A Review of Methodologies for the **Design** & **Incubation** of **Collaborative Platforms**

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Released in September 2016

Foreword

A needed review of methodologies for the design and incubation of collaborative platforms

Collaboration, and collaboration supported by digital platforms, does not appear out of the blue. It's the result of an optimal design, and of development and organizational strategies. In this regard, the question of how to design and support the development of collaborative platform is central for their development. However, the knowledge around such topic still remains largely dispersed and unsystematized. What characterises a positive platform? Which methodologies of its design are available? Which lab and incubating approaches would be more beneficial? To provide a useful resource that systematize the existing materials is the main goal of this dossier.

From the perspective of the "digital myth" of the unicorn, the vast majority of sharing economy start-ups dream to be valued at over $1 billion. While the aim and motto of platform cooperatives, Commons oriented collaborative economy projects and social and solidarity economy initiatives which "turn digital" is not only economical impact, but also other key aspects: to create community and relationships, to empower distributing value and governance, to have fair labor conditions and transparency, to be environmentally sustainable, to preserve the Internet environment being based on open commons knowledge, contributing to it, among other virtues and emergent needs... But what would be the best design tools and development paths for the latter? Are them using the same tools and strategies that determine success for "unicorn-like" platforms or are there specific ones?

There is a set of conditions which characterise commons oriented digital platforms that need to be taken in consideration when planning and reflecting on their design. First, they usually lack the heavy investment of business angels, in comparison to startups which promise to early "monetize" (using the Silicon Valley language). On the other hand, when they put their social value upfront tend to succeed with crowdfunding, which allows them to deeply engage with communities from the start. Second, it is hard for them to find the experience of skilled and talented designers, programmers and managers, which usually work for the corporate side of the digital economy. Something that usually puts a limit to the usability maturity of commons oriented projects.

In this sense, two important reasons for the success of platforms like Uber or AirBnb are: On the one hand, excellence in design of user experience and sustainability models, usually driven by design thinking (in times when "software has taken command" in words of Lev Manovich). On the other one, the dynamic and strategic incubation of minimum viable features. A couple of examples: Airbnb succeeded thanks to a radical design thinking approach, while engineering teams of the car sharing company BlaBlaCar are devoted to Scrum (the most popular of the agile software development frameworks, which puts the client and the end-user at the center of "incremental features").

In addition, it has to be considered the ability for sharing economy giants to process and interpret big (closed) data in a context of "hyper-growth", or their power to hire aggressively top researchers from universities for continuous product development (and how that represents, again, a difficult possibility for many small-scale organisations and cooperative workforces). It also needs to be added to the equation the lack of rigorous academic literature about existing methods and strategies for collective design and incubation in the sharing economy, and specially oriented to cooperatives and other social and solidarity economy actors.

Knowing the different departing conditions of unicorn models and of commons oriented platforms is important and useful, in order to adapt the design and the development of the latter to its own conditions, but also to identify other possible areas of improvement and adoption of design methods, in order to make more elaborate and robust the incubation process of common platforms. There's promising examples in the direction of improving the set of tools and methodologies for the design and development of open and civic platforms. We can find examples in the "responsive" design of Fairmondo, the solid practices of participatory, incremental platform development behind Loomio, or the care for UX experience like applied in Goteo. Recently in Barcelona Coopdevs, a non-profit association developing open source tools for communities, made an alliance with Holon, a design coop for improving civic software based on design thinking techniques, or Barcelona Activa promotes from the City Council the collaborative incubation of new digital projects for social and solidarity economies from La Comunificadora. That's the type of combination of tactical knowledges and skills that for example Sasha Costanza-Chock promotes for new projects out of the MIT Collaborative Design Studio. But how to scale those good practices, adding tools and tactics for better design and incubation of co-platforms, is still an early work in progress, that apart from scientific and academic research requires continuous exploration and dissemination of methodologies, as they evolve and are used.

This report provided by Dimmons aims to be a practical and useful resource in this direction of support, to disseminate more rich and optimal tools and methods, as well as incubating strategies for the design and development of commons oriented platforms. From the rich and detailed perspective of the "practitioners", we have the pleasure to have commissioned it to Simone Cicero, Chiara Agamennone and Eugenio Battaglia, the team behind Platform Design Toolkit, and to have contributed, via fruitful and vivid discussions during its preparation. We wanted to assure a practitioner perspective and a useful resource as a piece of great value for the state of the art on new design and incubation strategies for co-platforms. We hope you find it useful!

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Barcelona, 6th November 2016

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1. Objective of the Report: definition of the scope of the research

The objective of this report is to provide a first bird's eye view on the presence, availability and performance of different design frameworks, as well as incubation strategies and contexts regarding a particular class of **ventures** - intended as market sustainable businesses. For simplicity we will define these ventures as: **Co-Platforms** (short **COP** in the rest of the document).

The analysis will essentially be focused on incarnations of the **platform model** (and the **collaborative mode of production**). This model has been central to the development of recent high growth emerging industries defined within the *Sharing Economy*, *Gig-economy*, *Collaborative Economy* context.

We define COP, ventures that are as much aligned as possible with the series of criteria that follow:

1. Use a **Collaborative mode of Production**: be based on collaborative P2P production, and based on open, collaborative and agile methodologies, supported by and / or developed on digital platforms.
2. **Aiming at Social Impact**: areas of activity linked to social challenges
3. **Cooperative Company type**: preferably cooperatives (including those that are contemplating and exploring the new modes dubbed "platform cooperativism")
4. **Collaborative Mode of Governance**: preferably accessible models based on participatory decision-making mechanisms, contemplating the participation of relatively involved communities and users in defining the rules that define the interaction and the management of generated resources.
5. **Aiming for Economic impact:** platforms that aim at generating jobs and/or income for participants.
6. **Circular**: based on the "circularity" of materials or / and aiming at reducing environmental impacts.
7. **Free, Open and Decentralized technology powered**: preferably based on FLOSS and decentralized technologies
8. **Nurturing Commons of Knowledge**: Preferably using open content licenses (CC, etc) and open data for the information and knowledge they produce.
9. **Inclusive:** unbiased towards terms of gender and other diversities, minorities

Other secondary interesting criterias follow:

- Linked with City challenges
- Replicable, international projection and potential expansion/replication plan

1.1 Existing definition of Platforms

Platforms have been defined in different ways: Choudary[1] defines Platforms as *"business models that allow multiple sides (producers and consumers) to interact [...] by providing an infrastructure that connects them"* while John Hagel[2] states that Platforms are made of: *"**a governance structure** [...] that determines who can*

[1] *The New Rules of Business in a Networked World*. (2016). [online] Platform Thinking Blog. Available at: http://platformed.info/ Last accessed 18/09/2016 19:41

[2] Hagel, J. (2015) *The power of platforms*. Part of the Business Trends series. [online] Deloitte University Press. Available at: http://dupress.com/articles/platform-strategy-new-level-business-trends Last accessed: 15/09/2016 15:51

participate, what roles they might play, how they might interact and how disputes get resolved" and a *"**set of protocols or standards** [...] to facilitate connection, coordination, and collaboration"*. The recent Global Survey on The Rise of the Platform Enterprise defines platform business as ***"medium which lets others connect to it"***[3].

Co-Platforms cannot escape the overall contextualization and role of Platforms since this is dictated not only by design choices and needs but also, and more importantly, by a set of changes in digital technologies that enabled new modes of production. The *peer-to-peer* (P2P)[4] mode of production, mediated by a centralized - or even distributed - *platform-business* is indeed enabled by at least two fundamental technological changes:

- A decreasing coordination and transaction cost
- The digitalization of the means of production

Such changes made the networked mode of production essentially more capable to produce sound results in terms of business sustainability, performance and value produced.

In parallel to this technology shift, the emergence of new paths of service consumption generated a shift in user/customer's expectations: these expectations are **growing towards implying superior and delightful experiences**: *"customer experience is an essential dimension of how a company competes"* according to Joseph Pine[5]

Therefore, given that Co-Platforms compete on the same market as any other - including corporate, venture backed platforms - they cannot escape from the rules dictated by the competition for the user.

A framework to understand four key traits of modern services has been proposed by Simone Cicero[6] during the **Barcelona Rethink Remix Experience**[7] and is reported for reference:

[3] *The Emerging Platform Economy | The Center for Global Enterprise*. (2016). [online] Thecge.net. Available at: http://thecge.net/category/research/the-emerging-platform-economy Last accessed: 15/09/2016 15:53

[4] Peer-to-peer (P2P) computing or networking is a distributed application architecture that partitions tasks or work loads between peers. Peers are equally privileged, equipotent participants in the application. They are said to form a peer-to-peer network of nodes (peers) that share resources among each other without the use of a centralized administrative system.

[5] Advancing the customer experience (2015). [online] Harvard Business Review analytics report. Available at: http://blogs.zebra.com/hbr Last accessed: 15/09/2016 15:57

[6] Cicero S. (2015). *That's Cognitive Capitalism, Baby*. [online] Medium. Available at: https://medium.com/@meedabyte/that-s-cognitive-capitalism-baby-ee82d1966c72#.snj24hdhb Last accessed: 17/09/2016 21:43

[7] http://bcn.ouisharefest.com/2015/rethinkremix/#about

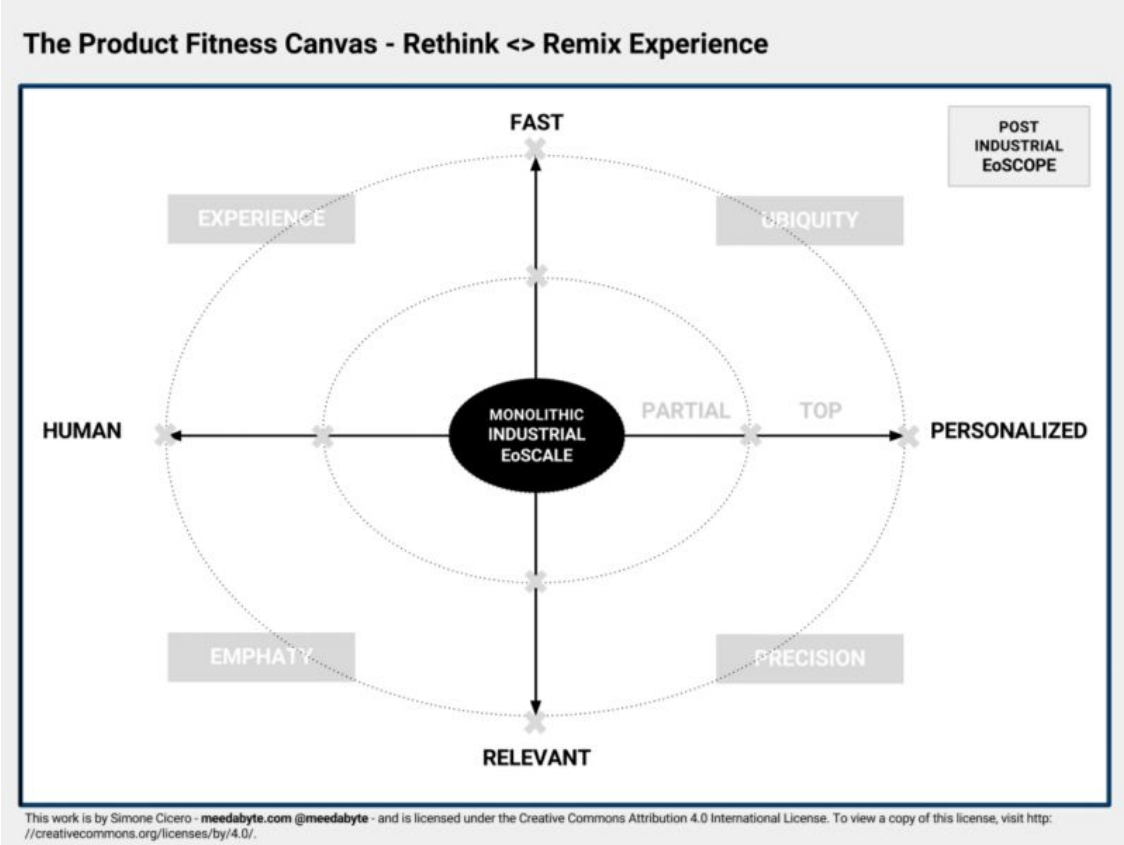


Figure 1 - The Product Fitness Canvas. Presented at The Rethink Remix Experience in Milan and Barcelona in Nov. 2015

Fast: instantly searchable, identifiable and accessible.	**Personalized**: enabling us to directly intervene in creating custom solutions, perfect for our needs.
Relevant: fulfilling our needs contextually when they occur, in a relevant and precise manner without needing our intervention.	**Human**: relating with us in a friendly, interpretable, understandable, accessible, sensible manner, interacting with us as human beings.

Table 1 - The four key traits of modern services

1.2 Existing framings related with the concept of COP

Beyond the perspective of the user, platforms have been indagated from the perspective of other stakeholders such as prosumers-workers (or citizen producers), society stakeholders - such as municipalities, associations and more - in a tentative to define **how platform business could be used as a *force for good*** instead of engines of social friction generating problems such as marginalization, gentrifications and more.

A set of existing framing proposals related with the COP scope exists and are presented to better define the context of interest and identify the “layers” that are subject to design and incubation process.

In a widely discussed paper "***Platform Cooperativism*** - *Challenging the Corporate Sharing Economy*" Trebor Scholz introduced 10 principles that should differentiate Platform Cooperatives[8] from ordinary Corporate Platforms.
Marina Gorbis and David Fidler from Institute For The Future[9] also spoke about so called *positive platforms* as *"platforms that not only maximize profits for their owners but also provide dignified and sustainable livelihoods for those who work on them, plus enrich society as a whole"* and identified 8 key criteria.

The 8 principles for positive platforms according to M. Gorbis and D. Fidler	**The 10 principles of platform co-ops according to T. Scholz**
1. Earnings maximization Minimum wages - sets of wages 2. Work Stability and wage predictability 3. Transparency and ownerships of algorithms and data 4. Portability of products and reputations - reputation - product/data 5. Upskilling - show pathways for learning 6. Social Connectedness - build relationships - advocate for shared rights 7. Bias Elimination - gender - class - non discrimination 8. Feedback mechanisms - workers - customers	1. Ownership 2. Decent Pay and Income Security 3. Transparency and Data Portability 4. Appreciation and Acknowledgement 5. Co-determined Work 6. A Protective Legal Framework 7. Portable Worker Protections and Benefits 8. Protection Against Arbitrary Behavior 9. Rejection of Excessive Workplace Surveillance 10. The Right to Log Off

Table 2 - The leading Principles of Positive Platforms and Platform co-ops

Another interesting framing on this topic has been defined within the paper "*Procomuns statement and policies for Commons Collaborative Economies at European level*"[10] (released by Procomuns[11] in May 2016 in its version 3.0) that aims to give an overview of the *commons collaborative economy* context and to define public policies that could help to promote it.
The document is the result of a co-creation process which happened within the **procomuns.net conference** (March 2016 Barcelona)[12] and has been facilitated by BarCola[13] (working group about collaborative economy and commons production in Barcelona) and the Dimmons[14] research group, with support from P2Pvalue[15]. Experts, citizens and sector representatives worked together on a series of proposals and

[8] Scholz, T. (2016). *Platform Cooperativism - Challenging the Corporate Sharing Economy*. [online] Rosa Luxemburg Stiftung, New York Office. Available at: http://www.rosalux-nyc.org/wp-content/files_mf/scholz_platformcoop_5.9.2016.pdf Last accessed: 15/09/2016 16:09
[9] Gorbis, M. Fidler, D. (2016). *Design It Like Our Livelihoods Depend on It: 8 Principles for creating on-demand platforms for better work futures*. [online] Medium. Available at: https://medium.com/the-wtf-economy/design-it-like-our-livelihoods-depend-on-it-e1b6388eb752#.i0scqjyab Last accessed: 15/09/2016 16:13
[10] Fuster Morell, M. (2016). *Policies for Commons Collaborative Economies at the European level*. Procomuns. Available at: http://procomuns.net/en/policy/ Last accessed: 12/10/2016 18:13
[11] Mayo Fuster Morell and Enric Senabre within Procomuns are the commissioners of this report and facilitators of the research process.
[12] http://procomuns.net/en/
[13] http://procomuns.net/en/about-2/barcola/
[14] http://dimmons.net/
[15] https://p2pvalue.eu/

policy recommendations to foster the collaborative commons economy and the resulting measures have been sent to the Barcelona City Council[16] as a proposal for a concrete action plan.

The proposed recommendations have a specific focus on:

1. Improving regulations
2. Promoting incubation for new projects and initiatives in the collaborative commons economy
3. Promoting existing formulas or enhancing new ones to finance commons initiatives
4. Adopting or reassigning the use of spaces and other public infrastructures for this sector
5. Change of internal administrative operations on some fronts linked to commons
6. Combat malpractice and corruption in government policy in the field of technology and knowledge
7. Assistance in the promotion of cities and neighbourhoods to bring their economies and other related sectors closer
8. Expand city brands in terms of the external visibility of local initiatives
9. Making sure investments in major technological events contribute to promoting local commons
10. Encourage and support the research and understanding of this phenomenon in order to move forward
11. Education and digital gap: measures to fight against the digital and learning gap

According to the research, **Commons-based peer production** (see the resume definition in the table below) happens:

> "*among communities who work for mutual and collective benefit under the principles of participation and shared governance, resulting in collective property or open access resources and services*"[17].

This kind of production that was vastly diffused in pre-capitalist societies is now, mostly thanks to the internet, gaining new popularity over time, and by means of new technologies and frameworks it is nowadays easier to promote and scale - despite still struggling to find highly replicable sustainable models.

Commons	Goods which are *jointly developed and maintained by a community* and *shared according to community-defined rules.*
Peer production	People *cooperate voluntarily* on an *equal footing (as peers)* in order to reach a *common goal.*
Commons-based peer production	*Peer production* which is *based upon commons* and which *creates new commons* or *maintains* and fosters *the existing ones.*

Table 3 - Definition of Commons-based Peer Production.[18]

> "***The collaborative commons economy*** *is a model and trend, which can renew and reformulate the necessary policies to promote entrepreneurship and innovation as the engines of Europe while encouraging changes to its functioning mode as a key agent, as well as promoting its regions - as global leaders - to the outside world.*

[16] the Declaration has also been sent to other local authorities and to the Government of Catalonia and, in its English version, to EU Commission plus several General Directorates that are working on the regulation of the collaborative economy.

[17] *Procomuns statement and policies for Commons Collaborative Economies at European level*. (2016). [online] Available at: http://procomuns.net/wp-content/uploads/2016/05/CommonsDeclarationPolicies_eng_v03.pdf Last accessed: 15/09/2016 16:24

[18] Extracted from: http://keimform.de/2010/self-organized-plenty

Experiences in key cities - in the field of economy or the concept of collaborative commons -, such as Bologna, Bristol, Seoul, Barcelona or Quito can be examples to follow."[19]

"*Collaborative commons assures a more democratic economic organization, control over means of production and public access to resources.*"

In the collaborative commons economy, projects - rather than exclusive features or a unique formula - usually have a combination of the four following elements:

- **Collaborative production** based on a platform model
- **P2P or peer relations**: encouraging co-creation in the context of an interactive community of users fostering egalitarian relationships, empowerment and autonomous and / or decentralized participation.
- **Common resources:** open knowledge through the use of open licenses (such as Creative Commons licenses)
- **Systemic added value**: the results of collaborative commons economy projects can combine economic value with a positive social impact

In the following schema we try to compare and cluster the guiding principles from the works presented in this chapter, and try to isolate recurring and unique aspects:

	Extract from the "Procomuns statement and policies for Commons Collaborative Economies at European level"[20]	**Extract from the principles for positive platforms according to M. Gorbis and D. Fidler**	**Extract from the principles of platform co-ops according to T. Scholz**
A. Mode of Production	Collaborative mode of Production: > collaborative P2P production > supported by and / or developed on digital platforms	Collaborative mode of Production: > collaborative P2P production > supported by and / or developed on digital platforms	Collaborative mode of Production: > collaborative P2P production > supported by and / or developed on digital platforms

[19] *Procomuns statement and policies for Commons Collaborative Economies at European level*. (2016). [online] Available at: http://procomuns.net/wp-content/uploads/2016/05/CommonsDeclarationPolicies_eng_v03.pdf Last accessed: 15/09/2016 16:24

[20] Fuster Morell, M. (2016) Guidelines for inclusion criteria of collaborative economy enterprises for a procomuns incubator: Insights from P2Pvalue project and Procomuns. Working document. Department Other economies. Barcelona Activa.

B. Key Design Choices	Not mentioned	> Design choices linked to earnings to optimize opportunities for those working on the platform to increase their income streams. > Platform Design which enables and fosters communities.	Co-determined Work → Co-design: Labor platforms should involve workers from the moment of the programming of the platform and along their usage of it. This way, too, operators will learn much more about the workflow of workers.
C. Platform Ownership	Kind of economy in line with company procedures related to the cooperative, social and solidarity economy, such as cooperative tradition and the third sector	Not mentioned	Collectively owned platform cooperatives (owned by the people who generate most of the value on those platforms)
D. Governance	Governance procedures to ensure the control of value generated by users and community members.	Not mentioned	Not mentioned
E. Labor protection, worker support and worker rights	Including principles of equality and justice in the development and distribution of work, focusing on the welfare of people in the governance of the community	> Possibility for workers to sets their own wages > Work Stability and wage predictability > Social Connectedness to build relationships and to advocate for shared rights > Transparency and ownerships of archived data - so that those working on platforms understand how their personal data is being used > Upskilling - show pathways for learning > Feedback mechanisms - Platforms need to establish feedback mechanisms and equivalents of	> A Protective Legal Framework > Decent Pay and Income Security > Portable Worker Protections and Benefits: both contingent as well as traditional economy workers should be able to take benefits and social protections with them. > The Right to Log Off: platform cooperatives need to leave time for relaxation, lifelong learning and voluntary political work. > Appreciation and Acknowledgement > Rejection of Excessive Workplace Surveillance > Protection Against Arbitrary Behavior

		customer support services for those working on them > Build mechanisms for minimizing or compensating workers for ensuing volatility due to platform experimentation	
F. Mission	> Seeking to provide a service or resource that is economically sustainable > Accounting value beyond the strictly monetary one	Platforms that not only maximize profits for their owners but also provide dignified and sustainable livelihoods for those who work on them, plus enrich society as a whole.	Not mentioned
G. Environmental Sustainability	Attentive and responsible for externalities generated, both in terms of environmental and social reproduction	Not mentioned	Not mentioned
H. Technology	> Favoring the transparency, participation and freedom of citizens, taxpayers and users > Based on free software, open standards and decentralized architectures	> Transparency and ownerships of algorithms - so that workers understand how to increase their earnings > Transparency and ownerships of archived data - so that those working on platforms understand how their personal data is being used	Not mentioned

I. Openness; Data and Knowledge ownership	> Open knowledge through the use of open licenses (such as Creative Commons licenses) that allow the freedom to use and study the work, to make and redistribute copies of it - or part of it - and to make changes and improvements and to distribute derivative works > Seeking to promote access and reclaim the resources generated through public or collective ownership	> Transparency and ownerships of algorithms & data > Portability of products of the work and reputations histories - Platform reputations are often directly tied to earnings as well as opportunities for various types of work	Transparency & Data Portability - transparency on the handling of data, especially the data on customers (transparency on which data are harvested, how they are collected, how they are used, and to whom they are sold)
L. Accessibility	Non discrimination: unbiased in terms of gender and other diversities, minorities	> Bias Elimination - non discrimination > Need to evolve rules and principles for non-discriminatory hiring, promotion, and so forth into the platform environments	Not mentioned

Table 4 - Clusterization of the guiding principles for COPs

For the scope of the present report we will therefore aim our research towards the following key aspects, related to the recurring "layers" of positively impacting COPs:

- The Design of COPs (mostly in relation with points A, B, E, F, L)
- Financing and Incubating COPs (mostly in relation with points C,D, E)

2. Tools for COPs Design

When identifying the history and availability of design tools that can be used to approach the design of COPs we encounter a continuous evolution that connects many historic fields of design. **Platform Design** can be considered an evolution of **Service Design** that, in turn, is connected with **User Experience Design** and **Interaction Design**.

A first systematization in a framework of the most used and documented **Service Design Tools** dates back to 2008 the work of graduating researcher Roberta Tassi - at Milan's POLIMI, a worldwide renowned center of research in the topic - with the release of the website http://www.servicedesigntools.org/ that includes description and use cases for the adoption - in the process of service design - of historically used tools that facilitate the co-design of services with users and adopters.
The activities at POLIMI, by the way, around design of **collaborative** services, dates several years back. The first formalization of patterns and tools in the area related with the repert topic can be probably seen with the release of the book by Ezio Manzini and Francois Jegou called ***"Collaborative Services"***[21] . The book presents "*the scenario of collaborative services with a range of solution examples, design guidelines and conceptual background on how design could support social innovations promising in terms of sustainable development*"[22].

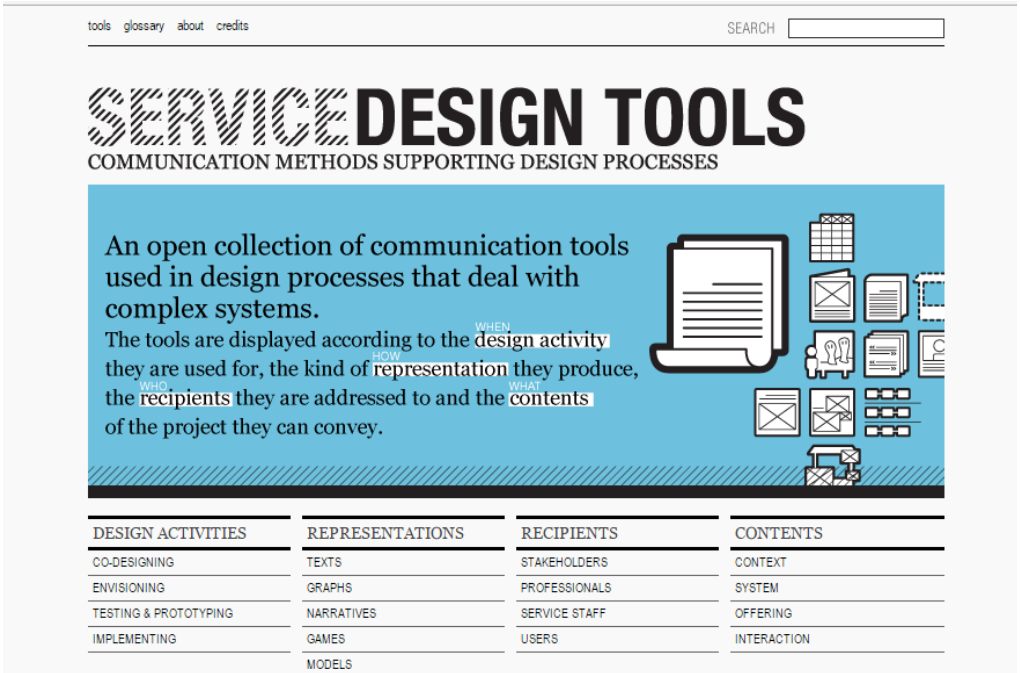


Figure 2 - The Service Design Tools Website

[21] Manzini, E. Jegou, F. (2008). *Collaborative Services.* [online] Available at: http://www.strategicdesignscenarios.net/collaborative-services-book/ Last accessed 15/09/2016 17:13
[22] http://www.sustainable-everyday-project.net/blog/tag/emude/

After and in parallel to the release of the Service Design Tools library/website, the worldwide community of service design also produced a few other framework/library projects that we think are worth mentioning:

Tools	Reference	Description
SERVICE DESIGN TOOLS	http://www.servicedesigntools.org/	Service Design Tools is a repository of tools, methodologies and case studies, related among each other that designers can use when approaching complex systems design
SERVICE DESIGN TOOLKIT	http://www.servicedesigntoolkit.org/	Service Design Toolkit is the outcome of a partnership between Namahn and Design Flanders, is released in Creative Commons and consists of a collection of 16 self-explaining canvases for service co-design.[23]
THIS IS SERVICE DESIGN THINKING	http://www.tisdt.com/	TISSDT is a reference book/methodology of service design. The outlines a contemporary approach for service innovation, introducing a new way of thinking services for beginners and professionals. It explains the approach, its background, process, methods and tools and connects theory to contemporary case studies. Created by a set of 23 international authors guides readers through applying user-centered and co-creative approach to service design. Templates are also available for download in CC.
IDEO DESIGN KIT	http://www.designkit.org/	IDEO DESIGN KIT is a well explained and easy to adopt, set of tools and methods[24] for the design of product and services in Human Centered fashion.It relates with the field of service design and user experience design. A number of learning courses is also available on Design Kit.
DIY TOOLKIT	http://diytoolkit.org	DIY TOOLKIT (Development Impact & You) provides several design tools to support development practitioners and social innovators in developing, implementing, and scaling innovation within their organizational context. It is an initiative of Nesta and Rockefeller Foundation, designed by STBY and Quicksand, licensed under the Creative Commons.

Table 6 - A recap of some of the most used and accessible Service Design / Human Centered Design frameworks

[23] http://www.servicedesigntoolkit.org/downloads.html
[24] http://www.designkit.org/methods

2.1 Extension of Service Design into Collaborative (P2P) Service Design and Commons Based Peer Production / Collaborative Commons

In the following years the research at POLIMI looking at the convergence between service design, strategic design and sustainable development and social innovation was fueled by the birth of **Desis-Network** project ("*a nonprofit and cultural association, with the purpose to promote design for social innovation in higher education institutions with design discipline so as to generate useful design knowledge and to create meaningful social changes in collaboration with other stakeholders*"[25]).

In the frame of the activities of Desis-Network and in general the activities of Polimi DESIS Lab continued in the following years by accelerating the shift of research from service design to **"collaborative" service design**. As a result of these shift and centered around researcher Daniela Selloni, Polimi DESIS lab produced a published paper "*New services models and new service places in times of crisis - How citizens' activism is changing the way we design services*"[26] and a still unpublished Ph.D Thesis called "DESIGNING FOR PUBLIC-INTEREST SERVICES". The work in question produced a relevant number of **tools for the design** of, public interest, collaborative service for social innovation and sustainability that will be released in a book in 2017 for Springer (Title is "*Co-Design for public interest Services*").

In the frame of the EU project Transition "*a 30-month project that supports the scaling-up of social innovations across Europe by developing a network of incubators*"[27], POLIMI DESIS Lab acted as a Scaling Lab and also developed a version of the body of tools, focused on incubation: the booklet is planned to be released in September 2016.

2.2 References of advanced exploration in the design of relationships: the strength of social ties

The history of studies and research on relations and social ties dates back to the roots of philosophy and sociology, and they had been particularly revamped in the last decades in relation to the emergence of an hyper-connected digital world. The relevance of this topic in relation to the design of positively impacting platform and collaborative organizations, has been already explored in depth by Ezio Manzini and his team in the book "*Design, When Everybody Designs*"[28].

Each individual entering in relationship with others, establishes ties. Ties may be different in their strength. The **strength and weakness of social ties** may determine for example the closure or openness of an organization toward those who are not part of the group. Such aspects are extremely relevant in the way people interact within the structured interfaces, semiotics and contexts provided by digital platforms, and

[25] http://www.desis-network.org/about/
[26] Selloni, D. (2014). *New services models and new service places in times of crisis - How citizens' activism is changing the way we design services.* [online] Available at: http://www.microsuper.it/wordpress/wp-content/uploads/2014/05/NewServiceModels-Selloni.pdf Last accessed 16/09/2016 03:28
[27] http://transitionproject.eu/
[28] Manzini, E. (2015). Design, When Everybody Designs: An Introduction to Design for Social Innovation. The MIT press.

thus revealing an important set of elements to consider when implementing the design of a platform that allow for the encounter and interaction between multiple parties that aim at collaboratively coordinate their activities through platform means. As well, such aspects are relevant in the framework of the culture, rituals and habits that characterize organisations and collectives that are not per se platforms but that are still in a certain way as such.

Mark Granovetter, an American sociologist and professor at Stanford University, proposed in 1973 a theory of the strength (and weakness) of social ties.

> *"The strength of the tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services that characterize the tie."* [29]

In the table below, you can observe and compare some of the features of the weak and strong ties in organizations:

Strong ties	**Weak ties**
> Require long time to build > Require more time and personal commitment > Information is self-contained and experiences are not exchanged > Organizations fail to evolve	> Can be established more rapidly > Require less time and personal commitment > Make the social system more open and able to communicate > Fosters evolution into organizations

Table 7 - Features of ties in organizations

> *"Given a collaborative organization, by definition every intervention seeking to make the interactions between the people more simple, flexible, and open entails a weakening of its social ties, and therefore of the wider social fabric that it contributes to producing.* [...] *Collaborative organizations as they appear today are characterized by a variety of social ties of all strengths, ranging from the strongest to the weakest. The character of this ties partly arises from the very nature of the issue that the organization is dealing with (clearly, it is more likely that stable, long-lasting interactions will be established in a cohousing unit or a neighborhood association than in the organization of an event). However this also depends on how the basic idea behind the organization evolves, moving from proposals in which it is essential to establish strong ties to ones in which there are various combination of strong and weak ties."* [30]

The weakness of ties may be a strength in terms of *accessibility* to a platform/network and therefore to establishing the relations in the first place; however, once onboard, the kind of ties may change depending on the case and the need. Here, the ***optionality***, should be another feature that impacts the type of relational commitment: leaving to one the choice of the strength of the tie and the kind of relation she's going to perform on a per time base, is essential to leave to people the freedom to design for their own life and establish the relations they need/can afford day by day.

Joon Sang Baek made a doctoral research at the Politecnico di Milano studying the effects of social media in collaborative organizations.
The results of his research showed that the high-tech, social-media-based organizations - hence platforms as we may define them - are mainly established on weak ties which lower the barriers to onboarding and

[29] Granovetter, M. S. (1973). *The Strength of Weak Ties*. American Journal of Sociology, Vol. 78: Iss. 6, pp. 1360-1380.
[30] Manzini, E. (2015). *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. The MIT press.

make the organizations more flexible and more capable of growing and replicating. In the meantime, however, such organizations tend to lose the capability to strengthen their overall social fabric in the long run.

According to this theoretical framework, whenever it's possible by design to implement interaction elements that allow the system to self-regulate finding the right, or maybe flexible, balance between strong and weak ties, the designers should prefer to set the conditions to leave people the choice to modulate the kind of tie/relation to establish.
In Blablacar, for example, you can decide whether to be more or less sociable by selecting a driver that features more or less "*blas"* (as an indication of her availability to build social ties):

> "[…] *the personal commitment called for by some forms of collaborative organizations based on strong ties is for many an insurmountable barrier: not everyone is interested and not everyone is always participating, or indeed able to participate, in activities that require entering a system of relationships that appears rigid and that often calls for long-term commitment.*
> *All this means that, while it is true that a healthy social fabric must include strong ties, this must not lead us to the simplistic equation by which, in order to foster the social fabric, we cultivate only the strong ties. What we must look for is an appropriate balance between strong and weak ties: an equilibrium that breaks with the tendency toward individualization typical of twentieth-century modernity but that does not propose a nostalgic return to the closed communities of the premodern past.*
> *The quest for an optimum mix of strong and weak social ties, and thus between more or less open organizations, is one of the central issues in determining and enabling solution, and therefore of what expert design can do in this field."*[31]

In parallel to the abovementioned works, we can take few key messages from **Carla Cipolla**'s research in her doctoral thesis at the Politecnico di Milano, which aimed to bring Martin Buber's reflections on ***relational intensity*** into the conversation of Service Design.
Assuming that in the relational services, the users bring not only operational actions but also personal involvement and relational capabilities, Cipolla reminds us that everyone's resources are not infinite and, during the whole life one must choose where to invest themselves. So, in liance with what we previously defined in relation to the strength of ties, Cipolla suggests that in collaborative organizations it would be helpful to increase the possibility to join "lightly" and for everyone to choose the level of involvement.

2.3 Specific Tools for Platform and Organization Design

As we've seen, platform and organization design are essentially evolutions of the application of design thinking to the increasing challenges of designing complex organizations, that leverage on a larger set of resources and competences and incubate different new processes compared to existing ones. In this section we will briefly present a selection of existing design tools that help venture designers to generate collaborative production models from an organization design and crafting perspective.

The Platform Design Toolkit

The Platform Design Toolkit (PDT) is a set of tools specifically designed for the platform design: the PDT has been presented in 2013 and evolved since then. The PDT helps venture designers face complex tasks and aspects related to platform powered collaborative production. Among many, the key aspects are:

- The identification of the relevant entities in the ecosystem

[31] Manzini, E. (2015). *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. The MIT press.

- The study and mapping of each entity's motivation to join the ecosystem and use the platform
- The identification of what channels and contexts are needed to empower the potential of value exchange
- The complementary services that may be provided by the venture to sustain the P2P exchange of value in ways that are consistent to the value proposition
- The complementary services that may be provided by the venture to sustain evolutionary paths of learning and performance improvements in the Ecosystem of participants

The first step for the platform design process is normally to map the ecosystem, to which the firms have access, using the ***Ecosystem Canvas***. The Platform Design Toolkit identifies **four key entity types**:

- *Platform owners* (that in the case of the COPs overlap with the peer producers);
- *Peers* (consumers and producers)
- *Partners*
- *Stakeholders*

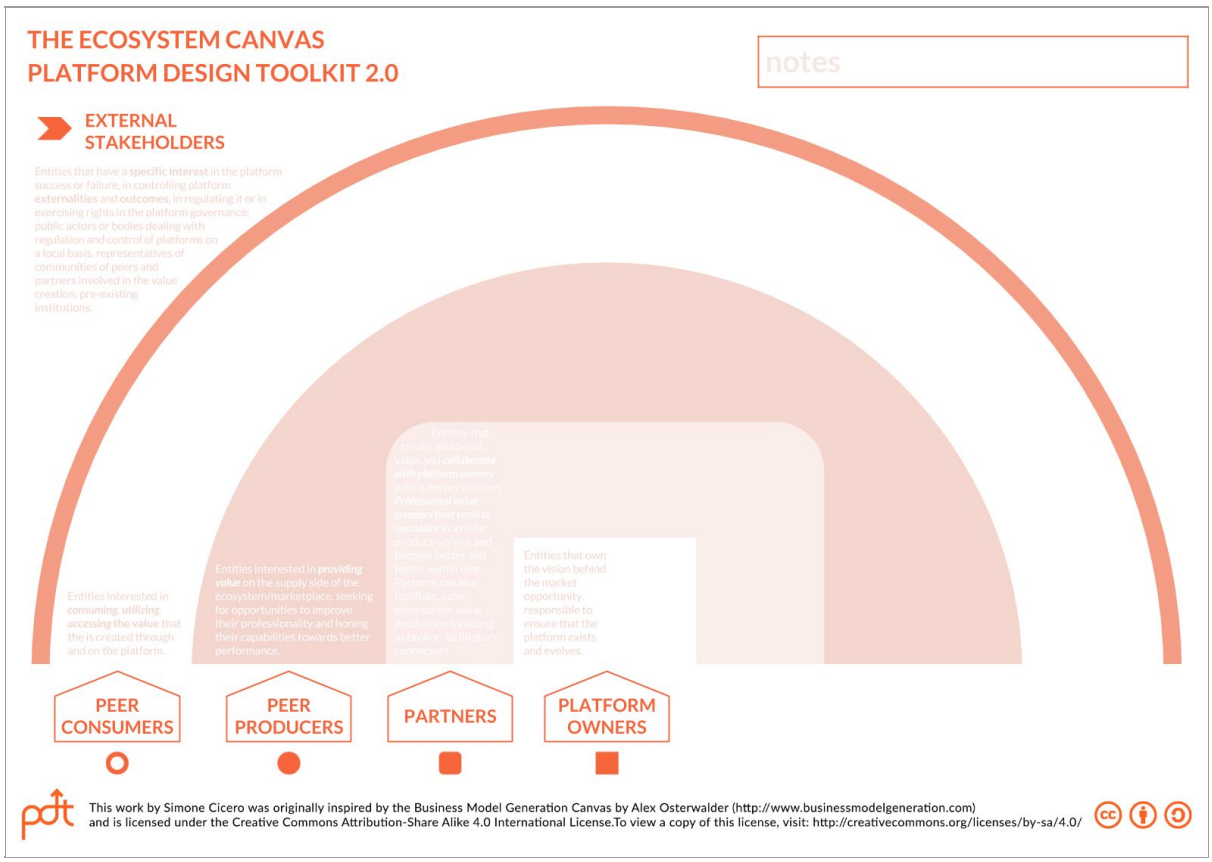


Figure 3 -The Ecosystem Canvas, part of Platform Design Toolkit 2.0 (DRAFT Open For Comments).

A further essential step moves into a deeper understanding of platform dynamics by analyzing the motivations that lead all the involved entities to engagement. This passage is designed and developed through the ***Motivational Matrix*** and it is very important in order to build a platform which is stitched on the emerging needs and not simply pushed out: the motivation matrix is an archetypal Service Design tool to witness the continuity between the two disciplines. It is on the emerging needs and motivations and through a deep study of the ecosystem that, one or more value propositions are identified and put in the core of the platform design using the ***Platform Design Canvas***.

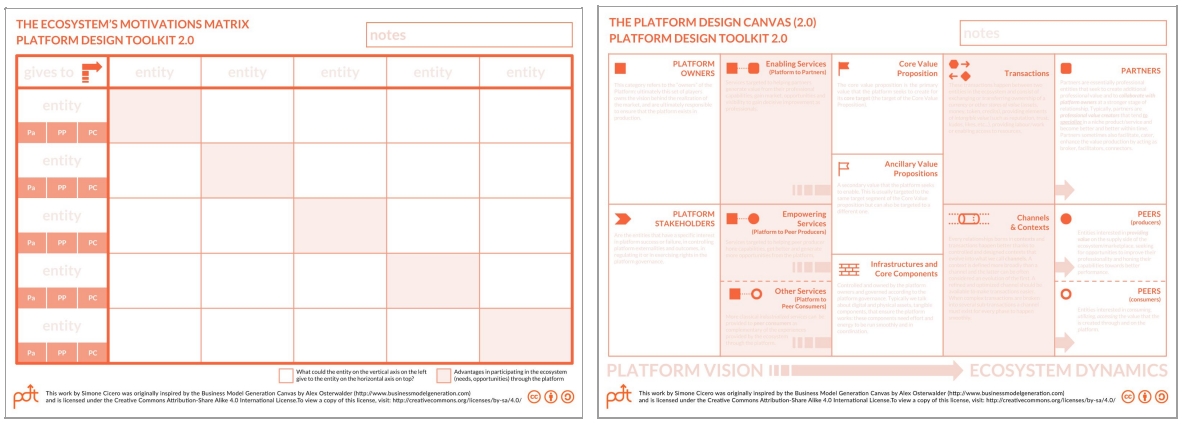


Figure 4 - 5 - The Ecosystem's Motivations matrix and the Platform Design Canvas, part of Platform Design Toolkit 2.0.

To help designers shaping one of the key aspects to build positively impacting and successful platform, that of **learning and upskilling**, the PDT offers a - still experimental - ***Experience Learning Canvas***[32] .

Learning can be seen as a key enabler of the transition across different phases of collaboration with the platform and of the experience of the itself: from the perspective of a peer-producer, peer-consumer or partner. A good design helps people learning and growing through the platform. Learning boosting practices may encourage participants to keep staying on such platforms increasing their resilience and value generation over time.

> *"Properly designed business platforms can help create and capture new economic value and scale the potential for learning across entire ecosystems."*[33]

[32]The Experience Learning Canvas and the new draft of the Platform Schema (see later in the document) had been presented In the last masterclass of the PDT (you can read more here) with the specific aim of designing for a positive platform according to M. Gorbis and E. Manzini's insights. See "Why Platforms need to be Engines of Learning." - Stories of Platform Design. (2016) for more information https://stories.platformdesigntoolkit.com/platforms-are-engines-of-learning-4f7b70249177#.yf4trs334

[33] "The power of platforms" - (Part of the Business Trends series) http://dupress.deloitte.com/dup-us-en/focus/business-trends/2015/platform-strategy-new-level-business-trends.html

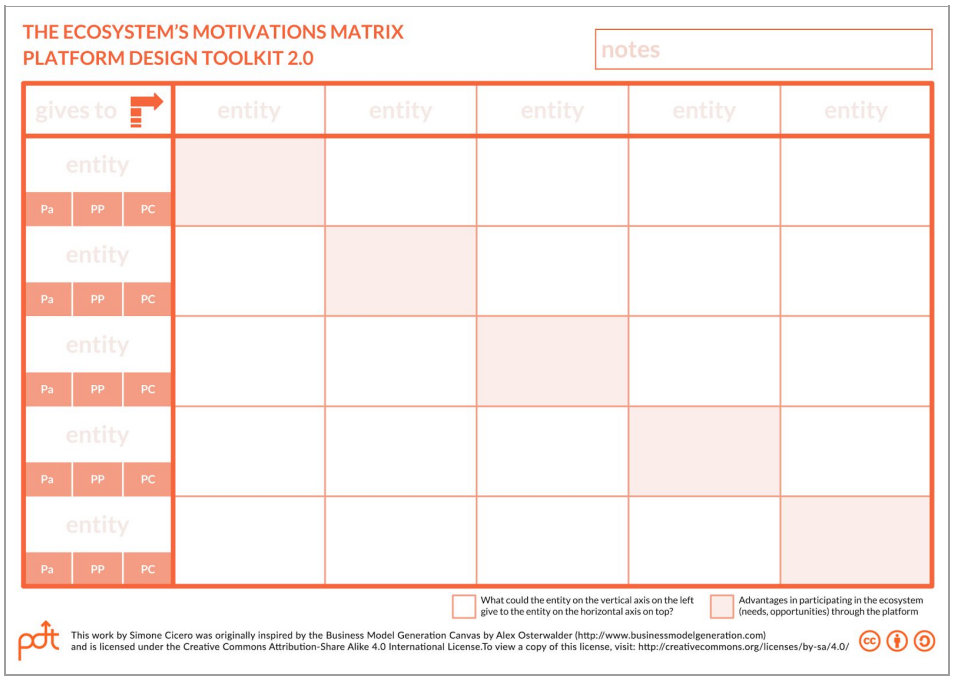


Figure 6 - The Experience Learning Canvas, part of Platform Design Toolkit 2.0 (DRAFT Open For Comments).

Regarding other key aspects of a positively impacting co-platforms such as governance, openness and accessibility through **data portability, portability of products and reputation** and more, the ***Platform Schema*** (one of the advanced Platform Design Toolkit canvases) can help as having specific sections that focus on governance activities and ownership. The following version of the *Platform Schema* is still unpublished but will be soon released on the PDT website where it is possible to download the whole toolkit[34].

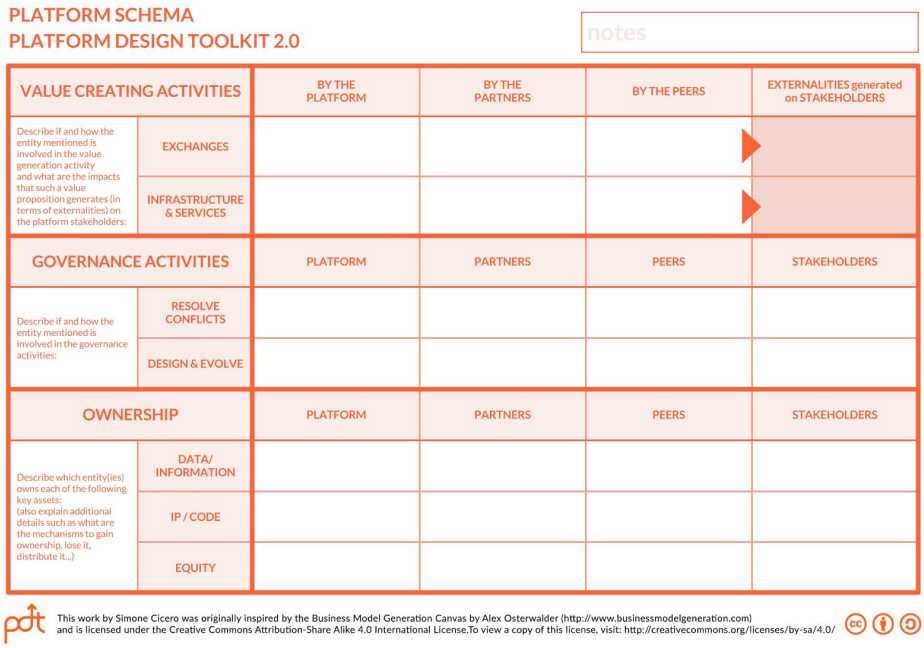


Figure 7 - The (Extended) Platform Schema, part of Platform Design Toolkit 2.0 (DRAFT Open For Comments).

[34] http://platformdesigntoolkit.com/toolkit/. Please contact hello@platformdesigntoolkit.com for early access to canvases.

The PDT is a design tool and it might also be used to innovate an existing business/service.
The underlying approach from which the PDT is developed, is based of the following assumptions:

- The need to respond to a lack of design tools for platforms considering the big shifts of the post-industrial era
- A work in consonance with *the pull strategy*[35]

The PDT is published in CC license and is available online[36], on a fully informative website[37], together with a guide to implementation.
Guidelines on how to use the Platform Design Toolkit are available.[38]

Other notable frameworks for Platform Design

As a result of the publication of several essays and two reference books on Platforms - *Platform Scale*[39] and *Platform Revolution*[40] - Sangeet P. Choudary also released two essential, partially self explaining canvases that resonate with his framing of Platforms that revolves around a foundational concept of the **Core Interaction** as composed by a **Value Unit** (the piece of information or more tangible asset exchanged among participants) and the **Filter** (the process or tool that helps the platform to deliver the right value unit to the right participants).

The Platform Canvas and **The Viral Canvas** are provided here but no substantial explanation on how to use them is available except for the contextually provided instruction. The licenses of the canvases is unclear though a download link can be provided.[41]

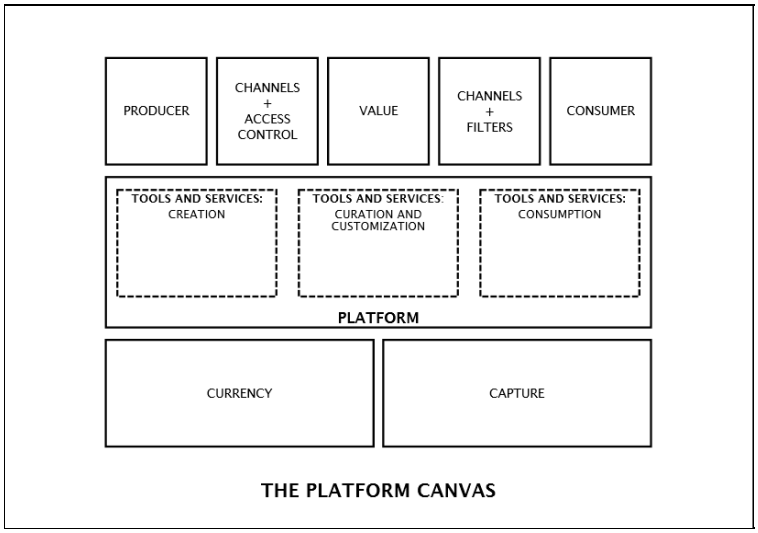


Figure 8 - The Platform Canvas from Sangeet P. Chaudary

[35] Hagel, J. Seely Brown, J. et. al. (2010). *The Power Of Pull*. [print] New York: Basic Books.
[36] http://platformdesigntoolkit.com/toolkit/#download
[37] http://platformdesigntoolkit.com
[38] https://meedabyte.com/2015/11/06/platform-design-toolkit-2-0-open-for-comments/
[39] http://www.goodreads.com/book/show/26765010-platform-scale?from_search=true
[40] http://www.goodreads.com/book/show/25622861-platform-revolution
[41] http://platformthinkinglabs.com/library/ - Downloads available after a social share http://www.paywithapost.de/pay?id=8c63b941-16a4-4db2-8352-d105fbd6b0ff

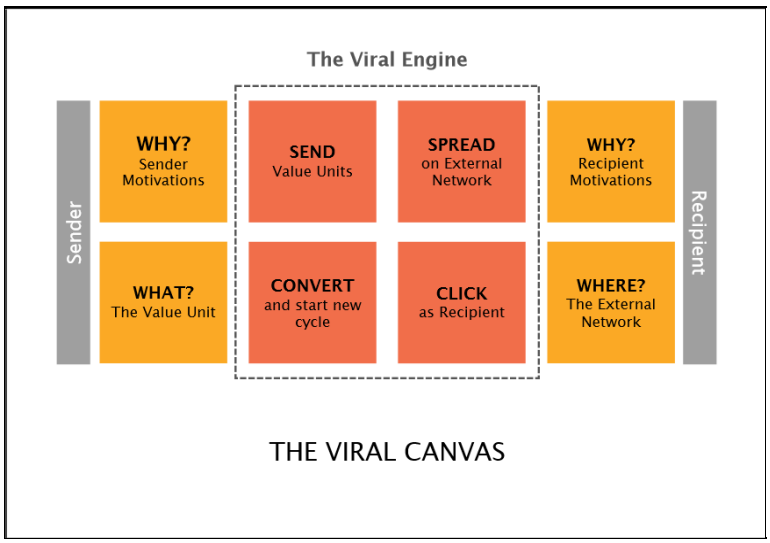


Figure 9 - The Viral Canvas from Sangeet P. Chaudary

2.4 Other tools that can be used in the COP Design Process

The organizational Operating System - The OS Canvas

OS Canvas[42], released by The Ready[43] with a *creative commons license*, is a design tool used to rebuild organizations. It starts from the concept that the "**Operating System**" (OS) - set of rules, beliefs, practices - that we're using today in our businesses hasn't been chosen whilst it has been inherited and in most of the cases it is an OS designed in the early XIX century by F. Taylor. There is, nowadays the need for companies to innovate and to be resilient and antifragile and it is possible to design and use an OS that is lean and agile, an OS in line with the times allowing to experiment new ways of working and new models of governance and ownership.

Finding inspiration in the *Business Model Canvas*[44] and after a deep study on the contemporary organizational theories and on several case studies (companies considered to be pioneers in new ways of working), the team, produced the **1.0 version of the OS Canvas** that you can see in the picture below.

Assuming that translating in a two-dimensional space such complex systems, can be a limit - and this reflection can come back useful in a wider framework talking about organizations and their ecosystem - we know that the elements grouped in different sections are actually in touch with the others, not separate from their environment and therefore they influence each other. To simplify, in the OS Canvas, the sections that are close together, are also the ones that have more influence on each other.

Briefly, answering to the questions

1. *What are our principles in this area? What should we prioritize in order to do this well?*
2. *What are our practices in this area? What do we actually do — how does this manifest in the present organization?*

[42] https://medium.com/the-ready/the-os-canvas-8253ac249f53#.moyfnnxo4
[43] http://theready.com/
[44] http://www.businessmodelgeneration.com/canvas/bmc

The OS Canvas helps the organization designer to analyze:

- Structure and Space
- Authority and Decisions
- Information and Communication
- Policy and Governance
- Purpose and Values
- Meetings, Rhythms and Coordination
- Strategy and Innovation
- Resource Allocation, Targets and Forecasts

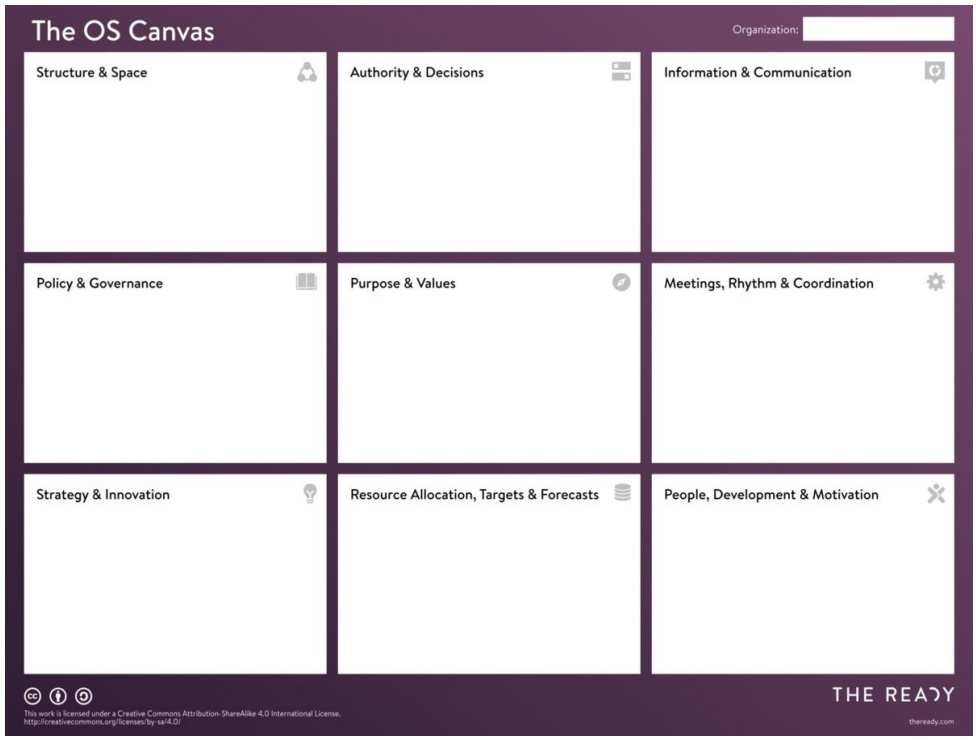


Figure 10 - The OS Canvas from The Ready

Creative Commons Toolkit for Business

Creative Commons launched the CC Toolkits Project[45] at the 2013 CC Global Summit in Buenos Aires in an attempt to help CC users that have commercial interests around their creative production. The main goal of the CC Toolkit for Business is, according to Creative Commons "*to allow companies to understand why the use of CC licenses can be an interesting instrument to consider in their business model*" and "*amplify the affordances of digital technology and provide an enhanced means for social production in the networked economy*"[46]. Even if the project appears to be now closed, before it's closure, it released a set of deliverables, the most important of them being the **CC Open Business Model Canvas**, still available in PDF [47] and in different formats, including guidelines and questions to help adopters fill it in[48].

[45] https://wiki.creativecommons.org/images/b/b8/Slideshow_CCToolkitsWorkshop_CCSummit_2013.pdf
[46] https://creativecommons.org/2015/11/13/creative-commons-toolkit-for-business/
[47] https://drive.google.com/drive/folders/0BwDMshYbDyf7WWczQ1REX01PYWM
[48] https://drive.google.com/open?id=0BwDMshYbDyf7WWczQ1REX01PYWM

3. Incubating COPs

Part of the purpose of this report is to explore what are the most successful strategies so far in incubating ventures that respond to most of the principles expressed in the introduction section.

Defining incubation is not an easy task and words such as incubation, acceleration and others overlap easily in the context of venture support.

3.1 General considerations

The most important source of financing for the social enterprise sector in the EU comes from the public spending which has had many cuts because of the economic crisis though it is more and more important to understand **how to effectively scale successful projects** that have proven their economic and social impact and sustainability.
Despite the growing call for measures to enable social entrepreneurship on a broad scale and the increasing of political support for the topic, there is still a lack of knowledge about the actual activities and resources required for incubating and sustaining social ventures.

One of the main challenges in starting a European policy to support the social enterprise sector consists in its heterogeneity. Observing and studying the differences and peculiarities among various realities and study cases may lead to a better understanding of the context and the state of social entrepreneurship across Europe.

The **BENISI project**[49], funded by the European Commission through the Framework Programme 7[50], mapped the social innovation ecosystem in Europe with the purpose of building a network of incubators and actors capable of delivering support and supporting social enterprises in the processes of scaling.
Based on data collected in the BENISI program, the paper "*Scaling Social Innovation in Europe: An Overview of Social Enterprise Readiness*"[51], edited by Lucian Gramescu, assess the state of integration of the social enterprise sector in the EU "*seeking to test whether social enterprise sector is uniform enough across Europe to provide the foundation for a common policy or significantly fragmented, requiring adaptation and customization of support.*"
The study deeps into the relations between the age of social enterprises, financial success, size of teams and strategies to scale.
As a result of the research: "*while there is no statistical correlation between Location and Scaling Trajectory, practice shows that immature social enterprises need to focus more on capacity development and be patient with themselves before engaging in more aggressive scaling. It may well be that increasing key capabilities – such as trading internationally from the home base – may open new opportunities and resources for increasing impact.*"

[49] BENISI: Building a European Network of Incubators for Social innovation http://www.benisi.eu/
[50] https://ec.europa.eu/research/fp7/index_en.cfm
[51] Gramescu, L. (2016). *Scaling Social Innovation in Europe: An Overview of Social Enterprise Readiness.* [online] Available at: http://www.sciencedirect.com/science/article/pii/S1877042816301823 Last accessed: 07/09/2016 15:02

According to Weber, Kroger and Lambrich[52] social enterprises seeking to scale, need a managerial approach of scaling with an emphasis on the following aspects:

- ownership of the individuals driving the scaling process
- professional management of the scaling process
- entire or partial replicability of the operational model
- ability to meet social demands
- ability to obtain necessary resources
- potential effectiveness of scaling social impact with others
- adaptability
- types of scaling strategies

The challenge is in translating this theoretical framework into actions and results and, in this contest, it is fundamental to assess if the social enterprise we're looking at, seeks to scale and is ready for scaling.

Another interesting research on the topic has been conducted by Impact Hub[53], in collaboration with the WU Vienna University of Economics and Business, that in the 9th ISTR Asia Pacific Regional Conference[54], presented the paper "*What does it take to support a change maker? – The effects of organizational maturity, business model and mission orientation on the support needs of social entrepreneurs*"[55].

The research was conducted through an explorative quantitative survey with 1901 social entrepreneurs in 39 cities on four continents with the aim of identifying the most relevant needs for external support of social entrepreneurs and to test whether organizational stage, income model and mission-orientation have an effect on perceived needs for support.

The research questions were the following:

(1) What are the support needs of social entrepreneurs?
(2) How are these support needs influenced by the organizational maturity and the way value is created by the organization?

To cluster the research findings, it has been used and adapted Gartner's conceptual framework of variables in new venture creation[56] where *"individual" encompasses the personal support needs; "organization" indicates the support needs in building the organization; "process" includes the support needs for running the intended activities and "environment" refers to contextual support needs within the sector.*

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[52] Lambrich, K. Kroger, A. et.al. (2012). "*Scaling social enterprises - theoretically grounded framework*". Frontiers of Entrepreneurship Research: Vol. 32: Iss. 19, Article 3. Available at: http://digitalknowledge.babson.edu/fer/vol32/iss19/3 Last accessed: 14/09/2016 13:45

[53] https://www.impacthub.net/

[54] ISTR: International Society for Third-Sector Research. The 9th ISTR Asia Pacific Regional Conference named "*Exploring Frontiers of Civil Society, Social Capital and Social Enterprises*" took place on the 27th-28th of August 2015 at the College of Law at Nihon University, Tokyo, Japan. http://www.istr.org/event/AP2015

[55] Vandor, P. et. al. (2015). *What does it take to support a change maker? – The effects of organizational maturity, business model and mission orientation on the support needs of social entrepreneurs.* [online] Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2673077 Last accessed: 19/09/2016 08:26

[56] Gartner, W. B. (1985). *A Conceptual Framework for Describing the Phenomenon of New Venture Creation.* Source: The Academy of Management Review, Vol. 10, No. 4, pp. 696-706 Published by: Academy of Management. Available at: http://www.elitaschillaci.it/Didattica/Gartner.pdf Last accessed: 07/09/2016 14:48

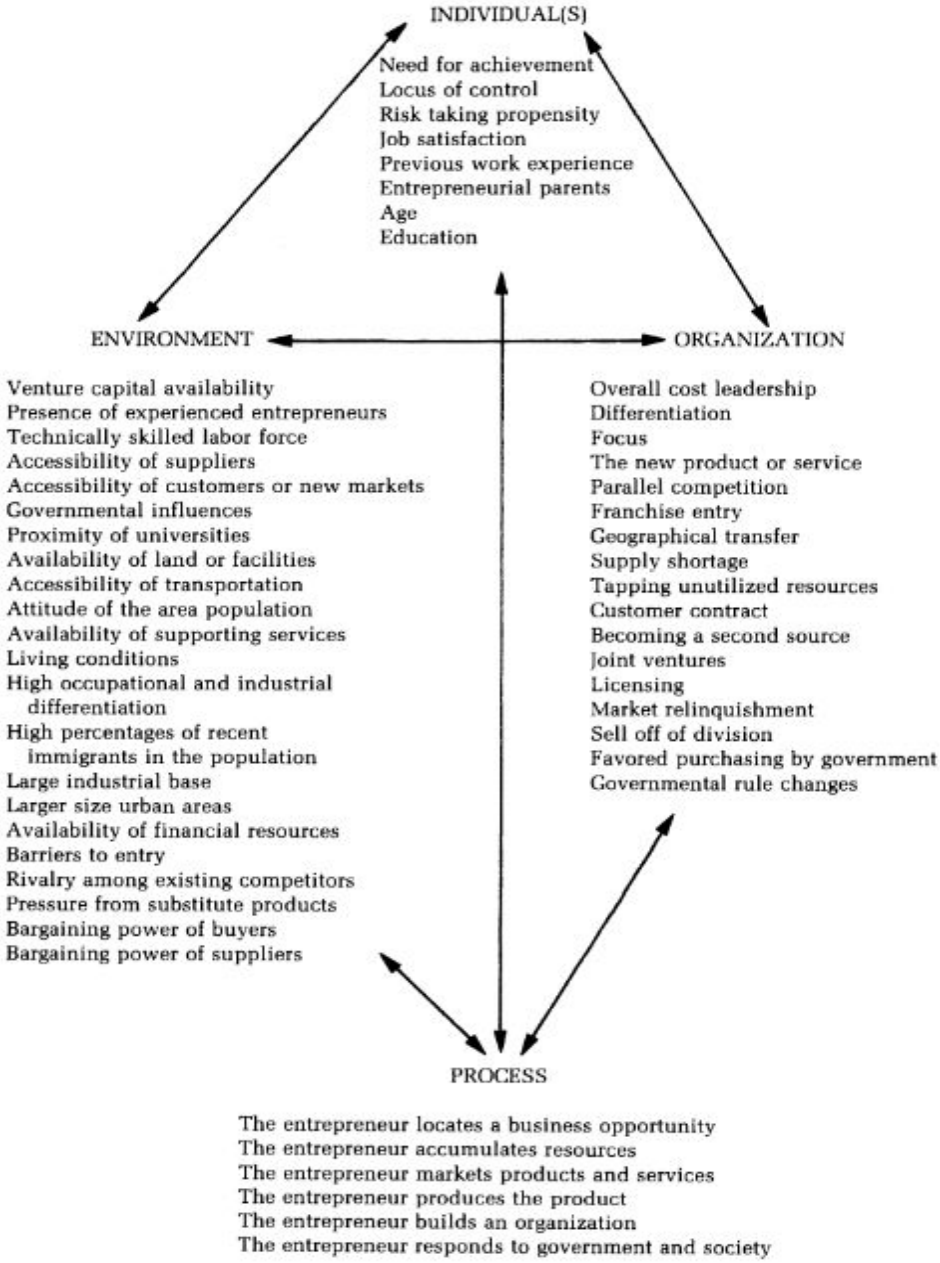


Figure 11 - Variables in new venture creation. Image extracted from "A Conceptual Framework for Describing the Phenomenon of New Venture Creation"

In line with Gartner's postulation, the development of a social enterprise, can be supported by providing specific support profiles for each phase that distinguishes it (see the schema below).

Phases in the development of a social enterprise
(1) **Intention Formation**: the formation of entrepreneurial intent. (2) **Idea Development**: deciding on an idea and developing its concept and business plan. (3) **Start-up Initiative**: starting first activities and building the structures around it.

(4) **Running Operations**: having regular activities and running an established organization. (5) **Impact Scaling**: actively expanding to new regions or fields to grow in size and impact.

Table 8 - Phases in the development of a social enterprise, from the already cited: "What does it take to support a change maker? – The effects of organizational maturity, business model and mission orientation on the support needs of social entrepreneurs"

As described in the paper, "*the earlier stages of an organization are typically associated with higher support needs*" whilst, "*larger organizations may be better in articulating, searching and absorbing external support as they have more experience with their own strengths and weaknesses, more organizational slack and higher absorptive capacity for external impulses than nascent or new enterprises*".

As result of the study, only 3 out of 1901 participants indicate a total absence of support needs whilst, the majority expressed a **strong need for support and external assistance** especially in areas such as idea idea generation, gaining visibility on the marketplace, being part of a larger network of peers, or recruiting new talent.
In Figure 12 it is possible to see the eighteen support areas activities that have been identified.

Support Need	N	Mean	Mode	Median	Standard Error
A. Come up with new ideas and initiatives	1901	2.66	3	3	0.013
B. Learn about new issues and topics	1901	2.64	3	3	0.013
C. Strengthening your personal motivation	1901	2.67	3	3	0.013
D. Start an own project or venture	1901	2.29	3	3	0.018
E. Access new clients or beneficiaries	1901	2.57	3	3	0.015
F. Develop skills and capacities	1901	2.60	3	3	0.014
G. Gain visibility, recognition and credibility	1901	2.63	3	3	0.014
H. Generate financial revenues for your activities	1901	2.41	3	3	0.017
I. Access better working facilities and infrastructure	1901	2.48	3	3	0.016
J. Obtain equity, debt or grant financing	1901	1.91	1	2	0.018
K. Work more effectively and efficiently	1901	2.59	3	3	0.014
L. Expand into new geographic areas	1901	2.05	2	2	0.018
M. Build international connections	1901	2.14	3	2	0.018
N. Connecting to advisors, experts and supporters	1901	2.55	3	3	0.015
O. Feel part of a larger community and network	1901	2.67	3	3	0.013
P. Find other people to engage in your activities	1901	2.56	3	3	0.015
Q. Partner and collaborate with others	1901	2.63	3	3	0.013
R. Evaluate impact of my own activities	1901	2.29	3	3	0.016
Support Need Total	1901	44.34	47	45	0.014

Figure 12 - Support Needs of Social Entrepreneurs. Image extracted from "What does it take to support a change maker? – The effects of organizational maturity, business model and mission orientation on the support needs of social entrepreneurs"

Anyone who aims to enable social entrepreneurs should consider the different needs along the organizational lifecycle in order to create effective support environments for social entrepreneurship.
At the moment it is difficult and it would probably be unsuccessful to provide a common policy for scaling social innovation considering the many differences presented in the economy and, specifically, in the social

enterprise sector across Europe. For sure, a deep analysis of the status and needs may lead to a strategy to promote and scale a specific project.

3.2 Traditional definition of Startup Incubation

Normally a venture incubation strategy wants to help "startup" (ventures going through the process of generating new products, services or businesses) in their "early stage" - normally before they received first series A investments and when they are still in their so-called seed stage (accepting seed capital).

Typical venture incubation strategies are directed by three macro-strategies:

- Ventures accelerated receive incubation services and/or capital in exchange of company equity (typically true for fund owned incubators, eg: YCombinator)
- Ventures accelerated receive incubation services and/or capital in exchange of partially-binding contracts that state some advantageous term for the incubating entity in case of successful developments (typically true, at least partially, for Corporate innovation incubators, eg: TIM's Working Capital Accelerator)
- Ventures accelerated receive incubation services and/or capital in accordance to a more general strategy to produce outcomes that are relevant for the incubating stakeholder (typically true, at least partially, for City Development incubators, eg: Sharing City Seoul Incubator ShareHub)

For the sake of the report we will recap on the content of traditional incubation strategies and later on provide a description and a tentative evaluation of impact for few existing incubation strategies/initiatives that resonate with the criteria expressed in the introducing section.

Typical features of venture incubation in the context of COPs

The typical features of a venture incubation program grossly fall into three categories

- Providing relationships and advisory
- Funding and help in getting funded
- Teaching and nurturing the soft skills related to upstarting a Venture

Beyond the set of relationships that an incubating entity may made available to the incubated ventures - with the aim to reach essentially potential investors, good advisors or partners - something that is specific and hard to replicate, we can try to summarize the **key skills** that incubators build - or should build- in incubating teams, participants and eventually companies.
Please note that this list is not an all-encompassing one but rather, a list of essentials. Note that we mapped the key phases with the ones depicted in Table 8.

Key Phase	**Capability**	**Note/Specific Tools & Competences**	**Why Essential**
Intention Formation & Idea Development	Business Modeling & Planning	• Business Model Generation • Business Planning • Business Case identification	To identify the relevance of a market and the sustainability of a business value proposition

Idea Development & Start-up Initiative	Customer Discovery (and Customer Development)	• Identification of Market • Identification Problem-Product, Product-Market Fit • Pricing	To rapidly evolve towards a product that meets the interest of a customer that is willing to pay for it
All phases	Leannes	• Lean Startup • Waste Elimination techniques • Continuous Improvement	To avoid working on wrong activities, maximize the efficiency of investing capital into generating validated learning and iterate towards perfection
All phases	Key elements of Agile Culture	• Agile management of complexity • Retrospective analysis	To manage the flow of work according to priorities and improve at every cycle
All phases	Design Thinking	• Human Centered Design • Service Design Thinking • Platform Design	To design holistically, learn how to identify frictions and design pleasant and convenient experiences
Impact Scaling	Organization Design	• Collaborative Decision Making • Collaborative Governance • Learning Organization	To design an organization that scales its governance processes accordingly when in the eventual growth phase
Impact Scaling	Growth Hacking	• SEO / SMO • Metrics & Analytics • content marketing • A/B testing	To implement growth strategies without a relevant marketing budget

Table 9 - an incomplete recap of some of the key skills that incubators help nurture in participants

3.3 Selected Case Studies of Incubation programs partially aligned with COP criterias

With the aim of identifying successful incubation strategies and isolate recurring, interesting patterns and lessons we present a series of selected case studies of incubators that target incubation portfolios of ventures that cover at least partially the criteria expressed by the commissioning group.

Name	**Why relevant**	**Description of main milestones and key aspects**
Coop Startup (*Italy*)	Incubation program Targeting Cooperative Ventures.	The program is created and funded by Coopfond. Coopfond is the company that manages the fund set up by the resources of Legacoop members to create new cooperatives

http://www.coopstartup.it/		and to develop and strengthen existing ones. Funds come mainly from 3% of annual profits of Legacoop cooperatives. Full description available in English here: http://www.coopstartup.it/wp-content/uploads/2015/11/Coopstartup_SItoWeb_EN1.pdf Main results have been: • 7 incubation calls organized at local level (2 involving more than 1 region, 4 in 1 region, 1 in 1 province); • 300 business ideas selected; • 100 groups trained; • 8 cooperative startups incorporated (3 in Lazio, 2 in Ferrara, 1 in Puglia, 2 in Marche); • 5 new projects under development.
Bethnal Green Ventures (*UK*) https://bethnalgreenventures.com/	Invest in ventures which have social impact. Wants to generate financial returns in the long term.	Bethnal Green Ventures funds and incubates projects at early-stage ideas – not with complete business plans – and is more interested in potential of the people they incubate than experience. [The following numbers up to the end of December 2015] Since July 2012 when BGV started funding social ventures they invested in 68 teams: - 54 are active - 7 are currently inactive - 6 have closed down - 1 exited (i.e. BGV sold equity and got more money back than BGV put in). 63% of BGV teams have raised further funding and the total raised by BGV alumni is now just under £20 million More information on ongoing status is available here: https://bethnalgreenventures.com/2016/03/24/how-were-getting-on-at-bgv-a-few-numbers/
The Workers Lab (*US*) http://theworkerslab.com/	Aims to create scalable and self-sustaining solutions that improve conditions for low-wage workers.	The Workers Lab is typically addressed to low-wage industries and it is focused on ideas, services, and products that will achieve sufficient scale to impact workers across sectors, industries, and geographies, and result in self-sufficient revenue models. The Workers Lab offers: - **Training** on business model generation, customer discovery, and financial projections - **Financial support** through grants, recoverable grants and convertible notes in an open application quarterly. - **Technical assistance** by providing a team of entrepreneurs investors, technologists, and worker organizers who are

		available to offer advice and support to emerging ideas - **Field bridging** by supporting hackathons, convenings, and conversations with people from a range of industries and skill sets to solve some of the most pressing issues workers are facing. The Workers Lab together with SeeClickFix built **WorkerReport**, an app for worker rights enforcement to test whether workers across an array of industries would use technology to report wage theft and health and safety violations to local workers' rights groups.
Blue Ridge Labs @ Robin Hood (***US***) https://labs.robinhood.org/	Helps social innovators to build technology-enabled products and services aimed at the challenges faced by low-income Americans.	Blue Ridge Labs @ Robin Hood is a Brooklyn-based social impact incubator, program of Robin Hood - New York's largest poverty-fighting organization. It encourages entrepreneurs, designers, and developers to build products for communities that are often overlooked by technology, by offering fellowships, grants, and workshops. They offers: - **Catalyst**, a six-month incubation program, designed for social entrepreneurs at a pivotal moment, where financial and non-financial support is provided to help to launch a beta test, secure critical talent, and make key decisions about operating and funding model. - an intensive summer **Fellowship** aiming to support innovators to build products that can really make a difference by taking a customer-centric approach and pushing the teams to iterate quickly and cheaply. - **Design Insight Group**, a community of New York city residents and collaborators through which it is possible to really fit products and services into people's lives.
FLedge (***US***) http://fledge.co/		Fledge is a "*conscious company accelerator*" addressed to entrepreneurs who wants to have a good impact through their business. They offers: - a program of 10-weeks of intense training covering the full set of entrepreneurial skills required by successful entrepreneurs (it is an MBA level curriculum, used at at Pinchot University) with a wide network of mentors covering every skill required to create a successful startup - a follow-up support network after the 10-weeks program - a $10,00-$20,000 Investment which is uniquely structured as redeemable equity, with the startup repurchasing Fledge's shares using 4% of future revenues.

		In exchange for the program, the follow-up support and the cash Fledge asks for 6% ownership in each startup. More information on the selection process is available here: http://fledge.co/2014/what-fledge-looks-for/
Singularity University Accelerator (*US*)	Accelerator dedicated to early-stage startups applying exponential technologies to address humanity's biggest challenges.	The program is highly customized and propel startups to achieve the massive success by providing: - Mentors and advisors with specific backgrounds to give relevant advice for the specific business - Specific tools to take the venture to the next level In terms of program-specific outcomes for our 2016 accelerator cohort, Singularity University Accelerator: ● Opened 270 doors to relevant funders, partners, corporates, business development and scale advisors, board members, new hires, and more ● Facilitated 12 Board of Advisor meetings that resulted in business growth insights and upticks in user engagement and revenue ● Convened 4 Masterminds that are like supercharged board meetings ● Held 18 workshops where founders walked away with applicable skills they could use on the same day ● Hosted 11 thoughtfully-curated networking events with key industry experts, with advance briefings for our founders ● Organized countless strategic preparation sessions The ventures that succeed in the accelerator program typically are: ● In operation for at least 18-24 months ● Led by founders who are experienced entrepreneurs ● Addressing a global grand challenge ● Seeing measurable product traction ● Guided by a clear 6-month plan and a long-term focus ● Going after a big market with an ambitious vision

Table 10 - Selected case studies of Incubation programs

As a complementary set of case studies, in the following table we present a series of examples of academies that provides a specific training on cooperatives businesses and often offers an incubation program for social entrepreneurs that wants to build a worker-owned business or to do a transition of the current business in this direction, operating in the US.

Program	General Description
Worker Coop Academy (*San Francisco, California*) http://www.theselc.org/worker-coop-academy	Entrepreneurship bootcamp for worker-owned businesses. Powered by the The Sustainable Economies Law Center[57] (the SELC) in partnership with Project Equity[58], the Green Collar Communities Clinic [59] (GC3), and Laney College[60]. Started in 2014 as part of the project "*A Blueprint for Creating Pathways to Ownership for Low and Moderate Income Workers in the SF Bay Area: The Inner East Bay as a Case Study*"[61] that implements strategies to increase worker ownership among low and moderate income communities. Situated in the San Francisco Bay area - shares resources under CC license, for its replication in other areas. Focused on **building equity** in low- to moderate-income communities, gives priority to businesses and organizations that are creating worker-owned job opportunities for, with, or in these communities. Addressed to teams - two or more people - of: ● ***Startups***: Founders of new worker cooperatives in their start up phase or planning to open in the near future. ● ***Expanders***: Members of existing worker coops seeking to strengthen their business to grow and scale. ● ***Converters***: Owners and/or employees looking to transition an existing business to democratically governed, worker-owned business. ● ***Developers***: Nonprofits or other small business development organizations that are developing a worker cooperative that is already operational or opening in in the near future.
Green Worker Coop Academy (*Bronx, New York*) http://www.greenworker.coop/coopacademy	South-Bronx based organization dedicated to incubating worker-owned green businesses in order to build a strong local economy rooted in democracy and environmental justice. Focus on businesses that are both green and worker-owned. Offers a 5-month long training and support program with combination of training, coaching, and technical services.

[57] http://www.theselc.org/
[58] http://www.project-equity.org/
[59] https://greencollarcommunities.wordpress.com/
[60] http://www.laney.edu/wp/
[61] http://www.project-equity.org/bay-area-blueprint/

	The course is specifically designed so that each team is able to get their business up and running by the completion of the course. The training offer includes: ● Over 60 hours of training by skilled experts ● One-on-One mentoring with a successful entrepreneur ● Legal assistance with business incorporation and structuring ● Logo design ● Training and support in fundraising ● Access to a peer-support network beyond the length of the course ● Greater visibility and name recognition for your cooperative Addressed to teams - consisting of at least three people - working together on a single business concept. While Coop Academy is open to anyone, applications from teams with a majority of residents from the Bronx, especially the South Bronx, receive higher priority in the application process. There is no fee[62] for the course.
Cooperation Texas (*Austin, Texas*) http://cooperationtexas.coop/	Worker cooperative development center founded in October 2009 in response to growing economic inequality aiming to create sustainable jobs through the development, support and promotion of worker-owned cooperatives in Texas. Offers several training opportunities: ● Cooperative Business Institute (CBI) Academy ● CBI Workshops ● Education for Cooperation Find more information on the training offer at this link: http://cooperationtexas.coop/about-us/programs/cooperative-business-institute/
Worcester Roots (*Worcester, Massachusetts*) http://www.worcesterroots.org/projects-and-programs/co-op-incubation/	Worcester Roots is a collective of trainers, organizers and fundraisers with the mission of organizing for justice through the development of co-operatively run and green initiatives. The staff collective models the co-operative economy by embodying a directly democratic and horizontal decision-making structure.

[62] In 2015, Mayor De Blasio and the City Council enacted into law Intro 423-A. This new law requires the Department of Small Businesses Services and the Mayor's Office of Contract Services to report on the number of contracts awarded to worker-owned cooperatives and the amount of worker-owned cooperatives that are receiving assistance from the city.
As part of the new law, Worker Cooperative Business Development Initiative was created to fund and institutionally support the organizations that help incubate worker-owned cooperatives in NYC. The Co-op Academy is made possible by this initiative.

	Worcester Roots organizes **Co-op Academies** with curriculum on mission/vision/values, meeting facilitation, conflict mediation, financials, market analysis, youth in co-ops, legal documents, membership and governance, greening the co-op, raising capital, and more. In addition to the Co-op Academies, Worcester Roots also offers **over-the-phone or short-term advice** year-round. Provides full **incubation support** and **fiscal sponsorship** for up to three years for some co-ops that have a lot of mission match. The academy and incubation include: ● one-on-one coaching with a successful entrepreneur ● access to a peer-support network ● legal assistance with business incorporation & structuring ● greater visibility and name recognition for the co-op ● training and support in fundraising ● website development, and logo design Worcester Roots shares resources from the education offer which are available at the following links: http://www.worcesterroots.org/calendar-of-events/co-ops/ http://cultivate.coop/wiki/Academybysubject
Prospera (*Oakland, California*) http://prosperacoops.org/	Founded in 1995 as WAGES (Women's Action to Gain Economic Security), Prospera **incubates worker co-ops collectively owned by immigrant Latinas**. Prospera identifies groups of women who are ready to create a cooperative business, and supports the founders from business idea to launch to sustainability. The collective ownership structure fosters remarkable leadership development, empowering the worker-owners to spur local economies and leading to transform entire communities. Prospera offers a three-year program investing in the leadership development of the founders with comprehensive training, coaching, and technical assistance. Prospera's model of co-op development is rooted in partnerships with community-based organizations, industry experts, businesses, foundations and the founding worker-owners.
Pinchot University (*Seattle, Washington*) http://pinchot.edu/academics/certificate-cooperative-management/	Pinchot University offers the **Cooperative Management program**, a deep dive into the world of cooperative management, exploring characteristics, opportunities and challenges of the cooperative sector. The Cooperative Management program may be taken as a stand-alone Certificate or as part of one of the MBA programs. The course provides:

	• introduction to the history and principles of the international cooperative movement, as well an overview of the industry sectors and cooperative types most common in the US; • exploration of the legal, governance, and finance issues unique to the cooperative sector; • examination of the general topic of managing in a democratic workplace, with a particular focus on the special challenges of employee engagement and empowerment in the cooperative sector. Topics covered include leadership, coaching, meeting facilitation, collaborative decision-making, and conflict management; • an opportunity to undertake a "real world" project in the cooperative sector.
Project Equity (*Oakland, California*) http://www.project-equity.org/cooperative-incubator/	Project Equity is launching a **Cooperative Business Incubator** to support successful businesses that are transitioning to **worker ownership** from another form of ownership and support a sustainable future by providing tools, advising, training and connection to resources. Project Equity co-develops a specific plan with each participating business. The Incubator program runs for approximately 12 months and includes some or all of the following components: • Cooperative education & training workshops, focused on coop structure, governance, management and culture that engage workers in the design and development of the new worker cooperative • Developing by laws for the new cooperative • Developing an owner transition plan • Support developing sales terms, including the sales price of the business • Connections to coop-friendly lenders • Developing an ownership culture, setting up worker cooperative governance and other topics • Training for your full employee base, with options for remote participation • Designing support systems and identifying ongoing resources for employees / worker-owners after the transition

Table 11 - Worker Coop Academies and Worker Cooperative Business Programs

3.4 Further Innovative incubation paths

Innovative incubation strategies are emerging as the landscape for the definition of a venture changes. In this section we provide a brief description of a small set of incubation strategies growing in Europe, adopting a relevantly different approach to incubation. These approaches might provide the reader with out-of-the-box insights and ideas on how a new incubation path can be a mediation of traditional and nontraditional approaches.[63]

Context	Why relevant	Notes
Enspiral http://enspiral.com/	Incubation of new ventures also non-venture projects that have a positive social impact.	Enspiral is a network of companies and professionals brought together by a set of shared values and a passion for positive social impact. It's sort of a "DIY" social enterprise support network. Incubation of new ventures in Enspiral happens mostly in two ways: - a venture joins the network because attracted by the value of being part of a network of ventures such as Enspiral - people that work together in Enspiral decide to make a new venture together Most of the latter process starts as a human process in the first stage.People that join Enspiral rarely do it thanks to a job offer, most of the time they just join for the value in the network. In the first stage Enspiral "normalized entrepreneurship": when you work with entrepreneurs you understand they're people like you and that you can be an entrepreneur. The network then provides support to new ventures in the following ways: ● Peer Support: offering skills and technical, specialist support ● Peer Encouragement ● Referrals of business opportunities (with a focus on bootstrapped ventures) ● Financing Financial incubation happens mostly via loans and gifts and less with traditional equity investment. When doing investments Enspiral developed some funding tools such as capped returns and redeemable preference shares. The Enspiral network also incubates non-venture project through the co-budget phase.

[63] Source of the information in table was a series of short interviews with Joshua Vial (Enspiral), Dominik Wind (POC21), Manuela Brito (OuiShare FFWD), Indy Johar (Town Hall / Impact Hub Birmingham)

Town Hall + Impact Hub Birmingham http://birmingham.impacthub.net/	An incubation program that wants to empower collective movement to bring change in the city of Birmingham to make it fairer, more democratic and more inclusive.	Town Hall model idea is based on moving away from product-based innovations to save the world, and towards system-based approaches for better cities. We are building a model for a new typology of civic institution for place-based change, which seeks to drive systems innovation through new models of system financing and new types of legitimacy. [64] The incubation path is based on a three phase model of incubation: 1) OPEN INQUIRY: a 6-month Open Inquiry period as a unique combination of collaborative research, storytelling, system mapping and collective sensemaking that activates the full range of relevant actors around shared challenges. A wide range of events, think pieces, social media coverage and an open source toolkit that will enable wide engagement. 2) GROWING THE MOVEMENT: to grow our reach, the program will build a fellowship of ten highly engaged participants with real desire and commitment to host conversations and potential initiatives across the city-region. They are the movement builders, storytellers, conveners, ideas agents and ultimately as our pioneers of the possible. 3) SYSTEMS ACCELERATOR/CURRICULUM: the accelerator stage will select 10-15 early-stage ideas and accelerate their potential to have real impact for good. The 9-month programme will enable an accelerator cohort of start-ups, corporate innovation projects, policy change campaigns, data initiatives and other ventures to develop, test and iterate their ideas in the real world and become ready for investment. The proposed investment approach will work across a diversity of legal forms and business models and uses a tried and tested peer investment method. The program wants to move away from a competitive accelerator approach towards a collaborative programme for shared outcomes. The acceleration path will be open not just start-up businesses, but also invest in activism, policy change, corporate innovation and other areas. On a longer period of acceleration time than tech-based accelerator programmes it will develop a diverse investment approach and term sheets for blending seed grants, soft loans, revenue participation and **outcomes-based commissioning.**

[64] Information on Town Hall model comes from a face to face interview with Indy Johar, the program is still in launch phase.

OuiShare Fest Forward http://2016.ouisharefest.com/forward	Incubation strategy for a 3-day accelerator (during the OuiShare Fest Paris) for collaborative, open source projects with high social impact.	The conditions to apply are the following: - the initiative has the potential to create a measurable positive impact on society or the environment - the initiative is Open Source Criteria for selection are: - impact - replicability - team - challenge - synergy To make the OuiShare Fest Forward experience as valuable as possible for its participants, the accelerator program is modular and provides the necessary materials, tools, and expertise adapted to each project needs and challenges.
POC21 (Proof of Concept 21) http://www.poc21.cc/	Incubation strategy for a multiple weeks camp that focused on	POC21, made by OuiShare (Paris) and OpenState (Berlin), is an international innovation community, that started as an innovation camp in Summer 2015 that brought together 100+ makers, designers, engineers, scientists and geeks to prototype the fossil free, zero waste society with the aim of making open-source, sustainable products the new normal. The approach to incubation that POC21 followed by the very start was that of "creating an environment" as close as possible to the original values that the team wanted to support. The whole incubation program and camp organization was then **highly cooperative** - also in terms of governance - to encourage a shared steering and unload steering burden from the original team. The camp itself was collectively run and governed across the four weeks thanks to an adapted model of Sociocracy based on an agile practice of morning/evening check-ins where issues or improvements were presented,discussed and a team self-formed to tackle the issue by prototyping a solution According to Dominik Wind the diversity of the team was partially satisfactory (only 10% of the funding team was female while 65% of Design and Support team was female) but the event failed to attract more racial diversity, ending with a majority of "white males". The call was open to "projects", based on knowledge commons (OSHW), with aims ranging from incorporation into a company to becoming alive OS projects with active communities. Few of the selected project had reflected on Business Model, Customer interest and User Experience - some

		weren't focused on the market at all. Therefore, most of the incubation work was focused on: -Product Design and simplification of features -Focusing on one customer segment -Exploring different monetization (service) model beyond direct product sales **The impact of POC21** Project deliverables reached a combined reach of around 16M views: 13 Millions by press articles, 3 Millions of views on all project produced instructables. After one year all projects are all still there but one - the team refocused on a service model (workshops). Three projects are now going to be incubated in a further followup of POC21 - partially fueled by a related team targeted to the accelereation of "good technologies".

Table 12 - Innovative incubation strategies

4. Financing COPs

In the last few decades we have seen the emergence of several innovative financial tools to help ventures to access capital. Such financial means have proven to be useful as well for the type of venture that are object of this study, COPs. Some of these instruments derive from traditional funding mechanisms, such as Venture Capital, whereas others are fundamentally newer at their core. Moreover, their combination with new technological possibilities, but also with some emerging social dynamics, is paving the way for the development of an even greater diversity in the field of capital access strategies.

In recent years, albeit not necessarily focusing on platforms as such, some Venture Capital firms have differentiated their portfolio and overall mission by selecting and nurturing ventures that are very much aligned with some of the key characteristics depicted in the present paper behind defining a COP. We could refer to them as *impact investors*, as we can consequently refer to the ventures that are supported as *High-Impact ventures*. Such definition stress the social, technological and environmental (positive) impact that such businesses could provide to society at large if realized.

Beyond Impact Investing, we have *Venture Philanthropy*: instead of looking for elevated and seemingly fast economic return, Venture Philanthropy usually funds highly socially and environmentally ambitious projects in terms of impact (often non-profits), often with the aim to help them achieve self-sustainability. Examples of Venture Philanthropy is the Shuttleworth Foundation and the Bill & Melinda Gates Foundation.

4.1 Hacking Existing Financial Tools

Increasingly, especially in more mature social entrepreneurship contexts, ventures are developing, modding and extending existing financing schemes to meet their strategic choices of impact while still being an appetible investment for responsible and patient investors.
A particularly interesting case is that of New Zealand based edging **Social Enterprise Enspiral**. A number of ventures part of Enspiral group successfully raised capital through a mechanism called **Redeemable Preference Shares (RPS)**. RPS effectively provides a way to implement what Enspiral founder Joshua Vial calls "capped returns"[65]. Effectively RPS can be considered "*very generous loan, a loan on very generous terms*" as Richard Bartlett of Loomio explained recently[66].

RPS can be allotted by companies to any investor, with the agreement that whenever dividend is paid, the holders of the preference shares are the first to be paid. The dividend of a preference share is fixed at a particular rate (or a fixed amount) even before the dividend on equity shares.

In the variant adopted by Enspiral, as described by Joshua Vial in his already referenced "*Hacking capitalism with capped returns*" the mechanism of issuing RPS works as follows.
According to Vial when "*investors or entrepreneurs receive equity in a business the total returns on the equity are capped*", in this way the company can provide a fair return[67] but this doesn't end up in "*a perpetual claim on the profits of the venture*".

Implementation wise, when the venture issues shares, it writes a **matching call option** where it is required to repurchase the shares at an agreed upon price in an agreed time frame. In the Enspiral implementation the company has **two types of shares** : " ***financial shares*** *which yield returns until they are repurchased, and* ***governance shares*** *which only have voting rights and do not expire (typically allocated to founders and workers). Once financial shares are repurchased all of the profits from the venture are available for the organisation's social mission*" and governance.

While capped returns (RPS) aren't always better for investors, this investment structure can open up possibility to invest in businesses that weren't fundable before, as J. Vial says, "*good businesses with great financial prospects that could generate healthy returns but would never raise traditional equity*". These types of investment can provide responsible investors with *deal flows* that were inaccessible before and, as J. Vial points out, this opportunity is great for "*investors who want to keep the social mission at the fore or invest in the commons*", for example institutional investors interested in intangible outcomes (for example the positive externalities that such ventures can generate on a community) and not only in financial returns.

Another interesting, emerging alternative financial model that may be suitable for long term, responsible investors - that also shares with RPS the characteristic of shifting risk more towards investors than venture teams - is that of ***Revenue-based financing*** *or* ***royalty-based financing*** *(**RBF**).*

RBF is a type of financial capital provided to small or growing businesses in which **investors provide capital in return for a percentage of ongoing gross revenues**. Normally the returns to the investor continue until the initial capital amount plus a multiple (known as a **cap**) is repaid. Most RBF investors expect the loan to be repaid within 4 to 5 years of the initial investment.[68] In his great Overview & Taxonomy of "*Participatory*

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[65] Vial, J. (2016). *Hacking capitalism with capped returns.* [online] Medium. Enspiral Tales. Available at: https://medium.com/enspiral-tales/hacking-capitalism-with-capped-returns-851937854a9e#.lh6qs4kmd Last accessed 18/09/2016 10:46.
[66] Interview: Rich Bartlett, Loomio. (2016). *The Socialist Entrepreneur*. [online] Available at: https://thesocialistentrepreneur.com/2016/08/02/interview-rich-bartlett-loomio/ Last accessed 14/09/2016 10:47.
[67] In the case of Loomio the cap was 5% per annum, a percentage that makes RPS in this context more similar to a generous loan than to a classic venture investment.
[68] https://en.wikipedia.org/wiki/Revenue-based_financing

Organizations, Patterns, Processes & Tools"[69], Christopher Allen gives a clear and straightforward example of one RFB that

> *"gives the investors 5% of revenue flow above that required for a fair wage of all employees + 20% overhead. Once 100% of the principal has been repaid, the percentage declines over time, allowing for new RBFs to be issued."*

Despite the RFB can be configured to repay relevant multiplier of the starting investment (in the example provided by C. Allen that would be 3X, making it a substantially speculative investment) the multiplier can be set to lower rates making this tool essentially more suitable to the non-speculative context we're describing in this report.

4.2 Crowdfunding for positive investing

One of the best known forms of alternative finance is **Crowdfunding** that consists in *raising monetary contributions from a large number of people to fund a new venture or project*. It may be used to fund either for-profit entrepreneurial ventures or nonprofit and community-oriented social entrepreneurship projects.
One of the significant aspects of the crowdfunding is the possibility to reach the public not only in terms of the request for funds but also in terms of awareness, in our specific case, on social issues and needs. Crowdfunding, besides the function of funding projects, has a wider potential and can be seen **a way of engaging people in a cause** and, eventually, turning them into campaigners, volunteers or shareholders in the community project.

In this section we try to give an overview about the state of use of the crowdfunding to fund platforms or projects with a "positive" social impact with a focus on the platforms or agencies that deal to support social entrepreneurship in launching and carry out a crowdfunding campaign.
We are talking about **positive investing** and, it is important to differentiate it from the ethical investing. As explained by Ethex[70], positive investments deliver social and environmental benefits, not just financial ones whilst the ethical investment marketplace is often based upon negative screening. "*Positive investing means investing in businesses because of what they do, not what they don't do.*"

The report "*Crowdfunding good causes - Opportunities and challenges for charities, community groups and social entrepreneurs*"[71], edited by NESTA in partnership with NCVO and based on interviews with UK crowdfunding platforms and a survey of more than 450 charities, community groups and social entrepreneurs, aims to "*explore opportunities and challenges in crowdfunding for good cause and how more charities, community groups and social entrepreneurs can be supported to make the most of crowdfunding*".

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[69] Allen, C. (2016). *Participatory Organizations, Patterns, Processes & Tools — An Overview & Taxonomy*. [online] GitHub. Available at: https://github.com/ParticipatoryOrgs/Participatory-Organizations-Overview-and-Taxonomy?utm_content=buffer8aecc&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer Last accessed 18/09/2016 10:58.
[70] https://www.ethex.org.uk/positive-investing-vs-ethical-investing_240.html
[71] Baeck, P. Bone, J. (2016). *Crowdfunding good causes - Opportunities and challenges for charities, community groups and social entrepreneurs*. Available at: http://www.nesta.org.uk/sites/default/files/crowdfunding_good_causes-2016.pdf. Last accessed: 07/09/2016 17:10

Crowdfunding for good causes still makes up less than 0.5 per cent of giving in the UK whilst there has been a rapid growth in crowdfunding in the rest of the economy and there is relatively high awareness of it. As a result of the survey, the main challenge of organizations in using crowdfunding is the lack of knowledge on how the different models work and lack of skills to set up and run a crowdfunding campaign.

"*When asked about the reasons why they were yet to use crowdfunding, two in three charities, community groups and social entrepreneurs reported not having the skills and capacity to set-up and run a crowdfunding campaign.*"

Thence, factors that would make organizations try crowdfunding are:

- *access to training*
- *opportunities to combine institutional funding with crowdfunding* - which presents an opportunity for more traditional funders.

We extracted from the report a series of recommendations addressed to charities and social entrepreneurs on a side and to grant funders and investors on the other side.

Charities, community groups and social entrepreneurs should:	**Grant funders, social investors and other supporters should:**
• Try and set up at least one crowdfunding campaign • Join up fundraising and campaigning teams to run crowdfunding campaigns • Curate a group of projects on a pre-existing platform or develop a customised crowdfunding platform (particularly relevant for larger organisations or networks).	• Invest in crowdfunding skills and capacity building • Integrate crowdfunding into existing funding schemes and programmes through match funding • Support transition from crowdfunding projects to developing sustainable organisations • Set up referral schemes from grant funders and social investors to crowdfunding platforms • Test and measure effect of crowdfunding

Table 13 - Recommendations for practitioners and funders

In the following schema you can find several examples of platforms that shares information about projects that have been funded through them and their peculiarities.

CROWDFUNDING PLATFORMS	**DESCRIPTION**
Goteo https://en.goteo.org/	Goteo, founded in 2011, is a platform for civic crowdfunding and collaboration on citizen initiatives and social, cultural, technological and educational projects. It is a tool for generating resources "drop by drop" for a community of communities consisting of over 65,000 people, with a funding success rate over 70%. Goteo's mission is linked to principles of transparency, progress and societal improvement. In Goteo the focus is quite tightly related to openness:

	One of the criteria to enter in Goteo's crowdfunding campaign is the exchange: it may be sharing the design, source code, business plan or other - sharing would always happen through the use of a licence, typically a CC licence.
Ethex https://www.ethex.org.uk/	Ethex is a platform that helps investors to make a positive investment simply and securely. On the Ethex website you can: • **Compare** and choose from leading positive investments • **Invest and save** online from as little as £1 • **Build** your personal portfolio delivering social and financial returns. Ethex supports the social business sector by: • Providing a **new source of capital** from sympathetic investors • Helping develop a **liquid market** in positive investment • Providing valuable support through a comprehensive **investor relations service.** Positive investment makes up around one seventh of the ethical investment market. The ethical investment market is worth £12 billion, while the positive investment market is worth £1.6 billion - but it is growing fast. You can find on Ethex's 2013 Positive Investing Report more information about positive investors in UK (where do they live live; what they invest in, and why, and what can be done to build the positive investment marketplace.
Microgenius http://www.microgenius.org.uk/	Microgenius was founded in 2011 by the entrepreneur Emily Mackay when she realised that finding opportunities to invest in community-based renewable energy projects was very difficult. It started to support community shares projects in 2012. Now the platform is being operated by the Community Shares Unit (CSU) and, from Autumn 2016 Microgenius will become the portal for nationally recognised good practice share offers rather than directly administer financial transactions, as offered by other crowdfunding platforms. The new Microgenius portal will be accessed via the CSU website and it will list offers with the Standard Mark but then redirect the user to the respective platform where they can then make an investment. The new Microgenius portal has now the role of supporting other platforms in promoting nationally recognised levels of good practice for future share offers.
Generosity by Indiegogo https://www.generosity.com/	Indiegogo, which started in 2008, is an international crowdfunding website. Generosity by Indiegogo is a platform to fundraise personal and social causes. Running a fundraiser on Generosity is free and the aim is to show and share compassion through socially conscious fundraising. They offer a fundraising platform without fees, relying on optional donations from donors, and help and consultation on moving forward the fundraising campaign. The focus for donors and organizers should be on positive outcomes.

JustGiving https://www.justgiving.com/	JustGiving is a social platform with the aim of funding good causes. Founded in 2001, it has helped people in 164 countries to raise over $3.3 billion for good causes. Justgiving is a tech-for-good company that charges a fee, which is fully re-invested into building innovative new tools to make giving better for everyone by creating more powerful ways of connecting causes with people who care. Users trust Justgiving because there is no data sharing without their permission and platform owners never sell or trade personal information with third parties, or try to 'upsell' other services on the back of people's generosity.
Crowdfunder http://www.crowdfunder.co.uk/	Crowdfunder is a platform that helps to fundraise projects through ● Community Shares campaign ● Rewards-based crowdfunding ● Equity-based crowdfunding With the **Community shares campaign**, Crowdfunder raised £5,868,846 for a total of 18 projects. With a community share, investors become active and vocal supporters of the project, but not just at the fundraising stage: they will share a vision to secure the long-term future of community enterprises, and each will get a vote in how it runs. They may even get a small return on the financial success of the project, but the important thing is that it is wholly owned by the community it serves. One of the main advantages of community shares is that groups will not fall into debt to lenders who might want their money back, regardless of whether they can afford to pay them or not. You can read more about the Community Shares here: http://www.crowdfunder.co.uk/community-shares/what-are-community-shares/ The **Rewards-based crowdfunding**, consists in offering rewards in turn of money and it is a way to: ● Raise funds ● Test and validate the idea ● Pre-sell the products ● Build loyalty with new customers ● Market ideas Using a rewards-based crowdfunding campaign is also a way of proving the value of the product making it eligible for further funding. **Equity-based crowdfunding** is used to give to take a business to the next level. It gives to supporters the opportunity to become investors in a project. There are two types of equity crowdfunding: ● A business can offer a bit of its company (equity) in return for pledges of money, meaning everyone who invests becomes a shareholder. As

	a result they take partial ownership of a company depending on the amount of money they have invested. • Mini-bonds allows more established businesses to offer regular interest repayments (typically 6-8% pa) in return for investment into the business.
Kritical-mass https://kriticalmass.com/	Kritical-mass is a crowdfunding platform to power good. It offers to project-creators the space to showcase their ideas to connect them with Supporters and Sponsors that may offer any resource, expertise or skill (from funding to volunteering and promotion). Kritical-mass offers a secure payment system and a transparent commission structure without any hidden fees or extra costs. Projects set up and non-monetary support, such as volunteering or in-kind donations, are free for all projects on kriticalmass. Critical-mass takes a 5% commission, plus any payment processing fees, on funds raised and uses these fees to develop and improve the features to help more projects to reach kriticalmass. Kritical-mass offers rewards for different types of support. Support, funding and rewards are only exchanged if the goal the project-creator has set is reached within a defined timeframe. Charity projects are the exception to this rule: whether they reach their goal or not, they'll still get all the support that's been pledged for their cause.

Table 14 - Selected Crowdfunding platforms

Crowdfunding may be one of the useful tools in the launching of a business with a positive impact and, as explained at the beginning of this chapter, there may be a strong connection between those kind of ventures/non-ventures and entrepreneurs and the tool that they use to fund their project and in the main time to tell the world that they want to do something that has a positive/social impact.

4.3 Crypto-securities

As the reader may know, **blockchain technology**[72] is a peculiar type of distributed databases that have gained popularity in the last few years. It's part of a rapidly growing technological trend towards societal decentralization, and it's already demonstrating manifold impacts in several industries, promising even greater shifts in the next years. The blockchain is a distributed and encrypted ledger which allows multiple party to join a binding agreement without the need of a middleman. In fact, the inherent technical design of blockchains keeps this special type of databases free from tampering and revision. Although originally deployed to design alternative monetary systems known as *cryptocurrencies* (e.g. Bitcoin), the features of which this technology is made are almost unexpectedly providing us with a broad range of contexts that go beyond mere monetary utility, and where it might dramatically reduce the role of traditional regulatory actors and intermediaries. Indeed, such entities have been historically responsible to grant trust between two or more contracting parties that enter legally binding agreements - by enforcing obligations and benefits specified therein. Whereas, with Blockchain technology it's technically possible to allow the mass scale leverage of *trustless* transactions and contracts to happen among two or more parties that are

[72] https://en.wikipedia.org/wiki/Blockchain_(database)

strangers to each others, by embedding such obligations and benefits in the computer code specified within the blockchain protocol in use.

"Just as decentralization communication systems lead to the creation of the Internet, today a new technology — the blockchain — has the potential to decentralize the way we store data and manage information, potentially leading to a reduced role for one of the most important regulatory actors in our society: the middleman."[73]

Key to blockchain technologies is also the clear definition of an incentive structure for entities to join a financial ecosystem. In the context of corporate finance we are now witnessing a widespread bloom of applications that go beyond mere cryptocurrencies, such as *crypto*-securities. A security is a tradable financial asset. Example of securities are:

- debt securities, (e.g., banknotes, bonds and debentures)
- equity securities, (e.g., common stocks)
- derivatives, (e.g., forwards, futures, options and swaps).

Their existence is thoroughly regulated by a country-specific (often) restrictive set of laws which define the breadth and depth of such financial means. Although financial regulators and policy makers define very precisely the legal nature of securities, the characteristics of *crypto*-securities vary enormously according to the way they're designed in the first place. This discrepancy between what legally defines securities, and the variety of features that a crypto-security can embed, plus the intrinsic technical nature of such financial products are the reasons why crypto-securities will probably stay in a grey zone for a long time. A grey zone where regulators have little to none way to contrast potential abuse or unlawfully use of such financial instruments.

"*Some resemble currency, others a security or commodity, and others have no financial element at all.*"[74]

Crypto-securities are cryptographic *tokens* or *coins* (herein upon refered as *crypto*-asset), which are unit of account within a blockchain, and are issued by a party on the top of a protocol. A *crypto*-asset might provide owners voting power, dividend or access to tangible or intangible resources. The architecture of a crypto-security is either defined in the original protocol of a given blockchain, (or more often in the case of crytpo-securities) instantiated afterwards in a object known as *smart contract*[75].

Most of the latest blend of blockchains could tie multiple populations of *crypto*-assets that have each one different features and therefore attracting different type of markets and stakeholders to join their specific ecosystem with their peculiar set of incentives. Moreover, it's important to notice that a crypto-security is relatively easy to implement on a technical level.
As for the abovementioned reasons crypto-securities are a remarkable form of alternative capital access that could give financial oxygen, and nurture projects and ideas within communities and ventures that for multiple reasons found many difficulties to attract funding from traditional risk-capital sources. Indeed, the unparalleled discontinuity brought by such a technology on many dimensions, is challenging the current legal theory to cope with **novel forms of societal organisation**. In business, as much as in terms of individual power, small non-state actors could actually benefits from such technology to effortlessly build large scale organisations whose purposes are not currently met by traditional financial and legal frameworks.

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[73] Wright, A. De Filippi, P. (2015). *Decentralized Blockchain Technology and the Rise of Lex Cryptographia*. [online] Available at SSRN: http://ssrn.com/abstract=2580664 Last accessed 18/09/2016 11:17
[74] *A primer on cryptosecurities*. A working draft v 1.0. [online] coala.global. Available at: http://coala.global/15981/a-primer-on-cryptosecurities/ Last Accessed 18/09/2016 11:23
[75] A Smart contract is a computer script deployed in a blockchain by an entity, and it defines and enforces a sub-set of rules within a blockchain protocol, and that secure accountability and liability of contracting parties to mutually respect the obligations specified by the contract.

In order to join a particular *crypto*-asset economy, financing peers could proportionally provide the asset issuer different forms of value. Although other forms of values are considered in each blockchain ecosystems (e.g. work, time, physical assets etc.), financing peers would usually have to acquire a newly publicly offered *crypto*-asset in exchange of an already established *crypto*-asset (or alternatively fiat currency) in their posses whose financial value is relatively less volatile (i.e. Bitcoin or Ether coin).

Recent examples of such efforts are provided by the crowdsale of **Ethereum.org** *crypto*-asset which during July–August 2014, with the participants buying the Ether asset with another *crypto*-asset, bitcoin[76]. US$18.4 milion worth of bitcoins were collectively invested in Ether assets. Recently this year, The **Dao Hub**, another venture built on the top of the Ethereum infrastructure raised US$150 million worth of Ether [77], from more than 11,000 investors.

Although seemingly prominent as a complete alternative solution to capital access, some security and scalability issues, as well as the potential market failure due to the inherent inexperienced management of such uncharted territories, and the unclear legal framework, are all concerns that this kind of endeavours are facing nowadays.

[76] Aitken, R. (2016). *Digital Gold 'Done Right' With DigixDAO Crypto-Trading On OpenLedger*. [online] Forbes. Available at: http://www.forbes.com/sites/rogeraitken/2016/04/23/digital-gold-done-right-with-digixdao-crypto-trading-on-openledger/#7ea61c364cf6 Last accessed: 18/09/2016 11:37

[77] Popper, N. (2016). *A Venture Fund With Plenty of Virtual Capital, but No Capitalist*. [online] New York Times. Available at: http://www.nytimes.com/2016/05/22/business/dealbook/crypto-ether-bitcoin-currency.html?_r=2 Last accessed: 18/09/2016 11:41

5. Conclusions

What would it mean to incubate and design a truly collaborative platform that embodies the principles briefly exposed at the start of this report? By carrying out this work we identified a few key issues that are worth exposing in these conclusions. These issues shall be on the mind and table of anyone that, today, faces the challenge of **building an incubation strategy** that aims at nurturing the generation of - **genuinely positive impacting - scalable platform ventures**, that may be able to transform people, neighborhood, cities and, eventually, society as a whole.

On a purely design related plan, the number of tools available to founders and creatives approaching COP design is relatively large and evolving its codes in these days: one can leverage on more specific tools such as the presented *Platform Design Toolkit* or adopt part of more well tested, even if more generic tools such as IDEO Design Kit or alternative Service Design formalized tools. Also in terms of capabilities that need to be built into the founding teams, the list looks clear and shared among most of the accelerators and incubators worldwide: agile and lean approaches to innovation and product design and development are now a - de facto - standard, and customer driven development strategies (such as the well tested Customer Development process) are a milestone that can't be overlooked by founders.

On the other hand when it comes to prototyping an incubation strategy, things are much more open to experimentation. The first consideration emerging from the research is that of designing a strategy that - in some ways - **embodies the principle that we want to nurture**: an incubation strategy that wants to help COPs emerge, may then be governed collaboratively, may be a cooperatively owned investment and may be interested in providing fair returns to investors, at least for a short time or capped to an agreed value.

Such an initiative should also be *designed as a platform* meaning being open to external funders and participants and be focused on instigating powerful learning paths for all the entities involved: the competences, patterns and recipes of impacting collaborative innovation are vast and being built in the present, therefore an initiative that wants to build the right innovation capabilities in the community it wants to serve shouldn't be vertically designed and directed.

Such an initiative might also not necessarily go through a fixed space or context but be more like a *narrative* and *faceted context* that can be incarnated not only by spaces and people but also by events and circumstances, like a platform normally is.

Finally such an incubation initiative may need to focus not only to incubating ventures (corporate or coops) but also at incubating people, demystifying the "entrepreneur" figure and providing communities of citizens with the possibility to self-build innovation capabilities and transform their civic context for the better, starting from their personal situation and reference community.

On a more practical side, appears clear how a context like the one we're describing - an incubator of COPs - might on one hand open new investment opportunities to investors - to invest in ventures that normally wouldn't be interested in getting outside capital but, on the other hand, a clear need emerges of raising that pool of capital outside the usual suspects pool of venture capital funds, looking more for patient investors such as institutions, interested not only in financial returns but also to **intangible outcomes** that these initiatives may bring into the city or any other reference context.

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Credits

This review has been commissioned by **Mayo Fuster Morell** (Research Director) and **Enric Senabre** - Dimmons IN3 Research Institute - Universitat Oberta de Catalunya (UOC).

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Acknowledgments

We sincerely want to thank Mayo Fuster Morell and Enric Senabre that followed us in the developing of this research.
Special greetings go to Ezio Manzini, Daniela Selloni, Joshua Vial, Indy Johar, Boyd Cohen, Manuella Cunha and Dominik Wind for participating in our interviews and for having providing us with precious insights and visions.



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