

# **BM design for Impact Startups**

**A value flow approach to reverse impact barriers  
and transform catalysts in strategic opportunities**

TU Delft, Faculty of Industrial Design  
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# Colophon

**Master thesis, Strategic Product Design**  
Business Model Design for Impact Startups

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# Abstract

The domain of Sustainable Development innovation is facing a significant transformation. Several trends, social, political, economical forces and players are concurring in the rise the concept of impact on sustainable development challenges. That is being introduces in the strategies of big and small enterprises, at different degrees, varying from innovations along the value chain to small adaptive tactics keeping the pace with the latest governmental regulation in matters of emissions reductions, workforce welfare etc.

Moreover, a growing number of emerging startups already include sustainable development challenges in their DNA as a main mission -often called Impact Startups. However, being hybrids with ambitious impact change goals and financial sustainability needs, they often struggle to survive and develop models of impact.

In this context, BMI Lab is a consultancy supporting organisations with business model innovation. The current process does not account for 'impact drivers' in the equation for business model generation, therefore does not have the capabilities to support impact startups, and will need to evolve to do so.

The project arouse from the knowledge gap of including Sustainable Development Impact as an additional driver in business model generation.

The aim is to provide a strategic design angle to complement the Business Model Design Sprint, based on an explorative approach over the impact factors and challenges in achieving impact models.

First, the concept of impact model is defined, then based on field immersion, impact entrepreneurs and experts stories and interviews, and academic sources, the research identifies a set of critical activities that could positively influence the development of impact models. Those have been embedded in a toolkit.

The toolkit takes place in the first day of a BMI Lab BM generation Sprint and aims at guiding through the identification of new opportunities that align SD goals and viability. It consist of four main stages focusing on the value exchanged with the ecosystem of intervention.



# Contents

<b>Abstract</b>	<b>5</b>
<b>1. Project</b>	<b>10</b>
1.1 Introduction	11
1.1 PROJECT SCOPE	13
1.2 PROJECT DESIGN PROCESS	16
<b>2. DOMAIN</b>	<b>18</b>
2.1 SUSTAINABLE DEVELOPMENT INNOVATION	18
2.2 IMPACT STARTUPS DEFINITION	18
2.3 IMPACT MODELS	20
<b>3. DISCOVER</b>	<b>23</b>
3.1 EXPLORATORY RESEARCH FRAMEWORK	23
3.2 THEMATIC ANALYSIS	26
CREATE IMPACT VALUE	27
CAPTURE IMPACT VALUE	35
DELIVER IMPACT VALUE	41
MEASURE IMPACT VALUE	43
SCALE IMPACT VALUE	45
3.3 BUSINESS MODELS SUCCESS PATTERNS AND EVOLUTION	48
3.4 CONCLUSIONS	50
<b>4. Define</b>	<b>54</b>
4.1 PROBLEM FRAMING	54
4.1.1 Problem and pillars statement	54
4.2 BMI Lab INTERNAL RESEARCH	58
4.3 DESIGN CHALLENGE REQUIREMENTS	63
4.4 DESIGN STRATEGY	64
4.3 STRATEGY IMPLEMENTATION AND DESIGN PRINCIPLES	65
<b>5. DESIGN AND DEVELOP</b>	<b>70</b>
5.1 DESIGN TOOLKIT	70
<b>6. EVALUATION</b>	<b>91</b>
6.1 Evaluation	91
6.2 INTEGRATION IN THE CURRENT SPRINT PROCESS	91
6.4 LIMITATIONS AND RECOMMENDATIONS	93
6.5. CONCLUSION	93
<b>References</b>	<b>96</b>



## **/ Abbreviations**

SE- social enterprise  
SDGs- sustainable development goals  
SDI- Sustainable Development Impact  
IS- impact startup  
IDS- impact driven startup  
IM- impact model  
BM- business model  
BMI- business model innovation  
BMC- business model canvas

# 1. Project

This chapter provides an overview of the project 'ENABLE IMPACT MODELS: reversing deadlocks by transforming ecosystem values in strategic opportunities'.

It will introduce to the problem of sustainable impact, the initial challenge as defined with the client BMI Lab, and the solutions space.

Moreover, the structure of the project will be presented along with the main steps and methodologies.

## 1.1 Introduction

The social and environmental sustainability challenges are becoming a big topic within the global discussions (also outside of the traditional impact driven communities), which became the driving force for innovation.

Shift in the global trends nurtured each other from Governmental pressures (i.e. UN 17 SDGs, 2015) consumers awareness and demand and business competitive adaptation. Impact Investments are expected to rise at 300 billion USD by 2020 (McKinsey, 2018) and Social Enterprises represent 20-25% of ventures founded in 2015 (Bosma et al, 2016). Purpose, as overarching set of beliefs, has also been proposed by consultancies as a strategic pragmatic tool for corporates to grow in complexity and scale (Grice, 2019).

On the other side, solutions to the world's most pressing challenges are expected at the intersection of exponential technologies.

***“Business is a vital partner in achieving Sustainable Development Goals. Companies can contribute through their core activities, and we ask companies everywhere to assess their impact, set ambitious goals and communicate transparently about the results”.***

Ban Ki-Moon, former United Nations Secretary-General

In this growing wave of “good possibilities”, many entrepreneurs founded Impact Startups, as a mean to contribute with new innovative solutions.

These hybrids startups are driven by high impact goals, but are also seeking financial sustainability. As a consequence, hybrid sets of entrepreneurial skills are needed to balance the two dimensions. Therefore the consultants community from both sides has been gathered around them to support their success.

Also big corporations are publicly embracing the challenges of sustainable development as their own responsibility by investing, reporting and measuring significant efforts in innovation (i.e. S&P 500 companies publishing sustainability or corporate responsibility reports: from 20% in 2011 to 85% in 2018 (GAI, 2018)). Some



examples include Enel (Green Power division), Ikea (supplied by SE in their value chain and planning toward circular economy), Levis Strauss (with efforts on environmental sustainability and wellbeing of the human capital) Unilever etc... Other committed to a World Business Council for Sustainable Development, as Microsoft, UPS, Shell, DSM, Bridgestone...

The community so formed, express the need and the intent of cooperation, as being the key factor for success in that challenge.

What is relevant for this project is that the type of cooperation they are seeking is also with smaller-local businesses, Social Enterprises or Impact Startups (i.e. Ikea artisanal baskets).

The results of that are, on the one hand that they put themselves into the sweet spot between social impact and business opportunities becoming a holding with smaller stakeholders. On the other they create a more capillary access to the market to IS or SE, with the consequent benefit for the local communities or their social or environmental mission.

### **BMI Lab x Social Innovation**

In this context BMI Lab as a business model innovation consultancy, has the potential to support a new target segment, impact driven organisations, to navigate the creation of models of impact.

The project starts with this goal.



Currently, BMI Lab clients are mainly large and medium-sized enterprises that need to adapt to changing market conditions, and want to exploit the potential of business model innovation.

The practices supporting that process are founded in academic research on patterns of successful business model innovations (borns as spinoff of St. Gallen University).

However, BMI Lab believes in the power of entrepreneurship to change the world with purpose driven organisations, therefore recognises the need to learn more from Impact Startups to adjust the methodology accordingly.

## **Target**

The main target users for the solution are impact driven startups, hybrid organisations pursuing a sustainable development impact at a large scale along with financial sustainability.

Traditionally those organisations are called Social Enterprises, but the new shade represented by impact startups looks at them as a dynamic and powerful vehicle for solutions with transformative impact especially regarding the 17 Sustainable Development Goals defined by United Nations in 2015.

The option of segmentation of this broad target has been evaluated. However, doing it in terms of SDG addressed would not have been relevant, since many address different goals along their activities, and it is important to support instead of limiting that tendency.

On the other hand, the option of focusing on a tech driven segment has also been considered, but most of the startups use technology in some ways, as such it would have been difficult to distinguish to what degree technology could have been considered an effective discriminant.

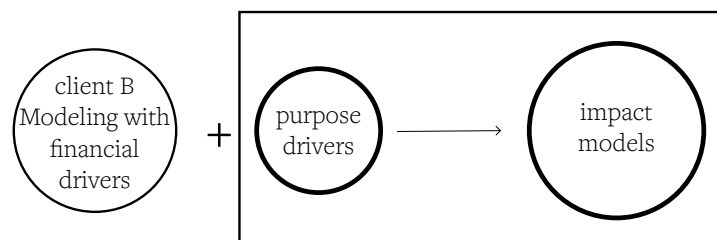
## **1.1 PROJECT SCOPE**

The assumption is that ISs ability to succeed depends on how they build the business model architecture with strategies that can make effective use of their peculiar resources and characteristics. For instance, in terms of competitive advantage, ISs could benefit from the growing trends around social and environmental responsibility.

BMI Lab see that potential of its BM design process but do not have any experience and specific tools that account for the different characteristics and requirements of the new target.

Therefore, first, it is important to clearly understand what is a model of impact in relation to impact startups; then what are the challenges to achieve it that need support; finally to innovate the current consulting practice by tools that in deal with the new requirements.

To cover this internal need, initially the client defined the problem as the need to better understand the nature of an impact model and introduce purpose drivers that could lead to it in the current business model design Sprint process. The company in fact, already rely on financial drivers, and the mix with purpose drivers is considered necessary for building a model of impact.

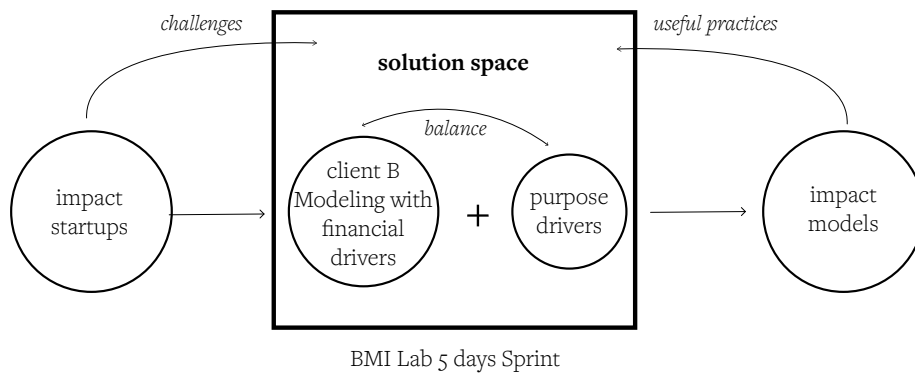


*Fig. 1 Project scope*

### **Solution space and requirements- purpose drivers**

Purpose drivers were conceived by the client as a set of trigger questions, tools, practices or principles introducing the focus on the creation of Sustainable Development Impact.

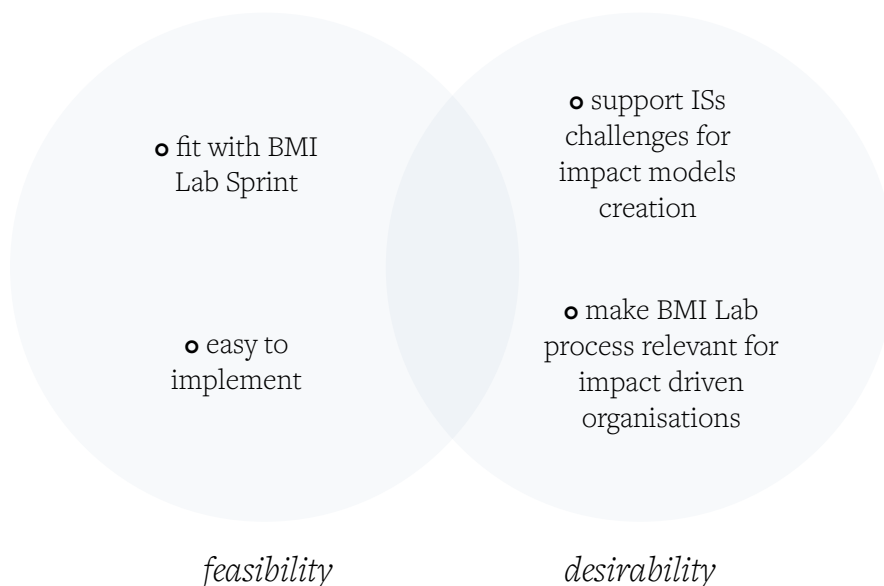
Therefore, the solution space was further defined as a framework of relevant practices (tools, techniques..) adding the dimension of impact as a driver in the BM design activities, and being a boundary object between impact and financial drivers. The overall aim should be responding to major challenges for impact startups in creating a model of impact.



*Fig. 2 The solution space is a framework made of relevant practices supporting the creation of impact and to balance*

The solution must respect some main requirements in terms of feasibility and desirability of the results.

It should fit coherently; be easy to implement in the standard BMI Lab Sprint methodology; should be relevant in supporting ISs challenges -even with different types of SDGs; it should make BMILab Sprint relevant for hybrid impact driven organisations.



*Fig. 3 Solution requirements*

## 1.2 PROJECT DESIGN PROCESS

The process will follow the Design Double Diamond structure. It starts from the broad problem definition, going through the phases of Discovery of the problem space; Definition of a more narrow problem to tackle; look for ideas to iteratively Develop a design proposal; and the Delivery of the final solution.

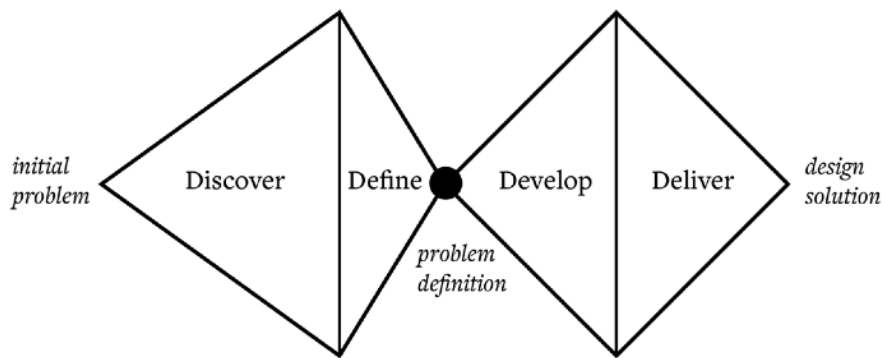


Fig. 4 Double Diamond design process (British Design Council, 2005)

The Discover phase will aim at understanding the problem, thus the *challenges and successful principles* of designing an impact model through insights from three startups direct experience, the collection of knowledge and *practices in impact models design and social innovation in the context of the Impact event KFF2019; academic and experts practices and success and failure cases*.

A thematic analysis of these data, resulting in an overview of several challenges will inform the Definition phase where a more specific problem will be outlined and took ahead in the process. This new framework will be the ground of conditions and directions to inform the development phase.

The Development phase will aim to find new answers to the the problem stated. Thus the previous knowledge together with other sources of inspiration will be used to ideate and design a framework for the toolkit.

In this phase, the design direction will be tailored for BMI Lab current Sprint and will be designed including ISs feedbacks and co-creating with the client.

Finally, an evaluation chapter will conclude the process. A final testing of the whole process with an Impact Startup and the client together was not possible before the end of the project. However, the chapter synthesises final considerations about the result of the toolkit and further steps for development and evaluation.

### **Relevance of the project**

The project, targeting challenges and practices in impact models creation and aiming at delivering a process to support that, has potential relevance for several actors.

1. BMI Lab could benefit from the study by expanding the customer base and persecuting internal innovation with the new mission of providing positive impact to the society through their activities.
2. For the stakeholders of the sustainable development domain of innovation, the study will provide a new perspective over the challenges of impact driven organisations and strategic directions to support those.
4. Finally the outcome will add to the knowledge on design strategies application to sustainable development goals in the context of business model innovation, especially in the effort of balancing 'purpose' and viability tensions in decision making.

## **2. DOMAIN**

It is essential to first define the domain of the research, through the exploration of the context where Impact Startups act and their nature, with the aim of clarifying the characteristics of the main target of the project.

Then a definition of impact model will be proposed, as being the end goal that the solution is expected to facilitate.

### **2.1 SUSTAINABLE DEVELOPMENT INNOVATION**

As premised, a huge influence over global innovation strategies has been the formal declaration of the 17 Sustainable Development Goals by United Nations in 2015.

That call to address unmet societal and environmental needs set the foundation of a more urgent collective and structured effort.

The new solutions requires to be driven by purpose, partnership and accountability (World Economic Forum, Farber) and the outcomes should expand from the product level to a more holistic view (Ouden, 2013).

### **2.2 IMPACT STARTUPS DEFINITION**

What are the characteristics of an Impact Startup? And how is different from other social businesses?

The only clear definition found of the term ‘impact startup’ is from a nordic investing organisation: “new ventures committed to making positive social and environmental impact alongside financial returns” (Danske Bank).

“Impact” thus reflect their effort in addressing one (or more) of the 17 SDGs -Sustainable Development Goals (United Nations, 2015), and being successful in both SDI and financial sustainability missions.

“Startup” is used to describe a culture and mindset of innovation applied to a commercial business idea to fulfil market needs in a profitable way. Moreover, most of them adopt exponential technologies to solve SDGs in a cheaper and innovative way.

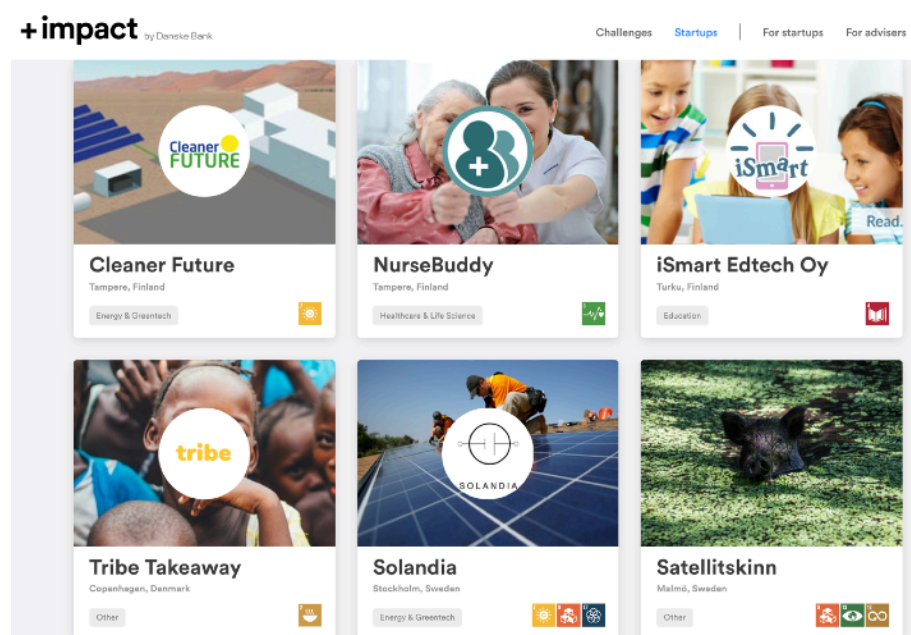


Fig. 5 Some Impact Startups from +impact (Danske Bank)

Impact Startup, Social Impact Enterprise, Social Enterprise, Socially Responsible Startup, Impact Business... all share a very similar definition.

The previous IS definition, indeed, overlaps with the one of Social Enterprises, Social Impact Enterprise or Socially Responsible Startup (Innovation Fund, 2018) for the fundamental principles of having a hybrid double mission in doing business: *trade to generate positive impact*.

However some differences regard the mission and the financial model.

First, Impact Startups target and measure impact in relation to one or more SDGs ( i.e. SDG target 10.1: “By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average”; SDG target 4.4:

“By 2030, substantially increase the number of youths and adults with relevant skills, technical and vocational skills, employment, decent jobs and entrepreneurship”), while traditionally it is not the case for Social Enterprises.

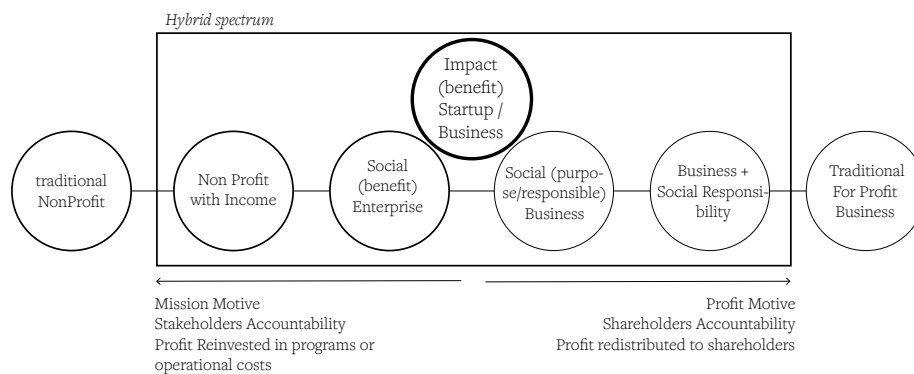


Fig. 6 Positioning of Impact Startups in the Hybrids Spectrum (adapted from Alter, 2007)

Second, Impact Startups are proper businesses, therefore require a proper financial model, and cannot rely on initial fundings forever. However, due to absence of specific literature regarding Impact Startups, and the wide degree of overlapping of the two, the sources will come mostly from SE experience, filtered and adapted accordingly in every circumstance.

## 2.3 IMPACT MODELS

What is an *an impact model* ?

At the beginning of the project a conversation with the CEO of BMI Lab provided a first hypothesis of an impact model definition: “a purpose driven and scalable business model (implying is also financially healthy)”

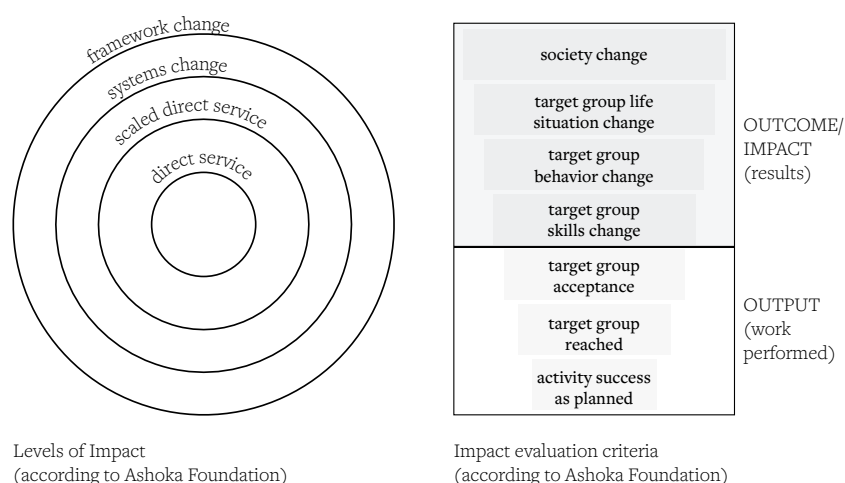
However, further researches clarified a more detailed picture of the domain.

One definition describes it as the rationale of how an organisation creates, delivers, scales, sustains and measure impact (Nusantara University, 2012) where the impact comes from tackling social and environmental challenges in different ways (Hannant, 2014). Since the



most urgent collective social and environmental impact challenges have been cluster under the name of 17 SDGs, Sustainable Development Goals (United Nations, 2015), an “Impact model” suggest having impact on one (or more) of the 17 SDGs. In these terms, the impact definition is very dependant on the specific challenge. However, Ashoka foundation (supporting social enterprises) provides a framework which differentiates different levels of impact which could apply to any case, and thus allowing a cross-challenges comparison (Marina Kim, Ashoka, 2015). These span from direct service, to scaled- direct service, to system change, to framework change, referring from the smallest to the most impactful kind of change that social enterprises patterns showed along time. Along with that they also defined an ‘impact stairway’ which clarify what can be considered an *impact outcome* and what is -at least in this domain- only a work output as shows fig. x.

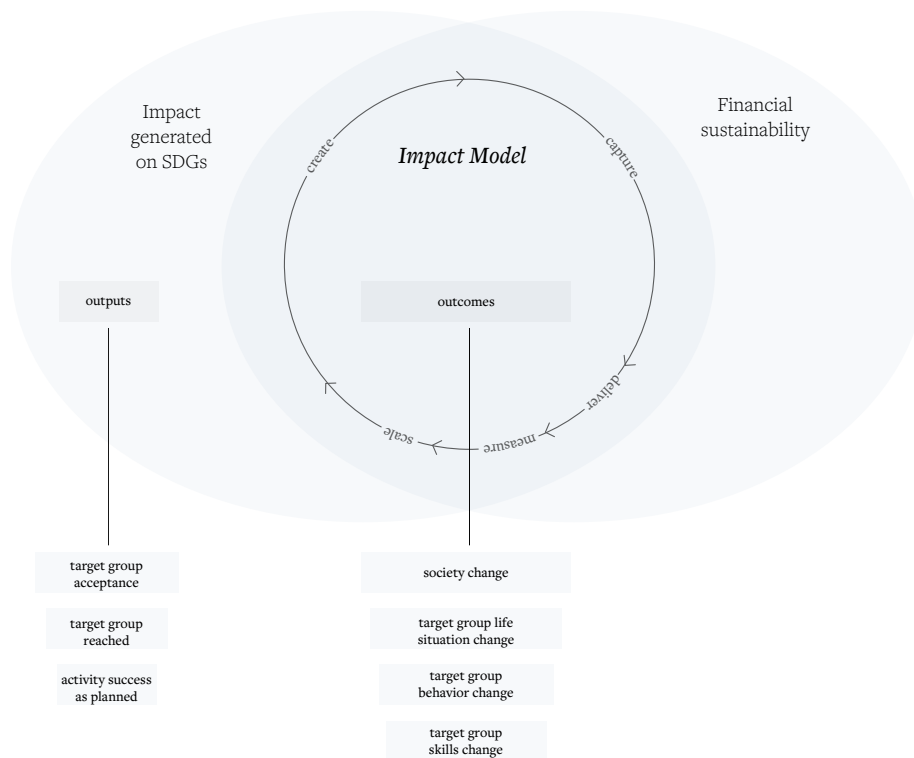
Extending further the definition of impact model with this perspective would mean restricting the impact models to the ones which provides at least a change in target skills, behaviour, life situation or even in society. That choice seems appropriate since it would also fit with the level of ambition of the SDGs.



Based on these premises, a more explicit definition of impact model is proposed, to steer the goal of the project solution.

An Impact Model is the rationale/architecture of how an organisation create, capture, deliver, measure and scale value, generating positive

impact change in the target skills, behaviour, life situation or in social-environmental dynamics, of one or more SDGs, in a financially sustainable way.



## Conclusions

The chapter outlined the nature of the target of the project and the main characteristics of the model of impact that the startups should pursue.

Hence, the research will target impact driven startups, pursuing a model which aims at delivering impact outcomes regarding the SDGs in a financially sustainable way. However, considering the similarities, the exploration will also collect relevant informations from social enterprises experience and hybrid models and organisations in general.

## **3. DISCOVER**

The Discover phase objective is to leave out assumptions and understand what the problem is, mainly by getting in contact with the people affected by the problem.

In this case, considering the definition of impact model proposed, the 'problem' of its creation is a complex and multidisciplinary practice, and it can be considered successful only when the intended level of impact is actually achieved. Therefore, to introduce useful practices within BMI Lab Sprint to support that aim, is important to first understand the perceived challenges and useful practices from impact entrepreneurs, practitioners and related literature.

### **3.1 EXPLORATORY RESEARCH FRAMEWORK**

As the process of creating an impact model is a journey consisting of several phases, the decision was to start the research by first understanding what happens in these phases and identify the challenges, practices and success factors for each of them.

To do so, the data will be reconnected to the conceptual construct that defines any BM and impact models requirements: create, deliver, capture (measure and scale) value.

Then they will be clustered to define themes, representing the critical aspects of the impact model creation at each stage, and discussed along with related literature.

The analysis of the themes associated with each phase belong to different levels of abstraction, from principles to practices, to keep a connection between the theory and concrete actions.

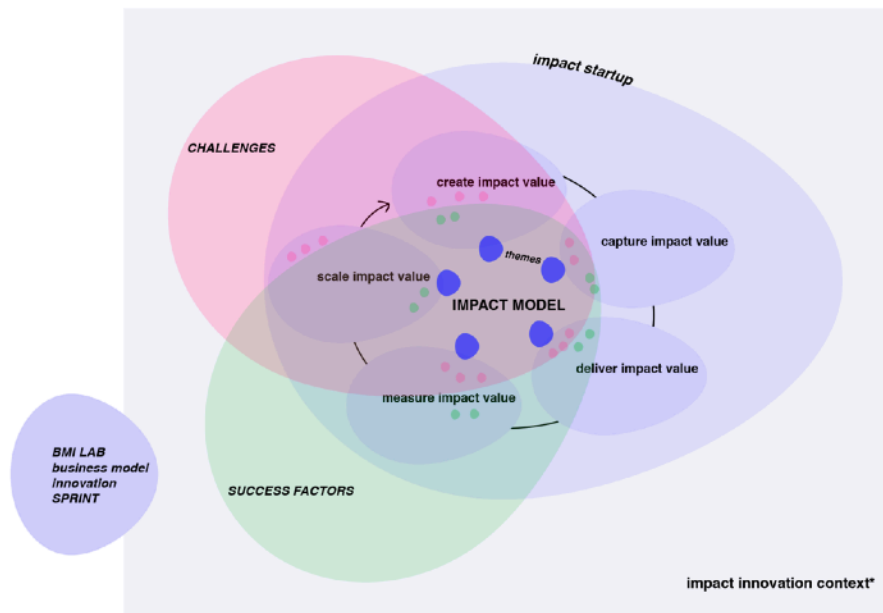


Fig. 7 Research framework

Within this framework, the explorative phase aims at answering the main research questions:

*-What are the main challenges along the main stages of the creation of an impact model (create-capture-measure-scale impact) ?*

*-What are principles and practices suggested by academics and practitioners to support each of these activities?*

*-What are the strategic moments in which supporting purpose driven organisations can improve the likelihood of the creation of an impact model?*

## Research sources

The research questions were each addressed as follows.

To answer the question about the challenges encountered by ISs, interviews with practitioners and experts was conducted, mostly during and after a 3 day Impact Startup focused event (KFF, Oslo).

There, other relevant insights have been collected listening entrepreneurs and experts conferences.

The interviews to practitioners followed a semi-structured guideline, while fewer specific questions were asked from the guideline, to other experts (see appendix, pp. 8-11).

To answer to the question about principles and practices suggested to overcome the identified challenges, a review of the literature related to each challenge has been done.

Finally, the research question “What are the strategic moments in which supporting purpose driven organisations can improve the likelihood of the creation of an impact model?” has been answered though the analysis of the results from the first two.

Alongside, an internal research in BMI Lab was conducted by interviewing the CEO and studying the current tools individually and as participant of a BMI Lab Workshops in St. Gallen.

## **Research methodology**

The insights were collected by 4 impact startups entrepreneurs and 9 experts (see appendix).

Some entrepreneurs and experts have been interviewed, while insights from others have been collected during conversations or public talks about their story.

The main topics of the interviews (and other insights) were kept broad to avoid any initial leading questions. The intent was to know about their personal experience of challenges, success factors and practices for creating a model of impact (see interview guide in the appendix pp. 8).

The length of the interviews and talks was vary, from more 1 hour with certain IS to few minutes with some experts, and the most relevant parts transcribed. Depending on the circumstances and time available some people received only a couple of questions.

The material has been clustered first by reconnecting it to the different activities (create, capture, deliver, measure, scale) of the impact model generation, as earlier framed (see fig. X).

Then, they have been clustered by emergence in ten themes, defining 10 challenges.

The primary research themes have been then explored in literature to have a double perspective on how the problem is perceived and what tools and practices are suggested in different situations.

### 3.2 THEMATIC ANALYSIS

In the next section, the challenges in the creation of a business model of impact will be presented through emerging themes that will report both the IS and experts insights and literature.

The structure will keep following the impact model research framework (create, capture, deliver, measure, scale) for the purpose of consistency. However, since many topics are interdependent, the connections will be discussed further in the conclusions.

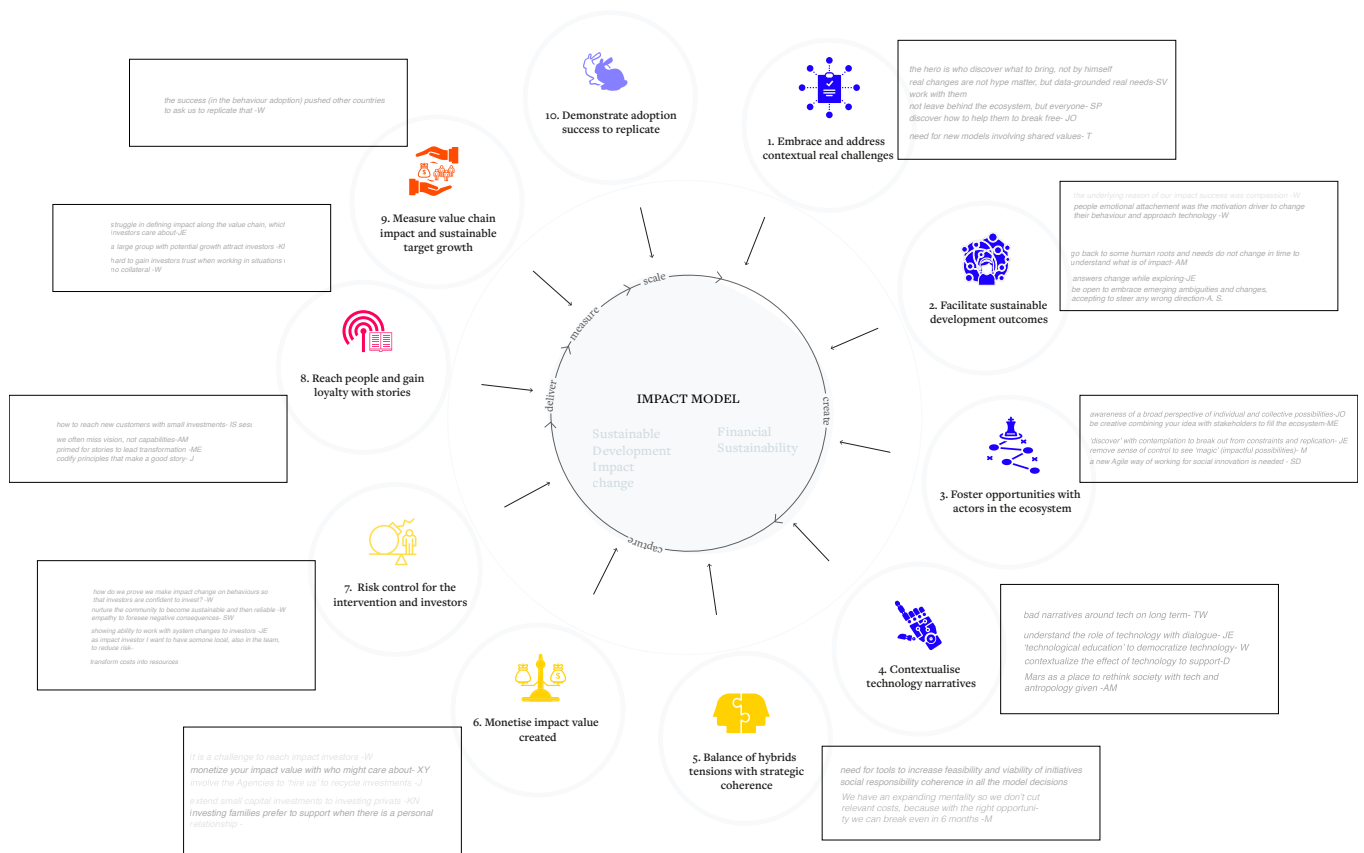


Fig. 8 Main insights clustered along different activities

## CREATE IMPACT VALUE

Creating value is the main pillars on which a business model is based on, since business per se exists when a value proposition is exchanged.

It is strictly related to the concept of 'desirability', typical of design practice, which guides to the creation of a solution that is actually desirable by the targeted customers. Although the importance might seem obvious, many major product and service failures have been correlated with the ineffectiveness of this activity. (source). Moreover, in relation to IS raison d'être, a proper management of this phase will become even more essential.

### CHALLENGE 1

#### Embrace and address contextual real challenges



This key challenge is strongly rooted in the philosophy underlying the intervention. Impact driven projects must base the interventions on data, real needs and shared values, with an inclusive perspective, to really 'ground' the impact they wish to enable (S.V.). "you cannot give away something without being aware of who is the receiver, we had to learn a lot and adapt" A.S.

However might be challenging to keep this open realistic viewing of the human context because it entails embracing its wicked systemic nature, explore the role of the technological or non technological solution integration and be ready to steer when the solution does not respond to the actual change needs.

That is often in contrast with the scarce resources and the entrepreneur mindset of problem solver. A human capability emerged to deal with this is "humbition" as a mix of change ambitions and humble and empathic approach towards the challenge, instead of relying on the own personal beliefs (as Silicon Valley top down individual driven approach (T.M)) forcing what can turn out as an alien solution that does not meet the intended results. (J.E.)

### Literature

Practitioners agrees that in the attempt to respond to the very complex collective challenges like the Sustainable Development Goals (poverty, education, equality...) it could be easy to fall in the

trap of own idealism which makes difficult to balance the own aspirations with existing palpable needs (Grice, 2018).

However, societal changes often require to break the current ideology and its basic assumptions or beliefs

The urgency of the challenges however, has often led social interventions to short term solutions that are not sustainable and do not change the status of the problem.

Traditional social interventions for emerging markets for instance (low income customers) are of four types (see fig. x), depending on customers conditions (acting on opportunities or constraints) and design approaches (top down / bottom up) (Pels, Sheth, 2018). The polarities of the design approach depend on the starting point of the project: if it comes from the decision makers and activists is top down, if it starts from the community it is bottom up (Manzini, 2014).

When the radical innovation comes from top down non-profits and governmental ideas, often the risk is delivering merely what is apparently missing, and of encountering the challenges of local participation and empowerment. A well known example of initial failure to provide an adequate bottom up driven solution is PlayPump, where the children were supposed to play 27 hours a day to provide the community with the necessary daily water.

While focusing on bottom up opportunities means providing product or services at a price that low income population can afford (inclusive ecosystem), the mission focus approach also targets a constraint instead of a clear opportunity. It is considered as the most effective in targeting a social problem for being driven by the solution of the root problem, but also difficult to make successful, because it entails a deep knowledge and understanding of the context, which is difficult to master (Pels, Sheth, 2018).

In this case, the support from local actors would provide stronger results because of the attachment to the problem and their focus on action (Banks, 2015).

An example of it is the microcredit bank (ex. Grameen) where a clear constraint -the poor receiving loans- would not be attractive for the financial institutions. However, the dedication to change that paradigm by understanding the context potential, led to find solutions that made the bank sustainable and impactful.



V approach >customers conditions	opportunities	constraints
top down	1 RADICAL INNOVATION	2 MARKET ADAPTATION
bottom up	3 INCLUSIVE ECOSYSTEM	4 MISSION FOCUS

Fig. 9 Four types of Social Innovation approaches (Pels, Seth, 2018)

## CHALLENGE 2

### Facilitate sustainable development outcomes



The main effort of impact startups is to deliver sustainable change in society. That entails an intervention that **identify the factors and motivations that could facilitate an integrated and sustainable change**, based on profound knowledge of the individuals.

Successful entrepreneurs as N. and A.S. explained that the main challenge for being impactful over target's behaviours was indeed steering the intervention based on **empathic understanding of the drivers of change**.

"We understood people emotional attachment and barriers to adoption, and then their motivation to approach technology" N.

That allowed to provide a solution that is loved by the stakeholders and therefore successful, but also forces to unexpectedly and quickly **change directions**. "We acted as a *Lean startup*, going out to talk, understand and learn from mistakes and form an opinion that could be loved. You need to be embrace ambiguity and be open to change with resilience" A.S.

What could be difficult is also that "what is really of impact often comes from the identification of factors that are simply and deeply **rooted in the human nature**, and context past knowledge" A.M. and therefore sometimes difficult to see.

That might be true especially for digital or technology based solutions that reach a wide and diverse target. In fact, SDGs are complex wicked problems involving **intertwined** problems and groups of people, therefore routinised researches insight might be too narrow to capture change drivers in different contexts.

## Literature

There are several tools to understand what could work to satisfy contextual requirements and why, mainly drawn by human centred design approaches promoting empathy and learning with the target as experts in their own environment (User Centred Design, Co-design, Participatory design, Universal Design..). Those have been developed as consequence of the growing responsibility attributed to design by Papanek (1971).

Being still difficult to apply ethical principles in daily practice, Barnes and Du Preez (2015) propose an integration of the Design Double Diamond with empathetic habits by Krzarnic (fig. x). What highlights are key habits and focuses of an empathic design process, as personal curiosity and challenging assumptions, crucial in the first part of understanding led by designers, and user input acknowledgement and reflection, in the second part driven by users.

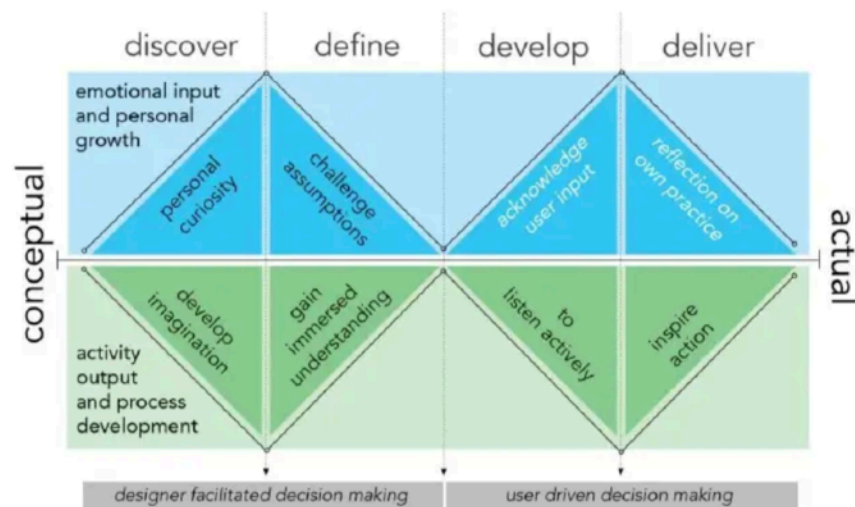


Fig. 10 Double Diamond adapted with focus on empathy development (Barnes and Du Preez, 2015)

Empathetic habits have often also turned into practices as the concept of positive deviance (Wishik et al, 1976, Sternin) which is also used at IDEO to understand people who outperformed in the targeted challenge or context. This approach facilitates learning and precious insights on the good habits, motives and drivers, that led them to success and can inform a collaborative design solution that is more sustainable in the context.

In general, the value propositions can always be improved and innovated by co-creating with the beneficiaries (Burkett, 2016). Finally, field experience (i.e. Michael Kobori from Levi Strauss) suggest to also adopt the strategy of intertwining challenges that are apparently separated, as fashion, sustainability and communities wealth. It emerged that understanding their common patterns could provide precious insights on how to grasp the root causes, expand the scope of the solution and the impact potential on the communities (i.e. an challenge might find impactful solutions in the broader behavioural understanding of the actors involved).

### **CHALLENGE 3**

#### **Foster opportunities with actors in the ecosystem**



The sustainable development challenges are wicked complex and intertwined and the relative ecosystems where entrepreneurs intervene are the manifestation of that, with many stakeholders involved, concurring forces and unpredictable behaviours (especially when in foreign countries).

In these scenario, the necessity of collaborative capabilities, especially in synergy with local actors, is claimed from design to management to investors perspectives, since it provides the reliability of a tailored and embedded strategic approach (J.E), lowering down chances of failure.

Most of the entrepreneurs listened have good contacts and relationships with the network of stakeholders and actors around their challenge, but still they realise this potential very late and struggle to exploit it. “We realised after years, that we have contact with many in the network and so many opportunities that we do not even need marketing, but we are still looking for the right ones and we change strategy often” M.

Different perspectives during the KFF arises the same need of gaining awareness of the individual role and capabilities and being open to seize new possibilities of collaboration arousing from a creative combination of resources with other stakeholders (J. E., M. E., J. O.) . That often for impact startups coincides with the chance to be successful, and to finally break even as well.

However, there is still not any shared practice supporting an agile way of doing social innovation (S.D) and quickly iterating prototyping a shared model.

### **Literature**

The collaborative approach has been demonstrated to enhance speed, sustainability and scalability of the outcomes in social innovation (Majumdar and Reji, 2019).

In particular, a strong model in the ecosystem has a systemic approach that considers targeted and non targeted stakeholders (Sparviero, 2019) and includes a perspective of socio-cultural forces, that will continuously serve as forecasting opportunities and a feedback loop for new solutions (Aziz, El Ebrashi, 2016). The ecosystem of action should be therefore a source of inspiration to deliver transformative advantages.

When looking for the right opportunities, both Grice (2018) and Graham (2016) stress the importance of triggering unusual directions. The end benefit is in avoiding the purpose being routinised and potentially obtain unexpected results (as the goal "plastic-free ocean" can be pursued through many activities and value propositions to different stakeholders beside the main product-service).

Moreover, the creation of a reliable network of key partners and resources facilitates long term stability and have the potential to extend the impact along the value chain, based on the choice of partners and resources (Burkett, 2016) which is also influential for investors (T.T).

Among key allies, also Governments should be included. Often government failures are the reason for SE interventions trying to solve unsolved problems, and therefore could be considered as competitor. Nonetheless, they can become a strong resource for reaching a larger scale through procurement, adoption of methodology or model, or technical assistance (Milligan, 2019).

In this attitude, it is important that the organisation recognise the own role, balancing the tensions between idealism and realism and structure what the organisation can do in short and long term, alone and in collaboration, Grice (2018).

To maintain consistency in actions, it may be useful to define the priorities and balance conflicting values, distinguishing between

mission values (terminal value at the final state) and objectives (Instrumental value, modes by terminal value) (Rokeach, 1973) as motivators for the final state.

With this perspective, mission and impact intentions are supposed to change little but leave room for innovation in other domains or 'BM blocks' (Dees, 1998, Qastharin, 2015) where lie multiple possibilities of value.

Finally, it is also suggested to differentiate between impact and commercial customers and partners, to deliver proper value to each and maintain the right resources balance in the model (Osterwalder, 2016). Opening up to collaborate with the ecosystem actors delivering multiple value propositions, entails at least some early aspects to identify, as understanding the target needs, the drivers for the engagement, the potential values exchanged, the reciprocal roles and measures of satisfaction. (SEI, Osterwalder, 2016; Graves, 2011; Burkett, 2016).

## **CHALLENGE 4**

### **Contextualise technology narratives**



Technology is considered one of the most powerful enabler for social change, since it has the potential to give access to knowledge and new opportunities to ideally everybody equally for an affordable price. The most innovative technologies can extend human capabilities and possibilities but it's challenging to create something worth and then target the right people. An example is Da Vinci Startup, in which technology has evolved from being a tool for inclusive broad access to education, to also access unexplored possibilities, as feedbacks on student inclinations from data collection. To reach a point of real impact however, you need to tailor the tools "you need to act Lean, go out to learn and form an opinion that can be loved.. we managed market entry to schools because parents recognised the value and pushed for it" A.S

Moreover, even when the startup is tech driven, their experience in dedicating to an impact challenge might transform them in a source of knowledge that goes beyond technology itself and is difficult to recognise and monetise "Tech is a big value, but what we have that is very valuable is our social connection, our know-how the impact environment network, a human knowledge on how to make efficient

social project. And we realised it only after years”. (M). Witnessing that value add to the technological solution but also opens up potential new opportunities to create impact and incomes for sustainability.

The relationship between technology and the challenge of applied ethics was a recurring topic along the several conversations at the KFF19. It appears that the community agrees the competitive advantage brought by ethics transparency “It is important to align and create success stories driving more credibility towards ethics as a competitive advantage” (SD).

However too many technology narratives are still decontextualised, often drawn top down by the Silicon Valley leaders (SV). That biases the integration in contexts that present different cultures, dynamics and challenges, which could result in non exploiting the full potential of tech solutions, ineffectiveness, challenges in adoption or even damaging some cultural heritages.

Adriana Marais, head of innovation at SAP Africa, points out a very disruptive perspective to free up from social biasing constraints “..Mars can be a good place to rethink society with a new perspective, with technology and anthropological knowledge given” drawing a clear picture on how technology should relate to sustainable development challenges, where people and communities profound understanding should drive its development.

## **Literature**

In a field research Martin (2015) found that all the sustainable social enterprises studied have changed two features of an existing system, namely economic actors involved and technology.

With 3.3 billion smartphone users (Worldometers U.N.), most of impact startups and social projects adopt exponential technologies and digital platforms, as cheap and inclusive means to reach large scale impact. Indeed the majority and most funded impact startups are platform based or at least tech enabled (Zada is a sharing platform; Impossible Food and Solar Food technologies enables mass production of low impact food; Change.org supports campaign creation; HandUp is a platform for donations to homeless; HealthyHealth a digital support for medical risk identification and prevention...).

The success of these models also depends on the technology and web 2.0 impact on the dynamics of creating and capturing value

(Wirtz, Schilke, Ullrich, 2010) creating new forms of customer value creation, product customisation, open markets, market base extension, social networking (as the already mentioned the side to side strategy), crowdsourcing, operational efficiency (Kim et al, 2011), data mining, trouble shooting and digital strategies to break paradigms of social differences (i.e. credit scores for rural farmers to support loans).

Interestingly enough to notice, the 5 top Impact Startups models in Danske Bank Hubs (2018), belong to the categories:

- sharing economy
- lean service
- circular economy
- big data and machine learning
- new social enterprise models

The nature of this new characterisation in the social impact domain shows another direction of innovation, that leverages new social paradigms with tech enabling tools (i.e. the sharing culture, the no resources waste, the informatics-data support).

What is clear is that although this last characterisation does not tell much on how the startups actually operate in their models, they represent new tools that the social domain can adopt to scale the impact generation.

## **CAPTURE IMPACT VALUE**

Capturing value identifies the mechanism of retaining some percentage on the value provided in every transaction. That allows the business to be create a margin of profitability to break even, reinvest in its own innovation, pay shares.. etc It is very industry and competition dependent, to the point that a digital based service as Google is 100x times more effective capturing value than the airlines companies (Jorgenson, 2015).



## CHALLENGE 5 Balance of hybrids tensions with strategic coherence

The impact startup listened tend to detach social impact efforts from financial sustainability.

Many of them are supported by impact investors, which is a profile who often accept the higher risk of a project driven by the startup vision of change, without the expectation of a high short term profit (M).

Entrepreneurs therefore are 'allowed' to stick to the belief that in pursuing their impact goals, they can change their strategy until they will find the right opportunity that will finally make them profitable. However, even within these lucky circumstances, ISs face the pressure for the break even moment as part of the double bottom line, which force them to balance impact driven and sustainability expectations.

From M. story, emerges a connection between missing to strategically understand the own value and continuously shifting strategy ineffectively "we do not have much time for the big picture... we have often changed strategy, but we are not efficient meeting targets and that annoys investors... we recognised our value just after years..."

Balancing this tension is part of the strategic capabilities of the startups, but the shortage of time and resources to be allocated to strategy, in comparison to 'making things work', still lead the management of this balance to be rarely efficient.

### Literature

The ideal hybrid nature of Impact Startups inherently carries the challenge of balance and coherence, because having positive impact on word's challenges and a status of financial sustainability often are conflictual in decisions (Grice, 2018).

These conflicting logics could lead to organisational paralysis (Pache and Santos, 2013; Pratt and Foreman, 2000) with three main possible scenarios, depending on the approaches in strategy (Siebold, 2017).

- Social mission first → no business growth due to 'social drift'.
- Economic first → business growth but with risk of 'mission drift' (sacrificing social). This tendency might increase especially in situations of scarcity of resources, easily leading to the sacrifice of social objectives (Chambers, 2014, Siebold, 2017, Sparviero, 2019,

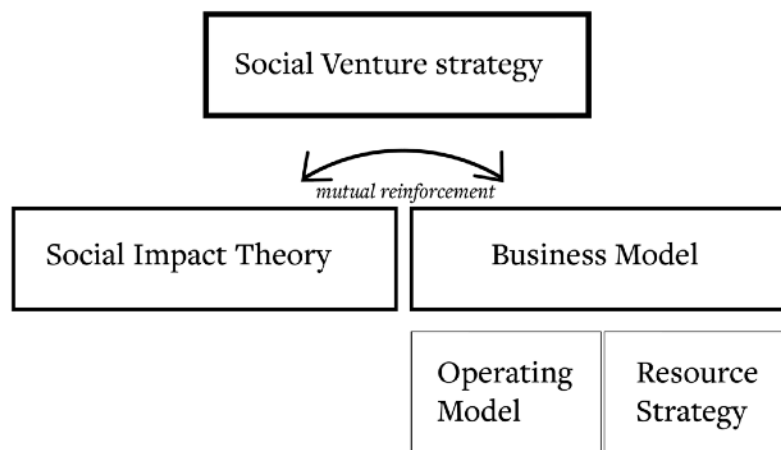


Coetzee, 2015) compromising credibility, and potentially inhibiting growth itself (Siebold, 2017).

- Intertwined → grow sustainably. The balance of the two (also called "shared value" (Porter and Kramer, 2009)) is a considered a measure of the model's success (G. Force, 2017).

An effective hybrid configuration instead should lock social value in business (Coetzee, 2015).

A way to do so is creating a double sided strategy, with mutual reinforcing interplay between the impact strategy, and a strong BM (Clark, Dees, 2011).



*Dees, 2011*

*Fig. 11 Double sided strategy (Dees, 2011)*

Other agrees that this approach facilitates the integration of the SD value propositions and the financial goals at all levels of the strategy, maximises operational efficiency (Sparviero, 2017) and even opens potential for new models exploration (Cheriakova, 2013).

In practice the double strategy alignment reflects in many activities along different phases (Clark, Dees, 2011) :

- In the capital-mission needs alignment: the type of BM also determines the relationship with investors, who may be interested in different types of output.
- In income-impact objectives alignment: determines potential sources of income from different stakeholders to support the impact objectives, and differentiate between Impact Value

Proposition (IVP) and Commercial Value Proposition (CVP) (Burkett, 2016) so they can remain more independent although integrated in the strategy.

- Pricing-customer alignment. The pricing strategies must align with the social mission in terms of flexibility to guarantee access to services at different income levels. Some strategies to deal with this are explained in the next challenge.



## Challenge 6

### Monetise impact value created

One of the hardest challenges perceived by impact entrepreneurs is to get access to fundings and find investors (W). “We are struggling in finding an investor for the MVP and we cannot move until we don’t” (LAS).

On the one hand traditional investors or donors that look at the impact sector are still few. Experts highlight that in general to fund the SDGs achievement it is fundamental to extend the pool of investors. There are agencies that usually invest in social missions, but also small capital investing privates and communities that just need to be reached (J, KN, N).

On the other side however, startups often miss the support to define their impact on the value chain to build a good case (see also challenge 5 and challenge 9) and find opportunities to capture their value.

When this reflection is in place, instead, opens up new opportunities for financial sustainability even with unexpected clients “we profiled the success cases in the context... then we sell to 120 companies the skills, giving royalties to X that is in the video, and we reinvest everything in street education” (SW)

### Literature

Sometimes financial objectives might be incompatible with social ones in the value chain (as fair labour conditions might become expensive, or low margins on sales to low income people might postpone a break even moment).

In this cases the resource model should exploit at best the value produced by available sources and dynamics to converge in nourishing the impact.

That could be done by differentiating between commercial sources and direct sales of the impact (CVP and IVP) with whom can be interested in it (Burkett, 2016) (for example the reduction of crime could be interesting for insurance companies in the ecosystem).

Directly monetising the social value of the measures or outcomes produced for instance, although creates more dependency between the missions it also increases the double bottom line potential (Siebold 2017)

Recognising the own value in practice, as a challenge per se, can be held by remembering that the role played depends on the impact goal, but the operating model should be disconnected and mapped to envision different possibilities (Clark, Dees, 2011).

Some examples could be turning social costs-constraints into resources to find the unique value in the societal or environmental “costly” situations (i.e. deaf unemployment, waste to resources). (SEBM); Cross-subsidy, identifying opportunities operating at different stages of the value chain (i.e. BRAC sells silk to finance silk collection) (Sutton, Acumen); flexibility in payments, to expand the customer base and guarantee the dignity of accessibility based on when and how much the beneficiary can pay (i.e. The Acre fund follows the seasonal collection cycle, allowing flexible long-term repayments; the artisans of the micro-finance of Mamahuhu shoes pay with the first goods produced) (Sparviero, 2019; Sutton-Acumen), adopting efficiency tools, as using digital as input and resolution of problems (i.e. credit scores for lowering risk of farmers loans) (Clark, Dees, 2011).

### Challenge 7

#### Influence risk for the target and for investors



Any entrepreneur embrace risk, but impact startup transformative goals, often addressing very complex, problematic and unstable situations and environments without detaching from their constraints, could make harder to deliver on measurable promises.

M. admitted that *‘we do not consider much risk... our investors are people who believe in the challenge and for whom money return is not the priority... but then we fail to deliver what was promised..’*.

Considering risks is not only about reassuring investors, but emerges as a moral duty for proper technological integration if any (as already discussed in ch. 2 and 4) and in preventing potentially negative consequences of the intervention on the target or the context (S.W.).

To deal with risk also means reversing risky situations to influence the success. “So our question was how do we change social behaviours so that investors are also confident?” N. This challenge links back to challenge 2.

In terms of ecosystem risk, the ability required is to deal with local, political and regulatory changes. Having local team members and supporters can provide a better connection with the problem in the context and understanding of the local ecosystem dynamics and stakeholders. For these reasons, a mix of local partners has been also been linked to higher reliability from investors point of view, who on the contrary admit to be very reluctant that does not take place (TT).

### **Literature**

Clark and Dees, (2011) highlight that the success of some iconic SEs lies in the effectiveness of the operating model -how the organisation delivers the capabilities and financial outcomes required by the strategy- especially with respect to contextual conditions. They are designed to directly influencing the most critical factors and assumptions.

When people are involved instead, empathising with the beneficiary and its context generates knowledge and insights to provide a solution that they can sustain (see challenge 2).

Some examples that adopted this approach are the Grameen Bank, where a certain target has been selected because of their responsible behaviour, and for impacting the overall community, and peers control has become an integrated mechanism for supporting and safeguarding loans payback, which was the most critical assumption in being sustainable and then grant more credits.



## DELIVER IMPACT VALUE

Value delivery identifies the activities of channels, communication, and distribution of the value proposition in form of product/service.

### Challenge 8

#### Reach people and gain loyalty with good stories

Impact Startups often have shortage of money to invest in marketing, but they need clients to prove investors the attractiveness of the solution. This chicken egg problem can be paralysing from the early beginning but also when the goal is to reach new customers.

The latter in particular was the topic of a marketing strategy consulting session with the startup Sign Lab and some practitioners at KFF. The discussion suggested that this problem might be overcome by involving the early adopters and followers more so they could help in introducing the solution into the broader community (on deaf's parents in this case), providing collateral marketing benefits by the word of mouth. Other perspectives stressed the importance of distilling a good story around the intervention, in a way that it becomes relevant for the targeted people and inspiring for them to get involved (ME, J). Therefore could be important to create a feedbacks mechanism with the early supporting beneficiaries so that it could nurture the creation of a richer narrative of the impact driven intervention in a way that can be spread to a broader community with ownership.

### Literature

It could be however very difficult to understand how to build connections and loyalty with the customers, since it depends on how relevant the value proposition is for them, how to attract them, the kind of relationships they want, what the potential would be and appropriate image must be designed at different times (see table x) (Burkett, 2016) and indeed the involvement of a wide and varied client base early in the process and in co-creation can be beneficial to build ownership and loyalty. In addition to that, the first followers could also act as agents for change and a potential basis for the impact movement, ([socialenterprisebusinessmodel.weebly.com](http://socialenterprisebusinessmodel.weebly.com)).

Awareness	if and how to communicate Impact together with the product; What is the visibility and prominence of your Impact VP? (Cheriakova, 2013)
Evaluation	understanding of the VP impact by customers, positioning and differentiation in the traditional competition; who understands it, evaluates it and pays it?
Purchase	opening to different forms of payment
Delivery	how to connect customers more effectively and reach beneficiaries (as they often represent communities)
After sales	ensure that customers are promoters and avoid dissatisfaction

*Table 1. Phases of the distribution, Burkett, 2016*

Moreover, attractiveness and loyalty are also affected by the perception of the organisation reliability and accountability for appropriate measure across the social and financial strategy and producing multiple forms of value is the basis for moral legitimacy (Siebold, 2017).

In fact a barrier for the hybrid organisations could be the perception of incompatibility between the for profit and the for good by the public opinion (Lee et al., 2017), coherently with the biases that overestimate the profitability of the for profit companies times (Reason-Rupe poll, 2013) and the average  $\frac{2}{3}$  consumers still preferring a non-profit organisation for perceived higher reliability (Lee et al., 2017).

Therefore, public opinion confidence can be gained through an effective and honest communication strategy led by transparency, consistency and justification of intentions and actions across different activities (Cheriakova, 2013; Siebold, 2017).

Transparency however, is not always perceived as the right choice, even when would be useful to explain the context of the offer. For instance, some SEs acting on employment prefer not to mention their employees mental disorders, to avoid being stereotyped, even if that could be a driver for new customers or a good rationale for eventual higher prices compared to competitors.

The design of it thus can be supported by differentiating between customers attracted by business and impact (Burkett, 2016) and by initially focusing on the channel that has higher chances of success (Social Enterprise Institute).

## MEASURE IMPACT VALUE

Measuring impact helps to understand, manage and communicate the value created by the organisation in a consistent way. ISs deal with two dimensions of value as said, financial value, that requires traditional quantitative metrics, and positive impact, that can be quantified but also requires a qualitative assessment.

### Challenge 9

#### Measure the value chain impact and sustainable target potential



Measuring impact delivered might be one of the hardest exercises for impact entrepreneurs. In some cases in fact it does not happen at all, although funders keep asking for some measurable results of their investment.

"We don't take track of social objectives. most of the startups I spoke with are doing a lot, but...no time for the big picture, included tacking track of goals" M.

However others recognise the need and are taking advantage from the enabling technologies to do so in a leaner way "The problem is having an impact application measuring improvements in self esteem, future orientation, belonging, in a lean way... Because of the data on the skills of the kids, we track back, map out the process of self esteem we can learn how to improve education." SW.

Indeed, although the impact might pertain a qualitative dimension, a deeper knowledge and progressive understanding of the factors targeted and influenced by the intervention can support the challenge.

The reason for developing that knowledge however, beside tracking the own actual progresses, is that it is required by investors as well. They stress that it does not relate only to the main goal, but to the full range of activities across the value chain, and there is not much support to businesses for that (J.E.).

Another key aspect is to prove a large target group growth potential to make the model sustainable (K.N). However, here also comes the fact that in inclusive models often the impact beneficiary or other actors in the system have no collateral, so they are not reliable

customers. For the startup will become important to ensure that and gain investors trust “How do we prove we change social behaviours so that investors are also confident” N.

This also happened to the Grameen Bank initiative, where the banks (originally the targeted investor and partner) could not trust the beneficiary of the loans (indigent Indian people) and therefore stepped out from the project. The same is for LAS (IS2) that struggled to convince investors that the houses they were building would have been bought by the locals through cooperatives.

Grameen proof of concept finally started with some personal loans from the founder, but with other projects the investments might be unaffordable.

## **Literature**

Understanding and measuring impact of the goals and objectives, value chain impact, and even Value Propositions is positively correlated with credibility and opens investments, but these elements are actually often disconnected (Sparviero, 2019, Cheriakova, 2013). SDGs comes with a set of more detailed performance directions but those are still very generic for being good terms of confrontation between organisations.

A short review shows different side tools serving this purpose, as Millennium Project, documenting SOFI index variables and proposing global challenges KPIs; Delphi 1000 indicators of progress for 15 global challenges; SERT reporting web-tool based on research on Australian enterprises by Swinburne Centre for social impact; the very extensive Framework for Impact Statement BETA, by Impact Institute Amsterdam (2019), guiding through the definition of statements as integrated profit and losses, investors value creation, stakeholders and value chain value creation, external costs, Sustainable Development Goals contribution.

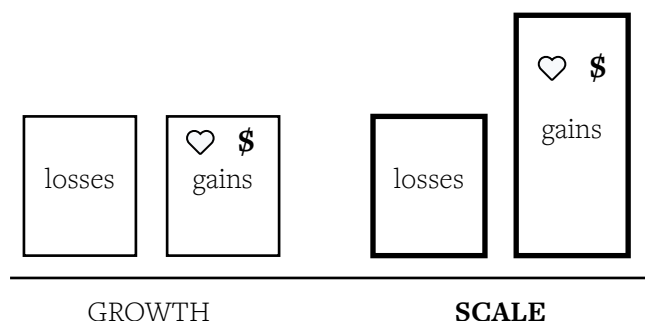
The latter is a very updated and structured process to report different forms of value (see process table in the appendix, fig 2 pp.16 ) but it does not really support a startup quick and iterative process focused on improvements. In fact, it does not support the creative process but only final reporting as far as the research could understand.



## SCALE IMPACT VALUE

In business, *scaling* is the activity of adding revenues at a faster rate than taking new costs. That trace the difference with *growing*, when the two variables increase equally (see fig x).

For Impact Startup is therefore is about increasing impact along with revenue to support it.



### Challenge 10

#### Demonstrate adoption success to replicate



Most of the startups listened were not yet at the the stage for scaling, so did not express precise challenges about it. Many rely on the exponential potential of a digital service (which reality has been discussed in challenge 4).

However, one successful entrepreneur remarked that from her own experience (micro finance domain) the effectiveness of the behavioural change integration in one context pushed other countries to ask them to replicate the model dynamics.

“... so the strategy and the underlying reason of our success and impact was compassion no matter how much technology, because we understood people emotional attachment and barriers to adoption, and then their motivation to approach technology for their own benefit... and then we were asked to replicate the project” N.

In these terms, before technology could unleash the impact scaling potential, the real challenge is to respond and design for the target contextual inhibiting circumstances for change, which eventually may be recurring in the human behaviours across different contexts.

#### Literature

Thinking about scaling for any kind of business requires considering both the two main dimensions of (I) internal scalability, including dealing with internal operations, activities, partners and resources, and (II) external scalability, customers, market acceptance, size and conditions to adapt to (Moser, 2018 via BMI Lab).

Jablonkski (2016) however, argues that sustainable hybrids BM scalability is primarily associated with their good functioning in the network. He identifies scalability mechanisms which are expected to determine the 'embedded-ness' of the organisation in the environment in relation to primary and secondary components of a sustainable business model (see table in appendix, fig.3 pp.17 ).

This perspective includes the pursuit of factors along the BM design (some of which already mentioned in other paragraphs) as:

- synergy and symbiosis with the ecosystem,
- shared values,
- optimal resources configuration,
- correlation between impact factors,
- sustainable dividends,
- social capital creation in relation to stakeholders expectations,
- optimum value mutual exchange,
- social potential and participation development.

Moreover, since impact driven organisations scalability should maintain an emphasis on increasing social impact besides financials (Austin et al., 2006), a particular attention is to be posed on how the impact value proposition can be successfully scaled while remaining effective.

Scaling may not always be the intention, but if it is, it should be taken into account from the early phases, by understanding the elements that can be replicated and iteratively redesign up to the appropriate model (Graham, 2016).

To maintain coherency, Santos et al. (2015) argue an ideal hybrid interaction aims at scaling both missions, with income strategies supporting the social mission, which is coherent with Siebold (2017) perspective to avoid one of the missions drift.

## Growth advising workshop

During a growth advising workshop at the KFF, 3 Impact Startups from +Impact -the nordics incubator, where the case study for a group of 10-12 experts including financial advisors and corporates consultants. The conversations with the startups first aimed at understanding what was limiting them from growth, then agreed on some tips. The sessions were not communicating with each others and different advisors followed different case.

One startup, Lync Africa Suomi produce prefabricated concrete housing elements (produce by a nordics ICT) and then trains Kenyan local workers interested in pursuing a career in construction. In that way they could build affordable houses (17K) for people living in poverty conditions in Kenya (impact mission 1, SDG 10) and provide trainings in construction (second level of impact on SDG 8) to build the houses to the local unemployed. The houses are ideally pre-sold to cooperatives in loco, but they still needed investments to initiate the building.

The suggestions were finally to rethink the business model to **find the right investors**, so the **ones that might be interested into the intended impact**, and second to use a **local person for marketing** (instead of external) that knowing more about the context would ensure more reliability in sales.

The other case I could follow was with SignLaB, a platform that supports deaf's parents with education on signs. It received a +64 Net Promoter Score and saw a growth rate of 276% each month from December 2018 with no marketing investment thanks to mouth to mouth. But then they needed to gain more customers to grow their impact model. The advisors tips were about leveraging the **community network power** that led to the initial adoption, as learning feedback for the product improvements, and finally gain trust from investors.

## Conclusion

The outcomes from these activities always assumed the act of scanning the ecosystem of actors looking for resources that can support the different challenges proposed, since they represent key alleys for learning and improving the solution, downsize marketing costs and gain reliability for investments and support.

### **3.3 BUSINESS MODELS SUCCESS PATTERNS AND EVOLUTION**

Since the client BM innovation methodology moves around BM patterns, it was considered important to explore the relative knowledge in the social or impact domain. Therefore, this section will explore how social enterprises BMs have been categorised and what are the success factors that could inform BMI Lab process adaptation to support Impact Startups.

The debate on business model conceptualisation in general is open due to different characterisations and perspectives. However, the BM underlying systemic focus on mechanisms for value creation and capture, made the concept very much relevant also for social enterprises looking to create wealth sustainably (Lecocq, Ricart and Zott, 2015).

Determining the dominant design structures (i.e. specific architectures) could improve the performances of organisations and in particular those which contain higher degree of naturalness in relation to human nature and context are more likely to succeed (2012).

Several efforts identified different successful conceptual patterns across the business models panorama, both in the business domain, as the 55 Business Model patents used by BMI Lab (Gassmann, Frankerberger) and in the Social Enterprises and Sustainable Models domain indeed (Grassi, 2012, Bocken et al., 2014) to inspire other organisations.

Their goal is to serve as cognitive construct for generating tailored models from analogies and conceptual combinations (Martins, Rindova, & Greenbaum, 2015) and the different application of those between the business and the social domain could lie mainly in the high level mission focus influencing creation and capture of value.

From the table reporting the 9 models from Grassi (2012) with examples (see appendix) it emerges that most of the models are hybrids configurations (social and profit missions integrated) and therefore could be used as inspiration for impact startups as well.

Moreover, it also emerges that many of the factors of success recurring within these models are consistent with some principles emerging from the previous research:

- appropriateness of training or service delivered to the beneficiary
- shared values among stakeholders and investors (or generate value for a third party) (i.e. 4, 6)

- leverage tangible and intangible assets (i.e. 3, 6, 8)
- creative distribution and operational efficiency (i.e. 1, 2, 3, 4)
- flexible revenue model with different customers (4, 5)

Moreover, the systemic perspective of social businesses design in relation to the ecosystem shows four main states or architectures (Dachis Group) that emphasise cumulative design ingredients (Grassi, 2012) as fig. x shows.

- (I) ecosystem→ knowledge of who constituents are and the value they get individually and as ecosystem
- (II) hive mind→ intensified stakeholders contact in collaboration
- (III) dynamic signal→ businesses differ by the strength and frequency of info from the changes in the context (i.e.beneficiaries needs) to adapt
- (IV) meta filter→ pick up and processing of informations efficiently for the required social action

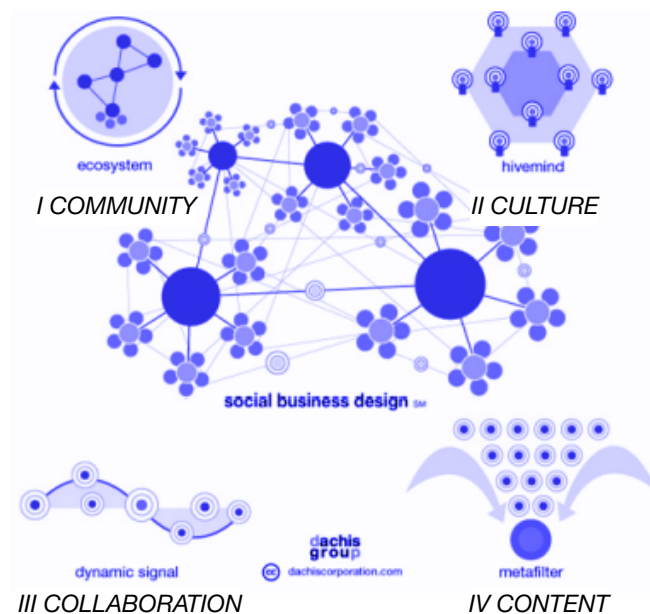


Fig. 12 Four stages of Social Business in the ecosystem with cumulative design ingredients (Dachis Group integrated by Grassi, 2012)

## Conclusions

The factors determining the success of different SE archetypes are consistent with several of the challenges presented in this chapter. However, when matched with the systemic stages of *evolution*, each archetype could be present at *different levels of interaction in the ecosystem* and eventually with different *degrees of impact* outcomes. Coherently, the *spontaneity* of the emergence of the models is considered a factor of success itself. That suggest that it could be important to trigger from the early beginning an *effective way of interaction to set the roots* for further scaling the impact broader. Finally, the ‘new models’ as said represent wide enabling tools, which can be included in terms of inspiration for this purpose, but will not be explored further.

### 3.4 CONCLUSIONS

This section will provide a summary on how the research results responded to the initial research questions:

*I What are the main challenges along the main stages of the creation of an impact model (create-capture-measure-scale impact) ?*

*II What are principles and practices suggested by academics and practitioners to support each of these activities?*

Several challenges have been identified, and most of them are interrelated. They will be presented here briefly along with the insights on possible practices supporting their mitigation.

A challenge underlying the achievement of SD impact at the level of actual change concerns the maintenance of a realistic approach in the intervention, steering towards real needs, data, and shared values. In impact driven projects, *acting on barriers and constraints, and understanding the context potential can lead to profound and sustainable changes.*

This difficulty demand the ability to understand the complex dynamics in the considered context and collaborate with multiple stakeholders and actors. *The contextual potential is often reduced to*

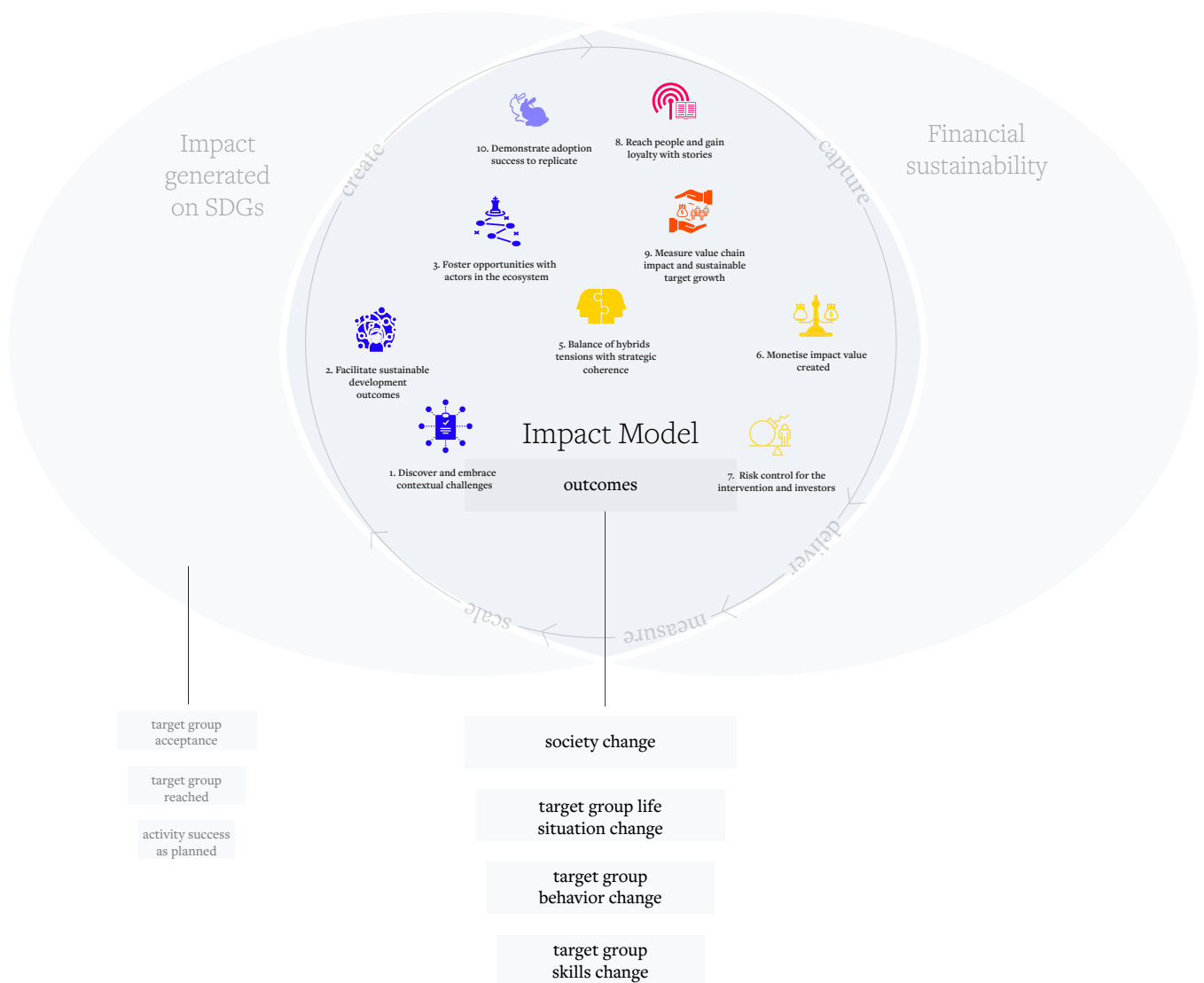


Fig. 13 The overview above shows the challenges identified and related practices emerged from the literature.

human factors, motivations and drivers for change, which can be disclosed with an empathic approach. That includes curiosity in exploration and challenging hidden assumptions, learning from positive deviants and intertwined different challenges around the primary ones. The latter in particular could highlight important root problems, adaptive challenges and extend the impact potential.

To foster impact opportunities for the success of the double bottom line (i.e. understand how different stakeholders in the network can be impacted or can support the realisation of the impact goals). Detecting the contextual potential over the barriers, could facilitate Collaboration enhance speed, sustainability and scalability of the outcomes. Therefore, is important to act in synergy with the different actors and agile create opportunities for a shared model and even

extend the impact along the own value chain combining creatively reciprocal resources.

In practice this requires a clear structuring of the own mission, priorities and objectives, and leave space for new value exchange and innovation in other domains. Then is possible to differentiate between impact and commercial customers and partners to identify different respective needs, drivers, potential value exchange, measure of satisfaction.

Although the priority given by the IDSs to the SDGs (with respect to financial sustainability) is rarely questioned, postponing the viability constraints can put pressures and create ineffective strategic shifts. The literature coherently agrees that an early intertwining of the two goals in hybrids is functional to avoid paralysis in growth. The benefits can be reflected at the operational level in the differentiation between impact and commercial value propositions; in various inclusive pricing strategies; in a more credible communication transparency; and in the readiness to respond to adaptive challenges avoiding tensions with respect to the primary impact objectives.

The difficulties of financial sustainability are often addressed in terms of availability of investments.

However, the challenge highlighted in particular from the point of view of practitioners and consultants, is that of the monetisation of the value produced: looking fundings beyond the traditional investors, then transforming impact related 'costly' measures in the value chain in sources of income, and exploit efficiency measures as technology. Mapping the operating model could support realising and possibly extending the value produced, and finding potential partners for these activities.

For change driven interventions, risk management is fundamental to prevent clumsy side effects and reflects also on credibility for investors and partners.

On the one hand that can be facilitated by the emphatic attitude mentioned in challenge 2; on the other by the collaborative adaptation of the operative model to the contextual barriers, allowing to strengthen the structural components of the impact driven model.



Measuring impact along the value chain increases trust in clients and investors.

There are several tools to measure impact along different value chain key aspects and activities, however the reporting tools are mostly detached from the design aspect, (i.e. being reporting instead of working in progress formats) which decreases the agility of the procedure especially for startups.

Scaling has been linked to the good functioning, or embedded-ness, in the network. On the one hand, in terms of responding to different contextual barriers for change; on the other in terms of sustainability mechanisms as synergy and symbiosis, shared values, correlation between impact factors, social capital creation in relation to expectations, mutual optimum value exchange, social potential and participation, optimal resources configuration.

Finally, regardless the archetype of BM, *SD outcomes could be maximised by including cumulatively 'design ingredients' that represent progressive depth of interaction with the ecosystem.*

Those are: community (knowledge about value exchanged), culture (created in collaboration), collaboration (for adapting to feedbacks), content (required for social action).

In conclusion, in order to support the intent of creating a model of impact within the BMI Lab Sprint, is evident that a set of intertwining activities is needed.

In particular acting with clear strategic alignment of the impact and financial goals on the underlying impact barriers, allows to navigate consistently the wide range of opportunities of value creation and capture the ecosystem network.

On the other side, empathy is key for designing an integrated solution, but also to collaborate effectively with stakeholders and actors with similar or complementary intents.

Preparing early the organisation for a nimble collaboration with the ecosystem based on an empathic perspective could support a more effective evolution across the systemic stages.

That requires exploring of the ecosystem where new actors can be scouted, and contemporary the openness to adjust the strategy to respond to the ecosystem interests.

Being able to capitalise the value produced is then key to balance the financial bottom line of the model.

## 4. Define

In the define phase the insights and conclusions from the exploration will converge in redefining the initial challenge more clearly.

The project aim is to introduce a framework of practices to facilitate the impact model creation within the BMI Lab Sprint.

Hence, coherently with the conclusions about the challenges (*barriers*) and useful practices (*drivers*) for impact models creation, the chapter aims at identifying a strategic direction of intervention.

Finally, the intervention will be contextualised within BMI Lab Sprint, in a way that, interacting with the other activities, can facilitate the creation of an impact model prototype.

### 4.1 PROBLEM FRAMING

The discovery phase showed the breadth and interrelatedness of the barriers and drivers to the creation of hybrid impactful models.

The scope of the project intervention made necessary to further analyse the data in order to understand a more narrow set of underlying strategic activities. That was done by clustering the most significant insights on the useful practices influencing the success of the IM goals.

That led to the identification of a set of four core pillars that could reflect their influence over the other challenges and together outline the underlying problem frame.

Hence the pillars also become the principle of reference for the design of the intervention.

#### 4.1.1 Problem and pillars statement

As defined, the end goal for an impact driven organisation is to create a create, capture, deliver, scale value generating positive impact change in the target skills, behaviour, life situation or in social-environmental dynamics, of one or more SDGs, in a financially sustainable way.

In that effort however the underlying challenge emerged outline the lack of a systematic approach to prototype a 'shared' impact model in an agile way.

*That entails systematically overcome contextual barriers for impact by fostering the identification of opportunities that are able to catalyse a sustainable change in the ecosystem, in collaboration with a network of stakeholders with similar objectives.*

*The ten challenges the research highlighted relate to this problem at different degrees as the overview fig x shows.*

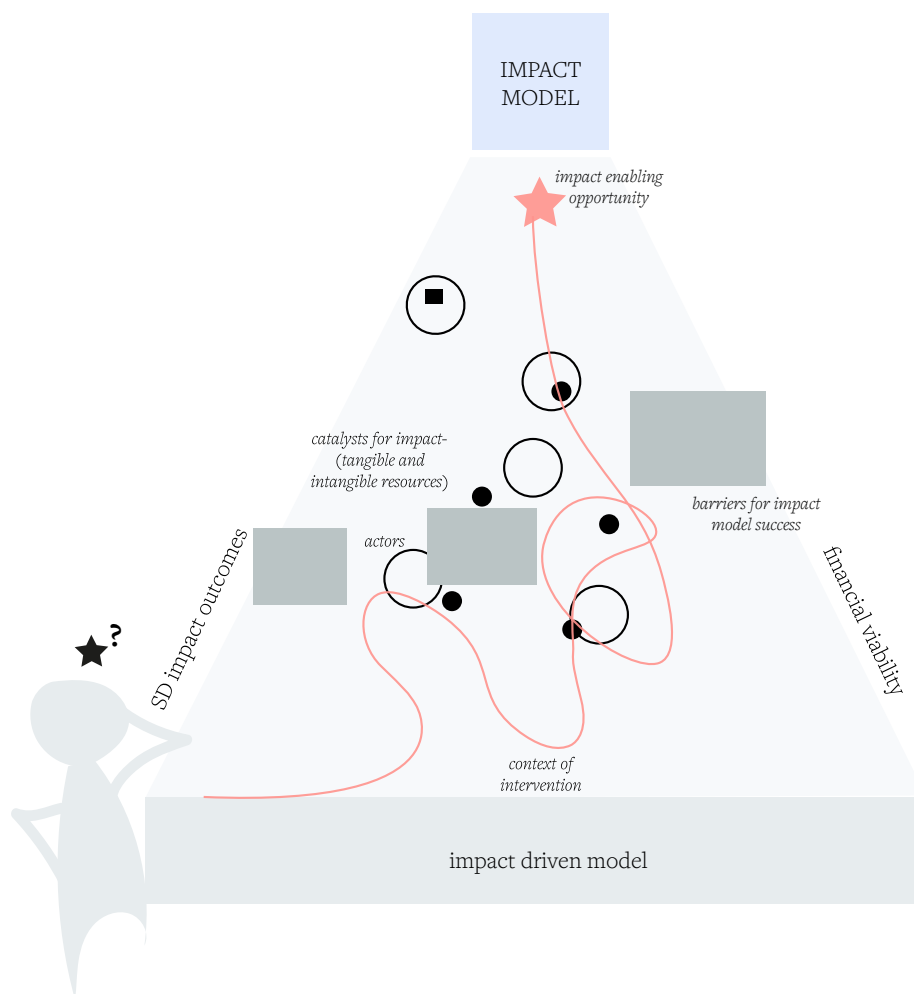
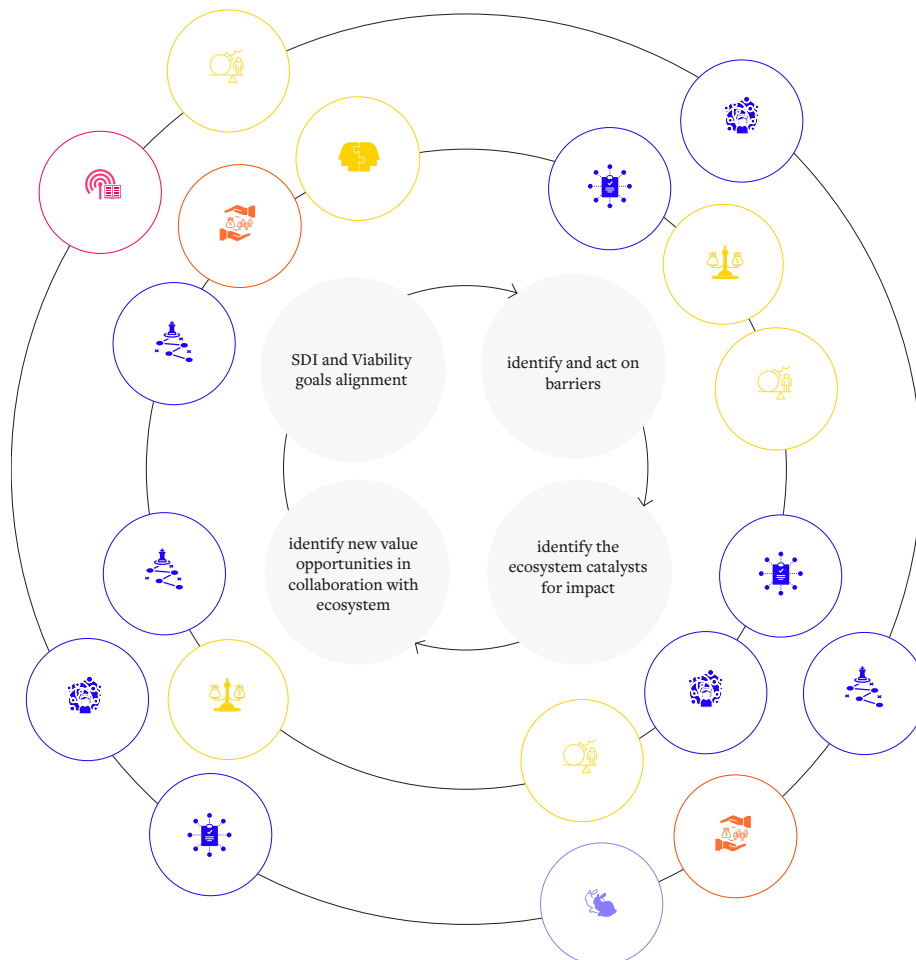


Fig 14 Problem visual representation

### 4.1.2 Core pillars

There are four critical core activities influencing the problem and could act as 'impact drivers' for the Impact Model Design Sprint and can respond more explicitly to the RQ3:

*III Which are the strategic moments in which supporting impact driven startups can improve the likelihood of their model success?*



*Fig 15 Overview of the connection between the challenges and the core pillars of the problem statement*

### **1. Sustainable Development Impact (SDI) and viability goals alignment.**

This activity has strong strategic relevance, especially due to the complexity of management of the hybrid nature of impact organisations. Indeed, the need for that is reflected from the organisation coherence when exploring new opportunities for growth and impact extension, in alignment with the network of stakeholders, public opinion and investors, and is needed to measure the value chain and overall results with a certain priority and take aligned action over them. Therefore should be the starting point and act as guideline for any effort of looking for opportunities to create a model of impact.

### **2. Identify and act on barriers.**

The capability of systematically identifying and overcoming the main barriers to success is a primary need for organisations that want to have a transformative role. It has implications not only in the adoption and effectiveness of the solution but also relates to the management of scarce resources, and could support risk reduction in complex problems, which strongly influence stakeholders perception over credibility and reliability.

### **3. Identify the ecosystem catalysts for impact.**

In order to facilitate successful sustainable development changes at the level of behaviours, life situation or social dynamics is not possible to avoid the match with the context where the change is supposed to happen. In particular, the identification of the dynamics that can support it, not only increase the likelihood of effectiveness in short and even long term, but also improve the efficiency of the organisation efforts to achieve their intent. Moreover, it proves the capability of understanding the situation profoundly and leveraging its potentials, which is also nurture the organisation credibility for investors and public opinion and replication or scalability of the intervention.

### **4. Identify new value opportunities in collaboration with the ecosystem.**

The ability to connect with the players of the domain has been argued as important to generate impact opportunities. However a closer look shows that it cannot be detached from the previous three activities as

they give this effort the required rationale and strategic coherence, and eventually the solid base for scaling.

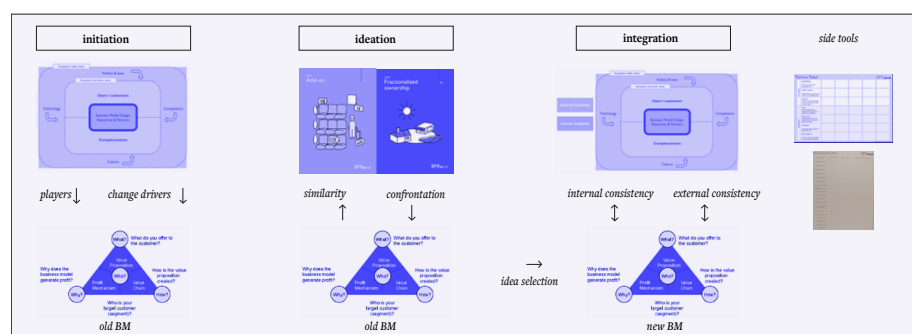
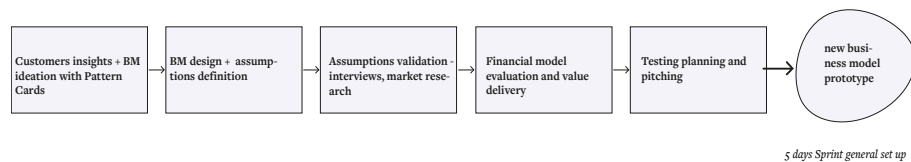
## 4.2 BMI Lab INTERNAL RESEARCH

Given the problem defined, BMI Lab should be able to support this approaches though its activities in order to be able to facilitate IDSs in creating an impact model prototype by means of its Sprint.

To understand how BMI Lab can support those needs, what is missing and what could be introduced to do so, an analysis of the current Sprint practices, is needed first.

Moreover, the structure of the Sprint, the type of supporting tools adopted and the perspective of the company toward certain topics will be presented as a frame in which the design solution should fit.

### Business Model Innovation Sprint- methodology and tools



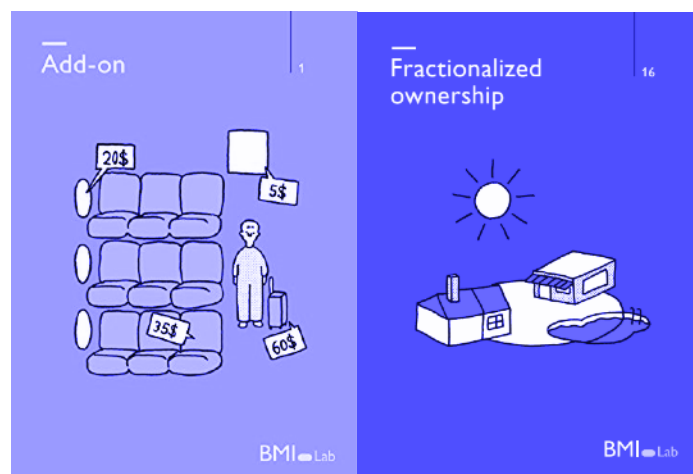
In the standard Sprint workshop process BMI Lab facilitate companies in redefining their business models through practices and tools along 5 days. The 5 days planning is presented in the overview above (fig. x) and includes the 3 main steps in which the transition from the old to the new BM occurs, presented in fig. x: initiation (when evaluation of the changes needed happens), ideation (of new

opportunities and BM configurations) and integration. The process is guided by several tools.

- The 'magic triangle' framework acts as a common ground for rethinking by facilitating the *depiction of the current BM* with a simple conceptualisation of the main building blocks: Who (target customer), What (value proposition), How (value chain) and Why (profit mechanism). Usually at least two of the blocks are changed in a BM innovation process.



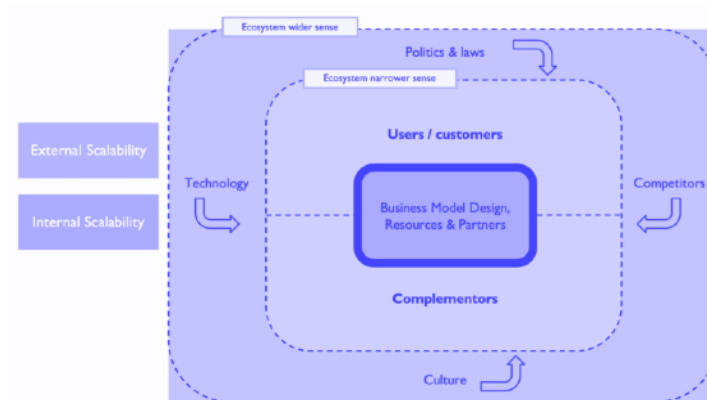
- Business Model Innovation patents Cards, are a set of 55+ BM patterns which are used as inspirations for *ideating* new BMs.



- A testing table, together with 22+ test formats guides along the phases of *formulation and testing of assumptions* regarding needs,

customers, problems, value proposition, offering, revenue model, willingness to pay...

- The reverse financials worksheet supports the establishment of the *viability* of the proposal.
- Internal/external scalability canvas helps in evaluating the scalability of the proposal and is used in the late stages.



In addition to those, there are some other tools used often, as a matrix to *select opportunities* based on the criteria: business potential and ease of copy factors; business model canvas, value proposition canvas.

### Internal interview

During the research, the CEO of the company F. Hofmann has been interviewed to understand the gaps identified, and on his opinion on the introduction of other approaches.

The main topics of discussion were: (I) the approach proposed to organisations to relate with their ecosystem and new opportunities forecast; (II) the mechanisms for managing alignment between stakeholders and between organisational objectives and needs; (III) the openness toward creative and visual tools.

(I) In relation to the ecosystem approach, he said that environment understanding has an initiation role, so they use an ecosystem map (with the same structure of the one used for scalability evaluation) to analyse and see new scenario, but without social phenomena and environment explicitly mentioned, which could be indeed important to



consider.

(II) In terms of alignment, they realise that in general is more important than ever, in particular mission alignment, and they pursue that by doing a future modelling and then breaking it up to action to achieve in 5-10 y. However, there is no space for dynamism in future planning at the moment, therefore 'horizons' are used for selection of ideas only (feasibility in short, long term), starting from the vision and defining what steps should be made, but without any structure.

In terms of stakeholders management he agrees that organisation should have the right supporters and champions for the process, however they do not have a tool for aligning stakeholders but he was considering the option already.

In terms of People-Profit alignment he mentioned later stage tools as KPIs, conversion rate, service metrics transformed into business metrics, then testing and optimisation. In the early stages instead, they use reverse financial to break up financial assumptions for BM profitability to steer toward valuable solutions and they do assumption testing by breaking up ideas with a lean approach. Profit maximisation however, is in conflict with social responsibility and ethics, and when they tried to include the questions in their workshops that split people into 2 fronts, where some thought is was out of scope.

(III) When talking about visual and creative tools, they use canvases formats mainly, adjusted by circumstances; BMI Lab patents cards, ideas sheet to generate quantity of options; selection process; opportunity map for evaluating business potential and replicability. However, he believes might be important to have the right tool for visualising the relations between stakeholders and value flows along the process.

## **Conclusions**

BMI Lab internal research goal was to look at the gaps between the IS needs outlined by the problem framed and activities and tools of the current Sprint process for BM innovation.

The overview shows that the process currently bases the identification of new opportunities for business model innovation on external changing forces and customers insights, so that it would fit with respect to internal capabilities and external situation in terms of

culture, technology, politics, laws and competition. However, this process targets a market opportunity, where viability and feasibility are the most relevant internal drivers and misses the drivers for SD change, as contextual potentials for sustainable integration.

Moreover this top down opportunity approach will not probably lead to act upon the barriers towards sustainable development goals. Also, the evaluation of a new opportunity apparently lacks a more leading connection with the high level mission of the organisation (since business potential and replication are the current leading factors), as well as metrics to assess their success. In general that reflects the (recognised) focus on the business growth over the impactfulness of its initiatives on sustainable development goals.

What is also missing is the understanding of the relations of the organisation in the context and the alignment of its intents with it, to explore the collaborative dimension and foster new value emergence that can impact in the value chain (there are no tools in fact, for internal or external strategic alignment).

In the case of impact driven projects, that would mean ignoring the problem in its relation with all the stakeholders, bounding the understanding of the context of intervention and as argued the design of an integrated and sustainable model.

Finally, in terms of BM ideation, the BMI Lab pattern cards can still be very supportive, since they are mostly 'neutral'. Nevertheless, given the nature of the new target, the card set might include also the 10 SE patterns.

### 4.3 DESIGN CHALLENGE REQUIREMENTS

The problem framed implies an approach that facilitates the understanding of the *relationships* with the actors of the network of action both in terms of barriers and potential catalysts, and the identification of strategic opportunities with a *collaborative* mindset.

The exploration of the client practices highlighted the gaps between the defined problem and the current approach towards opportunities identification for new BMs.

Based on these insights, the design challenge is to introduce a process in the Sprint satisfying the following design requirements:

- early facilitates the understanding of the relationships of the current model with the ecosystem network;
- guides the IS strategic alignment of the SD and viability goals to converge the opportunities identification process;
- steers the new opportunities identification based on two criteria: targeting the main barrier toward SD and viability objectives realisation and to leverage the network existing tangible and intangible catalysts for impact realisation.
- the process should be introduced strategically in the Sprint, in a way that can steer the activities of business modelling on the opportunities identified.
- due to the wide range of activities already in place in the Sprint the process time span is to be considered in maximum of one day in total.

#### **Usability requirements**

Since the creation of a model of impact is an iterative and learning process, the toolkit and deliverables should be dynamic to be used as a base for future reviews, discussions and improvements. Moreover, the vary target requires the to toolkit procedure to be easy to understand and with a clear guiding format (that is coherent with the rest of the Sprint).

### **Criteria for evaluation**

The process should:

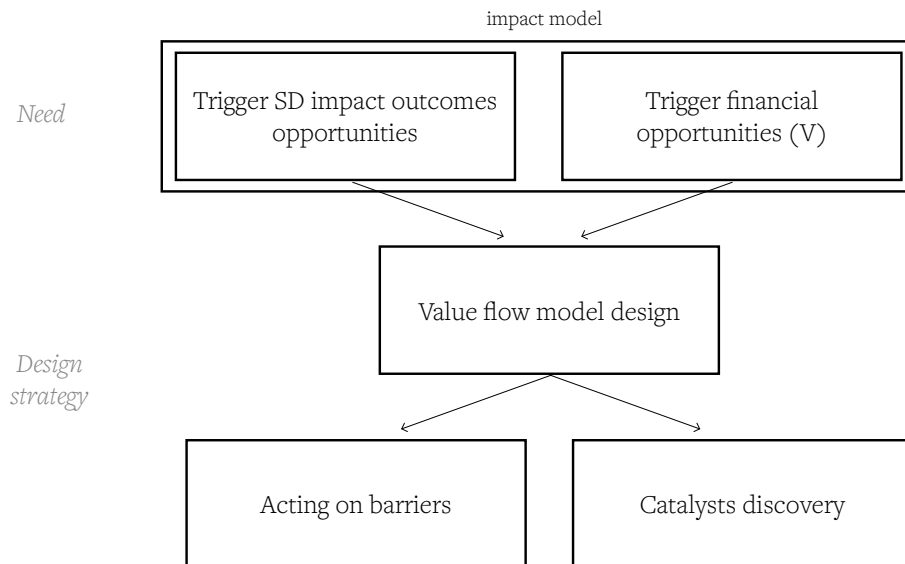
- Create a simple but sufficient structure for the statement of impact goals;
- Create an overview of the current model interaction with the ecosystem that can support the identification of the barriers and catalysts for SD and viability objectives achievement
- Lead to agreement over the most bounding barriers towards impact goals
- Trigger the emergence of significant insights about the potential catalysts for change;
- Generate at least 1-2 new opportunities that can be translated into a business model ideation process

### **4.4 DESIGN STRATEGY**

Linking the conclusions so far, the strategy proposed to introduce impact drivers in the BMI Sprint and support the challenges identified for IDSs is *to adopt an impact driven value flow based model design, to depict on a deeper level both the dimensions of value created and captured in the relations with the stakeholders network and act on that level to foster opportunities for facilitating sustainable changes.*

*The approach will include the pillars mentioned previously as core activities: identification and consensus on the barriers to the impact goals in the relations; discovery and leverage of impact catalysts resources and dynamics rooted in the relations.*

Catalysts are potential *tangible and intangible resources which value is not recognised, or missed, and potentially strong drivers for integrated change: contextualising them in a value flow mapping process can leverage especially the intangible ones to become both drivers for the intervention success and for extra revenue streams.*



*Fig. 16 Impact driven value flow strategy to identify opportunities*

### 4.3 STRATEGY IMPLEMENTATION AND DESIGN PRINCIPLES

The strategy will be implemented through a process, consisting of different phases building on each other, to finally identify new opportunities that can lead the model closer to achieve the startup objectives.

The toolkit therefore, requires a mix of different approaches, derived from the research insights and the conclusions so far. Those will be now presented as design principles.

- The process should facilitate the alignment and communication of impact goals (both impact outcomes and financial requirements) at a high and practical level.
- The process should facilitate an analytic yet relevant exploration of the current business model in terms of value transactions in its ecosystem of stakeholders.
- The process should trigger emergence of different forms of value (tangible, intangible)

- The process should complement the agreement over the reasons of the major deadlocks toward impact goals achievement.
- The process should trigger the identification of individual and collective enablers for change
- The process should support statements phrasing along the different activities in a way that the process can deliver a standard of outcomes.
- The process should trigger a dynamic manipulation of informations that can be iterated many times

DESIGN CHALLENGE REQUIREMENTS	DESIGN PRINCIPLES	CRITERIA FOR EVALUATION
<ul style="list-style-type: none"> <li>early facilitates the understanding of the relationships of the current model with the ecosystem network of stakeholders;</li> </ul>	<ul style="list-style-type: none"> <li>The process should facilitate an analytic exploration of the current business model in terms of value transactions in its stakeholders ecosystem.</li> </ul>	<ul style="list-style-type: none"> <li>The overview of the current model interaction with the ecosystem can support the identification of the barriers and catalysts for SD and viability objectives achievement</li> </ul>
	<ul style="list-style-type: none"> <li>The process should trigger emergence of different forms of value (tangible, intangible)</li> </ul>	
<ul style="list-style-type: none"> <li>guides the IS strategic alignment of the SD and viability goals to converge the opportunities identification process;</li> </ul>	<ul style="list-style-type: none"> <li>The process should facilitate the alignment and communication of impact goals (both impact outcomes and financial requirements) at a high and practical level.</li> </ul>	<ul style="list-style-type: none"> <li>V Create an easy but sufficient structure for the statement of impact goals that can steer the IS activities;</li> </ul>
<ul style="list-style-type: none"> <li>steer the Sprint business modelling activities on the opportunities identified</li> </ul>		<ul style="list-style-type: none"> <li>Generate at least 1-2 new potentially impactful opportunities that can be translated into a business model ideation process</li> </ul>

<ul style="list-style-type: none"> <li>steers the new opportunities identification based on two criteria: targeting the main barrier toward SD and viability objectives realisation and to leverage the network existing tangible and intangible potential (catalysts) for impact realisation.</li> </ul>	<ul style="list-style-type: none"> <li>The process should complement the agreement over the reasons of the major barriers toward impact goals achievement.</li> </ul>	<ul style="list-style-type: none"> <li>Lead to agreement over the most bounding barriers towards impact goals</li> </ul>
	<ul style="list-style-type: none"> <li>The process should trigger the identification of individual collective catalysts</li> </ul>	<ul style="list-style-type: none"> <li>V Support the emergence of significant catalysts around the barriers;</li> </ul>
	<ul style="list-style-type: none"> <li>The process should support statements phrasing along the different activities in a way that the process can deliver a standard of outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>The guiding procedure and format are clear and easy to understand</li> </ul>
	<ul style="list-style-type: none"> <li>The process should trigger a dynamic manipulation of informations that can be iterated many times</li> </ul>	<ul style="list-style-type: none"> <li>The toolkit deliverables can be dynamic tools to be used as a base for future reviews, discussions and improvements</li> </ul>
<ul style="list-style-type: none"> <li>time span &lt; 1 day at the</li> </ul>		

*Table 2 Overview of design challenges, design principles and evaluation criteria*





## 5. DESIGN AND DEVELOP

In the develop phase of the Design Double Diamond, the goal is to try different ways to respond to the defined problem and to the detailed requirements, looking for inspirations and answers from within and outside the domain.

The chapter will first present an overview of the process and toolkit proposed to respond to the project assignment; then will present the final version of each step and tool incorporating the rationale of the decisions that supported the design.

### 5.1 DESIGN TOOLKIT

The overall set up and the design of each activity is result of the application of the design principles defined, literature research, feedbacks from different perspectives and consequent iterations.

The different prototypes (see appendix pp. 22) have been designed and tested by means of author role play activity, a day of co-creation with the client, a 2.30 h testing session with two TU Delft Design Master students and feedbacks from one of the impact startups interviewed at the beginning (see appendix pp.18).

#### Aim and fit within BMI Lab Sprint

The workshop targets impact startups facing barriers in realising their sustainable development goals or financial sustainability, or willing to explore opportunities to increase impact in the value chain.

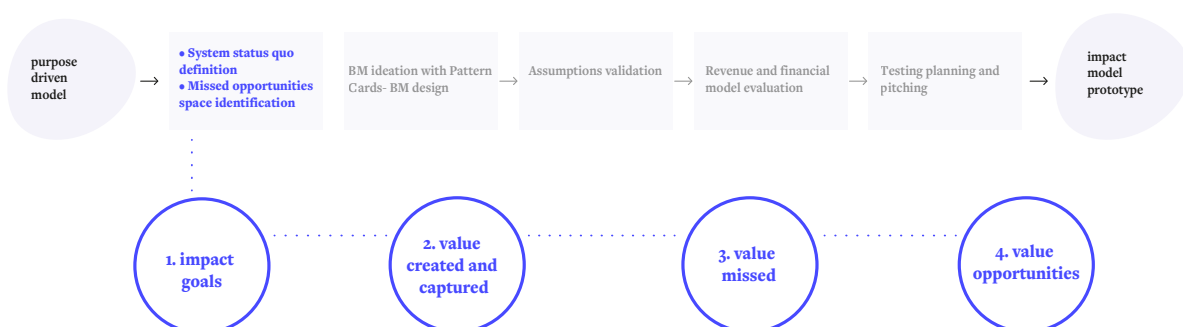


Fig. 17 Process steps within BMI Lab Sprint

The toolkit aims at bridging the status quo of the ISs activities, to the identification of a value opportunity space, that could overcome the barrier (fig. x. ).

The structure develops around four stages, in which the concept of value is a central focus. Reasoning in terms of value can support the consideration of both the activities related to impact value and financial value. Moreover, the activity of reconsidering the purpose, value captured, missed, and new opportunities, can support generating catalysts for sustainable business model innovation (Bocken et al., 2015).

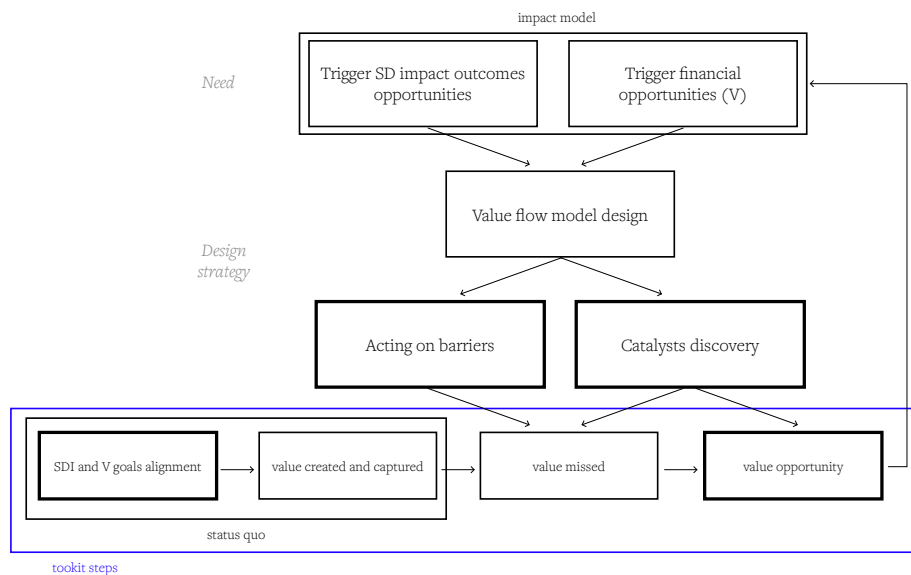


Fig. 18 Conceptual diagram of the workshop development (problem pillars represented by thick blocks)

In the context of the BMI Lab Sprint, the process is introduced as *initiation phase* during the first day of the Sprint. At that point usually the old BM is evaluated in relation to the changing scenario and customers insights and an opportunity space is outlined.

In this way, the outcome of the workshop, will fit with the following activities of business modelling and financial viability, concurring to the prototype of a model of impact.

## **Impact Startup as catalyst explorers**

When a psychotherapist wants to facilitate effectively a change in a person, needs to find the right keys to unlock it within him/her. That derive from a profound emphatic understanding of the person limitations to change a behaviour as well as values and potential catalysts driving the change. That would allow the construction of a tailored operative solution that enables him/her to succeed.

Similarly, an impact driven organisation needs to take a closer look to what are the actual barriers to impact outcomes likewise drivers, motivators and qualities that can be embraced to become catalysts for the change.



**Inputs**

To facilitate the procedure, the participants should be involved in the IS activities, thus collectively having the state of the knowledge about the details of the startup current business model (goals, strategy, choices, operations, resources, stakeholders and possibly the broader ecosystem of intervention). If needed, they are invited to bring close stakeholders with complementary contextual knowledge. They should have at least unstructured knowledge about possible issues experienced by the organisation in making their impact driven model meeting the goals. That should ensure the achievement of a significant outcome.

However, along the full Sprint there will be still space for interviewing and collecting few needed information.

**Outputs**

The outcome of the session is a value opportunity to address the main barrier to impact, that could steer the current model closer to sustainable impact achievement.

In the following days, that will be translated in the BMI Lab tool 'Magic Triangle' components (customer, VP, value chain, profit model) to ideate on its integration in the BM.

Moreover, a side outcome is a set of assumptions related to the opportunity identified, to be verified in the Sprint day 2.

## 5.2 Workshop components description and motivation

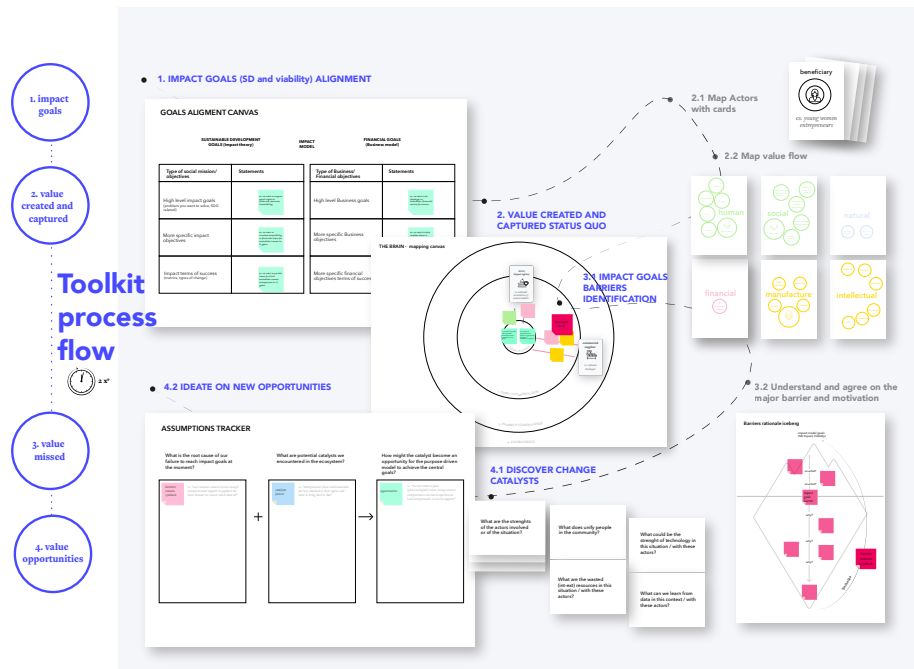


Fig. 18 Toolkit process overview

### Step by step activities overview

#### 1. Impact goals

Goals and objectives statement through the IMPACT ALIGNMENT CANVAS.

#### 2. Value created and captured

2.1 Deconstruction of the current model by mapping the actors with the ACTORS CARDS

2.2 Deconstruction of the value transactions between actors with the support of the VALUE FORMS TABLE.

#### 3. Values missed

3.1 Identification of the barriers for the main goals stated

3.2 Prioritisation of the most important barrier

3.3 Barrier root cause agreement with the BARRIERS RATIONALE ICEBERG

#### 4. Value opportunities

4.1 Identification of catalysts in the ecosystem of intervention supported by DISCOVERY CARDS SET

4.2 Idea generation on how to reverse the barrier through the catalysts identified

### **1. Impact goals: goals and objectives statements**

As discussed, to pursue a double mission without the risk of sacrificing impact or growth potential, it is important to intertwine from the early beginning the hybrids impact goals (Sustainable Development and financial goals).

Therefore the initial definition of the startup goals and specific objectives is important to support participants alignment on the double mission along the conversations and in the outcomes.

Taking inspiration from strategic design practices in aligning design to business objectives (Calabretta, 2016), a double line of goals has been defined at different degrees of granularity.

The IMPACT ALIGNMENT CANVAS will guide in reporting: high level SD and financial objectives; more specific impact and financial objectives and terms of success for impact outcomes and financial objectives.

The clarification of these goals and objectives as initial activity has the intention of ensuring the consideration of both along any decision and to steer the opportunity identification toward them. This also creates a dependency of the design to viability, which might seem counterintuitive in the context of purpose driven organisations. However, financial sustainability is indeed defined as constraint for a model of impact. Moreover a rationale formulation of constraints, (not too many or too few) is largely agreed to foster creativity (Onarheim, 2012) especially within the context of innovative design (in contrast with rule-based) (Hatchuel, 2017) which seems to fit with the challenge.

**Table 7.1:** High-level business/financial objectives

Type of Business/Financial Objective	Examples
High-Level Business Objective:	We want to be the #1 Player in the Australian financial services industry for female entrepreneurs.
More specific Business Objective:	We want to increase our market share in the female entrepreneurs segment from 23% to 40% within 3 years.
More Specific Financial Objective:	We want to generate an incremental \$100 million in profit between 2017-2019 from the female entrepreneur segment.

Fig. 19 High- level business/ financial objectives (Calabretta, 2016)

Type of social mission/ objective	Example
High level sustainable development objective	(mission- SDGs target) SDG 5 <i>i.e. we want to give women equal access to economic resources</i>
More specific sustainable development objective	(objective in relation to SDG target) <i>i.e. we want to increase access to financial loans for Australian women in 2 years</i>
Outcome terms of success	(metrics for success) <i>i.e. we want to provide loans to 5000 Australian women entrepreneur in 2 years</i>

Fig. 20 High level SDG/ objectives terms of success (integrated from Calabretta, 2016; SDGCompass; Rokeach, 1973)

In terms of impact goals, when addressing one or more of the UN SDGs organisations can find the related main ‘mission statement’ and a more detailed set of objectives to refer to, but they are still in charge of defining the *outcome* in relation to their specific intervention and the numerical terms of success.

The canvas will come with examples for each statement to provide guidance to participants, however, since the practice pertains to a wide domain of study, and the definition of those is very case specific, it will not be treated extensively in this project, and it is responsibility of the organisations starting an impact driven project to define what is their intent.

The statements will be written on sticky notes in order to be adjusted in time and to be used in the next step activities. Indeed, the SD and financial terms of success will be stucked to the MAPPING CANVAS to guide the following activities.

All the iterations supported on the value of this initial practice: the sample statements and the use of sticky notes are supporting the



usability, and the decision of keeping both the financial and social terms of success at the centre of the Brain was appreciated in both, to incorporate being able to quickly refer back to both objectives along the process.

Some concerns were pointed in iteration 2 toward the length of the exercise, planned for being 15-20 minutes, as being more feasible in 60 or even 90 minutes depending on how ready the startup will be to formulate the statements.

The impact startup feedbacks were positive on this tool. He agreed on the usefulness, in particular to support internal objective alignment, and appreciated the ease provided by examples guiding the statements.

IMPACT ALIGNMENT CANVAS			
SUSTAINABLE DEVELOPMENT GOALS (Impact theory)		IMPACT MODEL	FINANCIAL GOALS (Business model)
Type of social mission/objectives	Statements	Type of Business/Financial objectives	Statements
High level SDGs (problem you want to solve, SDG related)	ex: we want to support equal rights to financial resources accessibility	High level Business goals	ex: we want to be #1 in the market for women's services
More specific SD objectives	ex: we want to increase accessibility to financial services for women	More specific Business objectives	ex: we want to have 10% market share in financial services for women
Outcome terms of success (metrics, types of change)	ex: we want to provide 10% more financial services for women	More specific financial objectives terms of success	ex: we want to generate 10% profit in 10 years from the financial services segment

Fig 21. IMPACT ALIGNMENT CANVAS

## 2. VALUE CREATED AND CAPTURED: deconstruction of the current value transactions

The aim of this step is to outline the status quo of the activities occurring to achieve the impact goals. The participants are invited to deconstruct the operative model in relation to the stakeholders involved.

This systemic approach to problem solving allows gaining a deeper understanding of the dynamics surrounding a problem, to make sense of the complex wicked challenge and the interacting forces within it, which is essential to manage a desired, lasting system change (+Acumen, 2019).

The system mapping process distinguishes between elements, (the stakeholders involved), function or purpose (their role), and interrelations between them (Meadows, 2008).

To facilitate the analytic exploration of the business model in terms of value transactions, the interrelations will be depicted as the value flow in the system-how the value is currently created and captured by the organisation.

Actors and value flows mapping are useful to depict the the status quo of transactions in a network, but its benefits can be extended to shifting between status quo-problem and new solutions space (Simonse, 2014).

This approach can support the iterative nature of an impact driven model to be discussed and adjusted dynamically along time.

Indeed visual thinking has the general benefit of aligning people on the same page, showing ambiguities, trigger discussion upon, and enables to balance what is possible to desirability (Simonse, 2014) in a co-creation environment. This initial practice makes easier for the participants to have a 'one brain' shared knowledge to discuss facilitating a multi-perspective discussion without being reductive, and work on actively, which is not supported by a canvas approach, as the BMC.

A blank canvas for mapping is provided (fig. x) The structure of the layers aims at facilitating the process of distinguishing between who is directly involved in the activities (direct) and the ones who are more interested to the results (customers, investors...). The additional layer of environment has been included during the co-creation with the client, to account for resources exploitation if necessary. The inner layer, represent the organisation as entity, but employees will be considered direct stakeholders.

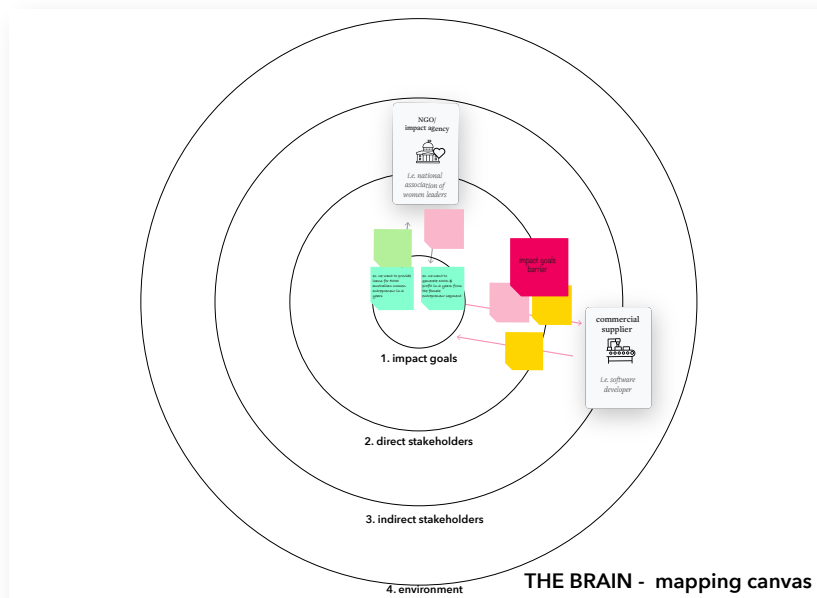




















Fig. 22 Mapping canvas

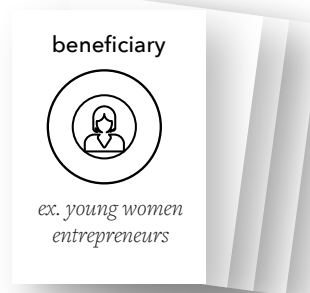
## 2.1

Participants are invited first to move the social and financial terms of success sticky notes at the centre of The Brain mapping canvas.

Then, to map the actors involved starting from the main customer or beneficiary, and then all the stakeholders, value chain actors and environmental resources supporting in any way the creation of the end result.

To facilitate covering the full range of actors, and have a tangible token to move on the model canvas, the activity mapping will be supported by a set of ACTORS CARDS. The workshop aim of triggering a dynamic manipulation of informations, makes the use of cards a low tech solution which can be improved in time, beside being coherent with the BMI Lab pattern cards used late in the Sprint. The *function* or purpose of each actor is represented by the category. The categories proposed are most recurring in the impact domain (chapter 2.1), the typical ones from business domain and other 'outsiders' observed along cases and literature (i.e. positive deviants). Moreover, it has been kept the distinction between impact and commercial customer, investor and suppliers, to differentiate the nature of value flows and expectations (cit.)

customer 	environmental element  ex. Pacific oysters	community 	positive deviant (outlier) 	employee 
donor / volunteer 	local supporter 	influencer 	NGO/ impact agency 	
commercial supplier 	impact partner 	financial investor 	impact investor 	
government 	academia 	media 	external agency 	main competitors 



2.2 The value create and captured thought the *interactions* will be mapped in terms of value flow between the actors (and the startup at the centre) through arrows and post-its. This solution has emerged to be most easy to handle during the first iteration (see appendix pp. 21). During and after mapping (when it comes to discussion) are also invited to use red lines to eventually identify problematic relationships or exchanges to be used in a following stage of the process of barriers identification.

The identification of both financial and non financial (tangible and intangible) value is important because the intent of the hybrid organisation regards also impact along the value chain.

Non financial tangible and intangible value exchange might not have short term financial benefit, but is worthy for driving the impact driven organisations to witness their contribution and hold a potential financial benefit for the future or for the present by direct monetisation.

In the first testing (see appendix pp. 21) participants had difficulties because of different interpretations and overloading of informations to recall about non financial values types. Hence the decision was to provide a table of value forms as a guiding reference during the value flow mapping.

## Value forms table

*Value is “the capacity of a good, service, or activity to satisfy a need or provide a benefit to a person or legal entity”*

*(Haksever et al. 2004 following Baier (1969))*

The table of value forms follows the broad categorisation of the six forms of capital suggested by International Integrated Reporting Council (IIRC) and Impact Institute (2019). Those represent the degree of contribution to future value creation for the organisation and investors, but are also used to assess an organisation impact along

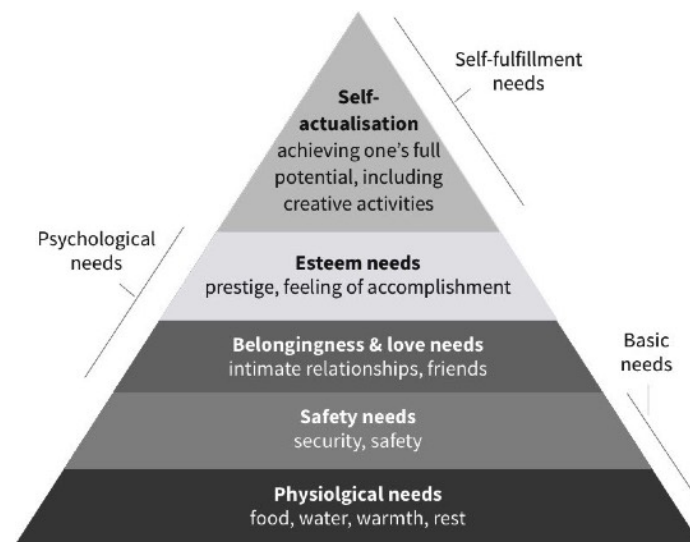


Fig. 23 Maslow Hierarchy of needs

its activities (Impact Institute, 2019). The reason for the choice was thus to align with an international investing framework and because of the inclusion of the main dimensions of value considered by impact startups.

The 5 dimensions of value are namely *financial, manufacture, intellectual, human, social and natural*.

However, it is important for the toolkit guidance purpose, to deepen in particular the non financial dimensions.

The categorisation of human values has been taken from the well known Maslow hierarchy of needs which identifies 5 cumulative levels of needs that are important for humans: *physiological, safety, social, self esteem, self actualisation* (see the picture below for examples)

being the basic and physiological ones “deficiency needs” to be satisfied before to leap into the stage of growth.

In addition, some non financial tangible and intangible values are considered the ones positively contributing to *quality of life, knowledge, prestige, safety, physical and financial security* (Haksever et al. 2004) which have been added in the related categories as below.

To ensure the satisfaction of socially recognised values instead, the 5 universal high level values from Rush Kidder will be a starting point being: *care, honesty, respect, responsibility, fairness*. Those are principles or standards of behaviours collected around 150 communities in the world and are not supposed to be a trade off, but to overarch every value transaction.



Fig 24 Value forms table

A complete discussion over the definition of all the shades of values and needs is out of the scope of the project. Nonetheless it is believed that inspiring organisations with a wide (although not complete) portfolio of categories of intangible values can support the participants to name previously unnamed transactions. That can be beneficial to demonstrate their broad impact along the value chain and eventually to trade some of these efforts for extra revenues or explore new opportunities for growing the organisations.

### **3. MISSED VALUE: identification and root cause agreement over the most important barrier**

The third step aims at a deeper level of exploration of **impact-barriers** toward the goals success or very risky actions activities based on assumptions. By doing so, the attention will be moved towards critical relationships where value is not created or captured properly, therefore missed.

Participants think about main issues they are aware of and are eventually inspired from the value flow map to think about every actor and transaction.

At first, the exercise will be done individually by placing sticky notes with the barriers or assumption on the map where they happens, to allow everyone to express their perspective. Then a collective agreement on one priority barrier will be made in a second moment, based on the criteria of influence of the barrier on the realisation of the impact goals.

The activity of barriers identification is planned directly on the canvas map as result of the first testing with students. Doing it on another canvas made them loose the connection with the rest of the model chain, and therefore thinking only of barriers related to the final

**barriers  
reasons  
synthesis**

*i.e. “our customer cannot receive enough entrepreneurial support to payback the loans because we cannot reach them all”*

solution (see appendix pp. 21)

## Barriers iceberg

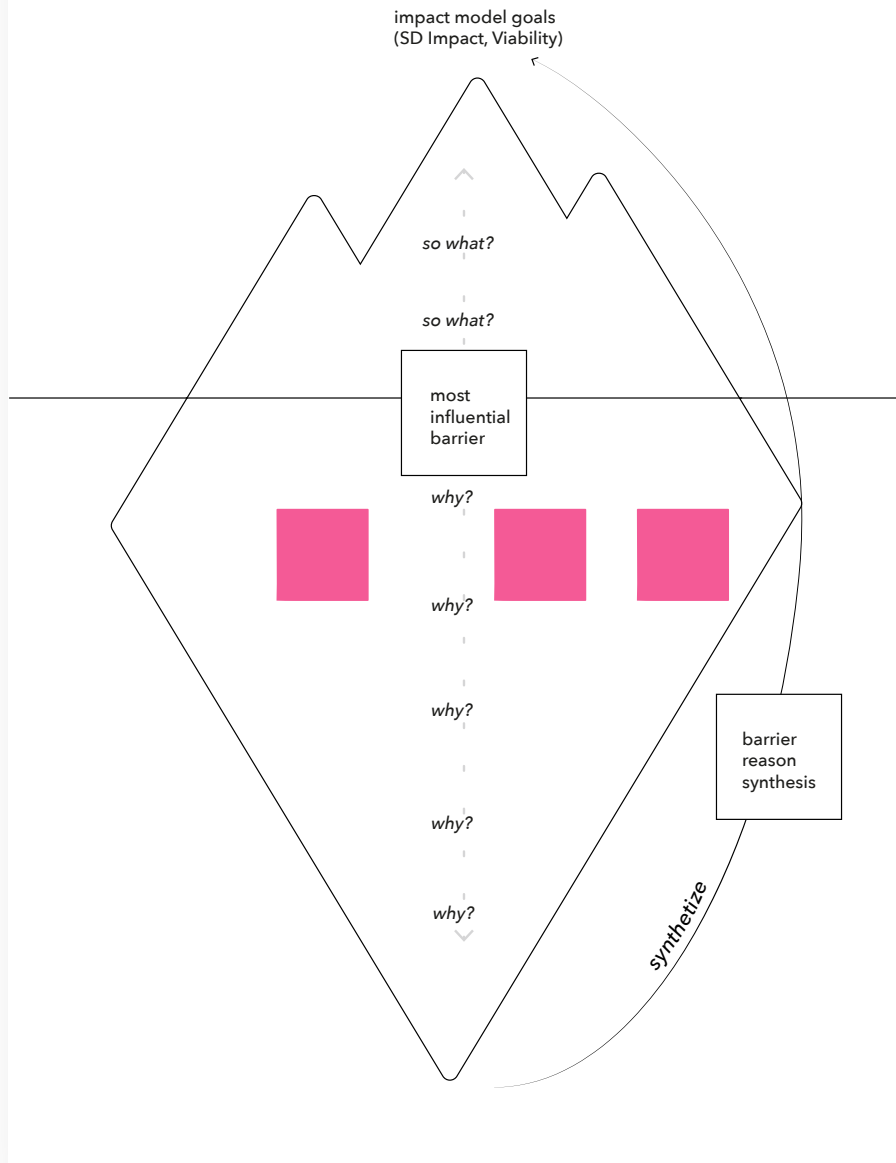


Fig 25 Barriers iceberg canvas

After one relevant barrier is chosen, the sticky note is moved to the BARRIER ICEBERG CANVAS, where its root causes will be explored until a clear statement of the problem is achieved.

The visual and narrative nature of causal exploration can deepen and trigger insightful discussion between different perspectives and in relation to other dynamics (Lennon). Therefore its adoption is meant to achieve consensus over the main barrier and eventually arouse new unexpected connections. Indeed, the 5 whys adopted are useful



to explore in reasons depth but might fail in the breadth (Card, 2017), which the canvas try to suggest.

To facilitate so, the decision was to create a space for exploring the 'whys' and the consequences of the barrier selected in relation to the goals, and finally synthesise the barrier linking the root cause to the consequence over the goals.

During the iteration #1 the participants appreciated the guidance provided by the root cause diagram and especially the clarifying role of the final reconnection with the impact goals in the synthesis. Based on that, the canvas was made more intuitive so that they could do it without external suggestions. The final iceberg design of the guiding canvas (as presented in fig. x) has been proposed to visually trigger the exploration of the deeper causes in contrast to the obvious knowledge about.

The barrier synthesis should respond to the question: what is the major root cause of our failure to reach impact goals at the moment? formulated as in the example above.

#### **4. VALUE OPPORTUNITY: identification and transformation of catalysts in opportunities of value to reverse the barrier**

Once the barrier problem synthesis is agreed, a change in the relations where it happens needs to be done.

Changing the interrelations or purposes and functions of between elements or actors is more effective for causing change than shifting the element per se (Meadows, 2008), and to do so a deeper level of understanding of the context and stakeholders is needed.

4.1 The last step thus starts with the identification of impact catalysts which are tangible or intangible resources of many forms, intrinsic into the ecosystem of intervention, that could potentially act as impact un-lockers.

As said, one key pillar principle for a model of impact is to facilitate the emergence of potential catalysts which can support the intervention success and sustainability. The activity proposed aims at changing the problematic relationship by discovering and leveraging the unique catalysts in the ecosystem that could help the problem.

The research highlighted several factors and mechanisms that could influence sustainable change.

The social innovation perspective usually defines them as the intermediaries (Ferraris, A., & Grieco, C., 2015; Hussein, 2018) or events influencing the system change (i.e. the Campaign for tobacco free-kids in 1995, or Free to Marry organisation). In system theories, a catalysing function is attributed to leverage points, being efficient action points where small shifts can produce big changes (Meadows, 2008).

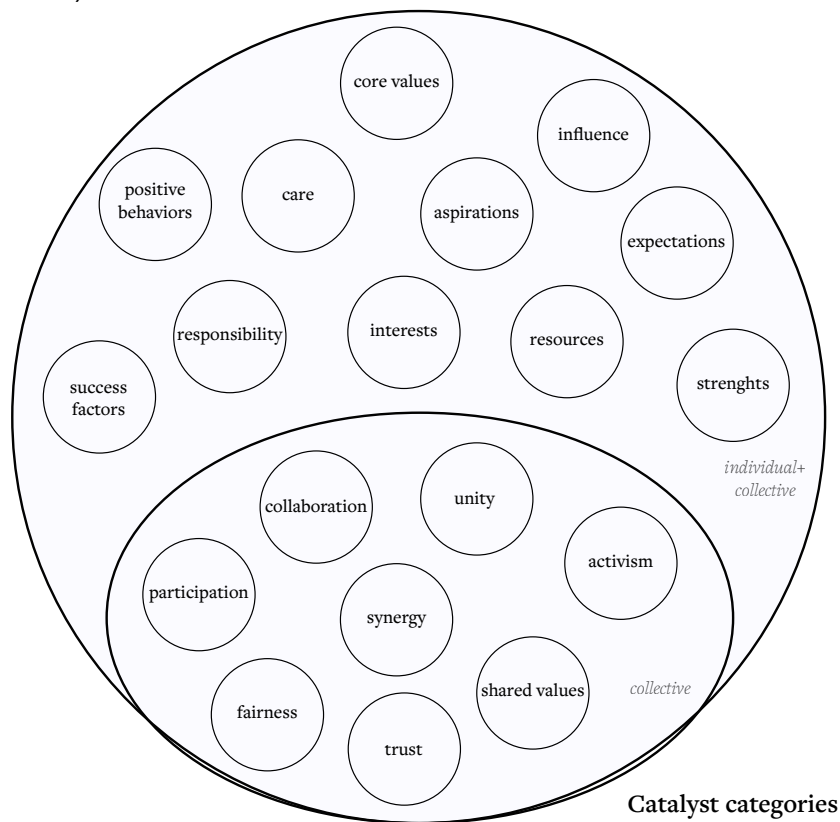
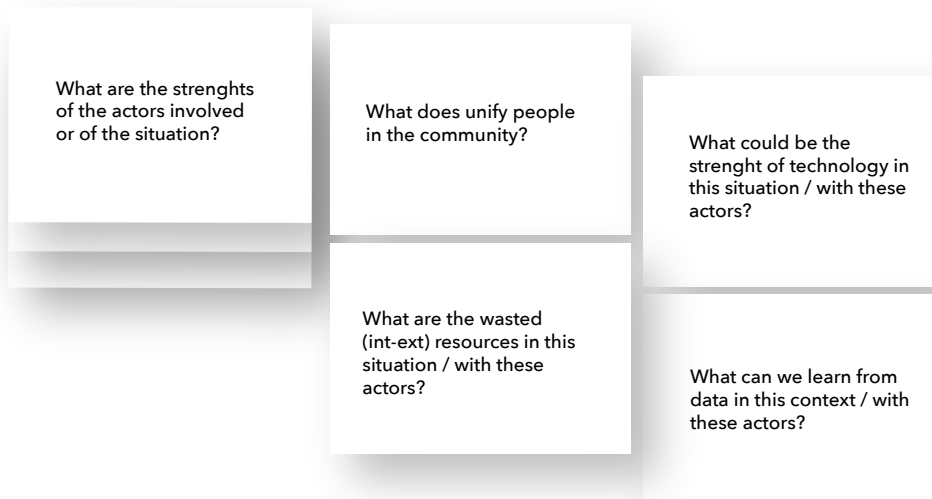


Fig 25 Catalysts overview

However, the present research outlined a catalysts concept more related of existing tangible and intangible resources influencing effectiveness and sustainability of the intervention (highlighted in the report with colour blue). The limited research sample provides only a qualitative overview of factors that have been influent in the relative context or over certain issues. Nonetheless, understanding the nature of these factors in the different contexts could trigger a more empathic perspective leading to discover useful insights for grounding the organisation decisions.



*Fig. 26 Discovery cards sample*

Based on that, a set of question has bee formulated to discover them (i.e. What does trigger synergy in the context? What do the people involved care about? What are their strenghts?...).

In order to lead toward recalling basic informations and own experience instead of pushing toward hypothesis, the factors will be integrated in a low level question format as presented below (Walsh & Kemp, 2012) through discovery cards. Those will be provided by the facilitator depending on the nature of the relation considered, to trigger a deeper level of critical reflection and change the relation in a way that ecosystem is empowered for change.

The first testing aimed also at validating the usefulness of the catalysts and the discovery cards questions leading to them.

The session reported interesting answers and feedbacks. “you are asked about value, which is far from the topic and therefore inspire different answers from different people” (C). For instance, the SD goal of the session was to “give access to high level education to young citizens in Portugal rural areas”; the barrier identified was the interest towards the degree in relation to commitment. Among the catalyst emerged, the one chosen derived from the question “what does drive social participation in this context?”, resulting with family and friends involvement being a potential catalyst for the intervention success.

## ASSUMPTIONS TRACKER

What is the root cause of our failure to reach impact goals at the moment?

**barriers  
reasons  
synthesis**

*i.e. "our customer cannot receive enough entrepreneurial support to payback the loans because we cannot reach them all"*

What are potential catalysts we encountered in the ecosystem?

**catalysts  
factors**

*i.e. "entrepreneurs from rural Australia are very attached to their region and want to bring back to that"*

How might the catalyst become an opportunity to achieve the central goals?

**opportunities**

*i.e. "we can create a space (physical-digital) where young women entrepreneurs can reach experienced local entrepreneurs to receive support"*

+

→

Moreover, it also appeared that keeping the participants detached from thinking about the barrier would prevent them being solution driven and free to explore a more empathic domain of answers.

**catalysts  
factors**

*i.e. "entrepreneurs from rural Australia are very attached to their region and want to bring back to that"*

4.2 Finally, in order to leverage the catalysts, an ideation exercise will trigger exploration on how to include them in the current operating model to achieve the impact goals defined at the beginning.

The ideation process will be leaded by the question: how might the catalyst become an opportunity to achieve the central goals?

The How might.. format has been chosen to trigger a variety of possible answers but without suggesting a particular solution , therefore being suitable for innovative thinking (IDEO.org).

The level of the answers will be facilitated by an example of statement that needs to include a conceptual idea of solution and should clearly refer to the problem identified (see fig. x)

## How might the catalyst become an opportunity to achieve the central goals?

opportunities

*i.e. “we can create a space (physical-digital) where young women entrepreneurs can reach experienced local entrepreneurs to receive support”*

The idea generation will be done on the ASSUMPTION TRACKER canvas.

The tool has been designed to include also the outcomes of the three last activities (rationale of the barrier, potential catalysts identified).

The purpose of that is to immediately recognise the outcomes as hypothesis to be tested later. In the Sprint session in fact, there is already a space dedicated to validate the assumptions underlying the opportunity space identified.

For the opportunity selection, instead the decision was to keep the criteria of SD impact and financial viability. In this way the opportunity chosen is supposed to be the best match between the two leading goals.

### **After the session**

It is suggested to keep The brain canvas as an interactive prototype for the startup impact model. That is to keep facilitating the general informing and aligning overview over the startup activities along the BM ideation.

The Assumption Tracker as said, will come back later in the Sprint when the assumptions will be validated with several techniques.



## 6. EVALUATION

The toolkit design has been evaluated in three moments as mentioned: a 2.30 h session with two TU Delft Master students, a day of discussion with the client, and with the presentation of it to an impact startup.

As mentioned, due to several constraints, it was not possible to make a final testing session with an Impact Startup to evaluate the full process as presented.

### 6.1 Evaluation

The main criteria defined for the evaluation and the feedbacks collected on them are reported in the table below.

The evaluation has been done over the concept of the tools. However, it is still needed a full session with a startup to validate if the full process will respond to the initial assignment with the expected results for the startups.

### 6.2 INTEGRATION IN THE CURRENT SPRINT PROCESS

*How does this tool complement the current methodology?*

The ecosystem visualisation as a tool for understanding and ideating the impact model fits with the insights from the BMI Lab CEO, saying that both a tool for aligning stakeholders and visualising the value flow was missing and could have been useful. Indeed, as experienced during the workshops, it was hard to align quickly on the same overall picture, and mostly people were relying on verbal explanation.

The benefit is that it provides a common ground for discussion, eliciting discussion as the physical representation elicit more participation. Moreover, the representation of the organisation mental model of the ecosystem where they want to act upon, has the benefit of being an artefact to be shown to the local stakeholders and get easily feedbacks.

Since an impact model is assumed to be positively correlated with the ecosystem inclusion and acceptance, confrontation is required, and that could even trigger stakeholders creativity in manipulating the

CRITERIA	EVALUATION
<ul style="list-style-type: none"> <li>1. The overview of the current model interaction with the ecosystem can support the identification of the barriers and catalysts for SD and viability objectives achievement</li> </ul>	In the first session the overview led to identify barriers and catalysts but the validity of the overview needs extra testing with a real case startup .
<ul style="list-style-type: none"> <li>2. V Create an easy but sufficient structure for the statement of impact goals that can steer the IS activities;</li> </ul>	The impact model alignment canvas structure has been considered very useful to align objectively the team around the values and strategy.
<ul style="list-style-type: none"> <li>3. Generate at least 1-2 potentially impactful opportunities that can be translated into a business model ideation process</li> </ul>	
<ul style="list-style-type: none"> <li>4. Lead to agreement over the most bounding barriers towards impact goals</li> </ul>	The tool per se has been considered important to align the team on the main problem. The procedure worked during the first session, but the design iteration still needs validation.
<ul style="list-style-type: none"> <li>5. V Support the emergence of significant catalysts around the barriers;</li> </ul>	In the first session the discovery questions led to identify interesting and vary insights from different people.
<ul style="list-style-type: none"> <li>6. The guiding procedure and format are clear and easy to understand</li> </ul>	A further iteration might bring more clarity about the overall procedure clarity
<ul style="list-style-type: none"> <li>7. The toolkit deliverables can be dynamic tools to be used as a base for future reviews, discussions and improvements</li> </ul>	



models how they would see it more efficient from their (eventually) closer and more expert perspective.

One additional intervention in the Sprint could be finally to add to the BM patterns, also the SE patterns presented in the research (see appendix), as extra support in ideation containing dynamics that are not recurring in business driven BMs.

## **6.4 LIMITATIONS AND RECOMMENDATIONS**

The variety of the SDGs domain makes difficult to create a one-fits all process.

However, the toolkit is enough generic in that sense, therefore it could fit with all of them.

Moreover, the process has been designed to support the characteristics of an impact driven startup (i.e. SDG explicit adoption, the investors stakeholders, the format of the process that allow quick iterations, fast learning and agile navigation under uncertainty conditions).

Nonetheless, it could also be useful for a traditional business that wants to find viable opportunities to generate sustainable development impact. Eventually, some testings of the process would evaluate what are different conditions and requirements for the design.

## **6.5. CONCLUSION**

The purpose of the process was to integrate in the client Sprint purpose drivers to steer the business model generation.

The exploratory research about the main challenges the main challenges and the related literature reviewed led to reframe the initial problem (chapter 4) as introducing a systematic approach to overcome the contextual barriers for impact by fostering the identification of opportunities that are able to catalyse a sustainable change in the ecosystem, in collaboration with a network of stakeholders with similar objectives.

The design solution has been developed (chapter 5) based on the idea that the creation of an IM (in BMI Lab Sprint) can be supported by introducing a value based process that targets barriers in the

ecosystem of intervention and identifies catalysts that could solve the issues in an integrated and sustainable way.

The 4 steps toolkit is designed in accordance to that.

An initial evaluation with Design Master students from TU Delft and a co-creation day with the client suggested some major iterations as presented in chapter 5.

Some feedbacks have been then collected from one of the impact startups interviewed initially, but a complete evaluation of the toolkit process with an impact startup from Impact Hub Amsterdam was in plan during the last weeks of the project, but was postponed to after.



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