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Crowdfunding and the transition of the agriculture and food industry

An approach through various dimensions of proximity

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Summary

Drawing on data from three specialized crowdfunding platforms and on semi-structured interviews conducted with project leaders located in the French Jura Arc region, we examine the role of this financing mechanism in the transition of the agri-food system. We draw in particular on proximity theory (Torre, 2018) to show that while so-called "social" proximity (ties of family, friendship, or networks) plays a decisive role in the success of crowdfunding campaigns, geographical proximity does not appear to be a determining factor in the decision to resort to crowdfunding or in the success of these campaigns. Our exploratory study also suggests that other forms of proximity (institutional or organizational) may influence the actors' approaches. Finally, family and friendly support remains central, whereas the effect of any "geographical neighborhood" appears much more limited.

Mots-Clefs: crowdfunding, transition, agri-food, proximity theory, social and geographical proximity

***JEL* codes**: G29, Q14, Q20, R11, R12

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1. Introduction

In France, the agricultural sector is the second largest emitter of greenhouse gases, after the transport sector. Its emissions were estimated at 73 million tonnes of CO2 equivalent in 2023, or around 20% of national emissions (Chiffres clefs du Climat, Service des Données et des Études Statistiques [2024]). These emissions are declining, and the SNBC-2 (Stratégie Nationale Bas Carbone) has set a target of a 15% reduction by 2030 and over 40% by 2050. The necessary transition of the agricultural world towards more sustainable models - a transition also declared by the new CAP (Common Agricultural Policy) - entails significant costs, since structural transformations must take place throughout the food chain, from agricultural production processes to food processing and consumption patterns: increased carbon storage in soils, reduced reliance on fossil resources, development of agro-ecology, development of plant proteins and so on.

These transformations therefore require significant sources of financing. Alongside bank financing, which remains predominant, other players are actively contributing to the financing of sustainable agriculture, in particular crowdfunding platforms (e.g. Miimosa, AgriLend). Via the Internet, these platforms raise funds from individuals or legal entities to participate in the development of a personal, social, artistic, or economic project. Funds can be contributed in the form of donations (with or without consideration), loans, or capital investment. In France, crowdfunding has been open to SMEs since loans with interest were authorized in 2014, followed by financial securities in 2016. Crowdfunding has raised over €9 billion in France since 2015, including €2.3 billion in 2022 and €2.1 billion in 2023 (Mazars and Financement Participatif France [2023]). Within the funds raised for the economic sector, the agricultural sector benefited from a third of donations (8.4 million euros), 1% of loans (16 million euros), and 5% of capital investments (13.2 million euros). Crowdfunding is also one of the financing methods recommended by chambers of agriculture (Chambres d'agriculture [2024]). At last, allowing individuals to know what their savings are financing, crowdfunding encourages the emergence of more sustainable projects (Deffains-Crapsky [2021]).

The role played by this type of financing in the ecological transition of players in agriculture and the food sector in the Jura Arc between France and Switzerland is particularly interesting. Indeed, this mountainous area makes extensive farming difficult and is characterized by small farms. This situation favors the development of organic and sustainable agriculture and local food circuits, but it also makes financing more delicate. Crowdfunding would therefore seem to have a natural place here. It is therefore crucial to understand the role played by crowdfunding in the development of green agriculture in the French part of the Jura Arc (e.g. AB labeling, HVE certification, development of short circuits). To this end, we decided to focus on three crowdfunding platforms specializing in the transition of agriculture and food: Miimosa, Bluebess, and Tudigo.

Our main objective is to gain a better understanding of why this type of financing is used and, where relevant, to identify the factors that determine its success. Two elements can indeed play a crucial role. On the one hand, the existence of potential complementarities between bank financing and participatory financing may explain the recourse to crowdfunding. Indeed, it can

serve as a lever for obtaining a bank loan. On the other hand, we align with the work on proximity theory (Torre and Gilly, 2000; Torre and Rallet, 2005; Torre, 2018), which distinguishes spatial proximity (measurable geographical distance) from relational proximities (social, organizational, institutional), and we examine the role of these various forms of proximity—particularly social/familial proximity and geographical proximity. These forms of proximity can play a role among project leaders (actors in the agricultural sector seeking to finance their agro-environmental transition) through the interactions they enable, which may in turn influence both the decision to resort to crowdfunding, the dynamics of the fundraising process, and the eventual success of the campaign. We also investigate the potential impact of geographical proximity between project leaders and contributors.

To conduct this study, we identified and interviewed—through semi-structured interviews—the project leaders from the Miimosa, Bluebess, and Tudigo platforms located in the French part of the Jura Arc between 2016 and 2021. The analysis of their responses highlights the positive role played by crowdfunding in the agri-food transition. Not only did it enable the exclusive or joint financing (with bank loans) of projects, but it also facilitated the implementation of projects that are deeply rooted in their territories. Our results further reveal the key function of crowdfunding in financing projects that are often atypical or involve reconversion, while emphasizing the decisive role of "social proximity" (friends, family, professional networks) in the initiation and success of campaigns. However, our interviews do not allow us to clearly determine whether there is any geographical interaction among the project leaders. The impact of geographical proximity between project leaders on one hand and contributors on the other also does not appear clearly in the data we have available.

The remainder of this article is organized as follows. The second section presents our three main questions in the light of institutional and literature evidence. The third section describes the data we collected and the descriptive statistics relating to them. The fourth section presents and discusses our results. Finally, the last section concludes our article and suggests avenues for future research.

2. Main research questions

Our research aims to explore three questions. First, we want to know whether crowdfunding has (or has not) a positive influence on the financing of projects enabling the evolution of the agriculture and the food sector in the French part of the Arc Jurassien, particularly in relation to other types of financing. Crowdfunding takes a different approach, particularly with regard to bank financing. For the project owner, the objective is not simply to raise the funds required for investment. Other issues are also important, such as building brand awareness, establishing a network of customers (funders very often become customers and vice versa, particularly via social networks), or the desire to benefit from advice or feedback to improve the project. What's more, from a strictly financial point of view, there are real differences between crowdfunding and bank financing. The former is often less costly in terms of interest rates and less demanding in terms of collateral; its set-up is faster and more transparent (Bessières and Stéphany [2017]). Finally, it sometimes simply enables the implementation of projects that have not had access to traditional bank credit (Tang [2019] and de Roure *et al*. [2022]). According to the Miimosa

report [2020], 55% of project leaders have not used any other type of financing. However, these two types of financing can also be seen as complementary, in the sense that a contribution of funds via crowdfunding can enable the project owner to benefit from bank support. For instance, the Miimosa report [2020] indicates that this situation concerns 41% of project owners.

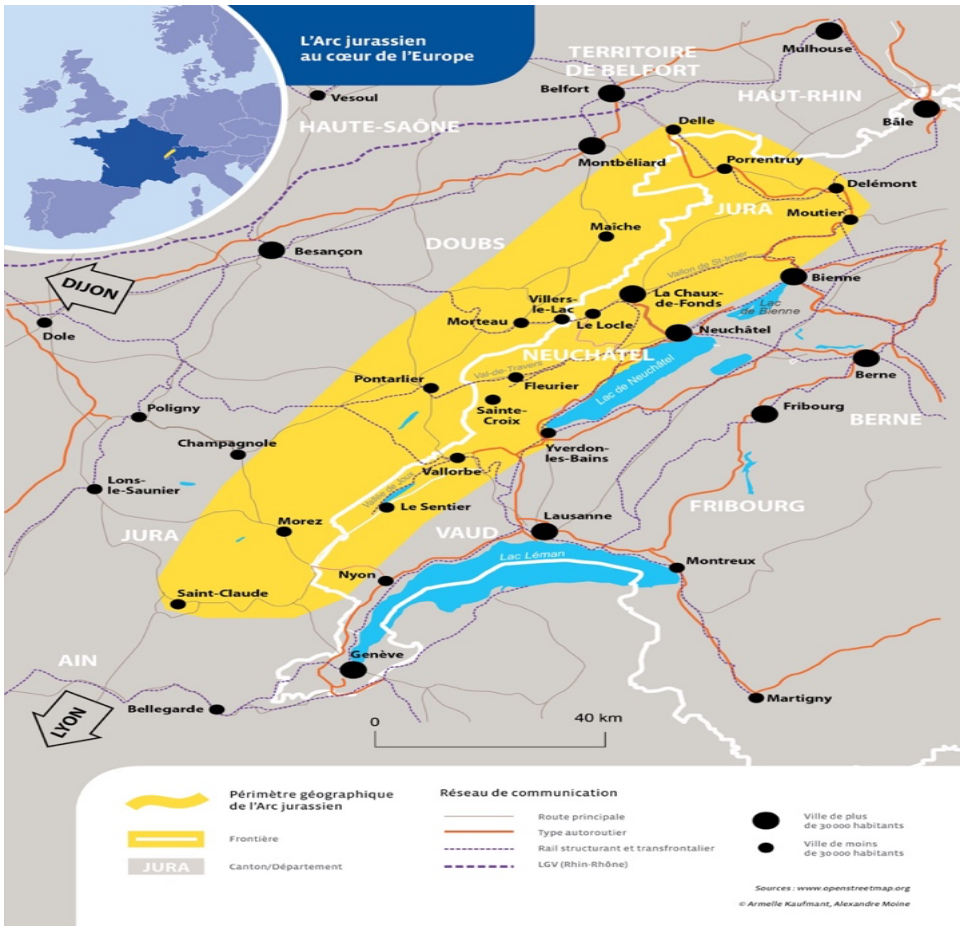
Secondly, we examine the role of various forms of proximity between, on the one hand, participatory project leaders and, on the other, other actors with projects, in encouraging (or not) the latter to resort to crowdfunding. Social and familial proximity—that is, the bonds of trust, mutual support, and belonging to the same network—plays a more decisive role in the use of crowdfunding than geographical proximity alone. The exchange of information and advice regarding this financing method, along with the backing of the inner circle (family, friends, colleagues), can stimulate the decision to launch a campaign. The geographical distribution of activities could also explain a spatially differentiated use of crowdfunding: some territories, for instance, may exhibit a more intense need for environmental transition capital, or, conversely, be focused on small projects requiring only modest amounts that can be funded through donations. Moreover, certain activities may give rise to types of projects that are more easily financed by crowdfunding, notably due to more attractive storytelling. In addition, support for the establishment of young farmers—which is more intensive in certain types of territories (for example, in disadvantaged areas and mountainous regions)—may reduce the average age of operators, thereby increasing the likelihood of resorting to crowdfunding (the Miimosa report [2020] indicates that 58% of project leaders are between 25 and 45 years old). Finally, geographical proximity among project leaders may lead to more frequent interactions (frequenting the same locations, participating in the same markets, belonging to the same agricultural chambers, etc.), thus facilitating the sharing of information about the existence and potential benefits of crowdfunding.

Third, we believe it would be interesting to examine the existence (or not) of an effect of geographical proximity between project owners and between them and contributors, both on fund-raising dynamics and fund-raising success. In a situation of geographical proximity potential, interactions between project leaders could lead to the sharing of experience and information, thereby increasing the dynamics of their fund-raising and/or their success. Furthermore, the literature on crowdfunding shows the positive impact of geographical proximity between project holders and capital providers (Agrawal *et al.* [2011] and Mollick [2014]). This can be explained by the fact that project owners mobilize their proximity network (friends and family) to launch the campaign and create a fundraising momentum, which will attract other investors thanks to a form of positive informational cascade (Onnée and Renault [2013]).

3. Data and statistics

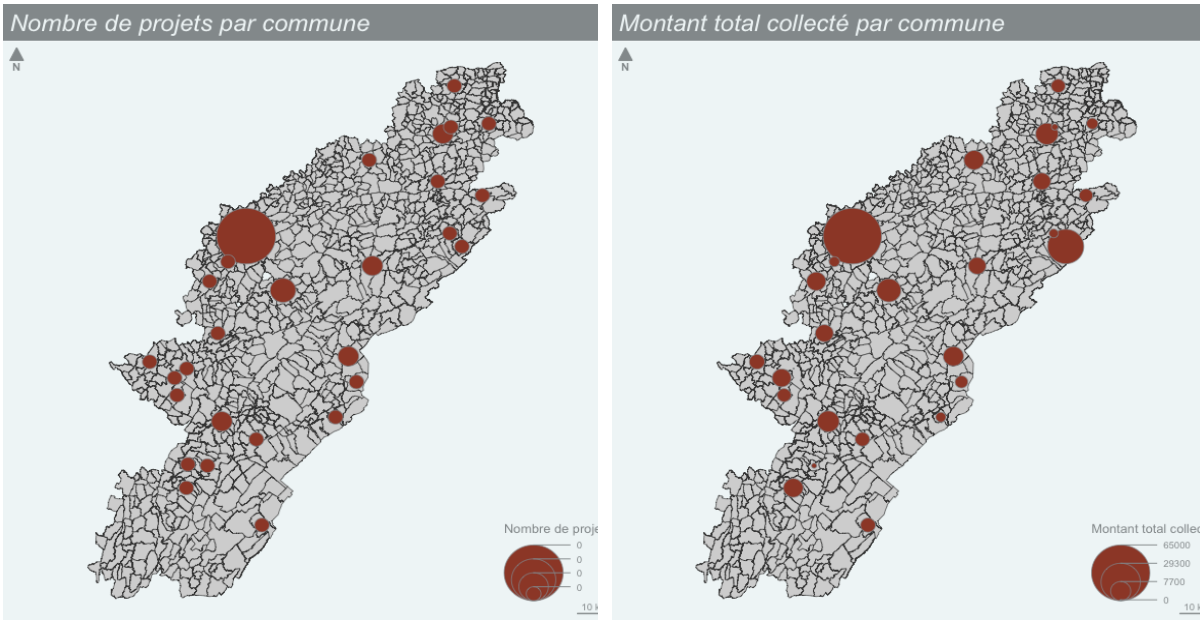
To provide some answers to our three questions, we selected the projects proposed by three French crowdfunding platforms specializing in the transition of agriculture and the food sector: Bluebees, Miimosa, and Tudigo; the data concerning them having the advantage of being public and readily available. We then selected, over the period 2016-2021, all projects located in the French part of the Arc Jurassien, i.e. Territoire de Belfort, Doubs, Jura, Ain, and part of Haute-Savoie (see Figure 1 below). Over this period and in this area, 77 projects were identified: 5 on the BlueBees platform, 40 on the Miimosa platform, and 32 on the Tudigo platform. Geographically, the vast majority of these projects (over 80%) are located in the Doubs (36 projects) and Jura (27 projects) regions, with the remaining projects in the Ain (12) and Territoire de Belfort (2) regions respectively (see Figure 2 below). All but one of the fund-raising campaigns are based on donations with rewards.

Figure 1. Arc Jurassien - French part



Source: ArcJurassien.org

Figure 2: Geographical distribution of projects



Number of projects ***Amount raised per project***

Source: Authors

The projects selected were all very modest in size, as is very often the case with donation campaigns. Indeed, as the descriptive statistics show (see Table 1 below), the average amount targeted per project, that is to say the maximum amount that project owners wished to raise, was 5,300 euros. The overall amount raised per project was 4,865 euros (over 90% of the average target amount). Observation of the 5th percentile indicates that some campaigns failed (they were unable to mobilize enough contributors to raise the target amount). The average number of contributors per project is 57.

Based on all 77 projects, semi-structured telephone interviews were offered to all project owners. In the end, only 13 interviews could be conducted. Half the projects are in agriculture, the other half are in food processing (bulk grocery, cheese factory, etc.).

Seven of the respondents were men, four were women and two were couples. Most of them are in the process of retraining. Their average age is 37, and respondents' range in age from 26 to 55, making for a relatively diverse sample in terms of age. The projects themselves are quite diverse. Six projects are linked to the world of agriculture: two to market gardening, two to beekeeping, and two to raising chickens or goats. Five projects are directly linked to the food system: two bulk grocery stores, one cheese factory, one oil mill, and one alternative bakery. The two remaining projects are an artisan soap factory working with local agricultural products, and a project to market products to raise awareness of market gardening. Nine of the project owners who responded to the survey used the Miimosa platform, three the Tudigo platform, and one the Bluebees platform.

Table 1. Descriptive statistics for projects in the French part of the Arc Jurassien

	Platforms	Bluebees	Miimosa	Tudigo	Total
Published projects		5	40	32	77
Target fundraising amount (in €, average value per project)	Average	N.A.	6,778.75	3,450.00	5,299.31
	Standard deviation	N.A.	7,432.00	1,892.94	5,888.90
	5% percentile	N.A.	2,525.00	1,260.00	1,465.00
	95% percentile	N.A.	10,237.5	9,350.00	10,000.0
Amount raised (in €, average value per project)	Average	3670,20	5,230.40	4,595.09	4,865.06
	Standard deviation	2920,69	7,852.35	4,119.96	6,261.67
	5% percentile	/	15.25	1,431.75	47.00
	95% percentile	/	11,626.2	15,090.9	9,934.50
Number of contributors (average value per project)	Average	56,2	58.41	56.50	57.46
	Standard deviation	36,64	39.84	33.38	36.57
	5% percentile	/	1	14.65	1.00
	95% percentile	/	144	142.50	139.75

The average amount raised and number of contributors for the projects supported by the interviewees is higher than for the overall sample. This is due in particular to the presence of a larger project than the others (see Table 2).

Table 2. Descriptive statistics for projects carried out by interviewees

	Platforms	Bluebees	Miimosa	Tudigo	Total
Interviewees' plans		1	9	3	13
Target fundraising amount (in €, average value per project)	Average	N.A.	10,672.2	6,750.00	9,959.09
	Standard deviation	N.A.	14,895.0	4,596.19	13,495.1
Amount raised (in €, average value per project)	Average	450	10,259.4	10,610.7	9,585.92
	Standard deviation	/	15,089.2	12,503.2	13,616.3
Number of contributors (average value per project)	Average	12	174.56	31	128.92
	Standard deviation	/	310.91	19.98	263.8’

4. Discussion

We compared the answers given by project leaders during our interviews with our three preliminary questions. Firstly, it appears that crowdfunding has played a facilitating role in the transition of the agriculture and food sector in the French part of the Jura Arc. Indeed, more than 80 % of the projects have a strong, or even very strong, territorial anchoring. They are therefore part of the sustainable development of the region. Almost all the projects studied are linked to the evolution of local agri-food systems, and almost all aim to supply their territory with food in a sustainable way (short circuits, fight against food waste, organic farming).

In addition, a quarter of projects are financed solely by the participatory fundraising campaign. For the remaining three-quarters, according to the project owners, crowdfunding played an essential role, either as leverage to obtain a bank loan or subsidy (notably from the region) or as a complement to loans from friends and family. As a result, crowdfunding campaigns are very useful in raising funds from what is usually referred to as "the first circle". Finally, it's worth noting that a third of all project owners stated that they aimed to raise brand awareness, another aspect that facilitates the use of crowdfunding.

The fact that a large proportion of these projects are reconversion projects should also be noted, as such projects seem to struggle to obtain bank financing. Banks seem to fear that a lack of experience will be detrimental to the project's success. Traditional financing channels are not always easy to access. Beekeeping projects, in particular, have a hard time convincing banks, as yields are not guaranteed since production can vary greatly from year to year. Crowdfunding is therefore used as a means of raising funds to set up the project.

Social proximity among project leaders, along with effective communication management, may influence both the dynamics of fundraising and the overall success of the campaign. In fact, two-thirds of respondents reported perceiving a local dynamic around the fundraising process and their project in general. According to them, the success of the campaign primarily stems from their immediate circle (i.e., friends and family), who are geographically close. Thus, this social proximity emerges as a driving force behind the adoption of crowdfunding, both for discovering this financing method and for being convinced of its relevance.

The effects are much less clear-cut when it comes to the geographical proximity. First of all, it seems that this proximity did not have a strong influence on the decision to use crowdfunding. Fewer than half of the project owners surveyed said they had had discussions, before the decision, with their family and friends or in a professional context. And, given our small sample size, we can't identify any impact of geographical proximity between project owners in this decision-making process. Nor is it possible to demonstrate the influence of geographical proximity between project owners and fundraisers on fundraising dynamics or campaign success. Only two of the people we interviewed had been in contact with each other.

In the final analysis, the project owners feel that crowdfunding has been a good way of developing their transition projects towards a more sustainable farming and food system, but in our sample, the existence (or not) of geographical interactions is impossible to demonstrate robustly.

5. Conclusion

Given food, agricultural, and climatic trends and needs, we feel that it is important and useful to answer the three research questions posed in this article, both for the platforms and project leaders, and for citizens and consumers as a whole. However, given the very small number of interview respondents, our ability to answer these questions was limited, and our conclusions should be treated with caution. In many respects, this article is purely exploratory and heuristic. We consider that further research, with a wider scope and more data, is therefore necessary.

However, it is clear from our study that there is a need for financing to complement traditional bank financing, to implement the necessary changes. If this need is confirmed, in particular by other studies, we anticipate that there will be greater recourse to crowdfunding in the agricultural sector in the years to come, as well as growth prospects for both generalist and thematic platforms. The difficulties recently encountered by all players in the farming and food system, particularly in the wake of rising agricultural commodity prices and interest rates, may well be short-lived. In addition, better anticipating the location of potential project initiators could also enable us to target institutional and commercial communication with them. A more in-depth and systematic analysis of the effects of geographical proximity between project owners seems interesting, particularly as networks (social, but also local in a short circuit logic) could be key factors. On the other hand, the proximity of project owners to contributors could also be important (both to facilitate in-kind contributions and because it creates an emotional closeness). On a strategic level, this proximity could also enable competition, collaboration, and coopetition between projects. Finally, the territorial complementarity between crowdfunding and banking that we have observed could result in active and fruitful collaborations between the different players.

These conclusions open the way for future research, for example by analyzing in greater detail how different proximities (social, organizational, institutional) combine during the phases of information diffusion or financial consolidation of projects. Extending the study to a larger sample of projects, or to other geographical areas, would also help to clarify the scope of our findings and better isolate the respective role of each form of proximity in the success of agri-food crowdfunding initiatives.

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