

FRIDGE

Development of food industry SME competitiveness for better potentials in growth

Specialty Group Questionnaire

Topics: Investment in new machinery
Increasing productivity

Szekszárd, 30.09.2021.



Analysis of Specialty Group

The aim of this study and the interviews it is based was to gather specific information on investment priorities, investment tools and opportunities; to learn more about how to increase productivity and last but not least, given that almost a year has passed since the outbreak, learning more regarding COVID-19, what effect the epidemic had on food industry SMEs.

The information gathered with the questionnaire helped us identify more specific the territorial needs and explore how SMEs interact in the three topics we have set out to learn more about. Starting from the first Specialty Group dealing with reaching new markets from SMEs, this information can be used in a complimentary manner to the Analysis of Regional Food Industries and the Comparative examination on regional policies (to be found on the FRiDGE website: <https://www.interregeurope.eu/fridge/library/>) For the Action Plan to be developed within FRiDGE by all partners, specific reference points to support the proposed Actions might require more specific reference points. This is especially important from the perspective of the exchange of experience, as we refer to activities done within project FRiDGE.

Having already explored the current processes with regards to reaching new local, national or international markets, and having analysed the support system in the partner countries, the FRiDGE partnership set out to learn more about productivity, trainings and HR-policies as well as the effects of COVID-19, and last but not least peculiarly about the waste and by-product management in the food sector.



1. Impact of investments on infrastructure improvement

1.1. Investment in new machinery

- Did you procure new machinery in the past 5 years?

Almost all the interviewed companies have invested in new machinery in the past 5 years. Exceptions are those who have started business lately, had the equipment of machines and other inventory in a good standard or because of lack of resources.

- If YES, what kind of machinery did you procure? (Description of specific investment elements)

Machinery generally was procured to facilitate production and other processes, simplifying the production, making it more sustainable or replacing the old one, selecting higher quality.

- If YES, what was the reason to invest in new machinery? (examples: increase profitability; produce marketable products and services; product development; product structure change or modernization; adaptation for new conditions, etc.)

The main reasons to invest into new machinery was to increase the productivity and profitability, changing or modernising the production structure and to adapt to new conditions (purchasing an IT system in order to make remote work possible, opening online shop). There were ecological reasons as well, like investing into new eco-friendly packaging and packaging-machine. And of course, investing in greener infrastructure leads to a decrease in energy bills.

- If YES, what was the source of the investment? (examples: tender support; loan; own resources; tax benefits; other external resource; others)

The source of the investments were varied;

- In **South-Ostrobothnia**, it is very popular that the companies use multiple sources for the investments such as loans from Finnvera (a specialized financing company supporting SMEs, owned by the Finnish State), private bank loans, Leader-funds and own capita. One of the companies had to make the investments completely with own funding and the entrepreneur also took substantial personal risk to make the



investments. So for two of the companies funding from external sources was not an option because of the unstable financial situation they had.

- In **Tolna County**, in addition to tender funding, the companies' own resources were used. Two companies took out a loan, one of them solely to meet the conditions of the tender. Representatives of the companies also reported difficulties with their applications. Among them, the biggest problem is protracted decision-making
 - In **East-Flanders**, most of the investments were paid off with own resources, some of the producers were granted bank loans and one of them got subsidies.
 - In **Bavaria**, eight companies indicated that they had made the investments from their own resources. Credit, funding and tax support were only mentioned in addition.
 - In **Harghita County**, the investments were made mostly from own resources, but some companies mentioned regional funds as well
 - In **Western-Macedonia** the source of the investments were made from own funds, bank loans and EU contribution through ERDF and ROP 2014-2020.
- If NO, what kind of barrier hindered the investment? (examples: lack of funds, lack of information, oversaturated market, regulatory environment etc.)

The barriers for investments are mostly financial, companies either being in an unstable financial situation or not having enough resources. Based on the limited amount of responses it seems likely that for most SMEs, lack of information about machinery in their field of operation is not an issue, therefore the main barrier for investments is the lack of funds. Several countries reported that for smaller food industry SMEs, appropriate funding instruments, information and management skills for applications is lacking (Report on comparative examination, pp. 36), and relying on their own funds is not enough to carry out investments. Furthermore, administrative issues can hinder effective utilization of support as seen in Hungary and reported by other partner countries in the SME survey as well. New, clear and easily accessible funds need to be created especially for smaller food industry SMEs to enable them to grow in terms of machinery, and thus ultimately in productivity and efficiency.



1.2. Refurbishment of existing buildings, construction of new buildings

- Did you invest in your buildings stock in the past 5 years?
- If YES, what kind of investment did you carry out? (Description of specific investment elements)
- If YES, what was the reason to invest into buildings? (examples: to increase the expand the total floor area, renew, reorganize or modernize existing buildings, building systems, construct new buildings, investment of info-communications, improving energy efficiency, use renewable energy sources, other modernization to narrow environmental pressure, etc.)
- If YES, what was the source of the investment? (examples: tender support; loan; own resources; tax benefits; other external resource; others)
- If NO, what kind of barrier hindered the investment? (examples: lack of funds, lack of information, oversaturated market, regulatory environment etc.)

Most of the interviewed companies have invested in building stocks in the past years. Those who haven't, had the same reasons as above; lack of resources or no investment was necessary.

- In **Harghita**, 4 companies out of the 5 have invested only in **preservation** of existing buildings using own resources, except one who applied bank loan and different project funds as well. The company that answered with no, had financial difficulties.
- In **East-Flanders**, all of the respondents invested in their buildings stock, mostly because of the **severe environmental regulations**. Investments mean new roof, new lighting system, new heating system, and new cooling system for a candy factory.... Their buildings also have to be adapted by 2030, to answer to the new ecological regulations. On the other hand, most of them also mention that this meant a big advantage for their energy bills. Most of them pay off the investments with their own resources, two of them also got a bank loan. One of them is looking to invest in new buildings to increase the efficiency and the productivity of the farm. One of the producers has also invested in a new building because he outgrew the previous one. His company is growing so fast he had to change locations.
- in **Bavaria**, both the companies who were asked directly answered with YES. In the period April - May 2021, the shop was renovated, enlarged, and reconstructed. They needed more space in the shop to offer more



products. The investments were financed by the business itself and partly through funding programmes.

The components of the investment were a clean room, a sanitary room, a cooling and a freezing machine. The idea behind was to achieve independence and a higher level of regionality in production. Therefore, the regionally produced products should strengthen the own region through direct marketing and the networking of regional shops among each other. The investments also save energy through newer equipment and ensures added value and jobs in the region.

Online five out of nine companies answered the question whether they had invested in buildings in the last 5 years with YES. The main reasons for these investments were the renovation or modernisation of the buildings. In addition, increasing the total floor space, constructing of new buildings, improvement of energy efficiency and use of renewable energy sources were also mentioned. Financial support for investment was provided in the form of loans and own resources, as well as funding.

The 4 companies that did not invest in buildings mentioned a lack of resources, the regulatory and legal environment or framework conditions as well as other reasons as obstacles for investments. One company did not invest because it was simply not necessary.

- In **South-Ostrobothnia**, the answers to these questions vary among the companies. Two of the companies have not invested in building stocks as there has not been a need for such activities.

The rest of the companies have made investments for buildings.

At the herbs and sap producer the investments were not necessary as the company has started its business less than five years ago. Investments have been made to fix the main building and to build up production facilities and storage page.

One of the bakeries have made substantial investments for building up a new logistic center and to expand the cafeteria and food store area attached to the bakery. They also have renewed and modernized the office spaces.

The brewery has refurbished the factory and production facilities to better suit the expanding production.



As with the investments for new machinery, the companies have utilized funding from Finnvera, their local Leader group, bank loans and own funding.

- In **Tolna County**, the apiary has not made any investments, because they were unable to apply for the tender in this regard.

In the case of the oil press company, the renovation and modernization of the existing buildings is ongoing. Over the past five years, there has been external preservation, replacement of roofs and doors, and thermal insulation. All this was done from the company's own resources. In a previous period, the modernization of the heating has already been implemented. The pellet boiler is suitable for incineration of waste generated during production.

At the poultry processing company an entire territorial expansion of the slaughterhouse has taken place in the last five years. An old building was demolished, and a new part was added to the previous plant, and an extra floor was added, too. Thus, a new mechanical space was created, modern social rooms were established and the modernization of the entire slaughterhouse took place. The processing plant was restructured and the cooling capacity was expanded by building a cold store. In addition, energy efficiency has been improved: solar panels were set up on each roof except the northern, enabling 20% of the electricity consumption to be replaced by renewable energy. Waste heat from the cooling is used to produce water heating, so that hot water can be produced in this form. Thanks to the energy upgrades, gas consumption has been reduced to 1/3 and thus, CO₂ emissions have been significantly reduced. They have their own sewage treatment system, which does not burden the sewage system of the town.

In the case of the fruit processing company, a completely new plant has been set up as it is a new operation. The building houses the processing plant itself, the packaging plant and the storage. Also, the offices of the company are located on the first floor. To reduce the environmental impact, they work with water from a drilled well, purified by reverse osmosis, and a sewage treatment system has been developed to treat the wastewater generated in the plant, which does not burden the town's sewage network. Solar panels have been installed on the building for the use of renewable energy, and the thermal insulation of the building also meets the latest standards. In addition to their own resources, tender support was also used for these works.



At the winery, two buildings have been built over the past five years. Both are for wine storage. A complete technical building system was also completed from tender sources, solar panels and solar collectors were installed. Their current tender is also aimed at increasing energy efficiency, among other things: the building, built in 2013, is undergoing electrical renovation and modernization. In addition to own resources, loans and tenders were used for each investment.

- In **Western Macedonia**, according to our Greek partner there was no specific investments in buildings' stock. Most SMEs in the Region of Western Macedonia are very careful in expanding their building premises, since the financial crisis plus the pandemic crisis is negatively affecting their development plans.

Investments in the building stock shares similarities to those in machinery, as companies in a less advantageous financial situation are postponing refurbishment of buildings or construction of new ones. A key difference of course is that it is more likely for them to invest in machinery instead as buildings are not directly perceived as a driver of productivity. As the Belgian example shown, the secondary benefits of refurbishment (especially in terms of energy efficiency) can pay off on the long run, and food industry SMEs are not necessarily aware of these advantages. Of course, given the strict standards and regulations regarding food industry are also an important driver in building refurbishment choices and options.

2. Human resource-policies, HR effects on productivity, strategies

- **What effect does the investment have on human resources? (examples: preservation and increase of human resources, remote access, development of telework, etc.)**

Generally, the investments in the companies are thought to improve and increase the productivity and also the conditions for human resources. According to the answers, the development of the production also improved the human capita which is apparent especially in the smallest companies with less than 9 employees.

Some companies have even stated that the investments made to new machines have improved the working conditions and also helped to preserve the number of employees.



In the food and drink sector, telework is not really possible, only one company from Belgium can operate and produce entirely by controlling the machinery remotely.

- **What effect does the investment have on quality development of human resources? (examples: professional trainings, foreign language trainings, IT trainings, etc.)**

In East-Flanders people are mostly trained on the job, since there is a lot to learn of course. Other trainings are not frequently offered to the personnel, mostly because they cannot be missed at the company. SMEs have a lot of work for a small staff, so it is hard to miss someone on the job.

Among all the companies taking part in this SG, a Hungarian poultry processing company is the biggest with 115 employees in production, 12 drivers and several others in administration. In 2019, warehouse workers and drivers underwent special training. In the case of machine material handling, heavy machinery and lifting machine operators were also trained. The goal of the company is to preserve and increase human resources and create an attractive workplace. To this end, an employee care program has been launched to increase employee satisfaction, loyalty to the company, e.g. there is an incentive system for quality work, they help to keep the health of the workers with vitamins, they support employees' holidays, etc. These measures also helped to minimize fluctuations.

- A Bavarian bakery needed a little more staff, and further training was necessary in the IT-area to maintain the shop and the websites. Using online channels resulted in more computer work necessary for software updates, frequent IT support in case of problems.
- **What kind of measures have been taken to improve process management? (examples: process optimization, process transformation, process control, etc.)**

The issue of process management in South-Ostrobothnia seemed to be difficult and not relevant for many. Only one company stated to have invested substantially in new production management systems, salary payment systems, logistical systems and feedback systems which have also required training for the staff using those.

In Harghita, only Jamy Ltd. participated in professional trainings, where process management was improved in terms of process optimization, process



transformation and process redirection. Process transformation at most of the other interviewed companies was not necessary.

- **What kind of measures have been taken to improve management? (examples: performance management, organizational development, flexibility, system development, creation of organizational culture, internal PR, etc.)**

This question was not really answered. Many companies are small family-run businesses, so no system or performance management is needed in order to run the business properly and flexibility is basically given.

The biggest company of the 5 interviewees in Tolna County involves retiring members of the management as advisors in further training of young management associates.

In South-Ostrobothnia, encouraging staff (and also the management) to take part in various training offered by Chambers of Commerce and other business development organisations was apparent in many of the companies. And these services have been utilised by many of the companies. One of the respondents mentioned that the managerial level has been improved substantially during the past 5 years, which has led to the fact that the company's operations are run more professionally in every level and in every part of the process.

Some of the companies are also actively take part in various development or research projects run by local universities or business development organisations, wherefrom they receive lots of new ideas for the development of their company and products.

- **Have you employed people with disabilities in recent years? What kind of measures have been taken to improve their working conditions?**

The answer in general was no, but there are some exceptions:

In Belgium the companies are eager to welcome people with disabilities or already have people with disabilities in the company. Of course, the work they have to do is adapted to their possibilities.

In Finland employing disabled people is not a habit.

People with disabilities are not hired in the enterprises in Harghita, only the Jamy Ltd. has a production process developed for employees with disabilities.

In Tolna County two companies employ workers with disabilities, but at the poultry processing company their numbers do not reach the mandatory ratio (5%), so they pay a rehabilitation contribution. Their working conditions of course are ensured.



The reason for not employing disabled people is that the SMEs are very small.

- **How typical is the corporate social responsibility (CSR) activity of the SME?**

It is typical and rather important for the SMEs who answered the question to take corporate social responsibility.

In Finland, some were supporting local associations, some were paying attention to environmentally friendly actions in the company (such as energy sources).

The Hungarian companies generally support local events, sport teams, schools and kindergartens and also disadvantaged families.

Corporate social responsibility seems to be less common in Harghita County yet. Two of the companies support local cultural events.

Smaller SMEs again can miss some of the information if it wasn't for some of the business support organizations, such Chambers of Commerces, which can virtually be found in every region of Europe. Lack of information or incentive especially in micro enterprises, is apparent, however the advantages of taking part in these activities are noticeable. They also have to go a long way to temporarily replace staff members or reorganize their processes during the time of trainings. Further education was required for companies newly establishing online channels.

Employing people with disabilities can be difficult in this sector, in countries such as Hungary however, it is a mandatory legal provision to meet a certain threshold, otherwise a specific charge is applied to the company. Otherwise, CRS activities are quite common in all countries.



3. Impact of the coronavirus epidemic on SMEs

- **What sort of impact the Covid19 had on human resources? (examples: downsizing, reorganization, home office, etc.)**

All the companies made an effort to provide the appropriate protection for the employees, and to ensure the continuity of operations. The most common impacts were:

- reorganisation of work, working routine
- downsizing also took place at some SMEs
- but reduced working hours was also commonly introduced.

Some SMEs had only positive impact and even hired new employees due to increased production.

- The food sector in **Western Macedonia** was not affected strongly by the pandemic of 2020 -2021.
- In **Bavaria**, reorganisation was carried out in small areas, as some of the tasks have changed. Downsizing also took place at some SMEs, but reduced working hours and decrease in job applications were the most common answers.
- In **East-Flanders** flexibility was the solutions for the Covid challenges either in the working hours or by reorganizing the work for example into groups. One company had home office for a short period.
- In **South-Ostrobothnia**, two of the SMEs had to downsize staff with few persons and one company had to quit its activity. During the most severe months in few SMEs the people working in the office had to do remote work, also the working routines had to be reorganised.
- In **Tolna County** all the companies made an effort to provide the appropriate protection for the employees, and to ensure the continuity of operations. Reorganization took place everywhere, and one company was forced to keep the number of employees to a minimum.
- In **Harghita**, fortunately the pandemic did not have drastic impact on human resources. None of the enterprises had to fire their employees. The Jamy Ltd introduced home office, at the Silvimex Ltd the working hours were reduced, the Iolimex Ltd and the Association Fenyőalja has not introduced any changes nor even reorganization. The Csengő Agricultural Cooperative has hired new employees due to increased production.

- **What sort of impact the Covid19 had on production? (examples: unsold inventories, switching to another product, innovation, etc.)**



The SMEs of the questionnaire were facing generally with the following impacts:

- Unsold inventories
Solutions: e-sales, vending machines, food banks, freezing...
 - Change in demand
 - Decrease in demand because of the closure of the HoReCa sector and the markets
-
- In **Western Macedonia**, SMEs are trying mostly to deal with their unsold inventories and to be more active in e-sales.
 - In **Bavaria** the answers say that covid had no impact on production, but there was a change in demand and the demand for regional products has increased. Closure of shops and unsold stocks were also mentioned.
 - In **East-Flanders**, there were no heavy losses: already produced products could be stocked, frozen or given to food banks. Most of the producers found other, more creative solutions to sell their products, for example in vending machines. None of the producers were hindered in their investments.
 - In **South-Ostrobothnia**, the production of the brewery had to be down-sized to half, as selling to restaurants cut down completely. For the herbs and sap producer however the demand for products cut down dramatically. This could be explained by the fact that the company was still in starting phase and there were no established distribution channels or even consumers who would sell and buy their products. For the flaxseed producer the demand grew and production volume was raised.
 - In **Harghita**, the impacts of the coronavirus pandemic on production differ from one SME to another: the Agricultural Cooperative has changed the scale of their products due to the needs of the consumers not because of the coronavirus pandemic, their production and selling was also increasing. Two companies remained with unsold products, faced difficulties in selling their products because of the lack of local fairs. Fortunately, in the second half of 2020 they managed to sell all their products in stock. The bakery had to reduce the production due mainly to closing of HoReCa.
 - In **Tolna County** the closing of markets, fairs and the HoReCa sector also affected the companies in declining sales, so almost all the respondents have turned towards online sales. The winemaker for example had a lot of unsold bottles, but buying wine online in Hungary was not a habit so the new webshop hasn't solved their problem. Their free storage capacity is limited due to the collapse of the wine market. Therefore, some of the grapes will be offered for sale as raw material during the 2021 harvest, not processed with added value. Beyond unsold inventories sufficient refrigeration capacity was also a huge problem to store the increased amount of products for the poultry processing



company. They found adequate refrigeration capacity about 180 km from their plant's location to maintain the quality of their products.

- **What sort of impact the Covid19 had on investments? (examples: rescheduling of developments, implementation of development plans, involvement of resources, etc.)**

Rescheduling of the investments were general in every partner region, though there are some companies who had no impacts at all, indeed their investments were carried out in a timely manner.

- In **Western Macedonia** all investments for food industry business based on national and EU funds were delayed.
 - In **South-Ostrobothnia** only one company stated that due to the positive impacts of the covid-19 they are starting to do new investments again. For most companies the investments had to be postponed due to the uncertain times caused by the pandemic. One SME utilised the covid-19 development fund provided by Business Finland. With the support the SME was able to develop new products and new packages, as well as develop their social media strategies and marketing strategies.
 - In **Harghita**, the pandemic had different impacts on the enterprises investments: The Jamy Ltd. had to reschedule their developments, the Csengő Agricultural Cooperative has continued the activities as planned. The other SMEs did not have ongoing investments which would have been affected by the coronavirus pandemic.
 - In **East-Flanders** none of the producers were hindered in their investments. Either no investments were planned in 2020-2021, either the investments could take place the way they were planned.
 - In **Tolna County** the rescheduling of the ongoing investments and the protracted implementation occurred.
 - In **Bavaria** no impact and rescheduling of the investments were the common answers. For a company timing with the closures was perfect to carry out constructions.
- **What sort of impact the Covid19 had on the market? (examples: downturn, search for new markets, online market solutions, the impact of the downturn in tourism and hospitality, etc.) Has Corona led to an increase in demand for regional products?**

As a result of the pandemic downturn was experienced in the markets of the partner regions together with huge changes, which were rather negative.

Solutions usually were:

- searching for new markets,
- turning towards online markets,
- turning towards the private sector for example by new delivery service



- In **South-Ostrobothnia** there were huge changes in the markets for all of the companies. Only one company stated the market shift was positive. The bakeries and the brewery were affected by the close down of restaurants and cafeterias. One of the bakeries also sold their products for schools and public kitchens so for a while these demands went down dramatically. Sales for family events and bigger public events stopped completely for a while.
- In **Harghita**, generally, all the interviewed enterprises faced a decrease in the product selling, because of HoReCA closing and lack of local fairs. The online market solutions did not live up to expectations.
- In **Western Macedonia** no official data came out yet, but the SMEs were focusing more on online market solutions.
- The solution of the interviewed companies for the downturn in **Bavaria** was searching for new markets, turning towards the private sector for example by new delivery service.

The pandemic led to an increased demand for regional products, but there were shifts in the demand of certain products.

- In **East-Flanders** the market has indeed changed. Some of the SMEs think consumers will reach out more to local producers, others fear everything will go back to the way it was before. In any case, sales are very unpredictable at the moment.
- In **Tolna County** the downturn was significant at all SMEs because of the closing of the HoReCa sector and the markets. Solutions were turning towards online markets or home delivery as a novelty, but this did not significantly compensate for the loss of traffic.

In summary, the effects of COVID-19 were pronounced to varying extents depending on the main market channels, company size and the region the business operates in. SMEs producing mostly for the HoReCa sector or relying on personal sales were hit harder. Regions which made an effort to promote local food sometimes even seen an increase in sales – of course, most foodstuff is not a product you can postpone buying. In the end, most companies had to face the realities and respond somehow: reduced work hours, home office, introduction of online market channels were common among all regions, but ultimately only one company had to cease its operation, whereas several others were left virtually unaffected. Regardless of their region, size and market channel, storage became one of the key issues for food producers, as unsold inventories have to be stockpiled somewhere. Online channels while being useful, mostly did not live up to the expectations of the companies.

4. Sustainability, food, regionality, bioeconomy: How green are your SMEs?

The aim is to give new or additional value to products and raw materials that are already in use. This is an important step toward circular economy and sustainability. At the same time, it also offers companies the opportunity to create new products and marketing opportunities from their residual materials.

- Is the recycling of food waste or by-products and the reuse of residual materials an issue in companies? What are you doing with residual materials? (example: further use of apple pomace in apple juice production, as animal food but also in the further processing to apple flour)
 - o If yes, in which sectors? Reuse mostly as
 - animal food
 - food industry
 - other:

Regarding the 4th question we can say that all companies in all of the partner countries are conscious about their by-products and food waste. The respondents are able to

- **protect resources,**
- **use/utilize the by-products**

In the meat industry, during processing, parts that are not suitable for human consumption are marketed as animal feed. Poultry by-products (skin, bones, head, etc.) for example serve as raw materials for cosmetics.

During brewing the mash from the process is directed to local farmers and used as a feed for livestock. The brewery from Finland is also open for using side-products from other food producers in their own beer brewing process. In Finland there has been a trend over past years to brew beer from old bread.

At cheese factories the main waste is whey. In Greece, whey is used primarily in the production of new whey cheeses (Manouri, Mizithra, Anthotyro), and some of them are PDO products.

Whey is also used for the production of other products such as animal feed, milk powder, fermented milk products, biomass, lactic acid, vitamins, alcoholic beverages, etc.

- **resell all usable raw materials**

The flaxseed producer directs the by-products from linen process for local farmers who use the by-product in heating / energy production. The oil pressing



company also uses the residues for heating, but some of the hulled materials can be used as food additives. They also produce feed for the local pig farm and fish bait for anglers.

The bakeries sell sur-plus products with lower price for consumers or donating these products for people with lower income or for food aid programs.

- **create another life for their by-products.**

In the apiaries some of the by-products (eg beeswax, propolis, etc.) are suitable for making further handicrafts.

- Are there any projects you know about food and residual management? If yes, please describe in more detail:

Some of the SMEs work on projects about residual management, but most of them don't need this since they are able to find their own solutions to deal with the by-products. Moreover, in Germany using regional raw materials is fundamental and reducing or using sustainable packaging materials also play an important role.

The Municipality of Kozani together with the waste management company DIADYMA, collaborate in an international project funded by the EU Horizon 2020 Program. The aim of the project is to improve the systems of collection, sorting and transportation of biowaste by improving the quality of recycled materials and thus contributing to the reduction waste management costs.

The separate collection of biowaste was carried out in collaboration with the food sellers of the Farmers' Street Market to whom special bags were distributed. These bags were used by them to collect separately the bio-waste created during the Farmers' Street Market (such as fruits, vegetables, meat, fish, pasta, rice, legumes, bread, sweets, dairy, eggs, etc.) which would otherwise end up in the single municipal solid waste bin.

- Which valuable and much-used products receive too little recognition or are sold below their value? What projects are there to make them more interesting and valuable again?

According to the Hungarian companies, premium products (beekeeping products, dried fruit, cold-pressed bio-oils, premium red wines, yellow-broiler chicken) do not receive financial and moral recognition commensurate with their value. The decline in tourism and hospitality has only exacerbated this situation.

Likewise in Western Macedonia there are lots of crops of peaches, apples and cherries. Despite the fact that these fruits have high quality and they've been exported all over the world over the last few years, they have not received the recognition they deserve neither in the region nor in the rest of Greece.

- Which raw materials are used too wastefully? Which projects do you have to prevent this? (Example: the two-use chicken: it represents the modernized form of traditional chicken farming in Bavaria, where the female chicken grow up to become laying hens and the male chicks are used for fattening; This project aims to stop chicken shredding.)



Materials that are used too wastefully are primarily water and whey (proteins).

Food waste and by-products are generally have their place in the value chain, considering that biowaste is a key waste stream and often can be used as a secondary raw material. From cheese made from whey in Greece to using poultry by-products as animal food or raw material for cosmetics, the options are endless. Most bio-waste comes from households in the form of food and garden waste, and there are initiatives within the partnership addressing this issue (<http://www.scalibur.eu/>). On an industrial level of course, it is far easier to control the flow of this otherwise valuable resource, and most companies already reuse, resell or create new products of their waste and by-products.

Local products oftentimes still do not receive the recognition they deserve, but in those regions which have well-functioning local food labels, the issue was not that apparent, therefore promoting local food is key in helping local producers.