

Business models urban agriculture



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Introduction

The Green Deal research report (http://www.vanbergenkolpa.nl/nl/313_greendeal_stadslandbouw.html) distinguishes three different strategies that urban agriculture initiatives (can) use to survive. These are: differentiation, diversification and low cost. These strategies have been elaborated also in earlier research on multifunctional agriculture but they are also an inspiration for initiatives in urban agriculture (Van der Schans and Wiskerke 2012). But in its more innovative forms urban agriculture in Europe also draws from other sources, it is also recognized as a manifestation of "the new economy"; i.e. the share economy (Jonker et al 2014) and the experience economy. From these

perspectives we derived the strategies reclaiming the commons and staging experiences (see also the essay written by Van der Schans contributing to the urban agriculture research on Rotterdam led by Paul de Graaf, <http://www.pauldegraaf.eu/downloads/AgrarianUrbanism-JWSchans.pdf>). In this paper I discuss all five strategies in brief.



Differentiation

A differentiation strategy is based on creating distinctions with conventional supply chains, the ordinary supermarket or HoReCa (hotel restaurant cafe) channel. The main way in which urban agriculture is distinct from conventional food chains is the absolute transparency with regard to the origin, the place of production and the conditions under which is produced. Differentiation to origin is a trend; in response to food safety scandals and/or other ambiguities that for the time being characterize the global food system. Urban agriculture can distinguish itself in terms of products by growing other species ('specialties'), heirloom vegetables, ethnic vegetables and more perishable but also more tasteful varieties (varieties that are more difficult to transport over long distances). Examples of the latter are the 'Coeur De Boeuf' tomato or the Elivira strawberry, or zucchini flowers, which are used in Mediterranean cuisine. One can also think of vulnerable

leaf crops such as baby leafs, cresses (very young micro vegetables just after germination from the seed) or herbs. Urban agriculture can distinguish itself by stressing the seasonal nature of the offer (as opposed to year round availability). One can think of organizing harvest festivals, and workshops where the excess production is processed. But also can one think of choosing cultivation methods or crop varieties and alternatives that expand the season. Urban agriculture can also distinguish itself by not only keeping production, but also processing and distribution in one's own hands (vertical integration). These are after all often the parts in the supply chain where still some profit can be made. By including several steps of the supply chain, one may be able to capture some more margin or at least keep better control over the distinctive character of the product. The final product may distinguish itself from conventional products

in the supermarket or out of home channel not only because it is locally produced but also because it uses other ingredients (see above), other recipes (no or less added preservatives and artificial flavors), artisanal methods of preparation, and different ways packaging and presentation. Due to small scale, artisanal forms of processing, demand for labor often increases tremendously. But urban agriculture, being located in or very close to densely populated cities, may be in a position to solve this issue better than rural forms of alternative food production can do. One can think of input from family members, friends, volunteers, people with a distance to the labor market, etc. This type of social engagement of urban dwellers in itself can be a part of a differentiation strategy.



Diversification

A diversification strategy is aimed at providing other goods and services, aside from food production, and getting paid for this. In this respect, the urban agriculture can indeed learn from experiences gained in multifunctional agriculture, a sector characterized by diversification. In multifunctional agriculture, a number of activities have been identified that more or less can go hand in hand with food production and with which a city oriented farmer can earn an extra income: child care services, education, local products, social care, recreation, and also nature and landscape maintenance. In addition to these business-to-consumer market-oriented activities, you can also think of business-to-business activities, such as contract work, energy production (from urban green waste), recycling (composting, insects growing on kitchen waste, but also a carpenter shop that uses reclaimed wood, etc.). In contrast to the conventional centralized system of urban waste management, urban agriculture initiatives can make a difference by decentralizing waste

management, separating different waste streams at source, which increases the possibilities to use this waste in value added applications (from incineration to composting, from composting near-wasted vegetables to reclaim them and re-use them for human consumption in soups or sauces). Another set of activities can be the organization of events and services focused on the business-to-business market (corporate events, training sessions, product launches, etc.). Typical urban functions of urban agriculture are preventing heat stress (heat island effect) and buffering storm water peaks. A special function that urban agriculture can have is the revitalization of urban project or area development, that came to a standstill due to the crisis. Urban agriculture creates value by growing crops rather than building houses, an activity that may just make the difference in otherwise stagnating urban redevelopment. To invest in urban agriculture is a relatively cheap way for urban land or real estate owners to show that something is happening on a

place, that apparently parties want to invest in development (place making). If organized properly, this type of value creation may be an additional source of income for the urban agriculture initiative. This place making function of urban agriculture is rather different from the function that multi-functional agriculture usually has, which is to maintain an open green landscape thus blocking further urban expansion.

The diversification strategy is all about using the resources you have, for example a nicely designed herb garden in an otherwise chaotic and petrified urban landscape, in as many different ways as possible, and earn an income from this. For example, the herb garden is production space, but it is also a place where knowledge and skills are being transferred, it is a place of social interaction or people simply enjoy the views of the garden drinking fresh herbal teas. This multiple use of the resources (assets) available to an urban agriculture initiative is what we call "economies of scope" (rather

than "economies of scale" which would occur if one particular use of the assets is expanding). Urban agriculture often mobilizes a multitude of audiences, who enjoy the location in consecutive shifts or simultaneously, often creating a hospitable and cosmopolitan urban atmosphere.

A challenge lies in the fact that not all services provided by urban agriculture will be acknowledged by urban stakeholders, let alone that these are able or willing to offer financial rewards for providing these services. Another point of attention is that urban agriculture is often suggested as solution in situations where the government is withdrawing for budget reasons, for example in the management of the urban green infrastructure, in environmental education and in social activation. Opportunities to earn an income emerge where urban agriculture is able to take on different functions that each individually must deal with budget cutbacks, but if integrated in

Low cost

a package altogether may provide different budgets that add up to a reasonable income. Urban farmers may get funding for providing societal services, but this funding is sometimes on an ad hoc basis, and not yet part of a systematic approach. Urban farmers are not always legible to participate in relevant municipal tenders (public green management, social services, social work). This keeps the provision of these services in the hands of the established parties, which may sometimes even copy innovative elements from the urban agriculture movement, without being able to approach the true qualities that genuine food production in the city may have.

The low cost strategy in conventional agriculture and horticulture is usually about expanding the business in order to specialize and realize economies of scale. This however is a business development strategy for which there is little or no space in the urban context. There is great pressure on urban agriculture to operate efficiently, precisely because it claims to make fresh and sustainable food available to a wide urban audience, including people with low incomes. How can urban agriculture realize this low cost strategy? By using urban resources that are currently underutilized or not used at all. These urban resources include vacant plots of land, empty buildings, urban organic waste as compost, excess rainwater, and urban heat waste. The recycling of materials has already been mentioned (use a second hand greenhouse, use cut open jerry cans, use a discarded kitchen, etc.). But one can also think of using volunteer work or the deployment of disadvantaged people as a form of cost reduction, to the extent that these

types of labor may not cost a lot but can contribute considerably. To avoid any unnecessary expense is the adagio, food is a basic service, as exemplified by the production of fresh and healthy food for audiences that cannot afford to pay for it (food banks). This strategy resembles (to some extent) what has been recognized already earlier as low input farming, or rather, low external input farming. Growing systems such as permaculture claim to use almost no external inputs to produce an abundance of food (and very little if no mechanical equipment to design and maintain the system and harvest the produce).

Urban agriculture initiatives try to keep costs as low as possible, fixed costs (long term investments) are avoided, or only occur if others provide funding (donations, subsidies). To use a resource (such as land) is more important than to own it. Tools and equipment are shared, rather than that each initiative buys all things needed individually. Do it yourself is

preferred over contracting people to do the job. Quality assurance is done in interaction with the customers at no extra cost, rather than that formal certificates are used that need to be audited by expensive external parties. Urban agriculture initiatives without monetary resources often make active use of barter exchange or what recently has been called the "share economy". Where professional support is necessary (for example, legal advice, advertising, accounting), people bring in their time and expertise, even commercially, but without monetary compensation, in the expectation that one will ever get something back for it. People settle transactions in concrete products or services, not in money.

Reclaiming the commons

For many, the current food system has become elusive and opaque. Urban agriculture provides citizens with the opportunity to regain control over their food supply and become aware where their food is coming from. Similarly, urban dwellers have lost control over urban public space, and urban agriculture may provide a way to win that back. Urban agriculture reintroduces the feeling of ownership, sometimes literally when citizens (through crowdfunding) become co-owners of an urban agriculture initiative. This sense of ownership is probably the strongest if people themselves actually participate in the initiative (reclaiming the commons). But it can also be cultivated if an urban farmer is actually doing most of the work, for those people who have little or no time to participate, but want to be somehow connected with the initiative anyway. A multiple involvement of the city dweller (as a customer, and as a financier of the harvest) can in principle also be organized by rural farmers (this is called Community Supported Agriculture).

But much more so than rural farmers, urban farmers can provide city dwellers with insight into, and control over, their business operations. Right in the city, where farmers themselves are also urbanites and where farmers themselves are also co-users of the urban space, is the place to create new forms of solidarity and a shared sense of ownership.

A lot of what has been said about the share economy under the low cost strategy, can be reiterated here under the food commons creation strategy. But in this case, sharing resources and participating in barter exchanges is not just a way to reduce costs, it is also a possibility to create a more socially inclusive and ecologically sensitive alternative economic system. Urban farmers can distinguish themselves from conventional farmers by choosing the means of production as much as possible in the domain of common property (instead of private or state property). One can think of the use of seeds or varieties that are free of patent

rights, and the use of knowledge and technology that is free of patents. This adds to citizens' ability to regain control over the food system, it increases their ability as food literate autonomous persons to decide on the design of their food system (empowerment). Examples from other sectors (ICT) show that business models can be based on such an explicit choice for an open source approach. For example the urban farmer may produce seed or seedlings which can be sold to urban dwellers. And he may show how it is possible with low tech do-it-yourself solutions to produce your own food (using waste heat, waste water or self-produced compost). The urban farmer may share knowledge and experience, give courses and advice, and sell the equipment needed to do it yourself.



Experience

This strategy is based on the insight that more value is added by providing memorable experiences than by providing basic goods or services (the experience economy). Urban farmers are capable of staging unique experiences precisely because of the ultra-short distance between farm and target audience, especially as one can create a much more direct and much more exciting interaction in the city between nature and culture, green space and grey buildings, etc. It is precisely for this reason that photos of urban agriculture initiatives appear so often in life style magazines. It is precisely for this reason that pictures and logos of urban agriculture initiatives contain both urban and rural elements, and often in some inspiring interaction. Urban agriculture is also the carrier of a new urban culture, agricultural urbanism, even more so than a multi-functional farmer in the rural environment can be this. Urban agriculture is not an escape from the urban hustle and bustle to the healing countryside, but it is an experience of

rural and urban dynamics in a unique symbiosis, it is an enrichment of the metropolitan landscape, a new typology of urban living. The roof garden as an oasis, the food forest as a foraging ground, the rhythm of the seasons, keeping your own urban chickens or pigs and ultimately also having to think about slaughtering them, these are all unique experiences that city dwellers thought they would never have access to, but for which they are prepared pay. Urban farmers most certainly do not sell bulk products, but rather specialty products and services. Urban farmers often do not only sell products and services but rather they stage unique and authentic experiences. These can be physical experiences (such as working the land), sensory experiences (such as the luscious taste of home grown balcony tomatoes), visual spectacles (such as LED illuminated growth cabinets), etc.

In conclusion

So there are different strategies with which urban agriculture can under distinguish itself from conventional farming: differentiation, diversification, low cost, reclaiming the commons and experience. In practice, we see that initiatives often combine elements of different strategies, for example a differentiated product offering is created (such as heirloom vegetables) with volunteers and social care clients (diversification and low cost) to service end consumers (vertical integration). Finding combinations that provide synergy is exactly what distinguishes a well-run urban agriculture initiative from a less well-run one. For this reason, delivering special vegetables to top restaurants is something usually not done by social care clients, rather paid staff is assigned this type of task. But social care clients can prepare vegetables bags for end users, in which all ingredients for the meal including the recipe are conveniently put together in one bag.

The classical management literature

often gives as a recommendation to choose for a specific strategy and not to pursue different strategies at the same time, because this would lead to lack of focus ('stuck in the middle'). The world of more or less professionally operating urban agriculture is still relatively young in Europe and has a great variety of forms. Maybe the business models that prove to be working in the longer term, have not sufficiently crystallized yet. Also it may also be that urban agriculture initiatives from their special nature, by definition, operate in local markets and cooperate with local stakeholders. In such a context a mix of activities is probably more effective than a specialization in a particular type of activity (for which the local market could become quickly saturated). Finally, it can be observed that urban agriculture initiatives often exhibit characteristics of social entrepreneurship. On the one hand they often provide employment to people with a distance to the labor market (social entrepreneurship in the strict sense). On the other hand, social

problems (vacancy, poverty, access to food, environmental problems) may be taken on in a decisive business styled manner (social entrepreneurship in a broad sense). It seems that the classic management literature is not yet able to interpret these innovative forms of entrepreneurship, let alone advise them how they can do better.



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