



Ajuntament de
Barcelona



The most in- demand jobs in the Labor Market

GLOBAL REPORT

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Deloitte.

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01. Current environment

European economy



There has been a **gradual and progressive recovery** of the European economy in 2015. This is due to some factors such as lower prices of fossil fuels (oil), depreciation of the euro, low interest rates and the expansionary monetary policy.

Regarding the labour market, unemployment rates decreased in 2014, a trend that has continued during 2015. However, the unemployment rate is still high and long-lasting among European countries.

Macroeconomic Indicators: the starting point of the economical recovery



The Spanish economy registered in 2014 an improvement in its activity with positive growth rates after some years in recession, standing the GDP at 1.4%. Likewise, during 2015 there has been a **positive trend of economic activity** reaching 3.4% in the third quarter of 2015, what represents a 1.3% improvement over the same period in 2014.

According to the main macroeconomic indicators there are some progresses such as the increase in exports and **foreign investment, and the stability of the country risk premium**, among others.

On the other hand, a high level of public and private debt, a large volume of external debt and one of the highest unemployment rate were recorded in 2014 the European Union. Similarly, this trend continued during 2015.



Occupation in Spain



The labor market situation in Spain is still a critical aspect of the national economy. The unemployment rate stood at 23,7% of the total active population, registering a total of 5.457.700 unemployed people at the end of 2014.

On the other hand, the **employment rate has climbed slightly over 2015**. The number of employed people increased by 182.200 in the third quarter of 2015 reaching total of 18.048.700 active workers according to the latest figures available from the Economically Active Population Survey (EAPS). Therefore, employment has grown by 544.700 people in the last 12 months, accounting for an annual rate of 3,11%. Correspondingly, in the third quarter of 2015, the unemployment rate stood at 21,2% and the total number of employed were 14.948.900.

Regarding the type of contract, those with a permanent contract decreased by 18.900, while temporary contracts increased by 205.500. This means that the temporary rate increases reaching 26%. Therefore, the **quality of employment** created remains a critical issue.

Spanish state **unemployment rate drops in the third quarter of 2015**. The main falls were in **Catalonia (66.000)**, Madrid (57.200) and Galicia (29.600).



Data from the Economically Active Population Survey. 3rth quarter 2015. National Statics Institute

Sectors that drive the economy forward



There has been a slight increase in hires in the four major economic sectors during 2015: **services, industry, construction and agriculture**. In parallel, the activities that have driven the Spanish labour market forward are the following:

- Tourism and Hospitality
- Trade
- Energy and Water
- Logistics
- Automotive
- Telecommunications and ICT



On the other hand, the Telecommunications and ICT sector is becoming a relevant sector in order to generate high valued employment.

Positive tendency of the employment in Catalonia



The employment rate increased as the number of people in work rising in 36.100 in the **3rd quarter of 2015** comparing to the same quarter in 2014, according to the latest Economically Active Population Survey in Catalonia. Likewise, there has been a total of 3.110.900 employed people and 659.600 people unemployed. Although the growth rate is stable and progressive, job creation has increased for **eight consecutive quarters** with 36.100 more employed people in 2015. Consequently, the unemployment rate fell by 9,2% in the same period in 2014.

The **service sector** has generated significant employment rates with a total of 2.294.900 employed people, which represents a growth of 1% over the same period in 2014. The second most important sector with greater impact in job creation is the industry as it registered a total of 590.300 people, which is 2.2% higher over the same period in 2014.

3.110.900 employed people

659.600 unemployed people

Active population in Catalonia in the 3th quarter of 2015: 3.770.400

Available data in the Economically Active Population Survey. 3th quarter of 2015. *Observatori d'Empresa i Ocupació. Generalitat de Catalunya.*

02. Key sectorial trends



Innovation

There were some changes in the business landscape during the year 2015 as the need to invest in innovative methods and processes to improve the competitiveness of organizations in a constantly changing context and intense international competition. Innovation has become a key element in all economic sectors to ensure the future of large companies, SMEs and freelancers. Thus, from public institutions such as the European Commission, innovation is fostered by the **Horizon 2020 plan** whereby projects and initiatives are funded in order to enhance the activity of various economic sectors, from health to the Smart Cities.

Therefore, companies are investing in improving their production processes and marketing in order to introduce new technologies, adapt to changing customer needs and reduce the impact of its activities on the environment.

On the other hand, there is a growing tendency to support the innovative projects that the entrepreneurs and start-ups develop in different fields, from the agrion to technology.



New technologies

Technological advances continue to be one of the major trends in all economic sectors because of their influence and impact to facilitate innovation, improve competitiveness, create new businesses and promote entrepreneurship. In this context, companies are beginning to integrate new technologies to design new products, develop production processes and improve customer relations. New technologies that influence the current scenario are: **cloud computing, internet of things, big data, 3D printing and mobile devices.**

On the one hand, technology transforms the way we work because it allows professionals to be connected remotely through their mobile devices, even with international teams through virtual platforms. It also allows opening up new opportunities in data analysis as a valuable source of information for companies. On the other hand, as the importance of the digital environment, companies make efforts to improve its market position, better communicate with their customers and develop new production and business processes.



Consumer habits

Some of the main factors to be considered by enterprises in all economic sectors are the new consumer habits and lifestyles, which require companies to adapt or **shift** their **strategies and business models**. Current consumers have greater decision-making because, through mobile devices, they have a greater source of information at any time and anywhere. Therefore, mobile devices and social networks play an important role in the transformation of consumer habits. That's why companies should adapt their communication channels, increase their presence in social networks and create and develop **new apps** to provide better customer service.

On the other hand, it should be empathized the increasing incorporation of new technologies and the spread of Internet use in everyday life, as it has led to the development of electronic commerce "**e-Commerce**" in recent years. Also, it is developing a global market available to anyone with Internet access from anywhere in the world. Consequently, companies invest in improving their market position in terms of e-commerce through online marketing strategies, creating new sales platforms, etc.

In short, the new consumption habits are setting new standards for businesses in order to better adapt and create **new business opportunities** in all economic sectors.



Professionalization of the workforce

Professionalism and **skills** are key elements, in terms of talent, for companies in order to become more competitive and to be able to stand out in their respective markets. They are two important features in the current workforce, being global and highly connected through social networks and mobile devices. Likewise, it is expected that the new generation of workers, called "**millennials**" (people born between the decades of the 80s and 90s), will represent around 75% of the labour force worldwide in 2025.

As the international competition is growing, companies strive to develop new and innovative ways to **attract and retain talent** in their organizations.

The current training offer is twofold: to provide general training and **specialization courses** in order to get higher qualifications of workers based on the new trends of each sector level. Furthermore, **key skills and competences** such as teamwork, flexibility, change management and orientation towards achievement, **are considered the most important to develop**.

In regards with the less-qualified professionals, the trend is that companies and public institutions will demand professionals with specific training related to their occupational sector. The main purpose is to promote awareness and improve workers employability and skills.



Sustainability

Awareness to reduce the impact on the environment is increasing in recent years by the citizens, public institutions and business. That is why companies are increasingly undertaking initiatives and actions focused on sustainability, **energy efficiency** and corporate responsibility. Likewise, they incorporate new technologies that save energy and **reduce greenhouse gases emissions**, as well as measures to promote **materials and products recycling**. Moreover, companies invest in media campaigns that show their commitment to combat climate change and respect for the environment.

Furthermore, some of the measures that the industrial sector has carried out are the **reduction in the use of natural resources**, the reduction in the generation of waste and emissions and the promotion of materials recycling.

The government also encourages good practices such as new forms of urban mobility (with electric car) and more sustainable consumption. Additionally, it also promotes Smart Cities projects, new international agreements on environmental protection and new regulations by economic sector.



Cross-cutting sectors

The convergence between economic sectors such as ICT and Smart Cities, trade and logistics, among others, is one of the most important trends. This is because the economic sectors increasingly encompass a wide range of services, products and processes linked to other economic activities. Likewise, new consumer habits and the increasing activity in the different sectors are leading to collaborations between these sectors in order to develop new products and services and improve the competitiveness of the companies involved in these partnerships. In this regard, there is a positive trend to cluster in companies of the same industry to create synergies and join efforts in order to improve competitiveness and innovation in the industry.



Internationalization

Increasing globalization, together with **increased exports and imports**, implies more competition between companies and professionals from all economic sectors, because they aim to enter the market and have more business opportunities and employment. This is applied to both companies and workers as all economic sectors have experienced internationalization processes through which companies increasingly opt for **foreign trade**. This situation has led customers and consumers to perceive less difference between the companies, resulting in increased competition. In this context, companies design more innovative and flexible strategies. It should be noted that **e-commerce** plays a key role for SMEs and freelancers because it allows them to compete and sell in the global market, as large companies do.

This context encourages many workers to be willing for **geographic mobility** and to constantly develop their capacity for flexibility and change management.

03. The most required highly-qualified jobs

 Programmer	
Description	The programmer is the professional responsible for creating, testing and maintaining software programmes. Also, he/she implement algorithms using a programming language understood by a computer.
To consider	Experience in programming, using the programing languages desired and applying knowledge of HTML, XML, PHP, J2EEE to internet/intranets.
More information	Telecommunications and ICT sector Job position

 ICT consultant	
Description	ICT consultant is the professional who use his/her experience to help his/her clients develop technology solutions to help them reach their business goals. Their duties are to analyse the client's situation, create a business plan and develop ICT solutions, etc.
To consider	Business intelligence, mobile and commercial technology acknowledge is a must.
More information	Telecommunications and ICT sector Job position

 Mobile Game Developer	
Description	The mobile game developer is the professional who develops 2D/3D games for mobile devices, either as indie or commercial games (for a wider audience). Also, he/she designs, develops and performs the maintenance of the games, offering creative solutions to build fun, quality games
To consider	Knowledge of programming languages: Java, C/C ++ and/or ActionScript is desirable.
More information	Telecommunications and ICT sector Job position

 Mobile Product Manager	
Description	The Mobile Product Manager is the professional responsible for managing the life cycle of the mobile applications, from their concept to their launch in the market, according to the specifications defined initially.
To consider	Advanced knowledge of Agile software development methods (especially, Scrum) adapted to the mobile environment is a must.
More information	Telecommunications and ICT sector Job position

 Strategic Sales Manager	
Description	The strategic sales manager is the professional responsible for leading and coordinating the marketing department of a tourist establishment. Also, he/she meets annual objectives to improve the corporate image through optimum customer management and brand positioning.
To consider	Knowledge of market research techniques and e-commerce sales techniques preferred.
More information	Tourism and hospitality sector Job position

 Foreign Trade Engineer	
Description	The foreign trade engineer is the professional responsible for purchasing and sales operations and managing logistics, warehousing and distribution operations and/or ensure the reliability of a company's international operations.
To consider	English language ability is essential and, depending on the target market, knowledge of other languages such as French or Chinese may be advisable.
More information	Logistics sector Job position

 **Production director.**

Description	The production director is the professional in charge of planning company production and implementing and executing its quality control, environmental and safety policies.
To consider	Experience in planning the production of manufacturing resources (MRP, JIT, Kanban, etc.) is required.
More information	Automotive industry Job position

 **Senior energy efficiency technician**

Description	The senior energy efficiency technician is the professional who is involved in the execution of projects to improve the energy efficiency of industrial production plants by implementing improvements, including the use of renewable energies instead of traditional sources of power.
To consider	Knowledge of energy-related legislation and of the ISO 14001 environmental management standards and the efficient use of energy resources is required.
More information	Energy and water sector Job position

 **Expert on e-Commerce**

Description	The expert on e-commerce is the professional who designs and develops web applications and services (web and mobile apps and tablets) in order to facilitate buying and selling products through it.
To consider	Complementary training is required in the field of e-commerce, and is available by doing courses in any of the following areas of knowledge: SEM and SEO course, mobile application development, etc.
More information	Trade sector Job position

 Area manager	
Description	The area manager is the professional is responsible for managing and coordinating the activity of a group of shops, either company-owned or franchised, within an assigned geographic area, with the aim of adapting the operation of each point-of-sale to the commercial policy established by the company's management.
To consider	Advanced knowledge of IT and familiarity with the specific software used in each area of the shop: storage, sales, stocks, etc. is required.
More information	Trade sector Job position

 Biotechnology project manager	
Description	The biotechnology Project manager is the professional responsible for planning, managing and executing an assigned project. He/she can develop internal projects within their organisation or projects with external agents outside the organisation, with the aim of generating a value, product, service or particular technology.
To consider	High level of English is required.
More information	Biotechnology and Biomedicine sector Job position

 Building restoration technician	
Description	The building restoration technician is the professional responsible for newly constructed works, the scope of activity of building restoration experts is the recovery, restoration and modernization of already-built buildings.
To consider	Specific training in restoration techniques is required.
More information	Construction sector Job position

 Big data expert	
Description	The big data expert is the professional who designs the application process of Big Data systems in companies, including: to analyse the needs of data exploitation (quantification of data volume to be processed, type of data analysis, and storage capacity); to dimension the system based on these needs; to design and plan a security system, etc.
To consider	It is required previous work experience in managing projects in the field of business intelligence.
More information	Smart Cities sector Job position

 Mobile application developer	
Description	The mobile application developer is the professional expert in programming and integration of web applications for mobile devices aimed at improving urban mobility.
To consider	It is necessary training in programming languages, especially those associated with mobile devices, such as Java, PHP, J2EE, J2ME, Microsoft.net, Xcode in Objective C, Cocoa Touch and iOS SDK.
More information	Smart Cities sector Job position

04. The most required less-qualified jobs

 Building Home Automation Installation Technician	
Description	Building home automation installation technician is the professional responsible for the installation of sensor equipment connected to control devices that make it possible to automate and manage the different systems and domestic appliances in the home automation systems.
To consider	Specific training in building office-automation facilities and courses on the installation of electronic equipment and systems may be advisable.
More information	Smart Cities sector Job position

 Technical telecommunications equipment installer	
Description	The technical telecommunications equipment installer is the professional in charge of installing telecommunication systems (telephone, radio and TV) and of their maintenance. S/he is also responsible for the monitoring of telecommunication network management and carrying out the maintenance of communication terminals.
To consider	Knowledge of technical English is a must.
More information	Telecommunications and ICT sector Job position

 Fibre optics installer	
Description	The fibre optics installer is the professional responsible for installing, configuring, fine tuning and maintaining fibre optic systems and networks, which allow the transmission of audiovisual material and data processing, following the appropriate plans and diagrams.
To consider	Technical training in the installation of optical fibre communication networks; generally, the training is given at the company itself.
More information	Telecommunications and ICT sector Job position

 Waiter / Waitress	
Description	The waiter/waitress is the professional is responsible for serving food and drinks at restaurants, filling customers' orders, assuring top quality in all aspects of service and complying with workplace health and safety rules.
To consider	Waiter courses and workplace health and safety courses are valued.
More information	Tourism and hospitality sector Job position

 Receptionist	
Description	The receptionist is the professional responsible for the guest reception and assistance and providing information in an establishment. The job includes administrative and commercial functions.
To consider	Medium to high level of English (conversation). A second language such as French, Italian or German is recommended.
More information	Tourism and hospitality sector Job position

 Storekeeper	
Description	The storekeeper is the professional who carries out maintenance, storage and order forecast duties.
To consider	The storekeeper should receive continuous training in security, storage and new technologies, allowing him/her to optimizing his/her tasks.
More information	Logistics sector Job position

 Maintenance manager	
Description	The maintenance manager is the professional in charge of managing overall maintenance in the company, coordinating a group of qualified individuals in various tasks (mechanics, electricity, electronics, IT, etc.).
To consider	Technical skills in mechanics, electricity, electronics, computer science, etc. and, specifically, the manufacturing technology employed by the company is required.
More information	Automotive industry Job position

 Water distribution and sewage system operator	
Description	The water distribution and sewage system operator is the professional is actively involved in the assembly, commissioning, operation and maintenance of water supply and distribution networks, as well as the installation and maintenance of treatment networks, ensuring the quality and safety required and complying with current regulations.
To consider	Specific training in maintenance of water distribution networks and treatment plants is a plus.
More information	Energy and water sector Job position

 Shop assistant	
Description	The shop assistant is the professional responsible for receiving, address and selling products directly to the customer. One of its main objectives is to expand and consolidate the customer base of the shop.
To consider	Intermediate/high level of English may be advisable to offer better customer service.
More information	Trade sector

 Cashier	
Description	The cashier is the professional responsible for collecting all the products that clients buy. People who hold this job must know how to handle each payment method according to total quality standards, trying to assure total customer satisfaction of the clients both in speed and effectiveness.
To consider	User-level knowledge of storage (stock) management tools is a plus.
More information	Trade sector Job position

 Analysis technician	
Description	The analysis technician is the professional is in charge of analysing raw materials or biological origin such as cells, biological tissues or fluids, new chemical or biological entities or raw materials or finished products, depending on the scientific department s/he operates in (pharmacokinetics, medical or galenic chemistry, respectively).
To consider	Familiarity with electroscopic and chromatography techniques, HPLC/UV and LC/MS identification and general laboratory testing equipment is required.
More information	Biotechnology and Biomedicine sector Job position

 Luxury Real State Agent	
Description	The luxury real state agent is the professional is the professional responsible for the real estate business unit for international and domestic market. It is responsible for finding new clients, market research and marketing actions, etc.
To consider	Intermediate/high level of English is a must.
More information	Construction sector

05. Conclusions and future prospects

New opportunities



- **Innovation** has become a key element to competitiveness and differentiation improvement. Likewise, it is essential for the development of the new emerging economic activities in today's economic and social landscape.
- **New technologies** are a key factor to improve companies productive processes and to adapt to new market trends.
- It is expected that the growing social concern and interest to sustainability and to environmental care and safety can facilitate new business opportunities and consequent job creation in the field of sustainable development and energy efficiency.
- The progressive growth of international competition will imply that companies in many economic sectors adapt to new foreign markets, **new consumer habits** and new ways of communication with the customer. In this way, business strategies should be reoriented and renewed in order to position itself in the **international market**. Also, SMEs and freelancers have excellent business opportunities into new foreign markets through e-commerce without the need for large investments in human capital and financial resources.

Professionals



- The **interaction** among sectors in terms of collaborating with economic activities, is leading the development of new high specialized training offers as well as new technologies, digital and web environment knowledge, among others.
- A growing demand for highly-qualified professionals is detected. However, there is often a **shortage of professionals with required specific skills and knowledge** in Smart Cities sector, ICT and Biotechnology.
- Companies require professionals with specific skills and a high degree of specialization in each sector and activity. On the other hand, they also demand professionals with technical and commercial skills.
- Companies mainly value skills such as **adaptability to change, customer orientation, teamwork and commercial attitude**.
- The **growing internationalization** of companies and public institutions (universities, business schools, research centers), along with increased international events by sector, implies that companies demand professionals with broad knowledge of **languages**. This requirement is applicable to most sectors and job positions regardless of the level of professional qualification.

Alerts



- Economic sectors are highly dependent on the domestic and international economic policy in terms of higher taxation and regulation. Furthermore, changes in raw materials and fuels prices directly impact on business costs.
- The lack of **investment in R&D+i** by the government in various sectors **remains below the European average**, despite the current projects implemented such as Horizon 2020. This makes harder the promotion and development of certain activities production and the creation of new jobs.
- From some sectors such as biotechnology, **greater coordination and collaboration between the public institutions** (research centers, universities, training centers) **and private enterprise** is claimed in order to facilitate the workflow of synergies. The aim is to increase the competitiveness and efficiency of businesses and, consequently, improve productivity and professional skills.
- There is a huge gap between SMEs and large companies regarding the **incorporation and the implementation of new technologies**. This could hinder the ability of innovation, adaptation and growth of SMEs in both the domestic and international markets.

Strengths



- The adaptive and updated **training offer** by public institutions and enterprises provide professional development opportunities to workers. Thus, the ongoing commitment of both national and European public administrations to improve the employment rate and create new job opportunities for those less-qualified professionals through direct investments and new projects in different sectors.
- **Barcelona** is one of the most innovative European cities that focuses on developing new technologies and sustainable mobility. For instance, the importance of events by sector is recognized worldwide such as the World Mobile Congress or the Smart City Expo World Congress. Also, Barcelona is considered an international, innovative, touristic and Smart city. It might be a decisive and attractive factor for companies in order to invest or establish its headquarters in Barcelona.

06. Articles and reports consulted

Sources: IDESCAT; INE; Ministry of Employment and Social Security Spain; *Servei d'Ocupació de Catalunya; Observatori d'Empresa i Ocupació de la Generalitat de Catalunya.*

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07. Sectorial complementary webography

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✓ Comisión Europea.

http://ec.europa.eu/spain/index_es.htm

✓ Ministerio de Empleo y Seguridad Social.

<http://www.empleo.gob.es/en/index.htm>

✓ Technology, Research and Innovation.

<http://web.gencat.cat/en/temes/tecnologia/>

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