The most In-Demand jobs in the Agro-Food Sector
Report 2014
1. Introduction to the Sector
The agro-food sector includes all activities aimed to processing, preservation, preparation and conditioning of primary materials to make them suitable for human or animal consumption. In this sense, these raw materials are supplied by the agriculture, livestock and fisheries sectors with which the food and agriculture industry maintain a strong tie.

Taking into consideration the nature of the activities, this sector can be divided into:
- Manufacturing: includes all activities aimed to the transformation of raw materials into products suitable for consumption such as the processing, bottling and implementation of relevant quality control and food safety.
- Research: includes all activities destined to finding innovations that could be applied to the sector, from a food level (new components, healthier additives, etc.) to a technology level (new conservation techniques, production, etc.).
- Consumer Services: includes all activities related to end-consumers, whether in the area of protection of their rights as market research to identify new patterns of consumption.

Must mention the important fragmentation of the sector, a phenomenon observed across Europe. However, despite the existence of a large number of small and medium enterprises, the agro-food industry has a great dynamism, which leads it to be one of the main sectors in the economy, both at European and national levels.

2. Current Environment

Global trends: the agro-food industry is the main industrial sector in the European economy, generating a turnover of over 1 billion euros in 2013, representing an increase of 3.1% compared to the previous 2011 data. Also, it employs more than 4 million Europeans, making it the first sector in terms of employment figures. Strongly established across the continent, some principal companies as Nestle, Anheuser-Busch, Unilever and Danone are European companies. However, it is a largely fragmented sector, being small and medium enterprises more than a 50% of the companies. In any case, must note the large commitment of public authorities, especially the European Commission, which is implementing various policies and regulations in the food sector related to issues such as food quality, labeling and use designations of origin or the use of genetically modified organisms as raw materials. Also, aware of the reality of the sector, it supports small and medium enterprises to increase their environmental sustainability and promote their investment in R & D.

Spain: the agro-food industry has been identified as one of the strategic sectors on which should be based the recovery of the Spanish economy.
In this regard, the Ministry of Agriculture, Food and Environment jointly with the Spanish Federation of Food and Drink Industries has launched a strategic framework of cooperation in order to drive growth of the sector, promoting an increase of the sales and creating jobs. The activity in the food and agriculture industry, integrated by 28,762 companies, represented in 2012, 7.6% of Spanish GDP, being the first industrial sector of the economy, as well as the second largest exporter. Regarding employment, the industry employed about 440,000 people in the last quarter of 2013, representing an increase of 2.42% over the same period last year.

Catalonia: the agro-food industry has a long tradition in the Catalan economy, being a national leader in terms of sales volume. Also, Catalonia has several enterprises over 500 employees including Corporació Agrària Guissona, Nutrexpa, Agrolimen, Miquel Alimentació, Torres or Frit Ravich, as well as production and decision-making centres of multinational companies such as Danone, Sara Lee or Nestlé.
It is also important to refer to the role of the Barcelona area in this industry. The existence of Mercabarna provides significant value to the local industry. Also, it should also refer to the fair Food that is one of the main events taking place in the sector.

<table>
<thead>
<tr>
<th>Food and Agriculture indicators</th>
<th>Contribution of the sector to the Spanish GDP(1)</th>
<th>Working population in Spain(2)</th>
<th>Number of enterprises in Spain(3)</th>
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</thead>
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(1) Spanish Federation of Food and Drink Industries
(2) Spanish Federation of Food and Drink Industries
(3) INE
## 3. Key Sectorial Trends

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<tr>
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<tbody>
<tr>
<td><strong>New habits of consumption</strong></td>
<td>Consumers show a greater concern for quality standards and food safety. On one hand, this makes increasing requirements to the industry related to guarantees, especially what relates to packaged products. On the other hand, take a heavier role organic or bio products. Moreover, certain social changes are leading to a segmentation of demand, and the food industry must be able to respond. Thus, the existence of consumers concerned about their health requires the availability of products low in salt or sugar; new lifestyles demand products tailored for people who live alone or do not have too much time to cook but don’t want to give up of taking care. Finally, we must also consider the food that arrive to sectors of the population suffering from some form of allergy or food intolerance such as celiac disease or lactose intolerance.</td>
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<td><strong>Technological Innovation</strong></td>
<td>The growing sensitivity towards consumer price requires the food industry to offer increasingly competitive prices without impact on levels of product quality. In this regard, it is recorded a trend towards the application of technological innovations in production processes as well as those related to preservation and packaging, in order to increase its efficiency. Also, in order to achieve the development of new technological innovations, it is important for both companies and the authorities to make a major investment in R &amp; D, overcoming the limitations coming from the inadequate size of many of the companies from de sector.</td>
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<td><strong>More restrictive legislation and control increasing</strong></td>
<td>The growing consumer concerns about food quality and safety has led to more restrictive legislation that affects the entire production process, regulating areas such as the import and export of food or the use of food supplement preservative, dyes, etc. Also, it has been proceeded to the establishment of several food safety or certification agencies to evaluate, in addition to product quality, the method used in its manufacture or the origin designation.</td>
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<td><strong>Changes in the way of distribution</strong></td>
<td>Given the high concentration in the distribution sector, which means that the large groups’ distributors are able to influence prices, often to the detriment of producers, increasing from the food industry, is committed to the called direct sales. It is a business model that, giving value to local products, favours a greater margin for producers, being that they become retailers, while allowing end users to have quality products at reasonable prices, as additional costs associated to intermediaries are removed.</td>
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<td><strong>Concern for sustainability</strong></td>
<td>The agro-food industry has not been left untouched by the pressures from society for greater respect for the environment. In this regard, considerable efforts are being made to reduce the CO2 emissions that cause the greenhouse effect, both in obtaining primary materials and subsequent processing. Also, it is tending to the implementation of improvements in production aimed at increasing production efficiency, promoting a reduction in consumption of energy and water, as well as the production of packaging, seeking a reduction of waste, especially those plastic type.</td>
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4. Employment in the Agro-Food Sector

The changes taking place in the food industry are having a considerable influence on the demands of employment by this sector. Thus, there is an increase in demand from those professionals related to the need for greater quality control in the industry as well as those related to the implementation of technological improvements aimed at increasing competitiveness in the sector.

### Analysis of employment in the Agro-Food Sector

<table>
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<tr>
<th>Job Position</th>
<th>Description</th>
<th>Requirements valued (Education, experiences and skills)</th>
<th>Additional considerations</th>
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<tbody>
<tr>
<td>1</td>
<td>Expert in the integrated management of quality, the environment and occupational risks</td>
<td>The integrated management specialist is the professional who coordinates all aspects related to quality, the environment and occupational safety within agro-food companies.</td>
<td>Most positions require scientific and technical training, but it is valued to have completed a degree in the specific field of nutrition. The companies of the sector make internal training directed to complementing the skills of their workers.</td>
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<tr>
<td>2</td>
<td>Customer and consumer advice manager</td>
<td>The consumer communication manager is the professional who coordinates all communication between the food industry and its clients (distribution, trade and restaurant services, etc.), end-users and other interested parties (public administration, universities, research centers, etc.).</td>
<td>It is positively valued dispose of competences both addressed to client and communication for those tasks that imply a relation with consumers.</td>
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</tbody>
</table>

4.1. The most required highly-qualified jobs

- **Education:** it is required an education in the area of the scientific-technical, such as engineering linked to agriculture or food or degrees in pure science. Also, it is positively valued to have knowledge about quality management, food safety (HACCP) as well as occupational risks prevention.
- **Experience:** it is adequate to have experience in the field of communication or the food industry.
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| 3 Food traceability software expert | An expert in the application of IT to foodstuff traceability is an expert professional in Information Technologies and Communication (ICT). | • Education: it is required to have knowledge of ICT obtained through a training cycle or computer engineering or telecommunications.  
• Education: it is positively valued to have skills of project management and leadership.  
• Experience: previous experience is required as ICT consultant to the food industry. | It is necessary to have knowledge of English, especially those related to ICT professions, although other languages are also valued. |
| 4 Consumer Information and Protection Technician | As suggested by the name, consumer information and protection technicians have the following duties: to inform users or consumers about goods or services on all aspects related to their rights and obligations, in accordance with current consumer protection legislation; to carry out checks on establishments, industries, activities, products and services in relation to consumer protection; to manage possible actions resulting from the application of current consumer protection legislation; and to actively participate in consumer mediation actions and arbitration processes. | • Education: It is appropriate to have knowledge of consumer products as well as current legislation, to get through a training course or university degree in the field of business or law.  
• Experience: it is positively valued to have experience in conflict resolution, claims processing and inspection of establishments. | The positions require knowledge of commercial sales and marketing to complement the training sector.  
The candidate should be interested about the major trends and innovations in the sector, always moving towards continuous training throughout the race. |
| 5 Food Packaging Applications Expert | This is the professional that leads research into the application of new packaging materials, new containers and packaging, and protective atmospheres and improvements. All of this within a strategy of the launching of new products, improvement of the current containers and/or the adaptation to new container technologies and the conditioning of foodstuffs. | • Education: It is advisable to have a scientific - technical degree. It is needed additional training on packaging design and packaging technologies and processes.  
• Experience: is required to have between 1 and 3 years of experience in packaging industries. | It is necessary to have skills on team work and planification and organization |
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| **Food legislation expert** | The **food legislation expert** is the professional who coordinates all aspects related to the regulations that affect any food company. | - Education: It is necessary to have knowledge of food law, to obtain a university degree by the scientific and technical field or in the legal field.  
- Experience: it is valued to have previous experience in the food industry, especially in the field of quality control. | Given the nature of increasingly demanding consumers, it is essential that professionals in the food industry have a clear concern for order and quality in everything they do. |
| **Agro chef**     | The position of the **agro chef** is still in an incipient state. This professional will be a combination of farmer and chef who will work to develop seeds, growth of products based on consumer demand, incorporating an own culinary creativity as a chef. | - Education: It is appropriate to have a training course or a university degree related to food, in order to have knowledge about cooking and food production.  
- Experience: it is valued to have experience in the world of cooking as well as that of horticulture. |                                                                      |
# 4.2. The most required less-qualified jobs

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<th>Requirements valued (Education, experience and skills)</th>
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| 1 Packaging worker in the food industry          | Packaging operators in the food industry are the professionals responsible for the final phase of the production process: packaging or bottling, and subsequent packing of the final product, in order for it to be stored, dispatched, transported and sold, ensuring optimum quality and hygiene, and applying suitable techniques for its storage, and at all times ensuring compliance with the quality, environmental, safety, medical and technical standards set out by the company. | - Education: It is appropriate to have a training course related to the field of food industries. It is also advisable to have knowledge about hygiene and food handling techniques.  
- Experience: it is considered to have worked in a similar position, although not a prerequisite. | While the most common training is the one related to the food industry, the training cycles related to the business world also offer opportunities in this sector. |
| 2 Food Production Worker in Ready Meal Industry  | Food production workers in the ready meal industry carry out and monitor the processes related to the reception, handling, processing and production of the various types of products that fall within the definition of "ready to cook" meals (which must be cooked prior to being consumed) and "ready to eat" meals (which are already cooked and may or may not require heating prior to being consumed). | - Education: it is valued to have a training cycle related to the food industry. Given the nature of the job, it is appropriate to have knowledge on food handling and gastronomy.  
- Experience: it is valued to have previously worked in the food industry. | Given the nature of these jobs, you need to have skills like, concern about order and quality, teamwork and cooperation as well as learning ability and use of knowledge. |
5. Conclusions and Future prospects

Redefinition and new opportunities

- Changes in consumption habits in societies today are a significant opportunity for food industry. This segment should be able to divide the offer in order to respond to the needs of consumers while designing products suited to those who want a healthy lifestyle, those who do not have much time to cook or those specific dietary needs, among others.

- In the same way of other sectors of the economy, new technologies offer significant opportunities to optimize and improve the efficiency of production processes in the food industry. In this sense, the industry will demand for professionals capable to design and implement these improvements to progress the sector’s competitiveness.

The professionals in the Agro-food Sector

- Consumers today increasingly require the food industry to comply with standards of quality and safety throughout the supply chain. Also, the public authorities have promoted new regulations aimed towards the same line and have implemented more controls and certifications in the industry. With this background, the food industry increasingly require more specialized professionals in the field of food safety as well as knowledge of the legislation governing the sector or on control techniques and quality monitoring throughout the production chain.

- Moreover, the industry is also making efforts in order to implement innovations that allow the offering of natural products that are perceived by consumers as healthy, looking for a reduction in the number of chemical additives used in the production (preservative dyes, emulsifiers, etc.)

Alerts

- The food industry is characterized by a high fragmentation, which has as main consequence in the existence of a large number of small and medium enterprises with less capacity to innovate. Also, the vertical and/or horizontal efforts of concentration difficulties are often the result of considerable roots to territory that these enterprises have.

- The result of the current economic context, brings us to recognize a higher sensitivity to the prices of consumer products, which increases the competitiveness within the sector, a situation that has been exacerbated by the growth of the market share’s brand products, impelled by the distributor groups.

Strengths

- The food industry has a long tradition in Catalonia, concentrating on the region a considerable number of companies with more than 500 workers, many of whom have initiated processes of internationalization. Also, note the presence of decision centers and production of multinationals from foreign capital.

- There is an excellent educational network that provides a wide range of training options for professionals. Also, the territory has infrastructures such as Mercabarna, or research centers like IRTA which can contribute to the improvement of the position of the sector worldwide.

- Presence of an agriculture sector able to provide primary materials.

New consuming habits offer interesting opportunities to the Agro-Food Sector, which must be able to respond to them, taking advantage of technological innovations and new distribution models.
Sources: Recently published data: Departament d'Agricultura, Ramaderia, Pesca, Alimentació i Medi Natural, Ministerio de Medio Ambiente y Medio Rural y Marino, Agència Catalana de Seguretat Alimentària. Departament de Salut, Confederation of the Food and Drink Industries in the EU, Oli Merca. Premsa: La Vanguardia, 5 días, Expansión.

Articles and reports consulted:

6. Sectorial complementary Webography

- CCPAE - Consell Català de la Producció Agrària Ecològica
- CCPI - Consell Català de la Producció Integrada
- FCAC - Federació de Cooperatives Agràries de Catalunya
  [http://www.fcac.coop/](http://www.fcac.coop/)
- FCPAQ - Federació Catalana de Productors d'Aliments de Qualitat
- IRTA - Institut de Recerca i Tecnologia Agroalimentàries

Barcelona Treball (The job seeking website of Barcelona)

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