Creating Scenarios for Regional Projects.

Service design for multifunctional and collaborative food networks.

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Abstract

This paper presents a strategic and service design approach to create scenarios for regional projects through an action-research strategy. The intent is to reflect on the basis of an on-going project, insisting on the Agricultural Park South Milano, lightening the actions taken and their contributions to the scenario building process.

Starting from a brief introduction on the shifting in the orientation of the design discipline from a single product or service to a more systemic approach on places development, the essay describes an on-going project in which the method is applied. Then an analysis of the specific actions, tools and results is carried out leading to a twofold contribution: on one side the method's structure is better outlined, supporting the planning of future activities; on the other hand specific collaboration schemes, for service provision, between producers are defined.

KEYWORDS: scenario building, service design, regional development, food networks, local synergies.

1. Introduction

This paper focuses on the Scenario Building phase that has been carried out in a wider research program called "Feeding Milan. Energies for change" (Nutrire Milano. Energie per il cambiamento). This project is an ongoing research, promoted by Slow Food Italia, Politecnico di Milano-INDACO dept. and University of Gastronomic

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Sciences. The aim of the project is to design a system of services and infrastructures to make the Milanese agri-food chain more efficient and effective, in order to shape a scenario of sustainable and innovative metro-agriculture. The method of work and the tools adopted to build and create consensus according to a co-design perspective are presented around a scenario based on two main concepts:

» multifunctionality and collaboration among food producers to get economies of scope;
» de-mediation of the agri-food chain to foster the relationship between the city and the productive countryside.

2. Design scenarios for territorial projects

Moving form Meroni's (2007) definition of creative communities (*local social innovations, virtuous and promising activities in different areas of doing*) so far, designers started to analyze and boost localised and punctual project-based initiatives. Currently this role is shifting towards a more systemic approach, in which design gives shape to a *framework project* that includes, drives and connects different local projects. This type of approach makes the defining of a framework necessary in order to coordinate and systemize all the local projects. The first task that designers have to tackle when dealing with such projects is to build up a scenario, in order to give shape to a common vision to share with such different stakeholders, stressing competences, resources and interests.

Such scenarios can lead to what Manzini and Jegou (2004) called Design Orienting Scenarios (DOS). DOS are defined by authors as sets of motivated and articulated visions that help the involved actors to generate common shared visions and to give the same direction to their actions. In particular, this approach is opposed to the Policy Orienting Scenario (POS), adopted to direct policy choices for long-term actions. The DOS building activity, which is the collaborative creation of a common vision about a desirable future as well as the strategy to implement it, is primarily focused on a short term prospective, and its main purpose is to provide direction for on-going projects development. In our case, DOS specifically figures out the following series of design competences as:

Systemising: to improve the overall system effectiveness. It consists in making connections actors with resources in order to generate synergies, and, through this collaboration, the sharing risks and advantages.

Envisioning: to facilitate the social conversation on the action plan and how it can be put into place. That is, to create consensus and to make the possible solutions visible.

Communicating: to make the project and its results visible and understandable to different actors: from the research group to the stakeholders and the wider public.

3. Feeding Milan: an on going case.

3.1 The general framework

"Feeding Milan. Energies for change" started from the observation of a matter of fact: in Milanese urban area, the demand of high quality and fresh food hugely exceeds the actual, available production, despite the presence of a wide potential "urban larder" known as Agricultural Park South Milan (APSM).

The main idea to support this demand is to make agriculture the praesidium of land's territorial quality. This means to revitalise local networks, encourage the sharing of common principles and optimise the resources in order to create a new territorial system. The emerging vision figures out a rural-urban area where agriculture flourishes feeding the city and, at the same time, offers to the city dwellers a set of opportunities for a multiplicity of farming and nature related activities.

The project structure could be told taking advantage of an agricultural metaphor, borrowing terms from the farming process.

1. Planning the crops (Scenario building). It is the building phase of the project's scenario related to a set of de-mediated services between APSM and Milan metropolitan area. This phase aims to define the guidelines and the strategic vision as well as give a frame to the overall project.

2. Tasting the soil (Regional analysis). This phase aims to explore, understand and map the metropolitan area (APSM + Milan), in order to point out the strengths and weakness, the best practices and underexploited resources, the most proactive individuals and group of consumers, in order to identify the design opportunities.

3. Cutting the furrow (Service design). It deals with boosting the existing best practices by designing specific new services and integrating them into a system of local connected solutions related to short food-supply chain.

4. Seeding (Piloting). It is about launching pilot projects and modelling the designed solutions. The aim of this phase is to trigger a change in the local food system by planning by projects.

5. Manuring (Communication and participation). It is the phase that deals with project communication, the users participation and dissemination. The aim is to create a stable confrontation with the project's stakeholders at different levels, starting co-design activities.

3.2 Strategies for scenario building

The *scenario building* stream is built on two main pillars: *multifunctionality* of the farms and *de-mediation* of the food chain. The concept of multifunctionality in agriculture ascribes to a farm the opportunity to diversify it's sources of incomes by supplying, jointly to its primary function of producing food and fibre, other non-commodity outputs contributing to the socio-economic viability of many rural areas (OECD, 2001; Renting et al., 2003). These additional functions can be seen as services linked to the environment, territory and people. This idea is proposed as a promising strategy for European agriculture (EU, 2000) especially in the periurban areas, where these services could be addressed to the city, shortening the food-chain and creating direct connections between city dwellers and farmers (Meroni, 2006; Kneafsey et al., 2007).

Thus the project on one side will foster the development of a local agricultural system with various functions, offering the opportunity to create synergies and shared services platforms among the producers; on the other hand it will support direct connections between them and the city dwellers, developing system of interconnected food distribution services. In detail, the specific goals of the project are the following:

» To promote a shift from industrial agriculture to organic multifunctional farming thanks to the support of existing best practices and the development of new, specifically conceived, projects;

» To conceive and develop a new set of services to improve the quality of life in the countryside, and to facilitate the links among the small farms and the city,

» To activate unexploited local resources (infrastructure, initiatives and people);

» To promote a new culture of food and agriculture and to rise among the citizens the awareness of the agricultural park (APSM) relevance to improve the quality of life in Milan.

4. Scenario building: actions, tools and results

As shown in the picture below, "Feeding Milan" scenario is the sum and systematization of different output coming from many coordinated activities. It is "a story of stories" formed by a selected set of service ideas (the *seeds*). These *seeds* are the existent and foreseen services that contribute to the creation of a regional multifunctional and de-mediated food system. They could be b2b (business to business), b2c (business to consumer) or both at the same time, depending if their focus is on the collaboration among the producers, between producers and consumers or both, in the case in which one interaction implies the other.
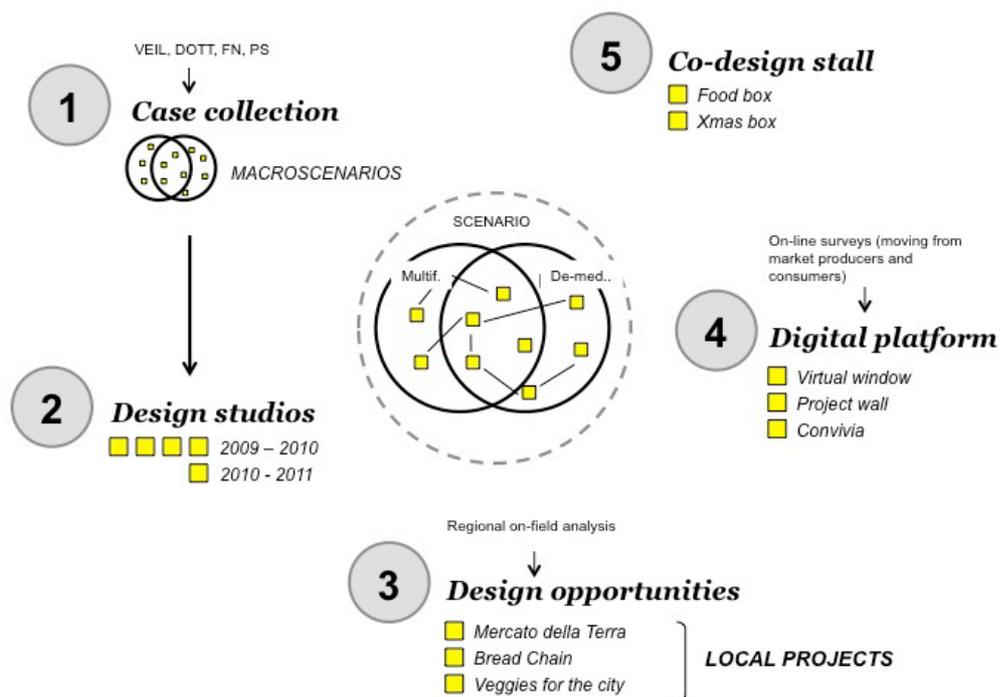

Figure 1. Scenario building process

4.1 Case collection.

A desk and on field research on cases of social innovation related to food networks has been done, both taking advantage of previous research projects and collecting new inspiring cases. This work aims at creating a common knowledge and understanding about the social movements and the already existing solutions in order to develop a first set of service ideas shared among the research group. The activity carried out was an internal workshop aimed to reorganise the visions emerging around the project two

main pillars: de-mediation and multifunctionality. This exercise was structured in four main steps:

» *Brainstorming*: a first draft ideas generation about possible services and conceptual mapping of the results according to modalities, places and actors;

» *Polarity generation*: distribution of the ideas on interesting polarities axis that generate couples of feasible alternatives about the scenario;

» *Cross definition*: choice of the most significant axis couples, able to generate meaningful quadrants about alternative visions for the framework scenario;

» *Macro-scenarios definition*: naming of the most interesting project's areas.

This activity led to the characterization of twofold alternatives related to the project pillars, providing a first general vision to foster the scenario building process.

4.2 Design Studios.

4.2.1 Design Studios 2009-10

A research activity aimed at developing the first ideas about feasible connections between the city and the countryside was carried out involving the students from the first year of the Master degree in Service Design of the former academic year. The work included three main focuses:

» *Field research*. From the observation of the local cases of social innovation, 3 farms in the Agricultural Park South Milano (APSM) were selected on the basis of the richness of their relations and direct connections with the urban dwellers and the other producers. While working on this topic many visits has been done and a visualization of the multifunctional systems of these farms was outlined, lightening the touchpoints of the existing services. The visual material produced, suitably elaborated, set up the basis to share a common definition of local networks, enabling the following steps of the strategic conversation with the group of actors involved.

» *Workshop: service ideas generation*. Starting from the macro-scenario definition, this activity focused on the concept of de-mediation to define and approach a set of ideas from the user point of view. In fact the aim was to define firstly the desirable solutions for the users and then to understand how the collaborative and multifunctional system supporting them should be like. The resulting ideas, duly selected, were translated in a set of cards that supported the students groups to define the projects concepts.

» *Solution development[3]*. The third activity undertaken was the development of four specific concepts aimed at deeper describe new and feasible relations in the APSM context. Hence the following four services descriptions has to be seen as a tentative sketch of an integrated system of local food related connections:

Pianta tu. How to make the children understand the importance of taking care of the natural environment while providing them with significant collective experiences during summer holidays?

The idea is to take advantage of the closed countryside of the APSM to provide a summer camp service to teach the children the rhythms of nature. *Pianta tu* offers an active learning environment, involving the children in vegetable garden activities and other didactic and recreational ones in different farms in the same area. In fact each group of children, from 6 to 11 years old, spends one week in the farm taking care of the

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[3] The projects were developed by the students in collaboration with the professors and tutors of the course.

growing plants and having to develop a collective diary that supports them in the end of the week to pass on the baton to the following group. In the end of the summer there is a collective party with all the children who participated.

En Plein Air. How to enable Milan urban dwellers to discover new places for open air activities while making them discover local typical food production?

The service is based on a social network including citizens and local producers and offers the tools to organize a pic-nic with the products coming from the farms. Each farm providing catering activities could join the network becoming a local hub for pic-nic basket distribution. It can use its products and the ones from the smaller farms in the surrounding area. Furthermore it starts the building of a collective map on the digital platform, helping people to find the nicest places in the park to organize open-air lunches. Adopting this solution many local collaborative systems could be potentially developed.

Estendo. How to make use of the farms' space as a place to foster the creation of elective communities?

The solution proposes to extend the domestic space to the farm to do washing activities for cumbersome things like curtains, eiderdowns and other stuff. This activity is usually done in public laundries, waiting long time in uncomfortable places to have the clothes done. With the project proposal it's possible to create a local system of replicable services supported by different associations able to create new social environments while taking advantage of the benefits of open air drying. The service is supported by APSM that provides a communication support for the overall system creating connections between the initiatives through the APSM's digital platform.

Coltiva l'energia. How to foster the local product and service economy in the APS promoting virtuous relations with Milan urban dwellers?

The project wants to create a distributed energy production system based on solar panels built on the roof of appropriate sheds in the farms. The idea is that the citizen, through *Banca Etica[4]*, could finance the project and, thanks to an economic incentive, have in return of their investment products or services supplied by the park's farms. The solution proposes a win-win strategy that enables small farmers to become local energy producers into a distributed system. On the other side it offers the citizen the opportunity to subscribe an ethic investment being paid with credits with a higher spending power compared to the corresponding monetary one. This solution provides the opportunity to outline a first scenario of local interconnected systems of services developing economies of scope and scale.

4.2.2 Design Studios 2010-11

During the current academic year (2010/11) in Politecnico di Milano we are running the Final Design Studio in the second year of Service Design Master Degree course. It aims at designing a food-coop in Milan. Currently the work is still in progress and so far the students are looking for innovative retail cases to get insights for the project development, and to analyse four peculiar contexts (four neighbourhood in the city: Bovisa, Brera, Isola and XXII Marzo) thinking about the opportunities, the resources

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[4] Banca Etica here is just taken as an example of a possible stakeholder in the scenario development.

and the communities that might support the food-coop implementation in such areas. In the next steps, the most suitable context will be chosen according to its features and the concept of the solution will be developed. Then each group of students will be asked to design a part of the whole system including both front and back office activities.

4.3 Design opportunities.

According to the project process, introduced at the beginning of this paper, the *regional analysis* phase is addressed to look for design opportunities, being the trigging point to implement local projects.

In the specific case, during the first year, our project partner Slow Food provided designers with a very precise map of all the producers of APSM and, broadly, Lombardy region within 40 km from Milan. These producers were selected according to sustainability criteria and represent the best practices (the creative communities) in the Milanese region. They were asked to be involved in the first local project, Slow Food Milan farmers market (Mercato della Terra di Milano). In the same way, the other local projects were started because of the opportunities coming out from the regional analysis.

Local project 1 - Mercato della Terra di Milano (Milan Earth Market)

This is the farmers market of the producers from Agricultural Park South Milan and other guests from the Lombardy region. It is promoted by Slow Food Italy, the Province of Milan and authorised by Milan city municipality. It is a monthly market that takes place every 3rd Saturday in the former local vegetable market of the city. The farmers market could be a good system for de-mediated selling in Milan, where it is difficult to find good local produce in the mainstream distribution system.

The strategy combines people's increasing interest in local food and the intent of farmers to move towards organic production and de-mediation: this means offering high quality food from local small farms only. Other drivers that can shape the strategy for this local project are:
» The crisis in the agro-industry can push farmers to switch to a more sustainable way of production (organic crops, de-mediated selling systems, etc.);
» The role of a well known association like Slow Food as a guarantor of good quality produce;
» The use of available digital technologies that can facilitate meeting between farmers and consumers.

This project aims to become self-organised, in order to provide producers with proper infrastructures and tools; it offers educational and teaching activities to push the citizen to sustainable consumption.

In order to implement the local project, the following activities have been carried out (in synthesis):
» Selecting and recruiting farmers, according to quality parameters;
» Getting permission from local authorities;
» Organising the logistics and turnover among the farmers;
» Communicating the event to the city;
» Providing a tool(kit) to help farmers to organise the market.

Local project 2 – La panificazione territoriale (Regional bread-making)

This project regards Milan's bread chain from the crop to the shop. Milan is suffering from a lack of good quality bread. Over recent years prices have risen very high and many people buy industrial bread from the supermarkets.

The aim of this project is to re-build the bread chain from the quality of the crops, through the processes of transformation, to the final consumer, who will be able to buy good, clean and fair bread at the right price in the shops.

» *Local project 3 - Ortaggi per la città (Veggies for the city)*

This project is about local vegetable production and distribution. In Milan there is no chance for city dwellers to easily buy local fresh vegetables though the mainstream distribution at the right price. Some farms have made shy attempts to encourage shopping on the farm, but of course this solutions, even if really interesting, can't be a solution for the majority of the people.

The aim of this project is to bring fresh veggies to the urban population, boosting de-mediated ways of selling, both in the city and on the farms.

4.4 Digital platform

A specific research activity in order to explore the possibilities offered by digital platforms was developed jointly to the farmers market project. This intervention started by defining two on-line surveys for producers and consumers connected with the market with the aim of investigating their current practice and future possible ways of interact. Thanks to the analysis of the results obtained the research group outlined three feasible digital services to support a collaborative system among the producers: I convivi di alta formazione (Convivia of professional education); Il centro risorse e competenze (The resources and competences centre); La bacheca dei progetti (The projects bulletin board system).

These solutions have been after discussed with the producers themselves and the process is currently on going.

4.5 Ideas sharing stall

Another challenging tool that Feeding Milan developed is the *Ideas sharing stall* in the farmers market. It works like a desk aiming to open a discussion between designers and city dwellers coming at the market. In each market edition designers propose new service concepts and get feedbacks from the participating people. The stall is firstly a way to actively involve consumers and producers in the project initiatives, using co-design tools and, secondly, to communicate the projects initiatives to a broader community.

In order to better understand, in this paper we provide a sample of one of the initiatives of the stall: the Farmers Food Box. According to the third local project *Veggies for the City,* we are developing a solution to distribute the produce coming from the local countryside. In order to do that a co-design activity supported by a rough service prototype was carried out, helping the city dwellers to point out their preferences about a service of weekly and local food delivery. According to the results coming from this activity, the next step is to design a solution proposal and to discuss it with the farmers that will be involved in this project.

5. Conclusion

5.1 Story Telling

Regional projects always deal with complexity. Thus it is not possible to separate the single phases and describe them as linear processes. The case of *Feeding Milan* is not different: the scenario building phase is recursive along the whole project and, as previously said, interacts with the regional analysis and pilot projects phases. Specifically they affect each other with: values and guidelines, in order to drive the on-field research and the early implementation of the pilot projects; available resources and design opportunities, to build up a possible, trustworthy scenario.

As mentioned before, the scenario is a "story of stories", and it needs to be told to a broad audience in the city. Such a story is like a modular pot that can be extended according to the increasing number of seeds (services) designed.

In the project the selected seeds came out from the set of activities aforementioned, in which different proposals were developed and selected according to feasibility, effectiveness and contents criteria. Then, a plenary session between the project partners was carried out and the most original and promising ones where chosen to build the main part of the plot. The result obtained is a story foreshadowing a new regional collaborative system scenario visualized both as a video and a sequence of images to be effective for both dynamic and static communication means.

5.2 Systemising. Creating synergies in multifunctional systems.

From the process developed some general features of the scenario took shape. What emerges is an image of an APSM based on distributed systems[5] (Manzini, 2005; Mirata, Ristola, 2007) and collaborative services involving both producers and consumers. Based off this framework it is possible to outline two main points: the first on the organizational aspects that a multifunctional system has to carry out to create profitable synergies; the second on the services typologies that seem more interesting for the development of an efficient and effective local food network.

From the undertaken activities, and taking as an example the emerging solutions from the first design studio, it's possible to outline a scenario involving different kinds of multifunctionalilty. A scenario in which one or more farms could supply a service, leading to different possible synergies (Meroni et al., 2009) to create economies of scope and scale:

» *Autonomous multifunctionalilty* is recognizable in a system where services are developed autonomously into one farm and could be replicated in others with similar features. These solutions could share knowledge and information promoting collectively the service and taking advantage of the definition of a set of enabling technical and conceptual tools (Manzini, 2005) to eased their replication. An example of this kind of multifunctionalilty is outlined in *Estendo* and *En plain air*, and fosters synergies between analogue functions.

» *Distributed multifunctionalilty* is a characteristic of a small local system in which few farms, in the same geographical area, decide to expand their services offer. They accomplish this by taking advantage of the previous existing resources and activities, from hospitality

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[5] i.e. distributed intelligence, distributed generation, distributed creativity, distributed economy.

to auto production and didactic farm, and joining together in supplying a new one. This organizational structure could be seen in *Pianta tu*, when systemize activities for children offered by different farms, fostering synergies between complementary functions.

» *Centralized multifunctionalilty* is related to the idea that new functions are promoted by territorial hubs, i.e. more structured farms or other places in the city as the farmers markets. These hubs carry the strength and the resources to trigger new virtuous synergies between different actors and services.

> *In any network, some nodes are more connected than others, making them 'hubs'. [...] A 'hub' is not just a node with a few more connections than a usual node; a hub has connections to many other nodes – many quite distant – and also connects many disparate nodes (nodes of very different types). (Halpin, Summer, 2008, p.57)*

An example is the project *Coltiva l'energia* in which synergies between compatible functions are developed.
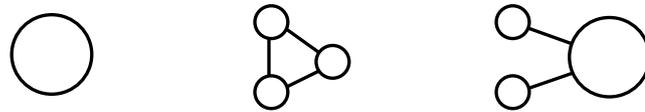

Figure 3. Schematic representation of the multifunctional networks: autonomous, distributed and centralized.

From existing cases and foreseen solutions observed, another important feature of the scenario emerges. The idea that in a multifunctional food system there are services with a different levels of relational involvement: some requiring a growing level of active involvement from all the participants (Cipolla, Manzini, 2009) while others have evolved through time into something different, offering the possibility to participate at various levels to the supplying activities while improving the effectiveness of the service[6] as well.

Looking at APSM multifunctional farms, it reveals quite clearly that in a new proposed regional system, based on medium and small family managed farms, it's necessary to find a balance in the participation level of both the farmers and the consumers. Leaving to the former the time needed to carry on their main activity, that is food production, and to the latter the possibility to chose their personal participation in the solution in order to include very different consumers profiles among the users, potentially open the system to all the city dwellers.

References

Cipolla, C. & Manzini, E. (2009). Relational Services. *Knowledge Technology Policy*, 22, p. 45-50.

Cottam, H. and Leadbeater C. (2004), *HEALTH: Co-creating Services*. London, UK: Design Council, November;

Halpin, H. and Summer, K. (2008). Network organizations for the 21st century, *Turbulence. Ideas for movements*. Number 4, July. 55-63 [available at:

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[6] E.g. the difference between a classic case of Community Supported Agriculture (http://www.cascinasantabrera.it/adottaorto.html) or a new one develop on digital platform (http://www.leverduredelmioorto.it/)

http://turbulence.org.uk/turbulence-4/network-organisation-for-the-21st-century accessed on April 30th, 2010];

Jegou, F. and Manzini, E., Design degli scenari. In Bertola, P. and Manzini, E. (edited by) (2004). *Design multiverso, appunti di fenomenologia del design*. Pp. 177-195. Milan: Ed. Polidesign;

Kneafsey M., Holloway L., Cox R., Dowler E., Venn L. and Tuomainen H., (2007). *Reconnecting Consumers, Food and Producers: Exploring 'Alternative' Networks*, Oxford: Berg;

Manzini, E., (2005). Distributed systems. Promising models for a sustainable development. Working paper. www.sustainable-everyday.net;

Manzini E. (2005). *Enabling solutions. Social innovation, creative communities and strategic design*. Working paper. www.sustainable-everyday.net. Accessed on June 2010;

Manzini, E., Jegou, F.(2003), *Sustainable everyday. Scenarios of Urban Life*, Edizioni Ambiente, Milano (Download: http://www.sustainable-everyday.net/main/?page_id=26);

Meroni, A., (2006). *Food de-intermediation. Strategic Design for the creation of transparent food networks*. In Cumulus Working Papers. Nantes. ed. Eija Salmi e Lotta Anusionwu, Helsinki: University of Art and Design;

Meroni, A. (a cura di), 2007, *Creative Communities. People inventing sustainable ways of living*. Milano: Edizioni Polidesign. http://www.sustainable-everyday.net;

Meroni A., Simeone G., Trapani P., "Servizi per le reti agroalimentari. Il Design dei Servizi come contributo alla progettazione delle aree agricole periurbane", in Ferraresi, G. (edited by.) (2009). *Produrre e scambiare valore territoriale: dalla città diffusa allo scenario di forma urbis et agri*, Firenze: Alinea Editrice;

Mirata, M. e Ristola P. (2007). Industrial Symbiosis for more sustainable, localized industrial systems*, Progress in Industrial Ecology, An International Journal (PIE), Vol. 4 - Issue 3/4;*

Mont, O. (2002). "Functional thinking. The role of functional sales and product service systems for a functional based society", research report for the Swedish EPA, IIIEE Lund University, Lund, Sweden;

Ogilvy, J., (2002). *Creating better futures*. Oxford: Oxford University Press;

Organization for Economic Co-operation and Development - OECD (2001), *Multifunctionality. Towards an analytical framework*, OECD Publications, France;

Petrini, C. (2005). *Buono, pulito e giusto*. Torino: Einaudi;

Renting H, Marsden T K, Banks J, (2003). Understanding alternative food networks: exploring the role of short food supply chains in rural development, *Environment and Planning A* **35**(3) 393 – 411;