

Social Change for Sustainable Localised Food Sovereignty: Convergence between Prosumers and Ethical Entrepreneurs*

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Abstract

Some resourceful community-driven initiatives for local food production and retail have recently appeared in Luxembourg, where low organic agricultural rates are paradoxically paired with high consumer demands. This niche of social innovators combines agro-ecology with circular economy practices. Four cases of alternative food networks are presented here – studied with qualitative interviews and participant observation. One was established in the 1980s and has about 200 employees, partly linked to social assistance. The more recent and smaller initiatives are characterised by cooperative governance, a community-supported agricultural outlook, hands-on workshops and time banks, all enabled by social media. These initiatives are more radical in their agro-ecological or permaculture practices, focusing on regenerative land use without relying on imports and fostering the integration of consumers with varying degrees of prosumer involvement. This politicised step goes further than mere (and possibly industrialised) organic production. It represents a cultural shift in the food system by attracting media and policy interest, diverting attention away from individuals and focusing instead on the collective efforts that are necessary to build a more resilient food system.

Keywords: alternative food networks, ethical entrepreneurship, prosumers; social innovation

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1. Introduction

Several resourceful community-driven initiatives for local food production and retail, also known as alternative food networks (AFNs) (Goodman, Dupuis & Goodman, 2014), have recently appeared in Luxembourg. This is in a context of particularly low organic agricultural rates that are paradoxically paired with high consumer demands for organic produce, creating a market of mainly imported organic goods. In response, a niche of social innovators is combining agro-ecological land use and food production with locally grown produce as well as trends of circular economy. These ethical entrepreneurs tend to be inspired by international grassroots initiatives that producers, citizens and organisations in both the Global North and South have been experimenting with, such as organic farming, convenient and ethical box distribution schemes, community gardens, urban agriculture, guerrilla gardening, permaculture, community-supported agriculture, the zero waste movement, the transition movement and crowdfunded start-ups (see e.g. Tornaghi 2014; Allen, 2010; Kneafsay, Cox & Halloway, 2008; Mougeot, 2005; Goodman *et al.*, 2014; Feola & Nunes, 2014). Partnerships or conventions between upstream and downstream users (Spaargaren, Oosterveer & Loeber, 2012) of the food value creation chain often blur the lines between production and consumption, making an innovative space for co-created “prosumption” (Ritzer & Jurgenson, 2010; Toffler, 1980). They are often made in an institutional or personal posture of care.

This article analyses four case studies of the circular and collaborative economy-type fruit and vegetable production as well as unpackaged and/or socially responsible food retail in Luxembourg. One was established in the 1980s and has about 200 employees, partly linked to social assistance. The more recent and smaller initiatives are characterised by cooperative governance, a community-supported agricultural outlook, hands-on workshops and time banks, all enabled by social media. These initiatives are more radical in their agro-ecological or permaculture practices, focusing on regenerative land use without relying on imports and fostering the integration of consumers with varying degrees of prosumer involvement. This is a politicised step that goes further than mere (and possibly industrialised) organic production.

After an empirical review of their business models and challenges, the discussion will focus on these AFNs’ distinction from the mainstream food sector and the strategic differences among them. Their diverse appropriations of a tentative and participative local food sovereignty, putting into practice various forms of prosumer involvement on a small scale, appear as more

widely comprehensive and transferable, using conceptual tools from transition studies and social practice theory.

2. Methods

I have combined an institutional content analysis with an ethnographic qualitative field survey among Luxembourg's alternative food networks (AFNs). The former takes into account documents such as public policies, reports, flyers and websites, while the latter is based on participant observation and in-depth, semi-directive interviews with foodscape roleplayers in 2017 and 2018. My underlying approach is grounded theory (Glaser & Strauss, 1967), where inductive fieldwork generates theorisation. To maximise empirical insights, I have proceeded to a theoretical sampling (instead of a statistical one; *idem*, p. 45) via snowball effect and network analysis, hence a focus on relevant actors for change. The qualitative interview material was submitted to a "synoptic qualitative content analysis" (Mayring, 2007), condensing it to the essential findings without limiting content.

This work takes place in the framework of the research project Sustainable Food Practices at the University of Luxembourg (<https://food.uni.lu>), co-funded by the Ministry of Sustainable Development and Infrastructure and the University of Luxembourg (2016-2021). The research deals with transition to a more sustainable food culture and its potential optimisation. The aim is to document and foster sustainable change that might have a positive effect on the national climate and energy efficiency as well as on social and environmental justice.

3. Empirical Findings

Agriculture in Luxembourg uses 52% of the land (Service d'Economie Rurale, 2016, p. 6). Of this farmland, 22% is used for cereal production, 20% for animal fodder, 1% for wines and orchards, 0,4% for potatoes and 0,07% for horticulture (102 hectares). The numbers of farmers are constantly declining while farms tend towards concentration¹. Dairy products, animal husbandry and meat production are the main farming types. Vegetable production amounts to

¹ Farmers form 2% of the active population and most farms have more than 100 hectares of land (*idem*: p. 10-12).

1,7%, but the fact that it is produced on 0,07% of agricultural land points to its proportional land use efficiency. Organic farming is practised by 4,1% of farms (on 3,2% of farmland) (*idem*, p. 11-17), while the EU average is at 6,2% (European Commission, 2016).

Luxembourg's current mainstream agricultural sector focuses primarily on animals, covering 61,7% of the country's high meat consumption (89,7 kg per inhabitant per year, while the EU average is 82 kg) (Service d'Economie Rurale, unpublished). The vegetable production sector is almost non-existent, with not many resourceful community-driven initiatives for local food production and retail. The high demand for organic products means that 80% of organic produce is imported. With Luxembourg's highest GDP per capita worldwide², there is considerable spending power for organic produce – residents spend on average 8,6% of their disposable income on food (Zahlen & Osier, 2016, p. 1).

An increasing number of consumers have started spending their time allotted to activities around food (planning, gardening, shopping, cooking, disposing) as well as their food budget differently, subscribing to grassroots initiatives such as the ones below. Despite still being at a low level in Luxembourg, worldwide about 15% to 20% of total global food production is grown in cities and communities (TIR Consulting Group, 2016, p. 190).

3.1 Co-labor: One larger producer (3,5 hectares, about 200 employees), established in 1983

Co-labor is a cooperative involved in the social and solidarity economy sector, based on the principles of “sustainable development, social commitment and environmental responsibility, combined with economic performance. (...) Co-labor's primary objective is professional reintegration through guidance and qualification” (www.co-labor.lu).

The professional services are divided into green spaces, a nursery, tools, a florist, Gréngé Kuerf (“Green basket”), eco-wood management, administration and training courses.

Today, 20% of the turnover and 25% of the staff are linked to the production and import of organic fruit and vegetables that are delivered to

² The GDP (gross domestic product) per capita in Luxembourg was last recorded at 111.000,96 \$ in 2016. This is equivalent to 879% of the world's average (<https://tradingeconomics.com/country-list/gdp-per-capita>).

households countrywide via a box scheme of 170 weekly baskets. This “Green basket” activity also comprises a grocery store on the premises, a weekly market and a staff canteen that serves meals made from their own produce. The economic activity yields 60% of their income, while 40% is state-funded. With the box scheme, Co-labor currently has about 700 customers and continues to have a 5% to 10% growth in customers and turnover per year. According to the “Green basket” manager, social assistance is their first priority and their biggest challenge. Employees in social assistance programmes tend to have specific problems, and Co-labor aims to create a motivational work environment. The manager tries to foster their passion for the industry by involving trainees in the processes, from planning to execution. He gets a sense of trainees’ capacities and preferences, builds their strengths and considers their suggestions. He knows that his double role as a social worker and agro-engineer is a specific combination, and that the fluctuations in his team will always limit their cultivation efficiency.

Other limiting effects are the amount of available farmland (which could be extended) and the restrictive political framework regarding access to water, which makes the set-up of horticulture companies “quite an entrepreneurial risk”.

Co-labor’s priority is producing regionally growable and seasonal food, supplemented with imports. Vegetables tend to be more regional than fruit, with less variety in the organic than in the conventional sector. Packing a varied weekly basket is an ongoing challenge because customers have become used to supermarkets offering the luxury of prolonged seasons. Co-labor wishes to avoid imports from other continents and would rather raise awareness about seasonality and educate consumers. They take advantage of the “forced choice” of the basket, where subscribers have to taste new varieties. They have tried to convince customers when they had negative feedback but are bound to keep them satisfied.

Their main economic challenge is the selling of surplus. They have partnerships with organic and/or social groceries and restaurants and want to set up an online shop. As it’s difficult to quantify the surplus in advance, they don’t always manage to sell it to organic wholesalers, restaurants or canteens that would like to offer local or regional produce, “but find it easier to order their stuff at one wholesaler rather than four or five producers, where they still have to compare prices, coordinate deliveries and so on.” They advocate a selling and procurement platform for local organic produce. Despite giving away surplus to beneficiaries and local organisations in charge of food banks, quite a bit has to be binned, which

demotivates the teams. This management puzzle regarding quantity is an inherent risk when working with nature, but also stems from Co-labor's customer-orientated, commercial set-up: their subscribers may cancel the weekly delivery to their homes at relatively short notice.

Activities that Co-labor feels quite comfortable with are ongoing technical experimentation with cultivation techniques, compost, humus generation, green fertilisation, soil analysis, seeds and mutually optimising neighbourhoods among plants. They mill as little as possible (to preserve underground life), use the moon calendar, plant neighbourhoods, use mulching technology, do ridge planting and prefer non-rotating machines that are pulled (instead of driven twisting farming machines) to fight weeds between the banks. The CSAs in the sample also achieve attractive results with their no-dig approach, yet they may use as much compost as they think fit, because they choose not to conform to the official organic label.

3.2 Krautgaart: A small producer (1,3 ha), established in 2016 as community supported agriculture (CSA)

Three young men with natural science backgrounds (ecology, botany, agro-engineering) set up this initiative (www.krautgaart.lu) at the end of their studies. They started off growing potatoes and turned to the CSA model to centralise the sales activities. From an ecological perspective, they felt the need to do manual work and “contribute some good. (...) Agriculture is one of the biggest problems about how things are going at the moment. And if one starts turning that screw, one automatically adjusts many other things.”

They are now in their third season as a partnership corporation, where the three founders are self-employed entrepreneurs. They chose this structure to turn away from CAP-subsidised agricultural companies, which they see as a race to the bottom due to large investments, loans and fluctuating global prices. This urge to keep their economic and experimental freedom is reflected in their refusal to apply for any organic produce certification.

They now grow vegetables for 100 weekly baskets, distributed via a box scheme from April to November. The CSA members come to a pick-up point to fill their bags. Members contribute to the company by paying in advance for their seasonal groceries independently of the amount the crop yields but are not active shareholders in other respects. Agricultural labour is done exclusively by the three entrepreneurs, which lets them keep control

over their produce (80 varieties of vegetables) and documented experimentations, such as substrate types, watering, cultivation techniques, pre-growing young plants, testing different varieties and mutually beneficial neighbourhoods. They have a no-dig approach and use no fuel-driven machinery. They enrich their cultivation plan with experimentations and a pragmatic yet eclectic assemblage of agro-ecological and permaculture practices.

Krautgaard's business model is based on allowing the three partners to live off 1 hectare of land, which they rent for a symbolic amount. They earn the minimum wage for unqualified staff and are developing complementary sources of income: more weekly baskets, eggs from their own chickens, selling seedlings etc. They invest knowledge, time, money and skill into the objective of creating healthy soils in which "plants grow by themselves. (...) The soil is our bank." Financial benefits will only appear long-term.

It is a risk that they may not be able to buy the land they currently work on – a common one in Luxembourg's agricultural sector, where the largest proportion of farmland is leased, due to real estate pressure. Yet conventional farming techniques are less vulnerable concerning the unwanted loss of land than organic or agro-ecological ones with their longer-standing investment in soil health. The Krautgaard owners have partnerships with local organic farmers for animal manure to enhance the microbiological processes of humus formation. They strive to extend such circular economy exchanges, despite the challenge that organic animal manure – already rare in Luxembourg – tends to be used up by the organic farms in their own farm-level lifecycle management.

Krautgaard's slogan is "Be innovative with existing techniques". The entrepreneurs highlight the conviviality and trust among the CSA members and with them as producers. The weekly pick-up is seen as a moment of mutual exchange, where recipes and preparation tips of less familiar vegetables are exchanged, but also professional networks. All three partners are present at this regular appointment. Consciously available to deliver an informal "pedagogy from the producer", they raise sensitivity about seasonality, variety in preparation and the scope of what can be grown as local produce.

3.3 TERRA: A small cooperative (1,5 ha), established in 2014 as Luxembourg's first CSA

TERRA (www.terra-coop.lu), an acronym for Transition and Education for a Resilient and Regenerative Agriculture, was founded by three young

professionals whose profiles include social sciences, horticulture, social anthropology, permaculture and agro-ecology. One of them is more dedicated to horticulture, one to technical infrastructure and one to pedagogical communication. Their website is abundant, with many convivial photos, scheduled events and cross-references to international organisations. It is bilingual in French and English, explicitly addressing expat communities.

Their motivation is embedded in international movements and it is more holistic than Krautgaard's ecological motivation.

The backbone is inspired by transition movement and this idea of relocalising economies, food sovereignty and resilience around food, as well as creating a new social cohesion in agriculture. How can you max production in ways that are respectful to biodiversity and increase rather than decrease the soil and microbiology?

They adopted permaculture precepts, finding them logical, coherent and holistic, even though one of the founders prefers the broader term of regenerative agriculture.

People care, earth care and fair share. These are the three aspects: the social, the planet and how we distribute what is there in a fair way. Permaculture offered a very simple way of dealing with it and analysing it and also sharing it, because it is a useful tool for education

This didactic and communicative stance, striving to sensitise children from crèches and schools about sustainability or ecology issues and providing permaculture design courses for adults, is one of the structural pillars of the company. Institutions and individuals pay a fee for workshops and seminars.

TERRA is a cooperative structure that obtained its start-up capital from crowdfunding, with cooperators buying shares and gaining decision-making votes. The regular CSA members pay a fee in advance (to pay for the agricultural effort and not the weight of the produce) and receive a weekly basket from April to December, access to activities and a workshop discount. With their families, they are invited to a monthly open Sunday for informal and convivial seasonal work and a contribution to a collective picnic, but this prosumer involvement is not a prerequisite. TERRA encourages volunteers to get involved in the daily activities; these are often people at personal or professional crossroads.

TERRA employs trainees in horticulture, whose salaries are co-financed by the state. TERRA's founders earn the minimum wage for qualified staff but strive to increase their gains and have four fulltime positions. They are exploring alternative sources of income, such as selling surplus to organic groceries and restaurants.

TERRA has no loans and made low investments. They have a non-monetary arrangement for free land: their field is an orchard situated in a water protection area, and the owners are interested in the agro-forestry combination of the fruit trees with market gardening. Like Krautgaart, TERRA has a box distribution scheme, a no-dig approach and no fuel-driven machinery. Given the higher prosumer involvement, they have more free or inexpensive labour at their disposal and manage to produce 200 weekly baskets with 8 to 12 varieties each. They cultivate 150 vegetable species, with 300 varieties.

Besides the "neighbours" who participate in TERRA for the convenience and the local coincidence, TERRA's clients are either "foodies with a consciousness" or activists.

When they come here, a lot of people have not had the experience of how food grows and where it comes from. When they see how much work actually goes into sowing or weeding or harvesting or what else the vegetables looked like before they are packaged into the supermarket shelves, that has a deep impact.

Besides this cultural and educational vision, they have an agricultural and economic one: they estimate that their 200 boxes feed 500 people from April to December, while the customers might buy additional vegetables elsewhere and while TERRA buys a lot of external nutrients, mainly compost. In theory, they calculate 1 hectare producing vegetables for 100 people on a 12-month average, knowing that half of this surface would need to be intensively cultivated organically, and the other half would need to be used as a soil nutrient source. With two fulltime jobs per hectare, they assess that one would only need 7.000 hectares out of the current 63.000 hectares of arable land in Luxembourg to produce vegetables for the country's future 700.000 inhabitants, while creating 14.000 jobs, compared to the 3.534 people who worked in the agricultural sector in 2015 (Service d'Economie Rurale, 2016, p. 16). One of TERRA's goals is to set an example for how this utopia could, at least partly, become a regional reality.

3.4 OUNI: Luxembourg's first organic, packaging-free grocery shop, established in 2016

Six young women, mostly active in the service sector (translators, marketing consultant, socio-educative counsellor and banking) opened Luxembourg's first organic and packaging-free grocery shop in December 2016. "Ouni" means "without" in Luxembourgish and is an acronym for Organic Unpackaged Natural Ingredients: a grocery and household shop where customers fill and weigh their own containers. "Not only a place to shop, OUNI is a community hub, with a café space and regular workshops and events on a range of environmental topics" (www.ouni.lu).

The shop manager explains that there is a demand for such a place in Luxembourg. Many customers are passionate and loyal. As a cooperative, people can buy into the business and become active members, which means coming in once a month for two hours to do volunteer work in the shop. "According to the times of the day, it will be more the reception of goods and distribution into the shelves, or cleaning in the evening, serving customers in-between or dealing with the silos." The volunteers are thanked by receiving a 5% discount on their purchases. "Filling up the silos is more work, more cleaning, more workforce etc. Therefore, thanks to the cooperative model, we manage to compensate this supplement of labour by the presence of volunteers. It permits us to stay competitive on the organic market."

Similar to TERRA, buying shares means that any member, active or not, may vote at the general meeting, can be elected to the administrative board, can get a return on their investment and will be invited to member events.

The OUNI cooperative has three employees who have earned a "competitive salary" since the beginning. OUNI rents its commercial premises at a non-discounted real estate price in the inner city. Its economic model is tighter and it relies on the regular shifts of its 295 active members (out of 750 members). This prosumer involvement, with dedicated time slots and specific tasks they were trained for³, is the highest in the AFN sample. This organisational aspect is the most innovative one⁴, and works

³ Regarding storage, arrangement on shelves, hygiene and handling of silos.

⁴ The notion of this binding and expected volunteer work, even though it is attractive to members and necessary to the cooperative, can be viewed as a neoliberal interiorisation of the blurring of vocational and recreational tasks, potentially leading to employers' tacit expectation for unpaid labour (see Boltanski & Chiapello, 1999).

with the appropriate amount of communication, training and goodwill, even though the Active Member Magazine tends to remind volunteers to stay committed to their shifts.

The sourcing of packaging-free and organic produce, as regional as possible, is an ongoing optimisation process. Regarding local organic agricultural production, the shop manager is adamant about the need for political courage.

Consumers are ready. And consumers who don't buy organics (...) have the connotation that it is more expensive. But if they had a little bit of courage in our administrations, instead of supporting the farmers who put down poison, they would support the farmers who do things correctly. And that would allow those to be more competitive

She says the complementarity of plants is something farmers from two generations ago knew about but forgot due to pesticides and fertilisers. Now this knowledge and know-how are being valorised again. As opposed to classical industrial farming, permaculture permits growing a large amount of plant varieties on a relatively small surface, limiting deforestation. For this reason, OUNI is equally careful to avoid industrial, low-cost organic farming:

One sees for example huge heated greenhouses in Spain, recruiting clandestine immigrants that are exploited in poor working conditions⁵. That is one of the downsides of organic farming: it does allow Carrefour to sell organic tomatoes because indeed there are no more traces of pesticides. However, it's from heated greenhouses, so it's absurd. It's from exploited workers, so it's absurd.

OUNI gives preference to local producers from Luxembourg and the Greater Region. Because of logistics, they are however still forced to rely on a wholesaler that specialises in organic sourcing. "It is not a problem of the offer. But the offer is complex to tackle because it is spread among many suppliers (...), who all have different prices." Yet OUNI is willing to use more local suppliers if they can provide sufficient variety.

For international imports, OUNI requires guarantees from intermediate suppliers that they know their producers, but given the challenges around controlling international suppliers, there is an element of trust that they

⁵ See Reckinger (2018) for an ethnographic account of such exploitation in the orange picking sector in Calabria, qualified as "contemporary slavery" (p. 15).

must concede. Once they have selected suppliers, they are involved in an ongoing negotiation and experimentation process regarding the containers in which the produce is delivered, the cost of those and the change of habit this may entail for the supplier, followed by the reuse or recycling of the containers. Despite these challenges, the shop manager stresses that their interaction with subcontractors and customers' needs to stay positive. "We don't have a punitive approach".

Similar to TERRA, OUNI plays on their consciousness of being pioneers in Luxembourg and uses English communication for a cosmopolitan, urban public. The active members are quite international. They have a fashionable, minimalist website, name and logo, are dynamically present on social media, get good local media coverage and participate in visible actions with other NGOs, such as Luxembourg's first Zero-Waste Challenge.

4. Discussion

Besides a large company from the 1980s, mainly involved in the social sector and secondly in organic vegetable production, several smaller initiatives with higher citizen and/or community involvement and a more radical outlook have emerged in recent years. Their position in the market is still fragile and marginal. The retailers and importers among them have to build creative consensus between their standards and the adjustment to consumers who, albeit sensitised, want variety and convenience.

4.1 Alternative food networks: distinction from the mainstream and differentiation among them

What AFNs have in common is also what sets them apart from the mainstream. The case studies display a self-image of making a change in an economy of ethical quality, particularly the three novel ones. In varying degrees, they propose a *structural* alternative, rather than a reformation from within the existing value chain. They produce different products from the mainstream, with different cultivation and cooperation methods, sold in contractually different ways along different networks. The ones inspired by

the transition movement⁶ (TERRA and OUNI) feel supported by resources, networks and comparative models from an international community; Krautgaard has a more modest stance. As the largest and eldest player in this field, Co-labor started out roughly when organic farming gained a foothold in Luxembourg. At that time, growing organic vegetables was the main innovation, as was setting up a box scheme, but consumer involvement stayed traditional. Today, Co-labor is relieved to see more alternative roleplayers and given their own comfortable size and the expansion potential of vegetable-growing in Luxembourg, they are eager to engage with other AFNs.

The vegetable producers of the sample carve out a niche for experimental autonomy; they all do documented experiments with natural fertilising, plant behaviour and different ways of cultivation. The two CSAs strive for total autonomy by consciously not applying for national organic label membership (www.bio-letzebuerg.lu). The Bio Lëtzebuerg representative views this as a risk of individualistic fragmentation and lack of solidarity in an already underdeveloped organic production sector, stressing that certification processes are essential from the moment that produce transcends the interpersonal interaction level based on immediate trust. To keep their experimental endeavour free of risk, the CSAs insist on financial independence with no or low loans. Such a set-up is mostly adapted to a small scale. For that reason, they tap into ubiquity and exemplarity: they believe upscaling does not mean the growth of a few companies, but rather the proliferation of many small ones on a similar model. They want to prove that such a sustainable and ethically sound agriculture is not only feasible, but also highly efficient, yielding a varied and high-quality harvest.

Such a vision requires networking, reflexivity and communication, and the three recent ones all use social media to engage prosumers. These companies do not only have reciprocal partnerships but also operate mutual marketing reinforcements. They cross-reference each other, which contributes to a virtuous loop of communicational buzz and symbolically widens their scope. Their skills are therefore not limited to agricultural knowledge and business accountancy, but they also develop professional

⁶ The self-definition as presented on <https://transitionnetwork.org/about-the-movement/what-is-transition/> is “a movement of communities coming together to reimagine and rebuild our world”. For an academic discussion, see Feola & Nunes, 2014.

communication strategies to manage their networks with prosumers, producers, clients and the public sphere.

Despite this common goal of enhancing locally and seasonally produced food (Reckinger, 2018), following ethical principles regarding ecological and social commitments in a context of relational and process-based reflexive localism (Goodman *et al.*, 2014, p. 6-8; cf. Born & Purcell, 2006), the presented AFNs have structural differences.

The closer to the commercially set-up parts of their business activities, the more they experience classic challenges. This particularly applies to the complex import business, with the inherent issue of trustworthy sourcing and traceability, relying on controls and labels in the absence of interpersonal ties. It also applies to the purchase logistics in shops with multiple references and suppliers, needing a central procurement platform for ethically qualified produce. Ditto for selling locally grown vegetables, with its tendency of quantitative fluctuation and dispersion of a myriad of producers, calling for a central selling platform for small vegetable growers. These points constitute the critical aspects of the organisation of AFNs that must be taken into account to understand their business models and innovation paths.

The social and solidarity economy, if present, dominates practices while ensuring state funding and specific networks. The management of potentially low-motivated staff in social assistance programmes is trickier if there are commercial difficulties to sell the produce. Given the need for supervision and coaching in such a set-up, Co-labor has less flexible structures and processes and doesn't rely on communitarianism or prosumers.

Among the three novel companies, the idea of participative business is more or less binding, ranging from a classic producer-consumer divide via flexible prosumer commitment to compulsory volunteer work in the form of time banks. Even in the CSA model, which economically is the simplest one and only involves two parties, there are differences: one is a participatory cooperative, while the other is a partnership corporation without participating prosumers.

Those two more recent CSAs refuse cancellations of weekly baskets. Instead of Co-labor's convenience and flexibility regarding cancellations, they propose a solution that puts the responsibility on the customers: organise family, friends or neighbours to pick up the weekly share in their place. Because these informal exchanges within the CSA members' vicinity stem from the ethical and practical need to dispose of unnecessary produce, they are at most pseudo-convivial. Seeing that Co-labor offers a more

classical and convenient, individualised service, such an effort may prove tricky to ask of their subscribers. With the CSA model being more community-orientated and demanding more active involvement from participants, this more rigid deal is currently working out.

From a consumer perspective, Co-labor addresses customers, whereas the CSAs involve prosumers. Seeing that Krautgaart practises a lower prosumer commitment than TERRA, but both still manage to make their members organise the weekly recuperation of their share despite occasional absences, it seems that it is not so much the *amount* of prosumer commitment that brings about changes in consumption habits, but rather the *posture* of changing consumer status: viewing oneself as a prosumer makes one accept certain constraints, independently if one also contributes physically to the field work.

4.2 Theorisation

Social practice theory – with its focus on routinised type of behaviour, which Shove and Pantzar (2005) synthesise into “a configuration of three elements: material, meaning, and competence” – offers valuable insights for the transferability of the empirically highlighted specificities pertaining to AFNs.

Practices account for both reproduction and innovation (Warde, 2016; Shove & Spurling 2013): the persistence of alternative spaces of innovation in the shadow of the conventional hegemon involves the recovery of collective socio-ecological learning and repertoires of performance. The expansion of AFNs depends on their capacity to reconfigure these routines and, if they move from niche to mainstream, to undermine the inertial forces. In that sense, AFNs can be viewed as orderings of material and cultural resources anchored in contested knowledge claims. There has often been a clash between local, tacit knowledge and scientific orthodoxy (cf. Hassanein, 1999), but with the newer generation of AFNs presented here, scientific experimentation, documentation, communication and public justification are at the heart of sustainable socio-technical projects.

AFNs are “relational, recursive ‘communities of practice’ of producers and consumers sharing ways of ‘knowing and growing food’ in a contested arena” (Goodman *et al.*, 2014: 53). Independent of their entrepreneurial success or duration, they bring about a significant *cultural* shift. The frequent criticism that AFNs attract a high proportion of well-educated and affluent consumers with the appropriate cultural and financial capital is

only partly valid. More fundamentally, it is part of this cultural shift: while statistically sound, this critique conceals the fact that it is precisely the often-resourceful prosumers who can play an innovative role – not so much in setting a virtuous example for mainstream consumers (see Kopatz, 2016 for a critique of the prevailing individual consumers’ responsibility), but rather by attracting media and policy interest.

Of course, social injustice, inequality, exploitation, unfair path dependencies, powerful corporations, cheap mass production and such like still outweigh this. Social movements for food sovereignty or civil society’s influence must also not be overrated, as “people manage everyday life as a puzzle of many considerations emerging from practices and projects and influenced by their accumulated experiences and dispositions” (Røpke, 2009, p. 2493). Yet, practice innovations occur permanently, by creating new ties between existing and new elements, comprising the co-evolution with “other practices, macrosocial trends, infrastructure and institutions that provide more or less fertile ground for the new practice” (*idem*, p. 2494).

5. Conclusion

By focusing on the experiences of alternative roleplayers in diverse yet complementary food production and retail niches, I have shown that neither the timing nor duration of food activism accounts for how many compromises have to be accepted, but the structure of the AFNs: a CSA with captive prosumers is a model that is more reliable and simpler to implement. Classical transactional selling requires stronger political regulations or incentives for a central procurement platform for both producers and corporate clients. The absence of such a platform is most risky for producers faced with losses and less so for retailers that merely face increased logistical difficulties. On the one hand, importers need to trust their suppliers on the traceability of the produce, potentially without relying on certifications or interpersonal knowledge. On the other hand, a producer-owned, cooperative digital platform for regional produce⁷ would optimise regional purchases, limiting imports. The improved logistics

⁷ The INTERREG VA GR project AROMA – Approvisionnement Régional Organisé pour une Meilleure Alimentation (of which the University of Luxembourg is a partner) is implementing such a platform (2018-2022) to increase the part of local and sustainable ingredients in public catering.

could free up time to invest more knowledge, interaction and controls in the ecological and ethical trustworthiness of international, imported produce.

The non-existence of a procurement platform for regional produce is less of a vital risk for retailers like in the producer's case, but remains high for their reputation, which is essential in an economy of ethical quality, hence their need to rely on their partners' critical knowledge. Unlike Co-labor (without prosumer involvement), OUNI broaches this issue by considering the prosumer's role as a necessary partner in knowledge-building and reputation consolidation. An economy of ethical quality therefore requires political regulations and commercial incentives for a central procurement platform for AFN producers and corporate customers, enhancing the availability of produce and co-constructed knowledge.

The more direct the prosumer involvement, the least dispersion of standards seems to take place, particularly in CSAs without intermediaries, but also in retail with prosumer commitment. Ethical entrepreneurship appears to be highly reflexive in each case: while Co-labor has the advantage of long-term experience without relying on prosumers, they ongoingly analyse their successes and necessary adjustments. With prosumer involvement, this reflexivity also becomes dialogical (and possibly open to contestation, negotiation and reframing).

Ultimately, the two main priorities in ethical entrepreneurship are ecological optimisation or social assistance. As the case studies showed, they can work hand in hand, but they have different efficiencies. With the social project, demarginalisation and motivation are key, addressed via ecological vegetable production. With the ecological priority (more or less embedded in socio-cultural values), the focus is on gradually regenerating soil and optimising produce with documented experimentation, subsequently exchanged among likeminded AFNs and communicated in training sessions with citizens. The underlying aim ranges from ecological optimisation to societal innovation. AFNs carve out a protected space for themselves on a small scale, allowing them to experiment and develop know-how, building networks to ground their alternative knowledge claims onto solid agricultural practices and community backing. They hope to set a precedent for informed policy-making, which is necessary for a more resourceful local food sector.

AFNs need the alliance of often-resourceful prosumers to contribute to making their alternative knowledge claim strong and legitimate. Once they have a voice, it can be taken into account in policies – which, in turn, have the power to make sustainable produce the default option for mainstream consumers (see Kopatz, 2016). For this, it is essential that transformative research identifies resource-intensive practices (such as the foodscape) and studies the formation

and evolution of these practices as a policy basis (see Røpke, 2009), diverting attention away from individuals and focusing instead on the collective efforts that are necessary to build a more resilient food system.

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