Ajuntament de Barcelona

Barcelona Activa

Barcelona Treball

Agro-food industry

Sector Report 2013

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The 10 keys to understanding the sector

The agro-food industry accounts for 21% of the total sales of the industrial sector in Catalonia. It interacts with the primary sector to get raw materials and the tertiary sector to sells its products.

The sector
The agro-food industry is centred on making, processing, preparing and packaging food products for human consumption. Its raw materials come from the primary sector; specifically from agriculture, livestock and fisheries.

Main areas of activity
The sector is divided into the food industry and the beverage industry. The food industry includes: the meat industry; fish preparation and preservation; fruit and vegetable preparation and preservation; the production of oils and fats; the dairy industry; the making of grain, starches and starchy products; the preparation of animal feed products; and the production of sundry food products. The beverage industry includes the wine industry; the sundry alcoholic drinks industry; and the non-alcoholic drinks industry.

Trends
Companies in the industry are increasingly interested in introducing technologies that enable them to remain competitive. The main technological innovations are in the production process to cut costs and compete on price and in products to adapt to the public's changing consumption patterns.

Finally, increased production by large retailers is expected, as is an increasing process of horizontal concentration and vertical integration by SMEs as they cannot increase in size, especially in fruit- and meat-based products and processed vegetables.

Economic importance
The Gross Value Added (GVA) of agro-food industry in Spain in 2010 was about 20.500 million, approximately 15,7% of the total GVA of Spanish industry, and had a turnover of €94.580 billion, 18% of the whole industry in Spain. In Catalonia, the agro- food GVA in 2010 was of €4.614 million, 14,8% of GVA Catalan industry and 21,7% of GVA in agro-food industry in Spain. Turnover in Catalonia was €22.230 million, 17,8% of the industry in Catalonia and 23,5% of the sector turnover in Spain.

In 2011, the weight of agro-food companies in Catalonia in the whole Catalan industry was 10,3% and 12,2% in the Spanish.

Employment
In Spain, in 2011 there were employed almost 450.000 people in agro-food industry, representing 2,5% of the total employed population. The unemployment rate was around 10,5%, a value well below the 22,85% rate of unemployment in 2011 in Spain. In 2010 (latest data available), the agro-food Catalan industry employed 75.593 people, 16,3% of all Catalan industry. The number of people employed in Barcelona (province), in 2010, was 37.842.

Professional profiles most in demand

The profiles most in demand include professionals with training in business administration and management, advertising and marketing, especially in commercial and sales activities. Exporter and importer companies require people who can speak English, although the Catalan sector is dominated by SMEs that do not export or import.

Finally, the growing need for innovation in the production process is increasing demand for engineers, technicians and industrial designers.

Occupations most in demand

Roles with most vacancies include technical and mechanical ones, for maintaining industrial machinery, and commercial ones, to deal with the accommodation and food services industry or directly with food retail chains. Among the more qualified profiles with most vacancies are food safety technicians, controllers and production managers.

Future scenarios

The agro-food industry has to continue to adapt to society's changing habits and preferences. Some of the most important issues for the industry are differentiating products by quality and origin (enhanced traceability and indication of origin), healthy and functional foodstuffs, eco-friendly products, new consumer family types (immigrants, single-person households) and food as a cultural issue.

Weaknesses

The food industry is made up of a large number of SMEs (81% of the sector companies have less than 10 employees) and has a limited number of large companies (only 0,8% of the sector companies have more than 200 employees). This generates a fragmentation of the market and becomes an obstacle for companies that want to carry out investments to modernise and adapt to changing environments. This makes it hard to compete with the distribution industry and adapt to the shifting playing field. In addition, the costs of product distribution means prices cannot be lowered.

Opportunities

Increased average company size resulting from horizontal concentration and vertical integration processes, as is happening in other sectors of the economy, could create opportunities and development for the industry. Furthermore, demand for health and convenience products could create new market niches.

01 Introduction to the sector

The agro-food industry can be defined as the sector which includes all operations related to processing, preserving, preparing and packaging agricultural and food products carried out in industrial production units.

The agro-foods industry is one of the most important in Catalonia's secondary sector, coming in ahead of the chemicals industry with the largest total turnover at €23.699 billion (including tobacco) according to the Annual Report on Industry in Catalonia made by the Department of Enterprise and Employment of the Generalitat of Catalonia (2010), ahead of the chemical industry (which has a turnover of approximately €15,000 million). It is also the industry that employs the most people, with 78,526 workers (2010 data), coming above the metal products manufacturing sector (60.000 workers approximately). Moreover, it is also important for Spain as whole, contributing 24% of the Spanish agro-food industry's total turnover in 2010 (including tobacco).

The agro-food industry is even more important because of its direct link to the arable and livestock sectors (food industry processing accounts for 60-70% of Catalonia's primary, arable and fish products), as well as to distribution.

It should be mentioned that the Catalan agro-food industry is divided into two types of company. There are a small number of large companies that have a large market share between them in some areas (especially fish, vegetables and oil preparation) and that are normally located close to a large urban centre, attempting to control a significant part of its demand. At the other extreme, meanwhile, there are a large number of small agro-industrial establishments that are usually more in the countryside and that normally carry out primary processing activities enabling them to expand the tertiary sector in the rural economy, offering services that are increasingly used by the farmers themselves.

02 Main areas of activity

Meat industry
The meat industry is made up of animal slaughterhouses (for beef, pork, lamb or similar), industrial companies that produce, prepare and package fresh, refrigerated and/or frozen meat and companies that produce meat-based products (sausages, pâtés, hams, etc.). It accounts for 30.4% of the Catalan agro-food industry's sales and 36.2% of the people employed in the industry work in this area (2008 data). In Catalonia, 23,6% of agro-food products consumed at households are meat products (2011 data according to the Annual Report on Industry in Catalonia made by the Government of Catalonia). Also, is the area of activity that has a high turnover (representing 32,7%) and, in 2011, the Catalan meat industry had a trade balance (exports less imports) positive of €1.733 million.

Fish, shellfish and mollusc industry
This area comprises all the companies that prepare frozen, deep-frozen and/or refrigerated fish, shellfish and mollusc products, and/or other seafood, together with companies that produce preserved fish. In 2008, this are accounted for 0.6% of the Catalan agro-food industry's total sales. This area of activity, in Catalonia in 2011, contributed 13,2% of the total consumption of food products. However, the business volume is reduced because only represents 0,7% of the overall sector (€162 million). It is an area with a negative trade balance (-€401 million in 2011).

Fruit and vegetable industry
This area includes companies in the food industry that prepare and preserve potatoes, produce juices and prepare and/or preserve fruit and/or vegetables. It accounts for 2.7% of Catalonia's agro-food industry sales. In 2011, 14,4% of agro-food industry products consumed by Catalan families corresponded to fruit and vegetables. The volume of business in this area in 2011 was €657 million (3,1% of the whole sector) with a positive trade balance of €128.7 million.

Manufacture of animal and vegetable oils and fats
The consumption of animal and vegetable fats and oils accounted, in 2011, for 1.8% of the consumption of agro-food industry in Catalonia. This is the area that has a higher ratio of product sales per person employed (€954.000 per person employed in 2011 according to the Ministry of Agriculture, Food and Environment). It had €2.160 million in turnover in 2011, representing 10% of turnover in agro-food industry. The trade balance was positive in 2011 (€245.3 million).

Dairy industry
The dairy industry is made up of milk-preparation companies, as well as those that make ice cream, cheeses and other dairy products (yoghurt, cream). These companies, in 2011, account for 11,5% of the Catalan agro-food industry's product sales. The dairy industry accounts for 4,4% of the turnover of the sector in 2011, and has a negative trade balance (-€472 million).

Grain, starches and starchy products
This industry is engaged in producing milled-grain products (flour, semolina), as well as starches and starchy products.

This area prepares intermediate products that are used by other food industries (especially the production of baked goods and pasta). It accounts for 2.4% of the Catalan agro-food industry's sales.

Animal feed production

This includes all companies engaged in producing products for feeding animals, both farm animals and pets. It is an important area of activity because its turnover was, in 2011, 9% of the total for the Catalan agro-food industry, while only 3,4% of the industry's jobs are in this area.

Preparation of sundry food products
The entire area of sundry food products accounted for 13% of product sales in Catalonia in 2011 and represented the 13,7% of the sectors turnover. This area is further divided into:

- Bread and biscuits industry
  Companies engaged in producing baked goods, biscuits and cakes, both fresh and preserved.
- Pasta industry

It includes production of cooked and uncooked pasta, with or without fillings; production of couscous; and/or production of tinned or frozen pasta. This industry and the bread and biscuits industry together are the area of the agro-food industry that employs the most people after that of meat: 19.6%.

- Cocoa, chocolate and confectionary industry
  This includes companies that are engaged in making cocoa, chocolate and confectionary (including those making sweets, chewing gum, glacé fruit, boiled sweets, candies, etc.).
- Coffee, tea and herbal teas industry
  This industry includes companies that are engaged in decaffeinating and roasting coffee, producing all types of coffee and substitutes, and mixing tea and other herbal infusions.
- Food for children and people with special dietary requirements industry
  It includes companies engaged in preparing food for children, as well as those that produce food for people with special dietary requirements and/or illnesses.
- Other food products
  This area includes all companies that it has not been possible to classify. It therefore includes a great diversity of companies, ranging from those that produce spices, sauces and condiments (including salt and vinegar), to sugar production and the preparing of ready meals (soups and stocks, precooked or frozen pizzas), etc.

Beverage industries
This industry accounts for 5.8% of the agro-food industry's product sales in Catalonia and the 15,2% of the sector turnover (2011 data). This area is further divided into:

- Wine industry
  This area includes all companies that produce wines, sparkling wines and wines made from must concentrate.
- Sundry alcoholic drinks industry
  This area includes the production of cider and fermented-fruit drinks, the brewing of beer (with and without alcohol) and malt, the distillation and blending of alcoholic drinks and the production of spirits.
- Non-alcoholic drinks industry
  This area includes the preparation of all non-alcoholic drinks (except non-alcoholic wine and beer). It can be divided into two groups: companies making sugared and flavoured drinks (soft drinks, isotonic drinks) and those that bottle and produce natural mineral water.

03 Sector trends

The main trends in the agro-food industry are developing higher value-added products through controlling their quality and origin and implementing technological innovations in production in order to compete better on price in distribution.

Adapting to consumer demand
New consumption habits demonstrate consumers' growing concern about the quality and safety of foodstuffs, and consumers are increasingly demanding in terms of product quality and preparation, especially in the case of packaged products.

Product differentiation will become a strategic necessity for the survival of agro-food companies because consumers today are much more price sensitive. In addition, the industry needs to meet demand from a number of different segments including smaller households, consumers who are more concerned about health and want, for example, products that are low in salt, specific segments such as people with diabetes or celiac disease, cardiovascular disease, etc., and target markets including immigrants and seniors. There is also greater demand for convenience products (such as filleted, packaged and ready-to-eat fresh foods and pre-cooked foods).

Development and improvement of industrial processes
The main industrial processes are preservation and packaging, production and automation. Preservation processes are increasingly sustainable as they have cut their energy use and improved their effectiveness against pathogenic enzymes and microorganisms.

In lockstep, they also use fewer preservatives so as to be able to offer more natural products. This also makes it necessary to improve management systems to enable investment in R&D projects, improve productivity and tailor products and services to meet demand.

Sustainability and lifecycle
In the future, competitive industries will make an important contribution to sustainable development by reducing the amount of raw materials used and introducing more efficient and cleaner production methods that save energy. Hence there needs to be investment in improving water supply and treatment facilities and in collecting and recycling the waste and effluent generated.

Adaption to new legislation
The regulations governing the industry are sometimes not sufficiently tailored to the needs of businesses, although the latter do make an effort to adapt to the law as quickly as possible. Changes to legislation cover the entire production process. For example, recent changes include amendments to the regulations governing imports from and exports to countries like China and the United States, new regulations on the use of medicated animal feed, the extension of the "*Letra Q*" scheme for certifying products' traceability and new regulations about labelling in the use of certain food dyes.

At the same time, the emergence of new food safety and certification institutions and agencies has led to a rise in the number of standards with which companies have to comply.

Information and communication technology: improved management
ICT will enable agro-food companies to introduce product traceability and improve the management of production processes.

It also offers new ways of conveying information to consumers; for example some brands are now on social media sites such as Facebook or Twitter.

Manufacturer brands vs. own brands
The struggle between own brands and manufacturer brands has become a very significant issue in the food market. For example, in Spain some food manufacturers have decided to join forces to combat own brands.

There have also been a growing number of partnerships between companies in other countries under which they state the origin of their products.

Food City: Barcelona Food Platform - Mercabarna

The Zona Franca Consortium, the Department of Agriculture, Livestock, Fisheries, Food and Environment of the Government of Catalonia through the Institute for Agro-food Research and Technology (IRTA), and Barcelona City Council have agreed to establish an advanced technological services area for food businesses. It is located on one of the plots formerly occupied by Seat in the Zona Franca and is designed to help innovative food companies get set up and also to provide companies operating there with services and technologies that enhance their products and logistics and distribution processes.

Mercabarna ("Mercados de Abastecimientos de Barcelona, SA") is the management company for the Food Unit that brings together Barcelona's wholesale markets along with numerous companies involved in producing, selling, distributing, importing and exporting fresh and frozen products. The core business of most of these companies is wholesaling agro-food products. However, there are an increasing number of companies that prepare and package products, work that was originally done by meat companies and is now managed by fruit and vegetable firms and fish traders.

These companies are the ones that employ the most people (especially the SMEs) and have the most highly qualified workforces (food technicians or people with food industry vocational training qualifications) who in addition to being the technical and quality managers for these new activities, also often have to act as occupational health and safety officers, training managers, etc. This means that the flexibility to carry out various roles and everything they entail is considered important.

Furthermore, some of these companies have also started to produce pre-cooked food, aimed especially at hotels and restaurants. However, this activity is at such an early stage that it is hard to evaluate its results.

The direct outlets of agro-food products: short circuit or commercialization without intermediaries

For the past few years, has started a trend in the sector of the agro-food industry that is committed to developing direct business models (from producer to consumer) of agricultural products. It is a trend that is well accepted by the public that increasingly value the benefits of local products (associated with the generation of wealth and jobs in the immediate environment) and quality (seasonal direct product from the producer to the consumer).
The short circuit refers to local agro-food products destined for human consumption, which has been transformed, produced and marketed in short circuit (without intermediaries) in a geographical proximity in relation to its point of sale/consumption.

It is a business model that allows to increase the profit margin of producers as they become retailers (vendors), allowing consumers to get high quality products at a reasonable price, as this not include the costs of wholesale distribution (logistics costs). In Catalonia, many businesses like agro-shop are expanding because of the commitment to this model.

04 The sector in figures

Economic data

- The gross value added (GVA) in agro-food industry in Spain, according to the Annual Report on Industry in Catalonia in 2010 was €20.436 million, representing 15,7% of all GVA Spanish industry.
- In 2010, according to the Annual Report on Industry in Catalonia, the gross value added (GVA) of the sector in Catalonia was €4.614 million, representing a value of 14,8% of total GVA of the Catalan industry.
- In Spain, according to the National Statistics Institute (INE), agro-food industry had a turnover in 2010 of €94.580 million (approximately 18% of the turnover of all the industry in Spain), which represents a 2,3% more than in 2009.
- In 2010, according to the Annual Report on Industry in Catalonia, the turnover of the Catalan agro-food industry was 22.230 million, 1,4% higher than in 2009. This turnover accounted for 17,8% of the total turnover of the industry in Catalonia and 24% of the entire agro-food industry in Spain.
- In 2011, according to the Ministry of Agriculture, Food and Environment there were 29.424 companies in agro-food sector in Spain. The companies were down 2,5% compared to 2010. Most companies focus on area of activity of bread and pastries (37%), wine (13,8%) and meat industries (14,3%).
- In Catalonia in 2012, according to INE data, there are 2.766 companies, representing 11,4% of the whole of Spain. In Catalonia the reduction of companies in the sector has also been remarkable, between 2008 and 2011 have disappeared 1.856 companies (8,4% reduction).
- In 2011, according to the Annual Report on Industry in Catalonia, the weight of food companies in Catalonia was 10,3% of Catalan industry.
- The production of agro-food industry in Spain, as reflected in the Industrial Production Index (IPI) produced Idescat, fell 0,6% between 2010 and 2011 (the indicator has been reduced since 2008).
- In Catalonia, the industrial production index rose 2,5% between 2010 and 2011, is positive value, especially if it is considered that in 2009 and 2010 it had been reduced 1,9%; and for the whole industry also had been reduced by 2% between 2010 and 2011.
- In Spain, the food sector exports rose by 7,9% between 2010 and 2011, and the 2011 trade balance was positive (7.500 million).
- In Catalonia, exports of agro-foo products grew by 12,7% between 2010 and 2011. The exports go mainly to other countries of the European Union (70,8% of total). However, non-EU exports grew between 2010 and 2011: 50% in Asia and 14,4% in America. The trade balance in the sector in Catalonia was positive (€190,5 million)
- In Catalonia, the area of activity with more export in 2011 was meat activity, which accounted for 32,6% of exports in the sector (€6.366 million). The volume of exports of this sector grew by 19% between 2010 and 2011, representing 56,3% of the exports of the meat sector of the Spanish economy.
- With regard to household consumption in Spain, in 2011, households spending in agro-food products was €76.552 million (1,6% less than in 2010) .
- In Catalonia, the consumption of the agro-food industry reached, in 2011, €11.630 million (virtually unchanged in comparison with 2010, when dropped by 0,6%). The consumption of agro-food products in Catalonia accounts for 15,2% the Spanish agro-food consumed products.
- The main subsector of Catalan agro-food industry is the meat industry with a turnover in 2011 of €7.200 million, representing 32,7% of the sector's turnover and 33% of the turnover of this sector in Spain.
- Barcelona, according to data from 2010, had a network of 39 local food markets and 4 non-food, 108m2 of retail space and 2.895 stores, 1.984 of were not in the food industry. There were 2.900 dealers and more than 5.000 direct jobs. It is estimated that the market receives 60 million visitors annually.
- Barcelona according to data from 2010 has 39 municipal food markets and 4 non-food markets, a total of 108.000m^2 of commercial floor space, 2.895 establishments, and 1.984 traders. It is estimated that the markets receive around €60 million customers each year.

League table of the 10 largest agro-food industry companies in Catalonia in 2010.			
	Company	**Latest operating revenue (thousands of euros)**	**Main activity, by 2009 CNAE (National Classification of Economic Activities)**
1	Danone S.A.	1,534,585	Dairy industry
2	Cargill S.L.	1,487,664	Preparation of animal & vegetable oils & fats
3	Nestlé España S.A.	1,352,651	Production of sundry food products
4	Cobega S.A.	1,266,761	Non-alcoholic drinks industry
5	Corporación Alimentaria Guissona SA	1,158,889	Meat industry
6	Sara Lee Southern Europe S.L.	1,143,552	Coffee, tea & herbal teas industry
7	Preparados Alimenticios S.A.	721,182	Production of sundry food products
8	Panrico S.L.	594,320	Bread & biscuits industry
9	Casa Tarradellas S.A.	542,632	Meat industry
10	Bimbo S.A.	440,941	Bread & biscuits industry

Source: SABI (System for Analysing Iberian Balance Sheets) 2010

Employment data

- 81% of Spanish companies in the food sector have less than 10 employees, 16% between 10 to 50, 2,8% between 50 and 200, and only 0,8% have 200 employees (2011 data Ministry of Agriculture, Food and Environment).
- In 2011, according to data from the Labour Force Survey (EPA), in Spain there was 448.825 people employed in agro-food industry, approximately 2,5% of the working population in Spain. Value is slightly lower than the previous year (3.350 people less than in 2010).
- In 2011, the number of unemployed people in the food industry in Spain was 52.550 people, slightly less than the 2010 value (the unemployment rate in the sector increased from 10,52% in 2010 to 10,48% in 2011). The Spanish unemployment rate in the second quarter of 2011 stood at 20,89%.
- The area of activity of fruits and vegetables is which had the highest unemployment rate in the sector in 2011 (20,4%), followed by the field of manufacturing and animal oils and fats vegetables (17,8%) and the fish processing (14,4%). In contrast, the rate in meat industries and milled products have a lower rate than the average (8,3% and 7,9%, respectively).
- In Catalonia, according to the latest available data from 2010[1], there were 75.593 people employed in the food industry.
- By areas of activity, the number of people employed in Catalonia is distributed as follows:

Employment in the agro-food industry in Catalonia in absolute values (a.v,) (2010) and average (%)		
	People employed	**% over the total**
Meat industries	29.293	38,8%
Fish processing	889	1,2%
Fruit & vegetable preserves	2.626	3,5%
Fats & oils	1.514	2,0%

[1] Annual economic data from the Ministry of Agriculture.

Dairy industries	3.324	4,4%
Grain	1.344	1,8%
Bread, cakes & pasta	13.398	17,7%
Sugar, chocolate & confectionary	2.795	3,7%
Sundry other products	8.574	11,3%
Animal feed products	2.551	3,4%
Wines	5.061	6,7%
Sundry alcoholic drinks	470	0,6%
Water & non-alcoholic drinks	2.504	3,3%
Total employment	**75.593**	**100%**

Source: Latest data released by the Ministry of Agriculture, Food and Environment

- In 2010, the weight of employment in the food industry in Catalonia in comparison with the whole Catalan industry was 16,3% and with the whole sector in Spain 20,8% (latest data available from the Annual Report on Industry in Catalonia in 2011).
- The food products industry in the city of Barcelona (latest data available from Statistical Department of Barcelona Council) employed 5.628 people in the first quarter of 2010, having dropped by 8,5% compared to the same three-month period in the previous year (523 fewer people). In early 2010, the beverage industry employed 1.226 people, having suffered a 6,84% drop compared to the previous year.
- Barcelona accounts for 10.2% of all the people employed in Catalonia's agro-food and beverage industries, though in the Barcelona metropolitan area the figure rises to 44.7% and in the whole of Barcelona province to 57.1%.

Sources. Latest data available: Idescat; Secretariat of State for Foreign Trade (Datacomex) and Ministry of the Environment, and Rural and Marine Affairs of the Government of Spain; System for Analysing Iberian Balance Sheets (SABI); Annual Report on Industry in Catalonia in 2011; Statistical Department of Barcelona Council; and Labour Force Survey (EPA).

05 Professional profiles most in demand

Most highly qualified professional profiles

Training profile

The agro-food industry includes companies that prepare or process food products. The more qualified professional profiles that can be found there range from pure sciences (with degrees in biology or chemistry) to business management and marketing, with some food and industrial engineers as well.

The following are some of the university qualifications required in the agro-food industry's areas of activity: Food Sciences Technology; Biotechnology; Biology; Winemaking; Food Technology and Management; Human Nutrition and Dietetics; Agro-Food Engineering; Biological Systems Engineering; Industrial Technologies Engineering; Chemical Engineering; Chemistry; Pharmacy Business Administration and Management; Marketing and Market Research; and Marketing and Commercial Management.

In an industry as dynamic as that of food, in which consumers are increasingly demanding regarding the quality of foodstuffs, their effects on health, how easy they are to eat, and their effects on the environment, among other issues, continuous learning and retraining through professional life is important. Masters, postgraduate diplomas and PhDs are some of the options for extra training, specialisation and updating knowledge and skills. To this end, there are numerous masters, postgraduate and PhD courses offered at Catalan universities designed to provide the industry with the knowledge that it requires, for instance in food innovation, nutrition, agro-food biotechnology, eco-friendly agriculture, aquaculture, management of food companies and the commercial management of food wholesalers, amongst many other areas.

Skills profile

The skills required depend on the level of responsibility held in an organisation. Generally speaking, the ability to work alone or in a team (often multidisciplinary) is important, as is a capacity for analysis and anticipation, in order to understand and foresee changing habits and demand preferences; the ability to adapt to new technologies; flexibility in carrying out new duties; dynamism and innovativeness; a critical outlook; the ability to evaluate the social, ethical and environmental implications of professional activity; an aptitude for communication; a capacity for negotiation; and the ability to retrain and acquire new knowledge throughout professional life. As levels of responsibility increase, leadership, the effective delegation of responsibilities and strategic orientation become important skills.

Examples of jobs in the Web Barcelona Teball directory

- ✓ Expert researcher of new foods
- ✓ Food safety management expert
- ✓ Food microbiology analyst
- ✓ Expert in food packaging application

Less qualified professional profiles

Training profile

As regards less qualified professional profiles, there is a broad range of professional training subjects related to the agro-food industry. Vocational training courses in preparation for work in this field include medium-level vocational training in vegetable, meat and fish preservation, olive oil and wine, dairy product preparation, making wine and other beverages, abattoir operations, butchers and delicatessen, bakery, pastry and confectionery, etc. Furthermore, food industry higher vocational training qualifications are also much in demand.

However, there are also various vocational training courses in other professional categories (production maintenance and service, business administration and management and marketing) that provide knowledge that makes it possible to work in the food industry. The importance of continuous learning throughout professional life for these profiles should also be stressed.

Nevertheless, there are still few companies that hire workers with vocational training certificates, partly because they are unaware of such training's existence and partly because these courses are still too theoretical, with the students not reaching the required skill levels (manual dexterity, top-class maintenance). It is, however, necessary to make these jobs more professional and bring training centres and companies closer together; this is being done, for instance, with a medium-level module on preparing food products that is general and very practical, to be accompanied by the existing professional certifications (butcher, food industry assistant).

Skills profile

The skills required depend to a large extent on the activities to be carried out, but the most important are: a capacity for learning; dynamism; teamwork; personal tidiness and hygiene when handling foodstuffs; keeping the surroundings clean and tidy; manual dexterity when using tools; the capacity to communicate; the ability to deal with the public; and good senses of sight, taste and smell. Likewise, the capacity to carry out mechanical and repetitive tasks or ones that require some physical strength (for example loading and unloading goods) may be required.

Examples of jobs in the Web Barcelona Treball directory

- ✓ Dietary demonstrator technician
- ✓ Baker
- ✓ Packaging worker in the food industry
- ✓ Sales technician specialised in food additives and flavorings

06 Future scenarios

Weaknesses

- The industry is very fragmented, as the majority of its SMEs do not invest enough to increase in size. This means the most recommended course of action for the industry is horizontal concentration and vertical integration. However, this is by no means an easy task for two reasons: the small size of many of the companies with strong ties to their regions, and because horizontal concentration and vertical integration would mean the loss of their identity.
- The industry's capitalisation is low which entails a very low level of investment in new technologies. The launch of technology platforms, like the future Barcelona Food Platform, could help to raise investment levels.
- The industry is generally characterised by a poor export capacity. In general, the Catalan agro-food industry's export propensity is relatively low and limited to nearby regions. Moreover, exports are usually carried out through foreign distributors whose services are not geared towards the features of Catalan businesses.

Threats

- Spanish consumers are increasingly price-sensitive.
- The globalisation of trade has led to the emergence of new competitors on the international stage such as Brazil, Argentina, Chile and New Zealand. This means that world agro-food markets are likely to become more competitive.
- In recent years prices for energy, raw materials and factors of production have been very unstable, which has affected the agro-food industry by increasing its production costs.
- There is a lot of price competition in the industry, mainly between brands with high sales volumes, brands with a lot of advertising and own brands. Furthermore, the increased market share of own brands has led to greater competition among manufacturers, given that larger firms with higher levels of advertising spending are at an advantage. This means medium-sized companies are facing fiercer competition in Catalonia and in Spain as a whole.
- The takeover of Catalan companies by foreign companies to consolidate their marketing structures is leading to the progressive disappearance of third- and fourth-generation Catalan family businesses. The main Catalan companies have difficulty in making these acquisitions with the consequent loss of decision-making capacity for the agro-food sector in Catalonia.
- There is a great concentration of distribution and predominance of own brands. This means the industry will have to face challenges such as strong competition and a lack of ability to negotiate with the major retailing chains. The industry's professionals will therefore need to be able to foresee these changes. In 2009 own brands had achieved a 45% market share for certain non-perishable foodstuffs.
- Large retailers have entered into fairly aggressive price competition, leading to significant structural changes in many companies.

Strengths

- This industry has a long tradition in Catalonia. In fact, Catalonia's agro-food industry is the largest in Spain in terms of sales and is an important agro-food cluster.
- There are some major Catalan companies such as Corporación Alimentaria Guissona, Frit Ravich, Europastry, San Miguel, Agrolimen, Borges, Nutrexpa, Farggi, Cobega, Miguel Torres and Miquel Alimentació which have more than 500 employees, and some of them are multinationals. Foreign multinationals such as Cargill, Danone, Nestlé and Sara Lee also have production and decision-making centres in the country.
- Entrepreneurial capacity and a well-trained workforce are also characteristics of the industry in Catalonia.
- There is a diversified farming sector that can provide the raw materials needed by the Catalan agro-food industry.

- The industry needs to make use of its existing resources such as research centres (the IRTA, for example) and the presence of major international fairs.
- Barcelona City Council, through the Barcelona Municipal Institute of Markets (IMMB), is committed to competitive municipal markets with commercial amenities that can offer high-quality fresh and specialised products with a personal touch in modern facilities that make it possible to meet the public's new consumer demands. At present there is a plan underway to renovate the old markets.
- The Torribera Food Campus project, which is funded by Barcelona Provincial Council and the University of Barcelona and supported by Santa Coloma de Gramenet Town Council, runs degree, postgraduate and continuous professional development programmes in food. The campus currently hosts 500 students, of which 180 have enrolled for the 2011-2012 academic year.
- In Catalonia, exports of food products had positive results in 2011 and grew 12,7% over 2010. The exports go mostly to other European Union countries.
- Although employment in the sector has fallen since the beginning of the crisis, it has an unemployment rate that is well below of the average in both Spain and Catalonia.
- Industrial production in the -food industry experienced slight increases in Catalonia unlike of what is happening in the rest of the industry.

Opportunities

- One of the great challenges for the agro-food industry is being able to adapt to consumers' new habits which result from the social and demographic change that Catalan society is undergoing (an aging population, immigration, new family structures, increased income, health concerns, etc.). The public's food habits are changing to adapt to new living conditions and the information consumers get from the media is affecting the change in these habits.
- Some food-related diseases such as obesity, diabetics and celiac sufferers may become a new market niche as these consumers could become another opportunity to develop the sector.
- There is a progressive increase in commercial activity worldwide in emerging countries apart from India and China. These countries are beginning to demand food in international markets to satisfy ever-growing demand which has greater purchasing power.
- Companies that supply machinery for the agro-food industry are constantly innovating in their production processes to cut costs.
- Higher exports are taking place as a result of the slowdown in domestic demand in some sectors such as meat. Likewise, there is increasing development of ethnic products. This is particularly significant in Catalonia, where the meat industry exports in 2011 were the highest in the sector, and accounted for 56% of total exports of the meat industry in Spain.
- Short circuit business models, in which producers sell directly to consumers without intermediaries, are an opportunity for the small business sector, as it allows offering a quality product at a reasonable price and with a higher margin business. It is business models that meets the needs of a type of consumer who is increasingly sensitive to the values of local and support the local economy.

07 Useful links

International organisations

Food and Agriculture Organisation of the United Nations – FAO
http://www.fao.org/index_ES.htm

European Commission. Agriculture and Rural Development
http://ec.europa.eu/agriculture/index_es.htm

European Food Safety Agency (EFSA)
http://www.efsa.europa.eu

Spanish organisations

Department of Agriculture, Livestock, Fisheries, Food and Environment, Government of Catalonia
http://www20.gencat.cat/portal/site/DAR

Ministry of Agriculture, Food and the Environment, Government of Spain
http://www.magrama.gob.es/en/

Catalan Food Safety Agency, Department of Health, Government of Catalonia
http://www.gencat.cat/salut/acsa/Du12/html/ca/Du12/index.html

Catalan Council for Eco-Friendly Food Production – CCPAE
http://www.ccpae.org

Catalan Council for Integrated Production – CCPI
http://www.produccciointegrada.cat

Catalan Institute of Agricultural Credit – ICCA
http://www.gencat.net/economia/icca/

PRODECA – Promotora d'Exportacions Catalanes SA
http://www.prodeca.cat/

International events (fairs, conferences, etc.)

BioFach – World Organic Trade Fair
http://www.biofach.de/en/

SIAL – International Food and Drink Show
http://www.sialparis.com/

SIA – International Agriculture Show
http://www.salon-agriculture.com/ExposiumCms/do/admin/visu?reqCode=accueil

Alimentaria – International Food and Drink Fair
http://www.alimentaria-bcn.com/en/home

Expoaviga – International Poultry and Livestock Fair
http://www.expoaviga.com/

Bta. Barcelona Tecnologies de la Alimentació – International Food and Beverage Machinery, Technology and Ingredients Trade Fair
http://www.bta-bcn.com/ca/

7th International Congress on the Mediterranean Diet
http://congresodietamediterranea.com/

Spanish events (fairs, conferences, etc.)

Barcelona Degusta - Consumer Food Show
http://www.barcelonadegusta.com/

Fira de Sant Miquel – National Agricultural Machinery Show
Eurofruit – International Fruit Show
http://www.firalleida.com/home/fira/9

Fira de Sant Josep – Catalan Agricultural Machinery Fair
http://www.fira.com/tags/fair/sant_josep_2013

BioCultura – Eco-Friendly Products and Responsible Consumption Fair
http://www.biocultura.org

Hispack – Fira Barcelona International Packaging Show
http://www.hispack.com/

International themed portals

Confederation of the Food and Drink Industries in the EU
http://www.ciaa.be

IFOAM - International Federation of Organic Agriculture Movements
http://www.ifoam.org/

Spanish themed portals

Catalan Institute of Agro-Food Research and Technology – IRTA
http://www.irta.cat/

RuralCat - The Virtual Community for Agro-Food and the Rural World
http://www.ruralcat.net

Gastroteca - Portal for Marketing High-Quality Catalan Agro-Food Products
http://www.gastroteca.cat/

Spanish Federation of Food and Drink Industries – FIAB
http://www.fiab.es/

Federation of Farming Cooperatives of Catalonia – FCAC
http://www.fcac.coop/

Catalan Federation of Producers of Quality Foodstuffs – FCPAQ
http://www.alimentsdorigen.cat

Catalan Federation of Meat Industries – FECIC
http://www.fecic.es

Agrodigital.com – The Website for the Countryside
http://www.agrodigital.com/

Observatory for Industrial Technology Foresight – OPTI
http://www.opti.org/index.asp

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