



# Organizing the Open Business Model Dynamics in Social Economy: A Sustainable Approach Applied to SMEs

ST-AIMS 12 : Valeur des ressources, création de valeur(s) et Business Model

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### Résumé:

New sustainable, social and solidarity-based concerns are now encouraging the development of new sustainable and innovative business models. Objective is to build more open production models, involving more local partners who share common convictions and values, with a view to sustainability. However, organizing an opening dynamics is not simple, especially for SMEs with limited resources. To overcome the limits of too static current research, we propose to adopt a dynamic approach to study the openness into a sustainable business model. Based on a qualitative and comparative analysis of 5 SMEs in the social economy of the Franco-Swiss cross-border zone, our results contribute to better understand how SMEs can organize the opening dynamics of the business model with a local ecosystem of partners to maintain sustainability. The positive structuring role of value equation management and local ecosystem management is also highlighted in the business model trajectory and in achieving sustainability.

Mots-clés: open innovation, business model, dynamics, sustainable, SME, social economy





### INTRODUCTION

In recent years, contemporary concerns related to sustainable development, the equitable sharing of resources (especially natural resources) as well as social and solidarity actions have fostered the development of new economies. The collaborative, circular economy or the social and solidarity economy are examples of these new strategic and commercial environments in which companies are pursuing strategies with a sustainable and social purpose (Brehmer, Podoynitsyna and Langerak, 2018). Beyond the ecological aspect generally communicated by actors engaged in this type of strategy, the challenge primarily lies in the development of more innovative, sustainable and open production approaches, based on new networks, partners and sustainable ecosystems. To sustain these new forms of open innovation organization (Chesbrough, 2017), strategic attention focuses on the development of adapted business models. The business model (BM) describes the way an organization creates value within its value network, proposes it to a targeted market and captures the returns - particularly economic ones - through a revenue model (Teece, 2010). In the case of new collaborative, circular or social and solidarity economies, the emphasis on open innovation encourages the development of new forms of BM that define new ways of creating, proposing and capturing value more sustainably, meeting economic, social and environmental objectives (Brehmer et al., 2018; Lewandowski, 2016).

However, the development of such open and sustainable BM is not easy, since their design and operation break with traditional strategic approaches (Sousa-Zomer and Miguel, 2018). Indeed, the objective is not only to provide new sustainable products and services with social goals, but to review the entire BM organization of the value creation, value proposition and value capture in order to integrate economic, social and environmental objectives (Geissdoerfer *et al.*, 2018a). For companies, especially SMEs with limited resources, the design of such a sustainable BM necessarily relies on an open innovation organization with networks of partners and local ecosystems. From this perspective, the main problem is not the BM design but rather the organization of its evolution over time. To date, the dynamics of the BM evolution (trajectory) remains very little studied, as historical BM approaches remain essentially static. This limitation is all the more observed in the case of SMEs, which remain insufficiently studied compared to large companies (Popa *et al.*, 2017). Although some recent research (e.g. Lewandowski, 2016; Mahfuz *et al.*, 2019; Saebi and Foss, 2015; Spieth *et al.*, 2019; Yunus *et al.*, 2010) deals with open, social or sustainable BM in the new collaborative or social and





solidarity economies, these studies remain limited in understanding the trajectory of a sustainable BM and how a company can organize the opening dynamics of the BM with a network of partners or a local ecosystem to maintain this sustainability. To fill this gap, we study the specific case of SMEs by asking the following question: *how to organize the open business model dynamics to achieve sustainably?* 

To address this question, we first mobilize business model research to understand the link between innovation, openness and sustainability through a dynamic and collaborative approach. We then outline the methodology used and the details of the data collection and processing protocols. We then present the results and their discussion before concluding on the contributions, limits and perspectives of future research.

### 1. THEORY

This research mobilizes the BM literature and more precisely the works on BM innovation, open BM and sustainable BM, in perspective with the dynamic approach. We also seek to understand the specificities of BM in the specific context of the social economy, which differs from other types of traditional economies by the central role of economic, social and environmental values and objectives. Alongside the work on the social economy, which mobilizes the BM approach to sustainability, there are other studies on sub- and peripheral economies such as the circular economy (see. Hopkinson *et al.*, 2018), collaborative economy (see. Ertz and Leblanc-Proulx, 2018), sustainable economy (see. Lorek and Spangenberg, 2014), sharing economy (see. Apte and Davis, 2019) or the social and solidarity economy (see. Ould Ahmed, 2015; Marconatto D. *et al.*, 2019). Insofar as most of the above economies are related to the social economy, our study focuses more broadly on the social economy.

### 1.1. BUSINESS MODEL INNOVATION AS A LEVER FOR OPENNESS

BM innovation is defined as the ability of a company to create or modify several dimensions of a BM in order to develop new configurations of value organization (Massa and Tucci, 2013). This capacity is expressed through the creation of a new BM, the transformation of an existing BM, the diversification of a BM or the acquisition of a new BM (Geissdorfer *et al.*, 2018a). The notion of creation or transformation is therefore central in BM innovation and can involve these three components of value creation, value proposition and value capture (Massa and Tucci, 2013). Within the framework of open innovation, BM innovation is mainly based on its openness in order to capture profitable external resources and knowledge internally or to





leverage internal resources and knowledge in external markets (Chesbrough, 2017). Thus, an open BM is aligned with the open innovation practices of the company (Chesbrough, 2006). The result is four possible forms of open BM (Saebi and Foss, 2015): (1) Efficiency-centric open BM, adapted to market-based innovation strategy (2) User-centric open BM, adapted to crowd-based innovation strategy, (3) Collaborative open BM, adapted to collaborative innovation strategy and (4) Open platform BM, adapted to network-based innovation strategy. These open BM are very characteristic of new collaborative, circular or social and solidarity-based economies in which open innovation efforts are made to develop new, more sustainable technologies, products, services and processes to support strategies with high social and environmental impact (Cosenz and Noto, 2018). However, the current work lacks a dynamic approach and the management and evolution of openness in BM remains very little studied. There is now an urgent need to better understand how to maintain openness in a BM in the long term to support growth and sustainability.

### 1.2. SUSTAINABLE BUSINESS MODEL AND THE NEED FOR OPENNESS

Some innovation efforts in BM design also relate to the development of sustainability (Boons and Lüdeke-Freund, 2013; Bocken et al., 2014) which necessarily involves the use of partner networks and local ecosystems in the pursuit of economic, social and environmental objectives of sustainability (Brehmer et al., 2018). Indeed, the principle of sustainability implies the modification of exchanges and relationships with stakeholders in order to generate and capture a set of economic, social and environmental value. The organization alone, which tries to integrate this principle, must thus necessarily review the organization of its resources and thus of its value creation, value delivery and value capture, in order to integrate more widely its partners in a common logic of sustainable value which contributes positively to the environment and to the society (Geissdoerfer et al, 2018b; Stubbs et Cocklin, 2008). The development of a sustainable BM thus implies a form of openness with partners and a dynamic of change in the BM core components, notably through design and innovation (Pieroni et al., 2019). Under these conditions, a sustainable BM has the characteristics of an open BM and is part of an open innovation approach (Aagaard, 2019). However, the dynamic vision of these new forms of sustainable BM is still insufficiently understood in the literature. Specifically, the way to organize the open BM dynamics with stakeholders in order to achieve sustainability is not studied.





### 1.3. RESEARCH LIMITATIONS ON BUSINESS MODEL DYNAMICS

While the static approach of the BM is generally used to classify BM, their roles, states and implications according to a given context - the dynamic approach focuses more on the phenomena of BM design and transformation (Aversa et al. 2015). In general, BM dynamics refers to the evolution of the BM over time and the changes that occur in its core components (Saebi et al., 2017). The few studies on this topic have made it possible to identify different transformation actions such as the reconfiguration or redesign of a BM (e.g. Aspara et al., 2013), to qualify different changes in a BM and their consequences (e.g. Cavalcante et al., 2011), to analyze the BM evolution and its implications (e.g. Demil and Lecocq, 2010) or to address the BM modification through innovation (e.g. Massa and Tucci, 2013; Teece, 2010). Beyond these actions, the literature characterizes three main BM dynamics that correspond to specific changes (Peñarroya-Farell and Miralles, 2021): (1) the BM adaptation dynamic, which allows the BM to evolve in the face of external effects in order to improve the firm's efficiency and sustainability, (2) the BM innovation dynamic, which involves radical changes in BM components and supporting competencies to disrupt the external environment, and (3) the BM reconfiguration dynamic, which incrementally evolves certain BM components in order to respond to internal and/or external strategic challenges. Regardless of the BM dynamics implemented, the objective is to accompany the change and BM evolution to create sustainable value over time (Foss et al., 2017; Achtenhagen et al., 2013). Even though these efforts contribute to the identification of certain antecedents, consequences and types of the BM evolution, the way a company can organize itself to articulate a coherent dynamic of openness with its sustainable strategy remains unknown.

### 1.4. BUSINESS MODEL SPECIFICITIES IN THE SOCIAL ECONOMY

The social economy is a tertiary sector economy defined as the conduct of commercial and non-commercial activities by organizations that give priority to social and environmental values and objectives (Amin, 2009). This economy includes a wide range of private for-profit and non-profit organizations (institutions, companies, associations, foundations, and so on, Alam *et al.*, 2018) that share these values and provide the market with innovative services and goods that contribute to the public good without seeking to maximize profits (Levi and Davis 2008). From this perspective, the social economy integrates the development of social BM that are both profit and non-profit and designed to deliver a social value (Yunus *et al.*, 2010) by embodying ethical principles (Alam *et al.*, 2018). By creating and delivering social and shared value,





companies can also create and capture economic value with a focus on the common good (Porter and Kramer, 2011). The design of a social BM therefore implies specificities compared to a classic BM, particularly in the way of structuring the main components of value creation, value proposition and value capture. The first specificity is the integration of economic, social and environmental values and dimensions in the definition and design of the BM (Hudon and Huybrechts, 2017) and especially the social profit equation and the economic profit equation (Sonnino and Griggs-Trevarthen, 2013). The second specificity is the fundamentally collaborative dimension of the BM, both in its conception, development and evolution, insofar as social activity requires collaboration with stakeholders (Reed and Reed, 2005; Waters-Lynch and Potts, 2017). The third specificity is the objective of innovation and transformation that the BM must seek to produce in order to change society, thus implying a concrete social and/or environmental impact that is more ambitious than the mere economic goal of the organization. (Pirson *et al.*, 2019; Rao-Nicholson *et al.*, 2017; Reficco *et al.*, 2020). Thus, the main challenge for the sustainability of a social BM is the organization's ability to balance the equation between economic, social and environmental objectives over time.

### 2. METHOD

The research is based on a European project (Interreg V program) started in October 2018 dedicated to SMEs' open innovation and foresight in the specific Franco-Swiss cross-border area. SMEs are the subject of a limited number of studies (Popa *et al.*, 2017), both in the literature on open innovation and in the literature on open and sustainable BM, which justifies our choice. The Interreg project focuses more specifically on SMEs in the digital economy and social and solidarity economy sectors. In this research, we focus on SMEs in the social and solidarity economy that face great challenges in developing and maintaining innovative and open sustainable BM, while managing a delicate balance between economic, social and environmental objectives. In this perspective, their main issue is the organization of their open BM dynamics in relation to the local ecosystem to achieve sustainability. To study this issue, we selected five SMEs (two Swiss and three French ones) from the social and solidarity economy. Companies were selected based on the recommendations of professional and institutional partners involved in the European project, and considered as exemplary cases of innovative SMEs with sustainable BM. We chose SMEs with various characteristics in terms of size, territory, activity and degree of innovation (cf. Table 1). Each of the companies have





developed a collaborative open BM (according the typology of Foss and Saebi, 2015) based on a BM innovation dynamic (according Peñarroya-Farell and Miralles, 2021) with local partners.

Table 1. Main characteristics of SMEs selected and interviewed persons

SME	Size	Activity / BM	Degree of innovation	Interviewed persons	
AfB Green IT (France)	Medium (80)	Social firm (sustainable jobs for people with disabilities) specializing in the development and reconditioning of IT equipment.  Founded in Germany in 2004 under nonprofit status, AfB Green IT France was set up 8 years later with now 4 branches.  High  (social service and BM innovations)		Marketing manager (1); e-business manager (1); Local partner (1)	
Atelier Re-Née (France)	Small (10)	Integrating project specializing in textile collection and recycling in France. Three activities: 1) textile collection, 2) textile sales and 3) textile manufacturing. Existing since 2014 under associative status.  Medium  (social service and BM innovations)		CEO (1); President (1); Local partner (1)	
Champ des Cimes (France)	Medium (20)	Integrating firm specializing in landscaping activities (masonry, natural areas maintenance, and wood furniture manufacturing). Existing since 2005 under Cooperative Company of Collective Interest status.	Medium CEO (1); Operation (managerial and BM innovations)  CEO (1); Operation manager (1); Local partner (1)		
e-Durable (Swiss)	Small (6)	Sustainable IT services provider. The company aims to sell, rent, and provide IT services, applying the ethical and ecological dimensions of sustainable development.  Existing since 2015 under limited company status.  High  (service and BM innovations)		CEO/founder (1); Local partner (1)	
réalise (Swiss)	Medium (60)	Specialized in professional reintegration, this SME trains people with little or no qualifications in logistics, gardening, outdoor maintenance, laundry, cleaning and various fields of industry, in order to simplify their recruitment in companies. Existing since 1984 under association status.	High (social, managerial and BM innovations)	CEO (2); Marketing manager (1); Local partner (2)	

### 2.1. DATA COLLECTION

By adopting a qualitative and exploratory approach (Yin, 2009), we conducted an initial data collection from February 2019 to September 2019 with 16 semi-structured interviews. The objective was to understand the history of SMEs, the evolution of their strategy and BM, the organization of their open innovation activity and the collaborative dimension with their network and local ecosystem. This first study allowed us to understand the highly innovative and sustainable nature of the BM developed by each SME, its resolutely open design with





external actors and its strong interaction with the local ecosystem. To further develop these initial data, a second study was realized from February 2020 to May 2020 with the same SMEs. This study focused on the evolutionary dynamics of the open and sustainable BM. The interview guide thus addressed the evolution of the strategy through the key components of the BM: value creation, value proposition and value capture. We identified the key decisions in the BM evolution and in particular: (1) the antecedents of these decisions (in relation to economic, social and environmental objectives), (2) the possible influence of the local ecosystem on these decisions, (3) the organization set up to develop the BM and ensure its evolution and (3) the consequences for the SME, its BM and the local ecosystem. The objective was to gain a detailed understanding of the BM trajectory and the organization of its openness dynamics with the local ecosystem.

### 2.2. DATA ANALYSIS

Data analysis was planned using ATLAS.ti software, using lexical analysis and thematic coding (see Appendix 1). The coding was done in two steps. A first independent work was carried out by three researchers by focusing the attention on a single interview. The objective was to test the coding grid and then compare coding behaviors between researchers in order to identify disagreements and converge towards a common and valid coding logic. The second stage focused on the complete coding of the interviews. An initial classical lexical analysis, for each SME studied, allowed to describe the BM trajectory and, in particular, the different phases structuring this trajectory (according to the significant facts and strategic changes mentioned by the respondents). A second comparative analysis made it possible to define a common structure for the 7 trajectories studied, thus showing a similar logic of design, development (exploration), exploitation and sustainable evolution of the BM. A third analysis focused on the identification of occurrences and co-occurrences of the different codes within the stages of the BM trajectory. The objective was to reveal the most frequent connections between codes and especially between codes of different themes. For example, this analysis showed that several internal factors (objectives and tensions in terms of social/environmental/economic value and the internal governance) and external factors (local partners, competition and the political and institutional dimension) often appeared in the discourse with codes of strategic design and strategic change. A fourth lexical analysis then focused more precisely on the content of verbatims in order to identify causal links between the codes, especially those directly related to the BM trajectory. For example, this step revealed the positive causal link between the





dependence towards local partners and positive changes in the BM evolution. The influencing factors within each stage of the BM trajectory were identified and the comparison between SMEs allowed to highlight common factors

### 3. RESULTS

Data analysis reveals three main findings. Firstly, the five SMEs studied show a common trajectory in the development of their collaborative open BM, structured into four main phases. Second, we note that the BM design depends on the equation between economic, social and environmental values. Thirdly, we observe a strong influence of the local ecosystem in the organization of the BM components and its development over the years. This reveals a form of co-evolution between the local ecosystem and the management of the open BM dynamics that supports sustainability. These results allow us to identify explanatory factors of the sustainable organization of an open BM dynamic in the social economy.

### 3.1. Business Model dynamics of SMEs in social economy: a common trajectory

The comparative analysis of SMEs reveals a common BM trajectory in four phases: design, exploration, exploitation and scalability (ensuring sustainability). Even if these phases have different timelines (depending on the SME studied), they have the same objectives and are linked to the same key strategic development and changes (see Table 2).

The design phase focuses on defining the social and/or environmental mission which then justifies the development of a profit or non-profit BM. The relationship between the mission and the BM vision also leads companies to define a value equation, which answers the following two questions: (1) What is the purpose of the company (its social and/or environmental value)? and (2) what is the company's strategy to achieve its purpose (its BM and the economic value)? Indeed, the data analysis shows that strategic design is inseparable from values. We note that the design is also open because the BM components (creation, proposition and value capture) are designed with local partners, via a collaborative architecture. This can be explained by the often-associative origin of the SMEs studied (before the creation of the company status) and therefore the search for partners to organize the BM activities. The five SMEs studied then show a stage of development where the BM is explored in relation to the local ecosystem in order to adjust the value proposition, test the feasibility of value creation and viability from the value capture perspective. During this test, the SMEs seek to build sustainable relationships with local partners. A high legitimacy is needed to achieve this goal. The exploration phase





begins when the BM is adjusted and when the first projects have, among other things, lend credibility to the SME in its role and mission within the local ecosystem. The objective of exploitation is then to seek the best balance in the initial value equation with the search for social, environmental and economic profits. Achieving balance and autonomy (especially at the economic level) allows to move into a scalability phase where the studied SMEs seek to diversify and renew their strategy and activity to better sustain their future development.





### Table 2: BM trajectory of the studied SMEs in the social economy

Trajectory	Phase 1 : BM design	Phase 2 : BM development (exploration)	Phase 3 : BM exploitation	Phase 4 : BM scalability
Objective	Define social/environmental mission Define the value equation Design BM with key local partners	Test the open BM locally (organize / adjust) Develop local collaborations Acquire legitimacy on the social mission	Find the right value equation (social, env. and economic profit equation) Acquire autonomy	Renewal and diversification to manage exploration / exploitation cycles
AfB Green IT (France)	Creation: AfB France (2014) by duplicating the BM of AfB Germany Mission: sustainable jobs for people with disabilities  Value equation: non-profit, ecological, social  Value proposition: IT reconditioning, sales	Local open exploration: local BM test with key partners, addition of data cleaning service Resource development: from 7 employees (2013) to 25 (2015) on the French site Legitimacy: certification for IT reconditioning, social/ecological awards and communication of the social/ecological mission in the ecosystem	Exploitation: local growth and BM duplication (3 new branches, 2015/2018)  Social profit: 77 employees, 80% of whom are disabled (2019)  Ecological profit: 65% of 350 tons of IT equipment reused (2018)  Economic profit: sales performance (2017)	Profile: (2020) 80 employees (80% are disabled), 4 sites in France, 1000 partners Diversification: local anchoring, network expansion, new projects development (outside the usual field)  Renewal: open organization between the 4 branches to innovate (new services)
Atelier Re-Née (France)	Creation: BM co-creation with a local partner of integration (2014)  Mission: professional integration of people marginalized (social)  Value equation: non-profit, social and ecological  Value proposition: textile recycling (collection, sales, manufacturing)	Local open exploration: BM test with two key local partners (professional integration and textile collection). Creation of a (sewing) workshop and a shop Resource development: change in management (director) to develop the business Legitimacy: social and solidarity economy price (2017)	Exploitation: local growth (17 partners), project of professional resource center Social profit: innovation in integration support services (since 2019)  Ecological profit: average 530 tons of textile collected per year (since 2018)  Economic profit: difficult (only on the collection business activity)	Not reached yet. Willingness to achieve sustainability with the project of a professional resource center for companies in the local ecosystem (objective of economic balance)  Renewal: more innovation to renew the products of the sewing activity for sale in the shop and partners shops
Champ des Cimes (France)	Creation: BM integrating firm (2005) created by a local social association  Mission: professional integration for people in social difficulty  Value equation: profit and social  Value proposition: landscaping activities service and touristic garden	Local open exploration: local BM test and modification (cessation of the touristic garden activity, focus on 4 activities of landscaping, stonemasonry, natural spaces and winter) (2013)  Resource development: departure of the 2 former leaders, new manager arrival (2011-2012)  Legitimacy: local recognition via key projects	Exploitation: local growth by huge networking, stop the winter activity  Social profit: annualization of integration contracts (2017), creation of a local shared center of training with partners (2018)  Ecological profit: local green projects  Economic profit: balance (2016)	Profile: (2020) 17 employees, network expansion to other regional territories Diversification: local anchoring, new activity of wooden furniture (2020), project diversification for sustainable development Renewal: open innovation in training activity (2019), open governance
e- Durable (Swiss)	Creation: Green BM (2015) based on a Meta-Durable association project (2008) Mission: greening IT in organizations Value equation: profit and ecological Value proposition: Sustainable IT services provider	Local open exploration: local BM test and reorientation on green IT consulting and support with local green partners (banking, telephony, hosting, printing, insurance) (2016-2017)  Resource development: 2 then 6 (2018)  Legitimacy: clients recognize the service quality	Exploitation: local growth (customers growth), service growth (strategy, project, expertise, hardware, hosting), new partners Ecological profit: 100% green IT services Economic profit: IT service performance, especially support service (2018-2019)	Profile: (2020) 8 employees, 1 site, constant growth (almost 1 million turnover)  Diversification: local anchoring, plans for a subsidiary in France  Renewal: open innovation green projects (example: Recycled.Cloud)
réalise (Swiss)	Creation: associative BM (1984)  Mission: social and professional integration of untrained people  Value equation: non-profit and social  Value proposition: local professional integration by practice and training	Local open exploration: local BM test (until 2002) then repositioning the BM in professional training and work placement (2003) within the local ecosystem  Resource development: association (2002), then company status (2003) with one site in Geneva Legitimacy: Winner of the Cantonal prize for sustainable development (2004)	Exploitation: local growth with the training business ecosystem and reorganization in four areas (logistic, industry, gardening & outdoor work, cleaning & laundry) (2016)  Social profit: average 500 persons trained per year (since 2016)  Economic profit: training service performance in the four business areas	Profile: (2020) 20 employees, 1 site, more than 50 sustainable partners, logic of social impact (instead of economic growth)  Diversification: development of digital training (2019)  Renewal: open innovation with employers / partners to renew training courses, open innovation to share the BM outside





## 3.2. THE ROLE OF THE VALUE EQUATION IN DESIGNING AND EXPLOITING SOCIAL BUSINESS MODEL TO PREPARE SUSTAINABILITY

The BM analysis of the five SMEs shows a strong influence of social, environmental and economic values during the BM design but also during the different phases of its trajectory.

In the design phase, SMEs seek to reconcile their social and/or environmental missions with the idea of a profit or non-profit BM. The objective is to find a value equation shared by all in order to design a sustainable strategy. Comparative analysis shows differences at this level. The SMEs Atelier Re-Née, Champ des Cimes and réalise started with a value equation mainly focused on the social mission, either because of an initial associative model or to benefit from aid and subsidies for this type of mission. This very social conception of the BM was quickly faced with economic imperatives of balance between costs and revenue (in the exploration phase), forcing SMEs to readjust their BM and their value equation to reach this balance (essential for growth and survival). In the case of AfB and e-Durable, the economic necessity was already present in the BM design with a more balanced equation, allowing a quicker transition from the exploration to the exploitation phase.

"Actually, our ambition is to bring a second life, to really bring a second life to computers and to put this activity at the service of a solidarity project, that consists in creating sustainable jobs for people with disabilities. It tugs at our heartstrings, it is what has been keeping us moving forward everyday. It truly is the driver of our company – to create employment – which explains why we have this very specific Non-Profit Simplified Joint Stock Company status." (Marketing manager, AfB Green IT)

In the exploration phase, the role of values is twofold: (1) to acquire legitimacy within the local ecosystem in order to be credible in the declared social and/or environmental mission, and (2) to test the economic viability of the open BM to ensure future exploitation with partners. Here too, differences and similarities between the cases can be observed. We note that the acquisition of legitimacy is compulsory, either through participation in competitions in the social and/or sustainable development field (and award obtention, such as AfB, Atelier Re-Née and réalise), or through the success of emblematic projects demonstrating the quality of the company's activities (Champ des Cimes and e-Durable). The recognition acquired then facilitates the network expansion and project development with new customers.

"Indeed, there's a truly critical step, which is 2014. This is when we won the great prize of solidarity finance, which was supported by le Monde and Finansol. Thanks to this contest, we could benefit from a high public visibility. We had a website which was a very pitiful sight, it really was lousy. Anyway, our company was mentioned in a three lines excerpt from the Femina magazine, and then, we did not understand what





happened. The next week-end, we received 20 orders, which was actually unbelievable." (Marketing manager, AfB Green IT)

Then, the BM test is observed in all the SMEs studied. By choosing a limited number of partners and with a few key projects, each SME tests and adjusts the BM components of value creation, value proposition and value capture. Several cases show modifications, either by removing activities that are not remunerative or do not meet local needs (e.g. the stopping of the tourist garden by the Champ des Cimes), or by adding new activities (e.g. the addition of data cleaning by AFB, the addition of a sewing workshop and a shop by the Atelier Re-née). Other cases (e-Durable and réalise) completely repositioned their BM with a new value proposition to generate more economic value.

"Actually, I have a little story to tell you about this, which is that, when we started e-Durable, my first project was to green up the computer equipment owned by organizations, whether they were universities, companies, municipalities and son on. [...] We started to enter the marketplace, and everyone complimented us, saying: 'What you're doing is great!' No one ever bought a single hour of this service. Hence, we questionned ourselves. [...] In fact, it lasted a long time till we wonder, with the other founders of e-Durable: « Obviously this isn't working. How do we consume or ask for greener services? » [...] So we totally reoriented e-Durable's offer, saying: 'Actually, we're going to hit the market and provide computer services, just like all of the regional companies do, which namely consist in support, consulting and digitalization assistance.'" (CEO, e-Durable)

In the exploitation phase, the objective is clearly to achieve the best balance in the value equation in order to target different types of profit equations: social, environmental and economic. Without this balance, the transition to scalability is not possible (as Atelier Re-née). This makes this step difficult and causes internal tensions between economic, social and/or environmental objectives.

"The employment company is a tricky one, because you're in between notions of profitability and notions of people support. Thus, my job often consists in arbitrating this. I make a trade-off between both: 'do we favour social or economic matters?' Things must be decided on a case by case basis. But, at some point, the economic aspect remains real. And when you're from the social sphere, you might not stand that." (CEO, Champ des Cimes)

The last scalability phase shows a real stabilization of values in the mission and the BM of the SME, thus promoting the development of sustainability through diversification and renewal of the original activities. A new dynamic of open innovation can be observed at this point, which seeks to reproduce exploration and exploitation cycles consistent with the value equation. The objective is not necessarily economic growth (as réalise shows) but rather the





search for quality, openness and impact in order to disseminate more widely the values and missions of SMEs.

"So, now, our strategy really is to shift to a digital strategy in the mid-term. Our aim is to increase our impact. We'll have more impact by making our good practices more accessible than by multiplying our number of training posts. It means that, speaking of réalise's historical growth model, in this very building, we have no view in our activity development. We are in an impact growth logic." (CEO, réalise)

## 3.3. THE ROLE OF THE LOCAL ECOSYSTEM IN ORGANIZING THE OPEN BUSINESS MODEL DYNAMIC TO SUPPORT SUSTAINABILITY

Our analysis shows the key role of the local ecosystem in defining and designing the open BM and then in structuring its trajectory from the exploration to exploitation. Indeed, all the SMEs interviewed mention the naturally open dimension of their BM, insofar as it is designed with local actors (especially associations and key partners). This positive relationship of openness can be explained because the chosen partners share the same social and/or environmental values.

"On the social and solidarity part, we have Comptabilis. Typically, it's an ideal supplier for us. We are completely aligned; the quality of service is very good and the alignment of values is very good." (Director, réalise)

The five SMEs studied also agree on the innovative nature of their BM, as it is designed on an open architecture involving a novel partner arrangement. This is the example of the Atelier Re-née BM, which is based initially on two key partnerships with a professional integration structure (which provides support and training for integration) and a textile recycling player (with whom the textile collection system was designed and who undertakes to buy all the textiles not recycled in the sewing workshop). Under these conditions, our data show phenomena of dependency on certain key partners but without negative effects because the sharing of common values gives priority to the social and/or environmental collective mission.

"I started here as a CEO, I wasn't necessarily involved in the previous project, which had been more or less abandoned and, most importantly, a partnership had been started with Tri-Vallées, a company which was in the textile collection sector and teached us textile collection, and, inevitably, we became a textile collector. [...] However, it truly was a windfall to meet Tri-Vallées at that time, because they're close, they are from the social and solidarity economy, they are from the professional integration sector, so it's obvious: birds of a feather flock together." (CEO, Atelier Re-Née)





The local ecosystem thus positively structures the open BM dynamics and our data show that this structuring follows two complementary logics. Firstly, an internal-to-external logic, when the SME drives a strategic change that has repercussions within the local ecosystem.

"Obviously, it doesn't prevent me from influencing my partners regarding the sustainable part, because it matters to me and since, in this regard, I consider them not only as partners but also as suppliers. Hence, just like with suppliers, I ask them to do some efforts, I also ensure that... I want to make sure they treat their employees well, and so on, so there's also a social aspect." (CEO, e-Durable)

Secondly, an external-to-internal logic, when the local ecosystem (and sometimes also the global ecosystem as the state, regional institutions, public policies) causes changes or provides project opportunities for BM exploration and exploitation.

"[...] in 1993, we opened réalise's third department called 'community services' [...], it related to unemployment burst in Switzerland, which began in 1990, that is, a few years later than in France, but with a critical growth of unemployment since the early 1990s leading to a very simple observation: what had been set up for people who a applied for social assistance – that is, people who had been remote from the labour market for some time and for several reasons, namely sanitary ones -, and now, the newly unemployed could apply for social assistance if nothing is done for them." (CEO, réalise)

Data analysis shows that strategic change is mostly influenced by local partners, often in response to strategic difficulties experienced by SMEs. This shows that SMEs naturally open their boundaries to seek solutions to problems during their BM trajectory. The internal logic remains minor and often comes from an internal innovation pushing the company to make a strategic change that may reorganize or modify its local ecosystem. We do not observe any common strategic changes as these depend on the specificities of the studied SMEs.

Finally, our results suggest a co-evolution dynamic between the open BM of SMEs and their local ecosystem. As the BM is an evolutionary model, we notice strong interactions with the existing ecosystem, itself subject to specific evolution (appearance of a new partner, pressure from public policies, new market opportunities, etc.). In this perspective, a co-evolution dynamic seems to be organized jointly between the SME and local actors by means of economic mechanisms (activity and service contracts), social mechanisms (agreements for professional integration, aid, subsidies, training program) and environmental mechanisms (collaboration for recycling, sorting activities, provision of resources, sustainable collective actions).

"There are also ongoing changes regarding laws and CSR. Conventional enterprises begin to notice the interest of all that relates to inclusiveness - inclusive companies and so on -, so it leads them to create new partnerships with employment companies.





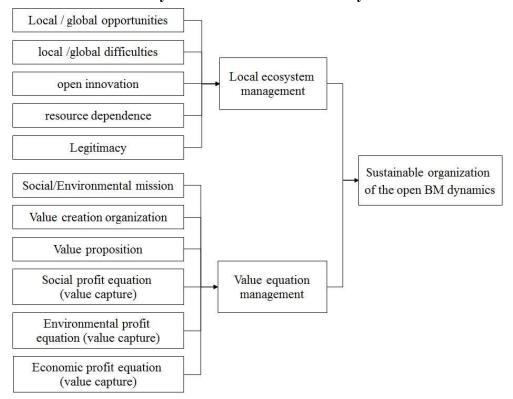
[···] Thus, we created a network so as to prepare and create bonds, to have common responsibles for corporate relations in order to create bond between our departing employees and conventional enterprises." (CEO, Champ des Cimes)

Therefore, the local ecosystem has a different usefulness depending on the phase of the BM trajectory. In the exploration phase, it provides the space to test the BM, its feasibility and viability, in line with the value equation. It also provides opportunities to reorient the BM (cf. E-Sustainable and Achieves) and test these new modifications within local projects. In the exploitation phase, the local ecosystem is a lever for the growth of the BM exploitation because SMEs draw opportunities from it and capitalize on the partnerships established in the previous phase. In the scalability phase, the local ecosystem becomes once again a field for exploration with a wider opening of borders for AfB, Champ des Cimes and réalise and a willingness from the five SMEs studied to extend their network to develop new sustainable projects and activities

### 4. DISCUSSION

Our results allow us to discuss two managerial dimensions in the sustainable organization of the open BM dynamics in the social economy: (1) the local ecosystem management and (2) the value equation management, which themselves involve the management of several strategic elements (cf. Figure 1).

Figure 1: managerial dimensions in the sustainable organization of the open BM dynamics in the social economy







### 4.1. MANAGING THE VALUE EQUATION FOR SUSTAINABLE SOCIAL OPEN BUSINESS MODEL

Values are a powerful lever for the sustainability of social BM (Spieth et al., 2019) and our results show that the value equation plays a strategic role in the BM trajectory. The notion of balance between economic, social and environmental objectives is crucial for sustainability (Geissdoerfer et al., 2018a). For SMEs, even if social BM must be ethic (Alam et al., 2018) and must prioritizes the delivery of social value (Yunus et al., 2010), social or environmental utopia is not sustainable without an awareness of the economic imperatives necessary for the growth and survival of the organization. Conversely, economic opportunism cannot persist in an economy based on social and/or environmental values (Reficco et al., 2020). Balance in the value equation seems to be the right path to sustainability. Some recent works already highlight this conclusion (e.g. Brehmer et al., 2018; Hudon and Huybrechts, 2017; Sonnino and Griggs-Trevarthen, 2013) but our results go further by showing how the value equation partly shapes the BM trajectory and implies tensions between value objectives. Because the SMEs studied do not have the same balance between economic, social and environmental objectives when designing their BM, several tensions appears in the exploration and exploitation phases. Indeed, companies seek to acquire value profit equation, especially the social profit equation and the economic profit equation (Sonnino and Griggs-Trevarthen, 2013). In case of imbalance, the BM must be adjusted, even if the priority remains the social and/or environmental objectives (Amin, 2009). Our cases show that these tensions can be resolved in two ways, either when the manager has both a social and/or environmental and economic culture, or when the SME has two managers (one managing the social/environmental objectives and the other managing the economic objectives).

Beyond the definition of the value equation and the management of the associated tensions during the BM evolution, our data also suggest that BM sustainability is based on a search for a long-term impact and not only for economic profit. Indeed, concrete social and/or environmental impacts are more ambitious than the only economic goal (Pirson *et al.*, 2019; Rao-Nicholson *et al.*, 2017; Reficco *et al.*, 2020). But sometimes, the economic objective must become a priority in order to subsequently invest in social and environmental innovations (Rao-Nicholson *et al.*, 2017). For the SMEs studied, the idea is not long-term profitability but rather the ability to change society and the local territory. The interest is to produce for the common good (Porter and Kramer, 2011) while aiming for the highest possible level of impact (Cosenz and Noto, 2018). This strategic vision, which focuses on impact and not profitability, changes the role of the SME in its local ecosystem and leads it to think from the outset about the notion





of sustainability and long-term transformation. Therefore, the value equation does not have to be constantly balanced and this implies a form of agile management in decision making in order to continuously adapt and react to social, environmental and economic opportunities and constraints. (Robberts and Pakkiki, 2016).

For SMEs, managing the value equation during the BM trajectory thus involves: (1) managing the balance between value objectives in the design phase, (2) managing the tensions between value objectives and value profits and the exploration and exploitation phases, (3) managing value impacts to be the highest in the scalability phase.

## **4.2.** MANAGEMENT THE LOCAL ECOSYSTEM FOR A SUSTAINABLE DYNAMIC OF OPENNESS AND INNOVATION

Our results show that the dynamics of opening the BM with the local ecosystem is a lever for sustainability, if the balance in the value equation is reached in the exploitation phase. Indeed, openness is a powerful lever for innovation and strategic renewal (Chesbrough, 2017). In the social economy, the SMEs studied show that this openness is structured and evolves according to the local ecosystem management and therefore the choice of partners. By integrating the local ecosystem as a workspace and a strategic resource for the BM (Waters-Lynch and Potts, 2017), SMEs create a native open BM in which collaboration is the main support for doing strategy. In this sense, the BM is not only dependent towards the SME but also towards the partners in an interdependent relationship (Pfeffer and Salancik, 2003). However, this dependence does not seem imply negative effects on the strategic trajectory, contrary to traditional research on the subject (e.g. Casciaro and Piskorski, 2005), because the partners share common social and environmental values. Therefore, the role of values seems key to the sustainability of inter-organizational relations in the BM but requires a capacity to orchestrate the network to federate the partners in the pursuit of economic, social and environmental objectives of sustainability (Brehmer et al., 2018). However, we note that the SME needs to acquire social and/or environmental capital in order to be legitimate within the local ecosystem. (Baeur et al., 2012).

Thanks to the local ecosystem, the collaborative open BM studied (according the typology of Saebi and Foss, 2015) thus enables SMEs to innovate with multi-sided services based on physical or digital multi-sided platforms, making the BM itself multifaceted (Gandia and Parmentier, 2017). The organization of value creation, value proposition and value capture is thus open and implies a close relationship with the balance of economic, social and





environmental objectives of SMEs, which must be aligned with the objectives of the actors in the local ecosystem. This dynamic of openness provides a higher potential for innovation because the BM is permanently connected to the local ecosystem and therefore acts as a catalyst of opportunity that makes the SME more agile in its daily organization, particularly in order to reconfigure and rapidly evolve its BM (Aspara *et al.*, 2013). Innovation with the ecosystem also seems to be a powerful lever for the BM development and evolution (Massa and Tucci, 2013) in a sustainable perspective. Indeed, the SMEs studied seek to innovate openly in order to find new levers for diversification and strategic renewal in order to support sustainability, which is in line with the works on the link between innovation and BM sustainability (Boons and Lüdeke-Freund, 2013; Bocken *et al.*, 2014). From this perspective, the organization of the open BM dynamics gradually leads to a dynamic of open innovation, sometimes with innovative governance models, which makes it possible to contribute to recent research on the governance of social and sustainable BM (e.g. Aagaard, 2019; Lewandowski, 2016; Mahfuz *et al.*, 2019; Sousa-Zomer and Miguel, 2018).

### **CONCLUSION**

Our research contributes to research on the recent themes of open and sustainable BM, by providing a detailed understanding of the organization of the open BM dynamics in a sustainable approach and by revealing the explanatory factors of this dynamic and their consequences. Specifically, our study provides three key contributions. First, the identification of a common BM trajectory adapted to SMEs in the social economy that is structured in four phases: design, exploration, exploitation and sustainability. Second, the role of social, environmental, and economic values and the influence of their balance and/or tensions during the phases of the open BM trajectory. Thirdly, the role of the local ecosystem in organizing the open BM dynamics. We also highlight, through the discussion of our results, two key managerial dimensions that seem to explain the open BM sustainability in the social economy: (1) the sustainable management of the local ecosystem and (2) the sustainable management of the value equation (balance between type of value, value objective and value profit).

Our contributions are instructive for managers and leaders of SMEs in the social economy. First, we show that it is important to be aware, from the beginning, of the economic imperatives linked to the organization growth and survival. This allows to avoid extreme scenarios of social/environmental utopia or economic opportunism. Therefore, the definition of the social and/or environmental mission is essential, but the BM design must also include a





reflection on the economic dimension, even if the idea is to develop a non-profit BM. Secondly, the BM design must be open with the local ecosystem in order to use local resources as levers for strategic exploration. During this exploration, it is important to test with partners the BM components: the feasibility of the value creation, the adequacy between the value proposition and the market and the possibilities of economic value capture. This test must enable the establishment of long-term relationships and the selection of emblematic projects in order to rapidly acquire social and/or environmental legitimacy. This exploration phase should be rapid as possible in order to move to the exploitation phase and thus try to reach the balance in the value equation. When the BM exploitation, managers must focus their attention on the value profit equations and manage their balance or sometimes imbalance (tensions). The imbalance should lead to strategic changes at the BM level to readjust it. Innovation can be a good way to help transform or modify the BM to achieve the value balance. This is the most difficult part because the goal of sustainability cannot be achieved without it. To do this, managers need to adopt an agile behavior stay tuned to the local ecosystem in order to quickly seize opportunities and react quickly to constraints. Here again, the way to orchestrate the network, to extend it reasonably (but not too much to avoid coordination costs), can be a good way to stimulate openness and boost the BM exploitation. Finally, once the balance is reached, the company can stabilize and then look for new exploration areas. At this level, it is very important to keep in mind the importance of the value impact (social and/or environmental), both local and global, in order to avoid a closed-focus on economic profit, which is not the primary vocation of the social economy. Managers can set up open innovation processes to support the diversification of their BM and its renewal. The development of new strategic areas, managed in coherence with the value equation, will support the open BM sustainability in social economy

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### $Appendix \ 1-the matic \ coding \ sheet$

Themes	Codes	Description		
Social	* Value_soc * Obj_soc * Impact_soc * Obj_env * Value_env	* social value (in a strategic perspective)  * social objective (in the BM)  * social impact (local / global)  * environmental/sustainable objective (needs)  * environmental value (strategic perspective)		
Economic	* Obj_eco * Perf_eco * Cost_eco * Funding_eco * Finance_Aid_eco	* economic goals (in the BM)  * performance (in the BM)  * costs (in the BM)  * financing (in the BM)  * aid & subsidy (in the BM)		
Strategy / Business Model	* Autonomy_strat  * Tension_ecoVsoc_strat  * Conception_strat  * CreaV_strat  * PropV_strat  * CaptV_strat  * Gouv_strat  * Change_strat  * Competition_strat  * Difficulty_strat  * Reputation_strat	* strategic autonomy (strategic sustainability) * economic vs. social tension/equation * strategic design (of the BM) * value creation (BM) * value proposition (BM) * value capture (BM) * governance (way to manage the organization) * change (trajectory / evolution of the BM) * competition (in connection with the BM) * difficulties / risks (related to the BM trajectory) * notoriety / reputation / legitimacy / credibility		
Collaboration / Ecosystem	* Local_Partner_ collab * Global_Partner_ collab * Institution_ collab * Dependence_ collab * Intensity_ collab * Tension_ collab	* local partners (local territory)  * global partners (regional / national)  * political / institutional relationship  * resource dependence (towards partners)  * relationship intensity (low / high)  * conflict / tension related to objectives / values		
Innovation	* Type_inno * Intensity_inno * Process_inno * Origin_inno	<pre>* type (product / service / process / strategy / etc.) * intensity (low / high) * process (step / phase) * origin (internal innovation / external innovation)</pre>		