

Edited by  
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# Food delivery solutions

Cases of solution oriented partnership



European Commission GROWTH Programme



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# Food Delivery Solutions

## Cases of solution oriented partnership

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## Solution Oriented Partnership: introduction

*Ezio Manzini*

“Food Delivery Solutions” is the second of a series of two books both issued from the HiCS European research project. HiCS standing for “Highly Customised Solutions” involving a network of sixteen universities, research centres and companies from seven European countries, all active during three years of an action-research process.

The aim of this process was to develop, and experiment with, an original methodology that facilitates a network of partners to conceive and develop industrialised, sustainable solutions.

“Solution Oriented Partnership”, the first of the two books, presents the overall methodology to develop sustainable systems

of products and services, delivered in a highly effective way by a network of local and global partners and able to address specifically each given user in its given context. A complete toolbox and a network of Solutions Centres acting as facilitators for companies willing to develop industrial sustainable solutions are presented.

“Food Delivery Solutions”, the second of the two books, shows the three Partners Based Solutions projects developed in Spain, Italy and Belgium/The Netherlands. They express the results obtained by the implementation line of the research in continuous dialogue with the developing methodology.





I.1 Initial consortium partners

The focus here is on the food sector and particularly on contexts-of-use where people demonstrate various difficulties in having daily access to appropriate meals.

Therefore readers will find in this book, projects of food delivery and original ways to organise an architecture of partners able to provide flexible answers to the market. But it shows also in background the methodology and tools applied by the newly grown Solution Centres available to catalyse sustainable and efficient partnerships in any other need area.

Both books could be read separately, but it is better to read them in parallel, jumping back and forth from the methodology and tools to the resulting projects, picturing (and mirroring) in a way the all action-research process followed by the authors.

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## Generale Introduction

*François Jégou, Peter Joore*

Food Delivery Solutions, focuses on the needs of people with reduced access to food and presents three original industrial solutions to face them. The Solution Oriented Partnership approach used to develop it focuses on four key-objectives that this approach aims at achieving:

- solution oriented partnerships, combining stakeholders that would normally not work together like profit and non-profit organisations, multinationals and SME's, global and local players.
- industrialised solutions based on a global platform of products, services and knowledge combined with specific local solution elements.

- contextualised solutions that are focused on a specific user in a specific context, and can be adapted to fit other related contexts of use.
- sustainable solutions that are both profitable for companies and beneficial for society.

The book contains three main parts. The 'backgrounds' section gives an overview of the current situation of reduced access to food: What is the state-of-the-art in terms of food delivery services currently available on the market? What could be learned from remarkable cases of spontaneous social innovation and mutual help around food access? How can an approach that thinks in

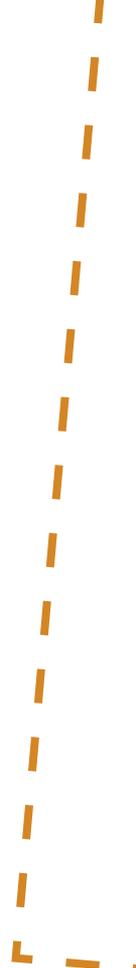
terms of contexts-of-use overcome classical marketing segmentation when focusing on people with reduced mobility and physical handicaps?

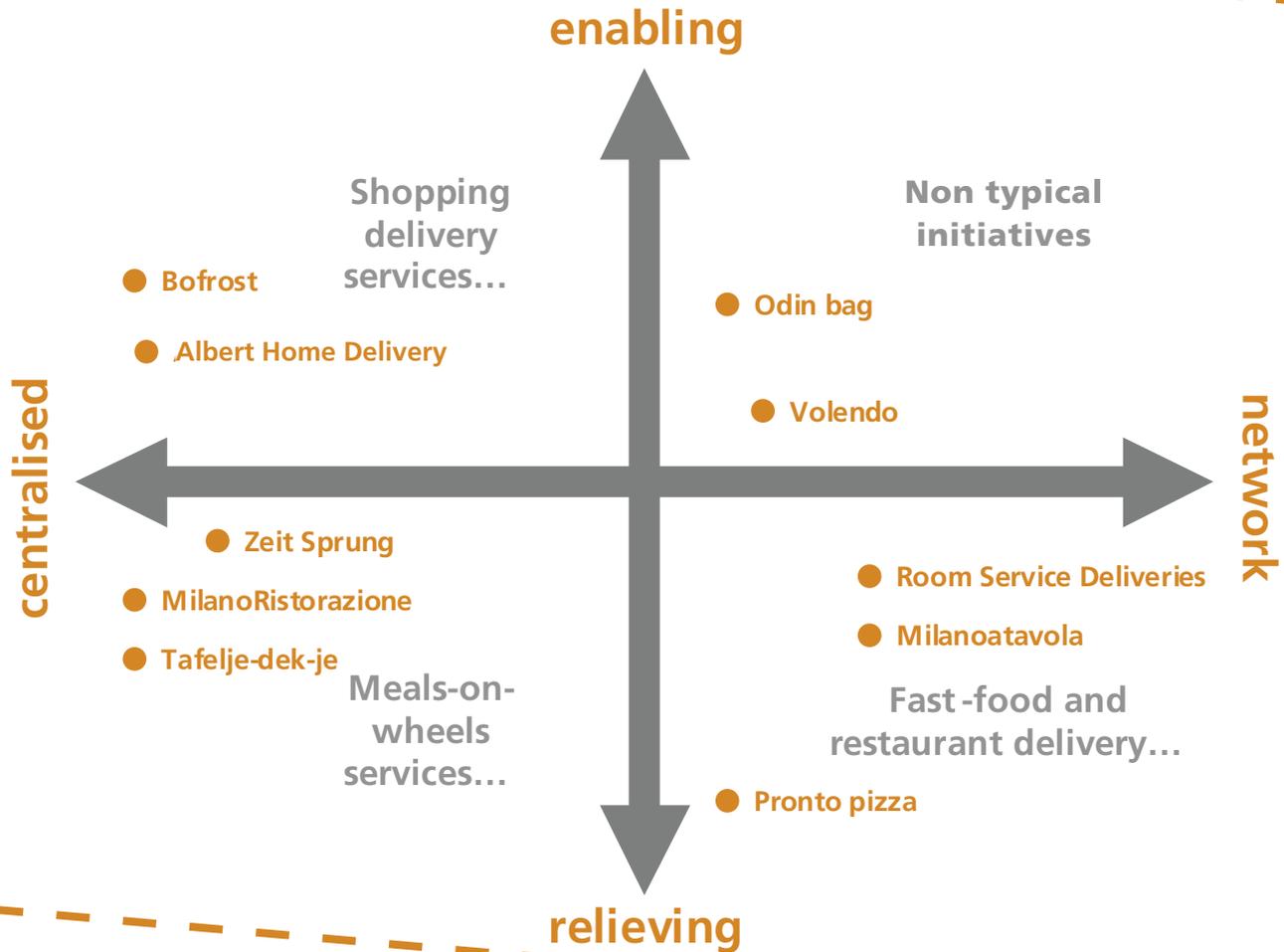
The core 'solution' section shows the experience of three Solution Oriented Partnerships developed during an action-research process. Punto X in Italy focuses on the availability of organic food in contexts where it was not available before. La Fiambrera in Spain proposes original synergies between social assistance and business areas. DuniChef in Belgium and the Netherlands shows a service able to offer personalization of meals served in large institutions.

The final 'transversal analysis' section compares the three parallel experiences. User issues takes a look at the resulting solutions and the benefits in terms of flexibility to different contexts-of-use, quality of food provided and social sustainability. Industrial issues focuses on the organisation of the solutions and the benefits companies and institutional partners can gain from these new solution architectures.

The concluding chapter, Solution Oriented Partnership and Solution Centres draws the lessons learned during three years of dialogue between scientific research and the implementation of the industrial projects in the food sector. This chapter also shows the perspective of Solution Centres developing new Partner Based Solutions in other areas, applying the experience and know-how acquired during the Solution Oriented Partnership project.

**Background**





## Food delivery services

*Helma Luiten, Peter Joore, Lucia Rampino*

### Introduction

Among existing food delivery services, many are already beneficial in reaching people with reduced access to food. Before proposing new ones, it is important to briefly analyse a selection of services that are already on the market, in order to learn from them, so gaining useful indications for developing new solutions.

The analysed food delivery cases exemplify two different types of service and two different models for offering a service.

Regarding the service type, a distinction can be made in services that enable or relieve people. Enabling services permit individuals to use at best their personal resources, giving them tools

to perform a certain function better, or with less effort. In the food-delivery field, this is translated in the home-delivery of ingredients for meal preparation.

Relieving services deliver solutions to the individuals with the least user effort, taking the work out of the users hands. In the food delivery fields, this means that the meal is prepared and cooked elsewhere and when it is delivered it is ready to be consumed.

In addition to the two different models of offering a service, a distinction can be made in the set up of the organisation that delivers the service, which can either have a centralised or a network structure. In a network organisation, a group of players is connected to deliver a

### RESTRICTED ENTRY REQUIREMENTS

SINCE A REGULAR HOME-DELIVERY OF READY-TO-EAT MEALS IS AN EXPENSIVE SERVICE, MEALS-ON-WHEELS ARE OFTEN SUBSIDISED BY A SOCIAL INSTITUTION. THE RESULT IS THAT, IN ORDER TO ACCESS THE SERVICE, THERE IS THE NEED FOR WELL DEFINED ENTRY REQUIREMENTS. FOR EXAMPLE, THE SERVICE TAFELTJE-DEK-JE IS NOT AVAILABLE FOR EVERYBODY WHO WANTS A (HOT) MEAL SERVED AT HOME. IN GENERAL YOU HAVE TO BE AN ELDERLY PERSON AND YOU HAVE TO BE IN NEED FOR THIS SERVICE. IN ONLY A FEW CASES EXCEPTIONS ARE MADE, BUT EVERYONE WHO WANTS TO SUBSCRIBE IS SCREENED FIRST. THIS HAS TO DO WITH THE SUBSIDIES AND VOLUNTEERS THAT ARE INVOLVED. THE RESULT IS A STIGMATISING IMAGE: ELDERLY SEE IT AS THE LAST SOLUTION BEFORE ENTERING AN ELDERLY CARE INSTITUTE.

“I’M NOT ABLE TO COOK ANYMORE...”



certain service, while staying independent and equal in relationship. In a centralised structure one main player manages most of the elements of a service, often delivering its own products and centralising almost everything under its own management, creating more hierarchical relationships.

A graph has been used to place all the analysed examples of existing food-delivery services, according to their service type (enabling-relieving) and organisational model (centralised-networked). Below, the essence of the examples is described. The examples are grouped according to the quadrant of the graph to which they belong: enabling-centralised services, relieving-centralised services, relieving-networked services and enabling-networked services.

### Examples of food-delivery services

#### *Enabling-centralised services*

These kinds of services, that offer the home-delivery of food shopping goods, exist in many forms. They are usually offered from medium

and big distribution chains. For instance in the Netherlands, the Albert service offers home delivery from four different shops: Albert Heijn (a supermarket), Etos (a drug-store), Gall&Gall (a liquor store) and Deli XL (for lunches and economy-sized packs). The user pays the same prices as in the stores, adding seven Euro for the delivery. It is classified as centralised because the shops involved all belong to Ahold, the multinational mother organisation. Another example of an enabling and centralised service is the frozen food home delivery service from Bofrost. Both frozen ingredients and frozen meals can be ordered. It is present in twelve European countries. Ordering can both be done by internet and telephone.

Key problems of a service that offers the home-delivery of food shopping is that the user still has to prepare their own meal. Furthermore, on-line ordering can be a technical barrier, especially for elderly users.

#### *Relieving-centralised services*

In this area we find all the services of regular

NO ACQUAINTANCE WITH THIS SERVICE SYSTEM THE CONSTRAINTS FOR REACHING A REALLY BROAD AUDIENCE FOR SEVERAL FOOD-DELIVERY SERVICES IS THE LACK OF ACQUAINTANCE WITH THE SERVICE. A GOOD EXAMPLE IS THE ODIN SERVICE, WHICH IS DISTRIBUTED BY HEALTH AND REFORM SHOPS. THESE SHOPS ARE STILL MAINLY VISITED BY A SELECT GROUP OF PEOPLE. AND THESE SHOPS ARE NOT TO BE FOUND IN EVERY CITY AND VILLAGE. ALTHOUGH THIS KIND OF SERVICE MAKES ORGANIC FOOD MORE EASILY AVAILABLE AND MORE ATTRACTIVE TO A BROADER TARGET GROUP, A VAST MAJORITY OF THE PEOPLE HAVE STILL NEVER HEARD OF IT. COULD THIS SERVICE ALSO BE OFFERED BY WELL-KNOWN SUPERMARKETS AND WOULD THIS ENLARGE THE NUMBER OF SUBSCRIBERS?



“WHICH VEGETABLES ARE WE GOING TO EAT  
THIS WEEK?”

home delivery of ready to eat meals handled locally by food companies and/or social services: the so called meals-on-wheels market. In almost all European countries a meals-on-wheels service is available, usually delivering hot meals to elderly people. Generally, behind the system there is one organisation per city with one kitchen that prepares meals and organises the total service. Often volunteers are involved to deliver the meals to the people. In most cases meals are offered hot, so the time of eating depends on the time it is delivered.

Examples are Tafeltje-dek-je in the Netherlands and MilanoRistorazione in Italy. Recently, cool-fresh meals, that can be stored in the refrigerator, or frozen meals, that have to be heated in the microwave, are delivered (for the latter, the German Zeitsprung service is an example). These services make it easier for elderly people to continue living alone. However, often the food is not considered very tasty, the user lacks real choice and meals must be ordered a long time in advance.

Furthermore, these services are on an average quite expensive, so that they are affordable for the majority of the users only when subsidised by a social institution.

#### *Relieving-networked services*

In this area are included all the chain delivery initiatives and gastronomic catering (from pizza-delivery to high-standard catering). In many major European cities, on-line services have recently become available that offer courses delivered at home using a network of local existing restaurants. In addition to this, these on-line services offer other facilities, such as lunches delivered at offices, rental of a chef who prepares meals at the client's house, catering services, wines and CD shopping, laundry services and so on. Examples are Roomservice.co.uk in London and Milanoatavola.it in Milan. Since these services are designed for occasional use, they are expensive if used on a long-term basis. Furthermore they are considered rather negatively in terms of sustainability.

#### *Constraints of current Food delivery services:*

THE EXAMPLES SHOWN IN THIS CHAPTER HAVE BOTH STRONG AND WEAK POINTS. SOME IMPORTANT CONSTRAINTS FOR THEIR AVAILABILITY AND APPLICATION TO A REALLY BROAD AUDIENCE ARE, AMONG OTHERS: TECHNOLOGICAL BARRIERS, RESTRICTED ENTRY REQUIREMENTS AND LACK OF ACQUAINTANCE WITH THE SPECIFIC SERVICE.

#### *Technological constraints:*

ALL ON-LINE SERVICES (LIKE ROOMSERVICE.CO.UK, MILANOATAVOLA.IT, VOLENDO.COM AND THE ALBERT SERVICE) ARE IN PRINCIPLE AVAILABLE FOR A LARGE AUDIENCE, VIA THE INTERNET. BUT THE INTERNET AND HANDLING A COMPUTER IS, AT THE SAME TIME, A CONSTRAINT IN REALLY ADDRESSING ALL THE PEOPLE THAT MAY WANT TO MAKE USE OF MEAL SERVICES AT HOME. THIS TECHNOLOGY IS STILL A BARRIER FOR A LOT OF ELDERLY.



“WHICH RESTAURANT DO WE INVITE ROUND  
TONIGHT?”

### *Enabling-networked*

This kind of services delivers meals' ingredients using a local network of suppliers. In this area there are no big clusters of existing solutions but, by essence, single atypical initiatives. An example is the Dutch service Odin, which offers a weekly package of organic vegetables and fruits together with recipes, by subscription. Odin made cultivation agreements with 60 organic growers, by which these growers are assured of sales. Another example is the Italian home delivery service 'Volendo.com', which offers on-line shopping from a broad variety of shops. A key problem related to these type of services is the possibility to replicate them on a large scale.

### **Analysis of the existing solutions**

The food-delivery services analysed shows that networked-based organisations tend to be more flexible and adaptable to different contexts than centralised ones and that enabling solutions are more promising in terms of social and environmental sustainability. Of course

this classification has to be handled with care. Some relieving services are in certain cases the best solution, such as those for elderly people that cannot cook or patients in a hospital. But in general, Partner Based Solutions aim at enabling people and at solutions that are offered by partners in a network, so offering great potential.

EAT IN = DELIVERY



## Social innovation and reduced access to food

*Pia Valota*

Existing solutions for people with reduced access to food have been explored by the HiCS project. Many of them, such as the so-called *meals-on-wheels* or elderly being helped by neighbours, are very similar and widespread across Europe as a way to let people stay at home, avoiding admission to institutions as far as possible. In such cases, the cost of the delivery service is not stated or externalised, since it is provided for on a voluntary basis. In normal business, on the contrary, such costs need to be taken into consideration and they are important: often being up to three times as much as the food cost itself, even in some institutional solutions.

A few cases are briefly illustrated here, where

sustainable and effective – though economic – solutions were reached by integrating private and social goals. As for numberless similar cases, their reason for success is in considering the opportunities for overall economies: which may only be done by a strict relation to one's own context.

In the restaurant sector, *family* logic is often the reason for a business to be successful and to persist in a given place; this is especially true in Italy, where family links often support economics – as different as the adopted strategies may be.

**Art Factory** shows the case where three brothers from Sardinia came to Milano,

*Art Factory* (previous page)  
IN A HOME DELIVERY BY ART FACTORY NICE POTTERY DISHES CONTAINING THE MEALS AND STEEL CUTLERY ARE SUPPLIED WRAPPED IN PAPER NAPKINS; SMALL INDIVIDUAL PORTIONS OF SALT, PEPPER, OLIVE OIL AND ANY OTHER APPROPRIATE SEASONING ARE PROVIDED.

THE RESTAURANT WILL NOT ONLY BRING THE TRAY TO THE CLIENT'S HOME, BUT EVENTUALLY RETURN AND TAKE BACK THE DIRTY DISHES.

NO ADDITIONAL COSTS ARE SET ON A MEAL HOME DELIVERY IN COMPARISON WITH WHAT CLIENTS PAY FOR THE SAME MEAL WHEN CONSUMED IN THE ART FACTORY RESTAURANT.

*Comunità Alloggio PAT:*  
SHOPPING IS A COMPETENT ACTIVITY WHERE A PERSON'S SELF-ESTEEM MAY BE IMPROVED UPON, IN SPITE OF THEIR IMPORTANT PHYSICAL HANDICAP.

A FEELING OF NORMALITY IS REACHED IN THE

INSTITUTION = HOME



separately got experience in the restaurant sector, then gathered together to start up a common enterprise. Kinship is used to improve stability and to minimize transaction costs, so helping the business to quickly expand: the initial bar was enlarged to a restaurant, and soon after a second bar was opened in another part of town. Visibility and being trendy are their main assets, at the same time an unusual care for their clients, who are offered luxurious home delivery without increase in price. In proportion to their whole business turn-over that service is minor, so that its additional costs may in fact be shared among all clients.

**Salomé**, contrarily, illustrates a local family's conscious will to keep in place, united from generation to generation. That goal is attained by involving all members in the business activity as well as in reciprocal care roles. Though from the outside their shop may be mistaken for a small food shop in decay, their choice only appears to be economically unrewarding. In reality, those same rooms where salami and cheese were sold in the Twenties, were adapted

in time to survive in a changing commercial environment: they became a gastronomy shop, then a snack bar in the Eighties, and at present the very food production place for a catering service that would serve bars and offices, or provide even 1.600 meals for an event. Flexibility and physical nearness to the clients lower the delivery service to little more than the normal cost of meals, so making their offer economically competitive.

Not only a family, but a group in a community having a strong common commitment may build up a persistent business, that would expand in capacity to meet local needs and desires.

Such is the case of the **Cooperativa Famiglie Lavoratori**: thirty years ago, a small group of socially-oriented friends set up a purchase group, and by now they rule a large selling point. Origininally, a garage was their warehouse and delivery was made through one's own car. Even though at present they are being asked (from outside the cooperative) to

DEPENDENTS COMMUNITY, BY DISCUSSING AND DECIDING ON FOOD ISSUES AS USUALLY HAPPENS IN A FAMILY. EACH MEMBER CONTRIBUTES TO PREPARING MEALS IN THE LARGE, LUXURIOUS KITCHEN THAT IS BACKING THEIR ACTIVITY: THE KITCHEN WAS ESPECIALLY EQUIPPED, TAKING CARE THAT MANY DIFFERENT HANDICAPS NEEDED TO BE MET, BY DONATIONS FROM A NUMBER OF COMPANIES THE MANAGER CONTACTED.

*Il Laboratorio:* HANDICAP WILL NORMALLY AFFECT JUST A PART OF ONE'S ABILITIES: TOTALLY SEGREGATING A PERSON BECAUSE OF THEIR ILLNESS MAY WORSEN THEIR CONDITION AND DEPRIVE THE COMMUNITY OF SOME USEFUL HELP. A SUCCESSFUL THERAPEUTICAL PROGRAMME FOCUSED ON FOOD PREPARATION BY MENTAL PATIENTS WAS ORGANISED, BOTH FOR THE INTERNAL DAY-HOSPITAL PURPOSE AND AS A WAY TO LOWER THE DIVIDE WITH THE EXTERNAL WORLD: PATIENTS AT WORK IN THE CATERING COOPERATIVE ARE INDISTINGUISHABLE FROM OTHER WORKERS.



DISABLED = NOT DISABLED

further expand and rule other shops, they want to cling to their original scope: continually improve products' quality (for instance, a large range of ethnic and organic food is available) and provide to the cooperative's members an evolving set of collateral services. Store loyalty overcame even a nearby hard discount's competition: a real success, in a non-affluent situation.

Where an institutional framework is unavoidable, excellence of the service – from the users' point of view – seems to be in proportion with the efforts managers to de-institutionalize it, at least in the clients' perception.

Besides bureaucracy, a weak point of institutional solutions are the asymmetrical relations between inside-outside and operators-patients, possibly inherited from a charities' long-lasting tradition. A remarkable case, where asymmetry was successfully overcome, is to be found among the many initiatives of **Il Laboratorio**, a small public

health unit whose mission is to take daytime care of mentally severely disordered patients. The structure's therapeutic philosophy is that no difference should be set, between "normal" people and the patients, with regards to any function both of them are able to carry on alike. Making people re-gain dignity and autonomy, as far as possible, is the neuro-psychiatrist's commitment. Therefore, both the volunteers and some of the unit's guests participate in a food delivery service for mental disordered people at home: the mental health of the giver and the receiver is improved by the equal, respectful relationship and adequate nutrition is assured to people that otherwise would have often exchanged restaurant tickets (formerly provided to them by the public assistance) for cigarettes. Moreover, the meal itself, as all meals that may be eaten in the "Il Laboratorio" community, is jointly prepared by the patients and the unit's professionals. Over a 30 years period the cooking activity, that initially was only internal and mostly meant for therapeutic support became mixed up with

*Cooperativa Famiglie  
Laboratori:*

IN A COOPERATIVE, MEMBERS ARE BOTH "CLIENTS" AND "SHAREHOLDERS", BUT ALL WOULD-BE PROFITS MUST BE PLOUGHED BACK FOR SOCIAL PURPOSES. CFL MEMBERS LIKE TO DISCUSS NEW INITIATIVES THEY MAY IMPLEMENT WITH SUCH MONEY, AND DECIDE ON THE BASIS BOTH OF MEMBERS' AND THE LARGER COMMUNITY'S SUGGESTIONS AND NEEDS. THE COOPERATIVE STORE HAS DEDICATED SPACES FOR SOCIAL ACTIVITIES:

- IN THE SHOP ITSELF, A CORNER IS PROVIDED WITH ARM-CHAIRS AND A TABLE, SO THAT PEOPLE MAY STAY CHATTING TOGETHER.
- SEPARATELY FROM THE SHOP, A LARGE MEETING ROOM IS AVAILABLE FOR SOCIAL ACTIVITY, AND THREE SMALL ROOMS ARE USED AS CLASSROOMS FOR TEACHING: DIFFERENT LANGUAGE COURSES ARE OFFERED, FOR INSTANCE, MATCHING MEMBERS' CAPABILITIES AND DESIRES.



SHOPPING = BEING PART OF THE COMMUNITY

“the exterior”, as public cooking courses were hosted inside that structure, with some of the patients getting a diploma, and an independent co-operative for catering was created. Now, a number of events and marriages address the cooperative’s services: on purpose, and not especially because of low costs.

**Comunità Alloggio** is a small unit within an important historical charity. Ten people having very important physical handicaps may be hosted in it, and all sorts of medical care and assistance are provided. What is really special, though, is the way it is ruled by its manager – who happens to be a psychologist with a family tradition in volunteer services. He soon undertook to improve the assisted people’s moral attitude, that was – quite understandably – highly depressed. In this case also, encouragement towards non-medical activities and especially entrusting the disabled group with full responsibility for food was a key for success. The residents therefore set in turn their weekly menu, that is long discussed in

order to match the meals that are desired with dietetic requirements; some of the residents go shopping, accompanied: one will specialize in vegetables, the other one in frozen food, etc.; all of them help with the meal preparation, following their capacity. Birthdays are celebrated, so increasing personal knowledge and links among them. An astonishingly “normal” atmosphere is the result, that was reached at costs that are equivalent to usual hospitalization of this kind of people.

## CONTEXT-OF-USE



## Context-of-use

*Christina Lindsay, Simona Rocchi*

This section provides an overview of an investigation carried out on people's needs and problems in relation to 'access' to food, in order to gain real-life-information to be used as valuable input for the creation of new or better solutions than the current ones. The theory of this investigation has been addressed in book one 'Solution-oriented partnerships', especially in the chapters 'Users in Contexts-of-use' and 'Contexts-of-use Co-research methodology'.

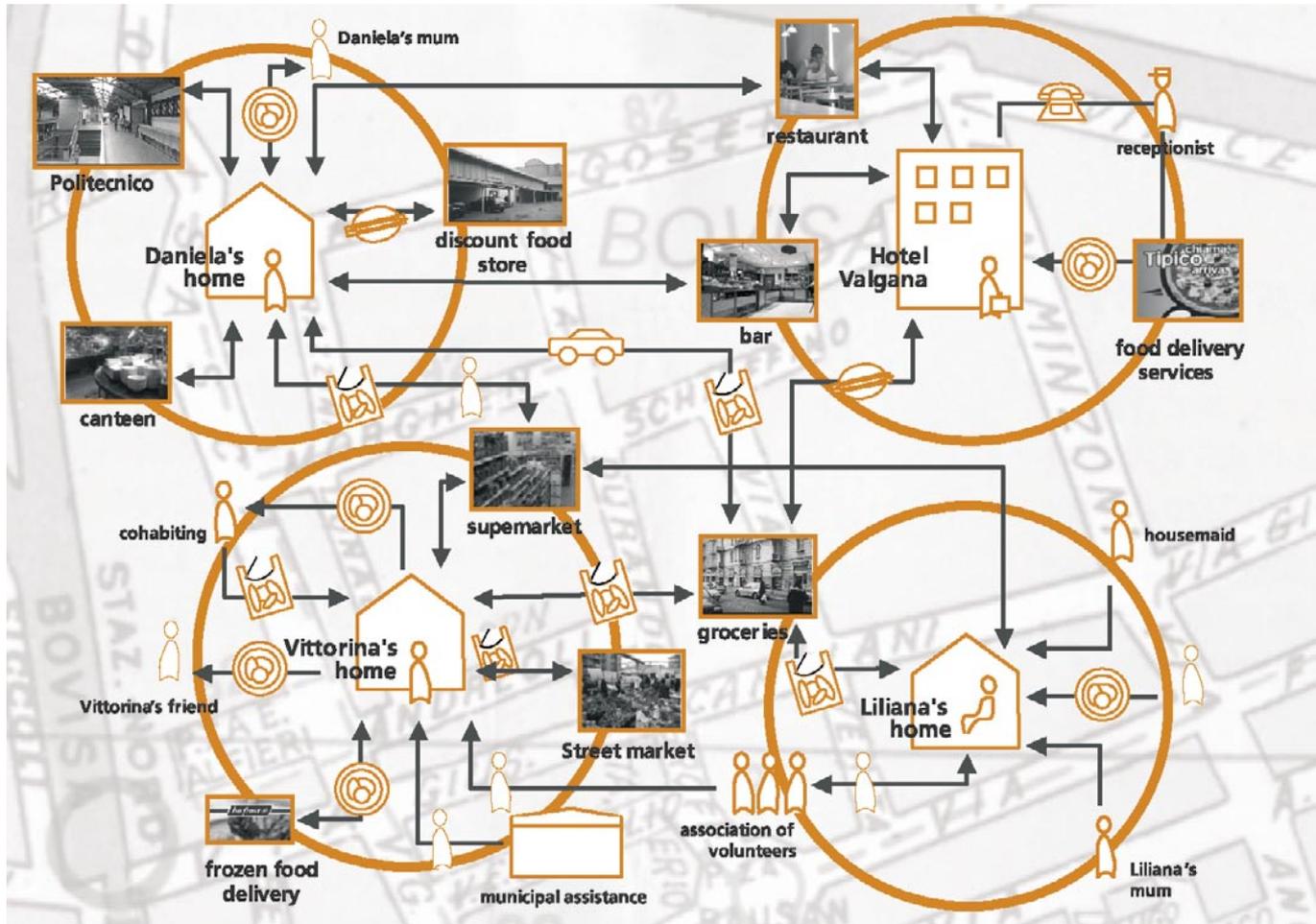
### **The context-of-use**

The fieldwork targeted 'people in contexts of reduced access to food' in phases of shopping/delivery, preparation and consumption. The meaning of reduced access not only refers to people's physical or mental, permanent, or

temporary, conditions but also more generally to limitations due to specific context conditions that reduce some expected performance. The analysis focused on an understanding of specific contexts-of-use: local socio-cultural and physical environments in which users interact with products and services related to food. **How we investigated the context-of-use** The research partners adopted a repeatable and flexible approach able to combine the benefits of short-term traditional consumer research techniques with new medium/long-term investigation methods. The study was conducted by a multidisciplinary team composed of consumer researchers and designers, and often including the users.

THE IMAGE SHOWS A POSSIBLE WAY OF REPRESENTING THE LINKS BETWEEN A PARTICULAR CONTEXT-OF-USE AND ITS POTENTIAL SOLUTIONS, ILLUSTRATING ISSUES, ACTORS AND ACTIVITIES.

THIS EXAMPLE IS FROM THE ITALIAN SOP. THE URBAN AREA IS THE BOVISA, IN MILAN (ITALY), CHARACTERISED BY THE PRESENCE OF A VERY HETEROGENEOUS POPULATION (UNIVERSITY STUDENTS, ELDERLY, CRAFTSMEN AND WORKERS). THIS IS DUE TO RECENT DEEP SOCIAL AND PRODUCTIVE TRANSFORMATIONS, AND BY THE CONSEQUENT INADEQUATENESS OF EVERYDAY LIFE INFRASTRUCTURES. THEREFORE BOVISA CAN BE ASSUMED TO BE AN AREA WITH A PARTICULAR SOCIAL RELEVANCE.



## Selection of the Contexts-of-use

Initial hypotheses of contexts-of-use were selected on the basis of the following orientation criteria: geographical restrictions (physical access to food for users); social relevance (under-served societal groups); market opportunities (unsatisfied, hidden, emerging needs); and food quality limitations (limited access to fresh and healthy food).

### Some examples

The investigations, spread all around Europe (*Italy, Spain, U.K. and the Netherlands*) covered contexts-of-use which included elderly, disabled and blind people at home and in community/health-care centres, students at home and in student-houses, immigrants at home and in commercial spaces, people in hotels, etc.. In total, at this initial stage of the fieldwork, 42 pilot cases were addressed. Expanding on these case studies, further contexts-of-use were explored in the implementation phase:

- *people in the urban area of Bovisa in Milan;*
- *users of the Rubí Social Services in Barcelona;*
- *people in hospitals in Belgium and The Netherlands.*

**Analysis** We analysed the research findings

in two ways: using the ‘food cycle’ elements of shopping/delivery, preparation and consumption; and using the socio-cultural, physical and psychological components of the context-of-use. This enabled us to identify six critical, often overlapping, issues that appeared, in various forms and at various times, in different contexts-of-use. Knowledge includes not knowing where to buy food locally, how to prepare healthy food, how to budget for food etc. Experience deals with both the negative and positive experiences of interactions with food, such as the experiences of eating alone or in a group, or having to eat at set times. Timing is often related to a lack of control over choosing when to eat or shop. It can also refer to planning and budgeting needs. Variety and choice can refer to both a lack of choice or of too much choice, leading to an overload of information. Shopping/delivery relates primarily to physical access, perhaps in reaching the shops or carrying the groceries home, but also to appliances to cook the food or to chosen dining places. Quality refers to the quality of the food and includes such elements as taste, freshness and appropriateness (diet or

THE IMAGE IS A COLLAGE OF PHOTOS FROM MANY OF THE CONTEXTS-OF-USE, TAKEN BY THE RESEARCHERS, THE DESIGNERS AND THE USERS THEMSELVES.

THE COLLAGE ILLUSTRATES MANY ASPECTS OF PEOPLE'S EVERYDAY LIFE IN RELATION TO ACCESS TO FOOD. SOMETIMES, SIMILAR SITUATIONS AND ISSUES AROSE IN DIFFERENT WAYS IN DIFFERENT CONTEXTS-OF-USE.

FOR EXAMPLE, LACK OF KNOWLEDGE ON WHERE TO BUY FOOD WAS A PROBLEM FOR IMMIGRANTS AT HOME, AND LACK OF KNOWLEDGE ON HOW TO PREPARE FOOD CREATED DIFFICULTIES FOR BOTH THE ELDERLY AND STUDENTS.



cultural), as well as invoking a trust such as that found in certified organic foods.

### **Translation in the Solution Oriented Partnership methodology**

The outcomes of this study have provided informative and inspirational inputs for several creative workshops for concepts generation and scenarios building. Designers, together with the business, used the findings to outline the characteristics of potential solutions identified to answer particular issues: issues that often have been recognized across different contexts-of-use, allowing for the extension of the potential solutions from one context to another, therefore solving multiple problems. The outcomes have also been used for envisioning design scenarios able to communicate how the potential solutions can resolve people's current problems, how they can be used and which actors are necessary for their implementation. In this perspective, this information has contributed to:

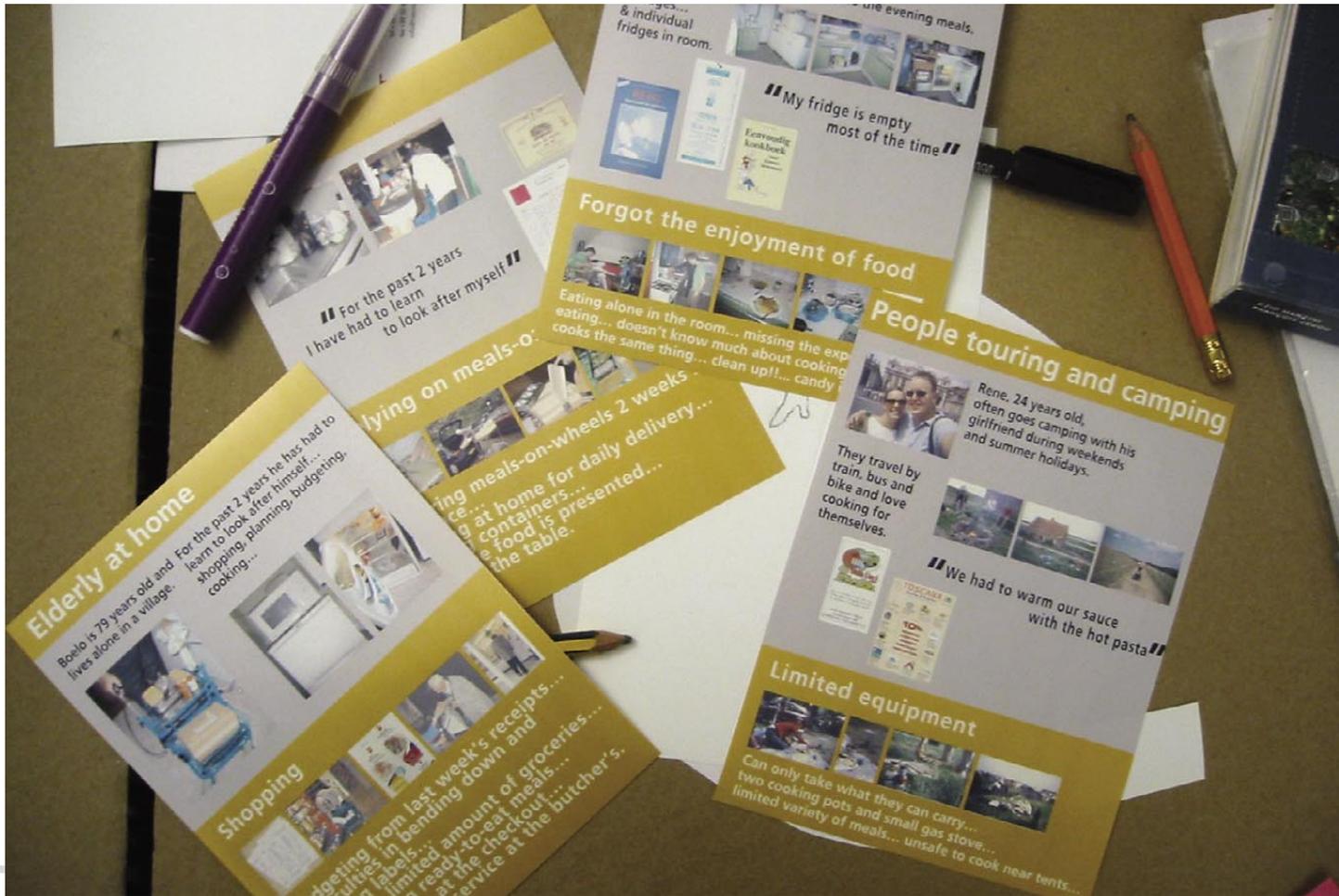
- the identification of those local partners necessary for the implementation and the success of specific new global-local business propositions (e.g. maps and videos

documenting users' interactions with local products and services helped us in figuring out the players involved in the current available answers, but also those less visible, or even missed, players that can assume an important role in the promotion of new solutions.);

- the creation of a consensus on the strategic direction to be undertaken and the role and the responsibilities to be assumed by the global and local partners (e.g. the use of story-boards to visualize issues and problems emerging in a specific context-of-use helped us in the clarification of the possible realistic and precise activities that can be carried out by the different partners to fulfil, at best, the expected performance.).

Either during the creative process or later in the phase of business evaluation of the concepts, new potential contexts-of-use were recognised for further exploration, and therefore for the ideation of new concepts to be considered for the final development of sustainable and contextualised solutions. (See part 3, 'solutions', for the details concerning each Solution Oriented Partnership).

THE IMAGE SHOWS ONE WAY OF PRESENTING THE FINDINGS OF THE CONTEXTS-OF-USE INVESTIGATION. FOR EACH INDIVIDUAL PERSON, THE CARD INTRODUCES AN OVERVIEW OF HIS OR HER LIFE IN RELATION TO FOOD, AND HIGHLIGHTS THE MOST IMPORTANT PROBLEMS OR THE MOST SIGNIFICANT ISSUES ENCOUNTERED. THE RESEARCH FINDINGS WERE ALSO PRESENTED IN VARIOUS DIFFERENT WAYS. FOR EXAMPLE, IN THE FIRST BELGIUM-DUTCH CREATIVE WORKSHOP, RESEARCHERS ROLE-PLAYED STORIES FROM THE LIVES OF SOME USERS WHILE SHOWING PICTURES OF THE PROBLEMS IDENTIFIED. IN THE NEXT WORKSHOP, DETAILED INFORMATION WAS SHARED THROUGH NARRATIVES, SUPPORTED BY THE CARDS AND VIDEOS OF REAL-LIFE SITUATIONS. SEVERAL OTHER APPROACHES WERE USED IN OTHER CONCEPT GENERATION SESSIONS AND ADDED VALUE BY PROVIDING REAL-LIFE INFORMATION AND PROBLEMS (SEE SECTION THREE 'SOLUTIONS').



II.12 Context-of-use

# DuniChef

## *Duni*

DUNI IS A SWEDISH MULTINATIONAL OWNED BY EQT, A PRIVATE EQUITY GROUP. DUNI IS WORLD MARKET LEADER IN SEVERAL AREA'S OFFERING CONCEPTS, SERVICES AND PRODUCTS WITH HIGH CUSTOMER VALUE THAT ENHANCE ANY EATING OR DRINKING OCCASION, WHETHER AT HOME, IN A RESTAURANT OR WHILE TRAVELLING. WORLDWIDE THE GROUP PROVIDES WORK TO 3,600 PEOPLE, HAS NET SALES OF 687 MILLION EURO (2002) AND HAS OWN OPERATIONS IN 30 COUNTRIES. DUNI IS PERCEIVED AS A TRENDSETTER WILLING TO SPEARHEAD DEVELOPMENT OF NEW HIGH QUALITY MATERIALS, IDEAS, CONCEPTS AND CREATIVE MARKETING. RESHAPING EXISTING PRODUCTS AND CONCEPTS DOES NOT CREATE MORE MARKET SHARE. DUNI WANTS TO EXPLORE NEW MARKETS BY MEANS OF CONCEPT DEVELOPMENT IN COOPERATION WITH STRATEGIC PARTNERS. SHARED VISION IN COMBINATION WITH PARTNER SPECIFIC EXPERTISE WILL LEAD TO INNOVATIVE SOLUTIONS FOR EXISTING AND NEW MARKETS, AND TO DUNI BECOMING A REAL SOLUTION PROVIDER.

DUNI:

“FROM PACKAGING PRODUCER TO MEAL  
SOLUTION PROVIDER”



## DuniChef

*Erik Indekeu*

One of the main elements of the Solution Oriented Partnership approach is to create a network of partners, in parallel to the development of the Partner Based Solution. To know what partners are needed to form the solution, one of the first steps in the solution development process is to develop a platform vision, based on in-depth context-of-use research. The goal to develop meal services for people with reduced access to food was further focussed by Duni, being the initial partner and promoter of the solution. This has resulted in two main design concepts: The design-for-all principle and the goal to create freedom of choice.

When looking for solutions for people with

specific social or physical limitations (e.g. elderly) you might find solutions that also improve the quality of life of people that do not have these limitations (e.g. double-incomers). This is the design-for-all principle. The second principle focuses on the achievement of the highest possible degree of personalisation with the meal service solution, the 'Freedom Of Choice' vision.

This is not only important for the end-user but also for the organisation that will implement the service.

In the DuniChef solution, this vision is realised by splitting meals into basic components that can be assembled according the wishes of the end-users and the system-users.

### *Trittico*

TRITTICO IS A YOUNG RAPIDLY GROWING DUTCH ORGANISATION WITH A STRONG ENTREPRENEURIAL CULTURE, STILL IN ITS PIONEERING PHASE. MAIN ACTIVITIES ARE INTERIM-MANAGEMENT FOR CATERING IN THE CARE SECTOR, CATERING ORGANISATION FOR PROJECTS AND EVENTS AND IMPLEMENTING ASSEMBLY COOKING WITH THEIR LOGIFOODCONCEPT. TRITTICO PROVIDES WORK TO 30 PEOPLE AND HAS AN ANNUAL TURNOVER OF 5,5 MILLION EURO (2002). TRITTICO SHARED THEIR KNOWLEDGE FOR THE CO-DEVELOPMENT OF A COMPLETE MEAL SERVICE SOLUTION (FROM PORTION PRODUCTION TO TABLE SERVICE) GOING FURTHER THAN THE LOGIFOODCONCEPT AND CREATING MORE MARKET SHARE IN THE BENELUX.

## TRITTICO:

“HOW TO MOVE FROM HOSPITAL  
CATERING TO RESTAURANT SERVICE?”



### Creating the initial partnership

As the next step in the Solution Oriented Partnership approach, several challenging contexts-of-use were selected and several more elaborated solution developed. To illustrate the strength of Duni's vision, designers made sketches of first ideas to show to potential partners.

Using the solution scan tool, explained in the book 'Solution Oriented Partnerships', the partners were screened on their compatibility towards Duni and the match with regards to the vision developed.

Out of this process, the Dutch firm Trittico came out as the most suitable partner for the DuniChef solution, being compatible with Duni's capabilities, and sharing the 'Freedom Of Choice' vision.

The partnership with Trittico again opened new doors to other partners that could play a role in the specific solutions being developed. These companies and their activity will be mentioned later.

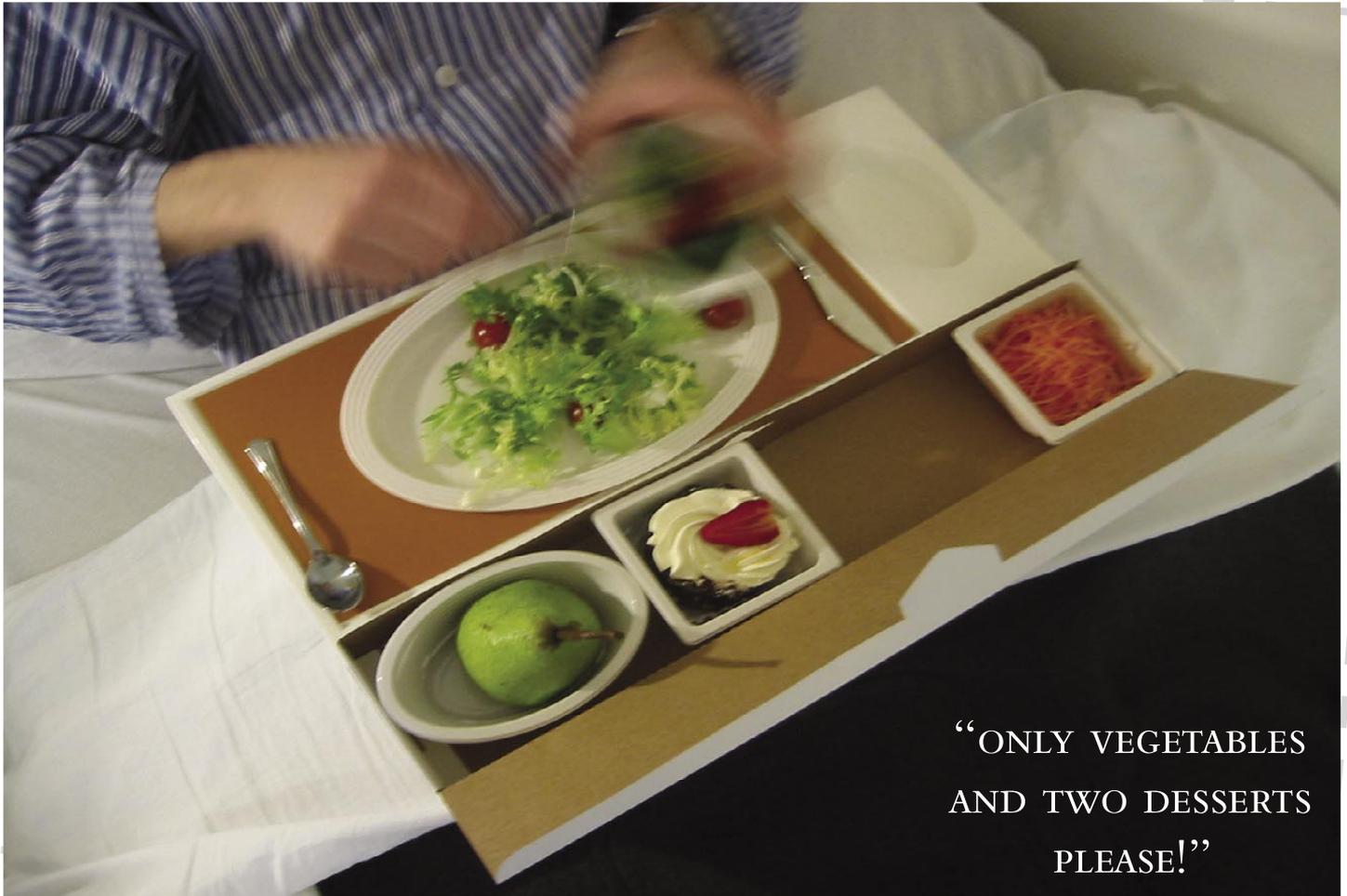
### Narrowing down the context-of-use

The choice of the new partner further focussed the selection of the specific context-of-use upon which the DuniChef solution is targeted, being people in a hospital situation. Hospitals are already a key market for Trittico, and the Solution Oriented Partnership approach offers Trittico a way to further improve their offering. For Duni, this context offers a challenging new market potential that fits very well into the selected context of 'people with reduced access to food'. The choice for this specific context-of-use of people in hospitals is seen as a first step in reaching other related contexts like people in elderly homes, and people living at home but not being able to cook anymore.

### The DuniChef Solution

Based on the initial Freedom Of Choice vision, combined with the selected context-of-use focussing on people in hospitals, the two partners, Duni and Trittico, have further developed the DuniChef concept into a full service catering solution. DuniChef presents

*DuniChef in the hospital*  
 BY USING THE DUNICHEF SOLUTION, HEALTH CARE ORGANISATIONS ARE ABLE TO OFFER A MEAL SERVICE WHERE THE PATIENT CAN CHOOSE THEIR MEALS ONE DAY IN ADVANCE. THIS IS AN IMPROVEMENT FOR THOSE PATIENTS THAT STAY IN A CARE INSTITUTE FOR A SHORT PERIOD (LESS THAN A WEEK). ANOTHER ACHIEVEMENT OF THE DUNICHEF SOLUTION IS THAT MEALS CAN BE SERVED AT THE TIME THAT THE PATIENT WANTS IT. PATIENTS COMING FROM THE OPERATION ROOM OR PATIENTS ON A SPECIAL DIET MAY REQUIRE A DIFFERENT SCHEDULE OF MEAL CONSUMPTION. ALL OTHER USERS CAN ALSO BENEFIT FROM THIS POSSIBILITY. THE PATIENT IS NOW ABLE TO CHOOSE WHAT HE WANTS AT THE TIME HE WANTS WITHOUT CREATING STRESS FOR THE HOSPITAL STAFF. THE HOSPITAL CAN SPEND MORE TIME AND MONEY ON ITS CORE ACTIVITIES, CARING AND CURING.



“ONLY VEGETABLES  
AND TWO DESSERTS  
PLEASE!”

consumers in health care a wide assortment of cool, fresh, ready to heat and ready to eat meal components, that can be selected in a highly flexible manner, and which is offered to the user in an attractive way. Exactly when the customer wants, the meal can be regenerated and served individually, all within half an hour after ordering the meal. Basically, the consumer is offered a great variety of meal components out of which he or she can make a preferred combination for each meal, creating a meal service that you might expect in a restaurant.

### **Organisational issues**

DuniChef is a modular concept that fits with current catering methods like intramural (in hospital), transmural (independent living within institutes) and extramural (at home) health care. The concept offers health care organisations a new variable and flexible meal catering solution, in which the focus is shifted away from the production side towards the user side, with a strong focus on the presentation of the meal to the users. At the same time,

the advantages for the health organisation are very appealing. All preparation efforts are placed outside of the hospital and taken care of by the DuniChef organisation. Only the heating is done inside the care organisation, so a spacious central kitchen with immense staff, equipment and facilities is no longer needed. A care organisation only needs a cold storage area with on-line menu ordering and order processing and an organised pantry per ward equipped with refrigerator and heating system for the meal components.

Using DuniChef, care organisations can offer a meal service in a very efficient and flexible way while cutting costs and budgets, achieved reducing floor space, energy, staff, services, facilities and waste management. At the same time these organisations can meet the rapidly changing demands and needs of consumers who want a greater variety of choice and demand more freedom regarding the place and moment of consumption, as well as an improved service level. All together the DuniChef solution enables more attention and

*DuniChef at home*  
ALTHOUGH THE DUNICHEF SOLUTION IS DESIGNED TO THE NEEDS OF HOSPITALS AND PATIENTS, THE CONCEPT IS A POTENTIAL SOLUTION FOR OTHER CONTEXTS OF USE; SUCH AS CARE AND COMMERCIAL SECTOR, ELDERLY HOMES, SCHOOLS AND SELF-SERVICE CANTEENS. ELDERLY LIVING AT HOME CAN NOW LIVE LONGER INDEPENDENTLY AND OFTEN REQUIRE LESS ASSISTANCE.

“NEXT TIME I SHOULD  
ALSO INVITE MY SON!”



service for the consumer, without increasing budget.

### **Changing food services in health care**

To understand the advantages of the DuniChef concept, specific information about the organisation of food catering in the health care sector has to be understood. In general health care organisations have a policy to return to their core business, taking care of patients. This is encouraged by government and insurance companies, who are responsible for providing working budgets. Budgets are cut and cost control has become a necessity. Non-profit organisations are more and more forced to think and act like entrepreneurs. The patient becomes a customer. Therefore more attention, services and facilities are wanted.

### **Patients becoming costumers**

On the other hand the patients of health care organisations are generally not satisfied with the quality of food service and the

lack of availability of services and facilities. They demand better services and facilities, if possible personalised. With regards to food catering the customer wants quality food of his choice, served properly and warm at the time of his choice at the place of his choice. Besides that the time between ordering and serving should be as short as possible and no more than 24 hours. In general the demand for food catering is by changing and food-catering departments in health care organisations are challenged to keep up with the changes, or may even seem to ignore them.

### **Barriers for change**

For changing the food-catering organisation a lot of things are needed including kitchen investment, renewed knowledge, skills and even entrepreneurial courage. These are often not available or inadequate within the care organisations themselves. Besides that, any change may be perceived as a threat

*DuniChef packaging*  
 A CARDBOARD CASSETTE AT THE BACK OF THE TRAY IS FILLED WITH MOST OF THE MEAL PORTIONS AND IS LABELLED WITH THE PATIENT'S PERSONAL DATA. THE ADDITIONAL COMPONENTS CONSIST OF A TRAY, MAIN PLATE, CUTLERY AND PRINTABLE TRAY LINER. IN THE PANTRIES OF THE HOSPITAL, THE CASSETTE AND ADDITIONAL COMPONENTS ARE ASSEMBLED PRIOR TO SERVING. MEAL COMPONENTS THAT HAVE TO BE HEATED IN THE OVEN ARE TAKEN OUT FROM THE CASSETTE BEFORE SERVING. IF A SOUP OR STARTER (SALAD) IS PART OF THE MEAL, IT COMES SEPARATELY AND IS PUT NEXT TO THE MAIN PLATE. MEDITERRANEAN EATING CULTURE REQUIRES SEPARATE SPACE FOR STARTERS AND MAIN COURSES. THE USER PLACES THE SEVERAL INGREDIENTS OR THE COMPLETE CONTAINER ON THE MAIN PLATE. THE TRAY LINER CAN BE PRINTED IN A WAY THAT IT IS CUSTOMIZED FOR KIDS, TEENAGERS, ADULTS OR ELDERLY.

# DUNICHEF: FREEDOM OF CHOICE



to in-house employment and expertise. In other words, the majority of food catering departments need to change but are afraid to do so, keeping everything as it is. But things are changing. Facilities management is getting more professional, facing the problems in food catering and not being afraid to look for innovative solutions. All means are permitted, as long as the new situation meets the customers demand for high quality food and service. Although changes in the food chain are not easy, the rising cost of meal services for short stays in hospital, for elderly people at home, for day-care centres, for independent groups in mental health care and for situations with very flexible demand for food, are all eager to try suitable solutions within budget. The DuniChef solution can play an important role in realising the change.

### **What does DuniChef offer?**

The basis of the DuniChef solution is the possibility to choose a complete three

course meal out of a wide selection of meal components, just a short time before eating it. The assortment consists of a selection of individual cool, fresh, meal components. The preservation of these components makes it possible to use them for fourteen days after delivery. The portion sizes are based on the standards used in health care, which means daily consumption of a healthy amount of various foods of good quality and with sufficient nutritious values. The assortment consists of starters, main course components like meat and fish with or without sauce, vegetables, potatoes, rice, pasta, combined courses and dishes, desserts and possible extras. The assortment will be adjusted several times a year and also covers the demand for diet food (e.g. low on salt) or ground food. Breakfast, lunch and in between service are not included in the above-mentioned options, but are easy to realise using the DuniChef solution.

### **Selecting a meal**

The consumer is supposed to make a restricted

*Different contexts-of-use*  
 DUNI-CHEF IS DEVELOPED  
 TO OFFER A SOLUTION  
 FOR DIFFERENT CONTEXTS  
 OF USE. IT IS USABLE FOR  
 HOME DELIVERY (ELDERLY,  
 SINGLES, ETC.) WITHOUT  
 THE TRAY BEING USED. THE  
 BOX CAN CHANGE IN SHAPE  
 ACCORDING TO ITS CONTENT  
 OR USE.  
 WHEN USED IN HOSPITALS  
 THE SERVICE COMPONENTS  
 WILL BE DELIVERED  
 SEPARATELY FROM THE FOOD  
 INGREDIENTS. THE HOSPITAL  
 CAN OFFER A PERSONALIZED  
 SERVICE BY PUTTING A  
 TRAY LINER WITH A PROPER  
 PRINT (BIRTHDAY, PUZZLE,  
 CHRISTMAS) ON THE TRAY.  
 THIS ALSO MAKES THE  
 SOLUTION SUITABLE FOR  
 USE IN INSTITUTIONS LIKE  
 SCHOOLS.



Home



Hospitals



Institutions

choice out of the assortment. For those who cannot make a choice, were too late or not able to, a changing daily menu suggestion is offered. During public holidays special suggestions can be offered as well as a totally different assortment. Experience helps to predict what 70% of the consumers choose for the menu suggestion (based on a limited choice of two or three possibilities). Through measurement during the planned pilot test, we will learn if the percentage is similar when more alternatives are offered to choose from and, if so, stock can be reduced. This increases the turnover and decreases the loss of product by expiration.

### **The ordering system**

The system of ordering from a menu is modular and can be adapted to the wishes and demands of the organisation, the infrastructure and the current facilities and services. The consumer's choice can be input manually, or via a hand-held device, on-line data input by an operator or on-line data input by internet or intranet.

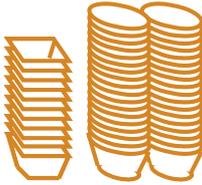
The output given to the organisation gives information about the consumer, the order date, the location, the address of the consumer and the route, and these can be printed on a label.

### **Adaptability to the organisation**

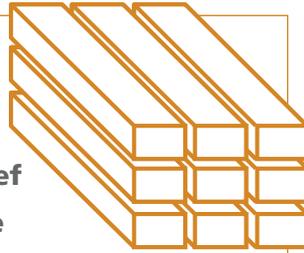
The DuniChef process is adaptable to many catering situations in health care. According to the level of change an organisation is willing to make in staff and infrastructure, it is able to choose a process flow that fits its requirements. Organisations that are able to change their catering completely can gain the highest benefits, placing most of the catering activities outside of the institute. The resources that are set free can then be used for the core activities of the organisation. All attention can be given to caring and curing instead of feeding and cleaning, transferring personnel from kitchen to patient. Next to this the expensive area of the central kitchen can be used for other facilities and the management now has a tool for transparent food order management and

*Flexible implementation*  
 THE LEVEL OF FLEXIBILITY THAT THE DUNICHEF SOLUTION OFFERS TO THE END-USER GOES ALSO FOR THE IMPLEMENTATION OF THE SYSTEM FOR THE ORGANISATION. THE MORE COMPONENTS THAT ARE INTEGRATED INTO THE CATERING PROCESS THE HIGHER THE BENEFICIAL IMPACT. THE ORGANISATION CAN CHOOSE FROM ALL POSSIBLE OPTIONS (BETWEEN FILLING THE PACKAGING COMPONENTS IN THE EXISTING CENTRAL KITCHEN TO IMPLEMENTING THE FULL DUNICHEF SOLUTION AND CLOSING THE CENTRAL KITCHEN). THE ORGANISATION CAN EITHER MANAGE THE FULL DUNICHEF SOLUTION IN-HOUSE OR OUTSOURCE IT COMPLETELY TO A THIRD PARTY THAT WILL MANAGE THE SYSTEM (SERVICE PROVIDERS). THE EXAMPLES ON THE FACING PAGE SHOW THAT DUNICHEF COMPONENTS CAN BE DELIVERED AS EMPTY CONTAINERS, FILLED INDIVIDUAL PORTIONS OR AS COMPLETE READY-TO-USE SERVICE. THE CATERING ACTIVITIES THAT THE ORGANISATION HAS TO PERFORM IN RELATION TO HOW DUNICHEF IS DELIVERED ARE LISTED IN THE ILLUSTRATIONS.

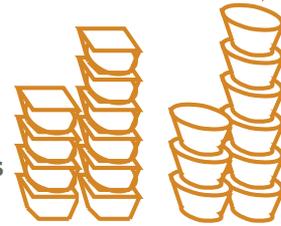
**Packaging  
only**



**Full  
DUNiChef  
service**



**Filled  
portions**



efficient cost control. Care organisations that fall under this specification are the ones that are under construction or those that have fully written down the central kitchen appliances for depreciation.

### **Partial implementation of DuniChef**

On the other hand, specific components of the platform can be fitted into the existing catering system of a care organisation. For example, all metal cutleries can be replaced by plastic cutlery (for safety reasons in psychiatric centres) or the special DuniChef Cpet containers are used to create individual meal portions in advance in the central hospital kitchen and stored in a refrigerator or freezer.

This type of catering process is the traditional linked cooking process and is the most frequent process applied in the Benelux. Of course, the benefits to the organisation are not of the same level as full implementation of the DuniChef solution, but it shows the modular nature of the proposed DuniChef solution.

### **The Solution Elements of DuniChef**

The DuniChef process flow is explained below, as well as the specific project partners that are responsible for this activity. Duni and Trittico have developed the DuniChef solution in close co-operation, Duni being the producer of the DuniChef meal service components and Trittico having the contacts with the care sector and able to deliver staff to guide the organisation through the implementation phase. Next to these two core partners, other partners are needed to offer the solution. These partners can vary depending on the local situation.

#### *Packaging*

The packaging of the DuniChef is one of the eye-catching elements of the solution. The modular system allows flexibility in portion size and type of meals, while at the same time creating an attractive way of offering the food to the customer. One of the technical challenges of the packaging relates to the sealing the of Cpet casseroles with easy-to-peel-off foil in

#### *Solution design*

ALTHOUGH THE PACKAGING IS THE MOST VISIBLE PART OF THE DUNICHEF SOLUTION, IT IS ONLY A SMALL PART OF THE TOTAL SYSTEM.

THE CARDBOARD CASSETTE OFFERS A PLACE TO LABEL ALL RELEVANT INFORMATION ON CONTENT, PATIENT DATA, HOSPITAL ADDRESS AND NUTRITIONAL FACTS. HEATING AND ASSEMBLY IS EASY AND DONE IN THE PANTRY WITH NORMAL MICROWAVE OR HOT AIR OVENS. TRAYS ARE SET IN ADVANCE, MEANING THAT TRAY LINER; MAIN PLATE AND CUTLERY PACK ARE ASSEMBLED AND CAN BE STACKED ONTO EACH OTHER.

THE FOOD CASSETTES DO NOT HAVE TO BE STORED IN SPACE CONSUMING INSULATION MATERIAL. THE SPECIAL DESIGN OF THE DUNICHEF PACKAGING REDUCES THE AMOUNT OF SPACE NECESSARY FOR TRANSPORT. THE PAPER TRAY LINER CREATES THE POSSIBILITY TO OFFER EXTRA INFORMATION TO THE USERS ABOUT THE FOOD OR THE HOSPITAL. IT CAN ALSO BE USED TO OFFER NEWS OR A PUZZLE OR GAME TO THE PATIENT.



**Space optimisation  
for transportation**



**use of small onsite kitchen  
instead of expensive  
offsite central kitchen**



**Label with patient  
name and meal  
information for  
distribution**



**Combined with tray to  
complete the meal  
service**

combination with the pasteurisation process. The packaging can be customised to specific user groups by changing the paper tray liner. This can also be used to give daily hospital information, or present interesting background information such as a puzzle or game.

#### *Food processing*

A production site in a central area of the country (realised by Trittico and the Dutch SME Bonfait that specialises in producing cool fresh products and meal components) produces an assortment of meal components out of basic ingredients. These flavoured components are packed per portion in sealed Cpet containers. The preservation by pasteurisation makes the components usable for at least fourteen days before expiry. After preserving the products are cooled and stored cool ready for transport and ready to use when heated.

#### *Distribution*

A total supplier of foodservice products

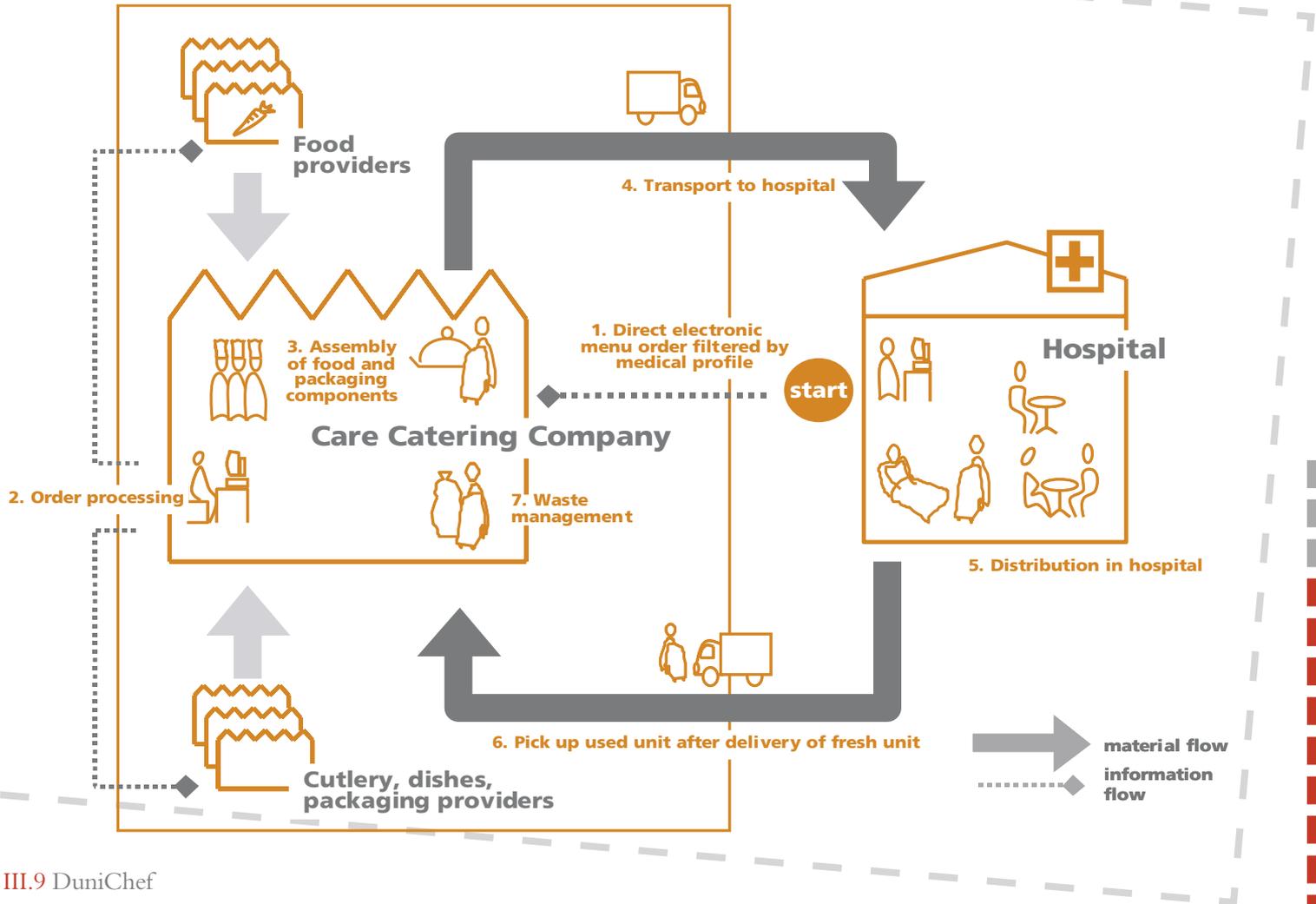
(DeliXL) takes care of the distribution of the DuniChef components. Cool, fresh product is delivered on demand six days a week. The stock is refilled on a daily basis and this creates the possibility of having many different kinds of food available, offering a wide variety of choice to the customers. The components are received and checked for order contents, temperature and expiry date. Cool fresh products are stored in a refrigerated room. All other products are stored in a small dry storage area.

#### *Menu ordering*

The patient can make a choice out of a large assortment. They will be guided by an on-line ordering system (e.g. touch screen, internet, intranet, and other network systems) powered by the special menu ordering software of Dinner Profit. They can also ask for assistance from the hospital staff or food assistant. When the patient is on a diet the system will only present menus that have passed the diet filter. This is possible as the system is accessed through a personal code. On-line ordering

#### *System Map*

THE DUNICHEF SYSTEM ORGANISATION MAP SHOWS ALL CATERING ACTIVITIES OCCURRING OUTSIDE OF THE HOSPITAL. THE ORGANISED INTERACTION BETWEEN FOOD PROVIDER, PACKAGING PROVIDER AND DISTRIBUTOR, IN COMBINATION WITH ORDER PROCESSING, PROVIDE AN ADEQUATE SOLUTION TO ACHIEVE THESE BENEFITS FOR THE HOSPITAL.



makes process planning simple. Staff, cost calculations and stock can be controlled and an order advice will be made automatically, using the XL Food software.

#### *Meal storing and preparation*

The ordered items are stored cool at each pantry per ward, together with the tray components and condiments. Drinks are delivered, received and stored here until use. On the patients request the hot items of the order are heated in an oven (Cpet containers are suitable for use in hot air and microwave ovens). Meanwhile the tray is assembled, and the cassette is filled with the selected food components and put on the tray. When served the patient will be asked what drink he or she wants to accompany the meal.

#### *Waste management*

After consumption all equipment and food waste is collected and transported to a cleaning facility. Since the amount of items that have to be washed is small (only tray, cups and glasses),

it can also be done in a dishwasher installed in each pantry. All DuniChef items except the tray are disposable. The tray can be used for at least fifty cycles. Disposables and food leftovers are collected, transported and processed by professional waste management. The plastic used in the tray and main plate is suitable for recycling. Waste management companies like Van Ganzewinkel are showing interest in recycling the tray and elliptical main plate.

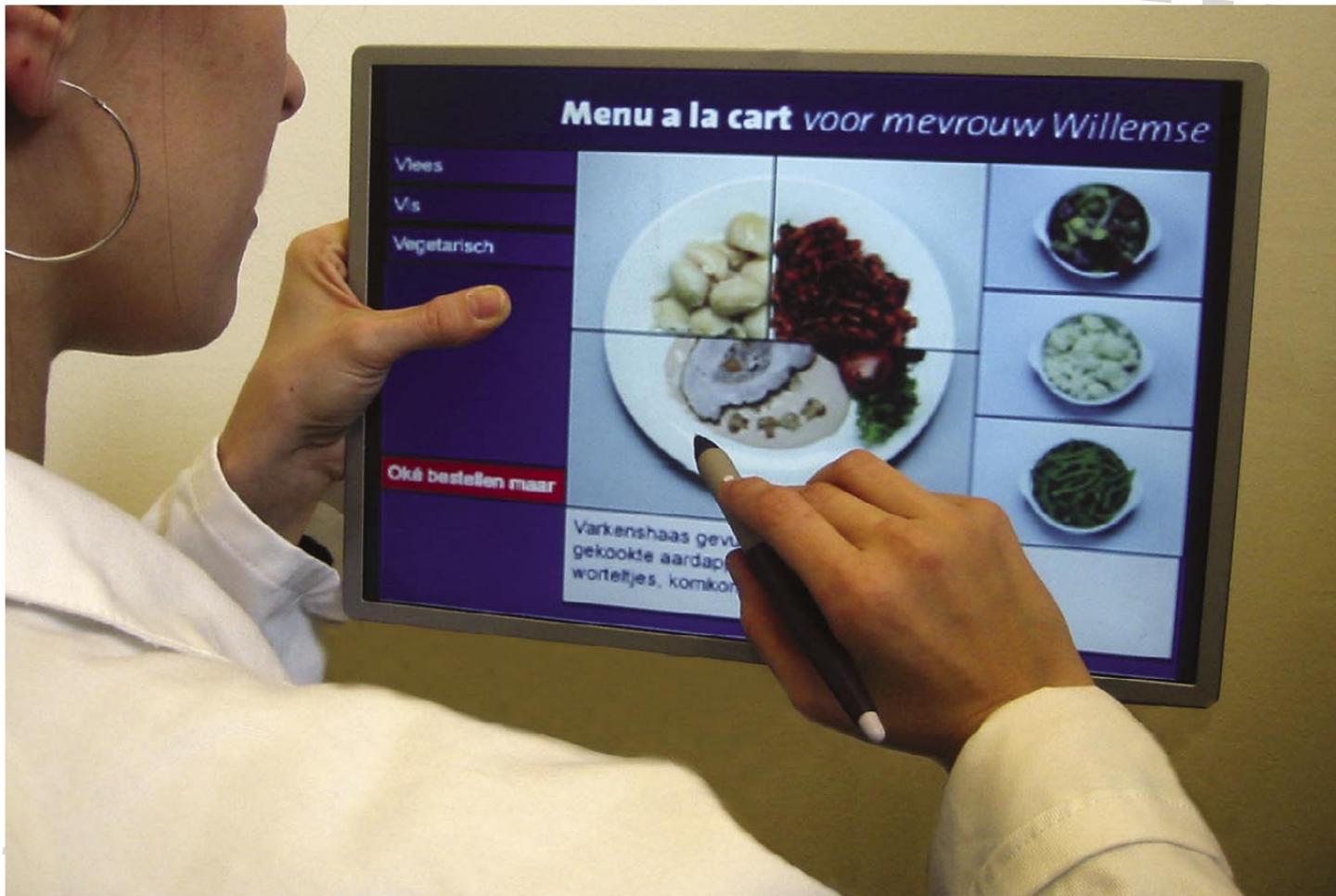
#### **Social benefits**

The DuniChef solution has been evaluated by TNO on potential customer benefits using the multi-layer method developed by Philips. One strong point of the DuniChef is that the solution can easily be dedicated to a large variety of different contexts-of-use, because of the flexibility in storing and regenerating that comes with the specific packaging of the food components and the variety that is possible. This makes the DuniChef solution broadly and easily accessible to people with reduced access to food. DuniChef is also cheaper compared

#### *Ordering system*

AN IMPORTANT FEATURE WITHIN THE DUNICHEF SOLUTION IS THE ORDERING SYSTEM PROVIDED BY ONE OF THE SPECIFIC PARTNERS INVOLVED (DINNER PROFIT).

THE MENU CHOICE IS ACCESSIBLE BY MEANS OF A TOUCH SCREEN, ON WHICH THE PATIENT SEES THE FOOD AS HE OR SHE WILL GET IT. THE SYSTEM MAKES IT POSSIBLE TO ORDER HALF AND DOUBLE PORTIONS. THEREFORE THE AMOUNT OF FOOD IS BETTER ADJUSTED TO WHAT THE PATIENT WANTS TO EAT AND MUCH LESS FOOD WASTE IS GENERATED COMPARED TO THE TRADITIONAL CATERING PROCESSES. THE SYSTEM IS ACCESSED BY A PERSONAL CODE AND SHOWS ONLY THOSE MENUS THAT PASS THE DIET FILTER IF APPLICABLE. ANY PATIENT THEREFORE HAS FREEDOM OF CHOICE AT ALL TIMES. THE ORDERS ARE TRANSLATED INTO INSTRUCTIONS FOR THE STAFF THAT HAS TO PREPARE THE MEALS. WHEN BOOSTER OVENS ARE INTEGRATED THE ORDERING SYSTEM IS COMPLETE.



to most current meal service solutions for social services. DuniChef can be customised to specific user demands by offering a variety in taste and quantity of food, the possibility of integrating food needs that come with certain cultures and offering flexibility in the timing of meals. The replaceable tray liner can be printed to present extra information or entertainment to specific user groups. Next to this, it is easy to extend the solution with extra services like local newspapers.

### **Environmental aspects**

The DuniChef solution forms a closed process flow managed by professionals, enabling tight control of the waste flow. Except for the tray, all components are disposable. Therefore less harmful detergents and energy have to be used in industrial dishwashers. The disposables of the DuniChef are either made of plastic or a biodegradable material. In the first situation, the high energetic value of the material is partly regained when burned in a controlled installation. If the disposables are made of a

biodegradable material, they can be disposed together with the food leftover.

The reusable tray has to be separated from other disposables and inspected before reuse approval. When approved, the tray is washed and brought into the process again. The other products are not suitable for reuse and will be offered to professional waste processors. At the moment there is research for the possibility of recycling of inserts, seals, plates and cutlery.

The DuniChef concept is based on easy to perform assembly tasks. Both in the assembly catering company and in the hospital, semi- and unskilled workers can easily execute all assembly activities, creating job opportunities to a group of workers that is burdened under a high degree of unemployment.

The DuniChef solution is based on decentralised assembly kitchens. These kitchens are local SME's that prepare the tray and food components for delivery to the hospitals. This involvement of local SME's is an aim of the Solution Oriented Partnership approach.

*DuniChef business*  
 DUNI-CHEF HAS BECOME ONE OF THE CROSS-DIVISIONAL GROWTH PROJECTS WITHIN THE DUNI GROUP. A NEW BUSINESS UNIT HAS BEEN ESTABLISHED AROUND THE DUNI-CHEF SOLUTION. THE PROJECT HAS ALSO BEEN HANDED OVER TO THE COMMERCIAL DEPARTMENT. ALL EUROPEAN SALES DIRECTORS HAVE BEEN INSTRUCTED TO FIND PARTNERS WITHIN THEIR REGION BEFORE BRINGING THE SOLUTION TO THE MARKET. THIS IS THE SAME METHOD AS THE SOLUTION ORIENTED PARTNERSHIP APPROACH; BUILDING A NETWORK OF PARTNERS PRIOR TO IMPLEMENTING THE DUNI-CHEF SOLUTION. PRODUCTION MOLDS ARE READY OR UNDER CONSTRUCTION OF ALL DUNI-CHEF ITEMS. THE PICTURE ON THE FACING PAGE IS A TEST MOLD FOR THE CPET CONTAINERS. IT PRODUCES SEVERAL DIFFERENT PRODUCT ITEMS IN ONE MOLD. 200,000 SETS HAVE BEEN PRODUCED FOR FIRST TESTS IN SWEDEN AND THE PILOT TEST TO BE CARRIED OUT IN THE NETHERLANDS. MEANWHILE OTHER CONTEXTS OF USE (ELDERLY HOMES) ARE TARGETED FOR FUTURE DEVELOPMENT.

PILOT TEST:  
“1500 MEALS PER  
DAY FOR 12 MONTHS,  
200.000 SETS ALREADY  
PRODUCED”



## Economic benefits

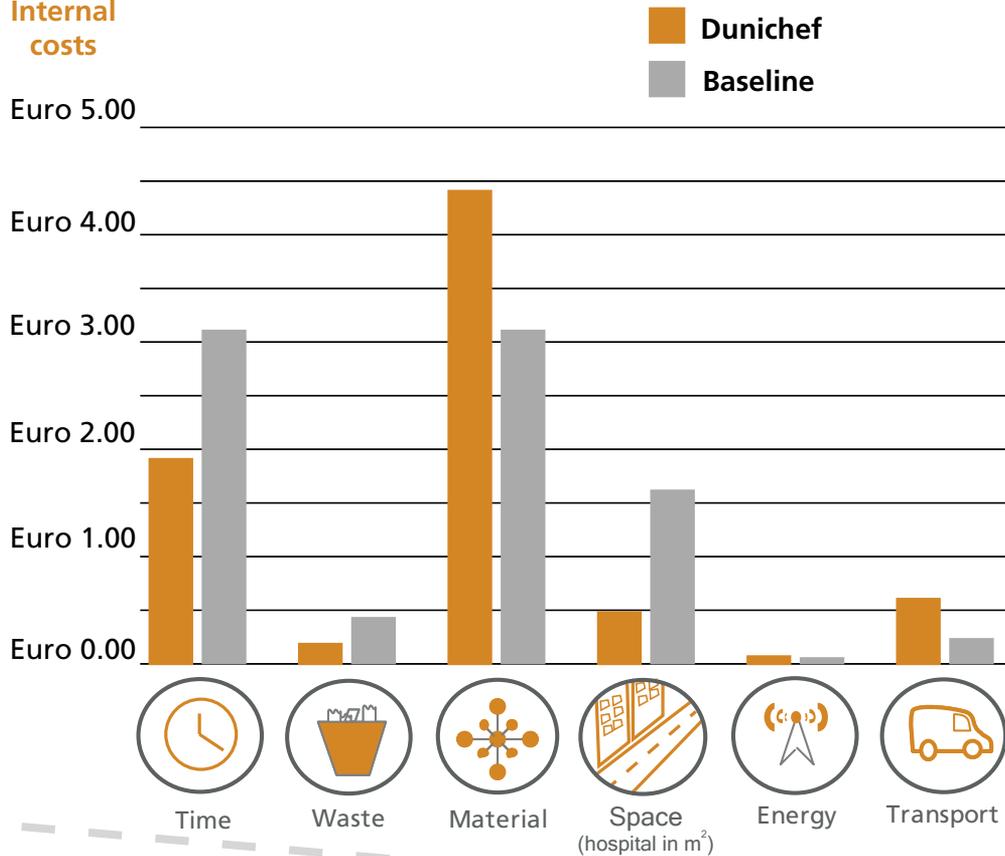
A first scan of the hospital market shows that in Western Europe alone one billion meals per year are served. This market which has emerged from the Solution Oriented Partnership approach is one of the strategic growth areas for the Duni Group. The company has established a new business unit of four people working on the DuniChef solution. When the DuniChef solution was presented to Duni's European sales directors, it was made clear that DuniChef is not suitable to be sold to possible customers by Duni alone. As the experience with the Solution Oriented Partnership approach has proved to be successful, sales people first have to find strategic partners within their region to be able to sell a solution and not a collection of product items. These partners can be companies like Trittico, or total health service providers like ISS Medical, or catering companies and other food processors. The DuniChef project has been a new experience for Duni. Seeing the potential of the solution as well as the innovation approach

used, top management is supporting the project. At the moment of writing, the DuniChef project is in a finalisation phase. A pilot case in a Dutch hospital has been prepared in which 500 meals per day will be offered during 12 months. All items of the DuniChef solution are available. Production moulds are made or under construction. DuniChef will soon be ready to offer a new level of food service for people with reduced access to food, thanks to the Solution Oriented Partnership approach!

*Life Cycle Costing*  
 THE LCC STUDY CARRIED OUT BY TNO SHOWS THAT THE DUNICHEF SOLUTION IS BETTER THAN THE TRADITIONAL IN-HOUSE COOKING PROCESS ON COSTS RELATED TO TIME, WASTE, INFRASTRUCTURE (70% SPACE REDUCTION) AND ENERGY USED PER MEAL. THE LABOUR COST IS REDUCED THROUGH AN AUTOMATED PROCESS AND A SMALLER CLEANING PHASE BY USING DISPOSABLES (TRAY EXCLUDED). THE USE OF MORE AUXILIARY MATERIALS LIKE THE DISPOSABLES ARE NEEDED TO GIVE THESE COST ADVANTAGES (E.G. REDUCTION OF TIME). HIGHER TRANSPORT COST IS MAINLY DUE TO THE DECENTRALISED DISTRIBUTION CENTRE, BUT WHEN SIGNIFICANT VOLUME OF PRODUCTS ITEMS ARE IN USE, DELIXL (DISTRIBUTOR) STATED THAT THEY COULD DISTRIBUTE THE DUNICHEF ITEMS ALONG WITH OTHER DELIVERIES AT A LOWER COST. AT THAT MOMENT IT IS WORTHWHILE FOR A COMPANY LIKE VAN GANZEWINKEL (WASTE MANAGEMENT) TO PAY FOR TRAYS AND MAIN PLATES FOR RECYCLING.

# Life cycle costing / DuniChef

Internal costs



# La Fiambrera

EUREST, AN INTERNATIONAL CATERING COMPANY, CURRENTLY PROVIDES 6,000 MEALS PER DAY SOLELY FROM THE LOCAL CENTRAL KITCHEN, WHICH IS A FEW KILOMETRES OUTSIDE RUI.

CURRENTLY MOST CATERING SERVICES ARE 'WARM FOOD CHAINS' WHICH MEANS FOOD IS PREPARED AND KEPT WARM WHILE IT IS TRANSPORTED TO CUSTOMER INSTITUTIONS.

ONE OF THE MOST SIGNIFICANT TECHNOLOGICAL AND INFRASTRUCTURAL CHANGES IS TO OFFER COLD FOOD SERVICES, WHICH CAN BE HEATED ON DEMAND.

THE FULL POTENTIAL OF THIS SYSTEM IS EXPLOITED THROUGH LA FIAMBRERA, CHALLENGING THE CRITICAL FACTORS OF TIME AND ECONOMIES OF SCALE.

EUREST:

“WE SERVE 6000 MEALS A DAY”



## La Fiambrera

*Joanna Lambert, Laura Vidal and Menno Marien*

“La Fiambrera” (which in English means “Lunch Box”) is a food service developed using the Solution Oriented Partnership approach to serve two distinct groups of people with food needs in the municipality of Rubí, near Barcelona in Spain. The partners were:

- Eurest, an international catering company, part of Compass Group;
- Rubí Town Council Social Services department, who identified customers to be enrolled in the food service and the local contacts needed, and also paid for the meals of Social Service customers;
- CDN International, a product and service strategy consultancy who initiated and coordinated the solution and acted as a

pilot test location;

- Rubí Municipal Market provided fresh food and a central collection point;
- Whirlpool, an international white goods manufacturer, provided specially adapted coolboxes for food storage; and an internet programming and web developer.

This Solution Oriented Partnership successfully ran a one month pilot test of their solution and is preparing for an expanded launch in the near future.

### **Context-of-use**

The book “Solution Oriented Partnerships” introduces context-of-use research tools that

RUBÍ SOCIAL SERVICES IS RESPONSIBLE FOR THE WELFARE OF TOWN CITIZENS, CARRYING OUT ACTIVITIES SUCH AS HOME HELP, MOBILITY SERVICES, SOCIAL ACTIVITIES AND CATERING FOR THOSE WHO HAVE DIFFICULTIES.

WITH THE AGING POPULATION, STRATEGIES FOR ANSWERING THE NEEDS OF THE ELDERLY IN A SUSTAINABLE WAY ARE CONTINUOUSLY BEING EXPLORED.

ONE OF THE AIMS OF THE SOCIAL SERVICES IS TO ENABLE ELDERLY CITIZENS TO STAY LIVING INDEPENDENTLY IN THEIR HOMES FOR AS LONG AS POSSIBLE.

**RUBI SOCIAL SERVICE:**

“WE TRY, AS MUCH AS POSSIBLE, TO KEEP  
THE ELDERLY LIVING IN THEIR OWN HOME”



were used in Rubí to explore two groups of people identified as having reduced access to food.

One group was elderly people living independently at home. A large number of this group do have a certain level of mobility, but some have trouble 'accessing' food because of problems with preparing it, finances, food knowledge, weight-carrying ability, agility or sight problems. The result is that many either eat poorly, or rely on home-help such as family, friends or social workers.

At the same time informal support networks of neighbours and family help are quickly disintegrating as society becomes increasingly industrialised. One current answer is the town Day Centre where Social Service customers can have a warm meal at lunch time. This relies on the resources and funding of the Local Council and, with the growing elderly population, relying on this type of service to meet all needs within a town will be

increasingly difficult in the future.

The second group is employees of small companies (SMEs) based in isolated industrial estates which have no provision for food. Employees of these companies often have difficulty accessing food because of their geographical distance from appropriate lunchtime food venues, the poor local provision of healthy food, and time and distance constraints that limit their ability to go food shopping. The result is that people either have to eat unhealthy snacks from petrol stations or vending machines, spend time in the morning preparing their own lunchbox, or eat in expensive and time consuming restaurants. Some do not eat at lunchtime at all! Another current solution is to rely on a family member, usually a woman, to organise a lunchbox. This solution is now in decline as women's priorities are changing and younger people are starting to live more independently.

Even though both groups are very different

THE MUNICIPAL MARKET IN RUBÍ OFFERS FRESH VEGETABLES, FRUIT, MEAT, FISH AND OTHER PRODUCE. MARKETS ARE PRESENT IN MOST SPANISH TOWNS AND ARE HIGHLY VALUED FOR THEIR GOOD QUALITY PRODUCE. THEY ALSO ACT AS SOCIAL CENTRES FOR THE LOCAL COMMUNITY AND ARE IMPORTANT FOR THE LOCAL ECONOMY. THE CUSTOMER REACH OF THESE MUNICIPAL MARKETS IS BEING SLOWLY THREATENED BY SUPERMARKETS, SO THEY NEED TO EXPLORE AND DEVELOP NEW WAYS TO FIND AND KEEP NEW CUSTOMERS WITHIN THE LOCAL AREA.

THE SHOPPING SERVICE COMPONENT OF LA FIAMBRERA OFFERS THE MARKET STALLHOLDERS A NEW WAY TO SERVE CUSTOMERS THAT WOULD OTHERWISE BE OUTSIDE THE MARKET'S TRADITIONAL SCOPE.

“IF YOU WANT FRESH FOOD YOU HAVE  
TO COME TO THE MARKET”



in nature, they share food provision needs. La Fiambrera as a solution is set up in such a way that it can answer these common needs and still retain the flexibility needed to adapt to the groups' differences. The study of the two groups suggested that they both need a regular food service, providing a balanced diet, that is flexible in terms of the time of eating, easy and convenient to access and reasonably priced. The Social Services group also need a solution that allows people to continue living independently and in a dignified way for as long as possible without having to rely on help from others.

Neither group currently receives sufficient catering services because, when considered as separate groups, there are too few customers to make it economical to serve them. For SMEs to receive a warm food service the investment in equipment means that a minimum of 50 customers are required to make it viable. Individual SMEs rarely have this many employees but combining several SMEs and

the Social Services customers creates a market large enough to serve economically.

### Offering

La Fiambrera focuses on aggregating demand and optimising logistics so that it can reach these more isolated or alienated groups of people.

The solution reaches both groups by using a cold chain for the physical logistics (food is cooked, then chilled quickly and maintained at refrigerator temperature) and the internet (a smart ordering system) to manage the information.

A 'menu' is delivered each day for both groups. In Spain a 'menu' is a typical lunchtime meal which includes three courses; the first being a light vegetable, salad or pasta based dish, the second being a meat or fish based dish, and the third being a yoghurt, fruit or light pudding.

For the SME group, fresh food shopping from

THE CONTEXT-OF-USE RESEARCH IN RUBÌ SOCIAL SERVICES FOUND THAT NOT ONLY ARE PEOPLE LIMITED ECONOMICALLY IN THEIR ACCESS TO GOOD FOOD, BUT PEOPLE ALSO HAVE PROBLEMS CARRYING, LIFTING, OPENING AND PREPARING FOOD. ALL THESE FACTORS LIMIT THE TYPES OF FOOD THAT PEOPLE CAN PURCHASE AND EAT.

“IF I WANT TO  
LIVE ON MY OWN,  
I HAVE TO BE ABLE  
TO PREPARE MY  
OWN MEALS”



the local Municipal Market is also delivered. Without having to visit the market itself employees can buy fresh vegetables, meats, cheeses, fish and other delicacies at a good price.

How does “La Fiambrera” work? (see SolutionMap page 71) Eurest enters the weeks’ menu into the smart ordering system on the internet. [0]. SME employees order and pay for their Eurest lunch and fresh food shopping in advance through the smart ordering system [1]. Meanwhile, the Social Services place an order through this Smart System for a number of set meals for those enrolled in their scheme [2].

This is done by a social worker to reduce the complications of providing the elderly with computer equipment and skills. The Social Services place orders according to the medical needs of each customer enrolled. Meal orders go through to the Eurest Central Kitchen [3] and shopping orders go to a stallholder in the Municipal Market [4]. This stallholder and a

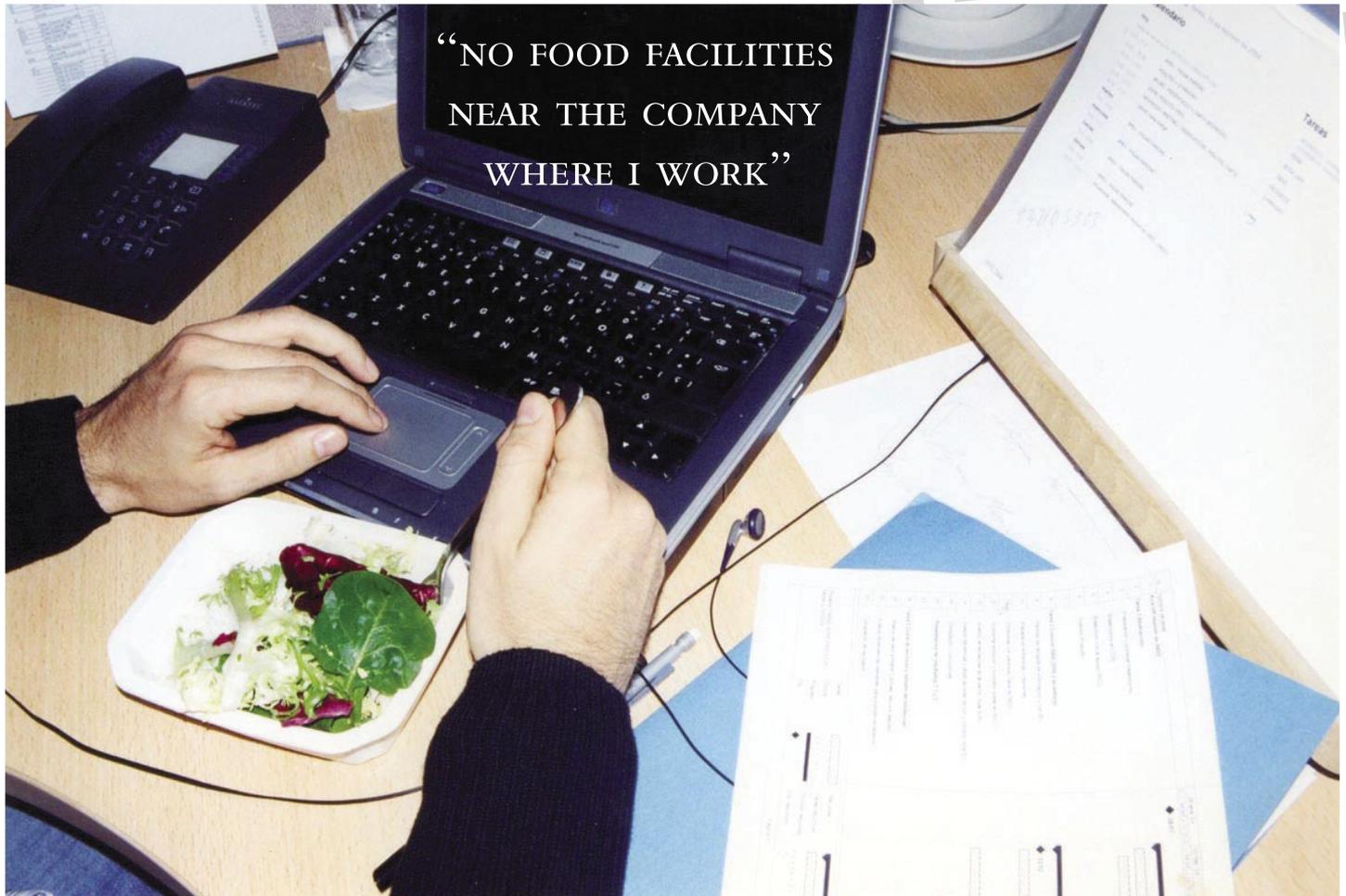
volunteer collect the fresh food from the other stalls and place each person’s order into a bag [5].

Then a van from Eurest’s central kitchen carrying prepared meals for both the Social Services and SME customers, goes to the Municipal Market. Here meals for people in the Social Services scheme are left in a secure coolbox [6], and food shopping for SME employees, prepared by the stallholder, is collected [7] The same van then travels to the SME [9] where the prepared Eurest meals and food shopping are delivered to a coolbox. [8]. The Social Service customers walk to the Municipal Market to pick up their meals from the secure coolbox [9]. The food can be stored for two or three days in these fridges and can be heated in domestic microwaves or ovens whenever the customer wants to eat. The customisation of the service for users is achieved via:

- the smart ordering system which creates a user profile of food preferences and/or

FOR SME CUSTOMERS LA FIAMBRERA OFFERS A FLEXIBLE SYSTEM THAT ALLOWS PEOPLE TO EAT WHEN THEY WANT. IT ENSURES A MORE BALANCED DIET AND OFFERS TIME SAVINGS AND GOOD QUALITY FOOD THROUGH A SIMPLE ORDERING SYSTEM. IT ALSO PROVIDES A FOOD SHOPPING SERVICE FOR THOSE WHO HAVE DIFFICULTY FINDING TIME TO BUY FRESH GOODS.

“NO FOOD FACILITIES  
NEAR THE COMPANY  
WHERE I WORK”



- dietary requirements
- the logistics which provide flexibility in access and eating times
- the menu choices – with three options for each course per day
- the choice of food portions – users can opt for a full menu of three dishes, or a half menu of one or two
- the shopping – users can specify products and the quantities they want of each
- SME employees also have the option of donating 50 cents per meal to help feed people in need of food in the local town.

### System

The system creatively combines economic business interests and the achievement of social benefits. The commercial approach needed by the private companies and the enabling local community connections have been combined in one mutually supporting solution. The Solution Oriented Partnership co-designed “La Fiambrera” to be mutually beneficial and to allow partners to complement each other’s

competencies. For example, the Municipal Market provides Eurest with a pick-up point that removes the need for door-to-door delivery, the most expensive part of their current meals-on-wheels service. In return the Municipal Market has the opportunity to use Eurest’s logistics to reach customers in isolated industrial estates that otherwise would not visit the market.

The continued involvement of Rubí Town Council is one of the essential parts of “La Fiambrera”. Above all, their political results are measured in terms of the social benefits they provide to the town’s citizens. The Council’s considerable local connections helped to facilitate a solution that promotes the interests of these citizens. But the solution also creates economic benefits for the private business partners involved, including local enterprises that also benefit Rubí as a town.

### Solution elements

Elements such as the food production system,

LA FIAMBRERA IS A SERVICE  
THAT PROVIDES GOOD  
QUALITY PREPARED MEALS  
AND A FLEXIBLE COLLECTION  
SYSTEM BY WAY OF A COLD  
FOOD CHAIN.

THE SOLUTION IS ADAPTABLE  
TO CATER FOR MANY  
DIFFERENT PEOPLE’S NEEDS  
IN SMALL COLLECTIVES THAT  
ARE CURRENTLY UNSERVED,  
(GOOD FOOD TO THE FEW’),  
THROUGH ONE SYSTEM  
PROVIDING ‘GOOD FOOD  
FOR ALL’



LA FIAMBREIRA: GOOD FOOD FOR ALL

the cold chain, coolboxes, and the smart ordering system are always present no matter which group of people receive the service. These are the core elements of the solution;

### *Coolbox*

In the pilot test of the solution there were two separate coolboxes; one in the Municipal Market with a secure compartment for each user, the other in the SME simply with open shelves due to the reduced need for security. Social Service users received a key to their individual coolbox compartment and could not access other users' food.

### *Packaging*

The pilot test used existing Eurest packaging designs. This provided a base from which to test the functionality, sizes, and other usability factors, and to suggest improvements needed for future packaging designs. Meals were packaged in individual plastic trays, with a waterproof transparent seal, that can be put directly into a microwave.

### *Smart ordering system*

The face of “La Fiambrera” was an internet website with a public area open to anybody, a private area for registered users and a back-office for the administrators. The primary objective of the website was to facilitate order processing, which is one of the most complicated processes in a regular catering service. In practice, it had double side benefits:

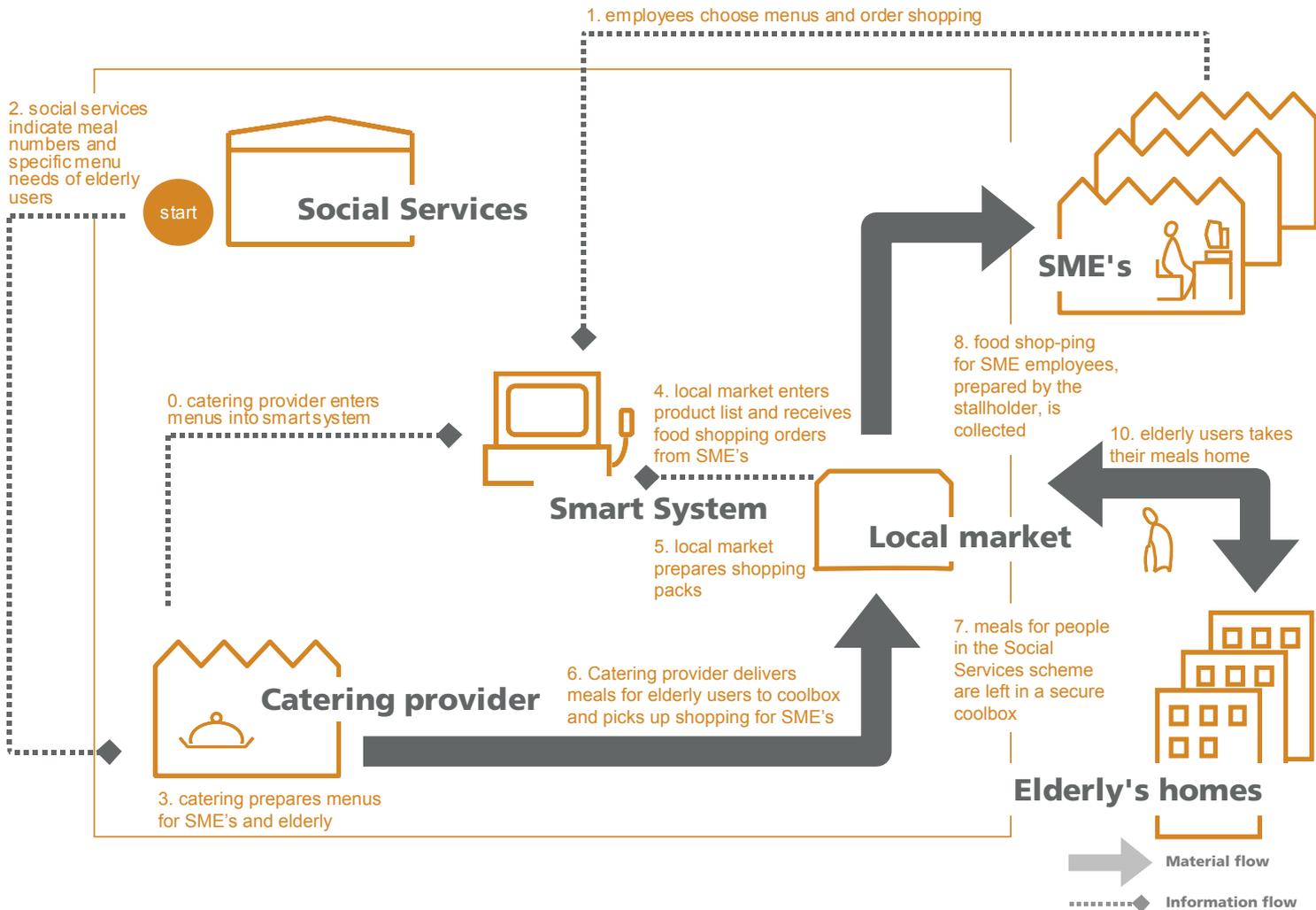
- For SME customers it added visual interest and convenience, but also stimulated interaction amongst users in the form of sharing and co-operation when ordering.
- For Eurest, it greatly simplified the management of orders because the database generated a spreadsheet that could be read by the kitchen's software.

SME users could also order through a feature called “La Fiambrera de Mamá” or “Mum's Lunchbox”, which brought a surprise choice everyday. Some users preferred this option because it was easy and they did not have

LA FIAMBRERA COMBINES FOOD SOLUTIONS FOR TWO GROUPS OF PEOPLE IN ONE SERVICE; PREPARING, COOLING AND TRANSPORTING THE FOOD TOGETHER, BUT DELIVERING IT TO DIFFERENT LOCATIONS ALONG ONE ROUTE.

INFORMATION (MENU POSTING, ORDERING AND PAYING) IS HANDLED THROUGH AN INTERNET SMART SYSTEM.

THE LOGISTICS ARE COMBINED TO REDUCE COSTS, MAKING THE SERVICE ECONOMICALLY VIABLE.



to worry about making particular choices. Above all, they simply liked to be surprised! The Smart System also provided a way to customise the solution for each user because profiles could be set up which then offered daily choices according to dietary needs. The Smart System represents a fast, efficient way to approach advanced industrialisation with the local delivery of the solution. The numbers of users can increase without increasing the administrative workload. All the partners can also be linked automatically without the reliance on manually sending orders, payments and menu details.

In addition to the core elements, certain parts of the solution differed depending on which group of users was being served;

#### *Welcome pack*

At the start of the pilot test, each user in the SME received a 'welcome pack' containing a plate, bowl and cutlery. This offered customers the choice of eating their meals using these ceramic plates and metal cutlery, instead of

having to eat from the plastic packaging.

#### *Thermal bags*

Each of the Social Services customers was given a thermal insulation bag so that the food packs could be kept cold on the journey home from the marketplace.

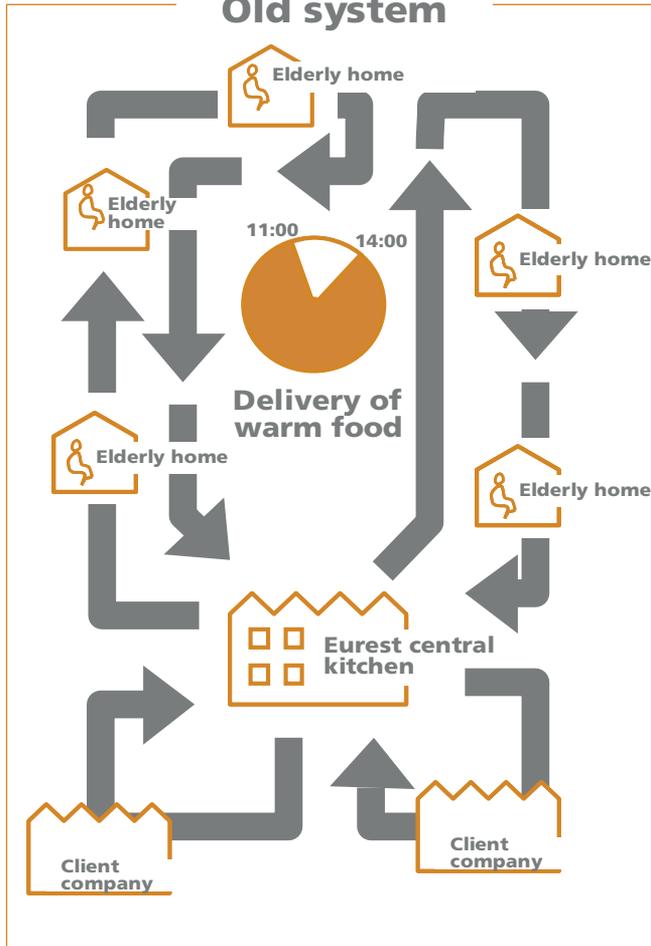
#### **User benefits**

Although the initial context-of-use research was focused on elderly people using a Social Services scheme in Rubí, it is not just elderly people that could benefit from the service. The solution is also suitable for people with mild physical or psychological disabilities and people with temporary illnesses who are not able to work. The fact that the Fiambrera solution could be used for such a wide variety of users was further confirmation that striving to design contextualised solutions has the potential to include users that would normally not be reached.

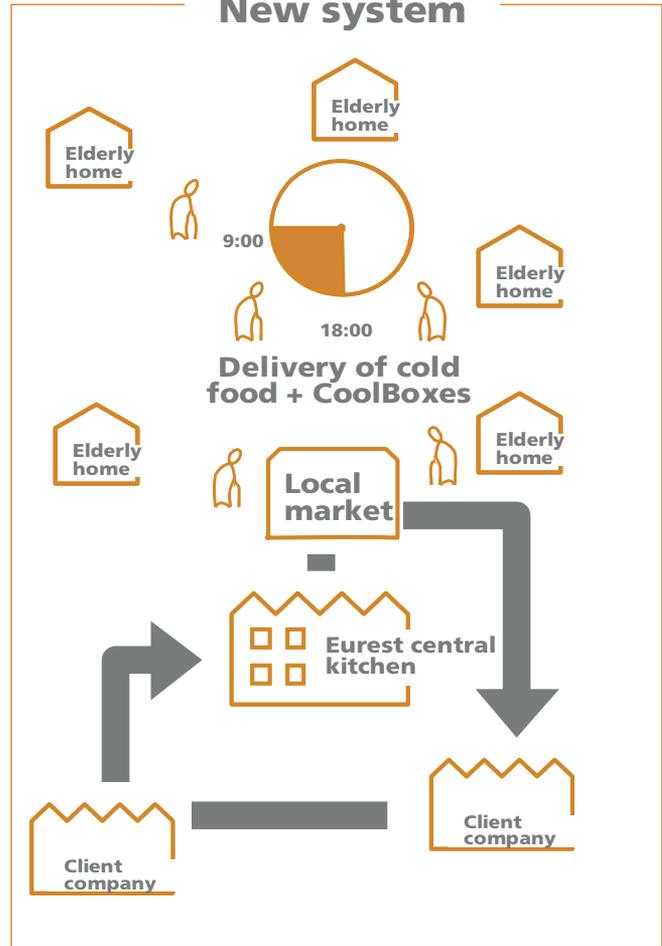
For users of the Rubí Social Services scheme

THE WARM FOOD CHAIN USED IN MOST EXISTING CATERING SOLUTIONS MEANS THAT 30-40% OF THEIR COST IS DUE TO TRANSPORT. MORE JOURNEYS ARE NEEDED TO MAKE SURE THAT THE QUALITY OF THE HOT FOOD IS RETAINED. SOME SYSTEMS ALSO MEAN EVERY CUSTOMER HAS TO BE VISITED IN THEIR OWN HOME. DELIVERIES OF HOT FOOD ALSO HAVE TO BE MADE WITHIN A CRITICAL TIME DURING THE DAY, JUST BEFORE LUNCH-HOUR. IN THE COLD FOOD CHAIN COSTS ARE REDUCED BY PUTTING ALL THE FOOD IN ONE TRUCK IN ONE JOURNEY. CHILLED FOOD CAN ALSO BE DELIVERED TWO OR THREE TIMES A WEEK AND STORED IN A COOLBOX. THESE FACTORS COMBINE TO SIGNIFICANTLY REDUCE THE NUMBER OF JOURNEYS NEEDED TO DELIVER THE SAME NUMBER OF MEALS. DELIVERIES CAN ALSO BE MADE THROUGHOUT THE DAY BECAUSE THE COLD FOOD CHAIN IS LESS TIME CRITICAL.

## Old system



## New system



the benefits of the solution are that it facilitates their independence, it gives them the flexibility to eat when and where they like, and it provides a healthy diet which was previously difficult to achieve.

Increased opportunity for privacy is also a benefit of this service for Social Service customers, who can now eat at home with family or friends. This is particularly important for elderly couples who are accustomed to sharing meals just between themselves, rather than in a Day Centre where there are many other people. It may also be desirable for some users to receive their meals away from the Day Centre eating hall because of their unsociable behaviour. This may improve the experience of those still using the Day Centre catering service.

Another benefit of La Fiambrera is that whilst it allows people to stay living at home, it does not confine them there. The mere fact that they need to walk to the Municipal Market to

collect their food means that they get out of the house for a little exercise and they go to a place where they can meet friends, socialise, stop for a coffee, or purchase some other supplies.

The coolbox in the Municipal Market became an important indicator of the well-being of the customers. Social Services could be notified by the Eurest delivery person if there were meals remaining in the coolbox from previous deliveries. This creates an important benefit giving elderly users peace of mind that if something happens to them people will come to assist.

For the SME employees the benefits include an improvement in their diet, time savings for food preparation and the flexibility to eat when and where they want. For example these customers can save meals for later in the day if they have to work late, or even take them home.

The overriding benefit is that they now

THE ECONOMIC COMPARISON OF THE LA FIAMBRERA COLD FOOD CHAIN WITH THE EXISTING WARM FOOD CHAIN SHOWS THAT BREAKEVEN IS EASIER TO ACHIEVE WITH THE LA FIAMBRERA SYSTEM.

LA FIAMBRERA SOLUTION REDUCES THE TRANSPORT COSTS, THEREFORE MAKING IT POSSIBLE TO REACH GROUPS OF PEOPLE WHO ARE UNDER THE NORMAL BREAKEVEN NUMBER OF 50 PEOPLE IN EACH SERVICE.

BY AGGREGATING THE GROUP NUMBERS TOGETHER AND DELIVERING IT ALL ON ONE CIRCUIT, THE BREAKEVEN CAN BE REACHED IN A SHORTER TIMESPAN.

## Breakeven of Old system



Homes of the elderly > 50



## Breakeven of New system



Homes of the elderly > 15



have access to a good quality food service, where previously one did not exist at all.

### **Sustainability assessment**

In catering services one of the most significant environmental impacts comes from the transportation of the food throughout the lifecycle. Transport is key because food is perishable and therefore must be delivered on time. Another key impact is the amount of food wastage because warm food cannot be preserved for long without loss of quality.

In La Fiambrera the cold food is delivered and the shopping collected in one journey. Deliveries can also be made two or three times a week rather than everyday. In these ways the logistics can be optimised reducing both economic and environmental impacts.

Food wastage is also reduced because the chilled food can be preserved in the coolbox or fridge until it is needed. The meals are only heated as and when required.

La Fiambrera empowers local people by providing tools for independence. It also creates local community connections and helps small local businesses retain revenues in the local area. However, at the same time the solution provides the resource to duplicate the service with an international company as a key partner. In this way the service works towards sustainability by improving the local economy, environment and society.

### **Business plan**

In La Fiambrera, the Solution Oriented Partnership approach has helped the partners involved to reach new markets which previously were individually unviable and unprofitable using existing services. The concept of not only targeting more users with the same service (economies of scale) but of adapting the service to suit different kinds of users can be seen as creating an economy of scope.

In traditional warm food catering services

THE SOLUTION STORYBOARD  
DESCRIBES THE DIFFERENT  
ACTORS ALONG THE SERVICE  
CHAIN TOGETHER WITH THE  
ACTIONS AND SPECIFICATIONS  
AT EACH POINT.

La Fiambrera	SERVICE SETTING			SERVICE PERFORMANCE					
	PLATFORM FRANCHISING	LONG TERM SUBSCRIPTIONS	DAILY ORDERING	PREPARATION OF ORDERED MEALS	SHOPPING ORDER RECEIVED AT THE MARKET	COLLATING OF SHOPPING & MEAL DELIVERY IN MARKET	MEAL DELIVERY IN SME'S	ELDERLY COLLECTING MEALS IN MARKET	OFFICE WORKER COLLECTING MEALS IN MARKET
ELDERLY USER									
specifications	<p>Ability to set dietary profile Identify key assistants</p>			<p>Easy open compartments Assistance available Spare keys</p>					
OFFICE WORKER				 					
specifications	<p>choice among daily meal offers option to order fresh ingredients from market</p>			<p>Access to building with small van Access to toolbox in office</p> <p>Easy to find r Labelling</p>					
LOCAL GOVERNMENT ADMINISTRATION (RUBI)									
specifications	<p>teaching session for market stall; briefing and training of social workers LunchBox service rules;</p>			<p>Access to internet at regular intervals or continuously Space and resources to collect shopping packs</p>					
PLATFORM	<p>LunchBox contract;</p>			 					
specifications	<p>qualification procedures franchising contract; installation of the toolbox</p>			<p>promotion of service within local SME's Systems and organisation Thermal containers Access to marketplace by van. Access to toolbox from parking place</p>					

transport accounts for 30%-40% of the total costs. Existing food ordering processes using fax or phone also require substantial administration. By sharing transport and spreading deliveries over the day, the cost of transport in the “La Fiambrera” solution is reduced. This reduction in overheads has made breakeven easier to reach.

The pilot test, with 10 Social Services users and 18 SME employees receiving meals over a period of 1 month, has already shown encouraging economic results. It has been identified that the delivery of non-food items such as reading material, or pharmaceuticals could also be beneficial for users. This creates opportunities for future iterations of the partnership to include doctors and pharmacies, as well as health insurance companies.

The business plan includes expansion within Rubí in the short term, to Barcelona and the Catalunya area in the mid term, and the whole of Spain in the long term. As identified

in the pilot test, user acceptance is very good, and with further detailing, development and continuous improvement, the market potential is massive.

It is also clear that the solution provides social benefits to the final users as well as to other stakeholders within the partnership. It is possible that learning from this Solution Oriented Partnership can be spread to create new innovative sustainable solutions in other sectors.

LA FIAMBRERA OFFERS CUSTOMERS AND THE WIDER COMMUNITY SEVERAL SOCIAL BENEFITS, PARTICULARLY THE SOCIAL SERVICE USERS. THE WALK TO THE MARKET PROVIDES A REASON TO GET OUT OF THE HOUSE AND VISIT THE TOWN CENTRE.

THE COOLBOX BECOMES A ‘COMMUNICATION TOOL’ FOR PEOPLE WHO HAVE NOT BEEN TO COLLECT THEIR FOOD. THE SOCIAL SERVICES CAN BE NOTIFIED AND CAN INVESTIGATE TO SEE IF THERE IS A PROBLEM.

LA FIAMBRERA ALSO ENABLES PEOPLE TO LIVE INDEPENDENTLY FOR LONGER, MAINTAINING THEIR DIGNITY.



“RODRIGUEZ IS ABLE TO LIVE ON HIS OWN WITH GOOD FOOD SUPPORT”

“JOSEPH IS GETTING OUT TO THE MARKET EVERYDAY TO PICK-UP HIS MEAL...”

“MARIA DID NOT PICK-UP HER MEAL TODAY, MAYBE SHE IS ILL ?”

THE LA FIAMBREIRA  
PARTNERSHIP DEVELOPED,  
DETAILED AND TESTED THE  
LA FIAMBREIRA CONCEPT IN  
A 5 WEEK PILOT TEST .

THE PARTNERSHIP IS  
PLANNING TO RELAUNCH THE  
SERVICE SO THAT CITIZENS  
AND EMPLOYEES IN RUBÍ  
CAN BENEFIT FROM A GOOD  
QUALITY FLEXIBLE FOOD  
SERVICE..



# Punto X

BIOLOGICA IS A START-UP FIRM, CREATED IN JANUARY 2001, AND CONTROLLED BY ONE OF THE MAJOR DAIRY PRODUCT PRODUCERS AND DISTRIBUTORS IN ITALY (CENTRALE DEL LATTE DI BRESCIA).

ITS PROJECT IS BORN AROUND THE CONCEPT OF ORGANIC FOOD, SPECIFICALLY WITH THE MISSION OF DEVELOPING A NEIGHBOURHOOD SHOPS NETWORK, BASED IN ITALY, SPECIALIZED IN ORGANIC FRESH FOOD, AND BRANDED “NATURA RIDE”.

BIOLOGICA’S BUSINESS AIMS TO IDENTIFY AND ADDRESS THE RECENTLY GROWING CONSUMER DEMAND OF SUSTAINABLE (FOOD) CONSUMPTION; THROUGH THIS RESEARCH PROJECT THE COMPANY WANTED TO BETTER UNDERSTAND THE FEATURES AND MARKET POTENTIALS OF THE ORGANIC FOOD BUSINESS, TO ORIENT ITS ACTIVITY.

BIOLOGICA:

“HOW CAN WE MOVE ORGANIC FOOD  
INTO THE LIMELIGHT?”



## Punto X

*Anna Meroni, with Gabriele Cervetta and Alessio Marchesi<sup>1</sup>*

Punto X is the name of a system of products, services and expertise, able to offer food solutions that are personalised to meet the needs of specific contexts-of-use. Solutions are based on traditional local, fresh organic and dietetic (meaning specially designed around dietary advice) meals, either “ready to eat” cold, or “ready to heat”, whose requirements for personalisation arise from the different local conditions and personal situation of the user. They are intended for use in contexts where access to food is reduced, i.e. where the

<sup>1</sup> This project is the result of team work, here reported by the authors: within the framework of text by Anna Meroni, Gabriele Cervetta has written concerning “Brand Identity” and Alessio Marchesi concerning “Becoming a Solution Oriented Partnership”

possibility or ability to organise an appropriate and satisfactory diet is limited by both physiological and/or logistic and cultural conditions.

### Contexts-of-use

To understand context-of-use in detail we must specify the characteristics of the context we are referring to and the needs which arise from it. Together these form the demand reference framework, or meta-context-of-use, for the system. This is the sum of the characteristics of specific contexts seen through two filters: one relating to the possibility of outlining common food profiles (meal typologies suitable for specific users) and

WHIRLPOOL CORPORATION IS THE WORLD'S LEADING MANUFACTURER AND MARKETER OF MAJOR HOME APPLIANCES, WITH ANNUAL SALES OF OVER \$11 BILLION, 68,000 EMPLOYEES, AND NEARLY 50 MANUFACTURING AND TECHNOLOGY RESEARCH CENTRES AROUND THE GLOBE. THROUGH CONTINUOUS EFFORTS IN BOLD INNOVATION AND DESIGN, WHIRLPOOL AIMS TO ENHANCE TRUST AND SATISFACTION IN CONSUMERS. SERVICES ARE THE LATEST CHALLENGE: WITH SEVERAL SMART COOKING SYSTEMS THEY ARE WORKING ON, INDICATING THIS DIRECTION. THIS RESEARCH PROJECT WAS AN OPPORTUNITY TO GAIN EXPERIENCE AND KNOWLEDGE ABOUT MORE SERVICE ORIENTED OFFERINGS.

**WHIRLPOOL:**

“IS THERE A FUTURE FOR US IN SERVICES?”



the other relating to the service requirements of different local contexts. These characteristics together enable us to pinpoint needs to be met when planning Punto X, a solution system that seeks to respond efficiently to problems which up to now have been answered by a complex set of heterogeneous services and varying attitudes.

These problems, and therefore the benefits to be offered to users, are linked to demands for:

- knowledge about healthy eating habits
- suitable foods for specific pathologies (e.g. diabetes, hypertension)
- suitable food for special physiological states (e.g. the elderly, expectant mothers, children, sportsmen)
- food for particular dietary choices (such as vegetarians, macrobiotics, people on a diet)
- fresh, traditional food.

These requirements are in turn associated with situations of:

- reduced choice,
- reduced autonomy, and
- reduced physical mobility

Solutions offered by Punto X responds to these demands through an intrinsically sustainable (because entirely organic) agro-industrial food chain, associated with personalised consumer dietary planning. This has the dual advantage of reacting to precise demands for individual health and of increasing knowledge, and consequently the ability to choose, through an indirect form of education.

The solutions also set out to meet these demands specifically, on an advanced industrial scale, limiting economic and environmental costs. It does this through the introduction of personalisation criteria that are based on more generalisable and extendible principles (the concept of context-of-use) than the more traditional one-to-one, and by making use of a modular system architecture of the components.

### **The strategy of contextualisation**

The personalisation of solutions offered is achieved thanks to flexibility in meal composition, the organisation of distribution

DS MEDICA DEALS WITH THE DESIGNING, MANUFACTURING, DISTRIBUTION AND MARKETING OF SOFTWARE AND HARDWARE OF MEDICAL TECHNOLOGIES FOR DIAGNOSTIC AND TREATMENT PURPOSES IN THE FOLLOWING BRANCHES OF MEDICINE: CLINICAL NUTRITION, GASTROENTEROLOGY, DERMATOLOGY, ONCOLOGY, ANGIOLOGY AND RHEUMATOLOGY. THE COMPANY RUNS SEVERAL IMPORTANT NETWORKS FOR FAMILY DOCTORS, DIETICIANS AND GYNAECOLOGISTS, BY COMPUTERIZING THEIR OFFICE MANAGEMENT ACTIVITIES. THROUGH THIS RESEARCH PROJECT THE COMPANY WANTED TO UNDERSTAND HOW SUCH PROFESSIONAL KNOWLEDGE COULD BE MADE BETTER AVAILABLE TO THE FINAL USER IN TERMS OF EMPOWERING FOOD COMPETENCES IN DAILY FOOD MANAGEMENT.

## DS MEDICA:

“CAN WE PRESCRIBE A TASTY DIET?”



and delivery systems, and through service/consumer interfaces.

By varying the configuration of these factors, different service formats can be outlined for the implementation of Punto X. These are different organisational patterns that the system may address for a user in each given situation (localised contexts).

In all, there are four such formats:

- Your all inclusive meal service: A home delivery service for personalised daily meals, mainly for users at home;
- Your personal meal box: A periodic delivery service for personalised meals to a community situation where an area is available equipped for consumption. A service geared mainly for offices and day-care centres.
- Your dining corner: An automatic vending facility for personalised meals in a community context where an area is available and equipped for consumption. A service developed mainly for offices, universities and places of transit.
- Your take away meal: A point-of-sale service for personalised take-away meals, mainly for

shops, stations and transit points.

These formats allow for a scale of personalisation ranging from the more carefully prepared home meals, which come close to the traditional one-to-one approach where careful attention is paid to specific context capability (e.g. the presence of a family member or carer able to back up the service), to “standardised” personalisation based on specific context typologies (such as the nutritional requirements of a sport environment).

Some choice simplifiers also pre-arrange conditions for personalised meals: suitable recipes for different contexts are pre-selected, and a facilitated IT interface, or an intermediary, guides the user’s choice.

Described below in greater detail are two solutions offered by Punto X. At a product level the common solutions denominator is in having all dishes organic, fresh, packed in a protected atmosphere and ready to be heated in their packaging in a microwave oven. This means that by a food enhancement strategy

THE CONTEXT-OF-USE ANALYSIS ON PEOPLE RESTRICTED TO THEIR HOMES WITH PROBLEMS OF REDUCED MOBILITY (LIKE ELDERLY) HAS SHOWN THE PROBLEM OF GETTING ASSORTED AND TASTY MEALS, PARTIALLY PREPARED OR READY TO EAT. OFTEN IT WAS REQUESTED TO HAVE DIETARY MEALS AVAILABLE THAT WERE TAILORED FOR SPECIAL PATHOLOGIES OR PHYSIOLOGIES, AND TO HAVE THE POSSIBILITY OF CHOICE.

“YOUR ALL INCLUSIVE MEAL SERVICE” INTERACTS WITH THE USER THROUGH A RELIABLE PERSON (A RELATIVE, A VOLUNTEER OR A PERSONAL ASSISTANT) WHO IS IN CHARGE OF DELIVERING MEALS WHILE DOING OTHER DAILY DUTIES FOR HIM/HER.

THANKS TO THIS SCOPE ECONOMY THE MEAL CAN ARRIVE AT THE USER AT A COMPETITIVE COST. MEALS, COMPLETELY ORGANIC, CAN BE CHOSEN AMONG A VARIETY OF ALTERNATIVES, PRE-SELECTED ACCORDING TO DIETARY NEEDS, AND CAN BE HEATED EASILY BY THE USER THEMSELVES, VIA TRADITIONAL HOME APPLIANCES OR A DEDICATED MICROWAVE OVEN.

“YOUR ALL  
INCLUSIVE MEAL  
SERVICE”



similar to that for convenience-foods, a niche product like organic food is proposed in totally new contexts-of-use, adding to its own intrinsic qualities that of being an advanced service.

### Your all-inclusive meal service

This envisages the home delivery of highly personalised meals that meet the nutritional requirements of subscribers with problems of physical mobility: it is based on the possibility of managing orders and deliveries locally by using a grocery shop or small warehouse, linked to a service centre, as a meal collection and sorting place. By co-ordinating operations with public or private services, expert personnel are then able to deliver this meal service to users in the course of their day-to-day duties.

Meals consist of a traditional regional main dish, vegetables and seasonal fruit. Clients can be supplied with a special microwave oven for the duration of their subscription to the service: the advantage of this situation is a simplified planning system, co-ordinated with

meal packaging. A barcode label on the dish, corresponding to the programming knob on the oven, enables inexpert users to heat the food properly.

Each user is supplied with a personal membership card containing special dietary information and requirements, previously discussed with family members and the family doctor, which makes personalisation of meals possible. Every week the client, assisted by personnel, draws up their own menu by choosing from an assortment of pre-selected dishes according to their dietary requirements: they can opt for single dishes according to individual taste, or pre-sorted weekly combinations.

Together with the meal, they receive a magazine of their choice and throwaway tableware to simplify daily table management: Meals are delivered once a week from the distribution hub nearest home.

This solution integrates the added values of a personalised diet and delivery by trustworthy personnel with the intrinsic quality of the

THE CONTEXT-OF-USE ANALYSIS ON PEOPLE EATING EVERYDAY IN OFFICES, HAS REVEALED AN INCREASING REQUEST FOR HEALTHY AND FRESH FOOD AT LUNCH TIME, AS AN ALTERNATIVE TO EATING SANDWICHES. MOREOVER IN ADDITION TO AN INCREASING DEMAND FOR HEALTHY FOOD AND LOW CALORIE DIETS, BUT ALSO FOOD SUITABLE FOR SPECIAL INTOLERANCES. "YOUR PERSONAL MEAL BOX" PROVIDES PERSONALISED ORGANIC MEALS ON A DAILY BASIS FOR PEOPLE WHO WANT TO CONTROL THEIR DIET. THIS SERVICE CAN BE AVAILABLE IN COMMUNITY SITUATIONS, WHERE A PERSONAL REFRIGERATED BOX CAN BE FILLED EVERYDAY WITH A MEAL REQUESTED BY THE USER, WHO HAS SUBSCRIBED THE SERVICE.



meal. In many cases such personnel will already be familiar to the client in their role of psycho-physical support in everyday activities.

### Your dining corner

This envisages the existence of comfortable areas, equipped for meal service and consumption, in the workplace or in community contexts. It requires the presence of vending machines for fresh food, that are either ready to serve or heat, and the provision of special heating appliances. The food dispenser is filled with a variety of assorted dishes to meet the tastes of different users. These are chosen to satisfy the dietary requirements and food styles of the context. The menu is organised according to set dietary profiles. By interacting directly, or using a card containing information about preferences and dietary requirements, users examine the dishes available by means of a touch screen, and receive personalised suggestions about what to eat. A microwave oven is also available in the specially equipped corner. Again, it is programmed with a simplified system coordinated with the meal

packaging: a device automatically reads the barcode on the packaging label and translates it into a cooking programme. This solution also enables an independent, high quality refreshment area to be set up in contexts that for various reasons lack such arrangements: for example reduced space locations such as SMEs, or small offices, where a traditional canteen would not be cost effective; or where the irregularity of consumption, which makes both user times and numbers impossible to predict; or where the distant location makes it impossible to supply ready meals. It also enables users to find solutions suitable to varying dietary requirements.

### System architecture

Punto X is the result of collaboration between various actors sharing a common vision. BioLogica, a company that manages a chain of organic food shops under the brand name of Nature Ride and the partner promoting the Solution Oriented Partnership, has been joined by Whirlpool (the world leading

THE CONTEXT-OF-USE ANALYSIS ON PEOPLE EATING IN COMMUNITY SITUATIONS SUCH AS SMALL OFFICES, UNIVERSITIES, GYMS AND HOTEL WITHOUT A RESTAURANT, HAS SHOWN THE WISH FOR A FAST, BUT HEALTHY AND TASTY, FOOD AVAILABLE ON REQUEST ALL DAY LONG. "YOUR DINING CORNER" IS A SELF SERVICE FOOD FACILITY, BASED ON A VENDING MACHINE, CONCEIVED TO BE LOCATED IN PLACES WITHOUT FOOD AMENITIES AND WITHOUT THE CONTINUAL PRESENCE OF SERVICE PERSONNEL. PEOPLE CAN GET HEALTHY, ORGANIC MEALS AND PERFECTLY HEAT THEM AUTONOMOUSLY, AT ANY TIME. THIS SERVICE IS ESPECIALLY CONVENIENT FOR SMEs.



“YOUR DINING  
CORNER”

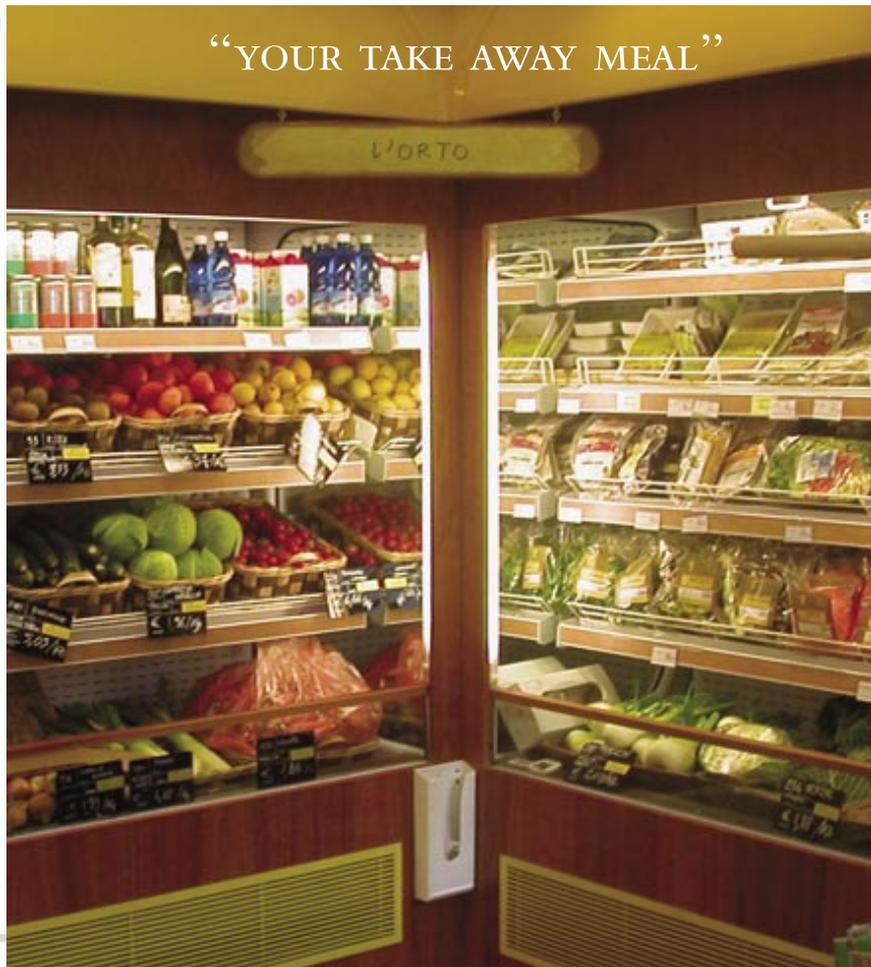
manufacturer of major home appliances) and DS Medica (a company designing, manufacturing and marketing medical technology software and hardware), together they bring to the system production know-how for electrical appliances, expertise in food and in IT elaboration of dietary solutions. These companies are the Platform Providers for the system. In other words, they develop the basic elements for Punto X solutions. They combine with a network of general suppliers and with players at local level who bring the expertise necessary for solutions to be set up in specific contexts. In the case of the Your all-inclusive meal service format they work with PrivatAssistenza, a national network of operating points that supply various individual and family services. For Your dining corner and Your personal meal-box formats, they collaborate with a series of small businesses running food vending machines. Finally, for Your take-away meal they join forces with the Nature Ride organic food shops. BioLogica plays the role of System Organiser among the

Platform Providers, who together produce an offer that can be described as a packet of B2B services directed towards other players. These in turn are required to integrate them with specific expertise and local actions. They are not generic clients, but partners in shaping the solution itself and an integral part of the system. Their relationship with this system is a result of strategic agreements. Therefore Punto X can in all senses be defined as a Partner-Based Solution: a solution system that would not be possible without strategic convergence by several players on a single vision. This process has been backed by the Politecnico di Milano, with Industrial Design expertise (Dipartimento INDACO) and Management Engineering expertise (Dipartimento DIG). Its main role has been to facilitate the generation of common ideas and encourage convergence by harmonising and pondering the various visions and interests.

**Becoming a Solution Oriented Partnership**  
Being part of a Partner-Based Solution, aside

EATING ON THE MOVE IS ONE OF THE MAJOR TRENDS OF CONTEMPORARY FOOD IN CITIES. ALSO THE DESIRE TO BUY FOOD ALONG THE STREET ON THE JOURNEY TO THE OFFICE/SCHOOL IS A REQUEST EMERGED FROM THE CONTEXT-OF-USE ANALYSIS OF PEOPLE HAVING LUNCH OUT OF HOME. "YOUR TAKE AWAY MEAL" IS A SOLUTION THAT PROPOSES ORGANIC READY TO EAT FOOD THROUGH POINTS-OF-SALE LOCATED IN CITY TRANSIT POINTS. SMALL, LOCAL FOOD SHOPS AIMING TO BECOME NEIGHBOURHOOD FOOD SERVICE CENTRES ARE, FOR INSTANCE, PERFECT WINDOWS TO OFFER THIS KIND OF SERVICE.

“YOUR TAKE AWAY MEAL”



from having tangible benefits and revenues from the developed solutions themselves, also means that each partner involved can benefit from activities that lie outside the scope of the solution oriented partnership and their related partner-based solution business plans. In particular, each solution oriented partner can benefit from what are called project spillovers, in which the mere act of collaborating with other companies creates the conditions for each to take advantage of the collaboration to generate knowledge that would not have existed if the partnership did not exist in the first place. Within this Solution Oriented Partnership, the Partner-Based Solutions generate the conditions for technological, competence-based and knowledge-based spillovers in which each partner is able to create synergies amongst themselves to expand their existing business horizons in terms of potential business opportunities. From BioLogica's perspective, the Partner-Based Solutions generates the condition to enhance their business model to include more service

oriented products and to reach completely new contexts of use. Before entering into a collaboration with the Politecnico di Milano and the other stakeholders, BioLogica's core business lay completely within the traditional retail industry where they specialized in delivering organic food to their customer base. With the development of the system Punto X, BioLogica has generated the setting for the development of a service portfolio that could transform its existing product portfolio into a product-service portfolio able to generate value through the knowledge and competence spillovers, in terms of food preparation and nutritional wellbeing that was obtained from the other partners.

The same is true for DS Medica, which brings to the system tried and tested competencies and experience in the nutrition and wellbeing industry through health and nutrition management software that was sold primarily through the specific niche market of the medical community. Through the Partner-Based Solutions, DS Medica is able to expand its

IN "YOUR DINING CORNER" THE USER INTERACTION WITH THE VENDING SYSTEM IS EASY AND THOUGHT TO PROVIDE A POSITIVE EXPERIENCE OF CHOOSING AND EATING. THE CHOICE IS GUIDED BY THE INFORMATION ON THE TOUCH SCREEN ACCORDING WITH THE DIET PROFILE OF THE USER.

AFTER WITHDRAWING THE FOOD, IT IS HEATED IN THE MICROWAVE OVEN (WITHOUT WORRYING ABOUT SETTING THE COOKING PROGRAMME BECAUSE OF THE BAR CODE IN THE PACKAGING THAT CAN BE READ BY THE MACHINE). NEVERTHELESS, THE USER PRESERVES THE POSITIVE EXPERIENCE OF TAKING CARE OF THEIR OWN FOOD PREPARATION. THE LAYOUT AND THE IMAGE OF THE CORNER, HAS BEEN DEVELOPED WITH THE AIM OF OFFERING A COMFORTABLE ATMOSPHERE, IN ORDER TO CREATE A QUIET ISLAND.



## PUNTO X: GET FED WITH WELLNESS

customer base within the medical community while generating more brand recognition to its product offering within different channels. Moreover, the company is able to test and gain experience through a direct channel with end-users (something that they were unable to do within their niche market since they were B2B software providers, so the only feedback they obtained from their real end-users was filtered through their users' family doctors etc). Even Whirlpool, a multinational manufacturer with a traditional product oriented business model, can find positive externalities through the development of the Punto X solutions.

Aside from the potential benefits of expanding its global reach through the development of innovative solutions, Whirlpool is able to take advantage of the competence and knowledge spillovers inherent in the collaboration with entities that lie outside its traditional value chain. In particular, the exposure to the solution oriented partnership approach, its methods and specific context development have illuminated potential ground for the

generation of future partner-based solutions that lie inside and outside the current realm of the Punto X solution offering. Through the Punto X project, Whirlpool is able to explore new ways to extend its existing business model by adding a service oriented dimension to their current product lineup.

### Solution architecture

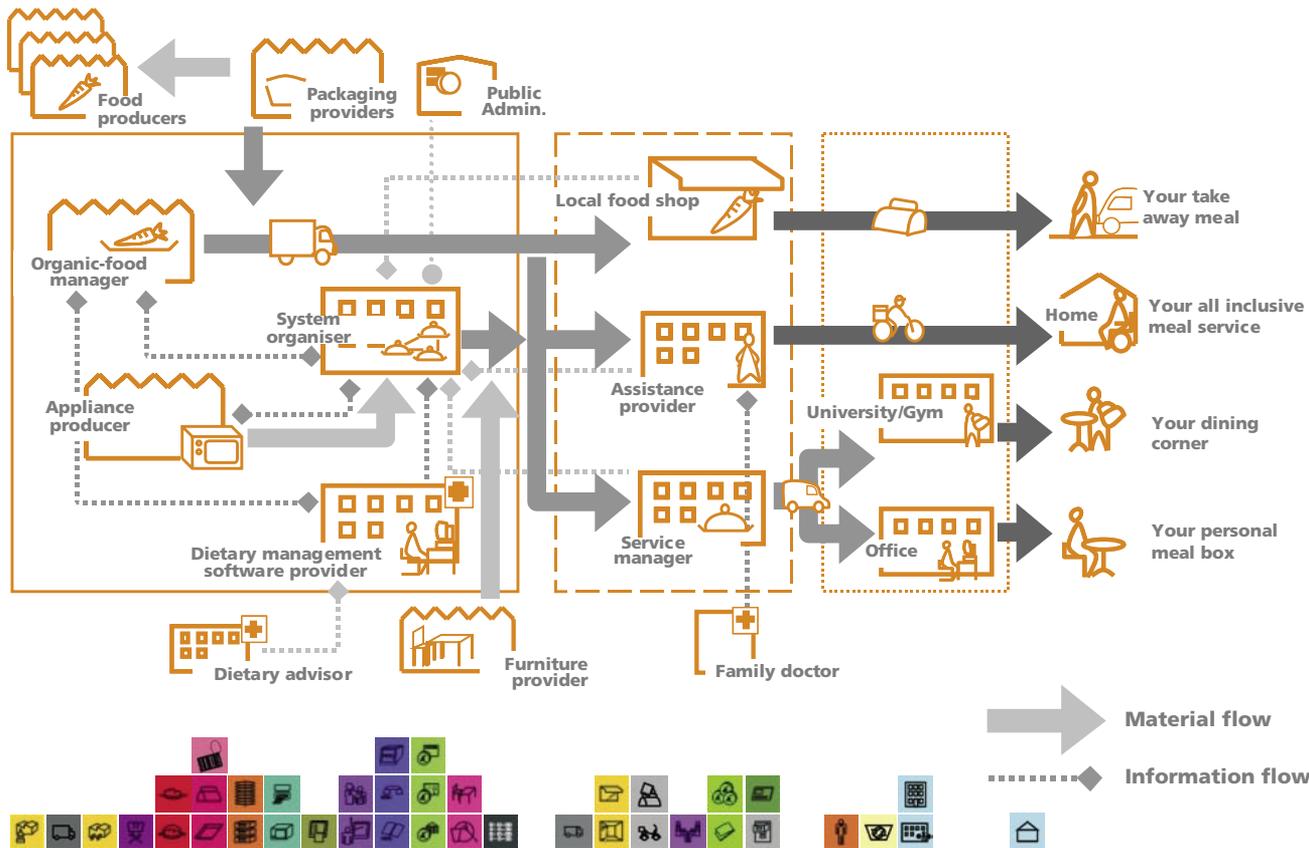
Punto X is the fruit of innovations in the form of the system combined with innovations in its constituent products and services. It has grown out of the systemisation of already partially existing parts, reorganised in new combinations and endowed with new meaning in the light of particular possible contexts of use.

The original value of the system lies in the possibility of combining the same competences and functions (or platform of products, services and instruments) in different ways, integrating them with local elements, so as to offer personalised solutions for different users.

Punto X pivots on five crucial subsystems, or functional groups, of products and services that

WITH PUNTO X, FOUR CONTEXT-SPECIFIC SOLUTIONS ARE DELIVERED THROUGH DIFFERENT SERVICE FORMATS ORGANISING THROUGH A FLEXIBLE, MODULAR, SYSTEM OF PRODUCTS AND SERVICES. A PLATFORM OF PARTNERS, DELIVERING A SET OF COMMON ELEMENTS (PRODUCTS AND SERVICES), IS INTEGRATED ON A LOCAL BASIS BY SPECIFIC ELEMENTS PROVIDED BY SPECIFIC PARTNERS. IN DOING THIS, A SINGLE SYSTEM, SOLVING A VARIETY OF PROBLEMS, OPENS POTENTIALLY NEW AND WIDER MARKET OPPORTUNITIES FOR THE SOLUTION PROVIDERS. FOOD PRODUCERS: BIOLOGICA AND OTHERS ORGANIC FOOD MANAGER: BIOLOGICA SYSTEM ORGANISER: BIOLOGICA APPLIANCE PRODUCER: WHIRLPOOL DIETARY MANAGEMENT SOFTWARE PROVIDER: DS MEDICA LOCAL FOOD SHOP: NATURA RIDE ASSISTANCE PROVIDER: PRIVATASSISTENZA SERVICE MANAGER: VENDING MACHINES MANAGERS

**Platform Providers      Integration Providers      Intermediate Users      Final Users**



determine its qualifying performance:

1 – an organic food network, run through a portfolio of selected suppliers, a specialised platform, targeted logistics (already set up to supply the chain of BioLogica shops) and specialised points of sale;

2 – a vast assortment of ready to eat or heat, fresh and seasonal organic and biodynamic dishes;

3 – an easy access professional IT food advice system, making it possible to run personalised diets for users with special needs (according to a set selection of pathologies, physiologies and food cultures) and helping users choose suitable dishes from a wide range;

4 – foolproof final preparation by means of packaging able to “dialogue” with specially provided microwave ovens, customised refrigerated containers and automatic food dispensers;

5 – a local delivery system and meal assistance integrated with primary and secondary logistics. This reaches right into the specific context of use, where specialised operators

or automatic dispensers fitted with intelligent food heating systems, puts meals on the table and manages waste.

### **Brand identity**

The system innovation advanced by the four solutions in Punto X requires a coherent image. In their DNA is the co-planning of three companies with different market orientations and missions, so it is impossible to think of a rehash of company labels, useless to think in terms of restyling. It is important to have a clear and unequivocal trademark to indicate an apparently complex system, which users must perceive as safe and easily identifiable.

Punto X indicates a physical setting, clearly recognizable in the choice of furnishing and graphics, whose name is associated with a new way of consuming meals. It is a metaphorical place bound to the quest for physical well-being. Here the user is able to take care of himself by eating well-balanced, organic food. The theme of well-being arising from the

THE PUNTO X SOLUTIONS PERFORMANCES ARE THE RESULT OF SEVERAL ACTIVITIES CARRIED OUT AT DIFFERENT LEVELS OF THE SYSTEM: IN THE SOLUTION “YOUR DINING CORNER”, FOR INSTANCE, TO ALLOW A USER TO CHOOSE, HEAT, AND ENJOY A MEAL, AN INTERCONNECTED CHAIN OF SERVICE ACTIONS MUST TAKE PLACE BEFORE, DURING AND AFTER THE CORE SERVICE PERFORMANCE. THE NEED TO REPLICATE, WITH THE SAME QUALITY STANDARDS, SUCH KINDS OF INTERACTIONS REQUIRES THE DESIGN AND FORMALISATION OF EVERY STEP, DEFINING APPROPRIATE PROTOCOLS OF EXECUTION AND RULES FOR THE ACTORS INVOLVED. WITHIN THIS FRAMEWORK, IT HAS TO BE NOTED THAT BETWEEN THE PLATFORM AND THE SERVICE MANAGER, THE INTERACTION IS VERY NEAR TO THE B2B FRANCHISE-FRANCHISEE SERVICES.



modern idea of caring for oneself through daily habits, is here realised through a system that offers new eating scenarios.

The brand and its colours are reproduced in every accessory, creating a brand identity that leaves little space for inaccurate interpretation. Punto X appears as a system, coherent in image but differing in solution, able to meet the new requirements of those who decide to feed on wellness.

### **Impact on context: benefits and opportunities**

Punto X offers the possibility of achieving results, rather than purchasing products. Its solutions are able to direct behaviour towards potentially more sustainable, satisfactory product-service systems.

It aims to maximise the positive elements of its impact on context – socially, financially and environmentally – by various actions that make up a general strategy:

- enhancing the value of organic food chains in both production and consumption;

- caring for the socially underprivileged, or people with practical difficulties as far as food is concerned, by facilitating access to a suitable diet and relative amenities;

- increasing the differentiation capacity of firms by offering solutions of high added value for the end-user, and expanding in each others markets or in totally new markets.

- activating/regenerating local operations by necessarily involving local players in setting up services close to the user and, in so doing, shaping new global-local relationships;

- mass-producing products and services to maximise productivity and economy of scale and scope, made possible by integrating functions. This leads to lower raw material and energy consumption than individual user solutions, at both production and consumption stage. Overall, Punto X can be presented as an example of a product-system able to activate win-win relations between different kinds of players on the market. These do not exclude leadership and enterprise roles for local players, fruitful co-operations between profit and non-

PARALLEL TO THE SOLUTION PUNTO X, A SOLUTION ORIENTED PARTNERSHIP HAS BEEN DEVELOPED, TO PROVIDE HEALTHY, CONVENIENT MEALS IN DIFFERENT CONTEXTS OF REDUCED ACCESS TO FOOD. THE MATRIX EXPLAINS EACH PARTNERS' MOTIVES IN OFFERING A SOLUTION, BEING A RESULT-ORIENTED SYSTEM, INSTEAD OF A SET OF PRODUCTS OR SINGLE SERVICES. THIS MEANS THAT FOOD IS DESIGNED FOR SPECIFIC NEEDS AND EASY ACCESSIBLE ALSO IN CHALLENGING CONTEXTS.

ORGANIC FOOD MANAGER:  
BIOLOGICA  
SYSTEM ORGANISER:  
BIOLOGICA  
APPLIANCE PRODUCER:  
WHIRLPOOL  
DIETARY MANAGEMENT  
SOFTWARE PROVIDER: DS  
MEDICA  
ASSISTANCE PROVIDER:  
PRIVATASSISTENZA  
SERVICE MANAGER: VENDING  
MACHINES MANAGERS  
SOLUTION CENTRE:  
POLITECNICO OF MILANO



. to find new business perspectives in the organic food industry

. a way to enhance the real value of the organic food offering

. competences in food processing

. specific knowledge of a very sensitive sector  
. inputs and feedback from the reduced access to food context

. expertise of a specific market  
. expertise in service management

. catalyst in the design and development of ideas  
. manage partner development

. expand business and new market opportunities  
. to become a food solution provider

. organic food market expertise to test the validity of the software

. to enter in non-medical markets  
. to open and finalise research in new areas

. competences in food processing  
. hardware appliances to be integrated with software

. specific knowledge of a very sensitive sector  
. a new area of business

. feedback from the final users  
. statistical databases

. to facilitate entry into new businesses  
. support in the design and development of ideas

. visibility and recognition to the end-user  
. feedback from new clients

. organic food market expertise to improve the performance of the appliances

. new criteria and dietary tools for the development of appliances for special food needs

. to find applications for advanced food appliances  
. to enter in the service dimension

. cognitive and physiological feedback to better design the interfaces of new appliances

. feedback from final users  
. inputs to integrate service and appliance design

. to facilitate entry into new businesses  
. support in testing of the solution idea with their customers

. new sales channels  
. service expertise

. high quality food products to be offered to customers

. a way to better satisfy customer needs  
. potential networking with food specialists

. a dedicated appliance for customers

. to complete the present service offering  
. to better satisfy customer needs

. to facilitate entry into new businesses  
. support in testing of the solution idea with their customers

. a new idea of service to be used to reach new customers

. new high quality convenience meals for vending machines  
. a new service concept

. adds value to the service portfolio

. a smart vending machine system

. to expand the service portfolio  
. to extend the offering to new contexts

. to facilitate entry into new businesses

. a new service to be used to contact new possible context of business

. knowledge and expertise from the organic food sector

. expertise in the dietary industry

. expertise and products in the white good appliances sector

. expertise in assisting people in a specific context

. expertise and entrepreneurship in the vending machine industry

. to develop expertise in solution design  
. to obtain visibility as solutions experts

. opportunity to test a methodological toolbox  
. expertise in the food sector

. organic brand identity  
. expertise in organic supply management

. advice and dietary management through professional software

. smart appliances for food processing  
. brand identity

. social dimension  
. access to a specific context

. service management in specific contexts

. tools and expertise to facilitate and manage the partner-based solutions

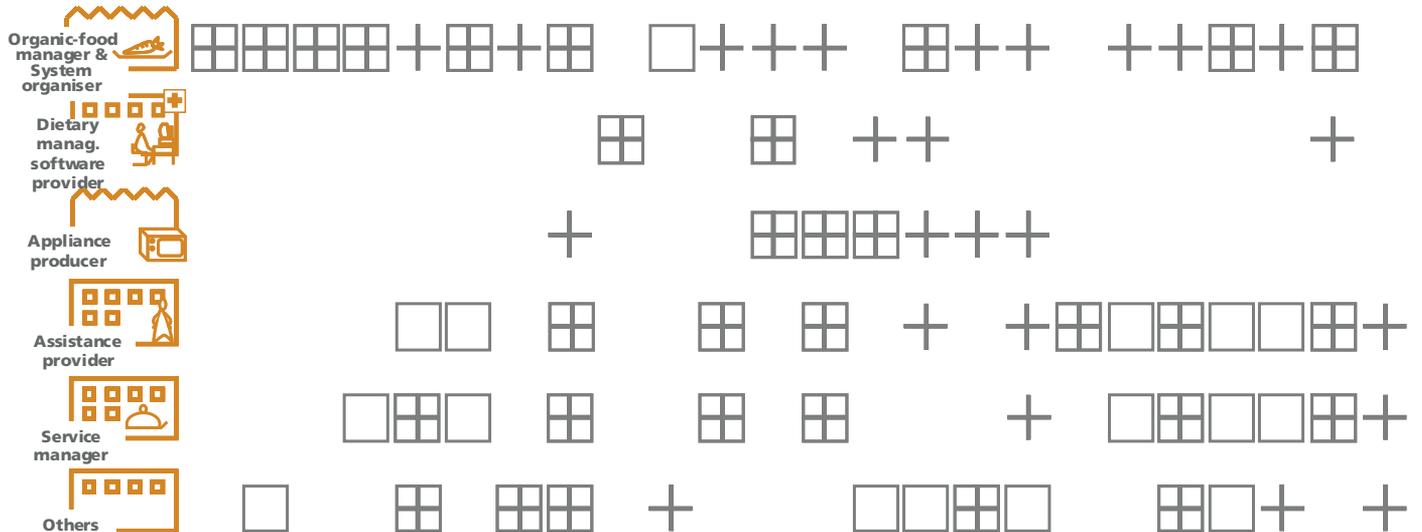
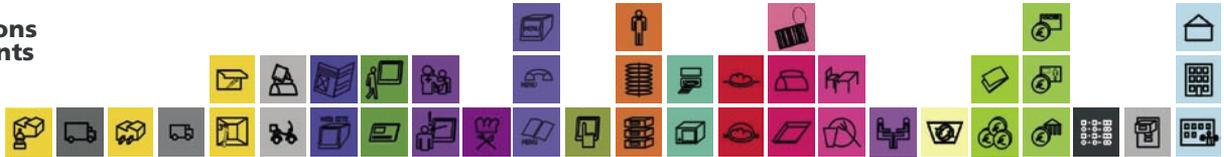
. to provide healthy, convenient meals in different contexts of reduced access to food

profit organisations, symbiosis between multi-nationals and SMEs, or specific market sharing, in a mainly bottom-up innovation logic that brings new skills, activities and services into play on a local basis.

THIS CHART PROVIDES THE GENERAL FRAMEWORK OF THE FULL SET OF SOLUTIONS ELEMENTS (PRODUCTS, SERVICES, COMPETENCES) CONSTITUTING THE PUNTO X SYSTEM. THEY ARE PUT IN RELATION TO THE MAIN SOLUTION PROVIDERS IN ORDER TO DEFINE THEIR TASKS IN DESIGNING, BUILDING AND DELIVERING EACH OF THESE COMPONENTS. ONE OF THE MAIN CHALLENGES IN DESIGNING AN INDUSTRIALISED SOLUTION IS TO TAKE INTO ACCOUNT, FROM THE BEGINNING, THE ISSUE OF CO-ORDINATION AND INTERFACING OF ITS ELEMENTS. TO DO THIS, THE PARTNERS HAVE FIXED, FOR EACH COMPONENT, SOME FUNDAMENTAL CONSTRAINTS DUE TO THEIR REQUIREMENTS/CAPABILITIES, TO BE CONSIDERED FOR THE SUCCESSIVE ACTIVITIES OF PRODUCT/SERVICE DEVELOPMENT, CARRIED OUT INDEPENDENTLY BY EACH PARTNER.



**Solutions Elements**



# La Fiambrera

EUREST, AN INTERNATIONAL CATERING COMPANY, CURRENTLY PROVIDES 6,000 MEALS PER DAY SOLELY FROM THE LOCAL CENTRAL KITCHEN, WHICH IS A FEW KILOMETRES OUTSIDE RUI.

CURRENTLY MOST CATERING SERVICES ARE 'WARM FOOD CHAINS' WHICH MEANS FOOD IS PREPARED AND KEPT WARM WHILE IT IS TRANSPORTED TO CUSTOMER INSTITUTIONS.

ONE OF THE MOST SIGNIFICANT TECHNOLOGICAL AND INFRASTRUCTURAL CHANGES IS TO OFFER COLD FOOD SERVICES, WHICH CAN BE HEATED ON DEMAND.

THE FULL POTENTIAL OF THIS SYSTEM IS EXPLOITED THROUGH LA FIAMBRERA, CHALLENGING THE CRITICAL FACTORS OF TIME AND ECONOMIES OF SCALE.

EUREST:

“WE SERVE 6000 MEALS A DAY”



## La Fiambrera

*Joanna Lambert, Laura Vidal and Menno Marien*

“La Fiambrera” (which in English means “Lunch Box”) is a food service developed using the Solution Oriented Partnership approach to serve two distinct groups of people with food needs in the municipality of Rubí, near Barcelona in Spain. The partners were:

- Eurest, an international catering company, part of Compass Group;
- Rubí Town Council Social Services department, who identified customers to be enrolled in the food service and the local contacts needed, and also paid for the meals of Social Service customers;
- CDN International, a product and service strategy consultancy who initiated and coordinated the solution and acted as a

pilot test location;

- Rubí Municipal Market provided fresh food and a central collection point;
- Whirlpool, an international white goods manufacturer, provided specially adapted coolboxes for food storage; and an internet programming and web developer.

This Solution Oriented Partnership successfully ran a one month pilot test of their solution and is preparing for an expanded launch in the near future.

### **Context-of-use**

The book “Solution Oriented Partnerships” introduces context-of-use research tools that

RUBÍ SOCIAL SERVICES IS RESPONSIBLE FOR THE WELFARE OF TOWN CITIZENS, CARRYING OUT ACTIVITIES SUCH AS HOME HELP, MOBILITY SERVICES, SOCIAL ACTIVITIES AND CATERING FOR THOSE WHO HAVE DIFFICULTIES.

WITH THE AGING POPULATION, STRATEGIES FOR ANSWERING THE NEEDS OF THE ELDERLY IN A SUSTAINABLE WAY ARE CONTINUOUSLY BEING EXPLORED.

ONE OF THE AIMS OF THE SOCIAL SERVICES IS TO ENABLE ELDERLY CITIZENS TO STAY LIVING INDEPENDENTLY IN THEIR HOMES FOR AS LONG AS POSSIBLE.

**RUBI SOCIAL SERVICE:**

“WE TRY, AS MUCH AS POSSIBLE, TO KEEP  
THE ELDERLY LIVING IN THEIR OWN HOME”



were used in Rubí to explore two groups of people identified as having reduced access to food.

One group was elderly people living independently at home. A large number of this group do have a certain level of mobility, but some have trouble 'accessing' food because of problems with preparing it, finances, food knowledge, weight-carrying ability, agility or sight problems. The result is that many either eat poorly, or rely on home-help such as family, friends or social workers.

At the same time informal support networks of neighbours and family help are quickly disintegrating as society becomes increasingly industrialised. One current answer is the town Day Centre where Social Service customers can have a warm meal at lunch time. This relies on the resources and funding of the Local Council and, with the growing elderly population, relying on this type of service to meet all needs within a town will be

increasingly difficult in the future.

The second group is employees of small companies (SMEs) based in isolated industrial estates which have no provision for food. Employees of these companies often have difficulty accessing food because of their geographical distance from appropriate lunchtime food venues, the poor local provision of healthy food, and time and distance constraints that limit their ability to go food shopping. The result is that people either have to eat unhealthy snacks from petrol stations or vending machines, spend time in the morning preparing their own lunchbox, or eat in expensive and time consuming restaurants. Some do not eat at lunchtime at all! Another current solution is to rely on a family member, usually a woman, to organise a lunchbox. This solution is now in decline as women's priorities are changing and younger people are starting to live more independently.

Even though both groups are very different

THE MUNICIPAL MARKET IN RUBÍ OFFERS FRESH VEGETABLES, FRUIT, MEAT, FISH AND OTHER PRODUCE. MARKETS ARE PRESENT IN MOST SPANISH TOWNS AND ARE HIGHLY VALUED FOR THEIR GOOD QUALITY PRODUCE. THEY ALSO ACT AS SOCIAL CENTRES FOR THE LOCAL COMMUNITY AND ARE IMPORTANT FOR THE LOCAL ECONOMY. THE CUSTOMER REACH OF THESE MUNICIPAL MARKETS IS BEING SLOWLY THREATENED BY SUPERMARKETS, SO THEY NEED TO EXPLORE AND DEVELOP NEW WAYS TO FIND AND KEEP NEW CUSTOMERS WITHIN THE LOCAL AREA.

THE SHOPPING SERVICE COMPONENT OF LA FIAMBRERA OFFERS THE MARKET STALLHOLDERS A NEW WAY TO SERVE CUSTOMERS THAT WOULD OTHERWISE BE OUTSIDE THE MARKET'S TRADITIONAL SCOPE.

“IF YOU WANT FRESH FOOD YOU HAVE  
TO COME TO THE MARKET”



in nature, they share food provision needs. La Fiambrera as a solution is set up in such a way that it can answer these common needs and still retain the flexibility needed to adapt to the groups' differences. The study of the two groups suggested that they both need a regular food service, providing a balanced diet, that is flexible in terms of the time of eating, easy and convenient to access and reasonably priced. The Social Services group also need a solution that allows people to continue living independently and in a dignified way for as long as possible without having to rely on help from others.

Neither group currently receives sufficient catering services because, when considered as separate groups, there are too few customers to make it economical to serve them. For SMEs to receive a warm food service the investment in equipment means that a minimum of 50 customers are required to make it viable. Individual SMEs rarely have this many employees but combining several SMEs and

the Social Services customers creates a market large enough to serve economically.

### Offering

La Fiambrera focuses on aggregating demand and optimising logistics so that it can reach these more isolated or alienated groups of people.

The solution reaches both groups by using a cold chain for the physical logistics (food is cooked, then chilled quickly and maintained at refrigerator temperature) and the internet (a smart ordering system) to manage the information.

A 'menu' is delivered each day for both groups. In Spain a 'menu' is a typical lunchtime meal which includes three courses; the first being a light vegetable, salad or pasta based dish, the second being a meat or fish based dish, and the third being a yoghurt, fruit or light pudding.

For the SME group, fresh food shopping from

THE CONTEXT-OF-USE RESEARCH IN RUBÌ SOCIAL SERVICES FOUND THAT NOT ONLY ARE PEOPLE LIMITED ECONOMICALLY IN THEIR ACCESS TO GOOD FOOD, BUT PEOPLE ALSO HAVE PROBLEMS CARRYING, LIFTING, OPENING AND PREPARING FOOD. ALL THESE FACTORS LIMIT THE TYPES OF FOOD THAT PEOPLE CAN PURCHASE AND EAT.

“IF I WANT TO  
LIVE ON MY OWN,  
I HAVE TO BE ABLE  
TO PREPARE MY  
OWN MEALS”



the local Municipal Market is also delivered. Without having to visit the market itself employees can buy fresh vegetables, meats, cheeses, fish and other delicacies at a good price.

How does “La Fiambrera” work? (see SolutionMap page 71) Eurest enters the weeks’ menu into the smart ordering system on the internet. [0]. SME employees order and pay for their Eurest lunch and fresh food shopping in advance through the smart ordering system [1]. Meanwhile, the Social Services place an order through this Smart System for a number of set meals for those enrolled in their scheme [2].

This is done by a social worker to reduce the complications of providing the elderly with computer equipment and skills. The Social Services place orders according to the medical needs of each customer enrolled. Meal orders go through to the Eurest Central Kitchen [3] and shopping orders go to a stallholder in the Municipal Market [4]. This stallholder and a

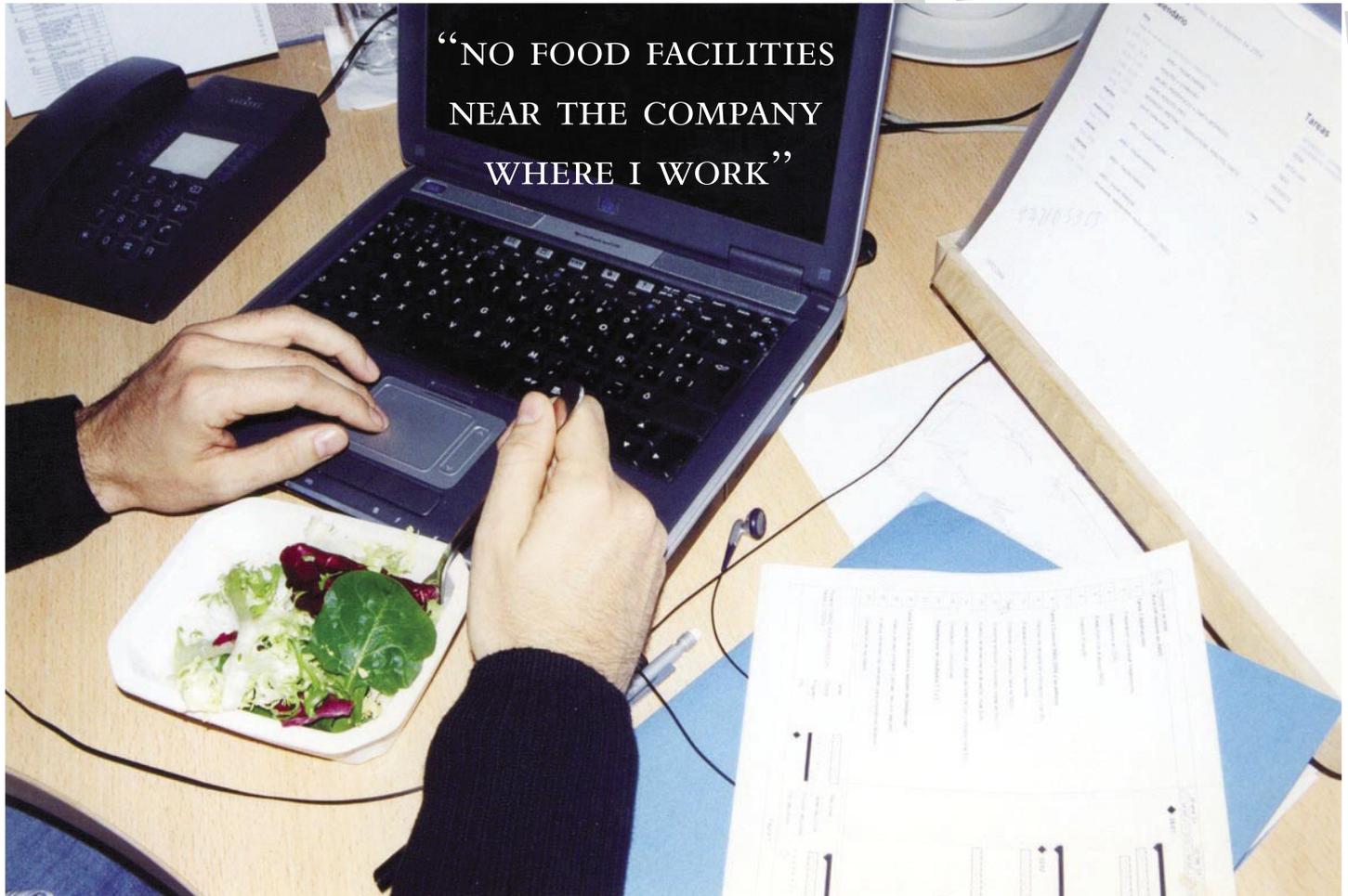
volunteer collect the fresh food from the other stalls and place each person’s order into a bag [5].

Then a van from Eurest’s central kitchen carrying prepared meals for both the Social Services and SME customers, goes to the Municipal Market. Here meals for people in the Social Services scheme are left in a secure coolbox [6], and food shopping for SME employees, prepared by the stallholder, is collected [7] The same van then travels to the SME [9] where the prepared Eurest meals and food shopping are delivered to a coolbox. [8]. The Social Service customers walk to the Municipal Market to pick up their meals from the secure coolbox [9]. The food can be stored for two or three days in these fridges and can be heated in domestic microwaves or ovens whenever the customer wants to eat. The customisation of the service for users is achieved via:

- the smart ordering system which creates a user profile of food preferences and/or

FOR SME CUSTOMERS LA FIAMBRERA OFFERS A FLEXIBLE SYSTEM THAT ALLOWS PEOPLE TO EAT WHEN THEY WANT. IT ENSURES A MORE BALANCED DIET AND OFFERS TIME SAVINGS AND GOOD QUALITY FOOD THROUGH A SIMPLE ORDERING SYSTEM. IT ALSO PROVIDES A FOOD SHOPPING SERVICE FOR THOSE WHO HAVE DIFFICULTY FINDING TIME TO BUY FRESH GOODS.

“NO FOOD FACILITIES  
NEAR THE COMPANY  
WHERE I WORK”



- dietary requirements
- the logistics which provide flexibility in access and eating times
- the menu choices – with three options for each course per day
- the choice of food portions – users can opt for a full menu of three dishes, or a half menu of one or two
- the shopping – users can specify products and the quantities they want of each
- SME employees also have the option of donating 50 cents per meal to help feed people in need of food in the local town.

### System

The system creatively combines economic business interests and the achievement of social benefits. The commercial approach needed by the private companies and the enabling local community connections have been combined in one mutually supporting solution. The Solution Oriented Partnership co-designed “La Fiambrera” to be mutually beneficial and to allow partners to complement each other’s

competencies. For example, the Municipal Market provides Eurest with a pick-up point that removes the need for door-to-door delivery, the most expensive part of their current meals-on-wheels service. In return the Municipal Market has the opportunity to use Eurest’s logistics to reach customers in isolated industrial estates that otherwise would not visit the market.

The continued involvement of Rubí Town Council is one of the essential parts of “La Fiambrera”. Above all, their political results are measured in terms of the social benefits they provide to the town’s citizens. The Council’s considerable local connections helped to facilitate a solution that promotes the interests of these citizens. But the solution also creates economic benefits for the private business partners involved, including local enterprises that also benefit Rubí as a town.

### Solution elements

Elements such as the food production system,

LA FIAMBRERA IS A SERVICE THAT PROVIDES GOOD QUALITY PREPARED MEALS AND A FLEXIBLE COLLECTION SYSTEM BY WAY OF A COLD FOOD CHAIN.

THE SOLUTION IS ADAPTABLE TO CATER FOR MANY DIFFERENT PEOPLE’S NEEDS IN SMALL COLLECTIVES THAT ARE CURRENTLY UNSERVED, (GOOD FOOD TO THE FEW’), THROUGH ONE SYSTEM PROVIDING ‘GOOD FOOD FOR ALL’



# LA FIAMBREIRA: GOOD FOOD FOR ALL

the cold chain, coolboxes, and the smart ordering system are always present no matter which group of people receive the service. These are the core elements of the solution;

### *Coolbox*

In the pilot test of the solution there were two separate coolboxes; one in the Municipal Market with a secure compartment for each user, the other in the SME simply with open shelves due to the reduced need for security. Social Service users received a key to their individual coolbox compartment and could not access other users' food.

### *Packaging*

The pilot test used existing Eurest packaging designs. This provided a base from which to test the functionality, sizes, and other usability factors, and to suggest improvements needed for future packaging designs. Meals were packaged in individual plastic trays, with a waterproof transparent seal, that can be put directly into a microwave.

### *Smart ordering system*

The face of “La Fiambrera” was an internet website with a public area open to anybody, a private area for registered users and a back-office for the administrators. The primary objective of the website was to facilitate order processing, which is one of the most complicated processes in a regular catering service. In practice, it had double side benefits:

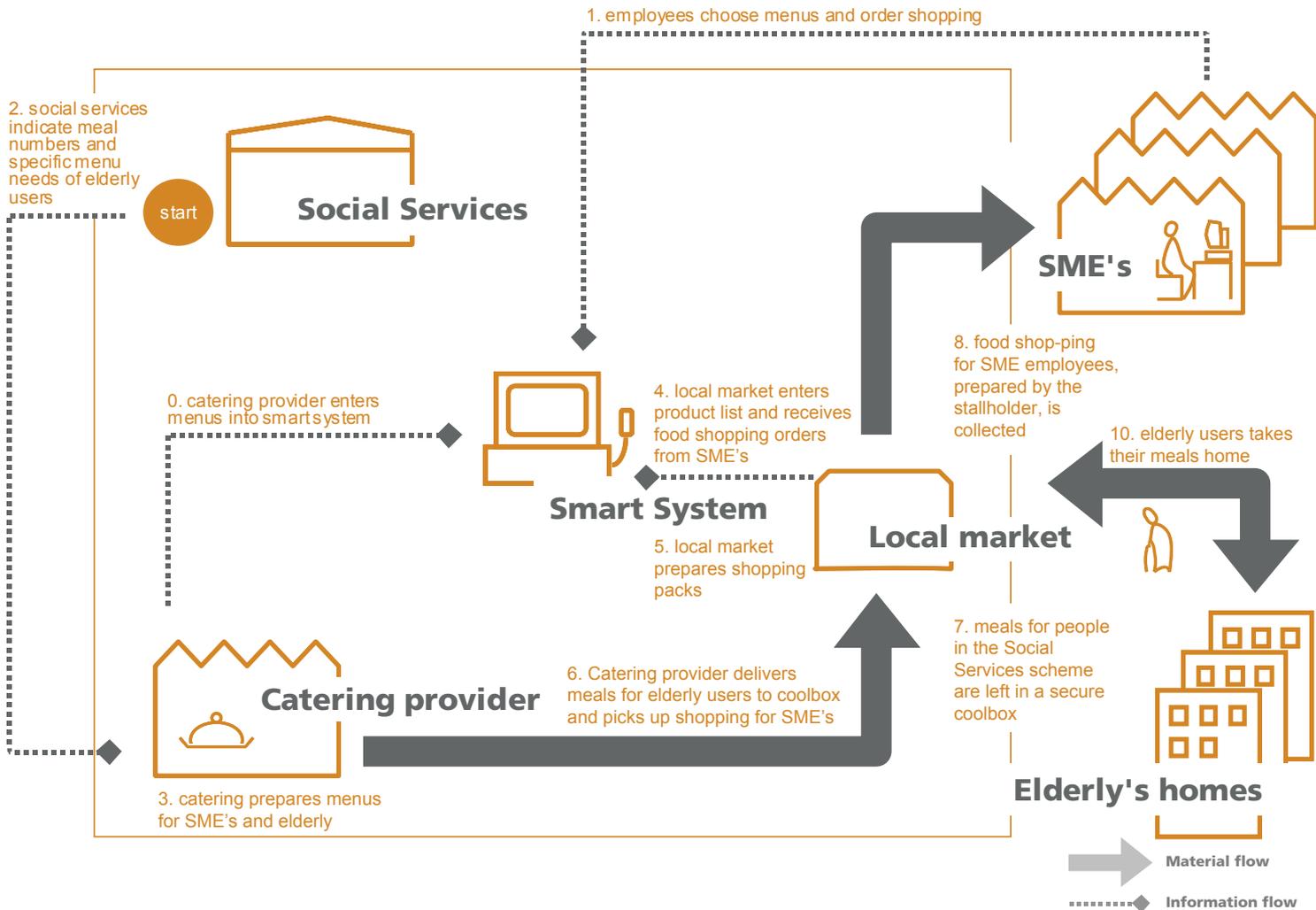
- For SME customers it added visual interest and convenience, but also stimulated interaction amongst users in the form of sharing and co-operation when ordering.
- For Eurest, it greatly simplified the management of orders because the database generated a spreadsheet that could be read by the kitchen's software.

SME users could also order through a feature called “La Fiambrera de Mamá” or “Mum's Lunchbox”, which brought a surprise choice everyday. Some users preferred this option because it was easy and they did not have

LA FIAMBRERA COMBINES FOOD SOLUTIONS FOR TWO GROUPS OF PEOPLE IN ONE SERVICE; PREPARING, COOLING AND TRANSPORTING THE FOOD TOGETHER, BUT DELIVERING IT TO DIFFERENT LOCATIONS ALONG ONE ROUTE.

INFORMATION (MENU POSTING, ORDERING AND PAYING) IS HANDLED THROUGH AN INTERNET SMART SYSTEM.

THE LOGISTICS ARE COMBINED TO REDUCE COSTS, MAKING THE SERVICE ECONOMICALLY VIABLE.



to worry about making particular choices. Above all, they simply liked to be surprised! The Smart System also provided a way to customise the solution for each user because profiles could be set up which then offered daily choices according to dietary needs. The Smart System represents a fast, efficient way to approach advanced industrialisation with the local delivery of the solution. The numbers of users can increase without increasing the administrative workload. All the partners can also be linked automatically without the reliance on manually sending orders, payments and menu details.

In addition to the core elements, certain parts of the solution differed depending on which group of users was being served;

#### *Welcome pack*

At the start of the pilot test, each user in the SME received a 'welcome pack' containing a plate, bowl and cutlery. This offered customers the choice of eating their meals using these ceramic plates and metal cutlery, instead of

having to eat from the plastic packaging.

#### *Thermal bags*

Each of the Social Services customers was given a thermal insulation bag so that the food packs could be kept cold on the journey home from the marketplace.

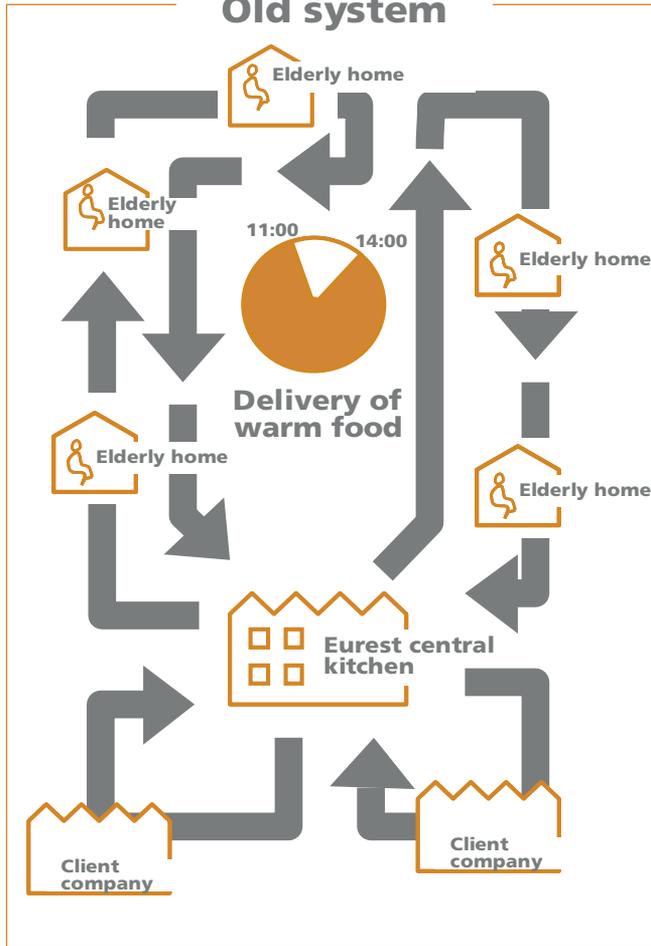
#### **User benefits**

Although the initial context-of-use research was focused on elderly people using a Social Services scheme in Rubí, it is not just elderly people that could benefit from the service. The solution is also suitable for people with mild physical or psychological disabilities and people with temporary illnesses who are not able to work. The fact that the Fiambrera solution could be used for such a wide variety of users was further confirmation that striving to design contextualised solutions has the potential to include users that would normally not be reached.

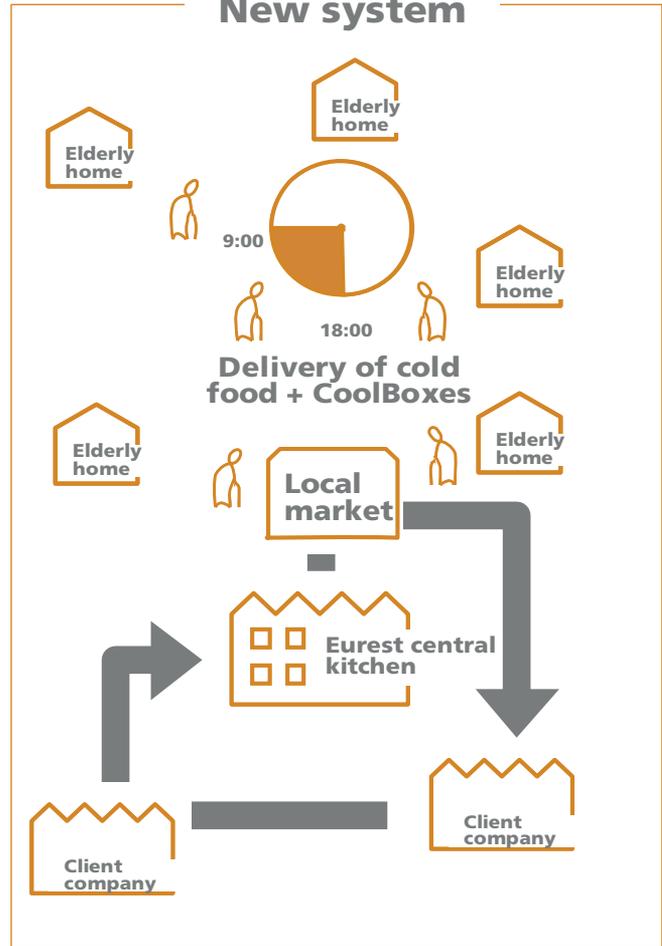
For users of the Rubí Social Services scheme

THE WARM FOOD CHAIN USED IN MOST EXISTING CATERING SOLUTIONS MEANS THAT 30-40% OF THEIR COST IS DUE TO TRANSPORT. MORE JOURNEYS ARE NEEDED TO MAKE SURE THAT THE QUALITY OF THE HOT FOOD IS RETAINED. SOME SYSTEMS ALSO MEAN EVERY CUSTOMER HAS TO BE VISITED IN THEIR OWN HOME. DELIVERIES OF HOT FOOD ALSO HAVE TO BE MADE WITHIN A CRITICAL TIME DURING THE DAY, JUST BEFORE LUNCH-HOUR. IN THE COLD FOOD CHAIN COSTS ARE REDUCED BY PUTTING ALL THE FOOD IN ONE TRUCK IN ONE JOURNEY. CHILLED FOOD CAN ALSO BE DELIVERED TWO OR THREE TIMES A WEEK AND STORED IN A COOLBOX. THESE FACTORS COMBINE TO SIGNIFICANTLY REDUCE THE NUMBER OF JOURNEYS NEEDED TO DELIVER THE SAME NUMBER OF MEALS. DELIVERIES CAN ALSO BE MADE THROUGHOUT THE DAY BECAUSE THE COLD FOOD CHAIN IS LESS TIME CRITICAL.

## Old system



## New system



the benefits of the solution are that it facilitates their independence, it gives them the flexibility to eat when and where they like, and it provides a healthy diet which was previously difficult to achieve.

Increased opportunity for privacy is also a benefit of this service for Social Service customers, who can now eat at home with family or friends. This is particularly important for elderly couples who are accustomed to sharing meals just between themselves, rather than in a Day Centre where there are many other people. It may also be desirable for some users to receive their meals away from the Day Centre eating hall because of their unsociable behaviour. This may improve the experience of those still using the Day Centre catering service.

Another benefit of La Fiambrera is that whilst it allows people to stay living at home, it does not confine them there. The mere fact that they need to walk to the Municipal Market to

collect their food means that they get out of the house for a little exercise and they go to a place where they can meet friends, socialise, stop for a coffee, or purchase some other supplies.

The coolbox in the Municipal Market became an important indicator of the well-being of the customers. Social Services could be notified by the Eurest delivery person if there were meals remaining in the coolbox from previous deliveries. This creates an important benefit giving elderly users peace of mind that if something happens to them people will come to assist.

For the SME employees the benefits include an improvement in their diet, time savings for food preparation and the flexibility to eat when and where they want. For example these customers can save meals for later in the day if they have to work late, or even take them home.

The overriding benefit is that they now

THE ECONOMIC COMPARISON OF THE LA FIAMBRERA COLD FOOD CHAIN WITH THE EXISTING WARM FOOD CHAIN SHOWS THAT BREAKEVEN IS EASIER TO ACHIEVE WITH THE LA FIAMBRERA SYSTEM.

LA FIAMBRERA SOLUTION REDUCES THE TRANSPORT COSTS, THEREFORE MAKING IT POSSIBLE TO REACH GROUPS OF PEOPLE WHO ARE UNDER THE NORMAL BREAKEVEN NUMBER OF 50 PEOPLE IN EACH SERVICE.

BY AGGREGATING THE GROUP NUMBERS TOGETHER AND DELIVERING IT ALL ON ONE CIRCUIT, THE BREAKEVEN CAN BE REACHED IN A SHORTER TIMESPAN.

## Breakeven of Old system



Homes of the elderly > 50



## Breakeven of New system



Homes of the elderly > 15



have access to a good quality food service, where previously one did not exist at all.

### **Sustainability assessment**

In catering services one of the most significant environmental impacts comes from the transportation of the food throughout the lifecycle. Transport is key because food is perishable and therefore must be delivered on time. Another key impact is the amount of food wastage because warm food cannot be preserved for long without loss of quality.

In La Fiambrera the cold food is delivered and the shopping collected in one journey. Deliveries can also be made two or three times a week rather than everyday. In these ways the logistics can be optimised reducing both economic and environmental impacts.

Food wastage is also reduced because the chilled food can be preserved in the coolbox or fridge until it is needed. The meals are only heated as and when required.

La Fiambrera empowers local people by providing tools for independence. It also creates local community connections and helps small local businesses retain revenues in the local area. However, at the same time the solution provides the resource to duplicate the service with an international company as a key partner. In this way the service works towards sustainability by improving the local economy, environment and society.

### **Business plan**

In La Fiambrera, the Solution Oriented Partnership approach has helped the partners involved to reach new markets which previously were individually unviable and unprofitable using existing services. The concept of not only targeting more users with the same service (economies of scale) but of adapting the service to suit different kinds of users can be seen as creating an economy of scope.

In traditional warm food catering services

THE SOLUTION STORYBOARD  
DESCRIBES THE DIFFERENT  
ACTORS ALONG THE SERVICE  
CHAIN TOGETHER WITH THE  
ACTIONS AND SPECIFICATIONS  
AT EACH POINT.

La Fiambrera	SERVICE SETTING			SERVICE PERFORMANCE					
ELDERLY USER	PLATFORM FRANCHISING	LONG TERM SUBSCRIPTIONS	DAILY ORDERING	PREPARATION OF ORDERED MEALS	SHOPPING ORDER RECEIVED AT THE MARKET	COLLATING OF SHOPPING & MEAL DELIVERY IN MARKET	MEAL DELIVERY IN SME'S	ELDERLY COLLECTING MEALS IN MARKET	OFFICE WORKER COLLECTING MEALS IN MARKET
specifications	 <p>Ability to set dietary profile Identify key assistants</p>			 <p>Easy open compartments Assistance available Spare keys</p>					
OFFICE WORKER	 <p>choice among daily meal offers option to order fresh ingredients from market</p>			 <p>Access to building with small van Access to toolbox in office</p>  <p>Easy to find r Labelling</p>					
LOCAL GOVERNMENT ADMINISTRATION (RUBI)	<p>teaching session for market stall; briefing and training of social workers LunchBox service rules; LunchBox contract;</p>			 <p>Access to internet at regular intervals or continuously Space and resources to collect shopping packs</p>					
PLATFORM	<p>qualification procedures promotion of service within local SME's</p>			 <p>Systems and organisation Thermal containers</p>  <p>Access to marketplace by van. Access to toolbox from parking place</p>					
specifications	<p>franchising contract; installation of the toolbox</p>								

transport accounts for 30%-40% of the total costs. Existing food ordering processes using fax or phone also require substantial administration. By sharing transport and spreading deliveries over the day, the cost of transport in the “La Fiambrera” solution is reduced. This reduction in overheads has made breakeven easier to reach.

The pilot test, with 10 Social Services users and 18 SME employees receiving meals over a period of 1 month, has already shown encouraging economic results. It has been identified that the delivery of non-food items such as reading material, or pharmaceuticals could also be beneficial for users. This creates opportunities for future iterations of the partnership to include doctors and pharmacies, as well as health insurance companies.

The business plan includes expansion within Rubí in the short term, to Barcelona and the Catalunya area in the mid term, and the whole of Spain in the long term. As identified

in the pilot test, user acceptance is very good, and with further detailing, development and continuous improvement, the market potential is massive.

It is also clear that the solution provides social benefits to the final users as well as to other stakeholders within the partnership. It is possible that learning from this Solution Oriented Partnership can be spread to create new innovative sustainable solutions in other sectors.

LA FIAMBRERA OFFERS CUSTOMERS AND THE WIDER COMMUNITY SEVERAL SOCIAL BENEFITS, PARTICULARLY THE SOCIAL SERVICE USERS. THE WALK TO THE MARKET PROVIDES A REASON TO GET OUT OF THE HOUSE AND VISIT THE TOWN CENTRE.

THE COOLBOX BECOMES A ‘COMMUNICATION TOOL’ FOR PEOPLE WHO HAVE NOT BEEN TO COLLECT THEIR FOOD. THE SOCIAL SERVICES CAN BE NOTIFIED AND CAN INVESTIGATE TO SEE IF THERE IS A PROBLEM.

LA FIAMBRERA ALSO ENABLES PEOPLE TO LIVE INDEPENDENTLY FOR LONGER, MAINTAINING THEIR DIGNITY.



“RODRIGUEZ IS ABLE TO LIVE ON HIS OWN WITH GOOD FOOD SUPPORT”

“JOSEPH IS GETTING OUT TO THE MARKET EVERYDAY TO PICK-UP HIS MEAL...”

“MARIA DID NOT PICK-UP HER MEAL TODAY, MAYBE SHE IS ILL ?”

THE LA FIAMBREIRA  
PARTNERSHIP DEVELOPED,  
DETAILED AND TESTED THE  
LA FIAMBREIRA CONCEPT IN  
A 5 WEEK PILOT TEST .

THE PARTNERSHIP IS  
PLANNING TO RELAUNCH THE  
SERVICE SO THAT CITIZENS  
AND EMPLOYEES IN RUBÍ  
CAN BENEFIT FROM A GOOD  
QUALITY FLEXIBLE FOOD  
SERVICE..



# Punto X

BIOLOGICA IS A START-UP FIRM, CREATED IN JANUARY 2001, AND CONTROLLED BY ONE OF THE MAJOR DAIRY PRODUCT PRODUCERS AND DISTRIBUTORS IN ITALY (CENTRALE DEL LATTE DI BRESCIA).

ITS PROJECT IS BORN AROUND THE CONCEPT OF ORGANIC FOOD, SPECIFICALLY WITH THE MISSION OF DEVELOPING A NEIGHBOURHOOD SHOPS NETWORK, BASED IN ITALY, SPECIALIZED IN ORGANIC FRESH FOOD, AND BRANDED “NATURA RIDE”.

BIOLOGICA’S BUSINESS AIMS TO IDENTIFY AND ADDRESS THE RECENTLY GROWING CONSUMER DEMAND OF SUSTAINABLE (FOOD) CONSUMPTION; THROUGH THIS RESEARCH PROJECT THE COMPANY WANTED TO BETTER UNDERSTAND THE FEATURES AND MARKET POTENTIALS OF THE ORGANIC FOOD BUSINESS, TO ORIENT ITS ACTIVITY.

BIOLOGICA:

“HOW CAN WE MOVE ORGANIC FOOD  
INTO THE LIMELIGHT?”



## Punto X

*Anna Meroni, with Gabriele Cervetta and Alessio Marchesi<sup>1</sup>*

Punto X is the name of a system of products, services and expertise, able to offer food solutions that are personalised to meet the needs of specific contexts-of-use. Solutions are based on traditional local, fresh organic and dietetic (meaning specially designed around dietary advice) meals, either “ready to eat” cold, or “ready to heat”, whose requirements for personalisation arise from the different local conditions and personal situation of the user. They are intended for use in contexts where access to food is reduced, i.e. where the

<sup>1</sup> This project is the result of team work, here reported by the authors: within the framework of text by Anna Meroni, Gabriele Cervetta has written concerning “Brand Identity” and Alessio Marchesi concerning “Becoming a Solution Oriented Partnership”

possibility or ability to organise an appropriate and satisfactory diet is limited by both physiological and/or logistic and cultural conditions.

### Contexts-of-use

To understand context-of-use in detail we must specify the characteristics of the context we are referring to and the needs which arise from it. Together these form the demand reference framework, or meta-context-of-use, for the system. This is the sum of the characteristics of specific contexts seen through two filters: one relating to the possibility of outlining common food profiles (meal typologies suitable for specific users) and

WHIRLPOOL CORPORATION IS THE WORLD'S LEADING MANUFACTURER AND MARKETER OF MAJOR HOME APPLIANCES, WITH ANNUAL SALES OF OVER \$11 BILLION, 68,000 EMPLOYEES, AND NEARLY 50 MANUFACTURING AND TECHNOLOGY RESEARCH CENTRES AROUND THE GLOBE. THROUGH CONTINUOUS EFFORTS IN BOLD INNOVATION AND DESIGN, WHIRLPOOL AIMS TO ENHANCE TRUST AND SATISFACTION IN CONSUMERS. SERVICES ARE THE LATEST CHALLENGE: WITH SEVERAL SMART COOKING SYSTEMS THEY ARE WORKING ON, INDICATING THIS DIRECTION. THIS RESEARCH PROJECT WAS AN OPPORTUNITY TO GAIN EXPERIENCE AND KNOWLEDGE ABOUT MORE SERVICE ORIENTED OFFERINGS.

**WHIRLPOOL:**

“IS THERE A FUTURE FOR US IN SERVICES?”



the other relating to the service requirements of different local contexts. These characteristics together enable us to pinpoint needs to be met when planning Punto X, a solution system that seeks to respond efficiently to problems which up to now have been answered by a complex set of heterogeneous services and varying attitudes.

These problems, and therefore the benefits to be offered to users, are linked to demands for:

- knowledge about healthy eating habits
- suitable foods for specific pathologies (e.g. diabetes, hypertension)
- suitable food for special physiological states (e.g. the elderly, expectant mothers, children, sportsmen)
- food for particular dietary choices (such as vegetarians, macrobiotics, people on a diet)
- fresh, traditional food.

These requirements are in turn associated with situations of:

- reduced choice,
- reduced autonomy, and
- reduced physical mobility

Solutions offered by Punto X responds to these demands through an intrinsically sustainable (because entirely organic) agro-industrial food chain, associated with personalised consumer dietary planning. This has the dual advantage of reacting to precise demands for individual health and of increasing knowledge, and consequently the ability to choose, through an indirect form of education.

The solutions also set out to meet these demands specifically, on an advanced industrial scale, limiting economic and environmental costs. It does this through the introduction of personalisation criteria that are based on more generalisable and extendible principles (the concept of context-of-use) than the more traditional one-to-one, and by making use of a modular system architecture of the components.

### **The strategy of contextualisation**

The personalisation of solutions offered is achieved thanks to flexibility in meal composition, the organisation of distribution

DS MEDICA DEALS WITH THE DESIGNING, MANUFACTURING, DISTRIBUTION AND MARKETING OF SOFTWARE AND HARDWARE OF MEDICAL TECHNOLOGIES FOR DIAGNOSTIC AND TREATMENT PURPOSES IN THE FOLLOWING BRANCHES OF MEDICINE: CLINICAL NUTRITION, GASTROENTEROLOGY, DERMATOLOGY, ONCOLOGY, ANGIOLOGY AND RHEUMATOLOGY. THE COMPANY RUNS SEVERAL IMPORTANT NETWORKS FOR FAMILY DOCTORS, DIETICIANS AND GYNAECOLOGISTS, BY COMPUTERIZING THEIR OFFICE MANAGEMENT ACTIVITIES. THROUGH THIS RESEARCH PROJECT THE COMPANY WANTED TO UNDERSTAND HOW SUCH PROFESSIONAL KNOWLEDGE COULD BE MADE BETTER AVAILABLE TO THE FINAL USER IN TERMS OF EMPOWERING FOOD COMPETENCES IN DAILY FOOD MANAGEMENT.

## DS MEDICA:

“CAN WE PRESCRIBE A TASTY DIET?”



and delivery systems, and through service/consumer interfaces.

By varying the configuration of these factors, different service formats can be outlined for the implementation of Punto X. These are different organisational patterns that the system may address for a user in each given situation (localised contexts).

In all, there are four such formats:

- Your all inclusive meal service: A home delivery service for personalised daily meals, mainly for users at home;
- Your personal meal box: A periodic delivery service for personalised meals to a community situation where an area is available equipped for consumption. A service geared mainly for offices and day-care centres.
- Your dining corner: An automatic vending facility for personalised meals in a community context where an area is available and equipped for consumption. A service developed mainly for offices, universities and places of transit.
- Your take away meal: A point-of-sale service for personalised take-away meals, mainly for

shops, stations and transit points.

These formats allow for a scale of personalisation ranging from the more carefully prepared home meals, which come close to the traditional one-to-one approach where careful attention is paid to specific context capability (e.g. the presence of a family member or carer able to back up the service), to “standardised” personalisation based on specific context typologies (such as the nutritional requirements of a sport environment).

Some choice simplifiers also pre-arrange conditions for personalised meals: suitable recipes for different contexts are pre-selected, and a facilitated IT interface, or an intermediary, guides the user’s choice.

Described below in greater detail are two solutions offered by Punto X. At a product level the common solutions denominator is in having all dishes organic, fresh, packed in a protected atmosphere and ready to be heated in their packaging in a microwave oven. This means that by a food enhancement strategy

THE CONTEXT-OF-USE ANALYSIS ON PEOPLE RESTRICTED TO THEIR HOMES WITH PROBLEMS OF REDUCED MOBILITY (LIKE ELDERLY) HAS SHOWN THE PROBLEM OF GETTING ASSORTED AND TASTY MEALS, PARTIALLY PREPARED OR READY TO EAT. OFTEN IT WAS REQUESTED TO HAVE DIETARY MEALS AVAILABLE THAT WERE TAILORED FOR SPECIAL PATHOLOGIES OR PHYSIOLOGIES, AND TO HAVE THE POSSIBILITY OF CHOICE.

“YOUR ALL INCLUSIVE MEAL SERVICE” INTERACTS WITH THE USER THROUGH A RELIABLE PERSON (A RELATIVE, A VOLUNTEER OR A PERSONAL ASSISTANT) WHO IS IN CHARGE OF DELIVERING MEALS WHILE DOING OTHER DAILY DUTIES FOR HIM/HER.

THANKS TO THIS SCOPE ECONOMY THE MEAL CAN ARRIVE AT THE USER AT A COMPETITIVE COST. MEALS, COMPLETELY ORGANIC, CAN BE CHOSEN AMONG A VARIETY OF ALTERNATIVES, PRE-SELECTED ACCORDING TO DIETARY NEEDS, AND CAN BE HEATED EASILY BY THE USER THEMSELVES, VIA TRADITIONAL HOME APPLIANCES OR A DEDICATED MICROWAVE OVEN.

“YOUR ALL  
INCLUSIVE MEAL  
SERVICE”



similar to that for convenience-foods, a niche product like organic food is proposed in totally new contexts-of-use, adding to its own intrinsic qualities that of being an advanced service.

### Your all-inclusive meal service

This envisages the home delivery of highly personalised meals that meet the nutritional requirements of subscribers with problems of physical mobility: it is based on the possibility of managing orders and deliveries locally by using a grocery shop or small warehouse, linked to a service centre, as a meal collection and sorting place. By co-ordinating operations with public or private services, expert personnel are then able to deliver this meal service to users in the course of their day-to-day duties.

Meals consist of a traditional regional main dish, vegetables and seasonal fruit. Clients can be supplied with a special microwave oven for the duration of their subscription to the service: the advantage of this situation is a simplified planning system, co-ordinated with

meal packaging. A barcode label on the dish, corresponding to the programming knob on the oven, enables inexpert users to heat the food properly.

Each user is supplied with a personal membership card containing special dietary information and requirements, previously discussed with family members and the family doctor, which makes personalisation of meals possible. Every week the client, assisted by personnel, draws up their own menu by choosing from an assortment of pre-selected dishes according to their dietary requirements: they can opt for single dishes according to individual taste, or pre-sorted weekly combinations.

Together with the meal, they receive a magazine of their choice and throwaway tableware to simplify daily table management: Meals are delivered once a week from the distribution hub nearest home.

This solution integrates the added values of a personalised diet and delivery by trustworthy personnel with the intrinsic quality of the

THE CONTEXT-OF-USE ANALYSIS ON PEOPLE EATING EVERYDAY IN OFFICES, HAS REVEALED AN INCREASING REQUEST FOR HEALTHY AND FRESH FOOD AT LUNCH TIME, AS AN ALTERNATIVE TO EATING SANDWICHES. MOREOVER IN ADDITION TO AN INCREASING DEMAND FOR HEALTHY FOOD AND LOW CALORIE DIETS, BUT ALSO FOOD SUITABLE FOR SPECIAL INTOLERANCES. "YOUR PERSONAL MEAL BOX" PROVIDES PERSONALISED ORGANIC MEALS ON A DAILY BASIS FOR PEOPLE WHO WANT TO CONTROL THEIR DIET. THIS SERVICE CAN BE AVAILABLE IN COMMUNITY SITUATIONS, WHERE A PERSONAL REFRIGERATED BOX CAN BE FILLED EVERYDAY WITH A MEAL REQUESTED BY THE USER, WHO HAS SUBSCRIBED THE SERVICE.



meal. In many cases such personnel will already be familiar to the client in their role of psycho-physical support in everyday activities.

### Your dining corner

This envisages the existence of comfortable areas, equipped for meal service and consumption, in the workplace or in community contexts. It requires the presence of vending machines for fresh food, that are either ready to serve or heat, and the provision of special heating appliances. The food dispenser is filled with a variety of assorted dishes to meet the tastes of different users. These are chosen to satisfy the dietary requirements and food styles of the context. The menu is organised according to set dietary profiles. By interacting directly, or using a card containing information about preferences and dietary requirements, users examine the dishes available by means of a touch screen, and receive personalised suggestions about what to eat. A microwave oven is also available in the specially equipped corner. Again, it is programmed with a simplified system coordinated with the meal

packaging: a device automatically reads the barcode on the packaging label and translates it into a cooking programme. This solution also enables an independent, high quality refreshment area to be set up in contexts that for various reasons lack such arrangements: for example reduced space locations such as SMEs, or small offices, where a traditional canteen would not be cost effective; or where the irregularity of consumption, which makes both user times and numbers impossible to predict; or where the distant location makes it impossible to supply ready meals. It also enables users to find solutions suitable to varying dietary requirements.

### System architecture

Punto X is the result of collaboration between various actors sharing a common vision. BioLogica, a company that manages a chain of organic food shops under the brand name of Nature Ride and the partner promoting the Solution Oriented Partnership, has been joined by Whirlpool (the world leading

THE CONTEXT-OF-USE ANALYSIS ON PEOPLE EATING IN COMMUNITY SITUATIONS SUCH AS SMALL OFFICES, UNIVERSITIES, GYMS AND HOTEL WITHOUT A RESTAURANT, HAS SHOWN THE WISH FOR A FAST, BUT HEALTHY AND TASTY, FOOD AVAILABLE ON REQUEST ALL DAY LONG. "YOUR DINING CORNER" IS A SELF SERVICE FOOD FACILITY, BASED ON A VENDING MACHINE, CONCEIVED TO BE LOCATED IN PLACES WITHOUT FOOD AMENITIES AND WITHOUT THE CONTINUAL PRESENCE OF SERVICE PERSONNEL. PEOPLE CAN GET HEALTHY, ORGANIC MEALS AND PERFECTLY HEAT THEM AUTONOMOUSLY, AT ANY TIME. THIS SERVICE IS ESPECIALLY CONVENIENT FOR SMEs.



“YOUR DINING  
CORNER”

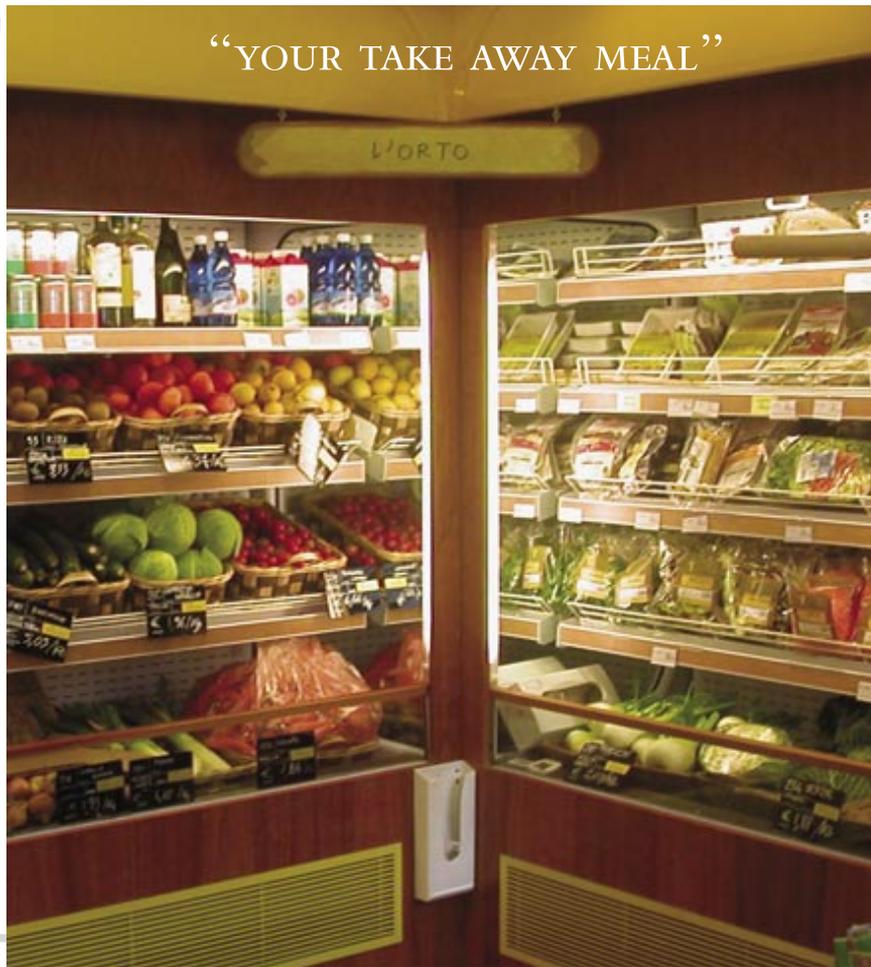
manufacturer of major home appliances) and DS Medica (a company designing, manufacturing and marketing medical technology software and hardware), together they bring to the system production know-how for electrical appliances, expertise in food and in IT elaboration of dietary solutions. These companies are the Platform Providers for the system. In other words, they develop the basic elements for Punto X solutions. They combine with a network of general suppliers and with players at local level who bring the expertise necessary for solutions to be set up in specific contexts. In the case of the Your all-inclusive meal service format they work with PrivatAssistenza, a national network of operating points that supply various individual and family services. For Your dining corner and Your personal meal-box formats, they collaborate with a series of small businesses running food vending machines. Finally, for Your take-away meal they join forces with the Nature Ride organic food shops. BioLogica plays the role of System Organiser among the

Platform Providers, who together produce an offer that can be described as a packet of B2B services directed towards other players. These in turn are required to integrate them with specific expertise and local actions. They are not generic clients, but partners in shaping the solution itself and an integral part of the system. Their relationship with this system is a result of strategic agreements. Therefore Punto X can in all senses be defined as a Partner-Based Solution: a solution system that would not be possible without strategic convergence by several players on a single vision. This process has been backed by the Politecnico di Milano, with Industrial Design expertise (Dipartimento INDACO) and Management Engineering expertise (Dipartimento DIG). Its main role has been to facilitate the generation of common ideas and encourage convergence by harmonising and pondering the various visions and interests.

**Becoming a Solution Oriented Partnership**  
Being part of a Partner-Based Solution, aside

EATING ON THE MOVE IS ONE OF THE MAJOR TRENDS OF CONTEMPORARY FOOD IN CITIES. ALSO THE DESIRE TO BUY FOOD ALONG THE STREET ON THE JOURNEY TO THE OFFICE/SCHOOL IS A REQUEST EMERGED FROM THE CONTEXT-OF-USE ANALYSIS OF PEOPLE HAVING LUNCH OUT OF HOME. "YOUR TAKE AWAY MEAL" IS A SOLUTION THAT PROPOSES ORGANIC READY TO EAT FOOD THROUGH POINTS-OF-SALE LOCATED IN CITY TRANSIT POINTS. SMALL, LOCAL FOOD SHOPS AIMING TO BECOME NEIGHBOURHOOD FOOD SERVICE CENTRES ARE, FOR INSTANCE, PERFECT WINDOWS TO OFFER THIS KIND OF SERVICE.

“YOUR TAKE AWAY MEAL”



from having tangible benefits and revenues from the developed solutions themselves, also means that each partner involved can benefit from activities that lie outside the scope of the solution oriented partnership and their related partner-based solution business plans. In particular, each solution oriented partner can benefit from what are called project spillovers, in which the mere act of collaborating with other companies creates the conditions for each to take advantage of the collaboration to generate knowledge that would not have existed if the partnership did not exist in the first place. Within this Solution Oriented Partnership, the Partner-Based Solutions generate the conditions for technological, competence-based and knowledge-based spillovers in which each partner is able to create synergies amongst themselves to expand their existing business horizons in terms of potential business opportunities. From BioLogica's perspective, the Partner-Based Solutions generates the condition to enhance their business model to include more service

oriented products and to reach completely new contexts of use. Before entering into a collaboration with the Politecnico di Milano and the other stakeholders, BioLogica's core business lay completely within the traditional retail industry where they specialized in delivering organic food to their customer base. With the development of the system Punto X, BioLogica has generated the setting for the development of a service portfolio that could transform its existing product portfolio into a product-service portfolio able to generate value through the knowledge and competence spillovers, in terms of food preparation and nutritional wellbeing that was obtained from the other partners.

The same is true for DS Medica, which brings to the system tried and tested competencies and experience in the nutrition and wellbeing industry through health and nutrition management software that was sold primarily through the specific niche market of the medical community. Through the Partner-Based Solutions, DS Medica is able to expand its

IN "YOUR DINING CORNER" THE USER INTERACTION WITH THE VENDING SYSTEM IS EASY AND THOUGHT TO PROVIDE A POSITIVE EXPERIENCE OF CHOOSING AND EATING. THE CHOICE IS GUIDED BY THE INFORMATION ON THE TOUCH SCREEN ACCORDING WITH THE DIET PROFILE OF THE USER.

AFTER WITHDRAWING THE FOOD, IT IS HEATED IN THE MICROWAVE OVEN (WITHOUT WORRYING ABOUT SETTING THE COOKING PROGRAMME BECAUSE OF THE BAR CODE IN THE PACKAGING THAT CAN BE READ BY THE MACHINE). NEVERTHELESS, THE USER PRESERVES THE POSITIVE EXPERIENCE OF TAKING CARE OF THEIR OWN FOOD PREPARATION. THE LAYOUT AND THE IMAGE OF THE CORNER, HAS BEEN DEVELOPED WITH THE AIM OF OFFERING A COMFORTABLE ATMOSPHERE, IN ORDER TO CREATE A QUIET ISLAND.



# PUNTO X: GET FED WITH WELLNESS

customer base within the medical community while generating more brand recognition to its product offering within different channels. Moreover, the company is able to test and gain experience through a direct channel with end-users (something that they were unable to do within their niche market since they were B2B software providers, so the only feedback they obtained from their real end-users was filtered through their users' family doctors etc). Even Whirlpool, a multinational manufacturer with a traditional product oriented business model, can find positive externalities through the development of the Punto X solutions.

Aside from the potential benefits of expanding its global reach through the development of innovative solutions, Whirlpool is able to take advantage of the competence and knowledge spillovers inherent in the collaboration with entities that lie outside its traditional value chain. In particular, the exposure to the solution oriented partnership approach, its methods and specific context development have illuminated potential ground for the

generation of future partner-based solutions that lie inside and outside the current realm of the Punto X solution offering. Through the Punto X project, Whirlpool is able to explore new ways to extend its existing business model by adding a service oriented dimension to their current product lineup.

### Solution architecture

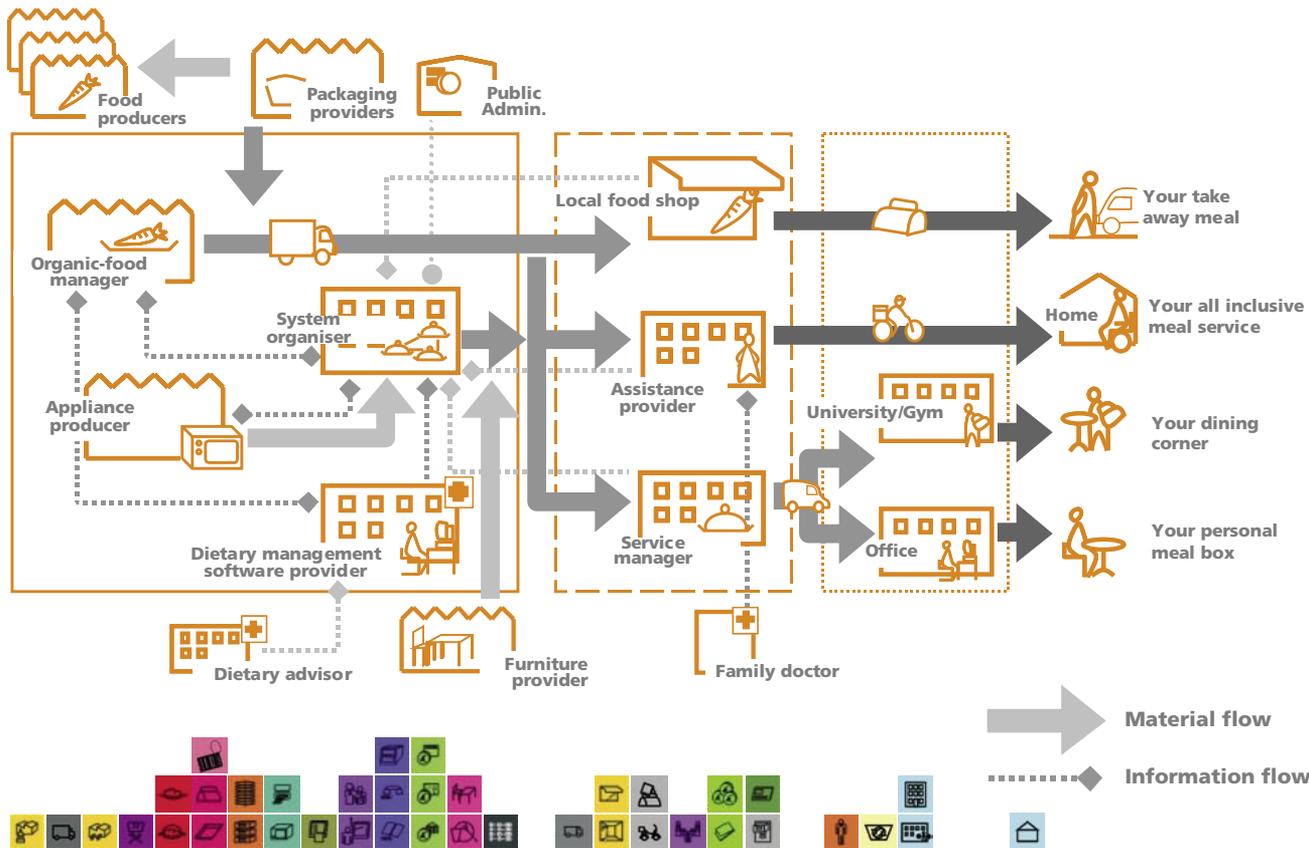
Punto X is the fruit of innovations in the form of the system combined with innovations in its constituent products and services. It has grown out of the systemisation of already partially existing parts, reorganised in new combinations and endowed with new meaning in the light of particular possible contexts of use.

The original value of the system lies in the possibility of combining the same competences and functions (or platform of products, services and instruments) in different ways, integrating them with local elements, so as to offer personalised solutions for different users.

Punto X pivots on five crucial subsystems, or functional groups, of products and services that

WITH PUNTO X, FOUR CONTEXT-SPECIFIC SOLUTIONS ARE DELIVERED THROUGH DIFFERENT SERVICE FORMATS ORGANISING THROUGH A FLEXIBLE, MODULAR, SYSTEM OF PRODUCTS AND SERVICES. A PLATFORM OF PARTNERS, DELIVERING A SET OF COMMON ELEMENTS (PRODUCTS AND SERVICES), IS INTEGRATED ON A LOCAL BASIS BY SPECIFIC ELEMENTS PROVIDED BY SPECIFIC PARTNERS. IN DOING THIS, A SINGLE SYSTEM, SOLVING A VARIETY OF PROBLEMS, OPENS POTENTIALLY NEW AND WIDER MARKET OPPORTUNITIES FOR THE SOLUTION PROVIDERS. FOOD PRODUCERS: BIOLOGICA AND OTHERS ORGANIC FOOD MANAGER: BIOLOGICA SYSTEM ORGANISER: BIOLOGICA APPLIANCE PRODUCER: WHIRLPOOL DIETARY MANAGEMENT SOFTWARE PROVIDER: DS MEDICA LOCAL FOOD SHOP: NATURA RIDE ASSISTANCE PROVIDER: PRIVATASSISTENZA SERVICE MANAGER: VENDING MACHINES MANAGERS

**Platform Providers**      **Integration Providers**      **Intermediate Users**      **Final Users**



determine its qualifying performance:

1 – an organic food network, run through a portfolio of selected suppliers, a specialised platform, targeted logistics (already set up to supply the chain of BioLogica shops) and specialised points of sale;

2 – a vast assortment of ready to eat or heat, fresh and seasonal organic and biodynamic dishes;

3 – an easy access professional IT food advice system, making it possible to run personalised diets for users with special needs (according to a set selection of pathologies, physiologies and food cultures) and helping users choose suitable dishes from a wide range;

4 – foolproof final preparation by means of packaging able to “dialogue” with specially provided microwave ovens, customised refrigerated containers and automatic food dispensers;

5 – a local delivery system and meal assistance integrated with primary and secondary logistics. This reaches right into the specific context of use, where specialised operators

or automatic dispensers fitted with intelligent food heating systems, puts meals on the table and manages waste.

### **Brand identity**

The system innovation advanced by the four solutions in Punto X requires a coherent image. In their DNA is the co-planning of three companies with different market orientations and missions, so it is impossible to think of a rehash of company labels, useless to think in terms of restyling. It is important to have a clear and unequivocal trademark to indicate an apparently complex system, which users must perceive as safe and easily identifiable.

Punto X indicates a physical setting, clearly recognizable in the choice of furnishing and graphics, whose name is associated with a new way of consuming meals. It is a metaphorical place bound to the quest for physical well-being. Here the user is able to take care of himself by eating well-balanced, organic food. The theme of well-being arising from the

THE PUNTO X SOLUTIONS PERFORMANCES ARE THE RESULT OF SEVERAL ACTIVITIES CARRIED OUT AT DIFFERENT LEVELS OF THE SYSTEM: IN THE SOLUTION “YOUR DINING CORNER”, FOR INSTANCE, TO ALLOW A USER TO CHOOSE, HEAT, AND ENJOY A MEAL, AN INTERCONNECTED CHAIN OF SERVICE ACTIONS MUST TAKE PLACE BEFORE, DURING AND AFTER THE CORE SERVICE PERFORMANCE. THE NEED TO REPLICATE, WITH THE SAME QUALITY STANDARDS, SUCH KINDS OF INTERACTIONS REQUIRES THE DESIGN AND FORMALISATION OF EVERY STEP, DEFINING APPROPRIATE PROTOCOLS OF EXECUTION AND RULES FOR THE ACTORS INVOLVED. WITHIN THIS FRAMEWORK, IT HAS TO BE NOTED THAT BETWEEN THE PLATFORM AND THE SERVICE MANAGER, THE INTERACTION IS VERY NEAR TO THE B2B FRANCHISE-FRANCHISEE SERVICES.



modern idea of caring for oneself through daily habits, is here realised through a system that offers new eating scenarios.

The brand and its colours are reproduced in every accessory, creating a brand identity that leaves little space for inaccurate interpretation. Punto X appears as a system, coherent in image but differing in solution, able to meet the new requirements of those who decide to feed on wellness.

### **Impact on context: benefits and opportunities**

Punto X offers the possibility of achieving results, rather than purchasing products. Its solutions are able to direct behaviour towards potentially more sustainable, satisfactory product-service systems.

It aims to maximise the positive elements of its impact on context – socially, financially and environmentally – by various actions that make up a general strategy:

- enhancing the value of organic food chains in both production and consumption;

- caring for the socially underprivileged, or people with practical difficulties as far as food is concerned, by facilitating access to a suitable diet and relative amenities;

- increasing the differentiation capacity of firms by offering solutions of high added value for the end-user, and expanding in each others markets or in totally new markets.

- activating/regenerating local operations by necessarily involving local players in setting up services close to the user and, in so doing, shaping new global-local relationships;

- mass-producing products and services to maximise productivity and economy of scale and scope, made possible by integrating functions. This leads to lower raw material and energy consumption than individual user solutions, at both production and consumption stage. Overall, Punto X can be presented as an example of a product-system able to activate win-win relations between different kinds of players on the market. These do not exclude leadership and enterprise roles for local players, fruitful co-operations between profit and non-

PARALLEL TO THE SOLUTION PUNTO X, A SOLUTION ORIENTED PARTNERSHIP HAS BEEN DEVELOPED, TO PROVIDE HEALTHY, CONVENIENT MEALS IN DIFFERENT CONTEXTS OF REDUCED ACCESS TO FOOD. THE MATRIX EXPLAINS EACH PARTNERS' MOTIVES IN OFFERING A SOLUTION, BEING A RESULT-ORIENTED SYSTEM, INSTEAD OF A SET OF PRODUCTS OR SINGLE SERVICES. THIS MEANS THAT FOOD IS DESIGNED FOR SPECIFIC NEEDS AND EASY ACCESSIBLE ALSO IN CHALLENGING CONTEXTS.

ORGANIC FOOD MANAGER:  
BIOLOGICA  
SYSTEM ORGANISER:  
BIOLOGICA  
APPLIANCE PRODUCER:  
WHIRLPOOL  
DIETARY MANAGEMENT  
SOFTWARE PROVIDER: DS  
MEDICA  
ASSISTANCE PROVIDER:  
PRIVATASSISTENZA  
SERVICE MANAGER: VENDING  
MACHINES MANAGERS  
SOLUTION CENTRE:  
POLITECNICO OF MILANO



. to find new business perspectives in the organic food industry

. a way to enhance the real value of the organic food offering

. competences in food processing

. specific knowledge of a very sensitive sector  
. inputs and feedback from the reduced access to food context

. expertise of a specific market  
. expertise in service management

. catalyst in the design and development of ideas  
. manage partner development

. expand business and new market opportunities  
. to become a food solution provider

. organic food market expertise to test the validity of the software

. to enter in non-medical markets  
. to open and finalise research in new areas

. competences in food processing  
. hardware appliances to be integrated with software

. specific knowledge of a very sensitive sector  
. a new area of business

. feedback from the final users  
. statistical databases

. to facilitate entry into new businesses  
. support in the design and development of ideas

. visibility and recognition to the end-user  
. feedback from new clients

. organic food market expertise to improve the performance of the appliances

. new criteria and dietary tools for the development of appliances for special food needs

. to find applications for advanced food appliances  
. to enter in the service dimension

. cognitive and physiological feedback to better design the interfaces of new appliances

. feedback from final users  
. inputs to integrate service and appliance design

. to facilitate entry into new businesses  
. support in testing of the solution idea with their customers

. new sales channels  
. service expertise

. high quality food products to be offered to customers

. a way to better satisfy customer needs  
. potential networking with food specialists

. a dedicated appliance for customers

. to complete the present service offering  
. to better satisfy customer needs

. to facilitate entry into new businesses  
. support in testing of the solution idea with their customers

. a new idea of service to be used to reach new customers

. new high quality convenience meals for vending machines  
. a new service concept

. adds value to the service portfolio

. a smart vending machine system

. to expand the service portfolio  
. to extend the offering to new contexts

. to facilitate entry into new businesses

. a new service to be used to contact new possible context of business

. knowledge and expertise from the organic food sector

. expertise in the dietary industry

. expertise and products in the white good appliances sector

. expertise in assisting people in a specific context

. expertise and entrepreneurship in the vending machine industry

. to develop expertise in solution design  
. to obtain visibility as solutions experts

. opportunity to test a methodological toolbox  
. expertise in the food sector

. organic brand identity  
. expertise in organic supply management

. advice and dietary management through professional software

. smart appliances for food processing  
. brand identity

. social dimension  
. access to a specific context

. service management in specific contexts

. tools and expertise to facilitate and manage the partner-based solutions

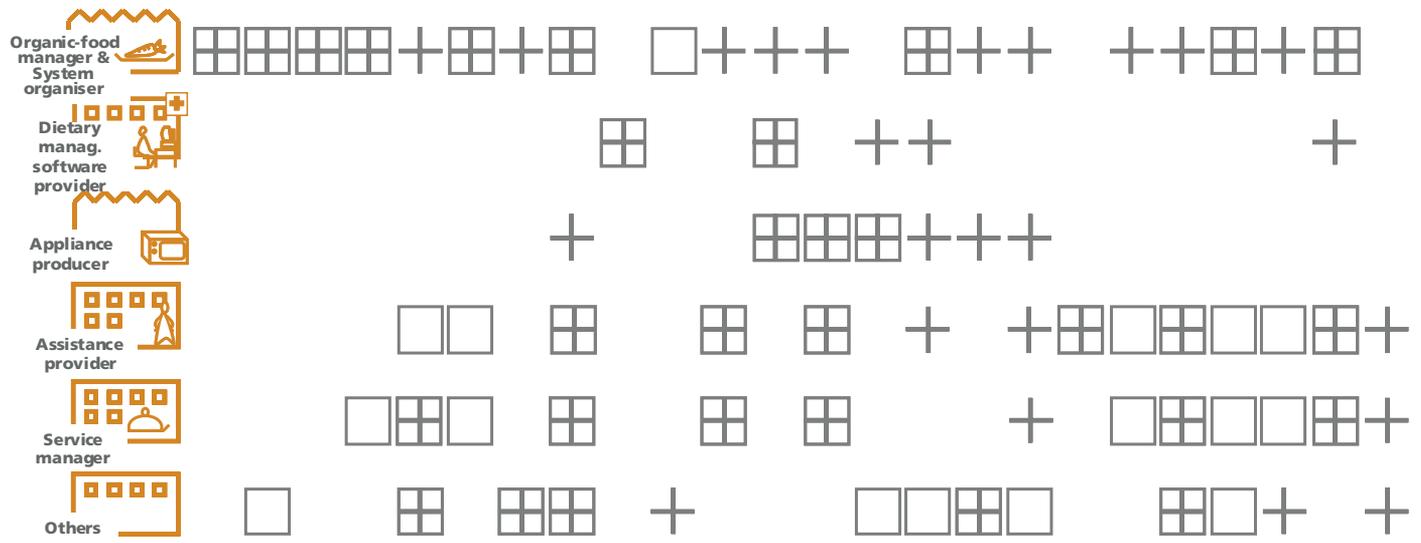
. to provide healthy, convenient meals in different contexts of reduced access to food

profit organisations, symbiosis between multi-nationals and SMEs, or specific market sharing, in a mainly bottom-up innovation logic that brings new skills, activities and services into play on a local basis.

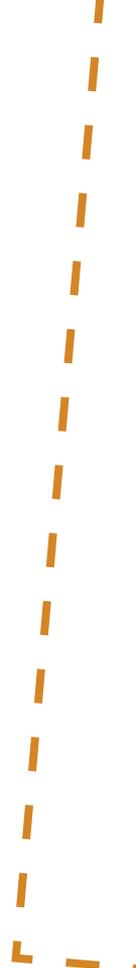
THIS CHART PROVIDES THE GENERAL FRAMEWORK OF THE FULL SET OF SOLUTIONS ELEMENTS (PRODUCTS, SERVICES, COMPETENCES) CONSTITUTING THE PUNTO X SYSTEM. THEY ARE PUT IN RELATION TO THE MAIN SOLUTION PROVIDERS IN ORDER TO DEFINE THEIR TASKS IN DESIGNING, BUILDING AND DELIVERING EACH OF THESE COMPONENTS. ONE OF THE MAIN CHALLENGES IN DESIGNING AN INDUSTRIALISED SOLUTION IS TO TAKE INTO ACCOUNT, FROM THE BEGINNING, THE ISSUE OF CO-ORDINATION AND INTERFACING OF ITS ELEMENTS. TO DO THIS, THE PARTNERS HAVE FIXED, FOR EACH COMPONENT, SOME FUNDAMENTAL CONSTRAINTS DUE TO THEIR REQUIREMENTS/CAPABILITIES, TO BE CONSIDERED FOR THE SUCCESSIVE ACTIVITIES OF PRODUCT/SERVICE DEVELOPMENT, CARRIED OUT INDEPENDENTLY BY EACH PARTNER.



**Solutions Elements**



# Transversal analysis





IV.1 User issues

## User issues

*François Jégou*

How can the three food delivery solutions be compared? What are the similarities and the differences? This chapter is the first of the third part of the book intending to propose a transversal analysis of the three Solutions Oriented Partnerships developed during the research project. It will particularly concentrate on the nature of the different solutions proposed: how do they answer to the various contexts of reduced access to food? How are they flexible and able to adapt to the different contexts? What are the consumer benefits at the level of the individual as well as at the level of the community?

### **What do you get?**

Looking at the three different proposals from

the user point of view, what strikes at first sight is the similarity of the end results. The product part of the product-service system – what I get in front of me, between fork and knife – although emerging from parallel projects in different countries look alike: pre-packed food in individual portions, ready to eat or to be warmed through a microwave system...The choice of this kind of solution is due to the necessity of delivering fresh food protected by a packaging to ensure preservation.

Looking more closely to the product, an important difference has to be underlined in the quality of the food. Punto X meals are exclusively based on ingredients coming from organic production ensuring both health benefits for the user and reduction of the

ALLOWING ELDERLY PEOPLE TO LIVE AS LONG AS POSSIBLE, INDEPENDENTLY AND IN THEIR OWN HOME, IS A KEY CHALLENGE FOR THE BALANCE OF PUBLIC SOCIAL ASSISTANCE. THE QUESTION OF AUTONOMY IN MEAL PREPARATION IS PARTICULARLY CRITICAL: ON ONE HAND IT IS ONE OF THE FIRST REASONS WHY ELDERLY HAVE TO LEAVE THEIR HOME FOR INSTITUTIONS. ON THE OTHER HAND, CURRENT MEAL DELIVERY SERVICES ARE VERY EXPENSIVE AND NEED TO BE SUBSIDISED BY SOCIAL SERVICES TO BE AVAILABLE TO THOSE WITH MEDIUM TO LOW INCOMES.

ALL THREE SOLUTIONS FACED THIS CRITICAL ISSUE. THE ADAPTABILITY OF THE PARTNER BASED SOLUTIONS ALLOWS THE SERVICING OF MANY DIFFERENT CONTEXTS WITH COMBINATIONS OF THE SAME ELEMENTS GIVING ACCESS TO A WIDER MARKET SHARE AND LOWERING THE COSTS OF SINGLE DELIVERY TO ELDERLY PEOPLE (AND PHYSICALLY HANDICAPPED PEOPLE) IN THEIR HOMES AND PROVIDING A BETTER QUALITY SERVICE.



environmental impact along the production process. In addition, Punto X proposes a series of traditional recipes promoting original plates from Italian regional cooking in comparison to most classical catering services, which are based on main stream cooking.

### How do you get it?

Zooming out from the product on my plate to the service that delivers it, the originality of the 3 solutions emerges strongly. The first characteristic to be stressed is the choice that is offered in delivery. Users of the three solutions are able to choose between a variety of dishes by ordering them a few days in advance. The ordering delay of the DuniChef solution is one day, offering to hospital patients a reaction time similar to classical household shopping management. Connected to these possibilities of choice, all three solutions offer diet management personalised to each customer but also adapted to the context: The DuniChef ordering system is able to integrate the patients medical diet and offer them a choice of meal within it; a Punto X installed at a gym may allow organisations to offer a sports package

with training and appropriate food.

### Structural flexibility...

Whereas marketing of most consumer goods only promotes small variations in products, the 3 solutions offer here a real flexibility: in terms of availability of different dishes but also according to context-of-use. Different Punto X settings are proposed in traditional shops, in vending machines and in collective or individual delivery. Each time the solution includes all the infrastructure and equipment in order to choose, heat and consume the meal according to what is available from the context. For the users of Punto X, this flexibility of the solution means access to organic food and traditional regional cooking in places where currently only street food is available. For hospital patients served by DuniChef, flexibility turns meals into an element of choice and expectation where food is normally "imposed". This ability to adapt the same solution to new contexts is a strong added value from the business point of view also. It may increase market share even facing a segmented demand. Paradoxically, this strong

THE CHART OPPOSITE PROPOSES A COMPARISON OF THE THREE SOLUTIONS USING SUCH USER-ORIENTED CRITERIA AS A CONSUMER ASSOCIATION MAGAZINE MAY PROPOSE TO ITS READERS. THE THREE SOLUTIONS APPEAR TO BE VERY CLOSE TO EACH OTHER, SERVING MANY DIFFERENT CONTEXTS-OF-USE, OFFERING CHOICE BETWEEN DISHES AND DIET SUPPORT. THE MAIN DIFFERENCES APPEAR IN THE GENERAL PROFILE OF THE SOLUTION. DUNI-CHEF PROPOSES A STRONG CENTRALISED ORGANISATION THAT CAN SERVE LARGER SCALE INSTITUTIONS LIKE HOSPITALS AND OFFERING A VERY HIGH LEVEL OF PRE-DETERMINED FLEXIBILITY SUCH AS TIME TO DELIVER AFTER ORDERING. PUNTO X AND LA FIAMBRERA ARE MORE NETWORK-LIKE ORGANISATIONS ADAPTED TO SMALLER SCALE TARGETS WITH A MORE DIVERSIFIED FLEXIBILITY ENABLING EACH LEVEL OF GLOBAL AND LOCAL PROVIDERS, AS WELL AS USERS, TO CUSTOMISE THE SOLUTIONS IN TERMS OF DELIVERY, KITCHEN SUPPORT AND VARIETY OF CONTEXTS-OF-USE SERVED.

# Food delivery solutions

User benefits in terms of:	DUNlchef	Punto X	La Fiambrera
<b>Access to food...</b>			
• Preparation:			
• Delivery:	cold chain ready to (h)eat to individuals/collectives	cold chain ready to (h)eat to individuals/collectives	cold chain ready to (h)eat to collectives/individuals
• Kitchen support:	standard equipment	code based microwave	tableware kit
• Delay between ordering/delivery:	1 day	7 days	4 days
<b>Meal characteristics...</b>			
• Food source:	catering	organic	catering+market
• Preservation:	chilled (0 - 4 °C)	chilled (0 - 4 °C) + modified atmosphere	chilled (0 - 4 °C)
• Choice at ordering between:	3-4 ≠ meals	3-4 ≠ dishes	3-4 ≠ meals
• Diet management:	checked hospital diet	personal profile based	personal profile advice at ordering
<b>Contexts served...</b>			
• Large institutions:	yes	as a supplement	as a supplement
• Small collectives:	yes	yes	yes
• Take away:	yes	yes	no
• Home delivery:	yes	yes	no

structural flexibility in terms of food choice and context extendibility does not show in the design of the products and presentation of the service. Similar packaging and unified image for all different situations: for old singles and young sportsmen; for social services and business market; for hospital and at home... On one hand, this choice may be challenging in terms of marketing but it points to recognition of the brand and it is an interesting characteristic in line with all best practices of non discrimination in "intergenerational design" and "design for all".

### **Enabling dimensions of the solutions...**

Another interesting dimension of the flexibility offered by the 3 solutions is a stronger participation at local and individual levels. The product-service system is not completely defined by the core provider but a certain level of "improvisation" is left for the local provider and/or the user. It is clearly illustrated in La Fiambrera and the Punto X capabilities to integrate into the delivery of the meal other products: fresh fruits and vegetables from the market, small daily shopping like

milk and bread, a newspaper... increasing not only the individual benefits but also the potential environmental sustainability by allowing synergies in delivery. In addition, such flexible solutions are open to the development of additional benefits. In La Fiambrera for example, the fact that an elderly user did not pick-up their meal is the sign that they may be ill, and the social services can be informed. The Social Services may then develop a low cost, non-intrusive assistance for the subscribers. Another example, again in La Fiambrera, is the participative dimension of elderly people picking-up their meal instead of waiting for it at home. The solution is customised for the segment of people who are able to walk but not able to cook and can't afford or manage ready-to-eat pre-packed food sold in supermarkets. The added benefits represent the enabling dimensions of the solutions which allow each contributor to the solutions (provider as well as user) to improve it according to their particular capabilities and interests.



## Industrial issues

Peter Joore

In this chapter an analysis is made of the three cases, viewed from an industrial and an organisational perspective. How did the companies cope with creating the new Partner Based Solutions, and how useful was the application of the Solution Oriented Partnership approach? A closer look is taken at the solutions that have been created, and the way that they have been developed. Looking at the lessons that can be learned from the three cases, it is concluded that they all show very encouraging results regarding the original goals of the Solution Oriented Partnership approach.

### Solution Oriented Partnerships

In each of the three cases, a new partnership

has been created to deliver the envisioned solution. The core partnership consists of maximum three partners in each case, the platform providers. The initial partners Biologica, Duni and CDN, being the platform promoters, have become part of the solution oriented partnership in each case. However, they did not always have the leading position in it. While CDN was the platform promoter for the Fiambrera case, Eurest clearly has a core role in the solution. Also in the DuniChef case, the new partner Trittico plays a core role in the solution delivered. It is clear that these new partnerships are much further developed than regular buyer-supplier relationships. Although the relationships between the various partners

*From 'Platform Vision' to 'Partner Based Solution'*  
 THE PLATFORM VISION OF BIOLOGICA, 'GET FED WITH WELLNESS' WAS ELABORATED INTO THE 'PUNTO X' SOLUTION. THE ORIGINAL VISION, OF FEEDING YOURSELF WITH WELLNESS AND HEALTH, IS THUS TRANSLATED INTO A SOLUTION THAT ENABLES THE PROVISION OF ORGANIC FOOD IN PLACES WHERE IT WAS ORIGINALLY NOT AVAILABLE. DUNI'S PLATFORM VISION 'FREEDOM OF CHOICE', WHICH WAS FORMULATED IN THE FIRST PHASE OF THE SOLUTION ORIENTED PARTNERSHIP PROCESS, WAS ELABORATED INTO THE 'DUNICHEF' SOLUTION. IN THIS SOLUTION, THE FREEDOM OF CHOICE WITH REGARDS TO PORTION SIZE, THE KIND OF FOOD, THE PRICE AND THE DIETARY NEEDS LIES AT THE BASIS OF THE SOLUTION. CDN'S 'GOOD FOOD FOR ALL' VISION EVOLVED INTO 'LA FIAMBREIRA' SOLUTION. THIS SOLUTION ENCOMPASSES THE ORIGINAL GOAL OF PROVIDING HEALTHY FOOD FOR ALL PEOPLE, INCLUDING THOSE WITH PHYSICAL OR SOCIAL LIMITATIONS.



GOOD FOOD FOR ALL: LA FIAMBRERA



FREEDOM OF CHOICE: DUNICHEF



GET FED WITH WELLNESS: PUNTO X

are less fixed than originally anticipated, the cases show that the concept of a network of partners together providing a partner based solution can indeed function successfully.

### **Involvement of non-profit partners**

Non-profit partners play a crucial role in the solutions. This is most clear in the Fiambrera case, where the local government Rubi has the responsibility to provide food for the needy. They play an active role in enabling the solution as they organise the location of the coolbox on the market, where the food and shopping goods for the SME employees are picked up. They also had a strong input in the design phase, for instance stressing that the peculiar habits of the users definitely needed a coolbox with separate compartments that could be locked individually.

### **Global – local elements**

One of the ideas behind the Solution Oriented Partnership approach is the concept of producing important elements of the

solution on a larger global scale, while locally adding specific solution elements. While in the Netherlands co-operating with Trittico, Duni is already working with other European hospitals to realise new DuniChef implementations, using the same solution layout and the same packaging elements. In the La Fiambrera case, Eurest is taking steps to implement similar solutions in other European countries. It can be seen that the local adaptability of the partner based solutions are enabling the implementation of these solutions on a larger European scale.

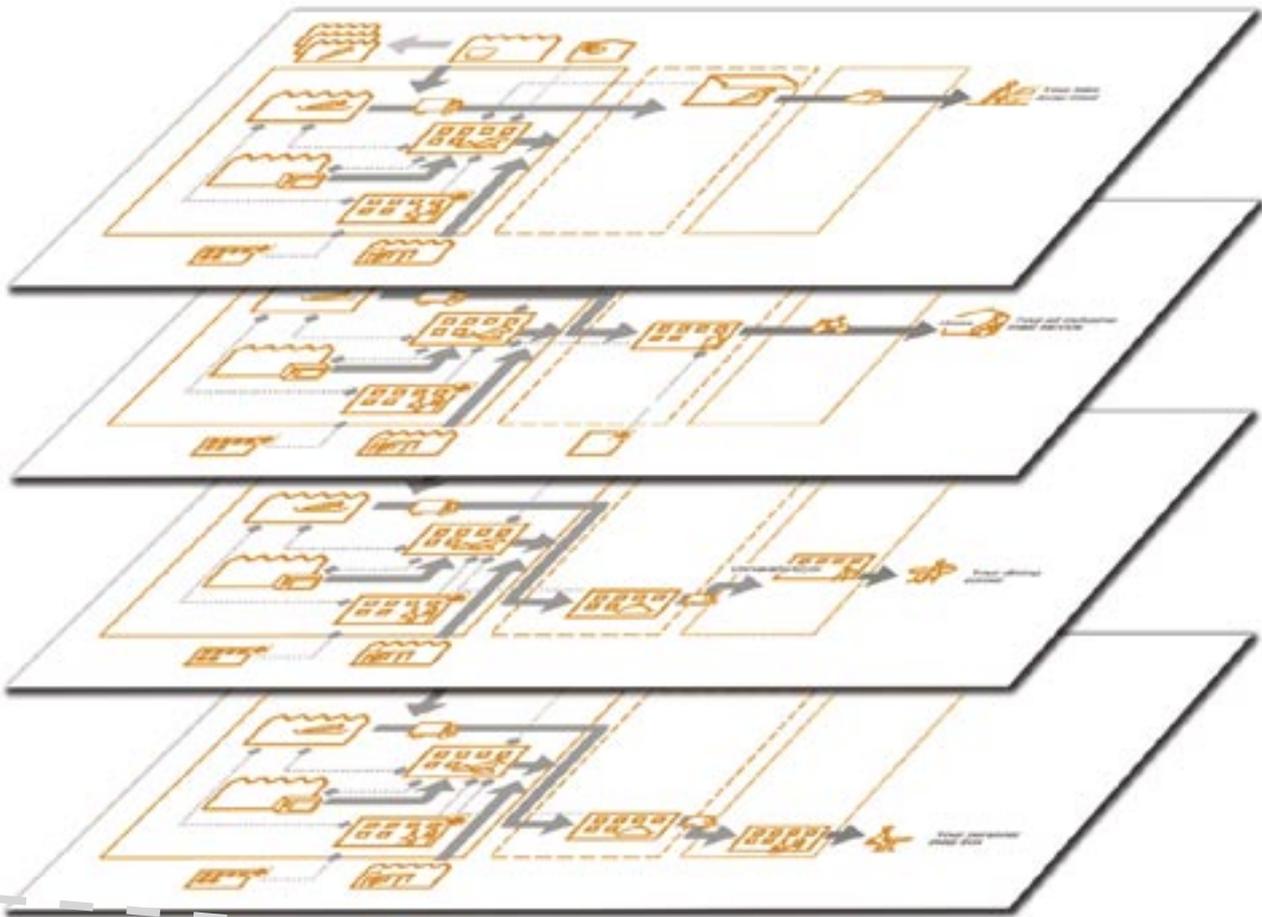
### **Reaching new markets**

For all companies involved, the Solution Oriented Partnership approach has resulted in entry to new markets that otherwise would have been hard to reach. The background of Biologica, mainly selling raw vegetables, placed them far away from the actual end users. Through the new focus on providing total food solutions, the Solution Oriented Partnership approach has created a new distribution

### *Platforms*

IN EACH OF THE THREE CASES AN ORGANISATIONAL AND TECHNOLOGICAL PLATFORM HAS BEEN DEVELOPED, WITH SEVERAL RELATED SPECIFIC SOLUTIONS BASED ON IT, EACH ESPECIALLY SUITED FOR A SPECIFIC CONTEXT-OF-USE.

IN THE PUNTO X CASE, FOUR SPECIFIC SOLUTIONS ARE BASED ON THE SAME PLATFORM FOCUSING ON ORGANIC FOOD. IN THE LA FIAMBRERA CASE, THE PROVISION OF PREPARED FOOD FOR SOCIAL SERVICES IS COMBINED WITH A SHOPPING SERVICE FOR SME EMPLOYEES, BOTH SOLUTIONS BASED ON A PLATFORM WITH A STRONG LOGISTICS BASIS. ALTHOUGH THE DEVELOPMENT OF THE PLATFORMS HAS BEEN A LESS RIGID PROCESS THAN ANTICIPATED AT THE BEGINNING OF THE PROJECT, THE CONCEPT OF CREATING TECHNOLOGICAL AND ORGANISATIONAL PLATFORMS HAS BEEN AN IMPORTANT TOOL IN CREATING VIABLE PARTNER BASED SOLUTIONS.



channel for their biological (organic) food.

For Eurest, being a large caterer, small SME's and individual households were a market that was too dispersed to economically serve.

The La Fiambrera solution has created a way to connect several customers that were too small on their own, creating a whole new market that could formerly not be reached.

For Duni, the Solution Oriented Partnership approach has opened the door to the care market. Although the care market was appealing to them, Duni had a hard time entering this market on their own as the way of working was rather different than they were used to. In the process of creating the new Partner Based Solution, they joined forces with Trittico, a company that already had strong ties in the care market, thus opening doors for Duni that normally would stay closed. The fact that Duni has now started a new business unit around the DuniChef solution is clearly showing the success of the Solution Oriented Partnership approach.

### **Sustainability**

In parallel with social and economic benefits, one aim of creating Partner Based Solutions is to improve the environmental impact of the solutions. The Punto X solution, selling organic food, can be considered as 'inherently sustainable': *The more organic food that is sold, the better it is for the environment.*

In the La Fiambrera solution, the main environmental gain is achieved by combining the transport of prepared food and shopping goods. The introduction of one pick-up point for the prepared meals on the market, instead of delivering from door to door, further reduces the amount of transport needed. In the DuniChef solution, the portioning of the food enables the customer to order exactly the amount of food needed, thus reducing the amount of food that is not eaten and is then thrown away.



## Solution Oriented Partnerships and Solution Centres

Tom van der Horst

### Solution Oriented Partnerships: the ambition

This book is the result of the European research project called HiCs. Within this project a new innovation approach, *the Solution Oriented Partnership* approach has been developed based on experiences in real life cases.

The ambition has been to facilitate companies and government with an approach to conceive and develop industrialized, systems of products and services called *solutions*. Solutions, which are specifically related to a given user in a given context, that are sustainable, and that are delivered in a highly effective way by a network of local and global partners.

### What can be concluded from the cases?

An important result for the participants of the project was the co-operation of organisations in *solution oriented partnerships*, which would normally not work together. This has resulted in new solutions for companies to enlarge their business and new solutions for government or government related organizations to improve their social services.

The solutions that have been developed are prepared to be *multiplied*. Solutions developed for one specific context-of-use can be adapted to fit other related contexts-of-use at the same time. And they are based on an *industrial structure* with global and local elements.

The solutions that have been developed

THE IMAGE SHOWS EXAMPLES OF THE APPLICATION OF THE SOLUTION ORIENTED PARTNERSHIP APPROACH IN OTHER DOMAINS.

SEVERAL NEW INITIATIVES HAVE ALREADY BEEN STARTED IN DIFFERENT CONTEXTS. EXAMPLES INCLUDE MOBILITY, HEALTH AND CARE, LIVING AND OFFICE SOLUTIONS.

THE BOOKS ON THE IMAGE ARE VIRTUAL AT THIS MOMENT. YOU ARE ENCOURAGED TO HELP WRITING THEM IN THE NEAR FUTURE!



are *sustainable* in three ways: profitable for companies, beneficial for society (offering a social added value creating local jobs and enabling individuals in new local processes) and ecologically improved compared with existing solutions. In this sense the solutions have appeared to fulfil the needs from government also in reaching a combination of societal aims.

Based on the above conclusions it can be stated that the *multiplication* of the solutions within next future is a shared interest for companies and government.

The fact that there has been this unique possibility to build up experience with this approach *in real life projects* was important for the competence development of all partners involved. The development from shared visions to solutions in concrete practical situations tied together the partners, pushed the new solutions forward and created a strong learning experience. Further development and application of the approach in real life projects should be continued in the future.

Moreover the Solution Oriented Partnership approach has developed and tested a way of innovating that has potential for domains other than food, and should be transferred to these domains also.

### Conditions

The cases have learned taught us about the conditions that contribute to failure or success. Companies can learn and benefit from working with the Solution Oriented Partnership approach as long as they are open to new visions from unexpected players and have the willingness and power to translate these visions into working practise. All organisations involved in the HiCs project were in that position.

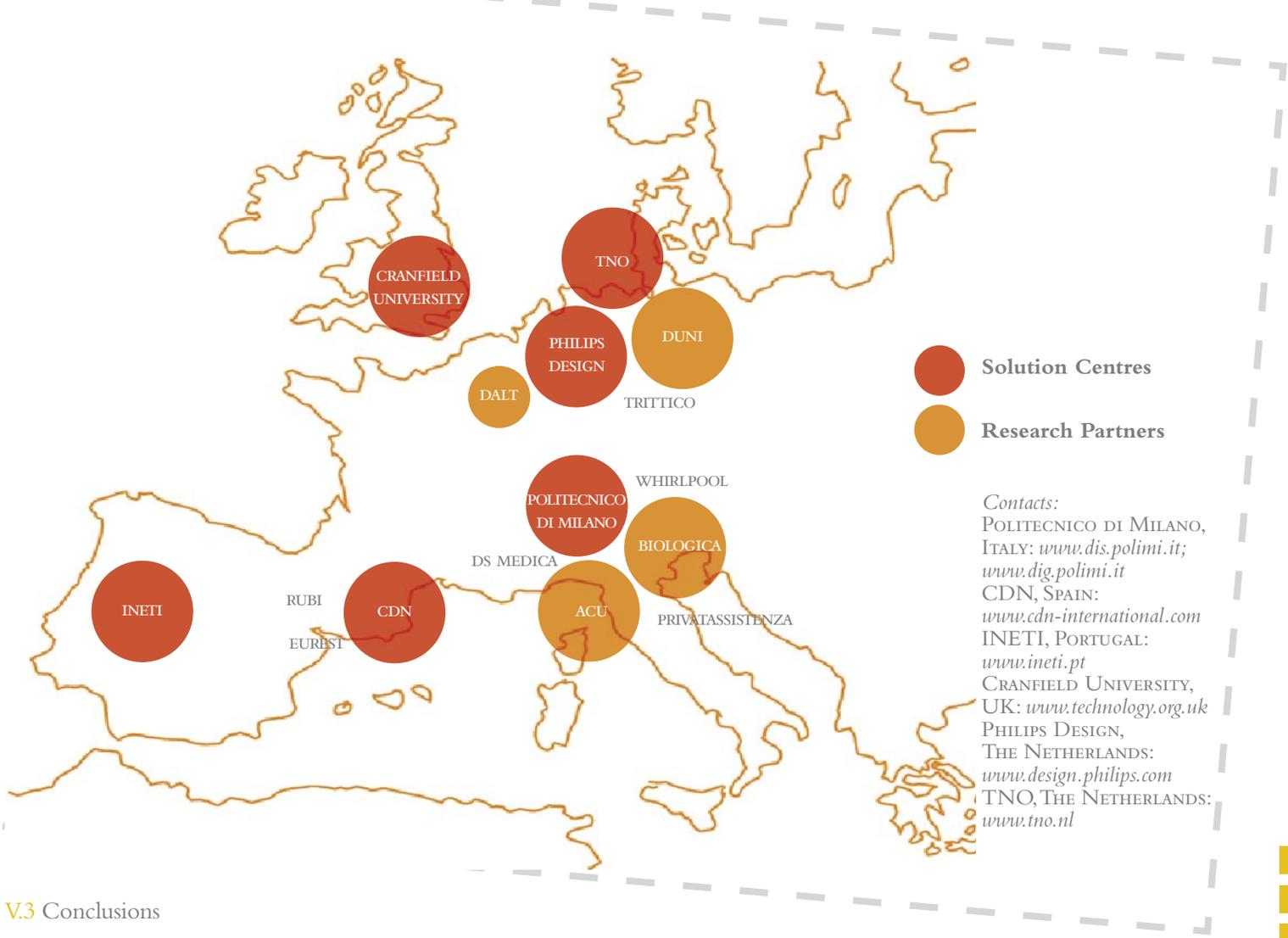
The cases illustrate that it is important to position the innovation projects at a strategic level in the organisation because of the major impact they can have.

It has appeared that the contribution of government is important to improve conditions for the innovation of sustainable

*The Solution Centre network*  
 THE SOLUTION CENTRES NETWORK AIMS TO TO ASSIST COMPANIES, NGOs AND GOVERNMENT TO DEVELOPING SUSTAINABLE SOLUTIONS BASED ON THE SOLUTION ORIENTED PARTNERSHIP APPROACH. SERVICES THAT CAN BE DELIVERED BY THE SOLUTION CENTRES INCLUDE A.O.::

- VISION AND SOLUTION DEVELOPMENT
- PARTNERSHIP BUILDING, BOTH LOCAL AND INTERNATIONAL
- GUIDANCE WITH THE SOLUTION ORIENTED PARTNERSHIP IN PRACTISE.

SOLUTION CENTRES CURRENTLY EXIST IN: ITALY, SPAIN, PORTUGAL, THE UNITED KINGDOM AND THE NETHERLANDS.



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solutions. Government can assist in many different roles, i.e.: in setting priorities on specific sustainability issues for specific areas, as a client for the new solutions, as a sponsor of development, and as partner in local initiatives, and as a facilitator of the multiplication of successful sustainable solutions, for instance by creating incentives for them in the market.

### **Solution Oriented Partnerships in Europe: next steps**

The success of the cases in this book gives confidence that the Solution Oriented Partnership approach enables innovations that can fulfil the interests of companies, NGOs and government in the Europe of tomorrow. For companies the approach is an opportunity to build up experience with and create new sustainable business as a result. It has appeared that there are many different and good ways to start up projects. An important opportunity for government is through further dissemination of the Solution Oriented Partnership approach, including domains other than food. To do so,

the development of real life projects with new consortia and with clear learning aims should have the highest priority.

For those who want to know more about the background of the projects, Further on it is recommended to also read the book: *Solution Oriented Partnerships. How to design industrialized, sustainable solutions?* The Solution scan, explained mentioned in this book, can be used to get a first impression of the opportunities and new perspectives and point of views of that the Solution Oriented Partnership approach can create. To assist companies and government with further implementation of the approach a network of Solution Centres has been will be established. Partners of the HiCs project have formed this network in at least five countries: Italy, Spain, Portugal, the United Kingdom and the Netherlands. References are given in the captions of this page.

So let's start *solutioning* Europe for the 21th century!

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Peter Joore works at the Dutch research institute TNO, coordinating multidisciplinary innovation projects in the field of sustainable product and system innovation. He is currently working in the areas of short distance mobility and sustainable food solutions. In the SusProNet thematic network, Peter is responsible for the need area 'Food'. One day a week he works at the Mobility Unit of the faculty of Industrial Design at the Technical University Eindhoven.

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Helma Luiten joins TNO Strategy, Technology and Policy. At the department of Sustainable Innovation she has developed, among other things, scenarios for Households in 2020 and their waste generation, a foresight study on new technologies, and co-developed new sustainable services for an energy company in Holland. She works on social sustainability assessment and on the concept of Inherently Sustainable Business Models where she focuses on customer needs and attractive value propositions.

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Pia Valota is an architect specialising in housing and standardization issues. In the 1980s she came into contact with the *European consumer movement*, becoming the Italian representative for ANEC—the EU organization for consumer participation in standardization. She co-operates with ACU *Associazione Consumatori Utenti* onlus, a not-for-profit consumer Italian NGO. She was named ACU Lombardy regional president in 2001. She is Secretary General of AEC “Association of European Consumers”.

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Simona is senior research consultant within the Strategic Design department of Philips Design, where she deals with sustainability-related corporate projects and design research activities. She chairs the sustainability Creative Solutions Platform and is responsible for the global sustainability research program. She is author of several publications on sustainability and brand/innovation design processes and lectures in European design and business schools and is Visiting Professor at Externado University, Bogota.

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Erik Indekeu, born May 18th in Bree, Belgium. He studied Latin-Mathematics at the Salvatorcollege, Hamont-Achel, Belgium. After his secondary education he graduated in 1990 at the *High Institute for Integral Product Development*, Antwerp. He worked for the Design Department of Tupperware Europe in Aalst (Belgium) from 1991 till 1995. Since the end of 1995 he is working as Senior Product Designer at the *Design Department of Duni Travel* (formerly De Ster). Duni Travel develops and manufactures mainly meal service solutions for the airline in-flight catering.

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Menno studied business science at Rotterdam and is fascinated by innovation, creativity and its management. After working in a Dutch consultancy, he moved to Barcelona leading European research and innovation projects for various companies. Then joined CDN, a product design consultancy as Innovation Manager and has led new services and methods for product innovation strategies and their application. Menno is Innovation Manager at CDN, has a passion for the saxophone and for his 3 year old daughter.

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Laura works as a project manager in Applied Innovation at CDN, designing new business scenarios and co-designing products and services. She delivers projects focusing on extreme users, especially the elderly and children, and carries out user-centred brand and product repositioning. She is a member of the EC project “Disrupt it”, where she assists companies in recognising disruptive innovation opportunities. She collaborates with the Strategic Design Department of Esade Business School in Barcelona.

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Tom studied Industrial Design at Delft University of Technology then joined TNO Industrial Technology as head of the product development department and a founder of the Kathalys centre for practical product innovation. He has experience in a range of practical research and innovation projects in co-operation with multinationals and SME's. Tom joined STB in 2001 as a senior researcher and is head of the Sustainable Innovation team. He is co-manager of the TNO Sustainable System Innovation initiative.

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