



Catalonia 2020 Strategy 2012-2014 Report

**EMPLOYMENT &
TRAINING**

SOCIAL COHESION

**INNOVATION &
KNOWLEDGE**

ENTREPRENEURISM

INTERNATIONALISATION

GREEN ECONOMY

Catalonia 2020 Strategy
2012-2014 Report

December 2014

<http://www.gencat.cat/catalunya2020>

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Catalonia 2020 Strategy

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Contents

1. Introduction	7
2. The 2020 targets	9
2.1. Evolution in the EU	9
2.2. Evolution in Catalonia	12
3. Implementation of the Catalonia 2020 Strategy	21
3.1. The Research and Innovation Strategy for the Smart Specialisation of Catalonia (RIS3CAT)	22
3.2. European structural and investment funds planning in Catalonia	24
3.2.1. Coordination	24
3.2.2. Planning for the ERDF and the ESF	25
3.3. Sectoral plans and actions	28
3.4. Social dialogue	35
4. 2012-2014 Review	37
 Annex. Strengths and opportunities of the Catalan economy and Catalonia's RIS3 leading sectors	 41

1. Introduction

The Catalonia 2020 Strategy (ECAT 2020) was approved by the Government of Catalonia in April 2012. It establishes the guidelines for implementing public policies that can promote competitiveness and employment. It also helps to generate the necessary climate of confidence to improve the current economic situation and build a smart, sustainable, inclusive model for economic growth in accordance with the Europe 2020 Strategy.

This document presents a report on the first three years of application of the Catalonia 2020 Strategy (2012-2014).

Section 2 reviews the situation in the European Union (EU) and Catalonia as regards the prospects for achieving the 2020 targets within the current situation of economic difficulties and, in the case of Catalonia, a process of recentralisation of powers implemented by the Spanish Government. All this, within a framework of reflection launched by the European Commission to review the Europe 2020 Strategy. The analysis of Catalonia is made according to the six priority action areas established in ECAT 2020 (employment and training, social cohesion, innovation and knowledge, entrepreneurship, green economy and internationalisation).

Section 3 describes the four lines of action that the Catalan Government focused on through ECAT 2020 over the 2012-2014 period: the Research and Innovation Strategy for the Smart Specialisation of Catalonia (RIS3CAT); strategic planning of European funds; shaping the sectoral plans and actions according to the priorities established for Europe 2020; and intensifying social dialogue.

Section 4 reviews the first three years of the application of ECAT 2020 and highlights obstacles and advances with regard to achieving the 2020 targets.

Finally, the Annex summarises the main strengths and opportunities of the Catalan economy.

2. The 2020 targets

2.1. Evolution in the EU

The Europe 2020 Strategy, adopted in 2010, establishes five ambitious targets that the Community should achieve by 2020 in the fields of employment, research and development, climate change and energy, education, and combating poverty and social exclusion.

The Europe 2020 Strategy targets form a response to the major long-term challenges that face the economies of the EU, especially those generated by social change, globalisation and global trade, the evolution of productivity, pressure on resources, and environmental problems.

Population ageing and **inequalities in wealth distribution** are the main social challenges that will influence the evolution of the European economies over the coming years. In the EU, median age (that is, the age that divides the population into two numerically equal groups) rose from 37.5 years in 1992 to 41.9 in 2013, and may reach 52.3 years by 2050. According to European Commission projections, the percentage of the population aged over 64 years will double between 1990 and 2050. The crisis has also caused an increase in social inequalities. In 2013, in the EU as a whole, the 20% of the population with the highest income earned, on average, 5 times more than the 20% of the population with the lowest income (this figure was 5.7 in Catalonia and 6.3 in Spain). Although this inequality indicator has remained stable for the EU overall in recent years, large differences exist between Member States. New lifestyles, new consumer habits and new forms of mobility, coupled to the ever-greater presence of **technology** in everyday life, are amongst other **social changes** that will mark the evolution of the European economies over the coming years.

During the economic crisis, **foreign trade** has played an important role in helping the European economies to grow. These economies have regained competitiveness and

increased exports, enabling the EU to conserve its position as the world's largest exporter of goods and services. However, over the next fifteen or twenty years, approximately 90% of world growth will be generated outside the EU; therefore, maintaining this international leadership will depend on European companies' capacity to access new markets and value and supply chains.

To stimulate productivity as a source of growth, Europe needs to improve the quality of its **human capital** and increase the profitability of **research** and the **education system**. **Innovation** and a more generalised use of the **ICTs** are also key drivers for productivity.

Over the course of the twentieth century, the world increased its **fossil fuel** use by a factor of 12, whilst extracting 34 times more **material resources**. According to European Commission figures, each EU citizen consumes 15 tonnes of materials annually, of which 5 tonnes are wasted, with half going to landfill. Meanwhile, businesses are facing rising costs for essential raw materials, energy and minerals, which are affected by lack of security of supply and price volatility. Accordingly, promoting more efficient use of resources should be a priority in strategies aimed at increasing companies' competitiveness and profitability.

In this context, in March 2014 the European Commission published "Taking Stock of the Europe 2020 Strategy for Smart, Sustainable and Inclusive Growth",¹ a **communication** that contains the preliminary conclusions from the first years of applying the strategy. Based on this report, the Council of Europe launched a review of the strategy towards the year 2020 through a process of reflection involving all stakeholders. This review will be accompanied by a wide-ranging **public consultation**, the results from which will be presented in 2015.

As the European Commission stock-taking report states, four years after the approval of the European strategy, the **degree to which targets have been met** is lower than originally anticipated, largely as a result of the economic crisis. All over Europe, the

¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "Taking Stock of the Europe 2020 Strategy for Smart, Sustainable and Inclusive Growth", COM (2014) 130 final.

Box 1. Europe 2020 targets: EU trends

Target	Trend
To raise the employment rate of the population aged 20-64 to at least 75%	In 2008, just before the economic crisis began, the EU employment rate stood at 70.3%. Four years later, in 2012, it had fallen to 68.4%. The European Commission expects employment to increase to 72% in 2020, though if national targets are met the figure would rise to 74%, just below the target established.
To increase investment in R&D to 3% of GDP	The economic crisis has had a clear impact on R&D investment, which reached 2.06% of GDP in 2012. The European Commission expects R&D investment to stand at 2.2% in 2020, although it will reach 2.6% if the Member States meet their national targets.
To reduce greenhouse gas emissions by at least 20% compared to 1990 levels	Although the economic slowdown has also had a significant effect in reducing emissions, current climate and energy policies have also contributed to decoupling economic growth and greenhouse gas emissions (between 1990 and 2012, the EU's GDP grew by 45% whilst emissions decreased by 18%). The European Commission expects that, by 2020, emissions could be reduced by 24% compared to 1990 levels, exceeding the target.
To increase the share of renewable energy in final energy consumption to 20%	From 2000 to 2012, the share of renewables in gross final energy consumption increased from 7.5% to 14.4%. The EU expects this share to approach 21% by 2020.
To increase energy efficiency by 20%	Over the 2006-2012 period, primary energy consumption fell by 8%, and reaching the 2020 target would require cutting this consumption by a further 6.3%. A large part of the decrease in primary energy consumption can be explained by the contraction of economic activity, and consumption could increase once more with economic recovery. Nonetheless, the trend towards decreasing energy intensity in the EU economies invites optimism: overall energy intensity fell by 24% between 1995 and 2011, with a 30% decrease in industry.
To reduce school drop-out rates to below 10%	Over the 2005-2012 period, early school leaving fell by three percentage points (from 15.7% to 12.7%) and half of the Member States have either achieved their targets or are about to do so. Although part of this positive performance can be linked to the difficulties that young people encounter in entering the employment market, there are signs of structural improvements and there are indications that this trend will continue, even if at a slower rate.
To increase the share of the population aged 30-34 years that complete tertiary education to at least 40%	Between 2005 and 2012, the proportion of young people who have completed tertiary education increased from 27.9% to 35.7%. This trend is structural, and the European Commission expects the 2020 target to be achieved, although considerable disparities exist between Member States.
To lift at least 20 million people out of the risk of poverty and social exclusion	Between 2009 and 2012, the number of people at risk of poverty and social exclusion in the EU increased from 114 million to 124 million; the target of 96.4 million set for 2020 therefore appears out of reach. The European Commission believes that, in 2020, there will be approximately 100 million people at risk. The problem is particularly serious in countries where unemployment and the number of households where all members are unemployed have increased most.

Source: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "Taking Stock of the Europe 2020 Strategy for Smart, Sustainable and Inclusive Growth", COM (2014) 130 final.

crisis has had a powerful negative effect on employment and poverty, and has decreased the chances of achieving the target for investment in R&D. However, in the fields of education and climate change and energy, trends are more positive, although there exist great disparities between Member States.

2.2. Evolution in Catalonia

Catalonia, an internationalised economy with a deeply-rooted industrial tradition, a dense business fabric and a diversified production structure, has been seriously affected by global trends.

The **economic downturn** has had a severe impact on the production system and has led to considerable job destruction, particularly in activities related to construction, but also in industry and services. Unemployment, which affects the least-skilled above all, and young people in particular, has increased social inequalities.

However, many companies in Catalonia have also responded to these challenges and have successfully entered the **global market**: in strongly export-oriented sectors (automobiles, tourism, chemicals and pharmaceuticals, agri-food and so on); in traditional service sector activities (trade, logistical services, catering and food and drink, medical services, design and advertising), and in emerging knowledge-intensive activities (business services, ICTs, biotechnology, sustainable mobility, cultural industries, audiovisual production, energy saving and efficiency, renewable energy and environment-related activities).

ECAT 2020 identifies the **priority areas of action** aimed at ensuring that public policies in Catalonia help to achieve the targets and priorities established by Europe 2020. These priority areas of action are: employment and training, social cohesion, green economy, innovation and knowledge, entrepreneurship and internationalisation.

There follows an analysis of trends in the Catalan economy, including both general evolution and the priority areas established by ECAT 2020, with comparison to both the EU and Spain as a whole. This analysis should be seen in the context of the world

economic crisis and the **recentralising decisions** taken by the Spanish Government. Both are factors that have decreased the Catalan Government's capacity to adopt policies and measures aimed at meeting the 2020 targets. These decentralising decisions include the following:

- failure to comply with the compulsory review of the 2014 financing model;
- invasion of transferred competences;
- provision of insufficient resources to finance transferred competences (mainly education, health and social services);
- decrease in transfers of earmarked resources and failure to comply with bilateral agreements, especially as regards transport infrastructure;
- blockage of the fiscal autonomy to obtain more resources (for example, the tax on bank deposits), and
- excessive repercussion of efforts to reduce the public deficit on the autonomous communities. The proportion of public deficit assigned to the autonomous communities (one-sixth of the total) is much lower than the proportion of public spending that corresponds to autonomous competences (one-third of total public spending).

The **indicators** taken as benchmarks for analysing trends in the ECAT 2020 priority areas are those established as the Europe 2020 targets in the following areas: training, employment, social cohesion, research and innovation, and energy and climate change.

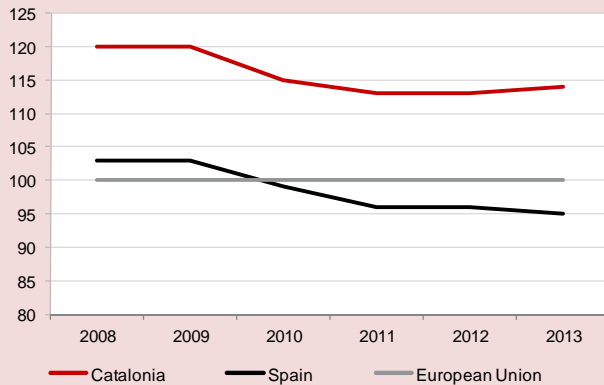
These indicators are not exhaustive and have their limitations, but they also have important virtues. They:

- illustrate the dynamic change that drives the Europe 2020 Strategy and clearly indicate the direction that needs to be taken in the long term to ensure the future of Europe,
- serve as reference points to guide public policy, and
- allow a transparent comparison to be made at all levels and amongst all countries.

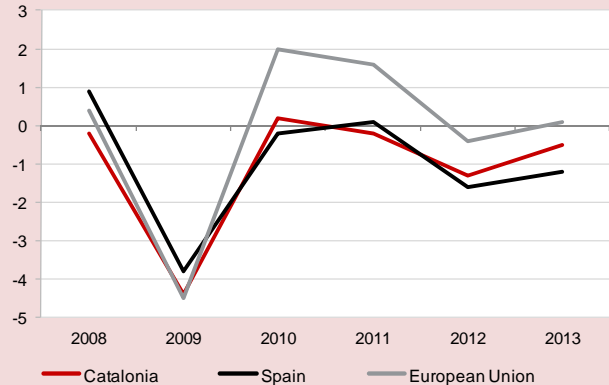
The Europe 2020 indicators are also complemented by additional indicators on entrepreneurship and the internationalisation of the Catalan economy.

Box 2. Evolution of the Catalan economy

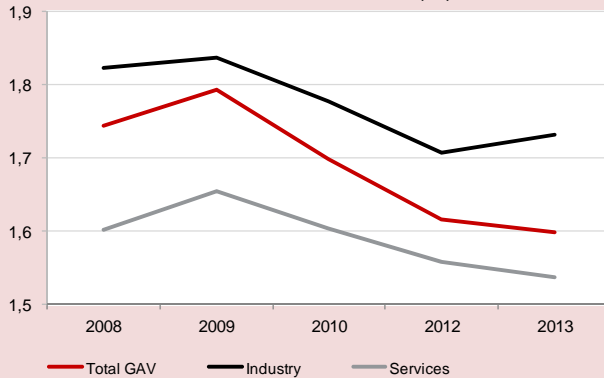
GDP per inhabitant at purchasing power parity (EU = 100)



Evolution of GDP (% variation in volume)



Share of Catalan GAV in the EU (%)



With a population of 7.5 million and a GDP of 203.615 million euros (2013), a strong national identity and its own language and culture, Catalonia is an important region within the EU. GDP per inhabitant in Catalonia is substantially higher than the EU average (by 14% in purchasing power parity in 2013).

The Catalan economy began to grow in the final quarter of 2013, despite the persistence of financial difficulties and the problem of the Government's radical readjustment of finances, seriously affected by the crisis and by restrictions on the system of financing.

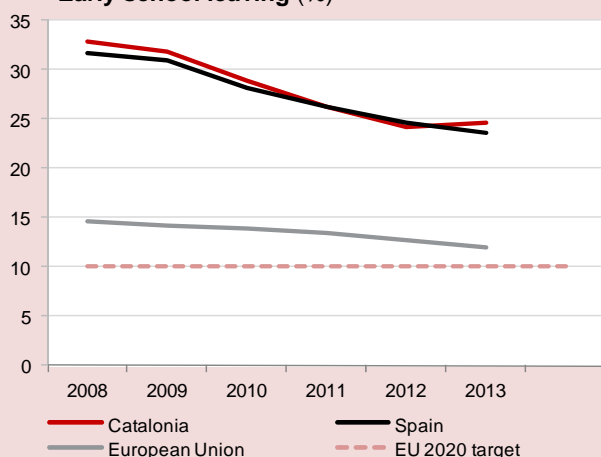
As a consequence of the crisis, the Catalan economy has declined in importance in the EU. Between 2008 and 2013, Catalonia's share of Gross Added Value (GAV) in the EU fell from 1.74% to 1.60%. The main reason for this is the drastic contraction of the construction industry. However, construction was still more important in the Catalan economy than in the EU as a whole in 2013.

The industrial sector plays an important role in the Catalan production structure, although, as in all the developed economies, it has declined in recent years. This trend is explained, primarily, by the fact that the service sector has taken over certain industrial activities previously considered industrial or that were provided by industrial enterprises (design, marketing, distribution and branding, for instance). In Catalonia, this process has been more intense than in the EU overall due to the effects of the economic crisis. However, industry continues to be more important in Catalonia than in the EU. It is interesting to note that, in 2014, the Catalan industrial sector performed better than the EU industrial sector as a whole.

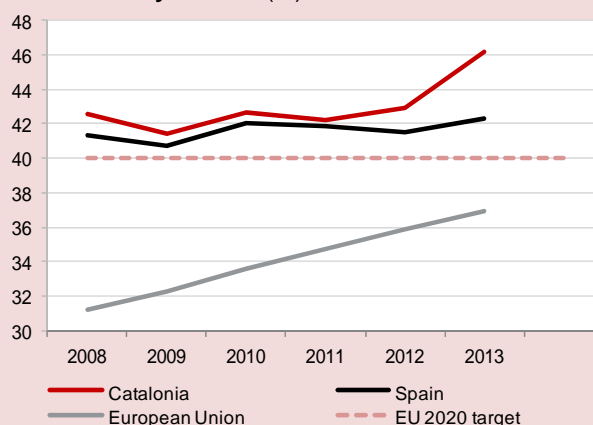
Source of graphs: Idescat.

Box 3. Training and employment

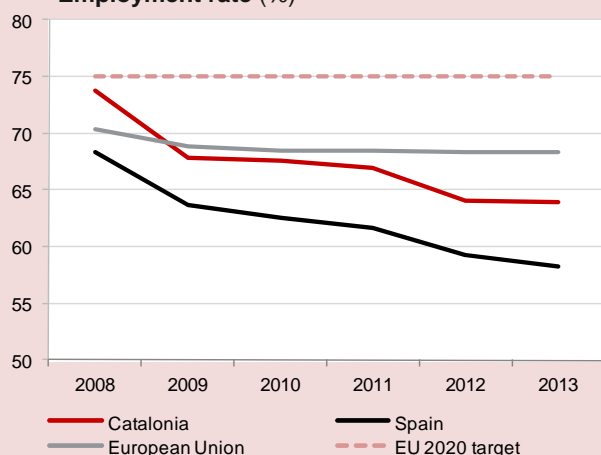
Early school leaving (%)



Population aged 30-34 years with university studies (%)



Employment rate (%)



Training

Good results from the education system are essential for the good performance of the labour market. This requires a reduction in school drop-out rates and improvement of human capital.

The school drop-out rate (percentage of people aged 18-24 years that do not study after compulsory secondary education) stands at 24.7% in Catalonia. This is significantly higher than the EU average (12%) and is a long way from meeting the target established by the Europe 2020 Strategy.

Shortcomings in the vocational training system also explain a significant proportion of the school drop-out rate.

This is because, traditionally, training opportunities have not been very attractive to young people, and have not provided a response to business needs. On the other hand, the percentage of young people with university studies is much higher than both the EU average and the 2020 target.

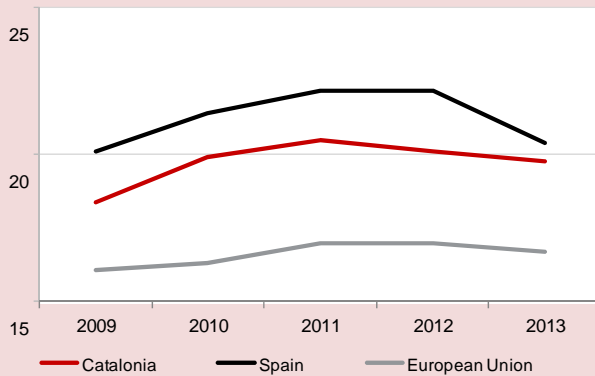
Employment

Over the 2000-2008 period, population growth in Catalonia was very high. This is mainly due to immigration, which rose from 2.9% in 1999 to 15.7% in 2010. In 2007, the employment rate amongst people aged from 20 to 64 years was 74.7% (more than 5 percentage points higher than the average rate in the EU), very close to the 2020 target. However, the recession has had a more devastating effect on the Catalan employment market than in the EU as a whole, and in 2013 the employment rate had fallen to 63.9% and unemployment had risen to 23.4%.

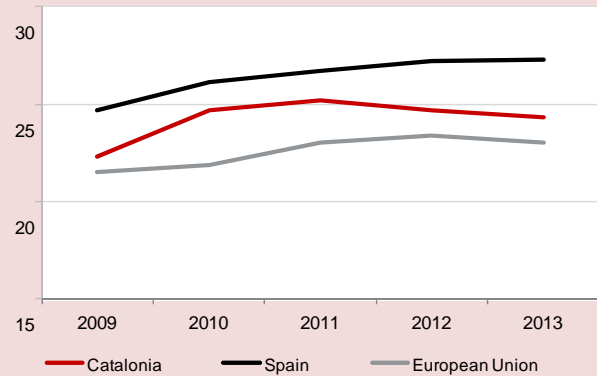
Source of graphs: Idescat (based on INE data) and Eurostat.

Box 4. Social cohesion

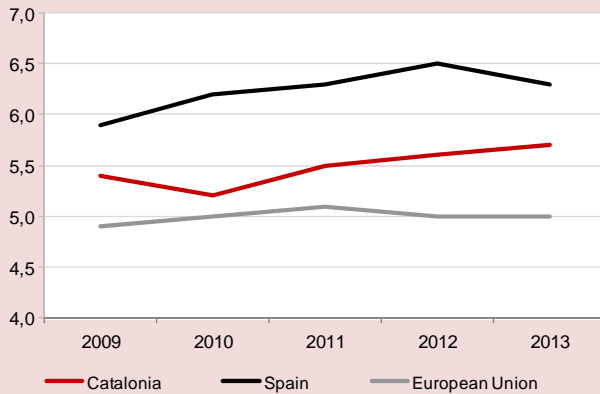
Population at risk of poverty
(% of the total)



Population at risk of poverty or social exclusion
(% of the total)



Inequality in income distribution
(value between top and bottom quintiles)



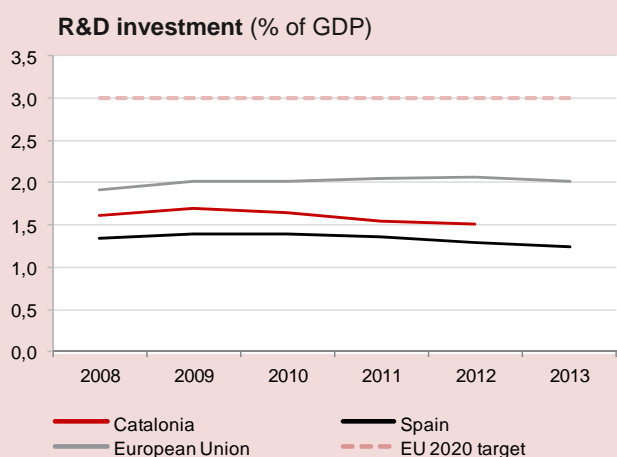
As a result of the crisis, the income of families in Catalonia has decreased and the number of people at risk of poverty has increased. The at-risk-of-poverty rate in Catalonia stood at 19.8% in 2013.

The Europe 2020 poverty or social exclusion indicator covers persons who are: at risk of poverty or severely materially deprived or living in households with very low work intensity. In Catalonia, this percentage stood at 24.3%, slightly higher than the EU average, in 2013.

Proportionally, the weight of the crisis has fallen more intensively on the segment of population with least resources, as is reflected in the increase in the unequal income distribution index, which compares the incomes of the 20% of the population with the highest economic level with the 20% with the lowest economic level.

Source of graphs: Idescat and Eurostat.

Box 5. Innovation and knowledge



The economic crisis has led to a decrease in R&D investment by companies and public administrations. In 2012, the R&D investment effort as a percentage of GDP stood at 1.51% in Catalonia, far from both the EU average (2.06%) and the 2020 target. More than half of this expenditure (56.2%) was in the private sector.

In Catalonia, the number of patents per million inhabitants is lower than for Europe as a whole. However, in terms of scientific publications, Catalonia is well above the EU average (2.9% of scientific articles published in Europe, compared to 1.5% of the total EU population).

Catalan participation in European R&D programmes is more than double the number that correspond to the region by population (Catalonia received 574 million euros from the 2007-2013 European Framework Programme 2007, double the figure received from the previous programme).

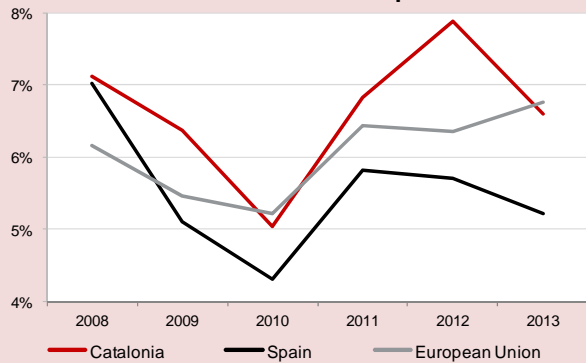
According to the 2014 Index of Innovation Potential drawn up by the ALTRAN consultancy company, the potential for innovation of the Catalan economy is 12% higher than the European average, and is comparable with that of countries with medium capacity for innovation, such as Germany and the United Kingdom, although considerably lower than levels in the Scandinavian countries. Catalonia stands out in three important aspects for the development of a knowledge-based economy: business access to broadband; higher education amongst the active population; and employment in high technology. Because innovation potential affects the competitiveness of the business system and the creation of wealth and employment, it is crucial for companies to take part in public-private R&D initiatives.

In a context in which innovation is a key factor for business competitiveness on the global market, there are several reasons for optimism with regard to the Catalan economy. These include: the excellent performance of Catalan exports, the fact that many major multinationals are deciding to locate international R&D centres in Catalonia, and the choice of Barcelona as the first European Capital of Innovation in 2014 (recognition of the city's innovative ecosystem, which focuses on improving quality of life).

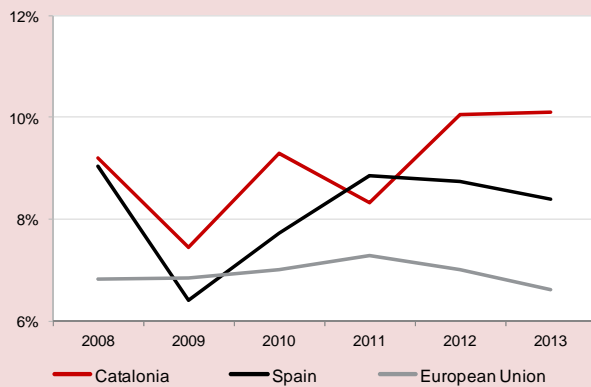
Source of graphs: Idescat and Eurostat.

Box 6. Entrepreneurism

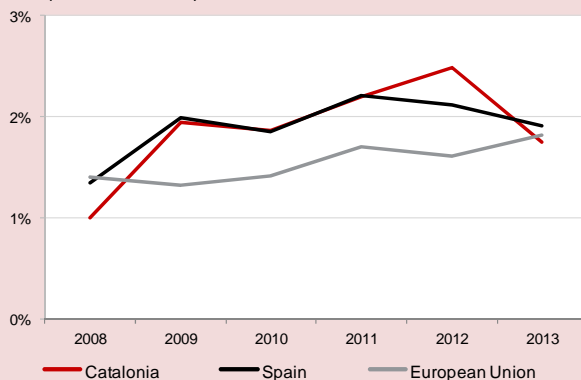
Evolution of the index of entrepreneurial activity



Population from 18-64 years involved in consolidated businesses (%)



Population aged 18-64 years that have abandoned a business in the last twelve months (% of the total)



The economic crisis has led to the closure of many businesses, especially small enterprises, and the destruction of many jobs. In this context, entrepreneurship is key to improving production and generating jobs. However, the economic crisis has deeply affected the Catalan population's perception of entrepreneurial opportunities, an indicator that stands at below half the EU average.

In 2013, the index of entrepreneurial activity in Catalonia failed to rise as it had in the previous two years, and stood at 6.6%. This figure is 16% lower than for 2012, but similar to the rest of the EU. However, the percentage of the population involved in consolidated businesses in Catalonia is substantially higher than the EU average. The rate of abandonment of entrepreneurial initiatives has remained steady at around 2% in recent years and in 2013 was near the European average.

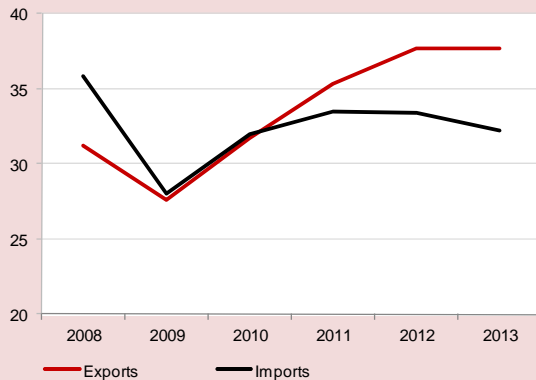
According to INE business confidence indicators (2013), the components of the business environment that most affect business growth capacity in Catalonia are, firstly, demand, the macroeconomic environment and debt default and, secondly, economic regulation, availability of financing and taxation. Although, in recent years, the public authorities have made significant progress in simplifying administrative processes and improving regulatory quality, 46.3% of Catalan entrepreneurs feel that the evolution of economic regulation in business is unfavourable.

In the context of the current economic crisis, financing difficulties and the fact that credit interest rates are higher than in the rest of the Eurozone are a significant problem for Catalan companies. To this must be added delay in the payment of invoices issued by the public authorities, worsened by the problem of autonomous community financing, the economic crisis and the adjournment of a review of the financing model.

Source of graphs: *GEM Catalunya 2013 report*.

Box 7. Internationalisation

Evolution of foreign imports and exports of goods and services (% of GDP)



Evolution of the foreign goods and services trade balance and the balance with the rest of Spain (% of GDP)



Traditionally, Catalonia has always been an open economy. The degree of openness of the Catalan economy towards foreign markets (foreign exports and imports of goods and services as a percentage of GDP) stood at 69.9% in 2013. Taking into account trade with the rest of Spain, the degree of openness is greater than 130% of GDP.

The prospect of weak European growth limits the capacity of exports to drive the recovery of the Catalan economy, as the European Community market accounts for 62.7% of Catalan exports, although there has been some diversification in recent years. Despite the increasing importance of emerging markets, Catalan exports still have a very limited presence in them (for example, just 1.9% of Catalan exports are to China, while 8.2% of imports are from that market).

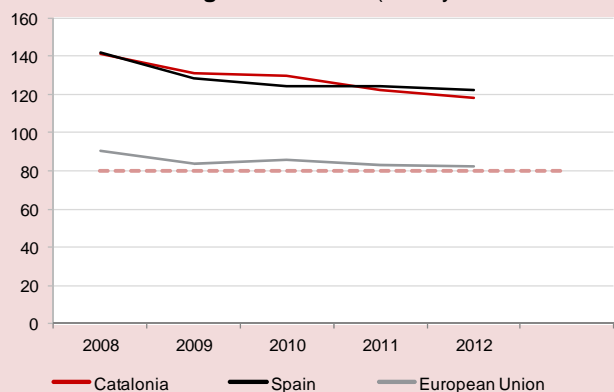
Foreign investment in Catalonia has always been an important driver of economic growth, improved competitiveness and higher exports. According to figures published by the *Financial Times*, in recent years Catalonia has become consolidated as one of the main destinations for foreign investment in Europe. Moreover, much of this investment (approximately 40%) is in the manufacturing industry. There are more than 5,000 foreign companies with significant economic activity in Catalonia, approximately 90% of them located in the Barcelona area.

Catalonia has become an outstanding tourist destination in Europe and the world. Tourism accounts for 11% of employment and around 12% of GDP. Catalonia is also a leading destination for medical tourism, whilst Catalan universities attract students and researchers from around the world (in the 2012-2013 academic year, 38% of doctoral students enrolled at Catalan universities and 33.3% of researchers were foreign nationals). Barcelona is the fourth city in the world in the organisation of international conferences, has the main cruise port in Europe and the Mediterranean and the fourth-largest in the world. The Catalan capital also has the ninth-busiest airport in Europe (the third, not counting connecting flights); in 2014, the Airports Council International named Barcelona as the best large airport in Europe.

Source of graphs: Idescat.

Box 8. Green economy

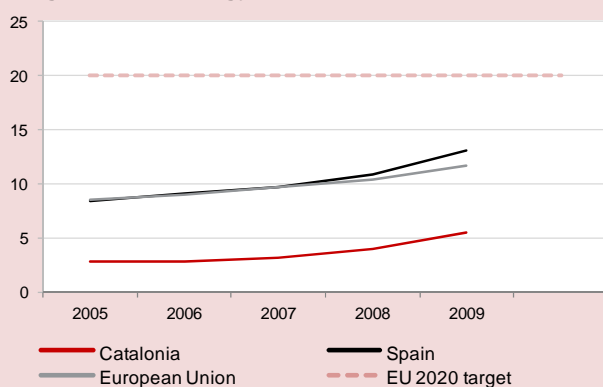
Greenhouse gas emissions (base year 1990 = 100)



The economic crisis has clearly led to a reduction in the consumption of energy and resources and an increase in energy saving and efficiency measures in all sectors of the Catalan economy, particularly in industry. Moreover, industrial waste recovery levels have risen in recent years, and more companies have introduced environmental management systems and joined the voluntary programme to reduce CO₂ emissions.

In agriculture, substantial progress has been made. This includes both the introduction of technological improvements for more efficient use of energy and water in agricultural and livestock farming and measures to promote organic crop production and local sales. In the fields of sustainable mobility and the implementation of the smart city concept, moreover, significant progress has also been made in recent years. Similar advances have been achieved in improving energy efficiency in buildings and in waste recovery. Additionally, more than 500 Catalan municipalities have joined the Covenant of Mayors, a European initiative that seeks to involve local and regional authorities in the fight against climate change.

Share of renewable energy in gross final energy consumption



In the field of renewable energy, however, progress has not been so impressive. Over the last ten years, the share of renewable energy in

consumption has grown only moderately, and at much lower rates than in the EU and Spain as a whole.

In 2009 (the latest year for which official statistics are available), the share of renewable energy in gross final energy consumption was more than 50% lower than the EU-27 average and almost 60% lower than the average for Spain as a whole. The positive trend shown by energy intensity indicators (which link energy consumption to GDP) and greenhouse gas emissions (Catalonia easily meets the targets established by the Kyoto Protocol) indicates that Catalonia is moving towards an economy that is more efficient in its use of resources and is, therefore, more competitive; however, Catalonia still has much to do in order to converge with the leading European economies.

According to employment indicator for the green economy, which estimates economic activity directly related to the environmental sector, the green economy accounts for 1-3% of total employment in Catalonia.

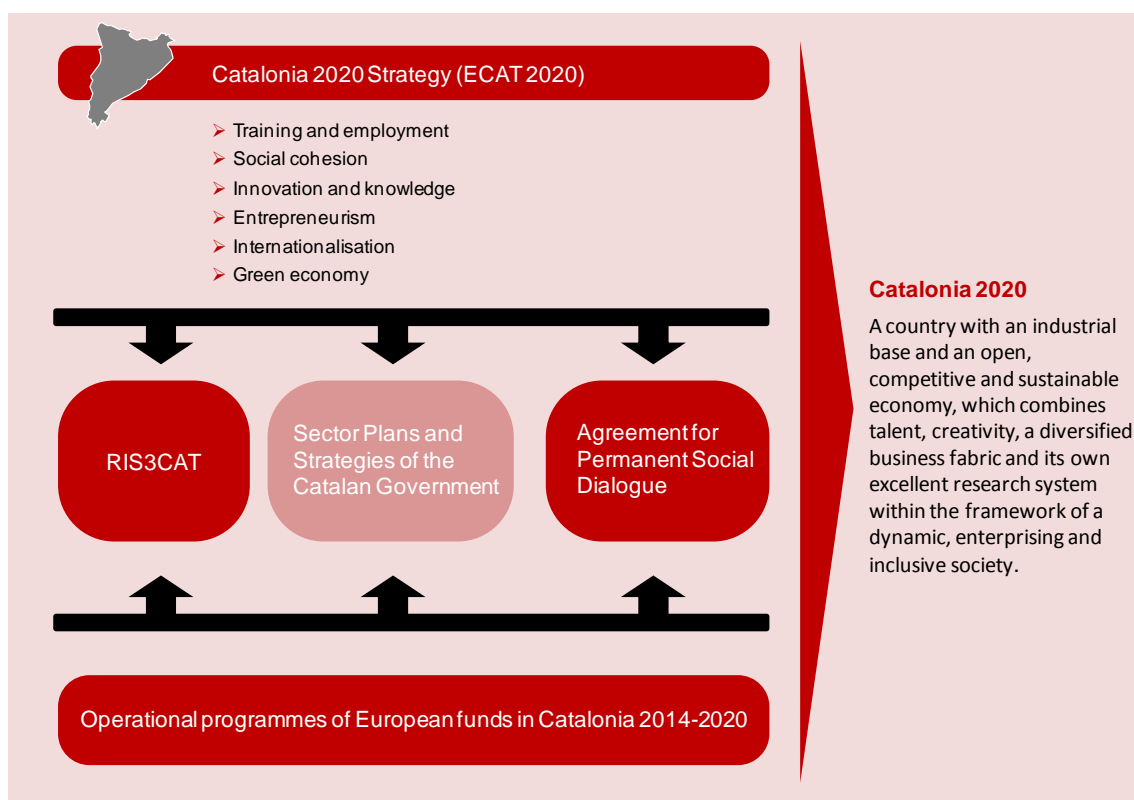
Source of graphs: Catalan Office for Climate Change, Institut Català d'Energia (ICAEN) and Eurostat.

3. Implementation of the Catalonia 2020 Strategy

Within the framework of ECAT 2020 to promote smart, sustainable and inclusive growth, the Catalan Government focuses on four main lines of action:

1. The Research and Innovation Strategy for the Smart Specialisation of Catalonia (RIS3CAT),
2. strategic planning for European funds,
3. adapting sectoral plans and measures to Europe 2020 priorities, and
4. permanent social dialogue.

Box 9. Catalonia 2020



3.1. The Research and Innovation Strategy for the Smart Specialisation of Catalonia (RIS3CAT)

Catalonia 2020 Vision

Catalonia is a country with an industrial base and an open, competitive and sustainable economy. It combines talent, creativity, a diversified business fabric and its own excellent research system within the framework of a dynamic, enterprising and inclusive society. Catalonia is home to multinationals and local companies, and to firmly-consolidated sectors in positions of international leadership and emerging technological sectors.

One of the main lines of action within the framework of ECAT 2020 was the drafting and approval of the Research and Innovation Strategy for the Smart Specialisation of Catalonia (RIS3CAT). RIS3CAT defines a shared vision of Catalonia in 2020 and establishes four major strategic objectives linked to lines of action.² The initiative also provides a framework for planning management of European structural and investment funds in Catalonia. These funds focus on research and innovation, companies and people.

Through RIS3CAT, Catalonia makes a clear commitment to research and innovation that can help to adapt economic activities to rapidly changing new conditions, to increasing competitiveness in the global market and to generating quality jobs. The main **challenges** faced by public policies in this sphere are to:

- ensure that technologies and innovation reach the production system and are prioritised, and
- reinforce the differential features of the Catalan business system; deeply-rooted industrial traditions; focus on quality of life and the wellbeing of people; internationalisation; excellent science and technology system; and rich cultural and natural heritage.

² The Catalonia 2020 Vision is based on the differentiating features of the Catalan economy, as identified in the SWOT analysis for the RIS3CAT strategy, which is available at <http://www.gencat.cat/catalunya2020>. The annex to this document contains a summary of the SWOT analysis.

Box 10. RIS3CAT: schematic diagram

Pillar 1	Pillar 2	Pillar 3	Pillar 4
Leading sectors	Emerging activities	Enabling technologies	Environment for innovation
<ul style="list-style-type: none"> Food and drink Energy and resources Industrial systems Design-based industries Industries related to sustainable mobility Health industries Cultural and experience-based industries 	<p>These are to be identified in the entrepreneurial discovery process</p>	<ul style="list-style-type: none"> ICTs Nanotechnology Advanced materials Photonics Biotechnology Advanced manufacturing 	<p>Public policies</p> <ul style="list-style-type: none"> Digital agenda Entrepreneurism Eco-innovation (green economy) Non-technological innovation Training and talent
Tools			
<ul style="list-style-type: none"> RIS3CAT communities Emerging activities Development of key technological capacities Research and technology transfer infrastructure Collaborative R&D projects Technology valorisation and transfer International cooperation Innovative public procurement Specialisation and Territorial Competitiveness Projects (PECT) 			

Within this framework, RIS3CAT establishes four priority **pillars of action** for research, innovation and competitiveness policies:

1. To strengthen the competitiveness of the leading **sectors**, those in which Catalonia has competitive advantages, critical mass and future opportunities (food and drink, energy and resources, industrial systems, design-based industries, sustainable mobility, health industries and experience-based cultural industries).
2. To support new economic opportunities in **emerging activities**, based on technological capabilities (new activities generated by technological change and cutting-edge innovation) and the synergies between related sectoral areas.
3. To promote cross-cutting **enabling technologies** as tools to transform the production system and generate new scientific, technological and economic opportunities.
4. To improve the environment for **innovation** in the broadest sense (from the digital agenda to entrepreneurship, eco-innovation, non-technological innovation, and training and talent).

With support from European funds, RIS3CAT promotes new forms of **public-private partnerships**, projects designed to generate economic activity with added value and job creation. To this end, two **tools** are established: RIS3CAT communities; and Specialisation and Territorial Competitiveness Projects. These tools promote collaborative projects that can generate sufficient critical mass to transform, through innovation (as in the case of the RIS3CAT communities) or territory (as in that of the territorial projects).

As Box 10 shows, RIS3CAT combines both new and traditional tools.

3.2. European structural and investment fund planning in Catalonia

The EU's multiannual financial framework for the 2014-2020 period guides Community spending priorities towards the Europe 2020 priorities. To this end, the European Commission has established an inclusive approach to all policy cohesion funds. This approach provides a common strategic framework and clearly sets priorities and expected results, focused on achieving the Europe 2020 targets.

3.2.1. Coordination

Over the 2014-2020 period, the European Commission requires States and regions to make changes in the way that they prioritise and manage cohesion policy funds: an inclusive, results-oriented approach to the funds; thematic concentration to increase the effectiveness of public interventions and achieve the necessary critical mass to cause real impact on the country's socio-economic circumstances; and support for financial instruments that encourage private investment and multiply the effects generated by public funds.

In Catalonia, three Catalan Government ministries share the work of managing European funds: the Ministry of Economy and Knowledge administers the European

Regional Development Fund (ERDF); the Ministry of Business and Labour handles the European Social Fund (ESF); and the Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment manages both the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).³

To coordinate the four funds and optimise their contribution to the priorities established for 2020, the Catalan Government established the Coordination Committee for the European Common Strategic Framework Funds.

3.2.2. ERDF and ESF planning

Over the 2014-2020 period, ERDF and ESF resources in Catalonia increase by 44.2% compared to the 2007-2013 period, to nearly 2,000 million euros. ERDF resources increase by 79.5%, whilst ESF funding remains steady. As Box 11 shows, the State manages part of these funds, whilst the Government of Catalonia administers the rest. Funds managed by the Catalan Government increase by 60.6% (68.1% in the case of ERDF resources, 47% in that of ESF funding).

The ERDF and ESF operational programmes (OPs), drawn up by the Government of Catalonia and approved by the European Commission according to the 2020 targets, establish the use of the funds managed by the Catalan Government by thematic objective, investment priority and specific objective.

Actions within the framework of the **ERDF** focus on three of the six **ECAT 2020 priority areas**:

1. Innovation and knowledge
2. Entrepreneurism
3. Green economy

³ The ERDF and the ESF focus on the Europe 2020 priorities for smart, sustainable and inclusive growth. However, the application of the EAFRD and the EMFF, which are sectoral by nature (devoted to agriculture and fisheries, respectively), is greatly marked by the priorities of EU farming and fishing policy priorities. In the field of social cohesion, Catalonia also benefits from other European funds, such as the Fund for European Aid to the Most Deprived (FEAD) and the European Asylum, Migration and Integration Fund (AMIF), which are managed by the State.

Box 11. ERDF and ESF resources in Catalonia (2014-2020) (in million euros)

	2007-2013	2014-2020	Increase
European funds in Catalonia			
ERDF	763.2	1,370.2	79.5 %
ESF	609.9	609.9	0.0 %
Total	1,373.1	1,980.1	44.2 %
Funds managed by the Catalan Government			
ERDF	516.5	868.4	68.1 %
ESF	284.7	418.6	47.0 %
Total	801.2	1,287.0	60.6 %
Funds managed by the State			
ERDF	246.7	501.8	103.4 %
ESF	325.2	191.3	-41.2 %
Total	571.8	693.1	21.2 %

The ERDF also contributes to four **cross-cutting priorities** that are key to achieving the 2020 targets:

1. Territorial balance
2. Internationalisation
3. Employment
4. Smart specialisation (within the RIS3CAT framework)

Unlike the previous priorities, these are not assigned a specific budget by the ERDF Operational Programme. However, they must be taken into account in all cofinanced actions.

Box 12. Concentration of ERDF and ESF Operational Programmes in Catalonia in the priority areas of ECAT 2020, 2014-2020

OP funds	Main pillars of European funds	ECAT 2020 priorities
ERDF (EUR 868.4 million)	Strengthening research, technological development and innovation	<ul style="list-style-type: none"> • Innovation and knowledge • Entrepreneurism • Green economy
	Improving use and quality of ICTs and accessibility	
	Enhancing the competitiveness of SMEs	
	Supporting the shift towards a low carbon emission and low energy intensity economy in all sectors	
	Protecting the environment and promoting efficient use of resources	
ESF (EUR 418.6 million)	Promoting sustainable transport and removing bottlenecks in key network infrastructure	<ul style="list-style-type: none"> • Training • Employment • Social cohesion
	Promoting employment and supporting labour mobility	
	Promoting social inclusion and combating poverty	
	Investing in education, skills and lifelong learning	

For their part, **ESF** actions focus on the priorities of training and employment and social cohesion:

1. To promote quality, sustainable employment and labour mobility, focused on actions aimed at job creation and improving vocational training; developing local initiatives for employment and social integration; supporting self-employment, entrepreneurship and the cooperative economy; promoting equal opportunities between women and men; and modernising the employment system.
2. To promote **social inclusion** and the fight against discrimination and poverty, which includes measures focused on guidance, training, mentoring and support for integration into the workplace of groups with special difficulties in the field of employment, as well as actions to improve care provided for people affected by poverty and social exclusion.
3. To invest in **education**, in training to improve professional skills and in lifelong learning. These measures are aimed, particularly, at reducing school failure and preventing early leaving, promoting R&D&I capabilities (post-graduate studies,

training researchers, etc.), access to distance vocational training and lifelong distance learning and dual vocational training.

3.3. Sectoral plans and actions

The Europe 2020 strategy and ECAT 2020 form the framework of the Catalan Government's response to the challenges that face the Catalan economy and which, to a large extent, are shared with other European economies.

The Government has adapted sectoral policies to the new requirements and challenges and has promoted new initiatives in the ECAT 2020 priority areas.

Training

In the present context, a key condition for productivity is to adapt the knowledge, skills and competences fostered by the **education system** to the new economic and social circumstances. To this end, the Catalan education system has been reviewed and modernised to improve the levels of skills acquired by young people, especially in transversal key competences and language learning.

In recent years, significant progress has also been made in improving the quality and prestige of **vocational training**. These improvements include the gradual implementation of dual vocational training and a 30% or more increase in vocational training students over the last four years. The law on training and professional qualification, which aims to integrate training systems, foster dual vocational training and adapt professional profiles to business requirements, is another important step in this direction.

As regards the **universities**, Government efforts focus on: the quality of the qualifications offered by Catalan universities; the efficiency of the university system (organisational structure, incentives for selection and attraction of talent, evaluation of quality, improving the financing system, etc.); the employability of young graduates (company placements, etc.); and the promotion of internationalisation. In recent years Catalan universities have improved their position in international quality rankings: there are now 4 Catalan centres amongst the top 100 universities under 50 years old. Moreover, the implementation of a Catalan model for university academic staff is

important for attracting and retaining talent and ensuring excellence in education and research at Catalan universities.

Employment

The Catalan Government's employment policies prioritise actions aimed at people over 45 years, the long-term unemployed, people who no longer receive any benefits, those that receive the minimum integration income, and people with disabilities. Active employment policies aimed at young people not included in the "youth guarantee" scheme are implemented through the "Inserjove" youth integration plan. This plan includes specific programmes aimed at young people, whilst 25% of places on other programmes operated by the Catalan Employment Service are also reserved for them. The European Youth Guarantee, which seeks to ensure that all young people aged from 16 to 24 years who finish formal education or become unemployed have access to a job, apprenticeship, traineeship, or continued education within four months, will be implemented over the 2014-2021 period, with activities focusing concentrated particularly in 2015 and 2016.

Public employment services to assist and facilitate job searches have been modernised through a draft bill to regulate the employment system and the Catalan Employment Service, which is currently going through the Catalan Parliament. Moreover, dialogue between the Government and stakeholders led to the signing, in March 2014, of the Agreement for Permanent Social Dialogue to promote economic recovery and the creation of higher quality jobs.

Social cohesion

The tool established to implement the Europe 2020 strategy in the field of combating poverty is the Pact to Fight Against Poverty in Catalonia, an agreement endorsed by social, civil and political stakeholders. This agreement focuses on five lines of action: poverty and social inclusion in childhood and adolescence; covering basic needs; employment; housing; and relationships and community.

The main purpose of the Pact is to unite efforts to combat the impact of the economic crisis on people by reinforcing detection and prevention mechanisms and prioritising available resources for social inclusion. The Pact will enable tools to be designed and

implemented to prevent the risk of social exclusion, establish intervention measures and set a horizon for reducing poverty.

The proposed Pact to Fight Against Poverty in Catalonia includes the 2014-2016 Action Plan for the Fight Against Poverty and for Social Inclusion, which specifies the actions to be carried out.

The Catalan Government has increased action to fight poverty and provide care for the most vulnerable groups, particularly in the fields of the minimum integration income, school meals subsidies, child poverty and housing allowances. In 2014, the Government devoted more than 981 million euros to combating poverty and social exclusion.

Innovation and knowledge

To promote innovation and knowledge, over the 2014-2020 period, the Catalan Government (through RIS3CAT and the ERDF operational programme) prioritises research, innovation and public-private partnerships as drivers to transform the production system. The resources used for this include both firmly established R&D&I tools and new instruments, such as the RIS3CAT communities. Similarly, both processes of concentrating and uniting actions by centres for innovation and technology transfer and knowledge industry and industrial PhD programmes will work to ensure that research carried out in Catalonia give fruit in the form of wealth creation and industrial production more quickly.

Entrepreneurism

The Catalan Government has designed a new industrial policy strategy that adopts a sector-based approach. This strategy revolves around four programmes that promote the generation of industrial projects and help to speed up the transformation of the production system towards activities and business models with higher added value: clusters, business innovation, internationalisation and industrial recovery. The strategy also provides for programmes to promote the main RIS3CAT areas. The purpose is to generate knowledge, regulate activities related to each particular area, coordinate the various government bodies and organisations involved and identify and provide support for the main strategic projects (programmes to promote the agri-food industry, chemicals, energy and resources industries, industrial systems, the design industry,

sustainable mobility industries, health and life sciences industries and cultural and experience-based industries).

“Catalunya emprèn”, a programme launched by the Catalan Government in 2012, regulates actions aimed at promoting entrepreneurship and job creation, especially amongst young people. In recent years, both the State Administration and the Catalan Government have made substantial progress in improving the business environment (for example, the one-stop window for businesses and the SME test). However, it is still necessary to further reduce bureaucracy, to provide companies with more facilities and to converge with Europe in such important areas as the time it takes to set up a business.

In this regard, the Catalan Government has established a legislative package for administrative simplification aimed reducing bureaucracy in the production system and at facilitating procedures and generating a climate that encourages initiative and wealth creation.

Along the same lines, the Catalan Finance Institute has intensified its focus on credits and guarantees to SMEs and the self-employed, with specific actions aimed at the fields of culture, agriculture, the social economy and commerce. Due to their importance in territorial and social cohesion and their idiosyncrasy, the Catalan Government implements specific support policies with regard to these four areas.

Finally, the model that the Government of Catalonia promotes with regard to ICTs is aimed at stimulating the economy. Through its procurement of ICT services, the Government helps to ensure that the services provided by the private sector are attractive and generate products and services for businesses and citizens in general. One example of this is the commitment to connectivity based on high capacity networks as a strategic element for the competitiveness of companies and the welfare of society. Another more specific example is the project to implement latest-generation networks to interconnect the offices of the Government, local authorities, industrial sites, schools, hospitals, university facilities and public and private research centres.

Internationalisation

The Government works for the international consolidation of the Catalan economy, implementing measures to support the leadership of Barcelona Trade Fair in southern

Europe, promoting events of international standing, establishing new business promotion centres, encouraging foreign business investment with great social and economic impact in Catalonia and promoting services and tools to support the internationalisation of Catalan companies.

Other actions that are crucial to the internationalisation of the Catalan economy and the competitiveness of its companies are measures aimed at consolidating Catalan ports as a logistical platform and as a gateway to Europe from the Mediterranean, and to promote rail connections with Europe, the rest of the Iberian Peninsula and the multimodal logistics system.

Within the framework of RIS3CAT, the Catalan Government promotes the internationalisation of the research and innovation system by: internationalising cluster initiatives and cooperation with clusters in other countries and regions; promoting transnational horizontal cooperation projects at the pre-competitive stage; benefitting from the opportunities offered to Catalonia by the Horizon 2020 European programme and other State and international programmes; and strengthening ties with other, complementary regions through networks or bilateral agreements, particularly in the fields of research, innovation and business relationships. Within the framework of the "Uni-2020" programme, moreover, the Government promotes the internationalisation of the Catalan university system in terms of educational opportunities, students and teachers.

In response to the increase in foreign migration that has taken place in recent years, the Government has established an international mobility plan for the 2015-2018 period. The strategic objectives of this international mobility plan are: to provide information for people who decide to emigrate; to offer guidance to Catalans living abroad; and to offer the latter the chance to return, linked, basically, to employment opportunities.

Green economy

In recent years, the Catalan Government has promoted a series of complementary actions to foster efficient and, therefore, sustainable growth in the use of resources. Outstanding initiatives in this direction include the Energy and Climate Change Plan 2012-2020 and strategies to boost the green economy, adapt to climate change, and promote eco-design, biomass and energy renewal in buildings. More closely-focused

measures have also been implemented. These include the General Programme for the Prevention and Management of Waste and Resources 2013-2020, the Action Plan for Improving Air quality in Atmospheric Protection Areas Plan, the Third Sector Environmental Support Plan, the 2014-2020 Forestry Policy, the Programme to Promote Ecological Agri-food Production, the Green Schools Programme and the programme of voluntary agreements to reduce CO₂ emissions. It should also be noted that changes in State legislation implemented in 2012 have the effect of slowing down the development of renewable energy to the point where it will be very difficult to meet the 2020 targets.

Box 13 shows, by way of example, the principal sector plans and strategies that the Government⁴ has established in this direction, in cooperation with the stakeholders involved. An independent system of monitoring indicators is provided for each plan or strategy.

Box 13. Principal plans and actions promoted by the Government of Catalonia within the framework of ECAT 2020

ECAT 2020 areas	Plans and actions
1. Employment and occupation	1.1. National offensive for school success: plan to reduce school failure in Catalonia 1.2. Multilingual education model 1.3. Actions to promote and modernise vocational training (consolidation of the dual model and integration of vocational training systems) 1.4. "Uni-2020" programme: internationalisation, quality and efficiency of the Catalan university system 1.5. Plan for the development of employment policies in Catalonia 2014-2016 1.6. Bases for the youth employment strategy of Catalonia. Youth Guarantee 2014-2020 1.7. Support plan for self-employed people and micro-companies
2. Social cohesion	2.1. Pact to Fight Against Poverty: <ul style="list-style-type: none"> - Poverty and social inclusion in childhood and adolescence - Coverage of basic needs - Employment - Housing - Relations and community 2.2. Pact for childhood

⁴ Information about strategies, plans and programmes is available on the Government website: <http://www.govern.cat>.

	<p>2.3. National Youth Plan 2020</p> <p>2.4. Integral family support plan 2012-2016</p> <p>2.5. Plan for citizenry and migrations. 2016 Horizon</p> <p>2.3. "Aracoop" Programme</p>
3. Innovation and knowledge	<p>3.1. Support for the research and innovation system, and research and innovation policies within the framework of RIS3CAT:</p> <ul style="list-style-type: none"> - RIS3CAT communities - Knowledge industry - R&D cooperation projects - Innovative public procurement - Industrial PhDs - Strategic sector research and innovation plans (agri-food and health) <p>3.2. "idigital" plan (digital agenda for Catalonia 2020), "SmartCat" (smart strategy for Catalonia)</p>
4. Entrepreneurism	<p>4.1. SME financing (Catalan Finance Institute)</p> <p>4.2. "Catalunya emprèn" programme</p> <p>4.3. Industrial policy strategy within the framework of RIS3CAT (cluster programmes, business innovation, internationalisation, industrial recovery and promotion of each of the RIS3CAT leading sectors)</p> <p>4.4. Strategic Tourism Plan 2013-2016 and 2020 national tourism directives</p> <p>4.5. Rural development plan 2014-2020 and actions to promote economic and social dynamism in rural areas</p> <p>4.6. Actions to make the public administration more modern, open, transparent and participatory (e-government and introduction of the new ICT model by the Catalan Government, open data, simplification of processes, legislative quality, etc.)</p> <p>4.7. Support for RIS3CAT Specialisation and Territorial Competitiveness Projects (PECT) and high-impact investment.</p>
5. Internationalisation	<p>5.1. Actions to consolidate the international projection of the Catalan economy</p> <p>5.2. Internationalisation plan for Catalan business</p> <p>5.3. Support for SME exports and internationalisation</p> <p>5.4. Strategic infrastructure (Mediterranean corridor, ports and airports)</p> <p>5.5. Plan for international mobility 2015-2018.</p>
6. Green economy	<p>6.1. Energy and Climate Change Plan 2012-2020</p> <p>6.2. Strategy to promote the green economy</p> <p>6.3. Catalan eco-design strategy</p> <p>6.4. "PRECAT20": General Programme for the Prevention and Management of Waste and Resources 2013-2020</p> <p>6.5. Strategy to promote energy production from forestry and agricultural biomass</p> <p>6.6. Catalan strategy for energy renewal in buildings</p>

3.4. Social dialogue

Catalonia has a long tradition of social dialogue. In the last ten years, social dialogue has led to the signing of agreements for competitiveness and job creation between the Catalan Government and economic and social stakeholders.

On 18 February 2005, the Catalan Government and economic and social stakeholders signed the Strategic Agreement for Internationalisation, Quality Employment and the Competitiveness of the Catalan Economy. This agreement established 86 measures for the 2005-2007 period, aimed at promoting competitiveness and guiding economic policy towards improved productivity, economic growth, quality of employment and social cohesion.

In June 2008, the agreement was revised and extended to cover the 2008-2011 period. Inevitably, its implementation was conditioned by the economic crisis and the budget restrictions imposed in consequence. When the agreement period ended, negotiations opened to reach a new pact in a context marked by the social inequalities generated by the economic crisis.

On 31 March 2014, the Government and economic and social stakeholders signed the **Agreement for Permanent Social Dialogue**,⁵ which is structured into four blocks:

1. Commitment to **permanent social dialogue** between the Government and economic and social stakeholders, embodied in the agreement to publish monitoring indicators on the Government's Transparency website and to hold annual monitoring and evaluation meetings at the highest representative level amongst the signatories.

⁵ The text of this agreement is available from: http://premsa.gencat.cat/pres_fsfp/docs/2014/04/03/19/56/45410b17-a6f6-48dc-a49a-ef9aa32b9238.pdf.

2. Commitment to dialogue over **legislative reforms** aimed at promoting employment, particularly in relation to white papers on employment, the training and vocational training system and minimum integration income.
3. Implementation of measures organised into two **shock plans** to mitigate the effects of the crisis: one to maintain employment and social protection policies; the other for the urgent recovery of production activity.
4. Medium-term lines of action to promote the **competitiveness** of the Catalan economy and **job creation**.

The main measures contained in the shock plan to support economic recovery include actions to: channel more finance to production activities; optimise the tools for innovation; promote the internationalisation of companies and investment in industry, logistics and tourism; support entrepreneurship; and promote strategic infrastructure in Catalonia. The budget earmarked for these activities is 578.5 million euros over three years (2014-2016).

The shock plan of urgent measures to maintain employment and social protection policies includes provisions for the protection of children, adolescents and families in situations of risk; to guarantee the provision of social housing; to increase resources devoted to the minimum integration income; to promote actions established in employment, labour relations and vocational training policies; and the commitment to guarantee universal healthcare. The budget provided for these measures in 2014 is 240.55 million euros.

Finally, the main measures to boost economic competitiveness include, particularly, actions in the following areas: strengthening the industrial policy; internationalisation and attraction of investment; public regulation, simplification and procurement; promoting a new Catalan model for innovation, design and creativity; improving business liquidity and financing; strategic infrastructure; and the fight against the underground economy and tax evasion.

4. 2012-2014 Review

In 2012, by adopting ECAT 2020, the Government of Catalonia endorsed the priorities and targets established by Europe 2020. However, the economic crisis and the process of recentralisation of powers in Spain have limited progress towards achieving the objectives of this strategy.

Catalonia is a competitive economy: GDP per inhabitant is significantly higher than the EU average and, despite the economic crisis, exports and direct foreign investment have continued to evolve positively. However, Catalonia is below the EU average as regards the 2020 indicators on employment rates, early school leaving, poverty, R&D investment, greenhouse gas emissions reduction, and renewable energy. The only indicator in which Catalonia is above the European average is that for numbers of people with higher studies.

As is described in Section 2 of this document, progress towards meeting the 2020 targets has been highly uneven in recent years, and has been seriously affected by the economic crisis. This has led to an increase in the differences with Europe as regards indicators on employment, R&D investment and inequalities in income distribution. On the other hand, Catalonia has reduced differences with Europe as regards indicators of early school leaving and population at risk of poverty.

The economic crisis and the Spanish Government's recentralising decisions have diminished the capacity of the Government of Catalonia to promote actions aimed at meeting the priorities established in Europe 2020. In this context, a crucial contribution made by ECAT 2020 was to define a cohesive **strategic framework** to promote, coordinate and monitor public policies that help to strengthen Catalonia's competitive advantages and to consolidate its position in Europe and the world as a country with an industrial base, an open, competitive and sustainable economy and an inclusive society. Under this strategic framework, the Catalan Government has:

1. Focused public policies on the economic and social challenges of the twenty-first century, and on the targets and policies promoted by the **Europe 2020** strategy. Amongst cross-cutting strategies, the most outstanding is RIS3CAT, which focuses on innovation and defines a shared vision for the Catalonia of 2020. However, the Government has also established strategies, plans and actions aimed at 2020 in all the ECAT 2020 priority areas (employment and training, social cohesion, innovation and knowledge, entrepreneurship, internationalisation and the green economy).
2. Made a clear **commitment to knowledge, innovation, training, efficient use of resources and internationalisation** as drivers of competitiveness in the production system and to promote job creation and social cohesion. This commitment finds its expression in strategic, coordinated planning of European funds over the 2014-2020 period. Accordingly, the ERDF Operational Programme in Catalonia, whose resources have increased by 68.1% compared to the previous period, focuses on three priority areas in ECAT 2020: knowledge and innovation, entrepreneurship and the green economy. Moreover, the ESF funding managed by the Catalan Government will be devoted to the priority areas of training and employment, and social cohesion and, through the Youth Employment Initiative, will focus particularly on young people, amongst whom the unemployment rate stood at 50.7% in 2013.
3. Encouraged discussion and analysis of the potential of the Catalan economy, and provided tools to enable, in the near future, public authorities, companies and research and innovation system stakeholders to contribute, in a coordinated way, to sustainable economic growth and helping to **position Catalonia** as a leading European economy in innovation and quality of life. Outstanding initiatives include the RIS3CAT communities and programmes to support the leading RIS3CAT sectors. These initiatives channel Catalonia's commitment to make innovation a driver for economic transformation and recovery and for the creation of new jobs.
4. Promoted **dialogue** and created new dynamics for cooperation, both between Catalan Government ministries and with other public authorities, with economic and social stakeholders and with research and innovation system companies and stakeholders. This dialogue has helped to create the necessary climate of confidence to restore the economic situation and build a sustainable and inclusive

model for economic growth, aimed at consolidating a shared vision of the country. Outstanding initiatives include the Agreement for Permanent Social Dialogue, established between the Government and social and economic stakeholders and signed in March 2014, and the Pact for the Fight against Poverty.

Box 14. Summary of the 2012-2014 Report on ECAT 2020

Areas	Obstacles	Advances
1. Training and employment	<ul style="list-style-type: none"> • Job destruction • Reduction in State transfers for active employment policies • Insufficient public spending 	<ul style="list-style-type: none"> • Improved rates of graduation in compulsory secondary education • Increase in levels of competencies amongst pupils at the end of primary and compulsory secondary education • Decrease in early school leaving • New training programmes aimed at young people in situations of school failure and dropout • Increase in numbers of vocational training students • Introduction of dual vocational training • Improved position of Catalan universities in international rankings • Introduction of the youth guarantee • Modernisation of public employment services • Agreement for Permanent Social Dialogue
2. Social cohesion	<ul style="list-style-type: none"> • Rise in numbers of households with no income • Increase in social inequalities • Insufficient public spending 	<ul style="list-style-type: none"> • Establishment of the Action Plan to Fight Against Poverty and for Social Inclusion • Strengthening interadministrative coordination (between the Catalan Government and local authorities) with regard to social services, other programmes related to social welfare and equal opportunities policies • Strengthening policies for children • Promotion of the support plan for the third sector to maintain and boost initiatives by social organisations in the field of providing services to people • Agreement for Permanent Social Dialogue

3. Innovation and knowledge	<ul style="list-style-type: none"> • Restricted access to company credit • High risk of R&D projects in the context of the economic crisis • Reduction in public spending on R&D by both the State and the Catalan Government 	<ul style="list-style-type: none"> • Implementation of new public-private partnership tools within the RIS3CAT framework • Reorganisation of technology and research centres (critical mass and international competitiveness) • Greater participation by Catalonia in EU competitive R&D programmes
4. Entrepreneurism	<ul style="list-style-type: none"> • Low demand in EU markets • Restricted access to company credit • Bureaucracy 	<ul style="list-style-type: none"> • Implementation of measures to modernise the public administration (one-stop window for business, administrative simplification, SME test, etc.) • Promotion of ICTs as a tool to drive innovation, business competitiveness and improved public services. • More tools and financial resources for SMEs
5. Internationalisation	<ul style="list-style-type: none"> • Low demand in main export markets • Insufficient investment in key state infrastructure (Mediterranean corridor, ports and airports) • Restricted access to company credit 	<ul style="list-style-type: none"> • Exports performing well • Improved international attraction of Catalonia (foreign investment, tourism, universities, etc.) • Improved levels of English in the education system
6. Green economy	<ul style="list-style-type: none"> • Restricted access to credit for key investment • State legislation on renewable energy • Insufficient awareness 	<ul style="list-style-type: none"> • Reduction in energy intensity. • Decrease in greenhouse gas emissions • Creation of tools to promote energy efficiency and biomass. • Inclusion of efficient use of resources in business competitiveness strategies (eco-design, ecological agriculture, process redesign, etc.)

Annex. Strengths and opportunities of the Catalan economy and of Catalonia's RIS3 leading sectors

This annex contains a summary of the main strengths and opportunities of the Catalan economy and sectors that, due to their importance and potential, may act as the cornerstones for economic recovery and guiding the Catalan economy towards a smarter, more sustainable and more inclusive growth model.⁶

A1. Strengths and opportunities of the Catalan economy

Internationalisation

Strengths

- High degree of openness of the Catalan economy.
- Exports performing well.
- Growing number of Catalan industrial multinationals.
- Significant presence of companies with foreign capital, particularly around Barcelona. Barcelona is one of the world's most attractive cities for foreign investment, organising international congresses and attracting international students for MBA courses.

Opportunities

- Large multinational companies choose Barcelona as the platform for establishing and developing businesses and networks of innovation, and as a centre for managing business in southern Europe and the Mediterranean area.
- Demand is growing in emerging countries for products and services in which Catalonia has important competitive advantages (tourism, food and drink, health, design, etc.).
- Catalonia's optimal geostrategic position as a connector between the European and Asian economies is key to business competitiveness. The development of the Mediterranean rail corridor opens up opportunities for attracting goods traffic from Asia and destined for Europe.

⁶ This annex summarises the following documents: *Analysis of the Catalan economy: Strengths, Weaknesses, Opportunities and Threats*; and *Analysis of Leading Sectors and Capacities of Enabling Technologies*. Both were drawn up within the framework of work on RIS3CAT and are available from: <http://www.gencat.cat/catalunya2020>.

Research and innovation system

Strengths

- With 1.5% of the EU-27 population, Catalonia generates 2.9% of scientific publications, receives 2.2% of funds allocated under the Seventh Framework Programme for Research and attracts 3.29% of European Research Council projects (Catalonia is the third-most important EU country by number of projects per million inhabitants). With 0.1% of the world population, Catalonia produces 1% of scientific publications.
- Catalonia has an important network of centres for the generation and application of knowledge (12 universities and 3 of the top 25 business schools in Europe). This network generates a significant critical mass of qualified and highly valued professionals in the world of employment and science. There are also hospitals and research centres with great international prestige in the fields of science and knowledge transfer.
- Over the last twenty years, stable public policies have been agreed in Catalonia, reflecting political commitment to R&D.
- The ICREA programme is a successful model, recognised internationally, for attracting and retaining talent.
- Catalonia has scientific and technological infrastructure that enjoys great international prestige (the National Centre for Genome Analysis, the Alba Synchrotron and the Barcelona Supercomputing Centre).
- Catalonia's R&D&I is sufficiently competitive to meet new challenges and play a role major scientific and technological projects in the future.
- Incentives are provided for the concentration and consolidation of research stakeholders in order to increase critical mass and competitiveness.
- Catalonia's highly developed network of technology centres is gradually gaining position in European and international platforms and projects.
- There are many collaborative initiatives amongst research and innovation system stakeholders.
- Catalonia and, especially, Barcelona, are internationally renowned for design and creativity, important assets for the Catalan innovation system.
- Barcelona is the world mobile capital and, in 2014, European capital of innovation.

Opportunities

- R&D&I processes are becoming increasingly global and open. The Catalan R&D system occupies a good position: it is a centre of attraction for researchers of international prestige and is fully interconnected with European networks and platforms (strong presence in framework research programmes and ERC funding, participation in both regional organisations such as the Four Motors for Europe and the Working Community of the Pyrenees) and international networks (stable research and innovation cooperation with Israel, Massachusetts, USA, Quebec, Canada, and Santa Catarina, Brazil).

Business system

Strengths

- The industrial sector represents 19.3% of GDP.
- Catalonia has a long industrial tradition: this was one of few southern European regions that took part in the industrial revolution.
- Catalan industry is highly diversified and is devoted, basically, to processing.
- There are a growing number of large and medium-sized enterprises with successful strategies and potential to become leaders.
- Catalonia is a pioneering region and an international reference for cluster policies. The production sector is divided into territorial clusters, which are the object of public and private initiatives to strengthen their competitiveness and foster cooperation.

Opportunities

- As a result of rising transport costs, energy prices and demand for customised and local products and services, labour costs become less important as a competitive factor than externalities generated by presence in an innovative environment that enables cooperation with specialised suppliers, technology centres, engineering and design firms and other qualified services and users with the goal of developing innovative and customised solutions.
- Europe 2020 is committed to industry, ICT and enabling technologies as drivers for change. Catalonia has a wide industrial base and in recent years has established an extensive network of research and technology centres that are highly competent in the ICTs and the enabling technologies, and which has high potential to develop applications for Catalan industry.
- The capacity to generate social experiences and networks has become a key factor in competitiveness because, more and more, European consumers want new and enriching experiences. In this context, creativity and design become key for transforming ideas into products and services that will be attractive to the market.
- The transition to a green, low carbon, low energy intensity economy that is resilient to climate change generates new opportunities for economic activity and job creation, especially in the field of efficient use of resources and sustainable urban development ("smart city"), a field in which Barcelona and other cities in Catalonia occupy an excellent position and have become international benchmarks.

Environment

Strengths

- The strategies that Catalonia and Barcelona implement to attract foreign investment have become international references.
- In recent years, significant progress has been made in simplifying the legislative framework and regulatory procedures that affect businesses (the one-stop business window, reducing the number of days required to start a business, and the Omnibus laws).
- There is an extensive public-private network of public support for entrepreneurship (agencies, incubators, entrepreneurial support services, etc.).
- The Catalan economy is immersed in intense transformation based on private sector restructuring, public finance strengthening, price adjustment and reallocating productive factors.

- The contribution of voluntary organisations to the cohesion and structure of society has made Catalonia a European reference point. Similarly, Catalonia has always been a destination for immigrants. Policies to promote integration and equal opportunities have enabled these newcomers to play active role in Catalonia's development and the construction of an inclusive society.

Opportunities

- Increasing life expectancy and population ageing generate growing demand for health services to ensure good quality of life for citizens of all ages (availability of wider range of health services and facilities and more sophisticated diagnostic procedures, treatments and therapies). Medical tourism is a growing phenomenon worldwide and is one of the key pillars in the international growth of the Catalan health industry. The Catalan healthcare sector is internationally renowned as a unique model and, above all, for its management of health services and primary care, as well as for training and applied R&D.
- Rising life expectancy and population ageing also generate increased demand for social care, especially in the fields of promoting personal self-dependency and care for dependant people. Accordingly, social services are an important economic sector in the Catalan economy as a whole, one that has a very direct effect on employment.
- Today more than ever, the great social challenges require social innovation. Catalonia has a long-standing tradition in the social economy and civil society, which promote innovative entrepreneurial initiatives aimed at providing solutions to social problems.
- The great potential for development and application presented by the energy efficiency and saving technologies will generate new opportunities for economic activity globally. The development of potential renewable energy resources in Catalonia will reduce energy dependence on imports of fossil fuels.

A.2. Strengths and opportunities of Catalonia's RIS3 leading sectors

Strengths

Opportunities

Food and drink

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| <ul style="list-style-type: none"> • Catalonia is internationally renowned for its cuisine and for its food and drink. • There are companies throughout the value chain: from the primary sector to retail, as well as the packaging industries, food and drink machinery and additives for raw materials. • Catalonia has strong agricultural and livestock farming traditions and produces a wide range of goods (oil, wine, fruit, meat, sausages, dairy products, etc.). • "Fira Alimentària" is one of the most important and prestigious food and drink shows, both nationally and internationally. | <ul style="list-style-type: none"> • World food demand will increase by approximately 70% by 2050. Improved living standards generate demand for a more varied and higher quality diet in the emerging countries. • Demand for local products with a low carbon footprint is encouraged by various factors, such as rising energy and transport costs, water scarcity and the growing awareness of the need to conserve the environment and avoid food waste. • Food plays a key role in ensuring a healthy, active old age. Over the coming years, demand will increase for a variety of functional, safe, healthier foods. |
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Energy and resources

- Catalonia has companies, technology centres and research initiatives that are references in the management of water as a scarce resource (water saving, recycling, sanitation, energy efficiency, use of recycled water, cogeneration of biosolids and desalination).
- The sun, the wind and forests are resources that are abundant in Catalonia. However, they are little used to produce renewable energy.
- Barcelona, European capital of innovation, has become internationally established as a smart city and a laboratory to promote new solutions in mobility, sustainable construction and smart grids. This position is reinforced by the city's status as mobile world capital and by an experienced business system and a powerful automotive industry.
- Tarragona Petrochemical Park is the largest in Spain and one of the most important in southern Europe.
- The commitment to meet the 20/20/20 targets and the development and implementation of European legislation in this area (Framework Directive on Waste, Directive on Industrial Emissions, Directive on Energy Efficiency in Buildings, REACH Regulation, etc.) strengthen Catalonia's growth potential in this area.
- The promotion of smart cities in Europe generates opportunities.
- There exist great market opportunities for solutions to enable sustainable management of water resources that are under increasing pressure and to minimise the environmental, social and economic impact generated by the problems of water supply shortage.
- The fact that the availability of certain natural resources that are vital to the economy is decreasing makes the transformation of the material recovery and recycling industries an urgent requirement.

Industrial systems

- The industrial sector in Catalonia is highly diversified; there are companies here in all the segments that go to form this activity. Catalonia is particularly strong (at both national and international scale) in machinery for packing and packaging; food machinery; textile and garment-making machinery; motors, transformers, generators and electrical distribution and control equipment; and batteries, cables and other electrical material. It also has considerable capacity for the manufacture of machinery for woodworking, printing, farming, machine tooling and for renewable energy and electrical lamps.
- The increasing cost of transport and access to resources, rising energy prices and increasing demand for customised products and services that are local and generate a smaller ecological footprint are all factors that open up new opportunities to companies operating in this sector, which become strategic in regard to improving the competitiveness of the business fabric.

Design-related industries

- In Catalonia, these sectors (basically, fashion and interior design) are undergoing transformation towards successful new sales strategies.
- It is difficult to find other regions in the world that specialise so highly in the design manufacturing sector that we might call brand & retail. There are very large companies in the world engaged in this business, but not clusters with the same concentration as in Catalonia.
- These new strategies are enjoying a period of expansion, despite the world crisis.

- Creativity is a driver in the sector, which benefits from the Barcelona brand and the high concentration of design centres and schools and other related services found in Barcelona and its surrounding area.

Industries related to sustainable mobility

- The automotive sector forms a highly complete cluster: two car assembly plants; five design centres; specialised technology centres; the Circuit de Catalunya race track; a leading international car show; more than two hundred spare parts suppliers; and powerful related industries.
- Catalonia has all the other elements necessary to become a leader in the new model of sustainable mobility: a dynamic ICT sector; a firmly-established energy industry; and cities highly suited to the application of these new solutions.
- In Catalonia there is a huge diversity of new “born global” companies in the field of sustainable mobility, and these enterprises have enormous growth potential.

Over the last few decades, growth in the sector has been based on manufacturing and the massive use of combustion vehicles. This situation is now changing: mobility is going through a period of transition in which more sustainable vehicles are emerging and the phenomenon of carsharing or carpooling is growing, as is the use of cleaner fuels and new concepts of mobility based on the development of new mobile applications.

Health industries

- The BioRegion is a model for international success: political will; diversified, competitive business system; growth above the European average; entrepreneurship; critical mass of researchers; prestigious universities; good geographic location; excellent level of innovation; and commitment by stakeholders involved.
- Catalonia has first-class biomedical infrastructure and highly-trained, well-qualified workers.
- Catalonia has established a unique hospital research model that enjoys international prestige: health research institutes, attached to the large university hospitals, embracing a variety of disciplines and types of research, and guaranteeing transfer of the scientific knowledge generated in clinical practice, which assigns a key role to the hospital sector as a driver of innovation in medical technologies. Catalonia is also frequently chosen as a site for conducting clinical trials.
- Rising life expectancy and population ageing, combined with increasing demand for more healthcare facilities and services and more sophisticated diagnostic procedures, treatments and therapies, all goes to generate new economic opportunities.
- Medical tourism is a growing phenomenon worldwide, especially in the more advanced economies. The most important factors for competitiveness are, firstly, the reputation of specialist healthcare services and, secondly, price.

Cultural and experience-based industries

- The main factors that make Catalonia such a popular tourist destination include good climate and geographical conditions, outstanding natural heritage, cultural and culinary diversity and a wide range of possibilities.
- The international positioning of the Barcelona brand is a key asset for tourism and the cultural and creative industries. Barcelona is the capital of innovation, design, fashion, food and drink, architecture and creativity, and sport; city of international congresses, fairs and festivals; Mediterranean capital; city of business and quality of life.
- Multiculturalism and multilingualism are added values that attract talent and investment, especially in economic sectors like the cultural and creative industries, food and drink and fashion.
- The Catalan language has a strong presence in Web 2.0 products and on Internet. Catalan is amongst the top 10-15 languages in world digital communication rankings.
- The transition to the digital environment and globalisation have transformed the environment of the cultural and creative industries (emergence of new stakeholders, co-existence of very large structures with micro-organisations, transformation of value chains and changes in consumer behaviour and expectations). These changes present great opportunities.
- Global trends in tourism generate new economic opportunities (the new middle classes in emerging countries require tourism services, and population ageing creates growing demand for adapted services, which are less seasonal).