.

Update M48 – Market Size Estimation

An example sheet, which also includes online resources to support users to complete the exercise, was added to the page to provide additional information to users.

Market Growth Rate

Here the innovator is presented with instructions on how to complete the exercise and spreadsheet tables where she will input data for the calculations. The spreadsheet tables are prefilled with data from the “Location” field of exercise 5. For the rest of the fields in either the “Market Size in Reference Year” or the “Market Size in the Year of Interest” columns, the innovator has the option of loading the data calculated in the previous exercise by clicking a button labeled “USE EXERCISE 5 DATA” or alternatively using custom data for the calculations. The innovator must then select the year of reference and year of interest from the respective drop-down lists. The system then calculates the annual market growth rate results for each table. A “Comments” field is available for communicating assumptions and other clarifications (filling this in is not compulsory to complete the exercise and continue the assessment). An annotating function is also available in this exercise for supporting partners and observers.

To allow for estimated projections, the MAF+ also offers the capability of calculating what the market size would be based on a defined baseline and an assumed growth rate. This can be useful to develop growth curves for indicative purposes.

CALCULATE THE MARKET GROWTH RATE
 CALCULATE THE MARKET SIZE

National authorities						
Location	Market size in reference year	Year of reference	Market size in year of interest	Year of interest	Annual growth rate	Comments
RO	20000 €	in 2010	58,000 €	in 2025	7%	
Germany	50000000 €	in 2017	65,000,000 €	in 2030	2%	

Figure 15. Market growth rate template in the MAF+

By clicking the “SAVE CHANGES AND GO TO NEXT EXERCISE” button, the innovator goes on to *Exercise 7 – Cost-Volume-Profit Analysis*.

Update M48 – Market Growth Rate

To simplify the use of the tool, we made minor visual and terminology updates to the exercise. We also harmonised terminology (annual growth rate), to ensure consistency across the exercise. Like all exercises, we revised the instruction text to simplify and improve understandability.

Cost-Volume-Profit Analysis

In *Exercise 7 – Cost-Volume-Profit Analysis* the innovator is presented with instructions on how to complete the exercise and a spreadsheet (see Figure 16).

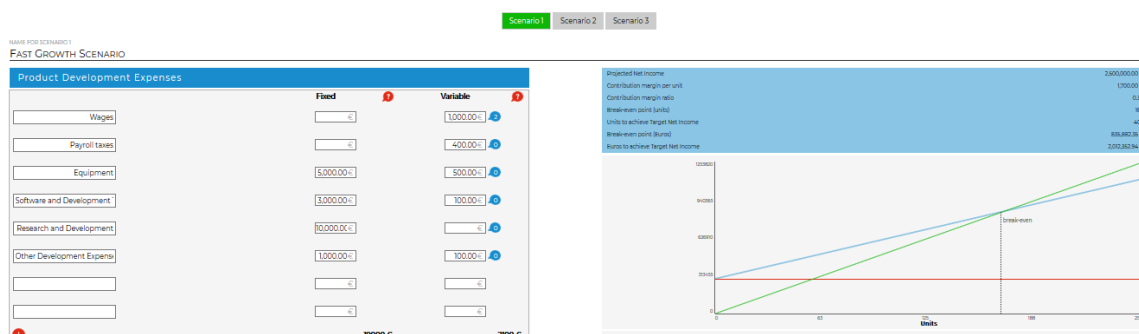


Figure 16. Excerpt of the CVP Analysis template and graph in the MAF+

The first section of the spreadsheet shows a table with pre-defined cost categories grouped into “Product Development Expenses”, “Sales and Marketing Expenses”, and “General Expenses”. The innovator can include additional items under each category by clicking the “+” button. The innovator can enter numerical data into two columns labeled “Fixed” and “Variable” which are located to the right of each cost category and allow the user to distinguish between the two types of expenses. A simple sum of all the entries in each of these two columns is calculated by the system and displayed in the last row of the table. The next section of the spreadsheet shows a series of tables used to make sales projections, calculate contribution margins and breakeven points. These tables allow the innovators to insert numeric data for the calculations, run some calculations themselves, and hold the input data for the plotting of a CVP graph. The CVP graph displays the fixed and total costs against the revenues and thus provides a clear visualization of the breakeven point. This exercise allows the user to run sensitivity analyses with pricing and sales projections in order to enhance the calculation of the monetary value of the market (*Exercise 5 – Market size estimation*) in later iterations.

Once the innovator is done with exercise 7, she can save and close the exercise by clicking the “SAVE CHANGES AND CLOSE>” button. This action closes the work on Section 3 of the assessment.

Update M48 – Cost-Volume-Profit Analysis

Following feedback from users, we made minor changes to the appearance and functionality of the exercise: comment balloons were added to additional sections of the exercise, to enable smoother communication with users; the visual design of the results box (blue box on the right) was altered to improve readability, including line breaks and separators.

7. MAF+ Section 4 – Analysing the competition

Work on Section 4 of the MAF+ takes place during the fourth teleconference with the supporting partner. The section includes *Exercise 8 – Porter’s Five Forces* and *Exercise 9 – Heat Map*.

Porter’s Five Forces

In *Exercise 8 – Porter’s Five Forces* the innovator is presented with instructions on how to complete the exercise and a table with prefilled text in the first column, hover-over examples in each row and a second column with entry fields for the innovator to enter text data. In this exercise, the innovator is shown the five different forces, definitions and examples, and is asked to identify representations of each of these forces in his own business situation. The text entered is automatically displayed by the system in the diagram shown in Figure 17. An annotating function is available for supporting partners and observers.

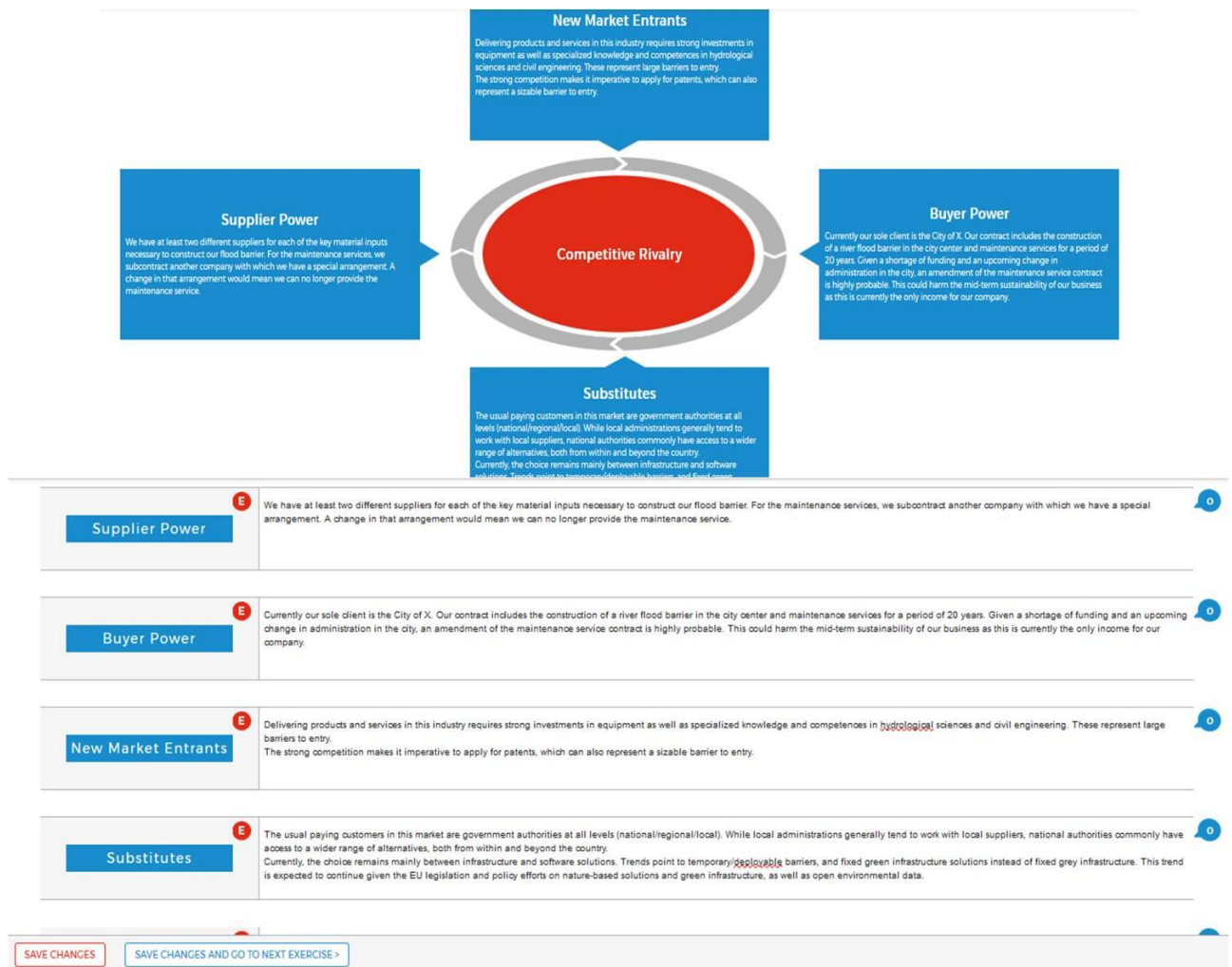


Figure 17. Porter’s Five Forces template and diagram in the MAF+

By clicking the “SAVE CHANGES AND GO TO NEXT EXERCISE” button, the innovator goes on to *Exercise 9 – Heat Map*.

Update M48 – Porter’s Five Forces

The “EXTRA INFORMATION” has been replaced with a fully worked example of the exercise that users can download as a .pdf file. This was necessary to illustrate more clearly what kind of input is required from the user in this exercise.

Heat Map

Here, the innovator is presented with instructions on how to complete the exercise and a table to enter alphanumerical data on “Assets and Competencies” of the competitors identified in the Porter’s Five Forces exercise, as well as “Product Features” of the competitors’ products. The assets and competencies of the competitor organisations and the features of the competing products are organised into two categories: “Key for success” and “Secondary importance”. In this exercise the innovator enters text in the “Assets and competencies/Product features” column and numerical data in each of the Competitor/Product columns. The innovator can add as many asset rows and competitor columns into the table as necessary. The innovator must also evaluate his own innovation and his organization, which are displayed in the first column, for comparative purposes. Once the innovator has defined the key and secondary assets/competencies and features, then they can select numerical ratings in table using a 3 point scale where 1=below average, 2=average and 3=above average. Using a functionality analog to conditional formatting in Excel, the colors of each cell in the table change depending on the rating given by the innovator (see Figure 18).

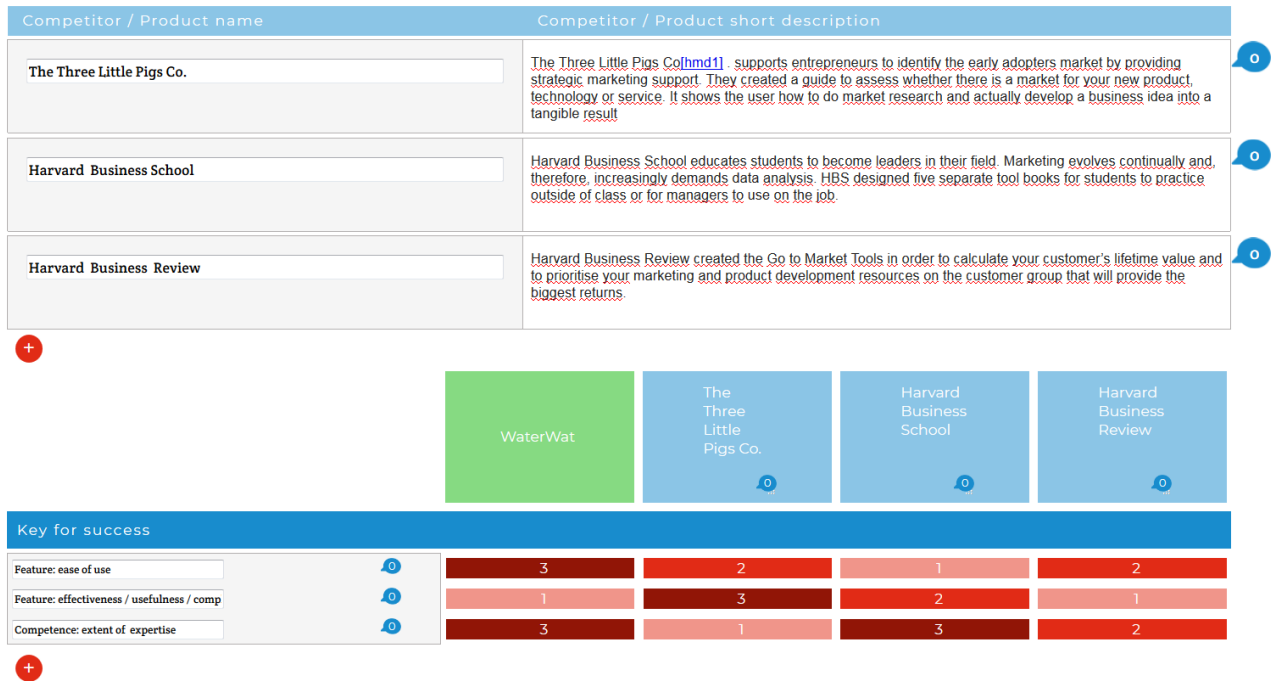


Figure 18. Excerpt of the Heat Map template in the MAF+

Once the innovator is done with exercise 9, they can save and close the exercise by clicking the “SAVE CHANGES AND CLOSE>” button. This action closes the work on Section 4 of the assessment.

Update M48 – Heat Map

In this exercise, the main updates were the general ones regarding the introduction and instructions section as described in detail in Chapter 2. No other major changes were flagged by users or considered necessary by the developer.

8. MAF+ Section 5 – Identifying priority actions

Work on Section 5 of the MAF+ takes place during the fifth teleconference with the supporting partner. The section includes *Exercise 10 – SWOT analysis* and *Exercise 11 – SWOT priority score*.

SWOT Analysis

In *Exercise 10 – SWOT Analysis* the innovator is presented with instructions on how to complete the exercise and a series of text entry fields. The first two fields at the top of the template allow the innovator to define one or two events that have had a significant impact on her business and use that information to frame the exercise. The following fields are organized into four quadrants, respectively labeled “Strengths”, “Weaknesses”, “Opportunities” and “Threats” (see Figure 19). Hovering over each of the quadrants’ labels, the innovator is presented with a set of sample questions to facilitate the formulation of text for each quadrant. The innovator will add text creating a list in each of the quadrants. These lists are carried over automatically into *Exercise 11 – SWOT Priority Score*.

STRENGTHS	WEAKNESSES
Expert team	Low marketing knowledge/skill base
Excellent design skills	No international contacts
Great contacts in water sector	

OPPORTUNITIES	THREATS
Large Spanish market faces similar challenges	International tools such as Water World may go local
	Increasing oversight from EU for water abstractions

SAVE CHANGES SAVE CHANGES AND GO TO NEXT EXERCISE >

Figure 19. SWOT analysis template in the MAF+

By clicking the “SAVE CHANGES AND GO TO NEXT EXERCISE” button, the innovator goes on to the SWOT Priority Score exercise.

Update M48 – SWOT Analysis

Following experience trialling the “significant event” feature after M33, we limited the total number of significant events users can list to three. This ensures that users focus on the most instructional events and experiences from their past and concentrate on discovering relevant factors for the SWOT therein.

Significant event(s)	Factors that led to that event
We got a contract to improve the MAF developed in the SWITCH-ON project	- Ecologic is very good at developing analytical frameworks for a wide audience.
We received very bad feedback from users on the first year	We had 20 exercises instead of 12 Instructions were badly written.

Figure 20. Excerpt of the updated SWOT Analysis template in the MAF+

SWOT Priority Score

Here, the innovator is presented with instructions on how to complete the exercise and the entries to the previous SWOT analysis with two input sliders next to each item in the list. The sliders are labeled “Impact Level”, and “Impact Probability”. A column to the right labeled “Priority Score” displays the results of the exercise. Using the sliders, the innovator ranks each strength, weakness, opportunity and threat according to how impactful they could be to their business and what the probability of the impact is. Based on these inputs the system calculates and displays the results in the priority score column (see Figure 21). This score should indicate to the innovator priority areas to focus on. To facilitate this identification of priorities into actions, the exercise also includes a section to identify a priority set of actions (see Figure 22).



Figure 21. SWOT Priority Score template in the MAF+

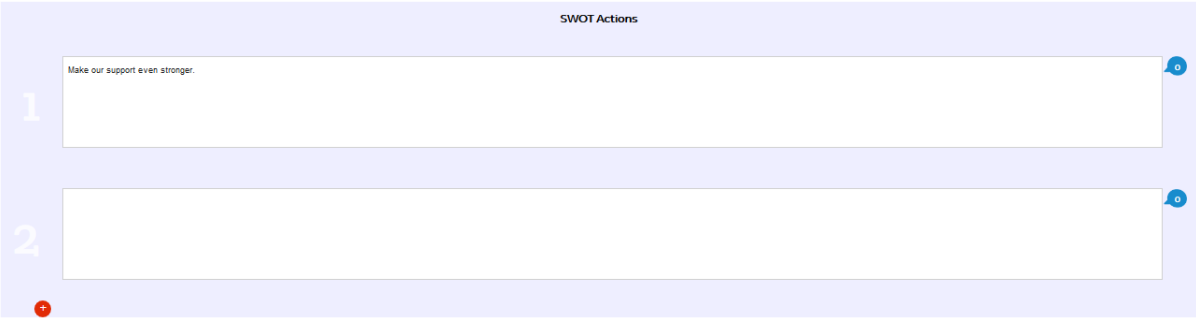


Figure 22. Excerpt of the new SWOT Actions

Once the innovator is done with exercise 11, she can save and close the exercise by clicking the “SAVE CHANGES AND CLOSE>” button. This action closes the work on Section 4 of the assessment.

Update M48 – SWOT Priority Score

To move from prioritisation of focus areas to action, SWOT Actions were added to the exercise. This provides a prompt for users to consider the results of the SWOT Priority and identify specific actions to address the areas identified (see Figure 22). They are located underneath the four quadrants containing the strengths, weaknesses, opportunities and threats.

9. MAF+ Section 6 – Wrapping up the assessment

Work on Section 6 of the MAF+ takes place during the sixth and final teleconference with the supporting partner. This section entails a revision of *Exercise 0 – Business Model Canvas* based on the information gathered and lessons learned in the MAF+ assessment.

Business Model Canvas (revision)

To wrap up the MAF+ assessment the innovator is presented with the version of the business model canvas they filled in at the very start of the assessment and is presented with instructions to review and revise it based on the information gathered in the earlier exercises.

As the previous exercises, the business model canvas revision can be carried out over multiple sessions by clicking the “SAVE CHANGES” button. Once the innovator is done with the exercise, he/she can save and close the work by clicking a “SAVE CHANGES AND CLOSE” button. This action closes the work on Section 6 of the assessment.

Update M48 – Business Model Canvas (revision)

In the Business Model Canvas (revision), three “Scenario” buttons – like the ones in the Cost-Volume-Profit Analysis (exercise 7) – were included to allow users to complete the

exercise for different scenarios. This enables innovators to create up to three specific business model canvases to depict different arrangements of target groups, cost structures and revenue models identified through the MAF+ assessment. This enables them to be more specific in each business model canvas, increasing clarity and highlighting differences between the different scenarios.

There are now more colours available for the digital post-its (a total of seven), which makes it easier for innovators to convey the relationships between the different blocks in the Business Model Canvas.

10.MAF+ Evaluation

The MAF+ was built to help train innovators into entrepreneurs. The aim: through business development support, to help more innovations “bridge the gap” and turn their proven idea into a market-ready product. In this section, we assess the impact of the MAF+ and evaluate whether it achieved this objective. First, we analyse the MAF+ portal itself, to ensure that it was fit-for purpose. Second, we investigate what impact the MAF+ and the BRIGAID Business Support Programme had on innovators. Third, we present a summary of all innovators who were involved in the BRIGAID Business Support Programme. Our evaluation draws on an online survey of innovators who completed the programme, as well as in-depth follow-up interviews. This evaluation, which has been ongoing throughout the project, has supported the ongoing improvements to the MAF+ documented in the previous chapters. The conclusion of the project offers a chance to reflect on successes and areas for future improvement. Our evaluation focuses on two aspects:

1 - Effectiveness: Is the MAF+ an effective tool? i.e. is it useful, user-friendly, and well-integrated into the BRIGAID Business Support Programme?

2 - Impact: What impact does the MAF+ have on achievement of the overarching aims of the BRIGAID Business Support Programme: (1) by training innovators to improve their business development skills, and by doing so, (2) help innovations bridge the valley of death, increasing their survival and success rates?

Method

We performed our evaluation using an online survey tool (Lime Survey - <https://www.limesurvey.org/>) to gather semi-quantitative data and feedback, and conducted follow-up telephone interviews. Innovators received the survey after they completed the MAF+.

before they completed their business plan (see cross in Figure 23). This ensured that their interaction with the MAF+ was still fresh in mind, which allowed them to provide detailed feedback. It was also far enough through the BRIGAD Business Support Programme to begin to evaluate its impact. For a selection of innovators, we followed up the survey with a semi-structured telephone interview to deepen our understanding. So far, eleven innovators (covering twelve innovations) have completed the survey, and we held four follow-up interviews.



Figure 23. Timing of survey (white cross) and interview (blue cross) indicated on the BRIGAD Business Support Programme timeline

In the survey, we used a selection of closed questions (yes/no), Likert scales (i.e. to rate usefulness on a scale of 1: not useful – 5 extremely useful), and open ended questions to elicit detailed feedback. The survey consisted of five sections:

1. **Innovator description** – i.e. identifying information
2. **Two-day business workshop evaluation** – three questions
3. **MAF+ evaluation** – overall and individual evaluation of the exercises' usefulness, as well as feedback on specific features (information sheets, tips), the value of in-person support, plus open-ended calls for feedback
4. **Overall impact** – three open and closed questions assessing and providing feedback on the overall impact of the BRIGAD Business Development Programme, as well as a series of Likert-scale questions to assess specific impact
5. **Additional comments** – open comment box for additional feedback.

Effectiveness evaluation

Our initial evaluation assesses whether the MAF+ tool is fit-for-purpose. For the MAF+ to contribute to the overarching aims of BRIGAD, it has to be an effective tool for innovators to use. We assess effectiveness relative to three criteria:

- **Usefulness** – the tool or specific exercise is useful if it teaches you something, gives you or leads you to new information, insights, or perspectives that you can practically apply to develop your business.

- **User-friendliness** – the tool is user friendly if it is easy for the innovator to use and offers a pleasant-user experience.
- **Well-integrated** – does the tool build on the prior elements and support the later steps of the BRIGAIID Business Support Programme?

In this section, we present a summary of the survey results, along with illuminating quotes from the interviews. As indicated in the previous sections of this deliverable and in its previous versions, we have developed the MAF+ over the course of the project. As well as enabling us to evaluate the MAF+ overall, the results of the evaluation survey have been used throughout the project to identify MAF+ features and exercises that needed improvement. They also provide guidance for further development of the MAF+ beyond the BRIGAIID project.

Usefulness

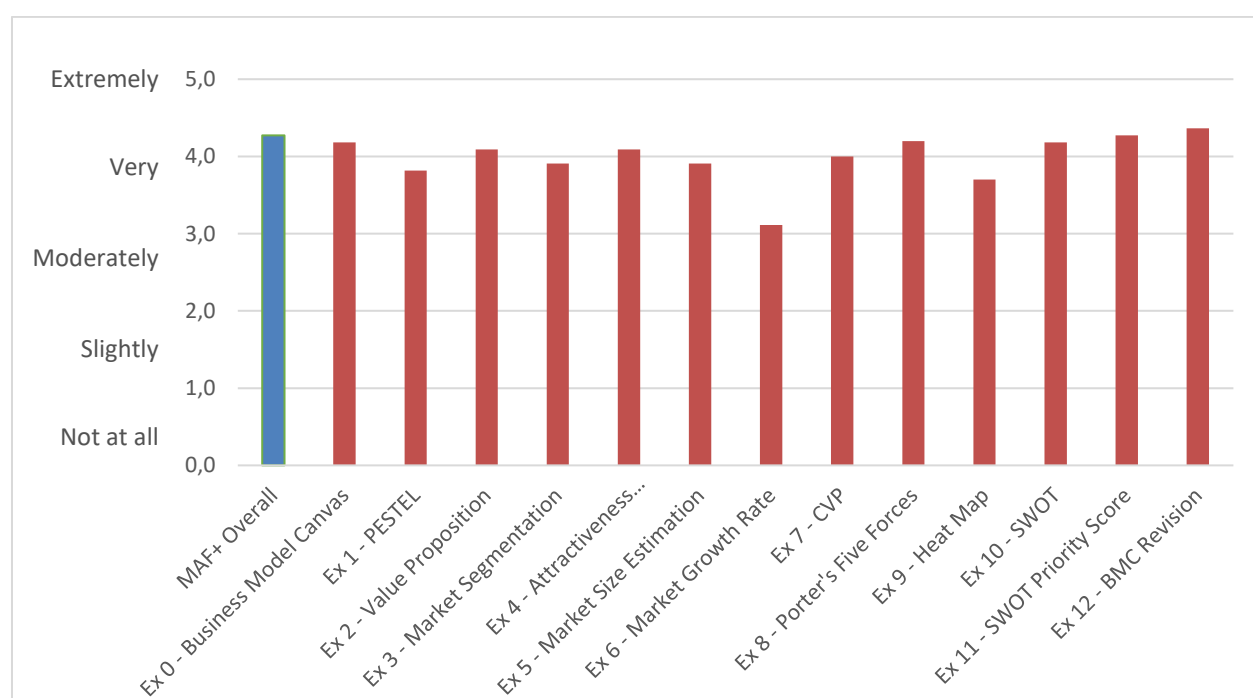


Figure 24. Survey results: qualitative scoring of “usefulness” of each MAF+ exercise

To evaluate usefulness, all survey respondents were asked to rate how “useful” each MAF+ exercise was on a five-point Likert scale (1: not at all, 2: slightly, 3: moderately, 4: very, 5: extremely). They were also asked to evaluate the MAF+ overall. Figure 24 shows an average of all responses. The results indicate that innovators perceived the MAF+ as “very” useful, with an average overall score of 4.3/5. When rated individually, the exercises received an average score of 4.0, indicating that the cumulative impact of the tool was considered greater than each

individual exercise. The highest scoring exercises were exercise 12 – Business Model Canvas Revision (4.4), exercise 11 - SWOT Priority Score (4.3), and exercise 8 - Porter’s Five Forces (4.2). Exercise 6 – Market Growth Rate was clearly the lowest scoring, at 3.1 (“moderately” useful).

Innovators were also asked to evaluate the usefulness of the personal support (i.e. the weekly teleconferences and feedback through the MAF+ comment function). All respondents agreed that in-person support was insightful and brought additional value, beyond explaining the exercises. As shown in **Error! Reference source not found.**, innovators appreciated the in-person input. Nine of the eleven survey respondents emphasised this result with more detailed answers, stating that the BRIGAD consultant support was “very good”, “fundamental”, “great quality”, “very helpful”, “essential” and that it “really contributed to the process”. This was also highlighted in the interviews. For example, Alexander van der Kleij concluded that, “The most valuable part were the discussions that we had”.

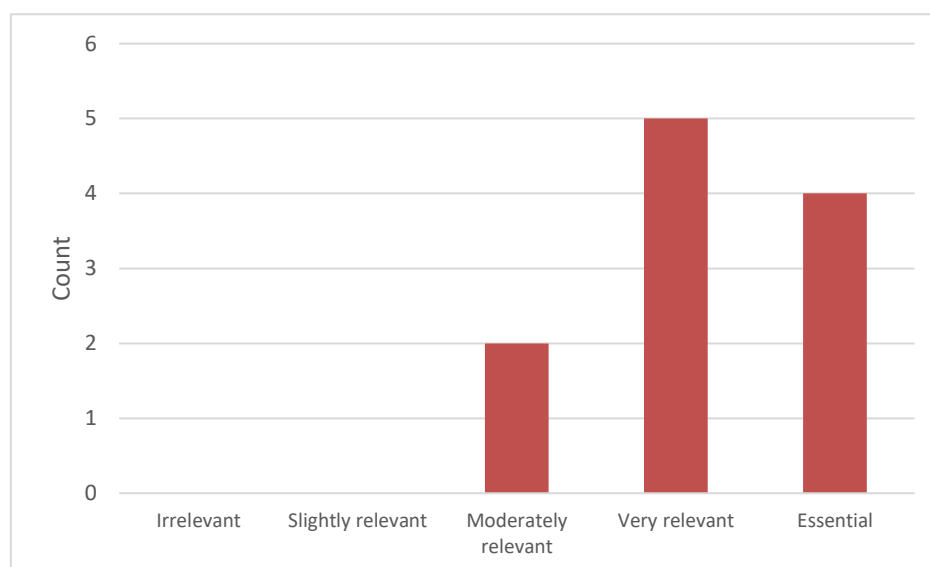


Figure 25. Survey results: How relevant was it to receive in-person support and guidance during the MAF+ assessment?

Along with the positive reviews of MAF+ effectiveness, innovators also used the survey to identify the specific impact that the MAF+ had on their business-development approach. Innovators emphasised three strengths:

- **Structured thinking:** The MAF+ provides a structure that enables the innovator to record, reorganise, and structure thoughts and ideas. A number emphasised the value of this, stating that the MAF+ helped to “clarify relevant aspects” and “clarify thoughts”.

- **Strategy development:** This structure forces users to carefully consider their assumptions, evaluate their ideas, and to weigh up the relative importance of different elements of their business strategy. A number of innovators explained that this prioritisation helped them to develop a “more strategic approach” to business development, enabling them to focus attention and “push forward” by taking effective, considered steps.
- **Client-centred thinking:** Supported a mind-shift from “research towards more market-oriented strategy” and a good introduction to business-development concepts to non-experts.

The evaluation survey also disclosed gaps and areas for improvement regarding the MAF+. Two innovators identified that the MAF+ is best suited to technological innovations, as opposed to social innovations. A related suggestion was to include an exercise focussed on sustainable development, such as ensuring sustainable supply chains (including consideration of ethical issues such as gender and child labour) and to consider externalities and potential co-benefits of innovations within the MAF+.

The survey and interview results provide strong evidence for the usefulness of the MAF+. They also offer useful input for the further development of the tool and its exploitation post-BRIGAIID.

User-friendliness

User-friendliness was evaluated in the interviews and using open-ended survey questions. Generally, feedback was positive:

“The tool was user-friendly and easy to interact with” – Dr. Eugenio Realini, Innovator of GM4W

“The MAF+ tool is great - it’s clear, gives a good overview, and the steps are easy to understand” – Robert Alt, Innovator of TubeBarrier

“The MAF+ framework facilitated (discussions) and recorded our new insights” - Alexander van der Kleij, Innovator of SolarDew

However, some respondents stated that some of the concepts and exercise descriptions were challenging and suggested improvements. Seven survey respondents gave concrete suggestions for improvements to the MAF+, which were used as input for the most recent round of revisions to the portal. This includes a “print all results” button, downloadable versions of the exercises to enable offline work, along with minor functionality improvements.

Innovators were also asked whether they would have been able to complete the exercises alone, without personal support. A little more than half (55%) responded yes, the rest responded no (45%). Innovators also evaluated the support provided by the “tips” (pop-up balloons with additional guidance) and extra information sheets: on average, tips were rated as “very useful” (4.1 out of 5) and all respondents had used extra information sheets in at least

one exercise. Based on these results and the other feedback related to user-friendliness, we have made changes in the final round of revisions to ensure that users can continue to use the MAF+ after the BRIGAID in-person support ends. This includes simplifying and refining the instruction text, as well as adding downloadable examples and additional information sheets to some exercises.

Well-integrated

The final effectiveness criteria that we considered was the integration of the MAF+ into other elements of the BRIGAID Business Support Programme. All respondents agreed that the transition from the business workshop to the MAF+ was well-coordinated, with the results of the business workshop supporting the MAF+ assessment. The interviews indicated that, in turn, the MAF+ supported the development of a business plan. For example, Alexander van der Kleij (innovator of SolarDew), explained in his interview that the MAF+ assessment helped to flesh out SolarDew’s business plan by providing concrete examples and quantitative figures.

Impact evaluation

Having evaluated the effectiveness of MAF+, we now assess to what extent it helped to achieve the objectives of the BRIGAID Business Support Programme, or in other words: its impact. The MAF+, as part of the BRIGAID Business Support Programme, has two overarching aims:

- **Short-term:** to improve the business-development skills of innovators
- **Long-term:** help innovations bridge the valley of death, that is, to increase the survival and success rates of climate-adaptation innovation businesses by improving the innovator’s business-development abilities

Given the absence of a counterfactual (i.e. what would have happened if the innovators had not used the MAF+?) and short timescales, we are unable to evaluate the long-term impact of the MAF+ on innovators. In lieu, in this section we report on survey answers to understand the impact of the MAF+ and the BRIGAID Business Support Programme as a whole. We also draw on interviews to present illustrative impacts of the Programme on specific innovators. The survey and interview results indicate that, generally, innovators found the BRIGAID Business Support Programme impactful. They believe it has lifted their business aptitude and will positively impact the success of their business.

Business Support Programme impacts

As an overarching indicator of positive impact, we asked innovators whether they would recommend the BRIGAID Business Support Programme to others and whether they learned useful new business skills (see **Error! Reference source not found.**).

Table 2. Overall evaluation of the BRIGRID Business Support Programme

Questions	Yes	No
Would you recommend the BRIGRID Business Support Programme to other innovators?	100%	0%
Have you learned new skills through the BRIGRID Business Support Programme that are useful in your business?	100%	0%
Respondents: 11		

To assess more specific impact, we asked innovators to rate on a scale of 1-5 how much they agreed with a series of specific statements as a result of the BRIGRID Business Support Programme (1: Totally disagree, 2: Mostly disagree, 3: Neutral, 4: Mostly agree, 5: Totally agree); the averaged results are shown in Figure 26. The results indicate that the biggest impacts are on the innovators understanding of the strengths and weaknesses of their own business, and in a shift of mindset to better incorporate user needs. This is also reflected in a strong score related to their confidence pitching their innovation/service to a potential client. The relatively low score related to pitching for public funding and to financiers/funders is potentially an artefact of the timing of the evaluation. These aspects are covered in more depth in the business plan and supporting public-private investment and funding support offered in the final stages of the BRIGRID Business Support Programme. The relatively low score for the question related to the innovators confidence that they can achieve their business goals as a result of the BRIGRID Business Support Programme reflects a diversity of responses: one innovator totally agreed with the statement, eight mostly agreed, while two innovators were neutral.

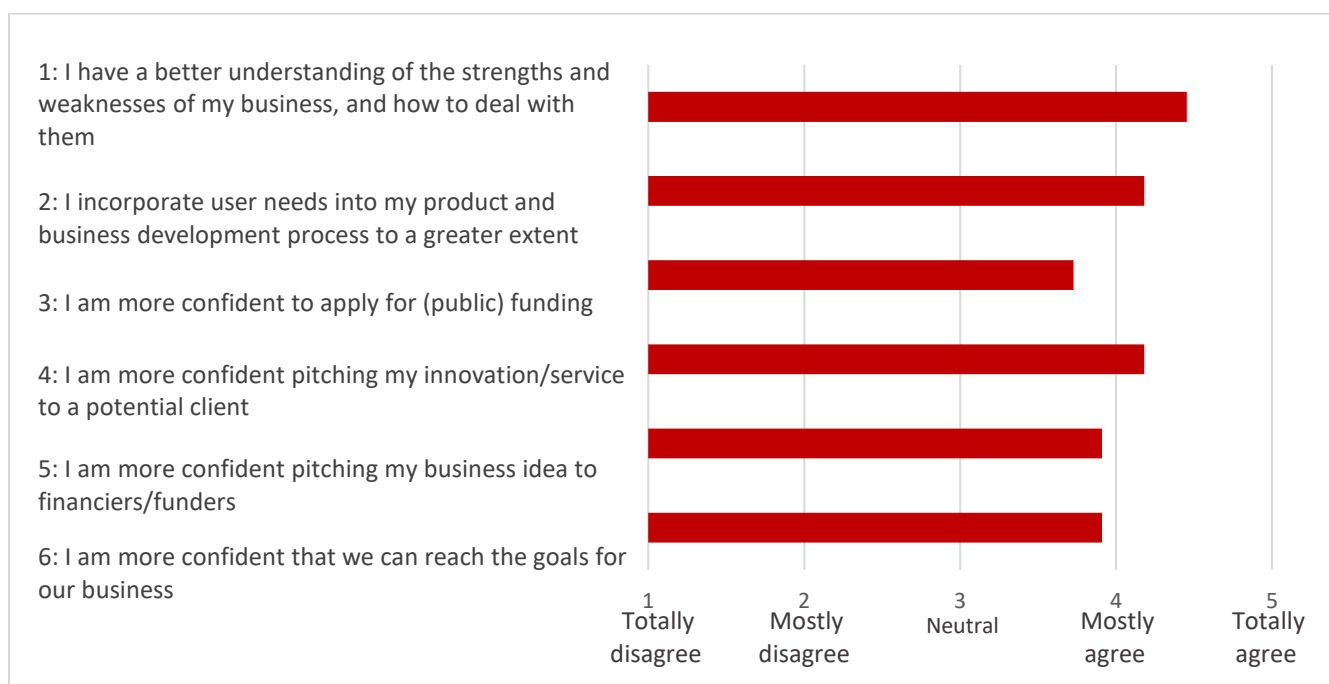


Figure 26. Survey results: Impact

Qualitative impact stories

The impact of the BRIGAIID Business Support Programme was different for every innovator. In this section we present short summaries of four different innovators, to tease out some of the unique, concrete impacts and to better illustrate where and how the Programme supported innovators. Full experience stories can be found on the MAF+ home page, in the testimonials section.



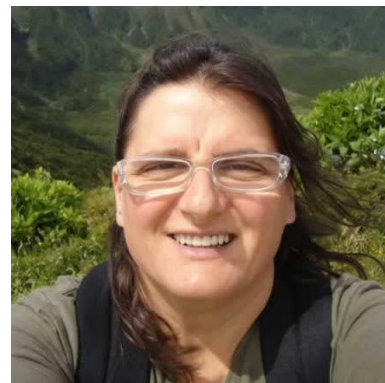
Dr. Eugenio Realini, GM4W Innovator

For Eugenio, the BRIGAIID Business Support Programme increased his business confidence and ability to communicate the value of GM4W to clients. “I learned a lot – generally, it was really beneficial to get the training,” he reflected, “it is more natural for me now to see things from the potential customer’s view, and to focus during short conversations with clients on things that will capture their interests”. The process also had concrete results. Along with drafting a business plan that sets the strategic direction of GM4W, Eugenio reports that BRIGAIID support in identifying target market segments and quantifying potential market sizes, “changed our perception of where we should start and where we should go next”. Overall, Eugenio recommended the BRIGAIID Programme, “it

cleared up our ideas about what it means to do business development”. When asked to describe its impact on his business skills and confidence, Eugenio concluded that, “on a scale of 0-10, the BRIGAD Business Support Programme moved me from a 0 to a 7”.

Dr. Conceição Colaço, FireAd innovator

Conceição Colaço’s scientific background did not prepare for the challenges of business development, including pricing, strategically targeting an innovation to meet specific client demands, or finding and communicating with customers. The BRIGAD Business Support Programme helped Conceição to understand her clients, and how she could best meet their needs. In addition to identifying new potential domestic and international client segments, the process also convinced Conceição to adjust her innovation to match what her clients valued. “The MAF+ pushed us to engage with clients... and we are changing our offering to match their needs, such as offering hourly data. We are seeing that we can offer different products for different clients, and their needs vary,” she explained. Conceição and her team solidified this customized approach in the business plan that they produced with BRIGAD support.



Given her limited background in developing innovations for the market, Conceição valued the BRIGAD Support Programme’s emphasis on skills development. She reported that the customer-focused approach has changed the way that she communicates her innovation. It was a challenge to shift from a scientific-style of communication, but following her training, she now convinces potential buyers by “focussing on their needs”. Overall, Conceição concluded that the Programme was worth the effort, “it was challenging - and we were complaining along the way – but the outcome of the process was important”.



Alexander van der Kleij, SolarDew Innovator

Alexander explained that the BRIGAD Business Support Programme gives “a simple and complete overview of your business”. The MAF+ process helped to flesh out SolarDew’s business plan by providing concrete examples and quantitative figures, supporting conversations with investors and buyers.

Overall, Alexander concluded that “the MAF+ helped to validate the company’s past decisions and to sharpen my thinking”. He pointed to the MAF+’s SWOT Priority Scorecard exercise as an example. Even though Alexander had already completed a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis before, he appreciated how the exercise allowed him to quantitatively prioritise elements that usually remain qualitative, and to come up with concrete actions based on the outcome. The MAF + platform also

functioned as a facilitator for informed discussions, as Alex stated, “The most valuable part were the discussions that we had. The MAF+ framework facilitated these and recorded our new insights”.

Alessandro Delucchi, Innovator from ARTYS

As Alessandro explained, “The Market Analysis Framework enabled us to restructure existing knowledge, generate new knowledge, and increase the quality of our business plan.” Building on previous BRIGAID research², ARTYS pinpointed the European regions most likely to buy their service: those that have the greatest risk of floods and have a high “adaptive capacity”, that is, the resources and skills to implement Smart Rainfall System. Through the Market Analysis Framework support, ARTYS ultimately identified regions in thirteen countries. “The BRIGAID support enabled us to explore a market scale up in Europe and worldwide,” said Alessandro.



The BRIGAID support also strengthened their funding application. ARTYS re-applied for public funding with their updated business plan, and with the help of BRIGAID experts, immediately saw results. In their application to the EU Commission’s EIC Accelerator, their evaluation scores increased by more than 25%. As a result, they won two Seal of Excellence awards, providing access to new funding sources. In July 2019, ARTYS was invited to Brussels to pitch to the investment advisory board. Alessandro and his team are continuing to develop their business confidently, “not only did the BRIGAID support open up doors for us, we are now also much better prepared to face the competition.”

Innovators involved in Business Development Support Programme

To complete the evaluation, this section presents all innovations who were involved in the BRIGAID Business Development Support Programme. This final step demonstrates two additional important considerations necessary to evaluate the programme: one, the full extent of work associated with supporting innovations, including the selection and communication with innovators who ultimately did not complete the programme; two, the breadth of types of innovations supported.

Table 3 lists all innovations involved in the BRIGAID Business Development Programme over the entire project. This includes those invited to participate who ultimately declined, as well as those that did not fully complete the programme. A key part of the support was identifying potential innovators to participate in the programme, communicating with them, and selecting the best candidates. In addition to the innovations who completed the programme, who are

² BRIGAID Deliverable 6.1: Market Scoping Report - https://brigaid.eu/wp-content/uploads/2016/10/BRIGAID_D6.1-Market-scoping-report.pdf

discussed in the previous sections, this section also documents our engagement with other innovations. The time invested in innovations that ultimately failed to participate in or conclude the support programme was significant in many cases in the early years of the project. To avoid this, in the final year of the project we learned from previous years and were more selective in inviting and accepting innovations to participate. We narrowed our focus to those who indicated a high degree of interest in the intake, and were explicit about the time and effort commitments involved. This paid off, as all seven innovations who were invited to participate in the final year completed all activities.

Table 3 also introduces the focus of the different innovations, demonstrating the broad thematic and sectoral coverage of the BRIGAIID Business Development Programme, which covered all climate adaptation disaster types (fire, flood, extreme events) and different types of innovation (including technical, digital, and social), with innovators based across Europe.

Table 3 Innovations supported by BRIGAIID Business Support Programme

Name	Description	Contact / Company	Status
FireAd Fire Risk Monitor Advisor (formerly CeaseFire)	The innovation FireAd is an ITC-desk solution able to regularly advice to forest and fire managers on windows of opportunity for forest management practices aiming at reducing the risk of wildfires. The tool generates maps of wildfire (or ignition) risk probability based on the retrieval and analysis of meteorological and drought indices (i.e. SPI), landscape metrics, and vegetation loads. More info: https://climateinnovationwindow.eu/innovations/firead	Conceição Colaço & Sílvia Nunes (CIABN/ISA)	Completed BRIGAIID Business Development Programme
GM4W – (formerly Water Vapour GNSS Monitoring)	GM4W provides new technology for the reliable and continuous water vapour monitoring with high horizontal resolution. It is based on low-cost single-frequency Global Navigation Satellite Systems (GNSS) receivers. More info: https://climateinnovationwindow.eu/innovations/gm4w	Eugenio Realini (GReD)	Completed BRIGAIID Business Development Programme
Hemel(s)water	Drinking water made of rain from own roof. Sustainable water purification and storage for dry seasons. More info: https://climateinnovationwindow.eu/innovations/water-heaven-hemelswater	Albert Jansen (WIC)	Completed BRIGAIID Business Development Programme
The Toolkit Method	It is a GIS based expert system aimed at providing a synthetic general evaluation and comparison of the feasibility of a protection strategy against flooding for urban areas (e.g., a historic city). Such a strategy may include different kinds of technical and technological solutions and their mutual combinations which are site specific. More info: https://climateinnovationwindow.eu/innovations/toolkit-method	Francesco Lanza & Sebastiano Carrer (Thetis)	Completed BRIGAIID Business Development Programme
Tubebarrier	The Tubebarrier is a flood barrier that can be used to temporarily increase the height of a dike, to protect vital objects from urban flooding or to contain industrial leakage. The Tubebarrier is made of flexible PVC and fills itself with water. More info: https://climateinnovationwindow.eu/innovations/tubebarrier	Robert Alt (Tubebarrier)	Completed all steps except final business plan drafting, did not finalize due to cease of operations.

My Flood Risk	MyFloodRisk provides location based flood risk profiles showing flood probability against flood depth for different climate scenarios at any given location in the EU. This information can be used by companies to assess their flood risk and the costs and benefits of flood protection measures. More info: https://climateinnovationwindow.eu/innovations/myfloordrisk-business	Teun Terpstra (HKV)	Completed Intake questionnaire, QuickScan and face-to face Business Workshop in the Netherlands.
Bluebloqs	Bluebloqs is a visible, scalable and customisable solution to collect, treat and retain rainwater at building, street or neighbourhood level, making it suitable for uncoupling and aquifer storage and recharge for later use. This nature-based solution is highly flexible, the prefabricated system integrates bio-filtration technology and flow control in a modular product. More info: https://climateinnovationwindow.eu/innovations/bluebloqs	Karina Peña (Field Factors)	Completed BRIGRID Business Development Programme.
Ecological Water Management	EWM filters, buffers and stores runoff water, and infiltrates it if necessary. Runoff water contaminated with heavy metals, mineral oils, etc. is treated and stored underground, making it available for reuse. More info: https://climateinnovationwindow.eu/innovations/ewb-fire-water	Ger Pannekoek (Ecological Water Management)	Completed Intake questionnaire, QuickScan and face-to-face Business Workshop in the Netherlands.
ARIEL	ARIEL is a microwave radiometer that provides remote soil moisture data. What cameras cannot see beyond surface, Balamis sensors can. ARIEL is a non-intrusive method able to effectively retrieve soil moisture data over small and large areas easily. More info: https://climateinnovationwindow.eu/innovations/ariel	Roger Jove (BALAMIS)	Completed intake questionnaire and was selected for business development support, but innovator decided not to join the programme.
IRRINET-IRRIFRAME	IRRINET-IRRIFRAME is an expert system for irrigation backed by the results of more than 50 years of research on sustainable irrigation. It processes several data bases and develops irrigation schedules that are available through different communication channels. More info: https://climateinnovationwindow.eu/innovations/irrinet-irriframe	Alberto Montanari & Serena Ceola (UNIBO)	Completed intake questionnaire but was redirected to WP7, as their main interest was on marketing communication support.

WaterView IR2	The innovation is built around WaterView's patented technology IR2 that uses artificial intelligence and computer vision techniques to turn imaging devices, like surveillance IP cameras and smartphone cameras, into “eyes” for seeing, gauging and returning real time precipitation measures (rain, hail, snow). More info: https://climateinnovationwindow.eu/innovations/waterview-ir2	Paola Allamano & Paolo Cavagnero (WaterView srl)	Completed all steps except final business plan drafting, did not finalize due to entry into an investment round.
Smart Rainfall System	The ARTYS Smart Rainfall System (SRS) is an innovative rainfall and flood risk monitoring system. The rainfall now-casting system allows a short-term prediction of the flood scenarios thanks to a dedicated runoff model and the web-GIS platform displays risk maps with a one-minute refreshing time. More info: https://climateinnovationwindow.eu/innovations/smart-rainfall-system	Alessandro Delucchi & Matteo Colli (Artys)	Completed BRIGAIID Business Development Programme.
Albania Alert –EWS	Albania Alert (EWS) is an APP for the dissemination of warnings in the Albanian territory. Inputs to the APP are collected from the NCFMNR. This APP, which can be installed smartphones with a GPS system, is able to provide risk warnings where the user is located. More info: https://climateinnovationwindow.eu/innovations/albania-alert-ews	Klodian Ziami (Freelancer)	Completed Intake questionnaire, QuickScan and face-to-face Business Workshop in Albania.
HAZUR	HAZUR was a new management system for cities based on a SaaS solution that helps city managers and experts to create resilience offices to face the impacts that cities need to cope with due to new global risks as climate change, political instability or new technological complex systems. More info: https://www.f6s.com/hazurbyopticits	Ignasi Fontanals & Luis Fontanals (OptiCits)	Completed all steps except final business plan drafting, did not finalize due to cease of operations.
SolarDew	SolarDew provides drinking water. It is easy to use, robust, extremely low in maintenance and only requires energy from the sun to produce clean water from saline, biological or chemically contaminated water. More info: https://climateinnovationwindow.eu/innovations/solardew	Alexander van der Kleij (Solar Dew International B.V.)	Completed BRIGAIID Business Development Programme.
ArboDroughtStress	ArboDroughtStress is a sensor and decision support system that supports orchard tree productivity by computing diurnal courses of orchard canopy conductance (gc) from sap flow in sub-hour resolution for both day and night conditions. More info: https://climateinnovationwindow.eu/innovations/arbodroughtstress	Endrit Kullaj (Agricultural University of Tirana)	Completed BRIGAIID Business Development Programme.

Self Erecting Flood Protection System	In case of sudden floods little time may be available to prevent damage. This innovation is a flood protection system that is self-erecting and does not depend on electricity or manpower to get in a vertical position. More info: https://climateinnovationwindow.eu/innovations/self-erecting-flood-protection-system	Michael Eiden and Kasem Maryamh (Uni Kaiserslautern)	Completed intake questionnaire and was selected for business development support, but innovator decided not to join the programme.
AirHoos	Innovation did not proceed beyond ideation.	Arthur Tolsma (AirHoos)	Completed the intake questionnaire. AirHoos have stopped operations after preliminary testing.
Polderroof	Polder roof uses the roof surface to create a water buffer and create a new roof surface for other rooftop functions. The Polder roof then controls the flow of rainwater to the downspout, offsetting the peak of rainwater flow into the sewage system. More info: https://climateinnovationwindow.eu/innovations/polderroof	Matthijs Monkelbaan (De Dakdokters BV)	Completed intake questionnaire and was selected for business development support, but innovator decided not to join the programme.
EFESTO	EFESTO is an artificial intelligence system, mounted on a drone, that carries out continuous aerial monitoring of forest areas. It is able to predict the development of fires and intercept them. More info: https://climateinnovationwindow.eu/innovations/efesto	Giuseppe Spallina (Heli-lab)	Completed intake questionnaire and was selected for business development support, but innovator decided not to join the programme.
PAS-WATER	PAS-WATER is a comprehensive diagnosis and analysis framework aiming to facilitate an improved water harvesting system at basin or sub-basin scale. This is based on payments to relevant actors for the implementation of specific land-use measures. More info: https://climateinnovationwindow.eu/innovations/pas-water	Manuel Bea & Diana Sánchez (Icatalist)	Completed BRIGAIID Business Development Programme.
AUDIMOD	AUDIMOD is a decision support tool that is designed to help investors and decision makers to simulate the potential for irrigation modernization projects to help secure a more efficient water use for the pre-determined objectives, by looking at a large number of indicators before and after the project is made. More info: https://climateinnovationwindow.eu/innovations/audimod	Manuel Bea & Diana Sánchez (Icatalist)	Completed BRIGAIID Business Development Programme.

Water+Furrow Diker	The Water+ Furrow Diker is an innovative equipment which allows for the maximization of the collection and harvesting of rainfall water and irrigation drainage at the root plant zone. More info: https://climateinnovationwindow.eu/innovations/water-furrow-diker	Ioana Dragan & Ilie Biolan (Aquaproiect)	Completed BRIGAIID Business Development Programme.
DeltaConsideration	Delta Consideration supports change by design, not by disaster. This is done by supporting cities at risk towards resilient development. Understand the dynamic risks of natural hazards, designing your resilience strategy and provides process support for long-term sustainable development.	Andre Schwarz (Freelancer)	Completed BRIGAIID Business Development Programme.
Dike Failure Action Plan	The innovation is a method to develop action plans for dike failures during river floods. More info: https://climateinnovationwindow.eu/innovations/action-plan-case-dike-failure	Catalin Popescu & Ioana Dragan (Aquaproiect)	Completed BRIGAIID Business Development Programme.
BRIGAIID Association	BRIGAIID Association bridges the ideas of innovators and the needs of end-users. It is a one-stop-shop of expert knowledge, tools, testing facilities, and ready-made networks to increase the uptake of adaptation innovations in Europe and beyond.	Selected BRIGAIID Consortium partners	Completed BRIGAIID Business Development Programme. Business Plan submitted separately as Deliverable 6.8.
4billion	4billion - SOLAR POWER for decentralised, smart and efficient applications, off-grid. More info: https://www.4billion.de/	Ken Richards (4billion)	Completed BRIGAIID Business Development Programme.
InfoSequia	InfoSequia (www.infosequia.eu) is a site- and user-tailored Monitoring IT-toolbox for the operational monitoring of drought properties, and the forecasting of drought persistence and potential impacts. More info: https://climateinnovationwindow.eu/innovations/infosequia	Sergio Contreras (FutureWater)	Completed BRIGAIID Business Development Programme.
LeafSkin	Leaf.skin is an ultralight vertical garden system that can be placed where no other vertical garden systems can be. More info: https://climateinnovationwindow.eu/innovations/leafskin	Patricia Briega (Singular Green)	Completed BRIGAIID Business Development Programme.

Useful Wastes	The Useful Wastes innovation is a physical-chemical treatment that treats the brines, producing up to 80% more fresh water and transforming the rest into a product for use in the industry itself. More info: https://climateinnovationwindow.eu/innovations/useful-wastes	Cristina Varona Anta (Useful Wastes)	Completed the intake questionnaire. Decided not to join the programme as the team was already overcommitted with testing and commercial activities.
SkyDowser	SkyDowser is a very special sensor system, carried by a drone, which is able to map the earth's first 50m of soil at high speeds. The measured signals can be used to detect groundwater levels, determine soil moisture levels and map salt-water intrusion. More info: https://climateinnovationwindow.eu/innovations/skydowser	Kaz Vermeer (WaterMappers)	Completed the intake questionnaire. Decided not to join the programme because the innovation is already mature.
CENTAUR	CENTAUR is an autonomous, intelligent monitoring and control system to reduce urban rainfall escapes. It is modular, easily deployed (retrofit), and self-powered. More info: https://climateinnovationwindow.eu/innovations/centaur	Sonja Ostojin (Environmental Monitoring Solutions Ltd)	Completed the intake questionnaire. Decided not to join the programme because the innovation is already mature and significant resources have already been dedicated to its strategic business development.
Unified Fire Protection Units and System- UFPUS	The main scope of the invention is to provide an Artificial Intelligence system and method for fire identification and extinguishing in real time, by combining and embodying existing tools, technology systems and products puzzle referred to as an innovation algorithm. More info: https://climateinnovationwindow.eu/innovations/ufpus	Endri Bahja & Andrea Papa (Exinn Tech Center)	Completed the intake questionnaire and the QuickScan. Decided not to continue the programme because they were not selected to receive financial support from BRIGAIID.
EVAPOCONTROL	Polyethylene modular floating covers to suppress evaporation losses and algae growth in water reservoirs. More info: https://climateinnovationwindow.eu/innovations/evapo-control	Javier Navarro (EVAPOCONTROL)	Completed the full MAF+ assessment independently.

Annex – MAF+ Templates

The following pages show the final templates for the updated framework exercises. Original versions of these have been prepared during the first year of BRIGAIID and applied to study the cases of the frontrunner innovations as a means of initial testing and gap identification. They have now, in the last period of BRIGAIID, been updated and trimmed for clarity and consistency. They are also available for download to MAF+ users as offline exercises. All references to the literature consulted in the preparation of these templates are compiled at the end of the annex.



BRIGAIID Market Analysis Framework+

Template for the Business Model Canvas

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: Jack Tarpey (Ecologic Institute)

Business Model Canvas

Introduction and instructions

The Business Model Canvas visually represents your current or future business model. It captures the key elements of a business plan whilst highlighting the links between components. It encourages a focus on customer value but is thorough; its nine elements cover the essential aspects of a business, including customers, your offer to them, the infrastructure to deliver, and finances.

The Business Model Canvas sets the scene before you begin the MAF+. Running through the Business Model Canvas before embarking on the next exercises will prime you to concentrate on

your customers and the value that you offer them; this customer-value focus should guide your decision making throughout the MAF+. Completing the Business Model Canvas will also identify gaps in your business plan or any lack of clarity in your thinking.

The Business Model Canvas should be completed as a team, as the results will benefit from a variety of perspectives. The Canvas should be completed iteratively; a potential order is suggested below but make sure to jump backwards and forwards as you think of new elements and want to edit or add to previous entries.

A few tips: (1) the Business Model Canvas should be a live document (the MAF+ will return to it) – revisit the Canvas and add to it and edit as you test your assumptions, and clarify your understanding of your customers and the value you offer; (2) avoid generalities and be as explicit and quantitative as you can be – if there are elements where you can't be specific, come back and edit these after thinking and researching more later; (3) Take advantage of the different colour “post it notes” in the Canvas to link the same customers, channels, value propositions, etc. across the Canvas. Use the questions in each element to guide your entries and hover over the question mark for examples.

The building blocks:

1) Customer segments: Who are our most important customers?

- Prioritise and be specific

2) Value propositions: What problem do we solve for our customer, what value do we bring them, and how do we differentiate ourselves from the competition?

- Think: how does your product/service improve the customer's life; why do they choose your offering?³ Be specific

3) Channels: What is the best way to reach customers – to raise awareness, enable them to purchase, and deliver our good/service?

- Think about it from the customer's perspective – how will they find out about your offer? Describe marketing and sales channels

4) Customer relationships: How does the customer interact with you throughout the sales process (and after)?

³ The value proposition canvas can be useful here: <https://www.peterjthomson.com/2013/11/value-proposition-canvas/>

- Do you offer personalised support and co-create solutions with clients or use automated service - which is best for your business?

5) Key resources: What strategic assets do you need to deliver value (by carrying out your key activities)?

6) Key activities: What activities must you complete to deliver your value proposition to your customers?

- Prioritise activities here: try to identify which processes and actions are truly crucial to delivering your value proposition and earning revenue.
- Key resources can be categorised as human, financial, physical, or intellectual

7) Key partners: Who are you reliant on to carry out your key activities and deliver value to your customers?





- Identify current (and potential) partners and suppliers whose you need to help your customers

8) Cost structure: What are the costs of running your business, and are they fixed or variable?

- Identify all the costs associated with your business and think about how you could minimise them; remember to link them to key activities to ensure they are relevant costs.

9) Revenue streams: How do all of the above building blocks come together to provide you with revenue?

- Be specific and quantitative; also, link the revenue streams to customer segments, value propositions, and channels.

7) Key Partners	6) Key Activities	2) Value Propositions 	4) Customer Relationships 	1) Customer Segments 
	5) Key Resources		3) Channels 	
8) Cost Structure		9) Revenue Streams		



BRIGAIID Market Analysis Framework+

Template for the PESTEL Analysis

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

PESTEL Analysis

Introduction and instructions

The PESTEL framework is a strategic analysis tool used to examine the external conditions that surround an organization. It allows organizations to consider the 'big picture' in which they operate, thus enabling them to identify factors that could influence their strategy development and decision-making (Issa et al., 2010).

The main objective of a PESTEL analysis is to identify the current opportunities that the organization could exploit and the threats that it should avoid. In a PESTEL analysis, the surrounding environment is divided into six types of external conditions: Political, Economic, Social, Technological, Environmental and Legal. Each of these six conditions are then analyzed individually to identify any indication of changes that could represent an opportunity or a threat to the organization and its activities. These changes in the external conditions may be already ongoing or expected to happen in the future (Gillespie, 2011).

It is recommended that the PESTEL be completed by a group of individuals from within the organization, ideally from different departments or holding different skills and knowledge. The group should consider each of the six PESTEL conditions in turn, noting down potential external issues under each that could affect the organization. Once this has been done, the issues listed should be prioritized in order of how likely they are to occur and how large their impact would be. The final result will be a list of key external influences that could affect the organization - whether external opportunities or threats.

The PESTEL analysis does not require proposing solutions or possible responses to the identified changes in external conditions. Also, deciding whether an issue falls into one box or another is not crucial, as long it is listed somewhere in the sheet (*Cadle et al, 2010*).

In the context of the MAF+, the results of the PESTEL analysis will feed into the Advanced SWOT Analysis found later in the framework.

	Description	Examples	Issues identified by the innovator (bullet points or flowing text)
P	Political conditions refer to all existing or potential government policies and strategies (local, regional, national or supra-national level) that could impact your organization.	<ul style="list-style-type: none"> • Climate change and adaptation policies • Infrastructure, procurement, environmental policies • Government support or subsidies likely • Political priorities, both of the current government and the broader public 	
E	Economic conditions include any issues related to the economy (local, national, and global) in your organization's home or target markets that could affect your organization and its success.	<ul style="list-style-type: none"> • Interest rates and predicted trends • Economic growth • Inflation and currency exchange rate trends • Access to funding and loans • Government and consumer spending 	

S	<p>Social conditions are those that arise from the side of consumers and can influence the demand for your organization's products and services.</p>	<ul style="list-style-type: none"> • Demographic changes, such as aging population or increase in education levels • Change in preferences, such as growing interest in environmental issues • Change in attitudes, values, or ethics, e.g. re. privacy, communal action, or environmental protection 	
T	<p>Technological conditions cover all technological developments that could affect your organization, including both industry/market-specific developments and general trends.</p>	<ul style="list-style-type: none"> • Technological developments in your industry • Competitors with more technologically-advanced offerings • Important and relevant general trends (e.g. increased smartphone penetration, IT connectivity, online sales) 	

E	<p>Environmental conditions include all ecological or environmental issues that could affect your business.</p>	<ul style="list-style-type: none"> • Climate change impacts in your target markets • Likelihood of extreme weather events such as drought, flooding, heat wave etc. impacting you/your customers • Ongoing availability of important environmental input e.g. clean water 	
L	<p>Legal conditions include all potential changes to the legal environment in which your organization operates.</p>	<ul style="list-style-type: none"> • Consumer laws • Competition law • Employment law • Health and safety legislation • National level and international (European) level 	



BRIGAID Market Analysis Framework+

Template for the Market Segmentation

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

Market Segmentation

Introduction and instructions

Market Segmentation is the first step in the product-specific section of the MAF+. This means that the perspective of the analysis now moves away from the external conditions (i.e. what was done in the PESTEL analysis) and focuses on the dynamics between the individual innovation and its potential end-users and/or paying customers.

The objective of this exercise is to break down the market into individual groups of actual and potential customers. These groups, also called market segments, can be defined based on similarities in their wants and needs, geographic location, socio-economic profile, and other characteristics. These market segments can then be examined in further detail from the viewpoint of the organization.

In this exercise, a non-exhaustive list of stakeholder groups associated with the market for flood, drought, and extreme weather solutions is presented. The innovators are asked to carefully go through the list and select those groups which, based on their own expectations, could have an interest or need for their product. The shortlisted groups will then be analysed using the Group Attractiveness Scorecard in the next exercise.

Descriptions and examples are given to facilitate the identification of relevant groups.

Category	Stakeholder Group	Description	Examples	Selection
Public	Local authorities	Local administrations and authorities such as city councils play an important role in building local resilience and responding to drought, floods, and extreme weather events (ICLEI and CEPS, 2013). Local authorities can act both as service providers and as regulators. Furthermore, local authorities have responsibility for the water quality and quantity security of their communities and their industrial base (GWP 2013).	City infrastructure, public transport, parks, environment, urban planning, zoning, building permits, and disaster planning departments, municipal water and energy utilities, amongst others (Ecologic Institute et al., 2010).	X
	Regional authorities	Regional administrations and authorities, such as states and river basin management administrators, are responsible for adaptation planning and implementation (ICLEI and CEPS, 2013). Furthermore, local authorities have responsibility for the water quality and quantity security of their communities and their industrial base (GWP, 2013).	Regional environmental agencies, building regulation regulators and policy makers, water managers, water suppliers.	

	National authorities	Ministries and other government institutions (e.g., agencies) at the national level are responsible for climate policy, as well as managing and responding to droughts, floods, and extreme weather events (European Commission, 2013). Member States are obliged to develop flood and drought management plans under the WFD and its daughter directives.	Health and environment ministries, as well as those responsible for major infrastructure and agriculture (IPCC, 2014).	
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	<p>International and supranational authorities</p>	<p>The European Union and its institutions create central policy, regulate, and monitor Member States and their response and preparation for droughts, floods, and extreme weather (European Commission, 2013).</p>	<p>Each of the following EU Directorate-Generals: Agriculture and regional development, climate action, energy, environment, health and food safety, maritime affairs and fisheries, regional and urban policy, research and innovation; also: the European Environmental Agency, European Food Safety Authority, European Maritime Safety Agency, European Railway Agency, and the European Aviation Safety Agency.</p>	
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Private	Agriculture	The agricultural sector needs clean and affordable freshwater to meet irrigation demands. The rural sector is therefore highly affected by droughts and water quantity issues (European Commission, 2007). It is also highly susceptible to weather uncertainties, including forest fires (World Bank, 2015)	Local individual farmers, large agricultural landowners, cooperatives, dairy, meat, and produce companies, fertilizer companies, (local, national, and European) agriculture representative groups.	
	Electricity industry	Climate change will affect the energy industry at every point in the production chain (Umweltbundesamt, 2011). This includes production, transport, and demand. For example, water is an important input in the production of energy – for power generation and cooling (OECD/IEA, 2012). Accordingly, this sector is susceptible to water shortages and heat waves, which reduce the effectiveness of water cooling.	Energy generators and retailers, gas network operators, transmission system operators, renewable energy associations, and energy equipment manufacturers.	

	Transport sector	The transport sector is a central cog in all global economies and is susceptible to disruption and damage due to extreme weather events and floods (German Federal Government, 2008). Road, rail, air, and water transport are all affected.	Road, rail, air, and open and inland water infrastructure providers and equipment manufacturers, regulators, and shipping and storage companies (EEA, 2014).	
	Manufacturing industry	The manufacturing industry is often highly water intensive and frequently exerts pressures on water quantity (UNW-DPAC, 2011). An example is the chemical industry, which is particularly dependent on water availability and access to raw materials, which will in turn be affected by climate change and the resulting floods, droughts, and extreme weather (Umweltbundesamt, 2011).	Food and beverage manufacturers, raw materials processors, chemical and pharmaceutical manufacturers, consumer goods manufacturers, machinery manufacturers, and many more. Their representative groups and regulators (both local and at national and international levels) are also important.	

	Insurance and re-insurance companies	Insurance companies offer insurance policies to the public to cover damages resulting from extreme weather, floods, and droughts. An insurance company can specialise in a specific type of insurance or offer multiple types. Re-insurance provided by a company is used to provide higher coverage levels to customers when the risk is too high to one insurance company alone (Bank of England, 2015).	Insurance and actuarial associations, insurance companies, regulating authorities.	
	Strategic planners	Strategic planners work for small businesses, large corporations and NGOs and support them by planning long-term growth and development strategies. The outcome of their planning can influence the overall risk of a flood, drought, or extreme weather event. Hence, strategic planners must have a good understanding of these issues and potential risks to make recommendations.	Spatial planners, urban planners, sustainable urban designers, environmental assessment experts.	
	Emergency planners	They perform advanced consultative services in planning, development of emergency and response plans. When an emergency occurs, emergency planners set the appropriate plan into operation and therefore have a direct impact on the realised risks ⁴ .		

⁴ In some cases, emergency planning is often carried out by public authorities.

	Tourism sector	The tourism sector, which provides consumption goods and services to tourists, is susceptible to water shortages and extreme weather (European Commission, 2007). Areas dependent on winter sports tourism (such as skiing) and coastal tourism are particularly susceptible.	Local tourism activity providers, coastal and mountain accommodation establishments (including hotels and camping grounds), and tourist transport operators.	
	Consultants/Private companies	Environmental consultants or private companies conduct surveys and inform companies about options to reduce negative effects on nature, respectively (Olesen, 2011).		
	Building sector	The building sector, which is responsible for researching, planning, building, and renovating structures, is an important stakeholder. Increases in extreme temperatures and weather, as well as increased likelihood of flooding, will require changes from the sector (German Federal Government, 2008).	Individual builders and building companies, material providers, engineers, architects, plumbers, electricians, energy consultants, associations representing them, and related regulators.	
	Forestry sector	The forestry sector is highly susceptible to droughts and fires (Italian Ministry for the Environment, Land, and Sea, 2013).	Forest owners, forest planners, forest managers and fire managers.	

	Fisheries	Fisheries are susceptible to extreme weather events. The aquaculture sector in particular is heavily dependent on water availability, and therefore also concerned with droughts (Shelton, 2014).	Ship owners, captains, fishing companies, gear and equipment manufacturers, safety officers, aquaculture farm operators, fisheries regulators, fisheries scientists, and harbour masters.	
	Real estate sector	Property is likely to bear the brunt and cost of a majority of drought, flooding, and extreme weather impacts. Accordingly, the real estate sector is a key stakeholder.	Developers, real estate agents, real estate companies, individual homeowners, real estate companies, and property managers.	
Other	Civil defence and emergency response organisations	Civil society organisations such as the Red Cross and Civil Defence as well as public services have important roles to play in responding to crisis events such as those resulting from floods, droughts, and extreme weather (Umweltbundesamt, 2011). They are also involved in planning for disaster responses.	(local, national, and international) Red Cross and Civil Defence ⁵ .	

⁵ Public sector actors such as police, fire, ambulance, and the military are often important civil defence and emergency response stakeholders.

	General public	The general public refers to individuals living in at-risk areas, which, given the increase in likelihood of floods, droughts, and extreme weather events, is a large and growing group. Especially susceptible to extreme weather are the young and the old (Vasileiadou et al., 2014) and those close to water or the coast (Umweltbundesamt, 2011).		
	Researchers (universities or extramural research institutions)	Researchers work in universities or extramural research institutes. They develop ideas, e.g., on how to measure water flows, create more accurate models, develop alarm systems for floods, prevent droughts, etc.	Universities and other research institutions, scientists, programmers, data analysts, policy advisers, consultants.	
	Environmental organisations	Citizens and/or environmental organisations raise awareness of the effects of certain life-styles and or land-uses and can further education in schools and universities. Environmental organisations provide information for the general public and for practitioners in different areas. They are often very active in publicising issues and mobilising action.	Local environmental groups, and local, national, and international branches of major environmental groups.	
	Recreational groups	Recreational users engage in a number of activities that can be affected by droughts, floods, and extreme weather events and are therefore important stakeholders (Umweltbundesamt, 2011). For example, water-based activities such as swimming, fishing, and boating are susceptible to water quantity issues.	Water and winter sports organisations or participating individuals, gardeners, equipment renters and sellers, and fishing and wildlife organisations.	



BRIGAIID Market Analysis Framework+

Template for the Target group selection (Attractiveness scorecard)

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Target Group Selection (Attractiveness Scorecard)

Introduction and instructions

Once the market has been segmented, it is important to clearly define what the target group for the innovation will be. A target group is simply a market segment at which the organization will direct its marketing and communication efforts.

The main objective of carefully selecting a target group is twofold: 1) to ensure that the market segment being addressed is the most appropriate one; and 2) to allow for the preparation of a more customized marketing and communication strategy.

According to Aaker and McLoughlin (2010) there are three main issues to be considered when selecting a target group. First, the capacity of the organization to create a product that is appealing to the individual target group. Second, reflecting whether this appeal could be sustained even after competitors react to your market actions. And last, estimating whether the return (i.e., benefit) is higher than the investment (i.e., cost) required to provide an appealing, customized product. These issues have been reformulated and included in the MAF+ as criteria in a scorecard that can be used to evaluate and compare the attractiveness of different market segments.

In this exercise innovators are asked to have a closer look at the stakeholder groups that were shortlisted in the previous exercise and evaluate them using the Group Attractiveness Scorecard presented below. Based on their previous experience and knowledge of current clients and their own position in the market, innovators are asked to rate the potential customer groups according to the predefined criteria in the scorecard. The ratings are then used to calculate a total attractiveness score. Using this score, innovators can make a more informed decision about the group(s) that they

want to address their offer to. Please score each segment in relation to the five questions below. Please also provide comments explaining your reasoning.

The highest scoring segment will be your “main target market”, and should be your focus in all the following exercises. The second highest scoring segment will be your “key growth opportunity”, and it should be the first one considered for future evaluations.

Market Segment	Criteria	Comments	Rating*					Total Score
			1	2	3	4	5	
Segment 1: Forest Managers	[C1] The customer group has a pressing need and is willing to act upon it.					4		19
	[C2] Our offering can satisfy that need.					4		
	[C3] We can easily communicate/access the customer group.			2				
	[C4] There are no known competitors addressing this need.					4		
	[C5] The customer group is substantial and potentially profitable.						5	
*A rating of 1 denotes the statement is totally inaccurate, a rating of 5 denotes the statement is totally accurate.								



BRIGAIID Market Analysis Framework+

Template for the Market size estimation

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

Market Size Estimation

Introduction and instructions

Once a target group has been selected based on the results of the Attractiveness Scorecard (previous exercise), the next step is to estimate its potential size. This is done by estimating the number of potential clients within the geographical area of interest and translating that into monetary values.

The aim of this exercise is to approximate the potential value (in economic terms) of the market for your innovation. This will be important information to help you work out the profitability and viability of your business later on.

This is completed in three steps:

1. Estimating the number of clients in your target group (C)

This can be done in two ways, both of which will require you to research your potential market:

- If you are developing a very specialized innovation aimed at a narrow group of clients, a bottom-up method is recommended. A **bottom-up** estimate requires you to identify your customers in a particular geographic region (e.g. a local region or a country that you know well) and then extrapolate from this to estimate the size of the worldwide market for your innovation.
- If your innovation is to be a mass-produced product or widely available service, a top-down method is recommended. A **top-down** estimate requires you to use appropriate EU or country economy-

wide statistics and then scale that down to estimate a realistic target group size. Depending on the nature of your target group, the necessary information could be found in the following sources:

- 1) EU/National/Regional or statistics (For example [Eurostat](#), national statistics websites, [World Bank](#)) – to find out the size of a particular population
- 2) Industry association reports, private company information (such as annual reports) – to find out the size of the market for similar/related products/services
- 3) The Online Resource appendix that accompanies the MAF+ (see Annex)

2. Assuming a market penetration rate (R)

The market penetration rate is the percentage of the target market you identified in step one that might be expected to buy your product/service. The market penetration rate will be higher, e.g. if customer demand for your innovation is higher; and lower, e.g. if the existing competition is strong. Estimating the market penetration rate is a judgment call, but can be simplified by asking yourself a series of linked questions and then multiplying the answers together. The example below shows the case of a target group that is made up by a total of 100 individuals. As is shown, the market penetration rate can get small very quickly:

a)	How many individuals within the target group identified in step one will have a real and pressing need for your product?	30 out of 100 = 30%
b)	Of these, how many will you be able to get the attention of?	6 out of 30 = 20%
c)	Of these, how many will be convinced that your offering is the best option?	3 out of 6 = 50%
d)	Of these, how many sales deals will you realistically be able to close?	2 out of 3 = 66%
Overall penetration rate		2 out of 100 = 2%

Multiplying the numbers from step one and two will give you the total number of clients you can obtain in the target market.

3. Determine the price that you will charge your clients (P)

The price you will charge your clients can be determined in a number of ways. Two simple options are:

- i) Cost plus pricing: If you are entering a new market, one way of setting a price is working out your costs then adding a set amount or margin.
- ii) Competitive pricing: Copy the pricing strategies of your competitors

Bringing it all together

Once you have set the price for your innovation, you are ready to estimate the economic value of your target market by simply multiplying the output of the three steps described previously:

$$\text{Market Value} = C \times R \times P$$

Additional notes

The main purpose of this exercise is to gain a better understanding of the factors that could influence the potential size of the target market, and apply that knowledge to inform your business strategy. Since the outcome of this exercise relies strongly on assumptions made along each of the three steps, it is strongly recommended to conduct an adequate level of research on your target market, run a sensitivity analysis by varying the assumptions made in each of the steps and estimate for best- and worst-case scenarios.

Exercise Templates (with examples in blue font)

MAIN TARGET GROUP: Environmental research institutes							
Location	Year	Number of Customers (C)	Market Penetration Rate (R)	Market Size (C x R)	Price (P)	Market Value (C x R x P)	Comments/ Assumptions
Berlin	2017	4	50%	2	€ 1,000.00	€ 2,000.0	<p>We have strong and long-standing relationships with two of the research institutes in the city.</p> <p>We are aware of their need for a tool like ours and we think their willingness to adopt it would be medium to high.</p>
			%			€	
			%			€	

KEY GROWTH OPPORTUNITY: Environmental research institutes							
Location	Year	Number of Customers (C)	Market Penetration Rate (R)	Market Size (C x R)	Price (P)	Market Value (C x R x P)	Comments/ Assumptions
Germany	2017	15	20%	3	€ 1,000.00	€ 3,000.0	We have identified 15 other potential clients across the country. Even though our network is not as strong outside Berlin, having closed deals with the first two clients in the city should provide good references for us to convince a number of players to take up our innovation.
			%			€	
			%			€	

Online resources to inform the market size estimation

The following resources could be useful to complete the MAF+ exercises. Remember, online search engines are your friend! Along with these resources below, keyword rich searches should lead you to what you want to know.

Population projections

EUROSTAT provides projections of population growth by country and region, and also breaks this down by age and sex. The data can be viewed online or downloaded at <http://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-/database>

Economic growth

Inflation

Inflation measures the change in prices in an economy. Stable and low inflation is considered an important indicator of an economy's health.

The headline EU inflation indicator is the Harmonised Index of Consumer Prices. This is shown visually for all of Europe here: <http://ec.europa.eu/eurostat/inflation-dashboard/> This tool also allows you to see price changes by item group (e.g. housing, food and beverages, technology etc.)

Detailed data by country can be found here:

<http://ec.europa.eu/eurostat/web/hicp/data/database>

Exchange rates

The exchange rate, i.e. how much of a foreign currency one Euro can buy, can have a large impact on business viability, especially for heavily traded goods and services. It is also a key indicator of an economy's health.

Overall trends can be seen by checking the European Central Bank's daily nominal effective exchange rate, which is a weighted average exchange rate with 19 of Europe's major trading partners: <https://www.ecb.europa.eu/stats/exchange/effective/html/index.en.html>

The ECB also provides long term data on specific exchange rates:

<https://www.ecb.europa.eu/stats/exchange/eurofxref/html/index.en.html>

European economic growth (and projections)

Data on past and projected medium term economic growth for European countries can be found here: http://ec.europa.eu/economy_finance/eu/countries/index_en.htm

International economic data

The World Bank has an excellent data platform that covers a wide range of economic and social variables, by country. For example, GDP levels, GDP per capita, GDP growth (<http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>); unemployment (<http://data.worldbank.org/indicator/SL.UEM.TOTL.ZS>); inflation (<http://data.worldbank.org/indicator/FP.CPI.TOTL.ZG>); exports (<http://data.worldbank.org/indicator/TX.VAL.TECH.CD>), and many more.

Public perceptions

Public perception data on a massive variety of topics is collected by the EU in the form of the Eurobarometer every year. Approximately 1000 people in each EU country are interviewed and the data is collected and made available at the following interactive website: <http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm/General/index>

Environmental issues

General European and country overviews

The EEA's annual State of the Environment reports present detailed information by topic and country on all sorts of environmental issues and industries affected and dependent on the environment. It can be found here: <http://www.eea.europa.eu/soer>

Climate change impacts

The most recent Intergovernmental Panel on Climate Change (IPCC) report is the key reference for climate change impacts and vulnerabilities. The Europe chapter is likely to be of particular reference: http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap23_FINAL.pdf as is the higher-level Summary for Policymakers: http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap23_FINAL.pdf

Climate change commitments

The Climate Tracker website independently tracks and evaluates climate commitments. It has up to date policy information, by country. <http://climateactiontracker.org/countries.html>

Local, regional, national and European adaptation policy

The Climate ADAPT website has information on adaptation policies at all levels of European governance. This is organized by sector (<http://climate-adapt.eea.europa.eu/eu-adaptation-policy/sector-policies>) and by country and region (<http://climate-adapt.eea.europa.eu/countries-regions>).

Hazard information

The BRIGAID Market Scoping Report, Deliverable 6.1, ranks the attractiveness of different regions of Europe in terms of the expected impact of climate change on them and their adaptive capacity (the knowledge, ability and willingness to respond to that risk). This is based on the assumption that the regions that will be most attractive to BRIGAID innovators will be those that face the largest impacts from climate change and have the highest ability/willingness to respond to these impacts. This information is presented as colour coded maps for each hazard studied in BRIGAID. For example, for innovations responding to river floods, the most attractive regions will face the greatest risk of river flooding, have people or valuable assets that will suffer if flooding occurs, and have a high adaptive capacity. The report can be downloaded from the BRIGAID website here: http://brigaid.eu/wp-content/uploads/2016/10/BRIGAID_D6.1-Market-scoping-report.pdf

Fires

The European Forest Fire Information System contains historical and current data on fires, as well as forecasts. This data can be displayed by country, region, or sub-region (NUTS 3), as well as reports summarizing overall fire risks and policy responses. See: <http://forest.jrc.ec.europa.eu/effis/applications/>

This information is also summarized by the EEA here: <http://www.eea.europa.eu/data-and-maps/indicators/forest-fire-danger-1/assessment>

Flooding and sea level rise

The European Environmental Agency has a number of useful resources related to flooding data, risk, forecasts, and policy. This recent publication summarises current information. <http://www.eea.europa.eu/publications/flood-risks-and-environmental-vulnerability> Additional data and information can be gathered by searching “flooding” in the EEA data and maps search engine <http://www.eea.europa.eu/data-and-maps>

Visual maps of sea rise and flooding risk under climate change can be seen here: <http://sealevel.climatecentral.org/maps>

Extreme rainfall

Along with the IPCC reference given under Climate Change Impacts above, the EEA also offers extensive and more localised data on extreme rainfall events: <http://www.eea.europa.eu/data-and-maps/indicators/precipitation-extremes-in-europe-2/assessment>

Drought and water scarcity

Additional information on droughts in Europe (including up to date data) can be found at the European Drought Observatory website: <http://edo.jrc.ec.europa.eu/edov2/php/index.php?id=1000>



BRIGAIID Market Analysis Framework+

Template for the Market growth rate estimation

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: Jack Tarpey (Ecologic Insitute)

Market Growth Rate Estimation

Introduction and instructions

After having estimated the size of your target market in the previous exercise, the next step is to determine whether the market can be expected to grow, remain stable, or shrink in the future.

This task is not only a good chance to think about future opportunities and challenges in your market, the outcomes will also be useful to elaborate time series, make observations, and identify trends. The figures can also be used to conduct a comparative analysis against other market segments of interest, other industries, or growth rates of economy-wide indicators like GDP. These comparative analytics can identify possible points of inflexion in the product life cycle that, in turn, can hint the likely arrival of threats or opportunities for your business (Aaker and McLoughlin 2010).

Calculating this figure can be done in the same way as you calculated the original market value in the previous exercise. The same resources, such as Eurostat and company accounts, will again be of use. Remember, the aim of this task is not to calculate a perfectly accurate growth rate, but rather to consider the future of your market and the opportunities and challenges that may arise.

You can use this tool to calculate a market growth relative to the data you entered in the previous exercise. To do so, for each row, simply input a value into the “market size in year of interest” and select a “year of interest” (e.g. one or five years in the future); the growth rate will be automatically calculated.

You can also use this tool to calculate a market size in the future, based on an assumed growth rate. Simply select this option below, then enter an annual growth rate and a year of interest.

Exercise Template (with examples in blue font)

Market Value in Reference Year (MV ₀)	Market Value in the Year of Interest (MV ₁)	Market Growth Rate (%G) = $(MV_1 / MV_0)^{1/\# \text{ of years}} - 1$	Comments/ Assumptions
€ 2,000.00	€ 5,000.00	$(5000/2000)^{1/1} - 1 = 1.5 = 150\%$	MV ₀ = 2015 , MV ₁ = 2016
€ 950.00	€ 2,000.00	$(2,000/950)^{1/4} - 1 = 0.2045 = 20.45\%$	MV ₀ = 2011 , MV ₁ = 2015
€	€	%	



BRIGAIID Market Analysis Framework+

Template for the Cost-Volume-Profit analysis

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: Jack Tarpey (Ecologic Insitute)

Cost-Volume-Profit (CVP) analysis

Introduction and instructions

It is important to estimate the profitability of a product through a cost-volume-profit (CVP) analysis. The reality is that to have a sustainable future, your business will have to cover its costs. This tool will allow you to calculate the different costs that your business will face at different levels of output, and subsequently estimate the number of units you will have to sell to break even – and the profits you will earn if you go beyond this point. Moreover, it helps you to identify the sales volume (the sales volume in units and monetary values required to earn the target net income) in comparison with the projected sales. It will also provide you with a succinct overview of your costs and income.

To complete the CVP, you need to estimate the costs you will face under different cost categories, and then relate these to the price and sales you expect to achieve. This is then used to automatically calculate the contribution margin per unit sold (i.e. the difference between the variable costs of producing an additional unit relative to the price you receive; this contribution is what covers fixed costs and ultimately profit), the break-even point (in units and monetary values), the gap until you reach break-even (in units and monetary values), and the margin of safety (the number of units above the point that a company breaks even). This is also showed visually on a chart. The required inputs to use the tool are:

1. A breakdown of all the costs (fixed and variable) related to the product or service along the value chain (development costs, sales and marketing costs, etc.)
2. The unit price (subscription fee, download, etc.)
3. The projected unit sales (number of units expected to be sold)
4. The target income in net figures (the revenue goal set for the product or service)

Exercise Template (with examples in blue font)

Software template

	Fixed ⁶	Variable ⁷
Product Development Expenses		
Direct labour	5,000.00 €	5.00 €
Wages	3,000.00 €	3.00
Payroll taxes	520.00 €	0.52
Pension contributions	700.00 €	0.70 €
Company benefits	780.00 €	0.78 €
Equipment (Computers, etc.)	5,000.00 €	5.00 €
Software and Development Tools	3,000.00 €	3.00 €
Research and development	10,000.00 €	10.00 €
Other Development Expenses	1,000.00 €	1.00 €
Sales and Marketing Expenses		
Selling expenses	5,500.00 €	55.00 €
Sales Salaries & Commissions	5,000.00 €	5.00 €
Advertising	500.00 €	0,50 €
Web Site Development and Maintenance	100.00 €	0.10 €
Other Sales and Marketing Expenses	100.00 €	0.10 €
General Expenses		
Administrative expenses	30,000.00 €	30.00 €
Overheads	25,000.00 €	25.00 €
Office space rental	15,000.00 €	15.00 €
Insurance	7,000.00 €	7.00 €
Office supplies	2,000.00 €	2.00 €
Utilities (water, electricity)	1,000.00 €	1.00 €
Licenses	6,000.00 €	6.00 €

⁶ Fixed costs are those costs that are constant whatever the amount of output you produce. Fixed costs should be calculated as annual figures.

⁷ Variable costs are those that increase as you produce additional units. Variable costs should be presented as the additional cost of producing one more unit of output.

Indirect labour		
Managers and executives salaries	4,000.00 €	4.00 €
Payroll taxes	700.00 €	0.70 €
Pension contributions	1,000.00 €	1.00 €
Company benefits	1,200.00 €	1.20 €
Depreciation	5,000.00 €	5.00 €
Communication tools (telephone, e-mail, etc.)	2,000.00 €	2.00 €
Other General Expenses	5,000.00 €	
	62,700.00 €	63.00 €
Price per unit (subscription fee, equipment unit, installation, etc.)		
	50.00 €	
Projected sales (units)	55,270	
Sales volume (units) <i>(the unit sales volume required to earn the target net income)</i>	212,540	
Sales volume (euros) <i>(the euro sales volume a company must generate to reach the target net income)</i>	106,270	
Margin of safety <i>(Number of units above the point that a company breaks even)</i>	46,330	
Projected Net Income	500,000.00 €	
Target Net Income	1,000,000.00 €	
Contribution margin per unit		
	5.00 €	
Contribution margin ratio		
	0.10	
Break-even point (units)		
	8,940	
Units to achieve Target Net Income		
	208,940	
Break-even point (Euros)		
	447,000.00 €	
Euros to achieve Target Net Income		
	10,447,000.00 €	

Hardware template

	Fixed ⁸	Variable ⁹
Product Production and Development Expenses		
Direct labour	5,000.00 €	5.00 €
Wages	3,000.00 €	3.00
Payroll taxes	520.00 €	0.52
Pension contributions	700.00 €	0.70 €
Company benefits	780.00 €	0.78 €
Equipment (Machinery, etc.)	5,000.00 €	5.00 €
Field communication tools (walkie-talkie, etc.)		
Fuel, oil and lubrication	500.00 €	0.50 €
Materials	3,000.00 €	3.00 €
Repairs and maintenance	10,000.00 €	10.00 €
Other Development Expenses	1,000.00 €	1.00 €
Sales and Marketing Expenses		
Selling expenses	5,500.00 €	55.00 €
Sales Salaries & Commissions	5,000.00 €	5.00 €
Advertising	500.00 €	0,50 €
Web Site Development and Maintenance	100.00 €	0.10 €
Other Sales and Marketing Expenses	100.00 €	0.10 €
General Expenses		
Administrative expenses	30,000.00 €	30.00 €
Overheads	25,000.00 €	25.00 €
<i>Office space rental</i>	15,000.00 €	15.00 €
Insurance	7,000.00 €	7.00 €
Tools and supplies	2,000.00 €	2.00 €
Utilities (water, electricity)	1,000.00 €	1.00 €
Licenses	6,000.00 €	6.00 €

⁸ Fixed costs are those costs that are constant whatever the amount of output you produce. Fixed costs should be calculated as annual figures.

⁹ Variable costs are those that increase as you produce additional units. Variable costs should be presented as the additional cost of producing one more unit of output.

Indirect labour		
Managers and executives salaries	4,000.00 €	4.00 €
Payroll taxes	700.00 €	0.70 €
Pension contributions	1,000.00 €	1.00 €
Company benefits	1,200.00 €	1.20 €
Depreciation	5,000.00 €	5.00 €
Communication tools (telephone, email, etc.)	2,000.00 €	2.00 €
Other General Expenses	5,000.00 €	
	62,700.00 €	63.00 €
Price per unit (subscription fee, equipment unit, installation, etc.)		
	50.00 €	
Projected sales (units)	55,270	
Sales volume (units) <i>(the unit sales volume required to earn the target net income)</i>	212,540	
Sales volume (euros) <i>(the euro sales volume a company must generate to reach the target net income)</i>	106,270	
Margin of safety <i>(Number of units above the point that a company breaks even)</i>	46,330	
Projected Net Income	500,000.00 €	
Target Net Income	1,000,000.00 €	
Contribution margin per unit		
	5.00 €	
Contribution margin ratio		
	0.10	
Break-even point (units)		
	8,940	
Units to achieve Target Net Income		
	208,940	
Break-even point (Euros)		
	447,000.00 €	
Euros to achieve Target Net Income		
	10,447,000.00 €	



BRIGAIID Market Analysis Framework+

Template for the Porter's five forces

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

Porter's Five Forces

Introduction and instructions

After gaining an understanding of your own business and target audience, the next step is to widen the scope to include others who will influence your business success: competitors, buyers, and suppliers. Porter's Five Forces is a useful tool for assessing the level of competition and balance of power in five crucial business situations. Understanding the level of competition and your relative power allows you to identify market attractiveness, identify trends, threats and opportunities – and provide insight into how to deal with these strategically.

According to Michael Porter, "the state of competition in an industry depends on five basic competitive forces". The higher the competition and lower your power, the less attractive (and less profitable) a market will be. Porter's five forces are:

- **Supplier Power** – powerful suppliers (e.g. large suppliers of essential inputs with few substitutes or competitors) can drive up prices, increasing your costs.
- **Buyer Power** – if you depend on selling to a few powerful buyers (e.g. large clients who can easily buy from someone else), they will be able to drive down prices - and your profits.
- **New Market Entrants** – if new competitors can easily enter the market – e.g. if costs of entry are low and there are few established players – this can keep prices and profits down.
- **Substitutes** – if a customer can easily replace your product or service with an alternative that delivers comparable quality and price, market profitability will decrease.
- **Competitive Rivalry** – competitive markets drive down prices and profits as companies compete away value.

Examples of each of these are given in the drivers column below below.

This exercise consists of assessing how each of these drivers applies to your business. This will shed light on the balance of power in your market, and on the potential for changes in competitive advantage and potential changes that could result in the attainment or loss of competitive advantages. It is important to highlight that these exercises should be conducted by a multidisciplinary, cross-functional team, which is well acquainted with your product and its environment, in order to enhance the breadth and depth of the results.

The dynamic figure to the right shows a graphic model of the five forces that will be filled in as you add text to the right column of the table below.



Exercise Template (with examples in blue font)

Force	Sample Drivers	Your assessment
Supplier Power	<ul style="list-style-type: none"> • Number and size of suppliers • Geographical coverage • Uniqueness of service • Relationships with customers • Costs of switching supplier 	<p>We have at least two different suppliers for each of the key material inputs necessary to construct our flood barrier. For the maintenance services, we subcontract another company with which we have a special arrangement. A change in that arrangement would mean we can no longer provide the maintenance service.</p>
Buyer Power	<ul style="list-style-type: none"> • Number of buyers • Proportion of sales per buyer • Costs of switching products • Price sensitivity • Order size and frequency 	<p>Currently our sole client is the City of X. Our contract includes the construction of a river flood barrier in the city center and maintenance services for a period of 20 years. Given a shortage of funding and an upcoming change in administration in the city, an amendment of the maintenance service contract is highly probable. This could harm the mid-term sustainability of our business as this is currently the only income for our company.</p>
New Market Entrants	<ul style="list-style-type: none"> • Size of barriers to entry • Economies of scale • Capital investment required • Special competences required • Technology/Intellectual Property protection 	<p>Delivering products and services in this industry requires strong investments in equipment as well as specialized knowledge and competences in hydrological sciences and civil engineering. These represent large barriers to entry.</p> <p>The strong competition makes it imperative to apply for patents, which can also represent a sizable barrier to entry.</p>
Substitutes	<ul style="list-style-type: none"> • Price/quality of alternatives • Changes in distribution channels • Costs of switching • Fashion and trends • Legislative effects 	<p>The usual paying customers in this market are government authorities at all levels (national/regional/local). While local administrations generally tend to work with local suppliers, national authorities commonly have access to a wider range of alternatives, both from within and beyond the country.</p> <p>Currently, the choice remains mainly between infrastructure and software solutions. Trends point to temporary/deployable barriers, and fixed green infrastructure solutions instead of fixed grey infrastructure. This trend is expected to continue given the EU legislation and policy efforts on nature-based solutions and green infrastructure, as well as open environmental data.</p>
Competitive Rivalry	<ul style="list-style-type: none"> • Number and size of firms • Industry size and trends • Costs of leaving the market • Product/service ranges • Differentiation strategy 	<p>The number of firms in Europe whose core business is to provide technological solutions against flooding is large (>100). A considerable majority (>90%) of these firms are SMEs active mainly within their national market, and many are young spinoffs from universities and research institutes. The two largest players are located in the Netherlands (Company X –</p>

		<p>www.companyx.nl) and Austria (Company Y – www.companyy.at).</p> <p>Influenced by the higher recurrence and damage of flood events in Europe in the last two decades, the market for flood prevention solutions has grown steadily in the same period. The new trend is moving towards green infrastructure and nature-based solutions.</p> <p>The products offered by the identified firms entail mainly infrastructure solutions (fixed and temporary) and software solutions (forecasting and modeling). In both cases, the unavoidable need for costly equipment (e.g. construction and computational equipment) to deliver their products makes it expensive for existing players to leave the market.</p>
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BRIGAIID Market Analysis Framework+

Template for the Heat Map

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

Heat Map

Introduction and instructions

The next step is to focus in on the different aspects of value that your product/service offers your customers, and how strong you are relative to your competitors. This competitive strength analysis results in invaluable strategic information to identify market opportunities and threats and to convince customers to choose you over your competition.

This heat map visualizes your strengths and relative weaknesses. It is completed in four steps:

1. Identify your competitors – this includes directly competing products, indirect competitors who offer customers a different way to achieve the same outcome, and potential substitutes. Ask potential customers for suggestions, or research online or through industry organisations. Both competing products/services and companies can be assessed; fill these in along the top row of the table below.
2. Select assets/competencies or features to assess – assets/competencies are your competitor's resources (e.g. facilities, customer base, brand) and skills (e.g. scientific excellence, marketing skills) that enable them to deliver a quality product/service to your customers; features are the aspects of your or their product/service that customers value (i.e. specific characteristics like effectiveness, ease of use, attractive design). Separate these into two groups, those which are “key for success” and those which are of “secondary importance,” and fill in the first column on the left below.
3. Evaluate your competitors – qualitatively assess each of the identified competitors using a 3 point scale (1=below average, 2=average, 3=above average) as to how strong they are on each aspect.
4. Evaluate yourself – now objectively assess your own offering relative to each of the identified assets/competencies/features; use the highlighted column at the left of the table.

The resulting table shows the relative strengths and weaknesses of your offering to that of your competition.

Exercise Template

Heat Map:		Competitor 1	Competitor 2	Competitor n	Your organisation
		Product 1	Product 2	Product n	Your product
Key for success	Asset/Competence/Feature 1				
	Asset/Competence/Feature 2				
	Asset/Competence/Feature 3				
Secondary Importance	Asset/Competence/Feature 4				
	Asset/Competence/Feature 5				
	Asset/Competence/Feature 6				

Key (3 point scale):

	3 = Above Average
	2 = Average
	1 = Below Average

Exercise Template (with examples in blue font)

Heat Map: <i>Solutions to contain forest fires</i>		Company X	Company Y	Company Z	My Company
		Product X	Product Y	Product Z	My Product
Key for success	Feature: Effectiveness in putting out forest fires	2	3	3	3
	Feature: Mobility/ease of deployment	1	3	1	3
	Asset: Closeness to the current government	1	3	2	2
Secondary Importance	Feature: Price Competitiveness	3	1	2	3
	Competence: Knowledge/experience on previous cases of fire	1	2	1	1
	Competence: Maintenance skills	2	3	1	3

Key (3 point scale):

	3 = Above Average
	2 = Average
	1 = Below Average



BRIGAIID Market Analysis Framework+

Template for the Value proposition

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

Value proposition

Introduction and instructions

A value proposition succinctly and clearly summarises the real benefits that your customer will enjoy when they purchase your good/service. It clearly aligns what you offer with what your customer wants and gets from your offering. A good value proposition clarifies the unique, measurable value that you offer and how this will improve your customer's life.

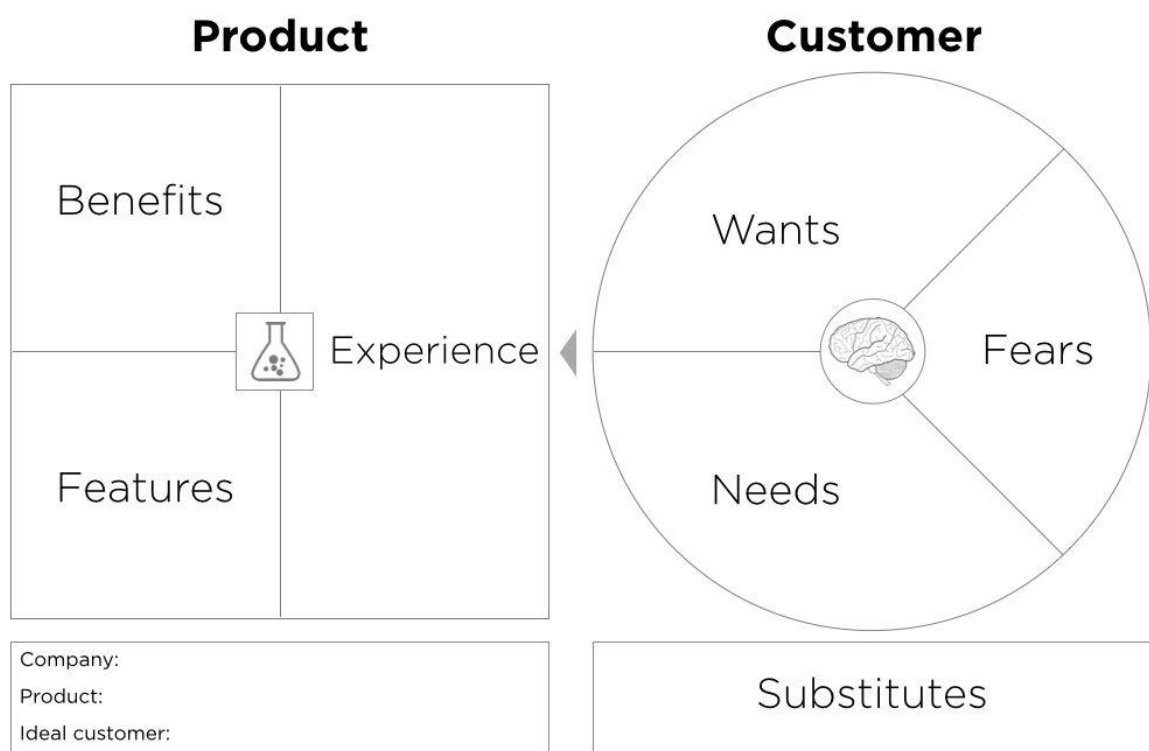
A value proposition is valuable for strategy and for marketing. As a clear statement of why a customer should purchase your product/service, the value proposition is the natural starting point for all marketing. The value proposition also provides strategic focus: it focuses on the customer's experience and highlights the uniquely valuable and valued aspects you offer, which should be the focus of all strategic business decisions. A value proposition is the intersection of your business' offering and your customer's wants and desires. Accordingly, putting together your value proposition is completed in three steps:

1. Define your product/service
 - a. **Benefits:** What does your product/service do to make your customer's life better? List the ways your product/service alleviates customer pain or increases customer pleasure
 - b. **Experience:** What does it feel like to use your product/service? Consider the emotional experience of using your product/service
 - c. **Features:** How does your product work? List the useful features and attributes of your product/service
2. Understand your customer

- a. **Wants:** What are the emotional drivers of your customer’s choices? What do they want to be, do or have?
 - b. **Needs:** What are rational drivers of customer choices?
 - c. **Fears:** What are the risks or potential downsides of switching to your product? What might stop a potential customer?
3. **Substitutes:** What does your customer do instead of using your product/service today?

The final step is to combine these customer and product/service insights into a succinct value proposition statement. Make sure the statement does not exceed two sentences. And remember to make it clear who your target customer is, what you offer to that customer, and how you are different to your competition.

Value Proposition Canvas



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Once you have considered each of these aspects, you will have all of the information to pull together a clear, compelling, and accurate value proposition – which you can then use to guide strategic planning and marketing messaging.



BRIGAIID Market Analysis Framework+

Template for the SWOT Analysis

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis

Introduction and instructions

The SWOT Analysis is a widely used tool that helps to gather and portray information on internal and external factors that (may) influence a firm's performance (Pickton & Wright, 1998). When carried out as a thorough process of reflection, it can be instrumental to "discover and diagnose the core competences and core problems of an organisation" (Coman & Ronen, 2009). Further, it prepares them for the external opportunities and threats posed by competitors and other driving forces (such as those identified in the PESTEL Analysis and Porter's Five Forces exercises).

In BRIGAIID, the SWOT Analysis follows the approach by Coman & Ronen (2009), which starts by reflecting upon a small number of events that had a significant impact on the organisation in the past (e.g. the closing of a big contract, the development of a new product). These events are then analysed carefully to reveal the specific internal and external factors that drove the achieved outcomes.

The idea behind this exercise is to use the results of the PESTEL Analysis, Porter's Five Forces and Heat Map to define a list of priority actions to increase your competitiveness. For instance, the six conditions studied in the PESTEL Analysis are all potential drivers of opportunities and threats (e.g., changes in regulation, demographics, lifestyle, technology); and the assets, competences and features you identified in the Heat Map exercise can be translated to relative strengths and weaknesses towards your competitors.

The figure below shows a SWOT matrix template. As a first step, decide on one or two events that have had a significant impact on your business. Briefly describe these in the top text box and use these to frame your SWOT analysis. In each quadrant of the SWOT, a list of guiding questions is shown to help you identify the strengths, weaknesses, opportunities, and threats relevant for your

case. With these questions as a guide, fill out Strengths, Weaknesses, Opportunities, and Threats in the template. Make sure all entries are formulated in a concise, action-orientated way and, to the extent possible, based on facts rather than opinions. Stick to one entry per line, and aim for three to five entries per quadrant (the longer the list, the higher the probability of including entries that do not have a substantial impact on your organisation).

A well-structured group brainstorming exercise should result in a thorough list. Be realistic and objective in your analysis. When planning, it is better to consider the worst case scenario than the best, as this will give you a better chance to prepare. Also, to ensure that you are identifying the root cause of the underlying strength, weakness, opportunity or threat, it may be helpful to apply the “5 Whys” technique. Each initial identified strength, weakness, opportunity or threat should be repeatedly interrogated by asking - “why?” - to get to the essence of the issue. For example:

1. Our tool is popular with users – why?
2. Our tool is simple to use – why?
3. Our tool doesn’t require specialist knowledge and is simple to master – why?
4. Our tool has an intuitive user interface that our customers enjoy using – why?
5. We are excellent at designing intuitive tools that meet customer abilities and needs – a fifth “why” is not necessary, as you have identified your core strength with the fourth why.

Exercise Template

Fill out the blank template in sheet "1 SWOT" of the attached excel file ("MAF+ - SWOT and Priority Score")

Significant event(s)	
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STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> ▶ What does your organisation do better than others? ▶ What are your unique selling points? ▶ What is your organisation's competitive edge? ▶ What do competitors and customers in your market perceive as your added value? 	<ul style="list-style-type: none"> ▶ What do other organisations do better than you? ▶ What elements of your business add little or no value? ▶ What do competitors and customers in your market perceive as your shortcomings?
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> ▶ What political, economic, social, technological, environmental, or legal changes are happening that could be favourable to you? ▶ Where are there currently gaps in the market or unfulfilled demand? ▶ What new innovation could your organisation bring to the market? ▶ What social and environmental impacts could your product have? 	<ul style="list-style-type: none"> ▶ What political, economic, social, technological, environmental, or legal changes are happening that could be unfavourable to you? ▶ What restraints do you face? ▶ What is your competition doing that could negatively impact you?



BRIGAIID Market Analysis Framework+

Template for the SWOT priority score

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

SWOT – Priority Score

Introduction and instructions

After identifying the Strengths, Weaknesses, Opportunities, and Threats facing you and your business, the next step is to decide which factors you should focus on. This exercise will identify which factors are most strategically important. To help clarify the analysis, consider the internal factors (Strengths and Weaknesses) and external factors (Opportunities and Threats) separately.

Tip: hover over the question marks in the exercise below for additional information!

Internal factors: Strengths and weaknesses

You have the ability to address strengths and weaknesses of your offer relative to your competitors. The key to prioritising which factors to focus on is to consider two aspects: (1) How crucial is this strength to your success (or how likely is it that this weakness will lead to your failure)?; and (2) for each factor, how do you compare to your competition? You need to ensure that you protect and promote your key strengths, and quickly address any important weaknesses. This exercise will help you prioritise what factors to focus on first.

1. Step one: Importance – move the slider to indicate how important this factor is for you to deliver value to your customer
2. Step two: Relative strength/weakness – move the slider to indicate how strong you are in this factor relative to your competition

Once you have completed this for every internal factor, a priority score for each strength and weakness will be calculated automatically. Those factors with the highest scores should be your focus: you should continue to protect and develop your most important strengths and you should work quickly to address the high priority weaknesses.

External factors: Opportunities and threats

You also should look beyond you and your competitors today to scan the horizon for potential threats or opportunities – and to prepare for them. To prioritise which opportunities and threats you should focus on, you should consider two aspects: (1) What is the probability that this opportunity/threat will occur? And (2) how big an impact would this factor have on your success, if it did occur? This exercise will help focus your attention on the external factors that are most likely to have a large impact on your success.

3. Step three: Probability of impact – move the slider to indicate how likely it is that this opportunity/threat will occur
4. Step four: Impact level – move the slider to indicate how large an impact on your success the threat or opportunity would have, if it occurred.

Once you have entered a probability of impact value and an impact value for all opportunities and threats, a weighted priority score will be calculated. As with the internal factors, the external factors with the highest priority score should be your focus. By focusing on these as you develop your strategy, you give yourself the best chance to take advantage of valuable opportunities and to deal with dangerous threats in the future.

See sheet “2 Priority Score” in attached excel file (“MAF+ - SWOT and Priority Score”)



BRIGAIID Market Analysis Framework+

Template for the Business Model Canvas Revision exercise

Elaborated by: Gerardo Anzaldúa and Hugh McDonald (Ecologic Institute)

Edited by: John Tarpey (Ecologic Institute)

Business Model Canvas (Revision)

Introduction and instructions

The final step in BRIGAIID MAF+ is to take all you have learnt and revisit your Business Model Canvas. As explained in exercise 0, the Business Model Canvas visually represents every aspect of your current or future business model. It also highlights the links between the components. The aim of revisiting your earlier Business Model Canvas is to reflect on everything you have learnt from the MAF+ about your innovation and your company, and update the Canvas to reflect this. Your Exercise 0 Canvas has been copied in below.

Your Business Model Canvas offers a succinct summary of your business model, making it an essential tool for developing your business into the future. It provides you with a summary of almost all of the components of a good business plan, which you can then use to develop your innovation, target customers, and attract investors. It also includes to-the-point business information that you can use to guide your marketing and feed into your business pitch.

As in exercise 0, you should fill out the Canvas as a team. The Canvas should be completed iteratively; a potential order is suggested below but make sure to jump backwards and forwards as you think of new elements and want to edit or add to previous entries. Three key tips: (1) the Business Model Canvas should be a living document, revisit it again in the future! (2) Avoid generalities and be as explicit and quantitative as possible (3) Take advantage of the different colour “post it notes” in the Canvas to link the same customers, channels, value propositions, etc. across the Canvas. Remember, hover over the question mark icon for examples.

The most important thing is to revisit the previous MAF+ exercises and use what you have learnt to update each element of the Business Model Canvas.

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Business plans (Confidential)

A confidential supplementary material file is provided to the Commission accompanying this deliverable. This annex contains business plans created by each innovator who has completed the BRIGAD Business Support programme. These are confidential.