

Report on the business case for Brigaid inc.

D6.8.

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Authors Institution Email	Linde Boekhoudt, Varsha Ramlal, Luuk Schagen, Gerben van der Wal The Funding Company l.boekhoudt@thefundingcompany.nl



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List of contributors

Main authors

- TFC: Linde Boekhoudt, Luuk Schagen, Varsha Ramlal, Gerben van der Wal
- ECO: Gerardo Anzaldúa; Hugh McDonald

Additional contributors to the activities presented in this document

- HKV: Marco Hartman
- ICA: Elena López Gunn; Paloma Santos; Manuel Bea
- ATKP: Nensi Lalaj
- ICRE8: Evita Maili; Phoebe Koundouri
- LOR: Laia Palau; Pilar Pascual

Internal reviewer:

- Bas Jonkman, TU Delft

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1. Introduction

1.1. Purpose of this document

This Deliverable describes the activities and results regarding Task 6.6: Business case for sustainable BRIGAIID impact (TFC, ECO, HKV, LOR, ICA, ICRE8, and AKPT). In addition, an update is provided on Task 6.5: Development and application of a public-private investment and financing model (PPIF) to guide innovators with regards to funding and finance (TFC, ECO).

Task 6.6 “*aims to assess the business case for sustained activities of the BRIGAIID project, with the aim to sustain ongoing support for climate adaptation innovations in Europe.*” To this end, BRIGAIID has evaluated the opportunity to continue (significant parts of) the BRIGAIID project. The overall objective was that this continuation should be self-sustaining and thus at least partially independent of structural financial support of the European Commission. This means that certain elements or BRIGAIID as a whole should be commercialised in a way, and find customer groups who are willing to pay for the services and/or tools that are offered. The working title that this initiative has been given is “BRIGAIID Inc.”.

The primary goal and value proposition of BRIGAIID Inc. is to serve as a “one-stop-shop” for climate adaptation innovation within Europe. BRIGAIID Inc. offers the tools, frameworks and expert support that have been developed and validated within the BRIGAIID project. This includes the Testing and Implementation Framework (TIF), Market Analysis Framework+ (MAF+), Business Development Programme (BDP), the Climate Innovation Window (CIW, formerly Innovation Sharing Platform), Communities of Innovation (COI) and Public-Private Investment and Financing model (PPIF).

Task 6.5 aims to support innovators with public and private financing. Task 6.5 has been adapted since the last reporting in M33. This report includes an update on the PPIF and the associated activities that have been carried out in order to support BRIGAIID innovators in their pursuit for funding to bring their innovation to the market. The new approach adopts a more customised way of support for those innovators who are interested in attracting external funding, either through investors or from public grants.

The report is structured as follows:

- Chapter 1 provides background to the conception and development of “BRIGAIID Inc.” and presents highlights of the evaluation of the business case for the initiative.
- Chapter 2 outlines the activities undertaken as part of Task 6.6 (i.e. business development workshop, market assessment, drafting and evaluation of a business plan for BRIGAIID Inc.), which follow the approach of the BRIGAIID Business Development Programme.
- Chapter 3 presents the results of the business development workshop conducted for BRIGAIID Inc., including a preliminary version of the initiative’s Business Model Canvas
- Chapter 4 presents and discusses the results of the market assessment conducted for BRIGAIID Inc. on the MAF+. This includes the outputs of a PESTEL Analysis, Value Proposition Canvas, market segmentation, competitive analysis and SWOT Analysis.
- Chapter 5 presents the business plan for the BRIGAIID Inc. initiative
- Chapter 6 describes the evaluation of the business case for BRIGAIID Inc. in its current status.
- Chapter 7 provides an update of our work on the PPIF and other funding/financing support to provided to innovators.
- Chapter 8 wraps up the report and presents conclusions.

1.2. Background to the development of BRIGAIID Inc.

During the BRIGAIID meeting in Bucharest in June 2019, a number of BRIGAIID consortium partners agreed that we should think about ways to continue BRIGAIID – or at least its main and most valuable activities – beyond the project period. Given that at this stage (roughly three years into the project period), already multiple tools and services had been successfully developed and implemented, the partners agreed that it would be a shame and a waste if all those activities should stop once the project’s funding ended.

This idea was brought up during one of the General Assembly meetings between the BRIGAIID partners involved in business development and dissemination and exploitation: AKPT, ECO, HKV, ICA, ICRE8, LOR and TFC. Given their joint objectives of Business Development on the one hand, and Dissemination and Exploitation on the other hand, this subset of BRIGAIID partners felt in a suitable position to explore opportunities on how to continue BRIGAIID’s activities after the project’s end.

Before deciding on the development or establishment of BRIGAIID Inc., the partners considered several options to sustain the actions initiated and validated within BRIGAIID, as listed and described below with their respective advantages and disadvantages.

Table 1. Possibilities and consideration for different types of continuation of BRIGAIID activities

Type of continuation	Pros	Cons
1. One of the consortium partners continues the activities	<p>(+) Each consortium partner involved in Task 6.6 has sufficient knowledge and expertise to continue the activities;</p> <p>(+) The activities are continued per se, as an alternative of not sustaining would be considered less attractive.</p>	<p>(-) Specific knowledge and expertise of the (other) partners would still be needed to tackle the multi-disciplinary issues of the target group(s)</p>
2. 'Leave it to the market' This concerns a (passive) third party approach, anticipating that a relevant market party will continue the activities, given the dissemination activities performed by the consortium partners.	<p>(+) A (third) party that would be able to sustain the activities, from an integrated perspective (multi-disciplinary capabilities);</p> <p>(+) The developed and validated package of tooling and activities would provide an attractive proposition for a third (market) party.</p>	<p>(-) Requires substantial lead time finding such a party, which would result in loss of momentum;</p> <p>(-) (Absence of) availability of such (potential) party, as one of the very reasons to develop BRIGAIID is the absence of integrated, multi-disciplinary and validated solutions on climate resilience activities across Europe.</p>
3. Continue (part of) the consortium to sustain the activities	<p>(+) Maintaining momentum in the flow of activities; no disruption would occur</p>	<p>(-) New dimension of the partnership which is not tested during the project period;</p>

	<p>comparing other alternatives considered;</p> <p>(+) Partnership between the involved organisations of Task 6.6 is strong and tested during a 4 year period overcoming hurdles and obstacles throughout the project</p>	<p>(-) Question-mark would be self-financing or business case of the initiative</p>
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Given these considerations, the abovementioned subset of consortium partners concluded that the third option was evaluated to have the highest chance of success. This had led to the initiative for “BRIGAIID Inc.”. In summary, the main reasons to initiate BRIGAIID Inc. are:

- multi-disciplinary approach required by target group, i.e. start-ups focussing on climate resilience solutions,
- a well-established partnership that has been operational across Europe over the last four years, that has experience with the target group as well as relevant validated tooling in place,
- willingness and ability of the partnership to continue cooperation post-BRIGAIID project based upon the business plan developed.

As mentioned in the “cons” under item 3, a crucial change from the existing BRIGAIID project would be a transition towards a self-financing situation (i.e. not reliant entirely on EU project funds). Without thorough investigation, there are many great uncertainties as to how achievable this would be. In addition to creating a business model out of a grant-funded Horizon 2020 project, the transition also requires a novel partnership between the participating members.

1.3. Evaluating the business case for BRIGAIID Inc.

This deliverable presents the activities – and accompanying results – that have been carried out to investigate and evaluate the feasibility and attractiveness of a “BRIGAIID Inc.” organisation.

A primary goal of this investigation has been the exploration of a potential business model to sustain (part of) BRIGAIID’s activities in a financially viable manner. Here, BRIGAIID tools themselves such as the MAF+ have been exploited to investigate key aspects of the business model, including value proposition and target customers. In addition, BRIGAIID has researched initiatives such as OPPLA,

EIPP and Climate-KIC in order to assess organisational structures and revenue models that are already in the market.

Since the meeting in Bucharest, and reinforced by the BRIGAIID meeting in Tirana in October 2020, the BRIGAIID Inc. “work force” of WP6 and WP7 partners has been regularly and steadily working on the establishment, promotion, investigation and progression of BRIGAIID Inc. Indeed, following a face-to-face workshop in Delft, weekly teleconferences, and joint efforts on a wide variety of tasks, the establishment of an official non-profit international association is within close view at the time of submission of this report.

Chapter 6 describes the evaluation of the business case for BRIGAIID Inc in its current status. As is presented here, the initiative is not yet “investment-ready”, and certain crucial items are yet to be clarified. Main aspects include the establishment of a formalized organisational structure, and the validation of target group attractiveness. However, if the new BRIGAIID Inc. consortium continues their dedication and follows the strategy presented here in the business plan (Chapter 5), there should be no reason why climate adaptation innovators in Europe cannot continue to receive the support as envisioned within BRIGAIID. The proof of the pudding will be in getting a contract with BRIGAIID Inc.’s first launching customer.

An expected, yet elegant, turn of events – the master has become the student, and BRIGAIID has been inspired by the innovators they have supported, to become an innovator themselves, and work towards their common goal: a climate resilient Europe.

2. Outline business case Brigaid Inc.

The business case for a commercialized continuation of the BRIGAIID project – dubbed “BRIGAIID Inc.” as working title – has been in essence approached in the same manner that we have approached the business cases for BRIGAIID innovations in the WP6 Business Development Programme (BDP).

The main question here, as with all innovations, is: *does BRIGAIID Inc. offer a solution to an unmet need that exists in the market?* And, if so, who are the ones willing to pay for this solution?

To answer these questions, we have followed the approach of the BDP, taking the following steps:

1. Business Development Workshop

The first step is a 2-day workshop (organised by The Funding Company) during which the different aspects of a business plan are discussed. On the second day, the Business Model Canvas is completed to illustrate the essential aspects of the innovation’s business model, including target group, value proposition, required activities and resources, and the associated costs and revenues.

2. Market Analysis

The Market Analysis Framework+ (MAF+), developed by Ecologic Institute, provides online tools for a range of exercises for market assessment. These exercises aim to help the innovator understand and create a picture of the (potential) market(s) that the innovation is situated in, ranging from political and environmental conditions to market size, target group attractiveness and strengths and weaknesses of the innovation. The MAF+ makes use of well-known and validated tools, such as the PESTEL and SWOT analysis. For the BRIGAIID Inc. market assessment, the following exercises have been carried out:

- a. PESTEL Analysis
- b. Value Proposition Canvas
- c. Market Segmentation
- d. Target Group Selection
- e. Competitors’ Heat Map

- f. SWOT Analysis
- g. SWOT Priority Score

3. Business Plan

The Business Plan for an innovation is meant to contain all essential information to assess what the innovation entails and how successful it is expected to be. The business plan is typically used both as a strategic document for the innovator themselves as well as for communicating with potential investors. Note that the definition of “success” of the innovation may vary: for some investors, success may mean making as much money as soon as possible, whilst for others it may mean creating social or environmental impact.

The Business Plan contains five main sections:

- a. General
- b. Strategy
- c. Social
- d. Technology
- e. Business Model & Financials

4. Business Case Evaluation

Based on the Business Plan, an evaluation can be made on whether or not the innovation presents a viable “business case”. In other words, is it likely that the innovation will survive – and perhaps even thrive – in the market?

The business case evaluation is carried out using a standardised methodology, scoring 10 different aspects on a range of 1 to 5. These aspects are: General; Impact; Team; Partners; Long term ambition; Adoption and social acceptance; Market analysis; Business model; Technology assessment; and Financial viability.

3. Business Development Workshop

As with the business development programme conducted with the innovators participating in the BRIGAIID project, the formal business development activities surrounding the “BRIGAIID Inc.” initiative started off with a two-day workshop. Participants included representatives from HKV, The Funding Company, Ecologic Institute, iCatalist, AKPT, L’Orangerie (now Off Course) and ICRE8. Roelof Moll, executive coordinator of BRIGAIID at TU Delft, also joined one of the sessions for an initial exchange of perspectives. The goal of this meeting was to assess the current state of the business development, and to formalize it into a first draft of a Business Model Canvas. This serves the same purpose as it does when conducted with BRIGAIID innovators, though the form was adapted for the occasion, as this also constituted the first face-to-face meeting to explore BRIGAIID Inc.’s business potential in detail and presented one of the few occasions in which the participating organizations could discuss face-to-face in the foreseeable future.

The sessions were conducted on the 9th and 10th of July 2019 in Delft. Seven representatives from four partner organisations were present (The Funding Company, iCatalist, L’Orangerie, Ecologic Institute, and HKV). Representatives from other participating partners (AKPT, ICRE8 and a second representative from iCatalist) joined the meeting digitally through teleconference. The first day included an accelerated version of the Business Plan Questionnaire and a start of the Business Model Canvas, and the second day consisted of finishing the Business Model Canvas, making a brief start on the Market Analysis Framework, and discussing a roadmap, strategy and high-level agreements for cooperation. This Chapter will first describe the initial state of the project established in the first day of the workshop, followed by an explanation of the developed Business Model Canvas, as well as outline the agreements that were reached at the end of the session.

3.1. Business Plan Questionnaire

The start of the meeting consisted of an abridged version of the Business Plan questionnaire that normally provides the starting point for BRIGAIID’s Business Development Programme. This is commonly used as a tool to gauge the extent to which the business development has already progressed. In this case it mostly served as a framework to judge the alignment of ideas surrounding the concept of BRIGAIID Inc., as this was the first time it was extensively reflected upon in person. The main topics of this questionnaire are the message and value proposition, team and

organizational structure, market and customer segments, long-term strategy, technical feasibility, business model and financial viability. These topics were discussed in order, which was used as the starting point for formalizing a first draft of the business model canvas.

3.2. Business Model Canvas

As normally used in the BRIGAIID Innovator workshops, the Business Model Canvas serves as a tool to visually lay-out the mechanics and structure of a business model, representing the Value Proposition front and centre, and explaining its feasibility, its desirability and its financial viability throughout the rest of the canvas. The filled-out Business Model Canvas represents a working hypothesis from which the other business development activities can be performed and confirm or disprove the hypotheses. The Business Model Canvas filled out during the meeting can be seen in **Figure 1**, as it was filled out in the first exercise in the MAF+ (described in more detail in the next Chapter).

Starting with the **Value Proposition**, this represents the primary reason why the business represents value to the customer, and therefore constitutes the reason why the business might be financially viable. The main value that was identified from the session in Delft was summarized as a three-tiered proposition: *“Transforming and Uplifting talented Climate adaptation innovators into entrepreneurs, connecting them to a network of potential end-users and experts and thereby improving disaster resilience throughout Europe.”* (see **Figure 1**). This includes the business development support and tools for innovators, as well as access to testing facilities as the first tier for transforming innovators into entrepreneurs. The international network provided by the participating BRIGAIID partners, and visibility on the online Climate Innovation Window constitutes the networking value. These then collectively result in improved survival opportunities for disaster resilience start-ups, contributing to an overall stronger disaster resilience. All these offerings would be connected, to become a “one-stop-shop” for all disaster resilience related support.



Figure 1 – BRIGAIID Inc.'s three-tiered value proposition.

These Value Propositions are then linked to potential **Customer Segments** which are most likely to benefit from and show a willingness to pay for the corresponding value. This can be seen in [Figure 2](#) by the numbers that are bracketed in the Value Proposition section and precede the listed Customer Segments. As can be seen there, the primary target groups are the innovators, for values concerning the individual business development support. Similarly, local agencies aiming to support innovation, as well as other H2020 projects might be interested in these same values, as well as appreciate the one-stop-shop of expertise and networking for their partnering innovators. Regional governments on the other hand, that are actively looking to become end-users of the developed innovation, could benefit most from the networking values provided by BRIGAIID Inc. Finally, transnational public organisations, like the European Union or the EIB were identified as a potential “customer segment” to benefit from the overall aim of the project to increase climate resilience on a more global level.

Exercise 0 | Business Model Canvas

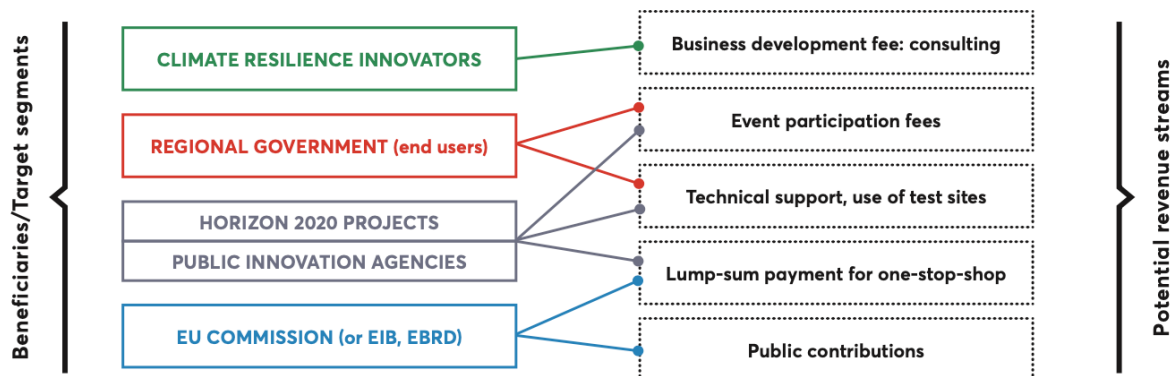
H Key partners Who are you reliant on to carry out your key activities and deliver value to your customers? BRIGAID Consortium weADAPT Climate Adapt National Adaptation measures repositories (e.g. Adapteca) H2020 sisters: BINGO, RESCUE, RESIN CLARITY EIB, EBRD (vi) RESCUE (?) Climate KIC (V) (vi) WaterWindow (V) Oppla (V)	G Key activities What activities must you complete to deliver your value proposition to your customers? I - CIW Development (a,j) II - Personal Networking (b,c,j,k) III - Event organization/promotion (b,c,j) IV - Startup coaching and support (d,e,j) V - Developing BRIGAID Inc. business F Key resources What strategic assets do you need to deliver value (by carrying out your key activities)? i - BRIGAID experts ii- CIW iii- Business Dev. Tools iv- Web developers v- Network, contact information	A 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? a - Digital Visibility (1, 2, 6) b - Contacts/Network (1, 6) c - Expertise network (Climate resilience) (1, 2, 3, 4) d - Tested/proven tools for Business Development (1, 2, 3) e - Support innovation development (1, 2, 3) f - Continuation/exploitation of EU projects (2, 5a) g - Disaster Resilience (3,5) h - Distribution of innovations - matching solutions to problems (3, 5) i - Increased viability/survival success of start-ups (1, 2, 3, 5) j - One-stop-shop (1, 2, 3)	D Customer relationships How does the customer interact with you throughout the sales process (and after)? Personal, long-lasting (1,2,3,4,6) Contractual (5) Based on customer loyalty/recurring customer (1) C Channels What is the best way to reach customers – to raise awareness, enable them to purchase, and deliver our good/service? Conferences/Meet-ups Cols Social media Online events (e.g. Webinars) Personal contacts	B Customer segments Who are our most important customers? 1 - Climate Resilience Innovators 2a - H2020 projects 2b - Government Innovation Agencies 3 - Regional Governments (end user) 4 - Impact Investors 5a - European Commission 5b - EIB / EBRD 6 - Universities/Research Institutes
I Cost structure What are the costs of running your business, and are they fixed or variable? Dissemination Material (and advertising) Network Events (variable) Staff (management, dissemination, fixed) Web hosting and development (fixed) Staff (coaching etc, variable)		E Revenue streams How do all of the above building blocks come together to provide you with revenue? Event Participation Fees (b, c) -> (1,2,3,4,6) Business Development Service fee personalised service (e,k) -> (1,2b, 6) Budget for project participation/pre-packaged offer (c,d,e,f,j) -> (2a ,5) Investments/Contributions (g,h,i) -> (3,5) Platform Fees (a) -> (2,3,6) Business Development Service fee - for online tools. resources (d) -> (1,2,6)		

Figure 2. Business Model Canvas, resulting from the workshop held in Delft, July 2019

The Business Model Canvas sections on **Channels** and **Customer Relations** describe how the value will be delivered to the customer and how interactions with the customers will be maintained. These sections were drafted roughly due to the time constraints and priorities of the meeting. The main message of these sections concerns the importance of a combined online and physical presence of the networking benefits, as well as the need for long-lasting relationships with potential customer segments. This insight provides an indication that much of the work in business development will go into personal networking and building relations over more traditional forms of marketing or sales, as the potential customers will be small in numbers, but each potentially representing a high individual value.

The **Revenue Streams** section of the Business Model Canvas represents the first part of the financial viability segment of the Canvas (along with the Cost Structure), and describes in what form the business will receive compensation/remuneration for the value delivered to the customer segments. These are again represented with number and letter labels in the Business Model Canvas (Figure 2), and were later formalized and schematically represented in the diagram shown in Figure 3, which connects the four main customer segments from the previous paragraphs to their most likely revenue stream.

Figure 3: Schematic representation of potential revenue streams



The remaining parts of the Business Model Canvas primarily list the **Activities** and **Resources** required to deliver the value, as well as who might help provide them (**Partners**) and which of them might impose significant **Cost**. As mentioned, in the case of BRIGAIID Inc. these activities involve much networking activities, business development support and

event organization. Furthermore, there will be some development activities for the online presence as well as associated fixed costs for web hosting and servers.

3.3. Final agreements and next steps

Apart from completing the business model canvas, the rest of the meeting was dedicated to hashing out the details surrounding the overall message, the standards and procedures for cooperation, the possible legal structures for the project, potential partnerships with other initiatives and continuation beyond the BRIGAIID project timeline.

The roadmap that was established from the meeting included the following steps:

- Examination of potential legal structures for BRIGAIID Inc;
- Further business development activities including the MAF+ (presented in the next section);
- Creation of marketing and branding materials for the concept;
- Connecting with potential partner organisations;
- Further developing core BRIGAIID pillars into self-sustaining tools.

4. Market Analysis

As with the BRIGAIID innovators, the BRIGAIID Inc. business development process continued with an assessment using the Market Analysis Framework (MAF+). This was carried out over the months after the meeting in Delft in July 2019. The MAF+ consists of a series of exercises that serve to analyse the market and the business' position in it, in relation to its customers as well as competition. More details on the MAF+ can be found in Deliverable D6.5.

4.1. PESTEL Analysis

PESTEL is a tool that systematically allows for examination of the wider environment in which the company will operate. It is an abbreviation which stands for political-, economic-, social-, technological-, environmental- and legal conditions. These will therefore now be discussed in order along with their relevance for the BRIGAIID Inc., business case.

POLITICAL CONDITIONS

- Horizon Europe (2021-2027) - new EU research and innovation programme, with €100 billion funding. Missions include: "Adaptation to Climate Change, including societal transformation" and "Climate-neutral and smart cities". The new programme also supports innovation through Pillar 3 - Innovative Europe (€10 billion to support European Innovation Council, European Innovation Ecosystems).¹

Climate

- The Paris Agreement included a specific adaptation target (Article 7(1)): "*establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing*

¹ See: https://ec.europa.eu/info/sites/info/files/research_and_innovation/ec_rtd_he-presentation_062019_en.pdf

to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal"

- Of the 191 countries who signed the Paris Agreement, 94 have already ratified it as of third of November 2016.² This includes the European Union, who ratified the Agreement on the 5th October, and many individual Member States, as well as Albania, though not Israel. This early adoption of the Paris Agreement indicates a high level of political commitment in the majority of the countries currently associated to BRIGAIID.
- "Climate action is a key priority for the EU. To respond to challenges and investment needs related to climate change, the EU has agreed that at least 20% of its budget for 2014-2020 – as much as €180 billion – should be spent on climate change-related action" – which includes adaptation as well as mitigation.³
- In addition, the European Green Deal specifically mentions Climate Adaptation, albeit in a general context of climate change and mitigation. ⁴ *"The Commission will adopt a new, more ambitious EU strategy on adaptation to climate change. This is essential, as climate change will continue to create significant stress in Europe in spite of the mitigation efforts. Strengthening the efforts on climate-proofing, resilience building, prevention and preparedness is crucial. Work on climate adaptation should continue to influence public and private investments, including on nature-based solutions. It will be important to ensure that across the EU, investors, insurers, businesses, cities and citizens are able to access data and to develop instruments to integrate climate change into their risk management practices."*

Innovation

- The EU is actively supporting and promoting the sort of open innovation approach followed by BRIGAIID, as shown in the Three O's vision document published by the

² UNFCCC (2016) Paris Agreement - Status of Ratification http://unfccc.int/paris_agreement/items/9444.php, accessed 03.11.2016)

³ https://ec.europa.eu/clima/policies/budget/index_en.htm

⁴ https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

European Commission in May 2016⁵. This includes 23 March 2019 announcement of €2billion to fast forward the creation of the European Innovation Council

- BRIGAIID's vision of smart, sustainable businesses is well-aligned with the headline Europe 2020 growth strategy: achieving a smart, sustainable, and inclusive EU economy.

ECONOMIC CONDITIONS

- EU required to spend 25% of budget on climate-related issues.
- Spending on adaptation measures by national, regional, and local governments may be limited in light of the still recovering global economy. Especially following the corona crisis, local governments are expected to focus strongly on recovering their local economies.
- "Aggregate economic losses accelerate with increasing temperature" and climate change is expected to slow economic growth⁶
- Indeed, extreme weather events, fires, and floods threaten almost every aspect of the economy specifically and generally.
- Current low interest rates should ease investments with long payback periods or investments where benefits are not seen until long into the future, which may apply to adaptation innovations and their implementation
- BRIGAIID-related sectors such as ICT, Energy and Utilities, and Cleantech are expected to grow the EU economy in the coming years.

SOCIAL CONDITIONS

- *"Vulnerability to climate change, GHG emissions and the capacity for adaptation and mitigation are strongly influenced by livelihoods, lifestyles, behaviour and culture. Also, the social acceptability and/or effectiveness of climate policies are*

⁵ <http://bookshop.europa.eu/en/open-innovation-open-science-open-to-the-world-pbKI0416263/>

⁶ IPCC AR5, <http://www.ipcc.ch/report/ar5/syr/>

influenced by the extent to which they incentivize or depend on regionally appropriate changes in lifestyles or behaviours.” (IPCC AR5)

- Europeans believe that the environment affects their everyday life⁷
- They also feel well-informed about environmental issues⁶
- They also believe that the protection of the environment can boost economic growth in the EU⁶
- European populations already live in large numbers in high vulnerability areas (such as coastlines and urban riverbanks) and this is increasing. High density population areas such as cities are “particularly at risk”⁸

TECHNOLOGICAL CONDITIONS

- Improved ICT means that people can work and collaborate remotely, opening up international cooperation and the incorporation of non-EU based innovators.
- Online communication is ubiquitous and will be essential to reach innovators
- Online platforms such as Climate Adapt⁹ are important sources of information, as well as potential places where to promote the BRIGAIID project and BRIGAIID Inc.
- BRIGAIID Inc. must recognise the importance of online search engines and filters as conduits to the initiative and ensure that its website is designed to attract innovators through these channels (i.e. keyword rich, SEO, etc.)

⁷ Eurobarometer (2014) Special Eurobarometer 416, Attitudes of European citizens towards the environment
http://ec.europa.eu/public_opinion/archives/ebs/ebs_416_sum_en.pdf

⁸ <http://www.eea.europa.eu/publications/urban-adaptation-2016>

⁹ <http://climate-adapt.eea.europa.eu/>

ENVIRONMENTAL CONDITIONS

- Deliverable 6.1 identifies regions in Europe where market attractiveness for climate adaptations would be highest - based on adaptive capacity and increase in impact of climate-related impacts¹⁰
- Observed climate trends and future climate projections show regionally varying changes in temperature and rainfall in Europe, in agreement with Fourth Assessment Report (AR4) findings, with projected increases in temperature throughout Europe and increasing precipitation in Northern Europe and decreasing precipitation in Southern Europe. Climate projections show a marked increase in high temperature extremes (high confidence), meteorological droughts (medium confidence), and heavy precipitation events (high confidence), with variations across Europe.¹¹
- The total reported economic damage caused by weather and climate-related extremes in the European Economic Area over the period 1980-2013 is almost 400 billion Euro (in 2013 Euro values).¹² The average damage has varied between 7.6 billion Euro per year in the 1980s and 13.7 billion Euro in the 2000s.¹⁰

LEGAL CONDITIONS

- A European Economic Interest Grouping (EEIG) is a type of legal entity of the European corporate law created on 1985-07-25 under European Community (EC) Council Regulation 2137/85.[1] It is designed to make it easier for companies in different countries to do business together, or to form consortia to take part in EU programmes.
- Other legal structures are possible as well for BRIGAIID Inc to use as an entity. This could be for example an association in the Netherlands ("Stichting met

¹⁰ https://brigaid.eu/wp-content/uploads/2016/10/BRIGAIID_D6.1-Market-scoping-report.pdf

¹¹ IPCC AR5, Europe chapter: https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap23_FINAL.pdf

¹² EEA (2016) Economic Losses From Climate-related Extremes (webpage) <http://www.eea.europa.eu/data-and-maps/indicators/direct-losses-from-weather-disasters-2/assessment> Accessed 03.11.2016

underneming), Spain, or Brussels (AISBL). See section 5.2.2. *Team and Organisational structure* for further explanation.

- Numerous existing EU level regulations have requirements or expectations for climate adaptation planning and implementation. The Water Framework Directive and Floods Directive encourage adaptation plans, as does the Marine Strategy Framework Directive. The Birds and Habitats Directives and Integrated Coastal Management policies also include/require adaptation planning, among others.
- Sectoral policies are also increasingly requiring consideration of climate adaptation issues, for example the Common Agricultural Policy and the transport, telecom, and power infrastructure-focussed EU Connecting Europe Facility, as well as the EU development funding.
- Water scarcity and droughts are not yet consistently covered by EU law. While some reporting and management requirements are covered by the WFD, this is not comprehensive. There is the potential for this to change in the future in ways that affect the innovations and innovators in the BRIGAIID project.
- The EU is a signatory to the UN Sendai Framework for Disaster Risk Reduction 2015-2030, which covers extreme weather events, floods and drought, among many other issues.¹³ It aims for “*The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.*”

PESTEL conclusions

As we expected, external conditions are positive for an initiative like BRIGAIID Inc. This agrees with the collective intuitions of the participating organizations, and was in fact one of the primary movers for the initiative. The PESTEL framework provides a systematic tool for analysis of this external context. This shows that most aspects of the external environment currently align in favour of initiatives that benefit the climate and more and more of this focus has been moving in the direction of adaptation, besides just mitigation.

¹³ See <http://www.unisdr.org/we/coordinate/sendai-framework>

4.2. Value Proposition Canvas

The Business Model Canvas presented in Chapter 3 already contains an envisioned value proposition for the project. The Value Proposition Canvas exercise in the MAF+ expands on this by examining each value proposition in detail and listing in more detail what benefits and experiences the product provides, and also how that relates to the wants and needs experienced by the customer.

As mentioned in Chapter 3, the core message and value proposition of BRIGAIID Inc. can be described as a three-tiered Value proposition (**Figure 1**). Which (1) transforms innovators into entrepreneurs, (2) connects them to end-users, investors and industry experts and (3) in doing so, delivers market-ready innovations that improve the overall climate resilience of Europe.

A “ONE-STOP-SHOP” FOR SUPPORTING CLIMATE ADAPTATION INNOVATIONS

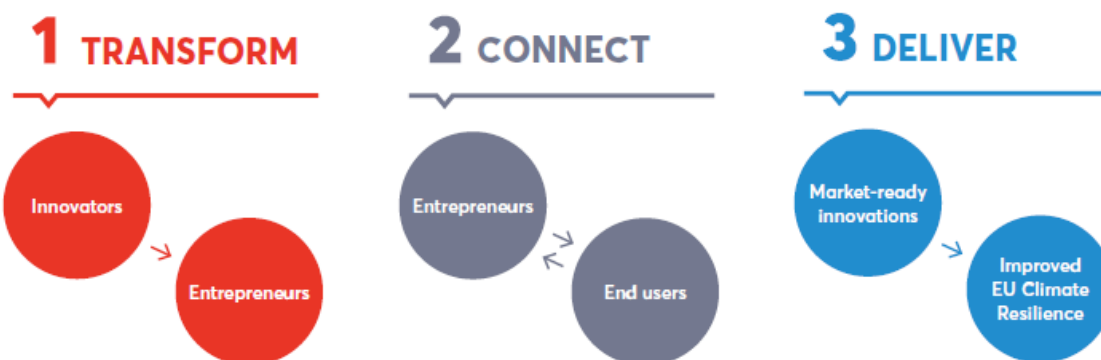


Figure 4: Schematic representation of BRIGAIID Inc.'s value proposition

This core message, as shown for the revenue model in Chapter 3, can however be more clearly specified when considering the individual values for each potential customer group.

The first potential customer group as identified in the Business Model Canvas are the climate resilience innovators themselves. The BRIGAIID project has initially been developed and realized to provide value to these innovators, in providing them with various types of support (funding, testing facilities, business development, outreach, etc.) to bring their innovation closer to the market. The BRIGAIID project has validated that our value

proposition is indeed valued by the innovators. This is further elaborated upon in section 5.3.1 Impact, and the Impact Report.

Target segment	Climate resilience Innovators
Value Proposition	Increase chances of survival through expertise support and valuable network connections
Offer	Networking opportunities and an innovation support programme, with possible individual business support.

The second potential customer group comprises both H2020 projects and Government Innovation Agencies. Both groups share an interest in expanding ‘close-to-market’ support for innovations in general, and a growing focus on “green” innovation including those aimed at climate adaptation. The precise value proposition differs somewhat between the two groups, as is represented in the tables below. For H2020 (or Horizon Europe) projects, BRIGAIID Inc. could represent an easy ‘one-stop-shop’ option with proven expertise in working within H2020 projects. Government Innovation Agencies, or incubators in general, would benefit from proven methodologies and expertise within the topic.

Target segment	H2020 projects
Value Proposition	One-stop-shop for exploitation: transforming scientific research into market-ready innovations through testing, business development, and transdisciplinary methods, with proven Horizon expertise
Offer	One-stop shop (Work Package) to develop (climate) innovations through testing, business development, marketing/networking

Target segment	Government Innovation Agencies / Incubators
Value Proposition	One-stop-shop for innovation support: proven and standardized methodologies to evaluate and evolve innovations in climate adaptation
Offer	One-stop shop to develop and support (climate) innovations through validated testing, business development, marketing/networking

The third potential customer group is supranational authorities and organizations, mostly interested in the overall benefit of increased environmental resilience, as well as a strengthened start-up culture.

Target segment	EU Commission and/or EIB, EBRD etc
Value	Proven one-stop- shop for developing climate adaptation innovators (incl. testing, business development, and network access) - delivering climate resilience and start-up survival.
Proposition	
Offer	EU-wide support programme for climate adaptation innovations

The fourth potential customer group are impact investors. The current “PESTEL” conditions as described above also drive investors to look more towards “green” innovations, including those targeted at climate adaptation. Since for many of those investors, this is a rather new field, they are not yet familiar with how to evaluate the different innovations that are out there. Our expertise can fill that gap, and we could even offer further development of the innovation (both technically and business-wise) if desired.

Target segment	Impact investors
Value	Increase chances of survival through expertise support and valuable network connections
Proposition	
Offer	Networking opportunities and an innovation support programme, with possible individual business support.

Finally, the fifth potential customer group are regional and national governments looking to implement local solutions for climate resilience, and/or wishing to stimulate their local start-up climate.

Target segment	Regional or national govt.
Value	Increase local economic and climate resilience through a validated accelerator programme for innovative climate start-ups
Proposition	
Offer	Regionally-focussed innovation support programme, with focus on climate adaptation

For each of these potential customer groups and corresponding value propositions, there are certain **unique selling points** that make BRIGAID Inc. especially attractive to the respective customer groups, as well as make the consortium uniquely equipped to deliver these values. These can be described as follows:

- **A one-stop-shop for the development of market-ready climate adaptation innovations**

BRIGAID Inc. is quite uniquely positioned as it can help in the entire transition process from the early development and testing stage, towards a market ready product, with access to testing facilities, business development support, marketing support and networking opportunities.

- **Access to a broad range of climate adaptation innovators**

BRIGAID Inc. has access to an extensive network of innovators in the climate adaptation sector, built over the four years of the BRIGAID project. This presents a unique opportunity to get into contact with a large network both for innovators looking for collaboration, as well as governments looking to implement solutions. In total during the BRIGAID project more than 120 have been included in the Climate Innovation Window, and hundreds more have been screened.

- **An extensive and varied European network**

The collaborating companies in the BRIGAID Inc. initiative stem from 7 different countries in Europe, already giving local coverage over a large part of Europe. The extended network of all the participating companies covers all of Europe, in various market segments and areas of expertise.

- **Validated and scalable tools**

In the BRIGAID project, several (digital) tools have been developed, tested and valuable feedback has been implemented to fit the user needs, therefore these tools are now in a position where they can easily be applied to a larger group of innovators.

4.3. Market Segmentation

As mentioned in the previous sections, the value proposition offered by BRIGAIID Inc. can be divided among different customer segments. As these customer segments are associated with different values and have different channels to reach them, it makes sense to create a prioritization of these segments and adapt the focus of the activities to those priorities.

For this purpose, the MAF+ contains an exercise in which the customer segments can be evaluated on a five-point scale on the following criteria:

- The customer group has a pressing need and is willing to act upon it;
- Our offering can satisfy that need;
- We can easily communicate/access the customer group;
- There are no known competitors addressing this need; and
- The customer group is substantial and potentially profitable.

Table 2: Individual scores from MAF+ Market Segmentation exercise

Customer group:	Innovators	Horizon projects	Innovation agencies	Regional authorities	Impact investors	International authorities
The customer group has a pressing need and is willing to act upon it.	4	3	3	3	2	3
Our offering can satisfy that need.	5	5	3	2	2	5
We can easily communicate/access the customer group.	3	4	3	4	1	4
There are no known competitors addressing this need.	2	4	2	3	1	4
The customer group is substantial and potentially profitable.	1	3	3	3	3	4
Total score	15	19	14	15	9	20

With these criteria, this exercise builds on the earlier characterisations of the value proposition and its corresponding customer segments to evaluate to what extent these segments should be prioritized. The resulting scores per item are presented in Table 2, and the final scores with identified priority target groups in Table 3. These show international authorities as the primary target, with H2020 projects as an important second growth opportunity. The reasoning behind this is that both these segments score very high on BRIGAIID's ability to deliver the need, as this has been demonstrated in the current BRIGAIID project, as well as having easily addressable contacts within these customer groups. Whilst the innovators themselves also score high on these aspects, their willingness and capacity to pay for the value proposition is the lowest. Due to this, the innovators are primarily in the position of end-user of BRIGAIID Inc., yet not of target customer.

Table 3: Score results from MAF+ Market Segmentation exercise showing main target groups

International and supranational authorities	20	Main target group
H2020 projects	19	Key growth opportunity
Regional authorities	15	
Climate resilience innovators	15	
Government innovation agencies	14	
Impact Investors	9	

4.4. Competitors' Heatmap

So far, the MAF+ focused on analysing the market from a customer perspective, though importantly, the market also consists of competition. This is already briefly touched upon within the previous exercise. The competitors' heatmap is a way of listing core assets and unique advantages, and comparing them to those of competitors, to see how they would be able to (out-)compete the product offering. As the BRIGAIID Inc. concept serves multiple different customer segments with different value propositions, each also has their own field of competition. In this section therefore, three separate heatmaps are presented and

discussed. The primary and secondary success factors have been identified based on what is needed to offer the stated value proposition.

4.4.1 Heatmap 1: International authorities (EU Commission, EIB, EBRD)

Value Proposition: Proven one-stop-shop for developing climate adaptation innovators (incl. testing, business development, and network access) - delivering climate resilience and start-up survival.

Competitors:

- GIZ (German Development Agency)¹⁴

The German Development Agency completes development projects for German government and EU Commission, among others. Focus on sustainable development, including some innovation-focused projects internationally, but some EU/neighbouring projects (e.g. Albania EU for Innovation).

- EU/EIB etc internally supervised process

EU Commissions/EIB/EBRD could also run the programme internally e.g. EU Commission/EIB/EBRD could also release a call for the programme as a Horizon Europe Innovation Action or consulting project). We could compete for this (or aim for this outcome).

- ClimateKIC

A European knowledge and innovation community, working towards a prosperous, inclusive, climate-resilient society founded on a circular, zero-carbon economy. EU-funded. Extensive network including innovators and investors.

- Meta Knowledge¹⁵

Meta provides services to EU Commission and regional authorities/cities re. advising authorities on innovation-boosting strategies; coaching entrepreneurs; and investing in promising ideas and opportunities. Training/coaching includes science-to-market focussed Common Exploitation booster and new IP Booster . Also, consultancy on setting up regional/city innovation hubs, and invest/implement training courses.

¹⁴ <https://www.giz.de/>

¹⁵ <http://meta-group.com/Pages/default.aspx>

Position of BRIGAIID Inc.:

BRIGAIID Inc. scores high on most of the key success factors, and would hence be capable of delivering a good quality product. However, some key success factors have a low score, such as having an established and independently functioning organisational structure. This would form an insecurity and risk for the EC or other supranational bodies. A stable and trustworthy organisation would be of high importance to this customer group and they cannot defend a “risky” choice. Another relatively weak point is the lack of established contacts we have with this customer group in our current network. Competitors such as ClimateKIC score high on both those aspects, as well as on the other key success factors. One aspect for which BRIGAIID Inc. has a unique offer, is the availability of testing facilities for climate adaptation innovations.

4.4.2 Heatmap 2: H2020 Projects

Value Proposition:

One-stop-shop for exploitation: transforming scientific research into market-ready innovations through testing, business development, and transdisciplinary methods, with proven Horizon expertise.

Competitors:

- Meta Knowledge

See section 4.4.1.

- Private consultancies

Large private consultancies have a good reputation for delivering consulting work, perceived to have strong business ability.

- Consortium of small private firms and universities

H2020 projects could put together a group of organisations/universities to offer the innovation support.

Position of BRIGAIID Inc.:

Compared to the competitors, BRIGAIID Inc. scores very well for the H2020 customer segment, especially regarding the key success factors. This makes sense, given the

background of BRIGAIID Inc. being BRIGAIID, a H2020 project in itself. Similar to the first heatmap, the lack of an established organisational structure is a weaker point. However, since BRIGAIID as a full project as well as several individual partners have direct experience in participating in and managing of EU projects, the threat of this aspect is lower compared to the EU commission or supranational authorities customer groups. Of course, the success of our value proposition for H2020 projects will depend on how well it fits with particular calls for projects. However, in general it is expected that our USP's (one-stop-shop; technical innovation testing; business development training; community networking) are well aligned with the overall objectives of the current and future Horizon agenda (see also section 5.2.3. Target market) and that BRIGAIID Inc. can offer a valuable product of superior quality compared to the competitors.

4.4.3 Heatmap 3: Regional or national government

Value Proposition: Increase local economic and climate resilience through a validated accelerator programme for innovative climate start-ups

Competitors:

- Meta Knowledge

See section 4.4.1.

- Regional government internal project

Regional governments could develop their own innovation development programme.

- Incubators:

Locally based institutes aimed at supporting and (generally) housing entrepreneurs from the region in business development, networks and general entrepreneurial experience.

Position of BRIGAIID Inc.:

Similar to the supranational authorities, also regional or national governments will look towards established organisations that can prove that they have a functionally and financially stable track record. Again, BRIGAIID Inc. draws the short straw here in comparison to competitors. Another disadvantage that BRIGAIID Inc. has compared to competitors, is the lack of local experience and local network. This may of course differ per region – for certain areas, for example where Communities of Innovations have been set up – BRIGAIID Inc has a relevant and proven network. However, the scope of BRIGAIID (Inc) is first and foremost European. This could be a disadvantage when working with a

customer who has primarily local objectives. Again, the one key success factor that would make BRIGAIID Inc superior compared to competitors, is the access to technical testing facilities. Regional or national government could potentially be an interesting customer, but only under certain conditions, such as having a good connection within our network, or a great alignment with their objectives.

4.4.4 Heatmap conclusions

In conclusion, it can be said that BRIGAIID Inc. performs well compared too much of its competition, for many of the identified key success factors. Particularly the fact that BRIGAIID Inc. covers a wide range of related services, all of which are highly important to starting innovators, as well as their proven expertise in the field. However, the main drawbacks of BRIGAIID Inc. compared to competition is the still unclear structure of the collaboration, and the relatively limited resources available to kick off the initiative (basically resulting from internal membership fees, until a first service contract with an external party is closed). At this stage, the lack of structure would form the least threat in the case of H2020 projects (compared to local or international government).

It is worth noting that some of the competitors could be used as partners as well. During the BRIGAIID project, collaborative contact has been established with both ClimateKIC and GIZ. Given the lack of BRIGAIID Inc.'s track record as an independent non-profit organisation, partnerships with these "competitors" could be a possibility to kick-start their activities.

Table 4: Competitor Heatmap for the international authorities customer segment. 1=below average, 2=average, 3=above average.

Heatmap 1: EU Commission	BRIGAIID Inc.	Meta Knowledge	GIZ (German Development Agency)	EU/EIB internal	ClimateKIC
Key for success					
One-stop-shop (incl. testing, biz, market)	3	2	2	1	2
Set structure with proven project experience, financing, staff	1	2	3	2	3
Innovation testing expertise and facility access	3	1	1	1	1
Business development training material (courses, self-directed web tools, experts)	3	3	2	2	3
Communities of innovation method	3	1	2	2	2
Climate adaptation expertise	3	1	2	3	3
EU contacts	1	1	2	3	3
Experience working with TRL 4-7	3	3	2	2	3
Secondary					
Evidence of previous success (narrative, quantitative)	2	2	1	1	3
Low cost	2	2	2	1	1
Network (Investor contacts, end-user links)	1	2	1	2	3
Marketing support training	2	1	1	2	2
Intellectual property expertise	1	3	1	2	2

Table 5: Competitor Heatmap for the H2020 customer segment. 1=below average, 2=average, 3=above average.

Heatmap 2: H2020 projects				
	BRIGAIID Inc.	Meta Knowledge	Private consultancies e.g. PwC or COWI	Consortium of small private and universities
Key for success				
One-stop-shop (incl. Monitoring)	3	2	2	1
Innovation testing expertise and facility access	3	1	1	3
Business development training material (courses, tools, experts)	3	3	3	2
Communities of innovation method	3	1	1	2
Project management expertise/clear management structure (incl. PIC number)	1	2	3	2
Secondary				
Climate adaptation expertise (Good references)	3	1	1	2
Low cost	2	2	1	1
Marketing support training	2	2	2	2
Intellectual property expertise	1	2	2	2
Evidence of previous success (narrative, quantitative)	2	3	2	2
Self-directed web-tools	2	2	1	1
Investor contacts	1	3	2	2
Financed	1	3	3	3
Full time employees and management	1	3	3	3

Table 6: Competitor Heatmap for the regional government customer segment. 1=below average, 2=average, 3=above average

Heatmap 3: Regional or national government

	BRIGAIID Inc.	Meta Knowledge	Regional govt.	Incubators
Key for success				
Project management expertise/clear management structure	1	3	3	3
Innovation testing expertise and facility access	3	1	1	2
Business development training material (courses, tools, experts)	3	3	1	3
Regional innovation hub expertise	1	3	2	3
Investor contacts	1	3	2	3
Communities of innovation method	3	1	1	2
One-stop-shop (incl. Monitoring)	3	2	1	2
Financed	1	2	2	1
Full time employees and management	1	2	3	3
EU Marketing support training	2	2	1	1
Local contacts	2	2	3	3
Secondary				
Climate adaptation expertise	3	1	2	1
Low cost	2	2	1	1
Intellectual property expertise	1	3	1	2
Evidence of previous success (narrative, quantitative)	2	3	1	2

4.5. SWOT Analysis

A SWOT analysis is a tool to determine the Strengths and Weaknesses of a business concept, as well as the Opportunities and Threats that might arise from these attributes. The SWOT analysis therefore formalizes many of the subjects discussed earlier in an easily interpretable matrix, which is shown in [Figure 5](#).

<p>STRENGTHS</p> <ul style="list-style-type: none"> • Multi-disciplinary expertise for climate adaptation innovation development (incl. testing, business, market outreach) • Proven approach, including validated tools and platform, with evidence of success and stories • Multi-regional network 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Lack of formal structure and staff • Relatively time- and expertise-intensive model • Network and expertise relatively light on business and investors (more academic, policy) • Access to funding decision makers is limited • Positive externalities limit monetisation (reliant on public funding)
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • New research funding model (Horizon Europe) appears to have strong adaptation and innovation focus • Swiftly warming climate and related increase in hazard events • EU and MS policy on innovation, climate adaptation potentially aligned with BRIGAIID Inc. 	<p>THREATS</p> <ul style="list-style-type: none"> • Project deadline limits resources • Low priority of BRIGAIID Inc. to participating orgs. • Lack of interest from few potential funders (EU, EIB, EBRD)

Figure 5: SWOT matrix for BRIGAIID Inc.

4.6. Highest priority SWOT elements

Similar to the ranking of importance of customer segments, the follow up to the SWOT in the MAF+ is a priority ranking of the Strengths, Weaknesses, Opportunities and Threats

that are identified. These are ranked according to their importance for success of the project, as well as their relative strength/weakness compared to the other elements listed.

This has resulted in a list of the most important Strengths, Weaknesses, Opportunities and Threats listed in [Table 7](#).

Table 7: Highest priority SWOT elements

STRENGTHS	Priority Score
Multi-regional network	44
WEAKNESSES	Priority Score
Lack of formal structure and staff	56
OPPORTUNITIES	Priority Score
New research funding model (Horizon Europe) appears to have strong adaptation and innovation focus	40
THREATS	Priority Score
Project deadline limits resources	48
Low priority of BRIGAID Inc. to participating orgs.	48
Lack of interest from few potential funders (EU, EIB, EBRD).	48

Based on this, a synthesis can be made on some of the most important actions to undertake in the short term to mitigate the risks and leverage the opportunities. These concern primarily establishing an improved formal structure for the project, ensuring sources of funding and leveraging the European network.

4.6.1 European network

As a start, time has been invested in the further development of the European network, and the locations and relations with European partners have been formalized and are mapped out in [Figure 6](#).

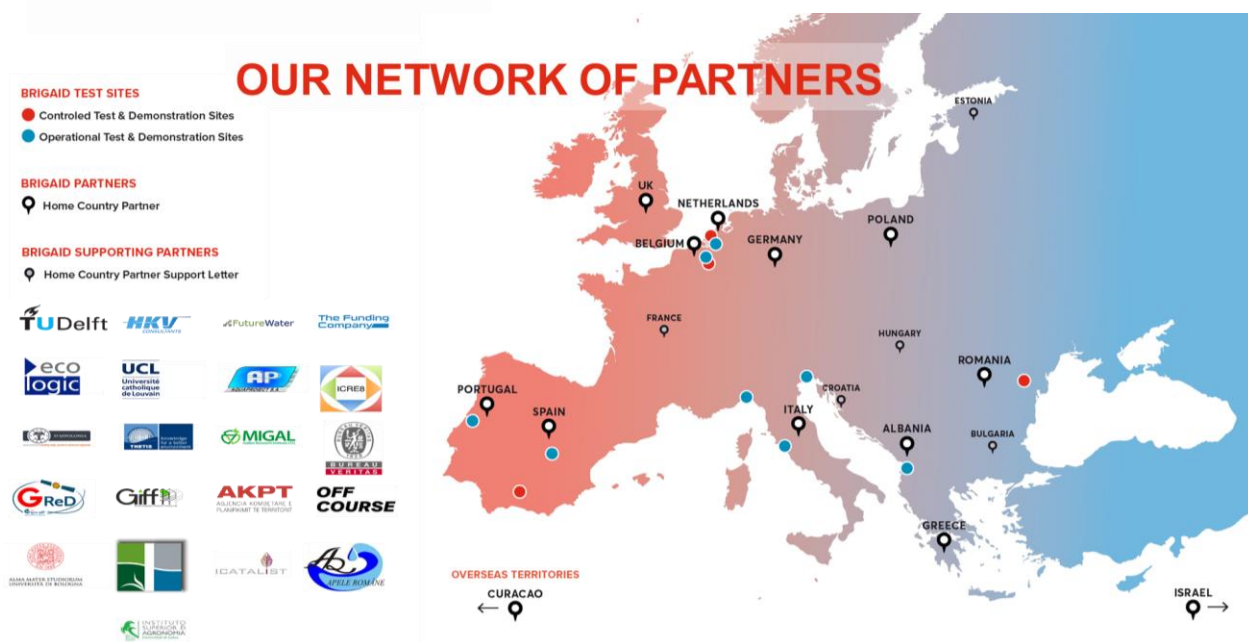


Figure 6: Overview of BRIGAID partners and locations

4.6.2 Funding

In terms of the funding, various efforts have been made to identify and pursue funding opportunities. A public funding scan has been carried out to identify potential grant schemes that can be applied for, see section 5.5.3 *Funding Scheme*.

In addition, connection has been sought directly with European sources of funding. Contact has been established with Uni.fund¹⁶, a potential investor. They have provided us with valuable feedback. In brief, they mentioned that BRIGAID Inc. has an interesting proposition, but they needed to know more about the team and what it is exactly that we had to offer them. Based on this feedback, a second presentation is drafted, which is to be presented in the near future.

Furthermore, different sources of funding, business models and revenue streams are continuously being evaluated, among which is Horizon Europe. Horizon Europe¹⁷ has a budget of €100 billion over the period of 2021-27. 35% of these funds will be targeted towards climate objectives. The need for climate adaptation and opportunities it offers are further reflected by EU research funding priorities for 2021-27: climate adaptation is one of five “mission areas” the Commission has selected as a focus topic for research and innovation funding. Horizon Europe also places greater emphasis than Horizon 2020 on

¹⁶ <https://uni.fund/>

¹⁷ https://ec.europa.eu/info/sites/info/files/research_and_innovation/strategy_on_research_and_innovation/documents/ec_rtd_orientations-he-strategic-plan_122019.pdf

innovation and impact, which is aligned with BRIGAIID Inc's focus on supporting innovators. Horizon Europe will also focus on developing partnerships, which too reflects BRIGAIID Inc's COI-centred approach. Climate funding is a growth area in public funding: EU policy also increasingly reflects the pressing need for climate adaptation, as shown by the Commission committing 25% of all EU expenditure to climate-related topics. A 2018 review of the EU Strategy on Adaptation to Climate Change¹⁸ concluded that the strategy had made progress towards a “more climate-resilient Europe” but gaps remain, including the need for further knowledge, further implementation at the local scale, and closer collaboration with finance and business: BRIGAIID Inc's interdisciplinary approach could help fill these gaps.

4.6.3 Formalized organisational structure

In terms of establishing a more formal structure and ensuring commitment from all partners, first steps have been taken as well. A decision has been reached to set up as a not-for-profit International Association founded in Spain. The first draft of the statutes has been drafted and shared with the full BRIGAIID consortium (see [Annex C](#)), along with an invitation to join the initiative. On this basis, elections have been held to designate a Board of Directors. The participating organizations have been meeting digitally on a weekly basis, with full participation. The next steps, to be taken at the start of May 2020, include the election of a Chairperson and the constitution of an Administrative Unit. These are elements of the organizational structure, which will be further elaborated on in the “Team” section of the Business Case, which will be the topic of the next section.

¹⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52013DC0216> \t "_blank

5. Business Plan

5.1. General

5.1.1 What is “BRIGAIID Inc.”?

A “ONE-STOP-SHOP” FOR SUPPORTING CLIMATE ADAPTATION INNOVATIONS

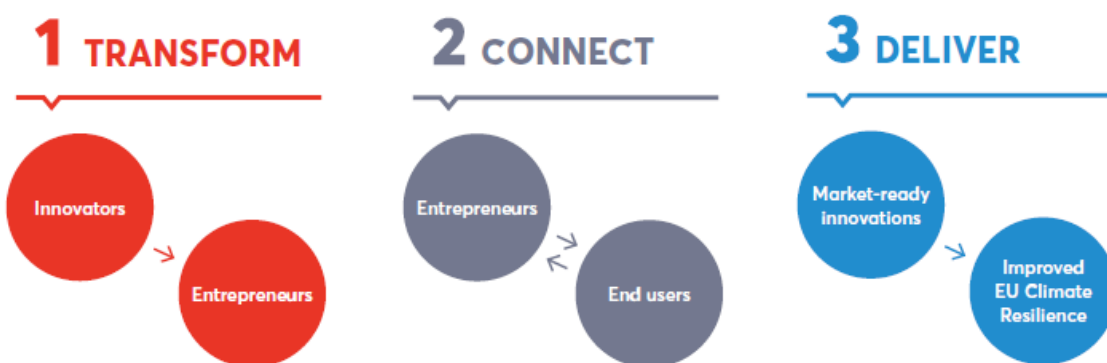


Figure 7: Schematic representation of value proposition

The Challenge

Climate-related disasters such as droughts, floods and wildfires are already impacting Europe - and these impacts are increasing.

Fortunately, innovators throughout Europe are developing new technologies and solutions that could make Europe more resilient. However, too few of these innovations reach the market. Why? Because innovators often lack the skills and resources needed to bridge the gap from innovation to implementation.

Our solution

BRIGAIID Inc connects 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.

Our aim is to realize:

- Innovators with the knowledge, skills and network to be successful entrepreneurs.
- Proven and implemented climate adaptation innovations.
- Improved EU climate resilience.

5.1.2 Why BRIGAIID Inc?

The relevance of BRIGAIID Inc. is beyond doubt. Climate change is already happening and the consequences will only become more pressing in the future. Governments, authorities, companies and citizens need to act in order to adapt.

Climate adaptation innovations, invented and developed throughout Europe, can be solutions to effectively adapt to a changing climate and the threats and challenges that come with it.

However, these innovations do not get to the market automatically. There is a threatful Valley of Death that innovators have to cross in order to get to their end-users.

BRIGAIID Inc. aims to support climate adaptation innovators to make it across this valley of death. We do so by transforming them into entrepreneurs and connecting them to end-users and to each other. This is established through our validated tools, expert support and a Europe-wide network.

Results

BRIGAIID Inc. is born from the H2020 project BRIGAIID: Bridging the Gap in Innovations in Climate Disaster Resilience. During this 4-year project, 24 partners from 12 different countries have developed and applied methodologies to help innovators bridge the gap towards end-users.

The results of this project have proven very successful. Indeed, BRIGAIID has received the POWER conference prize for Best Practice.¹⁹

Results of the BRIGAIID project include:

¹⁹ <https://twitter.com/elopezgunn/status/1182326567957082114>

- Climate Innovation Window (CIW) → currently featuring >120 innovations
- Testing and Implementation Framework (TIF) → 40 innovations supported with TIF and technological testing
- Business Development Programme, including the Market Analysis Framework+ (MAF+) → over 20 innovators upskilled with market analysis and business plan development support
- Communities of Innovation (COI) → COIs established in 9 countries
- Development and launching of a new testing site: Flood Proof Romania
- Dissemination: over 60 papers and presentations at conferences, extensive media coverage, and two BRIGAIID events addressed by Ministers.

These achievements all contribute to our main goals: high quality climate adaptation innovations that reach end-users and have real world impact.

5.2. Strategy

5.2.1 Goals and strategy

The primary goals and related strategy of BRIGAIID Inc have been described in the (draft) statutes, and read as follows:

BRIGAIID Inc., from here on referred to as “the Association”, is a non-profit entity established for a period of unlimited duration, with the purpose of lifting Europe’s climate resilience by supporting climate adaptation and disaster risk reduction innovators and the development and implementation of their innovations.

Merely for descriptive purposes and not intended in a limiting sense, the principal objectives of the Association can be stated as follows:

- (a) To act as a central hub for climate change adaptation and disaster risk resilience innovations in Europe, through
 - a. Hosting Communities of Innovation that link innovators, end-users, and others (including scientists and financiers/funders)
 - b. Increased public outreach and marketing, through events, the Climate Innovation Window website, and other activities to increase public

- knowledge and understanding of the need for climate adaptation and the promise of innovative approaches, including events, education activities, and publications
 - c. Provision of expert knowledge on climate change adaptation, disaster risk reduction and innovation management
 - d. Participating in or leading research and innovation projects, including the development of tools and indicators
 - e. Supporting other actors to develop and implement innovation development programs for climate adaptation/disaster risk reduction, including but not limited to banks, foundations, and public authorities governments
 - f. Developing and strengthening partnerships with stakeholders in Europe and worldwide
- (b) Support innovators to develop their climate change adaptation and disaster risk resilience innovations and related businesses, by arranging the following support for innovators from Association members:
- a. Business development and funding/financing coaching (including using the Market Analysis Framework online tool and in-person expert consulting)
 - b. Innovation testing and development support (including access to testing facilities and expert consulting)
 - c. Marketing support for innovations, including developing strategic marketing and branding
 - d. Gathering of and provision of innovation development funding
- (c) In addition to the above activities, to further support European climate resilience through
- a. Contributing to policy discussions at EU and national level to promote effective approaches to climate adaptation and innovation

5.2.2 Team & organisational structure

The team

Partners who have explicitly expressed interested in BRIGAIID Inc are:

1. Ecologic Institute
2. iCatalist
3. The Funding Company
4. HKV
5. AKPT
6. Off Course
7. ICRE8

8. NAAR
9. Thetis
10. Aquaproiect

Particularly the partners number 1 – 7 (involved in project work packages 6 and 7) have been actively involved in the preparation of activities for BRIGAIID Inc.

The current team consists of a mix of innovators, end-users and experts, spread across 7 different countries. Together, they provide a strong basis for delivering the value proposition of BRIGAIID Inc, including technical testing facilities, network & visibility, and expert support.

Table 8: BRIGAIID Inc., current partner overview as of April 2020.

Member organisation	Type	Testing: facilities & technical support	Business Development	Network & Visibility, COI
HKV (Delft, NL)	Consultancy, for profit			
NAAR (Bucharest)	End-user, Public body			
Thetis (Venice, IT)	Innovator, for profit			
Aquaproiect (Bucharest)	Innovator			
The Funding Company (Zeist, NL)	Consultancy, for profit			
Ecologic Institute (Berlin)	Research institute, non-profit			
iCatalist (Madrid)	Innovator, for profit			
AKPT (Tirana)	End-user, Public body			
Off Course (Barcelona)	Marketing Communication			

	Consultancy, for profit	
ICRE8Icreate (Athens)	Research institute + consultancy	

See Annex D for further specified responsibilities, commitment and value propositions for the different member organisations.

Up until now, academic universities that have been partner in the BRIGAIID project are not (a formal) part of the BRIGAIID Inc association. This is due to several reasons, one of which is the academic character of universities, i.e. having as their core business research and development activities rather than implementation and exploitation. However, in some cases, close collaborations will have to be maintained in order to provide BRIGAIID Inc's services. This includes the collaboration with Technical University Delft (coordinating party of BRIGAIID project) to offer the Flood Proof Holland testing facility. TU Delft and their valorisation centre have already indicated that they are interested to collaborate, under the criteria that the exploitation strategy is accompanied by a strong business case.

Organisational structure

Several options have been explored in order to establish a formal organisational structure for BRIGAIID Inc. Primary goal is that an entity is formalized in order for BRIGAIID Inc. to participate in official and financial activities, such as creating a PIC number, receiving transactions, etc.

First, the following criteria have been set:

- The structure will be a Non-profit
- Scope: European
- Location: Wherever is most advantageous
- Who would be members? Organisations (not individuals)
 - Important thing is that SMEs can charge market rates
 - If we are non-profit, we can get higher funding rates in H2020. Also it looks better and more suitable to the cause in H2020 projects and other acquisitions.

Based on this, the following three options were investigated:

1. Dutch Association:

- TU Delft has experience with setting up such an entity. They can participate and support in case there is a strong and sound plan with potential.
- With only Dutch partners this is very easy, European a bit more challenging (there is a work around: set up a foundation with only Dutch partners. Once that is done - basically the next day- international partners can join).
- Steps are: draw up statutes, a visit to the Notary and registration at Chamber of Commerce. Costs will not exceed 1000 Euro.
- There are different type of foundations (NGO's, religious, etcetera). Suggestion is to become a 'stichting met onderneming', that would be a foundation (i.e. not for profit) but can participate in economic transactions. Also has to pay VAT etcetera.
- Our contact at the university suggests that an entity like this would ideally be created with about 4 different members. Reason is that the board had 4 'directors' in that case. On one hand decision making and strategy planning will be quick, and second: there is always a significant majority after voting.
- 'Directors' are personally liable. In case the foundation has a lot of depth, they are responsible.
- In statutes you can mitigate this risk again, by limiting payments.
- Other partners should become 'participants'. In the statutes you can describe what they should do. A membership is suggested (nothing excessive, in the order of €100 / year fee would be appropriate for these participants).

2. Spanish Association:

- Maximum 3 months for the creation of the Association.
- Creation fee: 38,10€
- The registered office (social address) must be in Spain. If any of the companies that make up the association wishes, it can open a delegation in its country, following the regulations of its country
- The association can be composed of both natural and legal persons.
- There must be at least 3 legal partners for its creation. Each legal partner must provide a certificate naming its physical representative.
- It would be necessary to download the templates of the Act and the statutes that exist for both individuals and legal entities and use them as a basis to create the statutes.

3. Belgium International Association (AISBL)

- Many projects have created International Associations
- The purpose, as well as the activities it intends to carry out, must be mentioned in the statutes.
- The registered office must be located in Belgium.

- Once a common project has been defined, the statutes, which represent the basic principles of the organisation, must be drawn up in an authenticated deed. Therefore, the intervention of a notary is necessary. Legal personality will subsequently be granted by royal decree. A new Royal Decree will be required for any subsequent modification of the object and/or activities.
- The law does not require a minimum number of members, but an association assumes that there are at least two members. However, to avoid paralysis, it is advisable that the association consists of at least three persons.
- The AISBL is composed of two bodies: the general assembly and the administrative body. The statutes determine the form, composition and mode of operation of the administrative body.
- Creation fees have to be paid.
- To hire people, make commercial contracts.

The three different types of associations have been considered and all posed some advantages and some disadvantages. Ultimately, it was decided that the association should be established in Spain and this is being pursued.

A Board of Directors is selected from representatives of the partners. The Board of Directors is comprised of Gerardo Anzaldúa (Ecologic Institute), Gerben van der Wal (The Funding Company), Elena Lopez Gunn (iCatalist) and Nensi Lalaj (independent). In addition, it will be formally described what person(s) from each partner organisation is involved in BRIGAIID Inc and what role and responsibility he or she has.

5.2.3 Target market

BRIGAIID Inc. aims to deliver improved European climate resilience, by means of supporting climate adaptation innovators and the development and implementation of their innovations. Since this objective serves a societal impact rather than a primary economic impact, our target customers are first and foremost public authorities. Concretely, they can be different kinds of institutions, such as a) international or supranational authorities; b) H2020 projects; and c) local authorities. These target groups have come forth as the most attractive in section 2.2.4.1 *Target group attractiveness score card*.

International or supranational authorities have the objective to maintain and protect the welfare and safety of European (and global) societies. They have a need for societies that are resilient to the expected changes and risks caused by climate change. Furthermore, they have a budget available. The presented Green Deal by the European Commission is an illustrative example of the current perceived necessity and the willingness to act upon it.

The asset of BRIGAIID Inc being a European association will be of added value to this target group, given their European scope.

Contact has been established and meetings have been held with several international bodies, including European Commission and EIB. Although they generally appreciate the idea and the goal of BRIGAIID Inc., they have communicated that they do not have the funds to finance our activities, neither as kick-start funding nor as structural client. Hence, the revised attractiveness of this target group is low and instead we will focus on the runner-up groups.

Local or regional authorities have essentially the same need to protect the welfare and safety of their communities. Although they lack the European scope, a potential plus for this target group is that they are more readily approachable, for example through European projects that BRIGAIID Inc's members are or have been involved in. Another important advantage is they are naturally far more numerable compared to supranational authorities.

At the present stage, H2020 (or, after this year, Horizon Europe) projects seem to be the most promising target group, due to several advantages. Many BRIGAIID partners have extensive experience and achievements within H2020 projects. Especially for the first launching projects of BRIGAIID Inc, it will be beneficial to tread on a road well-travelled. The value proposition of BRIGAIID Inc matches well with the objectives of the European Commission. By promoting European climate adaptation innovations, BRIGAIID Inc contributes to both climate resilient European societies as well as thriving innovative European economies. The match with the committee's objectives is reflected in the number of suitable calls over the past few years (see below). Moreover, climate resilience has taken an important position in the new Horizon Europe programme, promising ample opportunities for the coming few years.

Market description

The market for climate adaptation innovations is relatively new. The market for a “one-stop shop for climate adaptation innovations” is very new indeed. This was also noted during the second external reviews of the BRIGAIID project. As the consequences of climate change become more imminent and time is passing, authorities are slowly shifting their focus from climate mitigation (e.g. energy transition) towards additional climate adaptation.

We can learn from the ecosystem of climate *mitigation* innovations, which has been maturing for a bit longer now. Based on this, we can expect that the drive for climate adaptation innovations – including organisations facilitating and accelerating these

innovations – will in the early stage come primarily from large international and supranational bodies. Indeed, the Paris Agreement and European Green Deal present the necessity of climate adaptation, although the main focus as yet remains climate change mitigation and CO₂ reduction. These supranational agreements and initiatives provide a promising kick-start for the field of climate adaptation innovation, including substantial funding (€ 100 billion for the upcoming Horizon Europe programme).

As the market matures, more traction will arise from industry. Initially impact investors, who may be driven by governmental incentives (e.g. attractive co-financing for investment in green solutions [Poland²⁰]). Once the economic benefits of hazard resilience are introduced into the common knowledge and awareness - as is currently happening for green solution such as renewable energy and climate neutral buildings – more players will enter the market, such as multinational or local companies.

Market size

Horizon research & innovation projects:

The table below shows the relevant calls for the years 2018 – 2020, mentioning climate adaptation innovations. This evaluation shows an estimated total market size of € 64 million over the last 26 months (2018 – Feb 2020). Interestingly, a clear increase in budget is seen over the years, growing for € 5 million in 2018 to € 20 million in 2019 and already € 39 million in 2020. The significant sums of EU Horizon research funding are expected to grow with the launch of the Horizon Europe funding programme, as described in section 4.6.2.

Table 9: Market size and income estimations

H2020 Calls SC5 - 2018-2020	Budget (million EUR)	high/low link
LC-CLA-11-2020: Innovative nature-based solutions for carbon neutral cities and improved air quality	10	high

²⁰ <https://www.gov.pl/web/tarczaantykrzyszowa>

LC-CLA-13-2020: Climate resilience of European coastal cities and settlements	10	high
LC-CLA-09-2019: ERA-NET Cofund action on biodiversity and climate change: Impacts, feedbacks, and nature-based solutions for climate change adaptation and mitigation	5	low
LC-CLA-15-2020: Forest Fires risk reduction: towards an integrated fire management approach in the E.U	10	medium
LC-CLA-16-2020: Multi-hazard risk management for risk-informed decision-making in the E.U.	4	low
CE-SC5-04-2019: Building a water-smart economy and society	12,5	medium
SC5-11-2018: Digital solutions for water: linking the physical and digital world for water solutions	5	high
SC5-27-2020: Strengthening international collaboration: enhanced natural treatment solutions for water security and ecological quality in cities	5	low
SC5-16-2019: Development of commercial activities and services through the use of GEOSS and Copernicus data	2,5	low
Total	64	
	2018	5
	2019	20
	2020	39
Success rate 20%	12,8	
Budget 20% (i.e. 1-2 WPs of new proposal)	2,56	
Estimated annual income:	1,28	

Market entry barriers

Organisational structure: We need to establish an entity. This is now (April 2020) quite far developed, appears very feasible. Risk: low. In addition, a Board of Directors (BOD) has been elected. These people are willing and able to commit sufficiently to managing

BRIGAIID Inc. Risk: medium. The positions of each members of the BOD/MT are still be selected. During this process, specific commitment and responsibilities have to be defined and formalized and considered within the context of the members organisations.

Horizon projects: we need a project with an objective that fits our value proposition; preferably with main applicant or partners in the consortium that we (one of BRIGAIID Inc's main members) have worked with before. Risk: low/medium. In the short-medium term, there appears to be a high chance that a suitable Horizon project will arise, given that one of the five EU Commission Horizon Missions will focus on Climate Adaptation and launched in 2021 for a seven-year period. Based on a retrospective analysis of H2020 calls, multiple calls were identified that fit our proposition. Given the European goals and missions, it may be expected that the topic of climate adaptation will gain increasing attention in the project calls. In addition to EC Horizon calls, also other (public) funding procedures may be used to fund our activities. Pro: the partners within BRIGAIID (Inc) have extensive experience and a correlated network with European H2020 projects and participants.

International (or national / local) authorities: we need a contact person that we can speak with in order to gain insights and feedback on what they are interested in, and what is possible, from a practical and financial point of view. Risk: medium. Although both international and regional authorities may underscore the relevance and importance of BRIGAIID's activities, decision-making processes are rather bureaucratic, slow, and have to adhere to formally assigned budgets and tender procedures. This makes local authorities less flexible to choose to support and hire BRIGAIID Inc. on a short term. With a longer breath and acquisition period, this customer group may provide very interesting opportunities. Pro: the members of BRIGAIID Inc do not depend on short term projects to survive. Con: since BRIGAIID Inc is not the prime priority of the member organisations, a long acquisition trajectory may be risky, as it may lose traction.

Strategy and Action plan

➤ Team & Organisation

Establish formalized organisation. Tasks: establish legal entity; election of Board Members (natural persons); description of roles and responsibilities of partner organisations (legal persons and natural persons). Current status: all tasks ongoing. Key members: Ecologic, ICatalist, TFC. Time scale: Q2 2020. *Key success factors: members willing to participate and pay fee.*

Organize official kick-off of the Association, including all involved partners. This will be held as part of the closing conference of the BRIGAIID project. Key members: BOD / tbd. *Key success factors: taking place of the closing conference; ease of COVID-19 travel restrictions.*

➤ **Target customers and marketing**

Outreach to multiple stakeholders to assess the perceived need and interest – including ability and willingness to pay - for our services. Tasks: interviews with different target customers, such as coordinators of European projects, local authorities, and impact investors. (See Annex A for prepared questions) Analyse the outcome of these interviews. Current status: a start has been made with this. However, the process has been shown to move slowly. The situation due to the corona crisis has been shown to further slow the process. Key members: TFC, Ecologic, ICatalist, Icre8. Time scale: Q3 2020. *Key success factors: establish contact and get useful feedback from stakeholders.*

Set-up and launch strong marketing activities. Tasks: create dissemination materials, identify key target groups for communication, launch marketing campaign. Current status: initial dissemination material has been created. BRIGAIID Inc has been presented during Key member: Off Course. Time scale: Q3 2020. *Key success factors: sufficient time and commitment.*

➤ **Business model and financials**

Revise business model. Tasks: based on stakeholder assessment, identify main target groups and revenue models. Revise business model canvas. Current status: immature, dependent on stakeholder assessment. Key members: TFC, Ecologic, ICatalist. Time scale: Q1 2021. *Key success factors: useful information from stakeholder interviews and market analysis; sustained commitment and funding to continue activities after BRIGAIID project end.*

Financial forecast and financing scheme. Tasks: based on revised business model, establish budget forecast. Identify financial needs and identify possible funding routes. Current status: highly insecure. Key members: tbd. Time scale: Q2 2021. *Key success factors: sustained commitment and funding to continue activities after BRIGAIID project end.*

5.3. Social

5.3.1 Impact

Our ultimate goal, a climate change resilient Europe, is established indirectly, through the innovations. To illustrate the impact of BRIGAIID – and thereby the potential impact of BRIGAIID Inc. – we believe it best to let the innovators speak for themselves:

Bluebloqs. Bluebloqs, an innovation by FieldFactors, 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.



Karina Peña, CEO of Field Factors: "I would say the support of Brigaid has been most helpful to us on these three areas:

- We received coaching for our **business plan**, which has had a great influence on the development of it.
- We received **financial support**, making us able to test our technology. We made a short video about this: <https://vimeo.com/291687895>
- **Visibility!** By being visible on the Climate Innovation Window website, a big audience was targeted. We actually got one project by being founded on the CIW website."



Halophyte Zeolite Wetlands. This innovation provides treatment and reuse of agro-industrial wastewaters for irrigation activities in drought prone regions.

“The support from BRIGAID enabled MIGAL Galilee Research Institute to establish an integrated pilot system combining high cation exchange capacity substrate with succulent halophytes for improving Sodium Adsorption Ratio (SAR) of agro-industrial

effluents and thereby increase available irrigation water. This was essential in order test the innovation in a real setting. Due to the support, the innovation progressed from technical readiness level (TRL) of 4 (laboratory tests) to a TRL of 6-7, implementation under real setting.”



GM4W - GeoGuard Module for Water vapor monitoring.

GM4W can improve local weather forecasts and even help avoid flash floods and associated damage and deaths – at a low cost. GM4W uses low-cost global positioning receivers to gather continuous, local-level water vapour data that can predict heavy

rainfall events, which are expected to increase in occurrence, severity and damage as Europe’s climate warms.

Dr. Eugenio Realini, founder and innovator at GReD, found the in-person consulting from BRIGAID immediately beneficial. “Brainstorming at the workshop was great – we identified lots of additional potential clients,” he said, describing the opening 2-day business workshop as “intensive and interesting”. Eugenio also reported that he learned a lot from the Market Analysis Framework tool, “the MAF+ was challenging but well-guided by BRIGAID consultants, plus the tool was user-friendly and easy to interact with.” Eugenio concluded that, “on a scale of 0-10, the BRIGAID Business Development Programme moved me from a 0 to a 7”.

See <https://maf.brigaid.eu/#testimonials> for full testimonials of innovators who have been involved in the BRIGAID Business Development Programme, including the MAF+.

The figure below shows a summary of the valuation of the different tools and support by innovators:

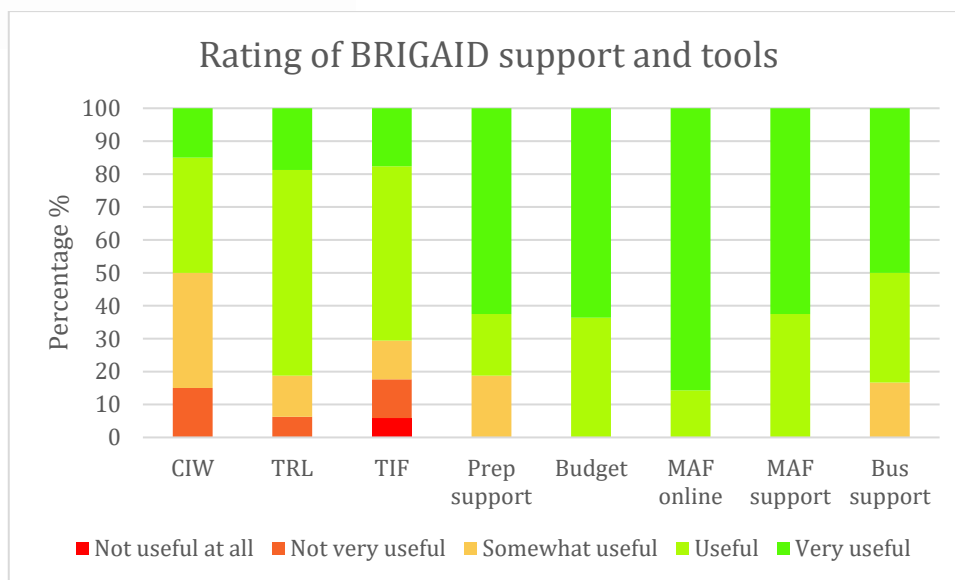


Figure 8: Rating of BRIGAIID support and tools, including Climate Innovation Window (CIW), Testing and Implementation Framework (TIF) and Market Analysis Framework+ (MAF),

A full assessment of the impact of BRIGAIID is presented in the **Social Impact Report** (M48). Here, the following conclusion is presented:

It is clear that the various components of the project have been well received by the innovators and this has had a positive impact on both the innovations in the BRIGAIID portfolio and the innovators connected to the project. BRIGAIID financing and support has helped develop many interesting innovations that were previously not ready for market, and some of these contributions are highlighted above. For innovations that were further developed, BRIGAIID tools and components have helped in 3 key areas; understanding of the technical implementation of the innovations, identifying markets and dissemination of the products.

The results also show the project has had a positive impact on the innovators themselves, with the majority feeling they have ‘upskilled’ in many marketing techniques thanks to the project. Innovators have developed strong links with end-users through the project, both for specific innovations and more generally in national and regional communities of innovation. End-users have also benefitted from the project, and have been continually engaged in the project through conferences and online media.

The various hazards caused by climate change highlights the need for a diverse range of innovations to be developed. These hazards are spread throughout Europe and will often require localised solutions. For this reason, innovation should be encouraged from all

regions within Europe. The project has therefore aligned itself with the research agenda of major EU bodies such as EASME and the EBRD by promoting a diverse range of innovations and nature-based solutions. BRIGAIID has also engaged with other major H2020 projects on the theme of climate change resilience to further promote this agenda.

For the general public, the impact of the project will take time to be realised, but the implementation of many innovations supported by BRIGAIID is already taking place. As shown above, the improved climate change resilience provided by these innovations is likely to become even more relevant in the coming years. The focus on co-benefits of innovations will also improve commercial, environmental and sectoral aspects of society. In this regard, BRIGAIID can be considered successful in having a significant positive impact on the innovation community and general public.

5.3.2 Adoption

In general, little resistance is expected towards the activities of BRIGAIID (Inc), either by the general public or by specific stakeholders. Indeed, no resistance has been experienced so far during BRIGAIID. Possible resistance could come from anti-EU or “climate hoax” citizens or political parties, but in principle they do not form a significant stakeholder for BRIGAIID Inc.

Update March 2020: Potential resistance may be expected regarding spending public money on climate adaptation innovations, whilst local economies are suffering heavily from the consequences of the Corona epidemic.

Visibility and trialability

The BRIGAIID project is publicly visible on various media. Primary source for information would be the website brigaid.eu. Currently (April 2020), this website does not mention BRIGAIID Inc. yet. A dedicated BRIGAIID Inc. website is under development.

Furthermore, BRIGAIID is present on social media, as well as on conferences, events, workshops, etc. See Dissemination overview of WP7 for a full overview.

The Climate Innovation Window (CIW) is a portal to climate change adaptation created in order to facilitate the market uptake of climatic resilience innovations. CIW also serves as a presentation and demonstration platform. BRIGAIID has been actively present on social media to showcase the innovators and our contributions.

The MAF+ is an online assessment and decision-support system that helps innovators challenge their business idea and make strategic decisions around it. At its heart, it is a

structured series of interactive business development exercises that enable innovators to define their market, recognize the key values of their innovation, identify opportunities, evaluate competitors, and conceive a suitable business model. Users can apply for access to a “dummy” tool. There are also videos available that show how it works. These features are available on the renewed home page: www.maf.brigaid/info

The purpose of BRIGAIID’s Testing and Implementation Framework (TIF) is to provide innovators with guidelines and tools for evaluating the socio-technical effectiveness of an innovation in terms of its ability to reduce risks from floods, droughts, or extreme weather in an operational environment, and guidelines for assessing an innovation’s impact across various geographic scales and socio-economic and environmental sectors. For the TIF tool, an online version will be developed in the near future as part of the BRIGAIID project.

Dissemination material for BRIGAIID Inc. specifically has been created to present our activities and value proposition. This includes a 2-pager for general audience and pitch deck aimed at (impact) investors. Dissemination material directed at governmental institutions and Horizon projects are under development.

Compatibility and complexity

It will be easy to integrate BRIGAIID Inc. in H2020 projects (or similar). We can basically offer “ready-made” and validated work packages. All participating organisations of BRIGAIID Inc. by default have experience with European projects and related management and administration activities.

For other customers, such as local or international authorities, it may be a different approach compared to their present activities. This should be further investigated during interviews with these stakeholders.

For innovators themselves, the services of BRIGAIID are compatible with their usual activities. Innovators are generally familiar with online tools and accelerator services.

5.4. Technology

5.4.1 Novelty and readiness level

As a service-oriented consulting initiative, the BRIGAIID Inc. concept might not immediately seem very innovative, however as has been developed and established throughout the BRIGAIID project, the approach does have aspects that are new and innovative. First of all, the concept of a “one-stop-shop” for specifically transforming innovators into entrepreneurs

appears new. While simple consulting businesses that offer business development support are quite common, combined with the industry expertise, access to testing facilities, extensive networks and standardized development tools, BRIGAIID Inc. can offer a package that does represent a new value to the customers.

All aspects have been proven and validated in the BRIGAIID project. This includes the more 'soft' benefits of networks and expert support which BRIGAIID Inc promises, as well as the formal tools and procedures that have been developed over the past four years. See section 5.3.1. *Impact* for testimonials from innovators on this topic.

5.4.2 Technological roadmap

The Climate Innovation Window currently present the profiles of innovation, with different kinds of information, such as type of hazard, TRL, and description of the innovation. Based on activities of the innovator in the BRIGAIID project, labels are added, i.e. when an innovation is selected for testing or business development, and when they have completed the testing and business development. An additional development for the Climate Innovation Window is the inclusion of an "investment-readiness" label. Multiple innovations have indicated that a quality label would help to present their innovation to potential investors or customers. The investment-readiness label will be based on the investment-readiness analysis of the innovator's completed business plan (the PPIF methodology, see Chapter 7). The label is aimed to implemented into the CIW in Q2 2020.

Tools (e.g. TIF, business plan questionnaire + template) can be further digitalized and automated to increase scalability and decrease costs (labour). For the TIF, digitalisation and creation of a (publicly available) online version is already ongoing.

In the future, tools could be developed into online courses (e.g. MOOC). This would make them more readily available for a wider audience.

The developments to be pursued will depend largely of the target groups and projects of BRIGAIID Inc.

5.5. Business Model & Financials

5.5.1 Cost and pricing structure

Table 10: Pricing and Cost structure

BRIGAID Inc. Total costs						Fixed costs		
Summary	Business development	Testing support	Network and COI	Innovator communication	€20,000 per Innovator	BRIG Inc. Communication	Management	BRIGAID Inc. Total
Deal 1:20 Innovators, 24 months, EU-wide	428.000 €	225.000 €	76.800 €	332.500 €	400.000 €	23.750 €	252.400 €	1.738.450 €
Deal 2: 5 Innovators,12 months, regional	107.000 €	62.250 €	27.600 €	83.125 €	100.000 €	23.750 €	61.200 €	464.925 €
<i>Illustrative standard package per innovator (variable)</i>	21.400 €	10.850 €	3.840 €	16.625 €	20.000 €		0 €	72.715 €
Basic annual fixed costs (ex Management)	7.200 €	4.000 €	3.000 €	2.242 €		23.750 €	61.200 €	101.392 €
						Fixed costs		
Cheap deal	Business dev (min)	Testing (min)	COI	Innovator marketing	€20,000 per innovator	BRIGAID Inc. Communications (min)	Management (min)	CHEAP TOTAL
CHEAP Deal 1:20 Innovators, 24 months, EU-wide	230.140 €	88500	38380	75984	400.000 €	15889	148.400 €	997.293 €
CHEAP Deal 2: 5 Innovators,12 months, regional	59.320 €	23125	20030	20117	100.000 €	15889	35.200 €	273.681 €
<i>CHEAP package per innovator (variable)</i>	11.150 €	4225	1919	3575	20.000 €	0	0 €	40.869 €
CHEAP annual fixed costs (assume Deal 2)	3.570 €	2000	1680	2242	0 €	15889	35.200 €	60.581 €
CHEAP Deal 1B	118.640 €	88500	38380	17875	400000	15889	148400	827.684 €
Summary table	Total (incl. Innovator share)			BRIGAID Inc. Share (excl. 20k per inovator)				
	Full package	Cheap but complete	Staggered	Full package	Cheap but complete	Staggered		
Deal 1: 20 innovators, 24 months, EU wide	1.738.450 €	997.293 €	827.684 €	1.338.450 €	597.293 €	427.684 €		
Deal 2: 5 innovators, 12 months	464.925 €	273.681 €		364.925 €	173.681 €			

The table above describes the cost structure associated with the offerings of BRIGAIID Inc., adhering to the following legend:

Green table: Optimum, full package. This includes everything we offer today, plus a personalised marketing plan for every innovator. Calculated for two pitches; 1: A 2 year project supporting 24 EU-wide climate adaptation innovations; 2) A 5 innovator regional-focussed project, over 12 months). This includes €20,000 of development and support funding per innovator.

Orange table: Minimum offer. But we offer more limited in-person business development support, minimum BRIGAIID Inc. testing support, marketing/communication workshop per innovator. Same deals. Still includes €20,000 development funding per innovator

CHEAP Deal 1: 20 innovations over 24 months, all of who do testing and receive testing support; 10 receive cheap business development; 5 cheap innovation communication (+ 1 lighthouse marketing project); cheap BRIGAIID Inc. Communication and Management.

5.5.2 Revenue streams

BRIGAIID has connected with existing initiatives such as OPPLA, EIPP, Climate-KIC described in the text below in order to assess possible and feasible structures and revenue models.

1) **OPPLA.** OPPLA was investigated as a potential model for exploiting BRIGAIID. Oppla grew out of two EU projects, Openness and OPERAs. These days, “it is the EU Repository of Nature-Based Solutions. “It provides a knowledge marketplace, where the latest thinking on natural capital, ecosystem services and nature-based solutions is brought together. Its purpose is to simplify how we share, obtain and create knowledge to better manage our environment. OPPLA is an open platform that is designed for people with diverse needs and interests - from science, policy and practice; public, private and voluntary sectors; organisations large and small, as well as individuals.

2) **Climate KIC.** BRIGAIID has existing links with Climate KIC and the differences and similarities between Climate KIC and BRIGAIID Inc. have been investigated. Climate KIC is developing a platform to match investors with innovators. They are Europe’s largest public-private innovation partnership focused on climate change, consisting of dynamic companies, the best academic institutions and the public sector. Climate-KIC is a world-class network focused on meeting the global challenge of climate change. Their core purpose is to create opportunities for innovators to shape the world’s next economy. Climate KIC creates new partnerships to integrate research, business and technology to transform

innovative ideas into new products, services and jobs. They offer specific programmes to help entrepreneurs and start-ups, such as: attending master classes or entering Climate-KIC competitions.

3) **The European Investment Project Portal (EIPP)** is the EU matchmaking portal, enabling EU-based project promoters – public or private – to reach potential investors worldwide. BRIGAID has been in contact with EIPP policy officer Filipa Ramalho to get a deep understanding of EIPP. The Portal is a free service offered by the European Commission and is part of the Investment Plan for Europe, which aims to mobilise investment, boost economic growth and create jobs across the EU.

BRIGAID Inc. will be open to collaborate with the partners/ projects above.



Figure 9: Schematic overview of BRIGAID Inc. Business Model

The figure above schematically displays the different sources of funding that BRIGAIID Inc. will pursue. **Figure 2** presented in Section 3 on the Business Model Canvas outlines the revenues in more detail and splits them among the different value propositions that will be offered by the BRIGAIID Inc. initiative.

5.5.3 Funding scheme

Currently, there are no significant revenues for the BRIGAIID Inc association. A minor revenue stream is foreseen from a participation fee to be paid by the cooperating partner organisations. Although this may cover some essential expenses, it will not nearly be sufficient to pay for the actual activities of BRIGAIID Inc.

The main primary goal is to get a project funded that allows us to carry out (some of our) activities without the original funding for the BRIGAIID project. Public funding may be an interesting opportunity to gain this funding. Co-funding may potentially be acquired through local authorities, i.e. in case of a “LIFE” project (see below).

The BRIGAIID Funding Scan (developed in WP6) has been carried out to identify possible public funding opportunities. The results are presented below.

Funding Scan

- **Innovator:** BRIGAIID Inc.
- **Innovation:** One-stop-shop for climate adaptation innovations
- **Themes and sectors:** Climate adaptation; innovation; Europe; hazards; resilience; resilient cities
- **Technological Readiness Level:** 7-9. The tools have been demonstrated with the intended end-users (innovators). However, not demonstrated yet with the target customers.
- **Partnerships:** BRIGAIID Inc. is an association with European partners. These include public and private partners from various different countries (Albania, Greece, Spain, Germany, Netherlands, Romania, Italy)
- **Scope:** the aim of the new project is to demonstrate the market potential for BRIGAIID Inc's innovation

Table 11: Funding Scan for BRIGAIID Inc.

Grant programme	Suitable for your innovation?
Horizon 2020 & Horizon Europe	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe
Fast Track to Innovation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe Pro: relatively high success rate compared to SME-i Con: consortium required, so multiple partners needed with a good relationship and agreements
EIC Accelerator Pilot (SME instrument phase 2)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe Pro: can be applied for as a single SME Con: very high competition. Typically, multiple resubmissions necessary. On average, SMEs receiving this funding have submitted 8 (!) times.
Eurostars	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Maybe Focused on R&D (TRL 3-6). Min 1 additional partner from a different Eurostars country.
LIFE	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe Pro: sub-programme specifically targeted at Climate Change Adaptation Con: highly detailed proposal, strict guidelines.
INTERREG	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe Requires international partnership.
ERDF	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe

The Funding Scan in **Table 10** shows that in particular grants from the European Commission (Horizon funding programme) may be very interesting for BRIGAIID Inc. This includes the H2020 (or Horizon Europe) projects that have been mentioned above as one of the main customer groups. However, also grants within the European Innovation Council programme, including Fast Track to Innovation (FTI) and SME Instrument may be suitable. Given that BRIGAIID Inc. is focused on collaboration and does not fit the general scope of a “scale-up”, this would favour FTI over the SME instrument.

In addition, the LIFE programme may be an interesting opportunity for BRIGAIID Inc., given the alignment of climate adaptation objectives, suitability for non-profit organisations and substantial budget. The downside for this grant scheme is the high percentage of co-financing, relative to EC grants. However, it may be feasible to attract this co-financing if there is an interested party who would be willing to act as launching customer, provided they only have to fund half of the costs themselves.

Both the EC grants (H2020, FTI, SME) and the LIFE grant fit with the current TRL (6-9) and the required budget (roughly € 0.5 – 1.5 million).

Grant programme	What is it?	Who can apply	TRL	Funding	Notes	Suitable for your innovation?	Comment BRIGAD Inc.
Horizon 2020	Umbrella for research and innovation grants from European Commission.	Consortium of min. 3 partners from min. 3 countries	Varying, 3-7	70% funding (100% for not-for-profit organisations)	Themed calls for European consortia that focus on research and innovation activities.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe	+ good alignment with climate adaptation and innovation theme + good alignment with type of organization - funding structure tbd (not ideal for commercial parties)
Fast Track to Innovation (FTI)	FTI is meant for the market uptake of disruptive innovations. It is available for ideas from consortia of innovators of all types and sizes from across Europe	Consortia consisting of 3-5 partners from min. 3 eligible countries	6 or higher (focused on market introduction)	70% funding (100% for not-for-profit organisations) Funding approx. € 1 – 2 million (maximum € 3 mln) Project duration 12-24 mth	Possible to apply for FTI and SME instrument in parallel	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe Pro: relatively high success rate compared to SME-i Con: consortium required, so multiple partners needed with a good relationship and agreements	Cannot be applied for by one individual association, but we can choose an alternative route with different partner organisations. In that case, co-funding is required from the industry partners.
EIC Accelerator Pilot (SME instrument phase 2)	Close-to-market and scale-up innovation projects by SMEs	Single SME or consortium of SMEs established in EU Member States or H2020 associated countries	6 or higher (focused on market introduction)	70% funding Funding appr. € 0.5 – 2.5 million Project duration 12-24 mth	Following the call in June 2019, a blended finance scheme will be introduced (EIC Accelerator pilot) including loans and/or investments for market	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe Pro: can be applied for as a single SME Con: very high competition. Typically, multiple resubmissions	Does not fit well fit with the general scope for scale-up.

					introduction activities	necessary. On average, SMEs receiving this funding have submitted 8 (!) times.	
Eurostars	<p>For collaborating R&D performing European SMEs.</p> <p>Eurostars is open to all projects in all technology areas and market fields, but projects must have a civilian purpose.</p>	<p>Min. 2 independent SMEs from min. 2 Eurostars countries (Europe, South-Africa, South-Korea, Canada)</p>	<p>TRL 3-6 (focused on R&D)</p>	<p>25-50% funding</p> <p>Project completed within 36 mth; market introduction within 24 mth after project</p>	<p>Different eligibility criteria and budgets for the different countries.</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe</p>	<p>- focused on technological development rather than market introduction. May be used for further technical development (e.g. automation).</p>
LIFE	<p>LIFE is EU's financial instrument supporting environmental, nature conservation and climate action projects throughout Europe.</p>	<p>Any organisation registered in the EU may apply (company, public body, research institute, etc).</p>	<p>TRL 5-7 (focused on pilot / demonstration)</p>	<p>55% funding (75% for priority species and habitats)</p> <p>Projects ca. € 1 million</p>	<p>Different sub-programmes for Environment and Climate categories.</p> <p>Consortium or international collaboration is not required, but will enhance the success rate, as</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe</p> <p>Pro: sub-programme specifically targeted at Climate Change Adaptation</p>	<p>+ aligns with scope (climate change, European implementation)</p> <p>- requires 45% co-funding. This could come from e.g. a local authority.</p>

					impact within the EU is an important criterium.	Con: highly detailed proposal, strict guidelines	
INTERREG	Umbrella programme, consisting of over 80 sub-programs, each specifically aimed at consortia in specific regions.	Consortium of companies working across predefined region borders.	Varying	50-75% depending on which INTERREG program applies	Focus themes vary from region to region. Generally aimed at strengthening SMEs and sustainable development.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe	
ERDF	Umbrella programme. In Western Europe mostly aimed at innovation and sustainability, in Eastern Europe mostly aimed at social cohesion and equality	Varying, depending on region	Varying, depending on region	Varying, depending on region	European Fund redistributed as grants by regional governments, as such it is highly varying across regions.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Maybe	

6. Business Case Evaluation

6.1. Business case analysis

As mentioned in Chapter 2, we have approached the business case evaluation for BRIGAIID Inc using the same methodology as we would with other BRIGAIID innovators. The Business Development Programme as developed and applied in WP6 includes a Business Case Analysis. This methodology provides a quantitative analysis of ten crucial aspects of a viable and fundable business plan.

Below, we present and explain the scores for these ten aspects: General, Impact, Team, Partners, Long term ambition, Adoption and social acceptance, Market Analysis, Business Model, Technology Assessment, Financial Viability.

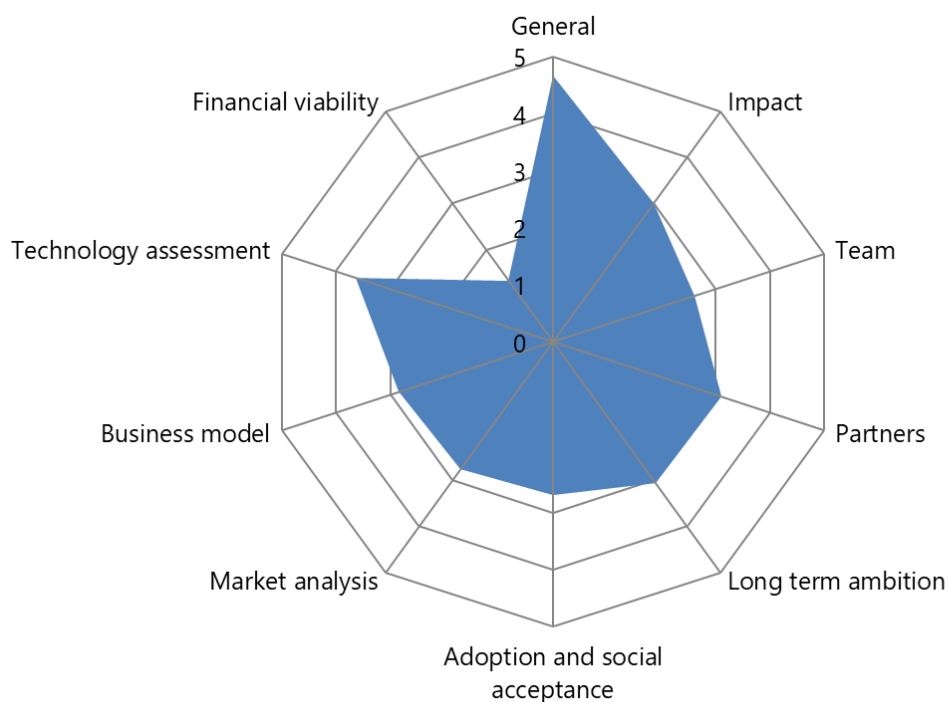


Figure 10: Business Case Analysis

The results of Business case evaluation for BRIGAIID Inc. are shown in the graph above, assessing ten essential aspects of a viable and fundable business plan. In general, a score

of 3 or higher is considered sufficient. Below we will discuss each evaluated area, and discuss the possibilities for improvement.

The **general** indicator evaluates how well the value proposition is described. This aspects scores very well, given the clear and concise description of BRIGAIID Inc's value proposition. The aims of the innovation are presented clearly as well as the relevance to end-users, environment and society.

The **impact** concerns the environmental impact concerning disaster resilience. In this case, the impact on disaster resilience is achieved indirectly, through the innovations that are supported and further developed towards a market-ready solution. Depending on the particular innovations that are supported, there may be indirect impact on disaster exposure and vulnerability and perhaps even occurrence, e.g. through urban water management to prevent floods. The actual impact on disaster resilience is not described or quantified.

The (direct) impact of the BRIGAIID project has been evaluated and quantified, and is presented in the Social Impact Report. Here, especially the added value of the project for innovations / innovators has been clearly presented. The quantified effects are further illustrated by the (qualitative) testimonials from innovators who were involved in BRIGAIID.

The **team** is currently one of the items that scores below threshold. From an investor's perspective, a capable and fully committed team is one of the most crucial aspects of a strong business case. The people behind the innovation are essential to make the innovation into a success – or not. At this point, BRIGAIID Inc. lacks a formal structure and the most important roles (CEO, CFO, etc) have not been assigned. Perhaps even more importantly, all members of the BRIGAIID Inc. are primarily committed to another organisation. As yet, all people involved only have informal incentives to make the association work.

On the plus side, this consortium of partner organisations in general and the team of individual people in specific have already shown that they are capable of great achievements, at least within the BRIGAIID setting. The **partners** have high additionality, in terms of organisation type (public vs. industry, innovators vs. end-users), expertise (climate change, nature-based solutions, water management, local and international policies, etc) and location (7 different countries in Europe).

As is mentioned in the strategy, one of the short-term goals is to formalize the organisational structure and appoint a Chairperson and an administrative unit. This will be an important first step, but does not solve all vulnerabilities.

The **long-term ambition** indicator evaluates the strategic goals and actionable plan on how to achieve it. The goals and ambitions of BRIGAIID Inc. build on the objectives of the BRIGAIID project, and are clearly presented in the statutes. At this stage, the goals are viewed from the perspective of impact rather than the perspective of the organisation itself. This is not necessarily a bad thing, but it will be worthwhile to consider what these goals and activities mean for the association on the longer term. For the short term, concrete steps and associated actions and timelines have been defined. It will be crucial to maintain commitment of the partners over the next year in order to monitor and stimulate the progress.

In terms of **adoption and social acceptance**, there is a general idea of the possible resistance and uptake of the innovation. An important aspect to keep in mind is that the tools and support is aimed to be adopted by innovators. This has been overall successful indeed, but may not be translated directly to “higher level” target groups, such as local authorities or investors. A positive aspect is that the majority of the tools are relatively easy to demonstrate, at least individually. This may need further consideration, i.e. what is the most attractive and convincing way to show the different value propositions to potential clients? Observability by the public is a weak point. A strong marketing campaign may help to boost this aspect.

The **market analysis** is an important aspect that needs attention at this point. The MAF+ exercises have provided a good (theoretical) basis for the market, including target group attractiveness, value proposition, competitors and SWOT analysis. User needs have been defined, but need to be validated. A priority action – as is mentioned in the strategy - is thus to go and get feedback from potential end users / customers. This will provide crucial insights into the needs, wants, willingness to pay as well as the resistance from different target groups. In addition, it may also help to gain insights in what the market looks like – what are the main competitors or rival technologies? How do they compare to BRIGAIID Inc’s organisation, innovation and approach?

In addition, the **business model** will need further improvement in order to successfully launch BRIGAIID Inc. onto the market. First important steps have been taken, including the quantification of a cost and/or price structure. The latter should ideally not only be based on what is financially viable for the member organisations, but also taking into account the feedback that is received from conversations with potential customers. In addition, it will be important to identify the most important market entry barriers, and based on that create a strategy on how to overcome them (e.g., select customer groups that may be relatively easy to approach and/or convince; partner up with other organisations that have dealt with this barrier; etc). Again, a start has been made on this, by approaching other organisations such

as OPPLA who have gone from EU project to an independent organisation. Since EU-funded research projects are both familiar and similar to BRIGAIID project itself, this seems to be the entry target group with the lowest threshold at the current stage.

The **technology** is scoring rather well. The different tools have been successfully developed, tested, evaluated and implemented within the BRIGAIID project. These validated tools provide a very strong basis for further exploitation. Although IP is in some cases difficult to protect formally (being developed within an EU project, most tools are meant to be publicly available), the lead time and expertise, along with the extensive network, gives a decent initial unfair advantage. This aspect could be further improved by clearly describing the novelty of the tools and by formalizing a technological roadmap, including risks.

The **financial viability** currently has the lowest score of all. This is primarily related to a lack of concrete forecasts in terms of revenue and profits, as well as investment-related calculations such as (social) ROI. After setting up a more concrete business model (cost, price structure, revenue models, target groups), the financial forecast can be re-evaluated, which will give insights into the risks and opportunities of BRIGAIID Inc.

6.2. Considerations

For four years, a broad and varied consortium of partners have worked extensively at developing and implementing valuable tools that can aid climate adaptation innovations to the next level. BRIGAIID's own innovations (e.g. the TIF, MAF+, CIW) were developed with these goals in mind: added value for the innovations in order to have ultimate added value to Europe's climate resilience.

However, these primary goals of the H2020 project do not directly align with the need of paying customers. Therefore, transforming BRIGAIID into BRIGAIID Inc. entails more than setting up a joint entity and making sure that the servers for online services and tools remain live. It requires a full change of perspective. Who are the ones that value what we have to offer and are willing and capable to support those activities financially?

Indeed, the exploitation of BRIGAIID is not unlike some of the innovators that have been involved in the project. Researchers or engineers who have developed an amazing new technology and who are convinced that their analysis / tool / construction / etc. has great value, but who have not considered how they would transfer their technology to the market.

This transition takes time and effort. Over the past months, partners from WP6 and WP7 have joined forces to kick-off this process. In this period, important steps have been taken, including (but not limited to):

- a 2-day workshop was held and an initial business model was discussed;
- a market assessment has been carried out;
- a cost structure has been defined;
- responsibilities and criteria for the different partners were described;
- potential customers and stakeholders have been approached;
- a process of forming a legal entity has been initiated.

However, the transition towards a self-sustaining and financially independent organisation has not yet been established and the Business Case evaluation shows some essential gaps. A few aspects further complicate this transition.

First, the team is comprised exclusively of people who are involved in other organisations (the partner organisations of BRIGAIID). The major drawback is that no one is fully dedicated to the success of BRIGAIID Inc. On the other hand, it does provide the organisation of BRIGAIID Inc with more “patience”, given that the members do not directly depend on BRIGAIID Inc to survive and continue their activities. This basically flattens the valley of death, so to speak. A selected and defined Board of Directors will certainly help to give body, structure, and responsibility towards the activities and success of BRIGAIID Inc.

Second, the innovation itself – a one-stop-shop for climate adaptation innovators – is comprised of multiple modules and tools. This brings along flexibility but also complexity and a lack of clarity. For example, investors may be interested in the technological or business assessment of an innovation, but not so much in the actual support and development.

6.3. Conclusion and recommendation

Based on the business case evaluation the following conclusions and recommendations can be drawn:

- First important steps are taken, which are: 1) Draft statutes are completed; 3) A board of directors has been elected.
- New priority actions to be defined and pursued based on revised SWOT;
- The business case heavily depends on whether there is indeed an “unmet user need”. Feedback from potential clients and other stakeholders will provide further insight.
- Based on present information, EU-funded research projects seem most feasible and safest launching option. Multiple members have extensive experience with call proposals and European projects; unmet need is identified in increasing number of calls in scope of climate resilience and innovation; sufficient budget; other “predecessors” such as OPPLA apply this business model. However, the ambition is to gradually reduce the proportion of the budget that comes from such projects (and get a large proportion from service contracts that have a better funding rate). SMART action steps will be created in order to seize this opportunity.

7. Update PPIF

Along with the tasks described in this document on establishing BRIGAIID Inc., work has continued on the execution of the Public-Private Investment and Financing model (PPIF),

as agreed upon in the latest Amendment of the Description of Action (DoA) of the BRIGAIID project. Customized support has been provided to those innovators who have completed the WP6 Business Development Approach and are committed to continue into the fundraising activities. This is a well-founded methodology, based on literature research and TFC's expertise, but with more regard for the individual needs of the specific innovator.

A brief update on these activities is presented below.

7.1. Task description

Task 6.5 has developed and applied the PPIF to guide the innovators during BRIGAIID with regards to funding and finance for their innovation. Throughout the BRIGAIID project, all innovators that have completed the preceding Business Development Programme (Task 6.3 and 6.4) have been presented with the option of participating in the PPIF.

The PPIF comprises of two aspects, namely a generalized approach and an individual approach. The first part is a standardized and proven framework that introduces innovators to the world of private and public funding and provide them with a solid basis to develop their own business case and financing scheme. 'Standardised' means that one pre-defined approach is developed and applied to all of the innovators. 'Proven' means that the methodology is based on a review of the available methodologies in the market that have proven to be successful.

This standardised part of the PPIF is offered to all innovations that have completed the Business Development Programme and finalized a business plan (Task 6.4).

Concretely, the process has been defined as follows:

- Innovators who have completed their business plan are offered an investment-readiness analysis of their business plan;
- Those innovators who are interested are presented with a general overview of the funding ecosystem and funding sources available in Europe;
- Customized support on finding public sources of funding is provided to the innovators who have completed their business plan, and desire the support.

Aside from the Business Plan, one of the key aspects of acquiring funds is to be able to understand the perspective of the investor, whether it is a public or private investor, and to get an overview of the different categories of investors. Only by understanding the interests

and perspectives of your preferred investors, are you able to convince them to invest in your innovation; something which holds true for both public and private investors. Innovators furthermore need to understand the different kinds of funding schemes (such as grants or equity investments) and they should have an understanding of funding options that are suitable for them.

To this end, TFC has developed the Public-Private Investment and Financing model, which is a process and methodology to provide assistance for innovators in obtaining public and private funding after establishing their business plan. It includes the Funding Approach and accompanying background documents on the world of funding.

The first step in the PPIF methodology is the assessment of investment-readiness of the innovators' business plan. This is essentially the required basis before identifying or pursuing any investment or finance opportunities. Based on a Go or No-Go advice, the next part is entered, which is called the Funding Approach (see Figure 11).

The Funding Approach comprises the main element of the PPIF and provides a standardised methodology to support innovators in the world of funding and finance, based on proven scientific methods and years of experience in the field. As each innovation is unique, this needs to be applied individually for each innovation. The Funding Approach provides personalised guidance to innovators to help them identify and prepare for funding and financing opportunities. It includes assessment of business cases and then an assessment to identify appropriate financing or funding streams. It also includes two reference documents: Investment and Financing for BRIGAIID Innovations: An Introduction (see Annex E) and the Government Grants Guide (Annex F), both tailored to start-up innovators in the climate adaptation sector. The Government Grants Guide includes a Funding Scan tool that the innovators can use to distinguish with grants may or may not be suitable for them.

The Funding Approach is complementary to the Business Development Programme. It begins when innovators conclude the Business Development Programme, and follows these consecutive stages:

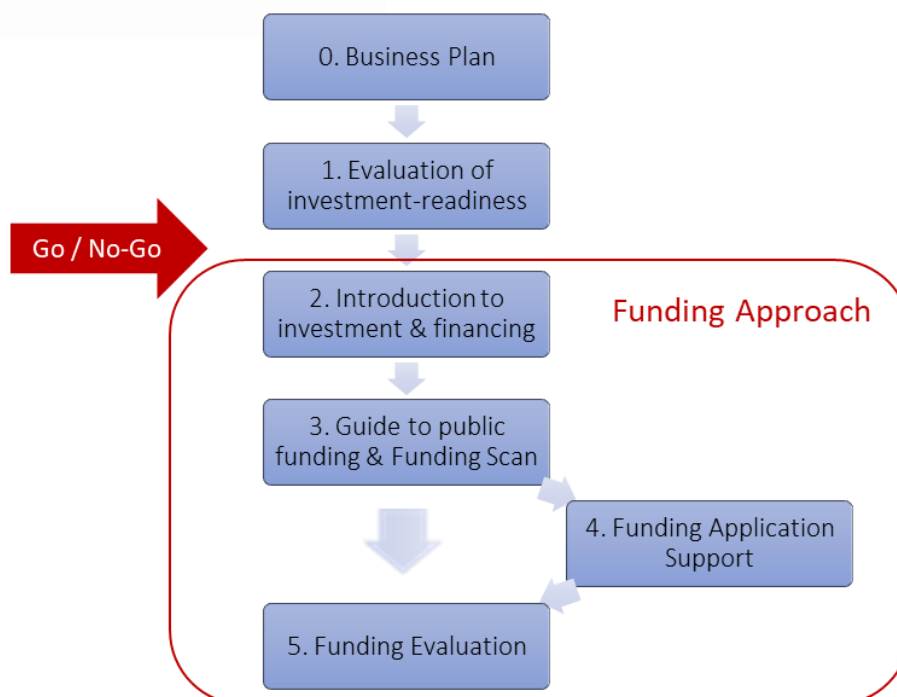


Figure 11. Outline of the different stages of the PPIF framework, including the Funding Approach

1. **Evaluation of investment-readiness:** The Business Plan (created in the Business Development Programme) is analysed and evaluated by TFC. This provides the innovator with insight into their strong and weak points. The analysis involves an investment-readiness assessment, resulting in a Go / No-Go advice. The result is discussed during a telco.

Estimated time commitment (for the innovator): 1 hour max.

2. **Introduction to Investment & Financing:** Innovators receive an introduction to the world of Funding and Finance. This is provided by the Investment and Financing for BRIGAIID Innovations: An Introduction background document (Appendix D) and explains the rise of social investors and provides a categorisation of types of investors. It also explains that the world of funding revolves around interests and helps innovators to understand the different perspectives of the investors.

Estimated time commitment: 1-2 hours max.

3. **Guide to public funding & Funding scan:** Following a general introduction into funding and finance, concrete options are explored for public funding opportunities. This is supported by the Government Grants Guide, which provides information and insight into different kinds of generally used and applicable public funding schemes for BRIGAIID innovators. It helps them by showing which funding schemes exists

and which are most suitable for their situation. This part also includes a Funding Scan, which gives the innovator direct support in identifying which grants may be worth applying for and which are not. The Funding Scan is guided and evaluated during a telco.

Estimated time commitment: 2-4 hours max.

4. **Funding Application Support:** In the case that a specific grant or other funding opportunity has been identified as suitable to the innovator, they may choose to apply. The preparation to the application process (i.e., feasibility and alignment of the goals) as well as the application process itself (i.e., writing and submission of the proposal) is supported by TFC.

Estimated time commitment: depends on a case-by-case basis. 1-2 hour calls will be held to discuss the process, at least during the preparation phase and the application phase. The preparation, writing, and submission itself may take several days to several weeks.

5. **Funding Evaluation:** In the final stage, we evaluate the funding-readiness of the innovator's business case, and reflect on the potential funding roadmap for their future goals.

Estimated time commitment: 1-2 hours phone call.

The aim of this process is to prepare the innovators for interacting with investors and funding agencies. The following sections will elaborate more on the different stages of the PPIF.

7.2. Activities

As mentioned above, the first step for the innovator who has completed its business plan is the evaluation of the investment readiness (if an innovator is interested in this). When an innovator receives a "GO" advice then the second step would be to introduce them to the world of funding and finance. The third step is to explore the concrete funding opportunities for innovators followed by funding application support. The last step in the Funding Approach is an evaluation of the innovators business case and their potential (technology) roadmap.

As per 21.04.2020, 9 innovators have finished their business plan. Unfortunately, not all innovators who were involved in the Business Development Programme have been able to

finalize their business plan, due to different circumstances (see Deliverable 6.5 for further documentation).

So far, five of these innovators have had a wrap-up session with BRIGAIID representatives, in which the results on their final business plan were presented to them, along the same criteria as their initial evaluation during the Business Development Workshop (see Deliverable D6.3 for a detailed explanation). The results of the evaluation of the Business Plan are presented in a similar fashion as the one in Section 6 of this report, which is accompanied with an Investment-readiness assessment (See annex G for example AUDIMOD).

In addition, for quite a few innovators, a face to face wrap-up session was planned back-to-back with the closing conference in Delft. We still aim to have this wrap-up session, this part of Task 6.4 and 6.5 will be completed when the BRIGAIID project is completed.

Four innovators have expressed their interest in funding opportunities. They have been presented with an introduction to Public-Private Funding and Investment (“Investment and Financing for BRIGAIID Innovations: An Introduction Guide”) as well the “Government Grants Guide”, (see annex E and F) outlining the different public funding opportunities available to them within the European Union, combined with a funding scan, which can be found applied to BRIGAIID Inc. in Section 5.5.3 of this report.

Feasibility of grant proposal

When innovators would like to pursue with applying for one of the public funding opportunities presented to them, TFC sets up a call with them to assess the feasibility of a grant proposal. During this call several topics are being discussed: 1) the project of the innovator; 2) scope of the call; 3) eligibility criteria; 4) project fit with the call. Up until now 4 innovators made use of this option: Solar Dew, Field Factors, Artys and 4Billion.

Factsheet EIC Green Deal

In order to guide innovators that have completed the Business Development Programme with regards to funding and finance, and to give them a heads up about specific available funding options we have developed an EIC Green Deal factsheet (see Annex H). This factsheet has been distributed to innovators that have completed the Business Development Programme. Furthermore, we offered the innovators to discuss the EIC Green Deal opportunity in a call.

8. SUMMARY AND CONCLUSION

This chapter provides a short summary and conclusion regarding the BRIGAID Inc. deliverable.

8.1. Summary

The primary goal and proposition of BRIGAID Inc. is to serve as a “one-stop-shop” for climate adaptation innovations. BRIGAID Inc. offers the tools, frameworks and expert support that have been developed and validated within the BRIGAID project. In order to investigate the feasibility of the BRIGAID Inc. business case, several activities were carried out. A 2-day workshop was held in Delft. Partners of BRIGAID Inc. discussed and reflected on the core aspects of BRIGAID Inc. Key elements of this workshop were:

- General aspects of the innovation (purpose, technology, expected results);
- Impact (practical, environmental and social);
- Team (available expertise, responsibility allocation and accountability);
- Partners (available, missing and required associates and assets);
- Long-term ambition (goals, strategy, timeline);
- Adoption and social acceptance (legitimacy, visibility, profile);
- Market analysis (market definition and segmentation, user needs, competition);
- Business model (cost structure, revenue streams, entry strategy);
- Technology assessment (feasibility, novelty, IP protection, risks);
- Financial viability (pricing, volume, profits);
- Fleshing out the Business model canvas.

Furthermore, the potential legal structures for BRIGAID Inc. were examined and business development activities including the MAF+ were carried out. The creation of marketing and branding materials for the concept has been started and BRIGAID Inc. also connected with potential partner organisations. The ultimate goal of BRIGAID Inc. to have the BRIGAID core pillars developed into self-sustaining tools.

8.2. Conclusions.

BRIGAIID Inc. is moving towards an official established organisation. However, the business case evaluation showed some gaps that need to be taken in to account if the BRIGAIID Inc. activities will be continued in the future. First of all it is necessary that there is a dedicated team of people who is involved in BRIGAIID Inc. activities available. This is a drawback at the moment, as BRIGAIID Inc. currently exists out of people that also have responsibilities towards other organisations. In order to formalise the responsibilities towards BRIGAIID Inc., a Board of Directors has been established. This will certainly help to give body, structure, and responsibility towards the activities and success of BRIGAIID Inc.

Second, the innovation itself – a one-stop-shop for climate adaptation innovators – is comprised of multiple modules and tools. This brings along flexibility but also complexity and a lack of clarity. Giving a clear overview of the several modules and tools that are available is a must in order to appeal to innovators.

The business case of BRIGAIID Inc. depends on whether there is indeed an “unmet user need”. Feedback from potential clients and other stakeholders will provide further insight in the future. Based on present information, EU-funded research projects seem most feasible and safest launching option. The ambition is to gradually reduce the proportion of the budget that comes from such projects (and get a large proportion from service contracts that have a better funding rate). SMART action steps should be formulated and pursued in order to seize this opportunity.

ANNEXES

A) Questionnaires for validation of BRIGAID Inc.'s value proposition

This document serves as a guide for an interviewer aiming to obtain further information from multiple stakeholders on their interest in and attitude towards BRIGAID Inc., as part of the further development of the Business Case. These questionnaires are divided between the different stakeholders and target customer groups.

These questionnaires will list questions to serve as a guideline for the interviewer to spark conversation, not to provide an exhaustive overview of all knowledge to be gained from the stakeholder. The interviews should be considered semi-structured, and therefore leave ample room to pursue threads of conversations that aren't encompassed by the questions mentioned below. These questions should therefore also not be considered suitable for sending over mail.

Innovators

- *User need.* As a (starting) innovator, what would be most valuable for you in order to successfully bring your innovation to the market? Consider e.g.
 - Demonstrating technological Proof of Concept of the innovation;
 - Gain insight and guidance in entrepreneurship; what can we expect and what is expected from us as a start-up?
 - Successfully reach out to financiers, such as investors, public funding bodies / grant calls, or challenges.
 - Getting a launching customer, e.g. through a pilot or demo project.
- *Value proposition.* How can BRIGAID Inc. assist you in this? We offer:
 - Technical testing: testing & demo facilities; expert support; TIF tool
 - Business development & Funding : MAF tool and assistance, Business development workshop; Business Plan tools and assistance; Funding Scan
 - Marketing & outreach: Pitch deck course; Communities of Innovation

- *Willingness to pay.* If the platform offers a sufficiently large network of investors, would you be willing to pay to be featured on the platform? How much? What would you consider a sufficient network of investors?
- Would you use the TIF / MAF / BP / funding / pitch tools if they were offered for free? Would you recommend them to others?
- Would networking events with end users be useful in terms of “user led design” of your innovation? If so, what format would be more useful? How could these events be followed up so it becomes a more stable relationship?
- Would you be willing to pay to have specialised/tailored advice on funding opportunities? Also advice on e.g. how to know more on innovative public procurement processes?
- Have you heard of the term of “community of innovation”? If so, what do you think should be its main objective
- Would you be willing to pay for expert support on the TIF / MAF / BP / funding / networking events/ pitch deck? What would be the criteria for this?

Investors

- Are you familiar with the BRIGAIID project? What is your opinion of the project?
- What is your current process to discover new opportunities for impact investing? Does this include innovations in the climate adaptation sector?
- Are you familiar with the sustainable finance and the new EU taxonomy in this area?
- Do you see climate change as an investment risk or an investment opportunity? If so, why and in what way would you adapt? (what type of actions)
- How much time and effort do you currently put into the formal analysis of these opportunities?
- At what scale do you operate? Regional, national, European or global? If you only operate at regional and national, would you be interested in scouting at European

level with the right technical support on robust investment opportunities into innovative solutions to climate change impacts (droughts, floods, heatwaves, etc?)

- Do you consider an in-depth analysis of a business plan to be a valuable measure of a start-ups potential? If yes, why? If not, what other elements do you look at?
- Particularly in relation to the “technical elements” of the innovations, what are the factors in your experience that will tend to indicate a higher probability of success? And a higher probability of failure?
- Would you be willing to outsource part of the pre-selection of start-ups and innovative solutions?
- Would you be willing to pay for a standardized independent analysis of business cases done by a third party?
- What would trigger you to make such a payment?
- How much would you be willing to pay for such information? What factors would influence that price?
- Would you pay to have a pre-selection process of solid start ups and matchmaking events with these screened start ups and innovative solutions to be more efficient and de risk your investment process?
- Would you be willing to pay a subscription fee for continuous access to (and recommendations of) start-ups in the climate innovation sector?
- Would you be willing to invest in the technical development and testing of a promising innovation to demonstrate POC?

Would you be willing to invest in the business development of a promising innovation / start-up?

H2020 project coordinators

- Are you familiar with the BRIGAIID project? What is your opinion of the project?
- What is your current process to discover and select (large) funding opportunities such as Horizon projects or other European funded initiatives (PRIMA; LIFE, etc)?
- have you looked at the area of climate adaptation? If so what aspects?
- What is your current process to put together a consortium for an (H2020) application?
- How much time and effort do you currently put into the formation of a consortium? What are the main struggles or pain points?
- Do you consider a tool or WP that has been validated in a previous H2020 to be valuable?
- Would you be interested to incorporate one or more of BRIGAIID's work packages in a future proposal? Consider e.g.
 - Intake & selection of (climate adaptation) innovations;
 - Technical testing: testing & demo facilities; expert support; TIF tool
 - Business development & Funding : MAF tool and assistance, Business development workshop; Business Plan tools and assistance + BP analysis; Funding Scan.
 - Market & outreach: Communities of Innovation, Pitch deck course; Climate innovation window (virtual window on innovations)
- What would be your considerations regarding including BRIGAIID Inc. in a new proposal?

End-users (e.g. local authorities)

- Are you familiar with the BRIGAIID project? What is your opinion of the project?
- How often do you look for new innovations to incorporate in your city / municipality / region? Can you name a few examples?
- What is your current process to discover new innovations? Does this include innovations in the climate adaptation sector?
- How much time and effort do you currently put into the search and selection of these innovations?
- What are your main criteria for a suitable innovation? E.g. should they be local, should the technology be proven in an operational context, do you prefer start-ups or established companies, etc?
- Do you have available funding for testing or accelerating innovations?
- Do you have innovative public procurement processes?
- Would you be willing to outsource part of the pre-selection of start-ups?
- Would you be interested in forging a stable collaboration with a third party through a contract for ongoing services on supporting the development of innovations tailored to your city needs in relation to your exposure to climate impacts?
- Would you be interested in hosting matchmaking innovation events for climate change impact solution providers for your city?
- Would you be willing to pay for the technical testing of a promising innovation to demonstrate POC?
- What would trigger you to make such a payment?

B) Notes re. brigaid lunch debate at the european commission

BRIGAIID lunch debate at the European Commission

Wednesday 13 November 2019 – 13:30-15:00 hrs CET

Attendees: Marco Hartman (HKV), Roelof Moll (TU Delft), Elena López-Gunn (Icatalist), Gerardo Anzaldúa (Ecologic Institute), Laura Palomo (EASME), Piret Noukas (EASME), Evdokia Achilleos (EASME), Onelica Andrade (DG RTD), Arya-Marie Ba Trung (DG RTD), Sotirios Kanellopoulos (EASME), Durk Krol (Water Europe), Paulo Barbosa (JRC-ISPRA; *via teleconference*) and around 5 other participants from the European Commission.

Opening and presentation of BRIGAIID

Laura Palomo, Project Officer for BRIGAIID at EASME, welcomed the participants and gave a short introduction to the BRIGAIID project. After explaining the purpose of the session, she gave the word to Roelof Moll, coordinator of the project, who then proceeded to introduce the members of the consortium present on the panel. The floor was then taken over by Marco Hartman, who gave a presentation on the project's concept, its main elements, key achievements and future plans. Apart from giving a general overview, the presentation highlighted the different tools and methodologies developed within BRIGAIID (e.g. the [Testing and Implementation Framework](#), the [Market Analysis Framework](#), the [Climate Innovation Window](#) and the [Communities of Innovation](#)) and some success stories of innovators who went through the project's support programmes. The talk also introduced BRIGAIID Inc., a concept that the consortium is currently exploring to pursue the continuity of the project.

Discussion

Following the overview presentation by Marco Hartman, the floor was opened for exchange with the participants. This mainly took the form of a Q&A session, but also some concrete recommendations and indications came from the participants during the discussion.

One of the first issues discussed was on what makes BRIGAIID/BRIGAIID Inc. different from initiatives like the EIT's [InnoEnergy KIC](#), or from European Commission repositories like [CORDIS](#). In this respect it was noted that BRIGAIID has three main points of differentiation:

- 1) a specialized focus on innovations for climate adaptation and disaster risk reduction;
- 2) an integrated range of innovation support services that cover technical development and testing, business strategy development, and market outreach;
- 3) stocktaking activities which identify not only innovative solutions coming out of EU projects, but also those emerging from MS-led initiatives as well as independent efforts.

Furthermore, it was pointed out that one of the most interesting 'services' that BRIGAIID has offered in the project is the facilitation of a 'process' in local-specific contexts. This 'process' being: making an effective connection between innovators and local end-users to implement DRR/CA plans.

Another attractive aspect of BRIGAIID is its coverage of central and eastern European countries. The project's systematic approach and integrated support services could be used to raise the profile of innovation policy in such regions, which commonly rank low in the [European Innovation Scoreboard](#).

In terms of potential for policy impact, it was mentioned that DG RTD had previously visited the BRIGAIID Climate Innovation Window and used it to identify relevant innovations that could inform the ongoing discussions on the Mission on Adaptation of Horizon Europe. There was an expression of interest to be in further contact to explore collaborations, including some possible room for funding.

Another point of discussion in this regard was the perspective towards involving private-sector investment in the funding of the solutions and/or of BRIGAIID Inc. itself. Here, the difficulties encountered by the project so far in getting private investors, but also banks and insurance companies engaged, were discussed. An important notion coming from one of the reviewers who participated in the project's second periodic review meeting, was that a market for innovative climate adaptation solutions does not yet formally exist, or at least its boundaries, players and transactions are not well defined. This means that, with its efforts, BRIGAIID is effectively a pioneer pushing towards establishing such a market. This means that a good deal of awareness raising, but also inertia and uncertainty needs to be dealt with. The mainstreaming of climate adaptation, inter alia via the Mission on Adaptation in Horizon Europe, as well as the global push for sustainable investment and European efforts like the [EU Sustainable Finance Taxonomy](#), should help in this regard.

In terms of the technical reach of the project's assessment frameworks, one participant asked whether non-monetary benefits emerging from the implementation of the innovations are considered. This is, to a limited extent, covered by elements of the Testing and Implementation Framework (TIF). A more in-depth assessment of co-benefits could be imagined via, e.g. the evaluation of ecosystem services provided or enhanced by nature-based innovations. Expertise is available within the project

consortium to take this further, however it will probably not be feasible within the frame of the current contract.

In terms of network expansion and collaboration, the JRC's [Disaster Risk Management Knowledge Centre \(DRMKC\)](#), the [Joint Programming Initiative "Connecting Climate Knowledge for Europe" \(JPI Climate\)](#), the [Covenant of Mayors for Climate and Energy](#), the [European Project Investment Portal \(EIPP\)](#) and [Climate-KIC](#) were all mentioned as good prospects.

Towards the end of the session, the discussion turned towards identifying potential EU funding instruments that could be used to ensure the continuity of the project's impact via BRIGAIID Inc. It was pointed out that the European Investment Bank (EIB) currently has different tools and initiatives (e.g. on Natural Capital) where BRIGAIID's concept could fit well. It was recommended to get in touch with an EU level representative and to get them aware of the innovations that have become associated with the project. One idea was to organize events to pitch to the EIB and the EBRD. In the case of Climate-KIC, it was pointed out that EIC funding thresholds can be smaller than those of the EIB and the EIPP.

Also in this context, the idea of an "Adaptation Booster" programme similar to the Common Dissemination and Exploitation Booster services offered by the Commission was discussed. The instrument called Actions by Invitation (or Identified Beneficiary Actions), where services can be directly appointed was also mentioned. Unfortunately, no clearly promising pathway was identified at this point due mainly to the restrictions associated with the Commission's public spending procedures (e.g. competitive processes where the bid still goes to better value for money). The lack of a legal form for BRIGAIID Inc. (we need to be an established legal entity with several years of proven revenue to participate in tenders) was also identified as a barrier.

Follow-ups after the meeting

Additional contacts were established and suggestions continued to emerge after the session.

Right after the lunch meeting, the group briefly met with a representative of the [Enterprise Europe Network \(EEN\)](#). He expressed his interest to receive communication material on BRIGAIID/BRIGAIID Inc. that he could share via e-mail with his colleagues and also present at the next EEN Sector Groups Chairs meeting in Brussels at the end of November (date to be confirmed). Depending on how much interest this raises, BRIGAIID representatives could be invited to present the project in further detail themselves and discuss opportunities for collaboration.

The BRIGAIID team also met with a representative from the [Water Europe Network](#). The objective was to follow-up on earlier discussions on opportunities for collaboration, and specifically on the possible continuation of BRIGAIID's activities within the frame of Water Europe. Since the latter is currently incorporating public administrations and NGOs as

members, and it already counts a wide number of water sector stakeholders (e.g. SMEs, utilities, research centers) within its ranks, the concept of BRIGAIID's Communities of Innovation could be rather easily incorporated. Another option discussed was the possibility to organize a joint event focused on climate adaptation and disaster risk reduction for the European water sector.

BRIGAIID was also invited by a representative of DG RTD to contribute to the briefing document that is being developed on existing tools for Climate Adaptation/DRR. This will support the work of the Boards of experts working on the Mission of Adaptation of Horizon Europe. This is a great opportunity to crystallise the policy impact of BRIGAIID.

Additional suggestions coming after the meeting included:

- Disseminating BRIGAIID through one of the quarterly [newsletters](#) that JRC's DRMKC publishes. The next edition is scheduled to come out in December. The DRMKC has a section dedicated to forest fires. The BRIGAIID Community of Innovation (CoI) developed in Portugal on this subject could be promoted there.
- Connecting with the Covenant of Mayors (CoM) initiative. Signatories of the CoM should develop local adaptation plans that normally tackle the hazards considered in BRIGAIID, so some of the solutions proposed could be of interest to the Municipalities.
- Connecting with the [Urban Agenda Climate Adaptation Partnership](#)
- Keeping an eye out for regional initiatives and calls, e.g. Interreg Central Europe's "[Capitalisation Through Coordination](#)". This call, which unfortunately closed in July 2019, would have been a good fit for BRIGAIID as it pursued to take forward project results coming from Interreg and H2020 projects and included a topic on [Climate change adaptation and risk prevention](#).
- Considering reaching out to the [ICT4Water Cluster](#). They are seemingly interested in bringing private funding to the water sector. A discussion with their Action Group on Business could help identify opportunities.
- Picking up previous contact with the EU Commission Working Group on Floods
- Exploring ideas on how to make wider use of the [ClimateAdapt](#) platform. Currently BRIGAIID's Climate Innovation Window is accessible through there, but options for additional visibility could be explored.

Potential next steps

Some potential follow-up actions have been outlined and are listed in the table below.

Action	Objective	Responsible
Schedule a Webex meeting with the EIB	To present BRIGAIID/BRIGAIID Inc. and	Piret Noukas to establish contact via email, Roelof Moll to coordinate the

	exploring potential funding opportunities	scheduling of the teleconference.
Follow up with the Enterprise Europe Network	To get BRIGAID and its services known to the relevant EEN group(s) and explore potential for collaboration	Piret Noukas
Contribute to the briefing document on existing tools for Climate Adaptation/DRR	To engage with the Boards of experts working on the Mission of Adaptation of Horizon Europe and increase the policy relevance of BRIGAID	BRIGAID Executive Board

C) Statutes

DRAFT STATUTES OF THE BRIGAIID Inc. Association

Chapter 1. Name, objectives, territorial range, duration and registered office

Article 1. Name

BRIGAIID Inc., from hereon referred to as “the Association”, is a non-profit entity established for a period of unlimited duration, with the purpose of lifting Europe’s climate resilience by supporting climate adaptation and disaster risk reduction innovators and the development and implementation of their innovations.

Article 2. Objectives

Merely for descriptive purposes and not intended in a limiting sense, the principal objectives of the Association can be stated as follows:

- (d) To act as a central hub for climate change adaptation and disaster risk resilience innovations in Europe, through
 - a. Hosting Communities of Innovation that link innovators, end-users, and others (including scientists and financiers/funders)
 - b. Increased public outreach and marketing, through events, the Climate Innovation Window website, and other activities to increase public knowledge and understanding of the need for climate adaptation and the promise of innovative approaches, including events, education activities, and publications
 - c. Provision of expert knowledge on climate change adaptation, disaster risk reduction and innovation management
 - d. Participating in or leading research and innovation projects, including the development of tools and indicators
 - e. Supporting other actors to develop and implement innovation development programs for climate adaptation/disaster risk reduction, including but not limited to banks, foundations, and public authorities governments
 - f. Developing and strengthening partnerships with stakeholders in Europe and worldwide
- (e) Support innovators to develop their climate change adaptation and disaster risk resilience innovations and related businesses, by arranging the following support for innovators from Association members:
 - a. Business development and funding/financing coaching (including using the Market Analysis Framework online tool and in-person expert consulting)
 - b. Innovation testing and development support (including access to testing facilities and expert consulting)
 - c. Marketing support for innovations, including developing strategic marketing and branding
 - d. Gathering of and provision of innovation development funding

- (f) In addition to the above activities, to further support European climate resilience through
 - a. Contributing to policy discussions at EU and national level to promote effective approaches to climate adaptation and innovation

To engage, in general, in any activity that could be related, directly or indirectly, to the above objectives, as decided by the Association s' governing bodies.

Article 3. Registered Office

The registered office of the Association is either Brussels, Spain or the Netherlands

The registered office may be moved by a decision of the Board, so long as the move is legal and within the same country.

Article 4: Duration

The duration of the grouping shall be indefinite. The group may be dissolved at any time in virtue of a decision of the General Assembly.

Article 5. Geographic range

The envisaged territorial range of the Association extends predominantly to Member States of the European Union, but also includes Albania and Israel.

Chapter 2. Membership, including new members, resignation, expulsion

Article 6. Members

Members can be any persons, organisations, or businesses who are interested in promoting the goals identified in article 2.

Article 7. New members

Applications for membership are to be addressed to the Board of Directors. The Board of Directors decides on the admission of new members, which must then be confirmed by a majority of one half plus one of present members in the General Assembly of the Association.

Article 8. Resigning membership

Members can choose to resign at any time and for any reason. However, the resigning member shall give 3 months notice and is required to pay the necessary fees before resigning.

Resigning from the Association does not end any ongoing legal obligations of the member related to the Association, Association members or other contracts.

Article 9. Member expulsion

Members can be expelled for “important reasons” that are to be decided by the Board of Directors. They include a member failing to fulfil its obligations as set out in the legal provisions or regulations in force, in contracts or in internal regulations. The concerned member has the right to appeal against this decision at the General Assembly. The expulsion must be approved by a majority of the General Assembly. The Member whose expulsion is voted on may not participate in the voting process.

Members who have resigned, have been expelled, have been dissolved, or are in bankruptcy or insolvency are not entitled to reimbursement of any amount of their contributions to the Association, reserves or provisions.

Voting rights and all other privileges are lost by Members whose payments are two years or more in arrears.

Article 13. Obligations

Members must fulfil all their obligations, including the payment of annual membership contributions to the Association, and are also responsible for all extra payments established by the General Assembly.

Chapter 3. Bodies of the Association: General assembly and Board of Directors

Article 14. The General Assembly

The General Assembly forms the highest body of the Association. It consists of all members of the Association, all of whom have one vote each.

The General Assembly will be held at least once per year. It will be called for by the Board of Directors in writing or by email at the latest 30 days before the Assembly. An extraordinary General Assembly can be called by the Board of Directors or upon request by a fifth of the members.

Members will be able to participate in the General Assembly in person, by telephone, or online. Members will be able to provide their votes in writing or on the vote platform prepared for this purpose. Any Member may be represented by another Member. All proxies must be informed in writing to the Secretariat two weeks before the General Assembly. The power of attorney is to be shown at the registration to the General Assembly.

The General Assembly will be chaired by the Chairman of the Board of Directors. They will share the agenda with Members 2 weeks before the meeting. Members can submit agenda items up to a week before the Assembly.

The decisions by the General Assembly are entered in the minutes and notified to all members in writing by the Secretariat. The minutes are kept at the registered office and shall be consulted by the members of the Association on request

Article 15. General Assembly decision making

Decisions of the General Assembly are taken with a simple majority of the participating members (i.e. one half plus one). In the event of a tie, the Chairman of the Board of Directors has the casting vote.

Article 16. General Assembly responsibilities

The General Assembly is responsible for the following:

- Definition of the orientation of the work and lead of the Association 's activities;
- Adoption and modification of the Statutes;
- Election of the members of the Board of Directors;
- Dismissal of members of the Board of Directors for important reasons;
- Approval of reports; Inspection of the annual financial statement and budgetary decisions;
- Confirmation of decision of new members;
- Approval of the annual membership fees and of their revision;
- Approval of the financial contribution cap by individual donors, and of its revision;
- Approval of the Rules as well as their revision and supplementation;
- Control of the abidance of the Rules in accordance with the Guidelines;

The General Assembly can express itself or can be asked to express itself on any subject which it has not entrusted to another Association's body.

Article 17. The Board of Directors

The Board is responsible for conducting the Association's business between General Assembly meetings, and shall have at least one regular meeting each year.

The Board is formed by a President and three additional members. All Board Members are elected by the General Assembly for a term of three years. They can be reelected. The Board may fill vacancies occurring in its membership during the period between General Assembly meetings. Such a change must be ratified at the next General Assembly meeting.

The Association is bound by the joint signature of two members of the Board of Directors with signatory power. The President signs singly.

Article 19 Board of Directors responsibilities

The Board of Directors is responsible for the implementation and execution of the decisions of the General Assembly. It leads the Association and takes all necessary measures in order to fulfil the purpose of the Association. The Board of Directors decides on all issues that are not explicitly of the General Assembly's competence. This includes but is not limited to the following:

- Taking the necessary measures for the fulfilment of the Association's purpose (in particular through fundraising, research proposal direction and signing, public communications including Internet platform, and the promotion of activities of publication and research within the Association);
- Coordinating the division of work between Members;
- Call of ordinary and extraordinary General Assemblies;
- Establishment and supervision of advisory board;
- Decisions relating to the admission, the resignation and the possible expulsion of members;
- Dismissal of members of the Board of Directors;
- Monitoring of the abidance of the Statutes and the Rules;
- Preparation of revisions and supplementations of the Statutes and the Rules;
- Financial management of the Association and administration of the Association's assets including book-keeping;
- Hiring of paid employees and volunteers;
- Sub-contracting work to Members and external parties.

Article 20. Advisory board

The Association shall be supported by an advisory board. The advisory board members will be selected by the Board of Directors. They will include representatives such as end-users, related organisations, EU-Commission representatives, and others.

Chapter 4: Finances, including start up capital, fees, assets, treasurer and liability

Article 21. Start-up capital

The grouping shall be formed with start-up capital made up of member's entry fees.

Article 22. Fees

Members are required to pay an annual membership/affiliation fee the amount of which shall be established by the General Assembly on a proposal from the Board. Fees shall not be refundable, even in case of resignation or exclusion. All Members shall be entitled to vote only if all due membership fees have been paid. In case where payment is overdue, membership may be suspended by the President or withdrawn by the General Assembly, on the recommendation of the Board. The procedure for dealing with arrears shall be set out in Rules of Procedure.

The member's entry fee shall be €100.

Article 23. Other resources

The Association may charge for the operational costs of those services provided by the Association to private or public persons or organisations, whether members or non-members. The Association may apply for financial support from other sources than the annual subscriptions for purposes related to the Association's aims. This also includes income received from participating in research projects. The Association may receive donations from public or private sources willing to support its objectives.

Article 24. Assets

The assets of the Association can consist of all kinds of possessions, and are especially made up of:

- Fees
- Subsidies that are received
- Incomes resulting from activities realized by the Association such as events, courses, training, consulting etc.
- Research funding
- Received donations and grants of any kind

Article 25 Treasurer

The Treasurer is appointed by the General Assembly from among the elected Board members and serves for a period of one year. This period can be prolonged until the end of his/her term as a Board member. The responsibilities of the Treasurer are set out in Rules of Procedure adopted by the General Assembly. These include responsibility for managing and monitoring fees assets and expenses, and reporting to the General Assembly and Board of Directors on these element.

Article 26. Members liabilities

A Member shall not be held liable for the debts, liabilities, or other obligations of the Association.

Article 27. Officers' liabilities

Officers of the Association, being the members of the Board, acting in the affairs of the Association in good faith and with ordinary diligence and reasonable discretion, have no personal liability for the debts, liabilities or other obligations of the Association.

Article 28. Limits to payments

The Board of Directors cannot agree to payments in excess of the annual fees.

Chapter 5 Statutes and regulations

Article 29. Modifications of the Statutes

Modifications of the Statutes may be proposed by the Board or by one of the members. Such proposal must be received by the General Secretary at least 1 month before the date of the meeting of the General Assembly.

Alterations, amendments or modifications of the Statutes may be approved by a qualified majority of the General Assembly, with a two-thirds majority of the votes of the present and represented members in the General Assembly. Mail-in votes may be used.

Article 30. Internal Regulations of the Association

All matters not specifically laid down in these Statutes, may be specified and determined by the Internal Regulations of the Association, which will be drafted by the Board of Directors and approved by the General Assembly.

Such Internal Regulations must not be in conflict with the Statutes of the Association.

Chapter 6. Dissolution and Liquidation

Article 31. Dissolution

The Association can be dissolved by agreement of the General Assembly. This decision must be made by a qualified majority of two-thirds of the Members with voting rights of the General Assembly of the Association.

In the case of dissolution by General Assembly agreement, the Assembly will, by a majority of one half plus one of its present and represented members, appoint three liquidators of assets of the Association.

D) Commitments and responsibilities BRIGAIID INC

BRIGAIID Partner	Why are you interested to be involved in BRIGAIID Inc?	What responsibility do you want to take on within BRIGAIID Inc?	What commitment and capacity can you offer to make this happen?	What can you offer that is valuable to BRIGAIID Inc?	What are key factors that affect your commitment?
The Funding Company	Business opportunity to expand our consultancy services and further develop and use the business development tooling	Business development programme: further development (including online version of BP for example) and consultancy services	Limited yet flexible capacity (1-3 persons in the Netherlands, 1-3 persons in Poland)	European network (European Funding Alliance), consultants also in Poland, Austria, UK, a.o.	Activities should be economically viable
Ecologic Institute	Business opportunity to expand our consultancy services and further develop and use the business development tooling	Business development programme: continue to manage and implement MAF+ support. Overall project management: continue to contribute	Limited without follow-up project (as dependent on project funding). Large Berlin-based team	Link to EU research projects through Ecologic Institute and network.	Need to be economically viable. Also need to serve Ecologic's aims (i.e. either training or not-for-profit advice)
Icatalist	An opportunity to offer a very attractive bundle of services with a group of respected colleagues and institutions across the EU, pulling on our collective experience and different expertise	In the last stretch as we prepare the deliverable also explore deepening the Cols potential, also linking it to other projects we are involved in (H2020 DWC and Climate Kic Act on NBS)	Limited capacity but a very strong commitment. A small team based in Madrid	A strong network of contacts at EU scale and globally, and also if we wanted to go deeper into e.g. SPain (and other colleagues adopt other countries)	That we really do make it into an attractive proposition. I have thought that a MOOC could be a way to progress further and faster, giving additional services at a cost

Off Course	Business opportunity and exploitation of the products developed with Brigaid (pitch deck master and CIW)	Communication strategy and materials for the Inc. Branding services for innovators.	2 people	Communication and strategy experience	Economic aspects
HKV	Engagement with end users, deliver consultancy services in the field of climate adaptation	Organise sessions to engage end users and innovators. Especially in the NL and related to urban flooding	Without follow up project none. With a project we have about 70 experts,.	Network, knowledge	Economically viable. We should be able to use our regular consultants fees.
AKPT	The interest is to develop an active and strong community even on legal aspects. Also one step forward should be to develop a place in Europe/Albania for brigaid inc activities and connecting actors, why not developing research and innovation	Identifications of the problems, supporting for innovations to be tested in operational test site. Finding test sites for innovations to be developed. Connecting actors for a good functionality of the actors. Supporting and finding the best market for business case developing in terms of research and innovations	Flexibility, not define yet the capacity. It will be 3-4 persons involved in Albania	The community we have already and the network. The potential of the Agency to conduct activities in national and local level	Financial aspects
ICRE8 / EIT Climate KIC Hub Greece	Business opportunity to expand our consultancy services and further develop and use the business development tooling	Business development and funding and financing support to innovators To investigate and present the potential business case for BRIGAIID Inc	Limited but Flexible.	World-wide network of researchers, innovators, accelerators, incubators, VCs and Banks, as well as possible clients	Economic Sustainability of activities

Thetis	Business opportunity to expand our services both for consultancy and engineering	Technical tasks, maybe making preliminary evaluations of innovations/innovators	2 people (potentially more if engineering area is requested to be strongly involved)	Experience - developed in several experiences - in engineering and environmental solutions that can be applied concretely locally. Venice as a test bed.	Economic aspects i.e. charge normal rates
NAAR (Romanian Waters)	Staying on top of the technology curve in the water management field The need of the continuous improvement of this field/ Pursuing continuous improvement	We can collaborate with the other partners to identify and target technical solutions to make a difference in this process to achieve operational excellence. We can also participate at meetings/ conferences or videoconferences regarding innovations and climate resilience. Improving the current activities We can provide the opinions/experience of 5 experts with a large experience in the water management field.	5 people	The Facau facility for testing innovations.	Economic aspects i.e. charge normal rates, internal budget legislation restriction National legislation aspects
Aquaproiect	Continued close collaboration an growth	Active member participation, specific project responsibility to be discussed	One person part time involvement. Specific expertise can be offered based on action specified	Engineering expertise in water management and environmental engineering, business management experience	Time availability, subject to ongoing projects

E) PPIF Guide

Introduction

Every innovation starts with a good idea or a brilliant technology. However, these things alone will not lead a successful innovation; financial resources are needed to succeed. Obtaining these resources isn't always easy, especially when the innovation doesn't have financial profitability as its main goal, such as environmental innovations. The most important part of obtaining additional funding is a good business case, but it doesn't end there. To truly be able to get your story across, you need to understand the perspective of the investor, whether they're public or private. In the end, it's all about their interests.

Luckily for social innovators (including environmental innovators, whose environmental impact or mitigation measures can be seen as a social benefit), investors do not purely focus on financial gains when deciding whether or not to invest in your idea. While there are still investors that have financial gains as main interest, there has been a rise of social investors in the last few decades. This means that some private investors are acting more alike public funding bodies. On the other hand, the increase of public funding over the years have shifted the role from governments towards that of an investor; they need to be able to assess whether a project is good enough to spend public funds on. In that sense, public funding bodies have begun to shift more towards the perspective of private investors, becoming pseudo-private in the process.

To make sense of this, and to understand the perspective of the investors, this document illustrates the rise of "social funding" and the main sources for innovations with a strong social (including environmental) aspect to obtain the required financial resources. Firstly, the changes in economic rationales towards a social perspective are described and analysed. Secondly, this document explains what these changes mean for the behaviour of companies and investors alike and how these changes explain the rise of social entrepreneurs and social investors. Lastly, a (public-private investment) framework for frequently used financial instruments for (social) entrepreneurs is given.

Exploring the economic literature

Ever since the end of the nineteenth century authors have been thinking about the relationship between businesses and society (Jenkins, 2005). Essentially, this debate is about whether businesses should only need to focus on making profit or if they also must take various (social) stakeholders into account (Kercher, 2007). This paragraph gives an overview of the changes in economic thinking.

1.2.1 Traditional economic thinking

In economic literature Adam Smith (1723-1790) is frequently seen as the founder of what is now known as *classical economics*. In his book *The Wealth of Nations*, dated 1776, he describes economics as a science that follows natural laws and is free of human will. A central assumption of Smith is that the pursuit of individual interests would result in the greatest public interest. According to him, free markets have the tendency to regulate themselves by means of competition, supply and demand, and self-interest. As “an invisible hand”, a free market will deliver the best outcomes for everyone (Skousen, 2016).

During the Great Depression in the twentieth century, a lot of people wondered if the invisible hand of Adam Smith was actually working. John Maynard Keynes (1883-1946) believed it didn’t and was an opponent of the *laissez-faire* attitude that Smith advocated. According to Keynesian politics the government should intervene in times of low borrowing and spending to keep the economy stable and growing (Lawson & Pesaran, 2009).

Keynesianism was very popular until the eighties but the high pressure on public finances in the eighties made the ideas of Adam Smith popular again and were the inspiration for *neoclassical economists*. The *homo economicus* is central in the neoclassical economic theory. People are seen as rational calculating species that only want a maximization of personal interests. Concepts like competition, efficiency, and profit maximization are the core aspects of this theory (Palley, 2005). A famous neoclassic economist was the Nobel Prize in Economics winner Milton Friedman (1912-2006). According to him, the maximization of profit was the primary task of enterprises. Friedman said it was this goal that leads to innovation and improves productivity. In this way, companies have great social utility (Lee, 2008).

1.2.2 A shift from individual to social interest

The resemblance between the three mentioned dominant trends in economic theory is that they all see the maximization of profits as the main goal. This traditional economic rationale is increasingly under pressure due to developments such as growing income inequality and the recent economic and financial crises. Also, the rapid climate change has changed the emphasis on short-term thinking by the *homo economicus*. According to Indian economist Amartya Sen (born in 1933), individuals do not only act on the basis of rational choice but also on the basis of morality. People take the value they attach to their environment into account and furthermore it is impossible for them to weigh all possible choices to choose the best option (Sen, 1977). Individuals want to take responsibility for their own economic activity, instead of leaving the collective prosperity to the invisible hand of the free market. Values such as brotherhood, social justice and ecological sustainability are leading in economic choices of today’s individual because he realizes that in our pursuit of well-being, we are fundamentally dependent on each other and on the capacity of the earth (Nussbaum & Sen, 1993). The fact that Sen in 1998 received the Nobel Prize in Economics illustrates that thinking about economics and her characteristics has changed over time.

Businesses: from maximizing profits to CSR and social enterprises

This shift in economic literature has had its effect on practice in business management and the world of finance, including the interests of investors. This shift has created an opportunity for social (including environmental) enterprises to rise and to attain private (and public) funding. Understanding this shift in perspective is important to better understand the rationale of social investors.

Following the shift in literature, businesses were taking more and more social responsibilities due to increased globalization, a more conscious citizen, the attention of non-governmental organizations (NGOs) and changing perceptions of companies themselves (Jenkins, 2005; WBCSD, 1999). A growing number of businesses have integrated Corporate Social Responsibility (CSR) and sustainability in their company policy. Gradually more and more people pointed to the fact that corporate social responsibility is needed for the efficient functioning of the (global) market and according to a growing public, companies are more successful in the long run by taking a broader responsibility (Kercher, 2007).

Due to the increasing number of complex issues wherefore social innovation is needed, the traditional dichotomy between funders that focus on economic or social goals is thus shifting (Moore et al., 2012; Rexhepi, 2016). Not just large companies see the urgency of taking a broader responsibility by integrating CSR in their business, since social enterprises (SEs) are a fast-growing sector in the economy (Brandstetter & Lehner, 2015). The European Commission (2016) uses the term 'social enterprise' to cover the following types of business:

- Those for who the social or societal objective of the common good is the reason for the commercial activity, often in the form of a high level of social innovation.
- Those where profits are mainly reinvested with a view to achieving this social objective.
- Those where the method of organisation or ownership system reflects the enterprise's mission, using democratic or participatory principles or focusing on social justice.

The goal of SEs is not only to make money, but also to do something good for the world (Bugg-Levine et al. 2012). Another example that doesn't follow the traditional demarcation between funders that pursue social goals and those that pursue profit is a public-private-partnership (PPP). In a PPP public authorities cooperate with private businesses. Together they "aim to ensure the funding, construction, renovation, management or maintenance of infrastructure or the provision of a service through the sharing of investment risk, responsibility and reward between the parties" (Tecco, 2008).

The shift in perception is also present amongst investors. The government, angel investors and charity foundations are traditionally seen as the primary financial supporters to reach social or environmental objectives, but private investors are entering that market as well. However, there are still quite some differences between the interests and most used funding mechanisms of the

different types of funders. As an innovator, it's important to understand these differences to be able to identify which type of investor is most applicable.

The first category is the one most widely associated with social investors: governments, foundations and other philanthropists. Examples of funding instruments used by these actors are grants and donations (Moore et al., 2012). These type of funders are driven by philanthropic incentives (Moore et al., 2012; Rexhepi, 2016). The idea is that pursuing social and environmental goals will most likely mean a big risk at a financial loss and therefore are not interesting for private funders (Rexhepi, 2016).

When the risk at financial loss is lower, private investors come into play (Bugg-Levine et al., 2012). Whereas typical funders such as banks, equity investors and venture capitalists still mainly focus on maximizing profits, new types of investors have emerged who are interested in the social aspects of a businesses. Some traditional funders have also changed their interest towards a more social one (Koellner, Weber, Fenchel, & Scholz, 2005). However, private investors still want to be confident that they get return on investment, whether it's financially or socially. Therefore, private investors avoid certain investments with a high uncertainty (Tecco, 2008).

Although it is easy to measure the financial benefit of an investment, it is more difficult to find out how much social or environmental value is created. To help investors and other stakeholders to understand and manage the social, economic and environmental value of activities, the concept of Social Return on Investment (SROI) has been developed. The SROI framework monetizes social outcomes of an investment and this way reveals the economic value of social outcomes, including environmental benefits. It gives funders a more holistic perspective on the value of social projects (Koellner, et al., 2005).

In summary, investors can be classified based on their incentives and goals and it is important for innovators to find the ones most applicable for them. For some investors making a social impact is their main goal, while others are only interested in making profit. A third category wants to pursue both goals. The SROI framework helps to map the social return on investment for social funders decide if a development project or social business or enterprise is worth investing in.

An overview of these different kind of funders is shown in table 1, based on their priorities.

Priority of Funder	Social Return on Investment		Financial Return on Investment
	Just Impact	Impact first/ Impact & Profit	Profit first/ Just profit
Receiver of Funding	Public Sector/ Charity	PPP/ Social Enterprise	Traditional Business
Examples of Possible Funders	Philanthropist, Government, NGO	Government, Impact Investor	Traditional Bank and Investor

Table 1. Overview type of funders and their priorities.

Funding social finance

Although there has been a huge rise of SEs and start-ups in general, many of them are not successful in the long run. This section describes the traditional pitfalls for start-ups and explains why SEs are especially vulnerable. Afterwards, financial instruments to fund social innovation, and thus help SEs survive, are discussed and presented in a framework.

1.4.1 The financial-social return gap

According to Forbes (2014) 90% of start-ups fail. Scientific research, such as research by Grimaldi et al (2011), Wennberg et al (2011) and Ortín-Ángel & Vendrell-Herrero (2014), shows that start-ups based on new technology (New Technology Based Firms, of NTBFs), even have higher death rates. This is especially true for firms based on academic research, due to the novelty and radicalness of their technology. CB Insights (2014) analysed 101 start-ups, to find out why they failed (figure 1). The lack of funds, the number two reason on the list, can be tackled by developing a good investment plan and having the right support or guidance to do so. Funding is especially important in the long run. A common term amongst start-ups is the 'valley of death' (Osawa & Miyazaki, 2006). While most start-ups can obtain funding for testing and developing their prototype, funding is hard to obtain during a commercialization, when results are still little, and finances are low. It is therefore of utmost importance that there is a funding strategy in the early development stages of a new firm.

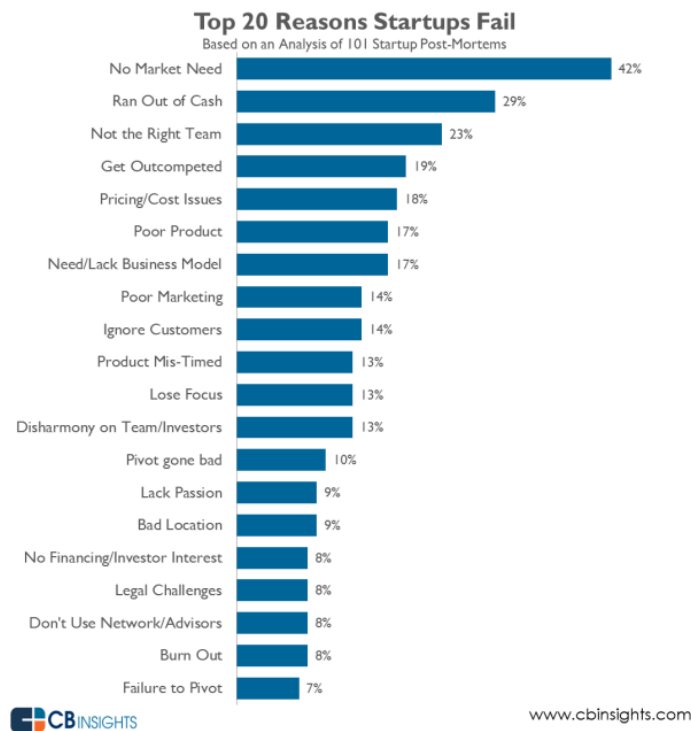


Figure 1. Reasons why start-ups fail (CB Insights, 2014).

According to Moore et al. (2012) investment in innovation, and especially in social innovation, carries a higher risk in terms of ROI than investment in more established products, processes or organizations. Bugg-Levine, et al. (2012) and Moore et al. (2012) state that a lot of social enterprises merely rely on grants or donations, but this is not a sustainable business model. A lot of social enterprises therefore do not make enough money to fund themselves entirely. This results in the so-called financial-social return gap (Bugg-Levine, et al., 2012). The yields of social innovations are very valuable (protection, health, clean water, the environment), but the costs to reach these outcomes are bigger than their monetary return. However, businesses need financial resources to start up, grow, and go to scale (Brandstetter & Lehner, 2015; Moore, Westley & Nicholls, 2012).

1.4.2 Frequently used social finance instruments

As stated, SEs need financial resources to survive. The rise of a social perspective has created relatively new funding options for social enterprises. It is important for innovators to have a sustainable business model, which means that some funding mechanisms are more important than others.

A range of traditional financial instruments are possible for social entrepreneurs. Examples according to the literature are grants, venture capital and microfinance (Bugg-Levine, et al., 2012). *Grants* are amounts of money which are mostly given by angel investors, NGOs and the government for specified purposes (Tekula, 2016). A company can also finance investments on the private market via *venture capital*. This means that capital is exchanged for company shares. While a bank requires a collateral, the venture capitalist obtains a share of the company in which



it invests. For investing in a high-risk enterprise, the investor receives a relatively high yield (Bijlsma, et al., 2015). Furthermore, via *microfinance* starters or existing companies that want to (re)start a business but who cannot get a loan from the bank can get small loans (Bijlsma, Van Veldhuizen, & Vogt, 2015).

These traditional financial instruments for start-ups are especially helpful in the early stage of development. They can help enterprises to become financially viable and scale their operations (Tekula, 2016). But on the long term the abovementioned resources are not a sustainable source of money, since they do not pose recurring income (Bugg-Levine, et al., 2012). To be able to survive, innovators need a business model which has recurring and predictable sources of finance.

To achieve not only social but also a financial return, social enterprises and PPPs use “social finance” (Rexhepi, 2016). Social finance is a manner to channel private capital towards social innovation that benefits the public interest (Moore et al. 2012). Also, social finance secures its own sustainability by being profitable (Rexhepi, 2016). This is why microfinance, although it tries to deal with poverty, isn’t seen as a form of social finance. Microfinance is a form of crediting and social finance is a form of investment (Rexhepi, 2016). Rexhepi (2016) captured the place of social finance in figure 2.

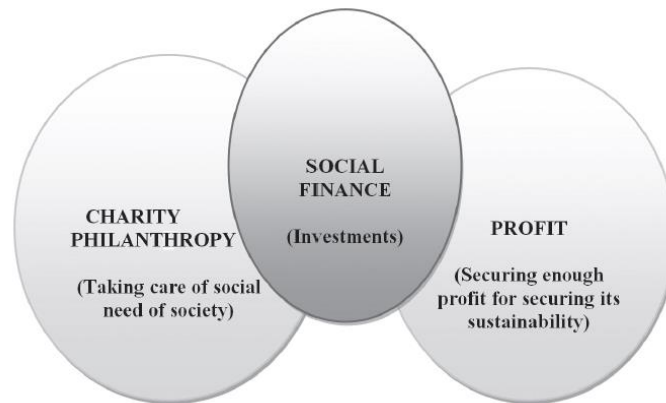


Figure 2. Different funding incentives: the role of social finance (Rexhepi, 2016)

Social finance covers a spectrum of approaches, such as impact investing, government finance and mission-related philanthropic investment (Moore, et al., 2012). Bugg-Levine, et al., 2012 have made an overview of social finance instruments that are frequently employed which usually reduce the risk for investors, making them more inclined to invest. These are:

Social Impact Bond (SIBs) and Development Impact Bond (DIBs)

SIBs are an example where a public sector agency hires a third party and only finances a project when certain outcomes are achieved. This way the government is sharing the risk with the company that is responsible for the execution of the project (Tekula, 2016). A DIB uses the same principle as an SIB but involves development agencies. DIBs have a more global focus (Brandstetter & Lehner, 2015). An impact bond model deals with the risk that public or donated money will be spent ineffectively (Rexhepi, 2016).

Crowdfunding

Crowdfunding is an alternative for obtaining finance where there are no financial intermediaries. A group or a person who wants to start a project, but has no starting capital asks a large audience for small contributions. Together, these small amounts of money of a large number of sources sum up to a large total (Bijlsma, et al., 2015; Lehner & Nicholls, 2014). Crowdfunding is a broad concept that includes different funding possibilities. Firstly, money can be donated. This is mostly the case when a project has purely philanthropic objectives. Sponsoring is also a possibility. The investor receives a non-financial reward from the social entrepreneur. Thirdly, it is possible for a social entrepreneur to loan an amount of money from an investor and pay it back with rent. Lastly, an investor can participate in the project of the social entrepreneur. The investor profits from the value increase of the social enterprise in exchange for providing the start capital. While crowdfunding can be used to fund projects with a high risk, some crowdfunding platforms will only provide the funding if the development goals are met. This makes it less suitable for high-risk

enterprises, since the entrepreneurs themselves will most likely be not able to cover the costs if the development goals are not met.

Loan guarantees

A loan guarantee is the promise of one party to take over the debt obligation of a borrower if the borrower defaults. Loan guarantees are sometimes issued by charity foundations to enterprises, rather than direct funds, as an efficient way to give enterprises more-certain funding (Bugg-Levine, et al., 2012).

Quasi-equity debt

To combine the properties of equity and debt some financial instruments are developed whereby yields of the investment are dependent of the organization's financial performance (Bugg-Levine, et al., 2012). Where debts for with a set interest and payback period, the quasi-equity debt depends on the financial performance of the organisation. If the expected financial performance discussed when providing the quasi-equity debt is not achieved, a lower (or even possibly no) financial return is paid back to the investor. This reduces the risk that enterprises have if their performances are still uncertain. Because of this, this kind of funding is very suitable for social enterprises. On the other hand, if the enterprise performs better than expected, the enterprise will have to pay a higher financial return to the investor. For the investor, this is the reward for the higher risk he or she has taken.

Grouped financing

When an enterprise has a broader portfolio, or is integrated in a PPP for instance, it can ask for grouped financing. Instead of asking funding for one project or partner, it asks funding for the parent company or the PPP. In this way, the different projects or the different partners of the PPP do not each have to find their own source of funding. It also decreases the risk for the investor, increasing the chances of convincing them to invest. After all, their risk reduces because their investment is spread out over a portfolio (PPPLab, 2016). With grouped finance the scale of a financing scheme can also increase whereby the transaction costs for the borrower (the enterprise or PPP) reduces (because they do not have to find their own funders).

Blended funding

Blended funding means the “strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets” (World Economic Forum, 2015). In other words, blended finance means that innovators use the fact that they have attained public funds, such as a grant, to convince private investors to invest as well. It reduces the risk for private financiers, because a part of the risk is carried by a public organization. Private investors thus become co-financers of your enterprise instead of carrying the entire risk themselves. The public funder can guarantee to cover the first losses. Another reason why investors are more inclined to invest in an enterprise if a public body has already committed to funding the enterprise, is that the public body has already evaluated the enterprise and has thus deemed it valuable. This ‘leveraging’ of private resources with public funds is sometimes the reason that

governments design instruments specifically for co-financing (PPPLab, 2016). These design instruments usually require a signed letter of commitment of private investors in case the funding is granted by the public body.

Revolving funds

A revolving fund is an (often public) fund which can provide financial assistance to enterprises just like a regular grant or fund. However, the repayments on the issued capital from the enterprise flow back into the fund. This makes replenishment and allocation of the fund in to a new project possible, making this type of funding a highly predictable and thus sustainable source of income since the fund cannot 'dry up'. These funds are generally made available to social enterprises or for a certain sector. A revolving fund could be an interesting funding mechanism, especially since it often provides funding on more favourable terms than commercial loans or equity (PPPLab, 2016).

1.4.3 Public-private investment framework

As discussed, because of their combination of pursuing social and economic objectives, SEs can use a wide pool of financial instruments. The different options mentioned can be confusing and it can be difficult to see which one is most suitable. Looking at the characteristics of these instruments, they differ (1) in the degree of risk they bring for the funder and (2) in the degree they generate revenues on the long run (in other words, how sustainable they are).

Based on these two characteristics, the different aforementioned funding mechanisms can be placed in a public-private investment framework (figure 3). This is not an exhaustive framework, but it gives an overview of the most commonly used funding mechanisms. Funding mechanisms with a low level of sustainability (bottom of the framework) are useful to kick-start an enterprise, but an innovator needs to have a sustainable source of income, with trade (the actual selling of products and/or services) as the most sustainable and healthy source of income. As a rule of thumb: the longer the enterprise develops, the higher it should be in the framework. It is also very wise to combine different sources of finance. The risk tolerance determines if you should attract a public funding body (high risk tolerance) or a private one (low risk tolerance).

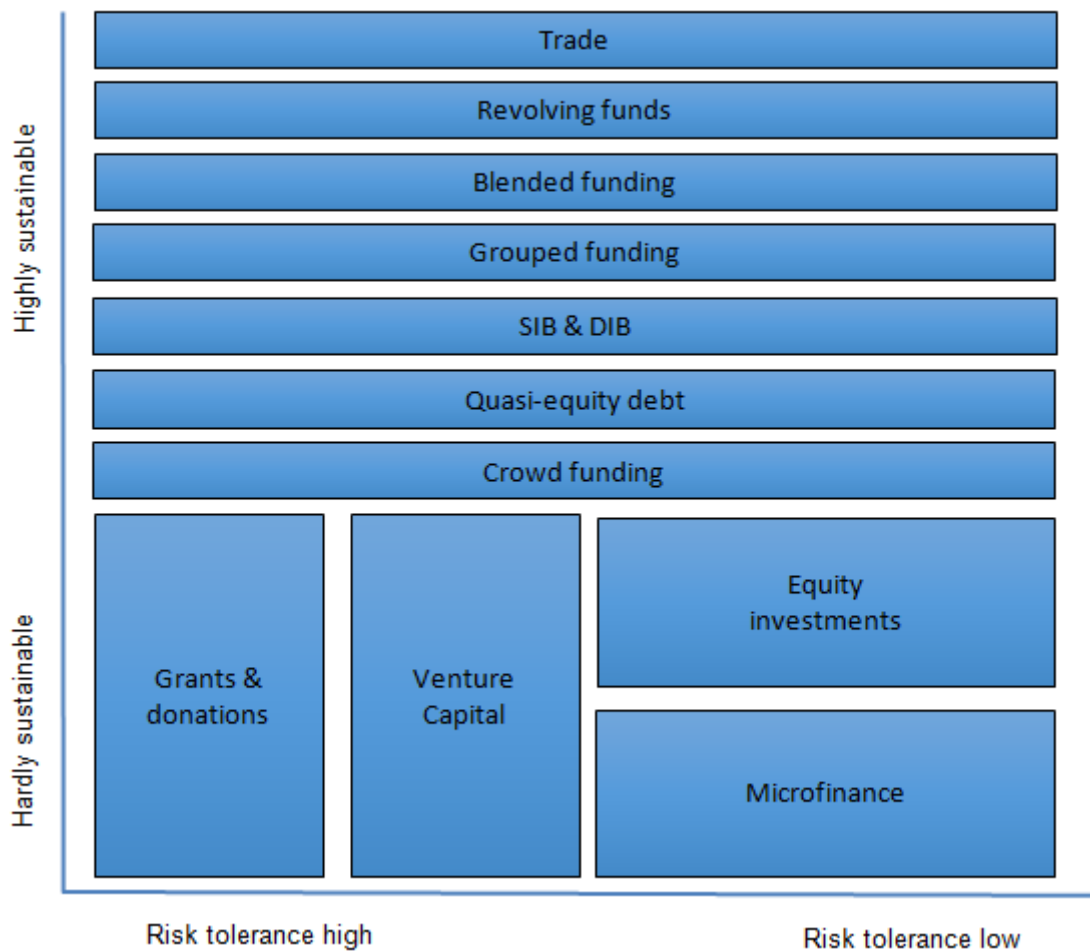


Figure 3. The public-private investment framework.

Conclusion

This document has described the perspective of investors, so that innovators have a better understanding of the different characteristics and motivations of sources of funding. Because of this, innovators can better decide where their pitch or business proposal should focus on. Additionally, this document discussed different funding mechanisms and provided a public-private investment framework which can be used to determine which sources of funding an innovator could and should have.

F) Government Grants Guide for Innovators

Governments Grants Guide
for Innovators



WP6: Business Development

The Funding Company

Introduction

As an innovator in the climate resilience sector, it is vital to have a good overview of what possibilities are open to you for attaining public funding. This guide discusses several public European funding schemes that are relevant for BRIGAIID innovators. Within Europe, there are a variety of funding resources available for BRIGAIID innovators (see Figure 1), such as grant schemes from the European Structural Investment Fund (ESIF) programme and the H2020 programme. These resources are a part of the European 2020 strategy. These schemes serve as an illustration of the broad range of funding options that are available within Europe. One must keep in mind that this list cannot be considered a comprehensive overview of the available funding schemes within Europe.

Throughout Europe, certain tendencies in public funding can be distinguished. Generally speaking, funding schemes in western European countries are aimed at R&D developments, often specifically targeting SMEs. Eastern European grants generally aim at improving social cohesion and decreasing economic disparities. A quick glance overview of this can be seen in the figure below. Furthermore, most European funding schemes can be categorized in terms of their Technology Readiness Level (TRL) focus. TRLs are defined levels ranging from 1 to 9, representing the development phase a technological innovation is in. TRL 1 represents very early fundamental and conceptual research, whereas TRL 9 represents a (nearly) market ready product developing a market uptake strategy.



Figure 1: focus areas of European public funding options



As can be appreciated from Figure 1, a wide variety of sources of funding is available in Europe alone. TFC has made a shortlist of the options it deems most suitable for innovators in the BRIGAIID programme; options where most likely most of the innovations have the necessary requirements and links with the goals of the programmes. This shortlist is:

1. The Horizon 2020 EIC Accelerator Pilot (previously SME Instrument);
2. Fast Track to Innovation;
3. Eurostars;
4. LIFE;
5. INTERREG;
6. Local ERDF funds.

These instruments will be discussed in further detail in the text below. As stated, one must keep in mind that these programmes will not all be suitable for each of the innovations in the BRIGAIID programme. To that end, this document starts with a 'Funding Scan', which identifies the funding opportunities that are most relevant to your innovation. This Funding Scan will include many options beyond the five schemes listed below, which merely serve as illustration for the intricacies involved in selecting an appropriate funding scheme. As an overview, a table has been created with a summary of the relevant aspects that need to be considered when selecting a funding scheme. The text below elaborates on that. Discerning features are for whom they are applicable and the different success rates of the funding options presented.

Funding Scan

Although the funding schemes that are explained above can be relevant for nearly all BRIGAIID innovators, each innovation is different and thus not every funding instrument will be relevant to your innovation. In this funding scan, the funding opportunities discussed in this document are outlined, along with the suitability to your innovation. Some of the key aspects which are important in identifying suitable funding options are:

- **Themes and sectors**

While the BRIGAIID innovations are all focused on disaster resilience, you may have additional themes that are suitable for different funding options. For instance, you may have an agricultural aspect, while other innovators are much more aligned to water management. Extracting these subthemes is an important step to identify relevant funding options.

- **Technological Readiness Level**

The Technological Readiness Level is a broad description of the maturity of the technology and an indication of the position on the timeline to commercialization of the innovation. While many innovators usually start to think about funding and a Business Plan when they are already at TRL 8 or 9 (system complete and qualified, or even already operational), the BRIGAIID programme (with the Business Plan Development Process) aids innovators of many different TRL through this process. Because of this, there is a big range in TRL amongst the different BRIGAIID innovators. Some funding schemes are suitable for technological development, whilst others are tailored for scaling and market uptake. The TRL is thus an important factor in identifying suitable grants or funding options.

- **Partnerships**

Some grants require a collaboration, where a well-balanced and organised consortium is an essential aspect of the application. The consortium should be composed of organisations having excellent understanding of the topic at hand as well as the needs the topic aims to target.

Cooperation between the consortium partners must be at high level and intensive, reinforcing the topic progressively and in common understanding of complementarity between the partners. The type of companies in the collaboration can also dictate which grants are suitable (for instance, some need a commercial partner and a knowledge institution).

- **Scope**



The scope of the innovation, geographically speaking, is also a key aspect in identifying relevant public funding options. Some regions have additional funding available to help further develop that region, while other public funding options are national or otherwise regional (such as the Danube Transnational Programme). Demarcating the scope of the innovation is therefore essential in identifying suitable funding options.

The funding scan will provide the innovators an overview of the funding options most suitable for them and where their priorities and focus lie. The scan itself will be evaluated and formalized as the BRIGAIID programme progresses and expanded with increasing knowledge of different national and regional funding options in different BRIGAIID countries.

Funding Scan Result

- **Innovator:**
- **Innovation:**
- **Themes and sectors:**
- **Technological Readiness Level:**
- **Partnerships:**

National partners:

European partners:

Grant programme	Suitable for your innovation?
Horizon 2020 & Horizon Europe	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe
Fast Track to Innovation	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe Pro: relatively high success rate compared to SME-i Con: consortium required, so multiple partners needed with a good relationship and agreements
EIC Accelerator Pilot (SME instrument phase 2)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe Pro: can be applied for as a single SME Con: very high competition. Typically, multiple resubmissions necessary. On average, SMEs receiving this funding have submitted 8 (!) times.
Eurostars	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe Focused on R&D (TRL 3-6).

	Min 1 additional partner from a different Eurostars country.
LIFE	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe Pro: sub-programme specifically targeted at Climate Change Adaptation Con: highly detailed proposal, strict guidelines.
INTERREG	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe Requires international partnership.
ERDF	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe

Government Grant Factsheets

1. Horizon 2020 & Horizon Europe

Horizon 2020 (H2020) is the largest and most recent of a series of “Framework Programmes for Research and Technological Development” initiated by the European Union. These framework programmes have been the primary instrument from the European Union to guide general research and innovation efforts within its member countries since the first programme was established in 1984. Horizon 2020 is the 8th framework programme, which was started in 2014, and as the name suggests, is scheduled to end in 2020.

Being a framework- (or, Umbrella-) programme, H2020 consists of a range of calls for proposals with themes aiming to solve specific challenges. Broadly, these calls are categorized in three branches:

- excellent science: primarily aimed at fundamental and scientific research;
- industrial leadership: aims to speed up development of the technologies and innovations that will underpin tomorrow's businesses; and
- tackling societal challenges: addresses major concerns shared by citizens in Europe and elsewhere.

Individual calls for proposals are published regularly on the H2020 website.²¹ These calls can vary significantly in their specific requirements and goals. As a general rule, however, they will be aimed at larger projects (starting at budgets over a million euros), requiring the participation of a minimum of three partners in three EU-countries and offering a 70% funding support.

Horizon Europe

Since the H2020 framework programme is scheduled to end in 2020, its follow up programme is now being developed under the name Horizon Europe.

At this moment, not many specifics are known about the calls for the new programme. However, the budget for the programme will be €100 billion (up from €80 billion for H2020), and the European Commission is promoting a “mission based” approach for establishing the individual

²¹ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/h2020>



calls for proposals. These missions should represent tangible problems that the EU aims to solve within the 7 year period of Horizon Europe.

While the individual missions are yet to be defined, five “mission boards” have been established to guide this process. One of these mission boards is specifically aimed at Adaptation to Climate Change, making this programme potentially highly relevant to BRIGAIID entrepreneurs, such as yourself.

2. Fast Track to Innovation

Fast Track to Innovation (FTI) provides funding for close-to-market, business-driven projects and is open to proposals in any area of technology or application. This means a bottom up approach. FTI should promote transdisciplinary and cross-sector cooperation. The aim is to reduce time from idea to market, stimulate the participation of first-time applicants to EU research funding, and increase private sector investment in research and innovation. The maximum duration of the project is three years; within this period the market introduction has to be done.

The FTI pilot supports projects undertaking innovation from the demonstration stage through to market uptake, including stages such as piloting, test-beds, systems validation in real world/working conditions, validation of business models, pre-normative research, and standard-setting. It targets relatively mature new technologies, concepts, processes and business models that need a last development step to reach the market and achieve wider deployment. To this end, if a proposal involves technological innovation, the consortium must declare that the technology or the technologies concerned are at least at Technology Readiness Level (TRL) 6; technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies). The indicative EU contribution per action is expected to be between €1 million and €2 million; in duly justified cases, an EU contribution of up to €3 million can be considered.

The FTI supports a wide range of different projects that include, but are not limited to Climate action, environment, resource efficiency and public-private partnerships. As with the SME instrument, success rates for the FTI instrument are relatively low. In order to have a chance of being successful in applying for FTI funding the innovation needs to be in a late stage of development with a focus on Business Plan development and market uptake strategy. The FTI instrument will be suitable to a select group of BRIGAIID innovators that are in a late stage of technological development and have developed a strong business proposition with high potential for large market uptake. The Funding Scan will provide the innovators with an indication of whether their Business Plan fits the preferred FTI description (European Commission, 2017^e).

3. EIC Accelerator Pilot (SME Instrument)

Small and Medium-sized Enterprises (SMEs) that are EU-based or established in a country associated to Horizon 2020 can now get EU funding and support for innovation projects that will help them grow and expand their activities into other countries – in Europe and beyond. This is achieved through the EIC Accelerator Pilot, formerly known as the ‘SME Instrument’. The EIC Accelerator Pilot will have a bottom up approach. This means that innovators from different industry areas can apply for funding, including innovators that are focused on climate resilience. The EIC Accelerator supports close-to-market activities, with the aim to give a strong boost to breakthrough innovation. Therefore, the instrument is aimed at technologies which are at TRL 6 or higher. Highly innovative SMEs with a clear commercial ambition and a potential for high growth and internationalisation are the prime target. These SMEs can apply as a single entity or apply with multiple SMEs in a consortium.

Previously, the SME instrument consisted of 3 phases, in which the second phase concerned the core innovation project. This has now been replaced by the EIC Accelerator. Phase 1 concerned a feasibility assessment, but this has been discontinued. Phase 3 did not entail funding, but non-financial support, which has now been integrated into the EIC Accelerator.

The EIC Accelerator concerns innovation projects underpinned by a sound and strategic Business Plan. The project should have a duration of 12 to 24 months. In particular, the instrument aims at high risk and high potential, market creating innovations by SMEs throughout Europe. The support for these projects ranges from €500.000 to €2.500.000 per project, and support 70% of the total project costs, as a general rule. This makes the EIC Accelerator one of the larger funding instruments available to SMEs.

In addition to this ‘lump-sum’ funding, the EIC Accelerator now also offers the opportunity of a blended funding option. When choosing this option, in addition to the normal grant, you will also be eligible for up to €15 million of equity financing. This option will be an addition to the lump-sum funding and a refusal of the equity funding option will not affect the already granted funding amount.

Since the EIC Accelerator has a broad focus, many SMEs are eligible to apply. However, the EIC Accelerator is a highly coveted and very selective instrument. The previous SME instrument generally had a success rate of less than 10% and an intensive application process, and the



expectation is that this will not change much with the introduction of the EIC Accelerator.

Because of this, not every SME within the BRIGAIID programme will be at a favourable position to apply for this instrument. The Funding Scan will help innovators clarify whether their innovation has potential to attain SME funding.

4. Eurostars

Eurostars supports international innovative projects led by research and development-performing small- and medium-sized enterprises (R&D-performing SMEs). Eurostars has been developed to meet the specific needs of SMEs. It is an ideal first step in international cooperation, enabling small businesses to combine and share expertise and benefit from working beyond national borders.

In order to be eligible for a Eurostars grant:

- The project coordinator has to be an R&D-intensive SME from a European country;
- There have to be at least 2 organisations from at least 2 Eurostar countries involved in the project;
- There has to be a balanced consortium. No organization or country bears more than 75% of the costs;
- The project needs to have a civil application.

Eurostars applications can be filed by Innovators that are still in a stage of experimental development, or TRL 4-5. Success rates on the Eurostars instrument are around 30%, making it a more easily attainable funding scheme than the previous two. However, eligibility criteria for the Eurostars scheme are narrower, which results in many BRIGAIID innovators most likely not being eligible for participation in the scheme. As Eurostars consortia must consist of partnerships across international borders, and the eligibility criteria vary between European countries, checking the eligibility of a consortium for the Eurostars scheme can be complex. The Funding Scan will aid innovators in testing whether their innovation consortium is eligible and well suited for applying for a Eurostars grant (Eurostars, 2017).

5. LIFE

LIFE is the EU's financial instrument supporting environmental, nature conservation and climate action projects throughout the EU. LIFE distinguishes 5 types of projects: traditional, integral, technical assistance, capacity building and preparatory. Each type of project has different conditions.

Traditional projects

These projects focus on one specific natural/environmental/climate problem with project costs of 1 million.

- There is monitoring of the effect of a project;
- Demonstrable added value for Europe;
- Cooperation with relevant partners from your own country and / or Europe;
- There is no support available from other European schemes than LIFE;
- Of the total project budget 60% LIFE funding is available, 75% for priority species and habitats.

Integral projects (IP)

Integrated projects are designed as a catalyst for an integral and strategic plan for addressing the environmental or climate problems of a vast geographical area: (multi) regional or (inter)nationally. The focus is on coordination and ensure commitment of the relevant parties. These are large projects with € 8-12 million grant, with a duration of 4-8 years.

Technical Assistance projects

Projects intended for the preparation of an integral project. An IP must be submitted the following year and the maximum grant is € 100.000 per project.

Capacity building projects

Projects intended to give additional support to member states that are new in the EU, have a lower than average gross domestic product and / or otherwise lag behind with submitting LIFE projects.

Preparatory projects

These projects address specific needs for the development and implementation of Union environmental or climate policy and legislation. The specific topics are indicated in the application guide.

Since the LIFE funding scheme is specifically aimed at environmental and climate action projects, it will most likely be well suited to BRIGAIID innovators. LIFE does however, emphasize projects with large budgets and consortia, preferably with an international collaboration. Therefore, not every innovator will be able or willing to conform to these requirements (European Commission, 2017).

BRIGAIID relevant call:

As explained above, the LIFE programme consists of a number of project types and themes. However, not all of them are equally relevant to the typical BRIGAIID innovator. The call considered most directly relevant to most BRIGAIID Innovators is *“Climate change adaptation traditional projects”*²². This call has the following features:

- It provides action grants for best practice, pilot and demonstration projects that contribute to increased resilience to climate change. The European Commission is particularly looking for technologies and solutions that are ready to be implemented in close-to-market conditions, at industrial or commercial scale, during the project duration;
- It provides a 55% funding support, with no predefined minimum or maximum request amount. However, projects around €1 million are considered to be standard;
- There is no formal partner requirement, though having a strong partnership will generally strengthen the application;
- The call generally has a deadline in September, and so far is recurring yearly.

²² <https://ec.europa.eu/easme/en/section/life/2019-life-call-proposals-traditional-projects-climate-action>



6. INTERREG

The goal of INTERREG Europe is to improve the implementation of regional development programs, particularly those covered under the European Regional Development Fund (ERDF). As the name suggests, it particularly promotes European regions to collaborate, in order to enhance knowledge sharing between regions. It supports projects in the following four themes

- Strengthen research, technological development and innovation;
- Improve the competitiveness of SMEs;
- Transition to a low-carbon economy;
- Conservation and protection of the environment and efficient handling of resources.

These general themes apply to all programmes within the INTERREG Europe programme, however, INTERREG contains a separate specification of goals and criteria for each sub-programme. In total, there are close to 80 of these regional INTERREG sub-programmes. In the Funding Scan near the start of this document you will find which of these regions are applicable to your innovation.

7. Local ERDF Fund

The European Regional Development Fund (ERDF) is a framework programme that is organised in different sub-programmes on European regional level. For example in the Netherlands the ERDF is distributed via EFRO (Dutch translation of ERDF) in the four regions East, West, South and North; and in Germany ERDF money is distributed via Baden Wurttemberg, Bayern, Berlin, Brandenburg, Bremen, Hamburg, Hessen, Mecklenburg-Vorpommern, Niedersachsen, Nordrhein-Westfalen, Rheinland-Pfalz, Saarland, Sachsen, Sachsen-Anhalt, Schleswig Holstein, Thüringen. Grants are available for projects that are focused on innovation, generally with a bias towards small and medium sized businesses. The overall aim of the program is to reinforce economic, social and territorial cohesion. ERDF project need to be concerned with one of the following activities: Local development; Energy; Environment; Industry; Innovation; New technologies; SME Policy.

As these ERDF funds are managed by local governments across Europe, policies and laws regarding their distribution can vary wildly between, and even within, countries. Whether the BRIGAIID innovators are eligible for these funds therefore varies greatly on a case by case basis, based on the focus area and geographical location of the innovator. The Funding Scan will aid innovators in discovering the funding potential of their innovation in their respective regions.

Overview European grant schemes

Grant programme	What is it?	Who can apply	TRL	Funding	Deadlines 2019	Success rate
Horizon 2020	Umbrella for research and innovation grants from European Commission.	Consortium of min. 3 partners from min. 3 countries	Varying, 3-7	70% funding (100% for not-for-profit organisations)	Varying	8-10%
Fast Track to Innovation (FTI)	FTI is meant for the market uptake of disruptive innovations. It is available for ideas from consortia of innovators of all types and sizes from across Europe	Consortia consisting of 3-5 partners from min. 3 eligible countries	6 or higher (focused on market introduction)	70% funding (100% for not-for-profit organisations) Funding approx. € 1 – 2 million (maximum € 3 mln) Project duration 12-24 mth	21-02-2019; 23-05-2019; 22-10-2019	5-10%
EIC Accelerator Pilot (SME instrument phase 2)	Close-to-market and scale-up innovation projects by SMEs	Single SME or consortium of SMEs established in EU Member States or H2020 associated countries	6 or higher (focused on market introduction)	70% funding Funding appr. € 0.5 – 2.5 million Project duration 12-24 mth	09-01-2019; 03-04-2019; 05-06-2019; 09-10-2019	3-6%

Eurostars	<p>For collaborating R&D performing European SMEs.</p> <p>Eurostars is open to all projects in all technology areas and market fields, but projects must have a civilian purpose.</p>	<p>Min. 2 independent SMEs from min. 2 Eurostars countries (Europe, South-Africa, South-Korea, Canada)</p>	<p>TRL 3-6 (focused on R&D)</p>	<p>25-50% funding</p> <p>Project completed within 36 mth; market introduction within 24 mth after project</p>	<p>12-09-2019</p>	<p>25-30%</p>
LIFE	<p>LIFE is EU's financial instrument supporting environmental, nature conservation and climate action projects throughout Europe.</p>	<p>Any organisation registered in the EU may apply (company, public body, research institute, etc).</p>	<p>TRL 5-7 (focused on pilot / demonstration)</p>	<p>55% funding (75% for priority species and habitats)</p> <p>Projects ca. € 1 million</p>	<p>Environment category: Two-step application process, deadline for concept note 17 or 19-06-2019</p> <p>Climate category: full proposal deadline 12-09-2019</p>	<p>10-20%</p>

INTERREG	Umbrella programme, consisting of over 80 sub-programs, each specifically aimed at consortia in specific regions.	Consortium of companies working across predefined region borders.	Varying	50-75% depending on which INTERREG program applies	Varying, depending on region	Varies between regions. Some reach up to 40%
ERDF	Umbrella programme. In Western Europe mostly aimed at innovation and sustainability, in Eastern Europe mostly aimed at social cohesion and equality	Varying, depending on region	Varying, depending on region	Varying, depending on region	Varying, depending on region	Varying, depending on region



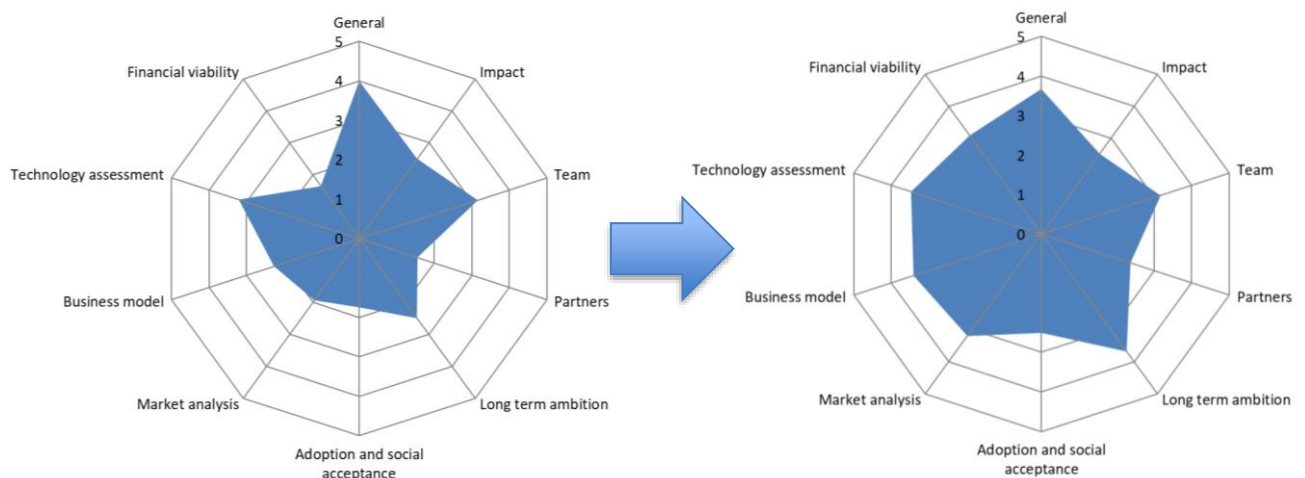
Sources

- EIC Accelerator Pilot (previously SME Instrument): <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/eic-accelerator-pilot>
- Fast Track to Innovation: <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/fast-track-innovation-pilot>
- Eurostars: <https://www.eurostars-eureka.eu>
- LIFE: <https://ec.europa.eu/easme/en/life>
- INTERREG: <https://interreg.eu>
- Local ERDF funds: https://ec.europa.eu/regional_policy/en/funding/erdf/

8.

G) Business plan analysis AUdimod

20-02-2020



8.1. Investor: GO

The figures above show the scores and progress of the different aspects of your business plan – on the left, the initial scores (assessed during the Business Plan Workshops November 2019) and on the right, the final scores (based on the final business plan from February 2020). As you can see, many of them have approved in the meantime, so well done!

The majority of the 10 Business Plan aspects have reached a score of 3 or higher, which means they are sufficiently described and elucidated in your business plan. Below, we will discuss why certain items have not reached this threshold yet.

The **impact** concerns the environmental impact concerning disaster resilience. In your case, AUDIMOD could provide impact on both exposure and vulnerability. Although the



general argumentation is there, what is lacking are concrete expected results, backed up by sources and figures.

In the team section, you mention a couple of **partners** that you sometimes work with. To strengthen this part, clarify what their role is in the business model of your innovation. What is their added value and why are they the ideal partners (expertise, previous collaboration, location, organisation type, network, etc). In addition, it will be good to define which (type of) partners could help you overcome the current market entry barriers. The most obvious one will be an IT-partner to develop the innovation into a fully automated (online) tool. In addition, there may be new customer segments that are not (yet) in your current network. Or perhaps you can anticipate that you will not be able to spend time internally on the sales during a specific time period, but a (commercial) partner can create stability on this front.

Adoption and social acceptance, concerns both the general resistance and legitimacy, as well as the ease of adoption for the end user. The latter is already well described, including trialability and compatibility of the innovation in the current setting of the end user. However, during the workshops you mentioned significant insights into the resistance that you face, especially with regards to the politics that are associated with the irrigation modernization projects. It will be worthwhile to describe and formalize the different stakeholders, their interests, and the communication and mitigation measures that you may use. This shows your experience and insights in the specific market and will help you prepare for barriers that you may face.

In addition to a general analysis per item, our analysis includes an “investment-readiness assessment”. This assessment focuses on those aspects that are most important to investors when they evaluate an innovation or business case. Key items are the business model, market potential and the financial outlook. Moreover, the team is an essential factor as well: an investor has to believe that the people behind the innovation have got what it takes to make it into a success.

We can proudly mention that you have passed this assessment positively and receive our official **“INVESTOR: GO”** rating!

H) EIC Green deal factsheet

H2020 EIC ACCELERATOR PILOT SME INSTRUMENT

Goals

The EIC Accelerator pilot (SME Instrument) supports high-risk, high-potential small and medium-sized enterprises to develop and bring to market new products, services and business models that could drive economic growth. The EIC Accelerator pilot is for innovators with ground-breaking concepts that could shape new markets or disrupt existing ones in Europe and worldwide.

Are you an innovative, high-flying small or medium-sized business with European and global ambitions? Have you got an idea for an innovation that targets new markets and could boost the growth of your company?

Are you looking for substantial funding to support you in the last stages of development? And could you make use of business development resources and coaching to take your company forward?

Then the EIC Accelerator pilot is for you!

Conditions

The EIC Accelerator pilot is very selective and competition is tough.

Following the cut-off date of 5 June 2019, only **ground-breaking concepts at the last stage before scale-up** can be funded.

- For-profit SMEs, including young companies and start-ups, from any sector, can apply. You must be established in an EU Member State or a Horizon 2020 associated country. Only individual SMEs can apply.

- There are no set topics, given that negative impacts on climate and the environment should be avoided. Applications for the cut-off date in May 2020 should contribute to implement the Green Deal goals (see below).
- Technology Readiness Level (TRL) of the innovation must be 6 or above, i.e. the technological principle has been proven and the innovation is ready to be tested and/or demonstrated in an operational context.
- Your project should take 12 to 24 months to complete, but could be longer in exceptional and well-justified cases.

Cut-off dates

- 19 May 2020 – “Green Deal”
- 7 October 2020

Budget

Grant only funding is provided (funding rate 70%) of between €0.5 million and €2.5 million.

Under **the blended finance option**, the grant component is limited to €2.5 million combined with an equity component of up to €15 million. You can request a higher or lower amount, duly justified, when applying.

Proposals with activities up to TRL 8 will be funded by grants or a blended finance option. Close to market activities (i.e. TRL 9 or above) included in a proposal, will only be financed by equity participation as long as the proposal remains non-bankable.

Total budget available for the EIC Accelerator Green Deal is € 303 million. For other calls in 2020, the total budget is € 419 million, divided equally between the three cut-off dates.

For the cut-off dates in May and October 2020, special attention will be given to **female-led** SMEs. Of the selection of applicants invited for the interview rounds, at least 25% is aimed to have a female CEO (or equivalent position).



Expected impact

Projects must support the Green Deal implementation by significantly contributing (and proposals must quantitatively estimate that contribution) to at least one of the following sustainability goals:

- **Increasing the EU's climate mitigation and/or adaptation ambition;**
- Supplying clean, affordable and secure energy;
- Transitioning of industry to a clean and/or circular economy (including waste prevention and/or recycling);
- Building and renovating in an energy and resource efficient way;
- Accelerating the shift to sustainable and smart mobility;
- Transition to a fair, healthy and environmentally-friendly food system;
- Preserving and restoring ecosystems and biodiversity;
- Realising a zero pollution ambition and a toxic-free environment.

More information

Are you ready for the next big step in bringing your innovation to the market? Do you think your innovation has got what it takes to create great economic and sustainable impact in Europe and beyond?

Do you want to know more about whether or not you can apply for the EIC Accelerator grant or blended finance?

The Funding Company, partner in the BRIGAIID project, can help you out.

For questions, feel free to contact Linde Boekhoudt at

l.boekhoudt@thefundingcompany.nl or

+31 (0) 6 15 13 57 83