

# Entrepreneurship in Portugal in relation to other European Union countries from 2010 to 2014

## Are we far from or close to the tipping point?

Susana C. Santos and António Caetano

**ABSTRACT:** This study analyses the dynamics of entrepreneurship in Portugal and other European Union countries from 2010 to 2014. We used the Global Entrepreneurship Monitor (GEM) data collected through representative samples of the population of each country to analyze three main areas: entrepreneurial activity, entrepreneurial attitudes and entrepreneurial aspirations. Our results show that in 2010, 2011, 2012 and 2013, the total early-entrepreneurship rate in Portugal was the same as the average in EU countries but in 2014 it was higher. However, this rise in entrepreneurial activity in Portugal in 2014 was mainly necessity-driven and not improvement-driven. The results also show that despite the fact that Portugal was perceived to have poor opportunities for new business during this period, Portuguese people believe more strongly than people in other countries that they have the required knowledge and skills to start a business. In general, although entrepreneurial attitudes in Portugal are characterized by average entrepreneurial intentions, lower perceived opportunities, higher perceived capabilities to start a business, their fear of failure would prevent them from starting a business. These results are relevant with regard to rethinking the promotion of entrepreneurship in Portugal.

**Key words:** Entrepreneurship; Early-Stage Entrepreneurial Activity; Portugal; European Union

**TÍTULO:** Empreendedorismo em Portugal em comparação com os países da União Europeia entre 2010 e 2014: Estaremos perto (ou não) do ponto de viragem?

**RESUMO:** O presente estudo analisa a dinâmica do empreendedorismo em Portugal e noutros países da União Europeia entre 2010 e 2014. Foram utilizados os dados do Global Entrepreneurship Monitor (GEM), recolhidos através de amostras representativas da população de cada país, para analisar três áreas principais: atividade empreendedora, atitudes empreendedoras e aspirações empreendedoras. Os resultados mostram que, em 2010, 2011, 2012 e 2013, a taxa de atividade empreendedora «early-stage» em Portugal foi igual à média nos países da União Europeia mas mais elevada em 2014. No entanto, este aumento da atividade empresarial em Portugal, neste último ano, foi principalmente motivado não pela oportunidade mas pela necessidade. Os resultados mostram também que, apesar do facto de em Portugal existir a perceção de que há poucas oportunidades para a criação de empresas, neste período, os portugueses estão, simultaneamente, convictos de que possuem as competências e os conhecimentos necessários à criação de uma empresa. Em geral, apesar das atitudes empreendedoras em Portugal serem caracterizadas por intenções empreendedoras de nível médio, por menos oportunidades percebidas e por maiores capacidades percebidas para a criação de empresas, o

medo do fracasso impediria a criação de empresas. Estes resultados são importantes para a reflexão da promoção do empreendedorismo em Portugal.

**Palavras-chave:** Empreendedorismo; Atividade Empreendedora Early-Stage; Portugal; União Europeia

**TÍTULO:** Emprendimiento en Portugal en comparación con los países de la Unión Europea 2010–2014: Estaremos cerca (o no) del punto de inflexión?

**RESUMEN:** El presente estudio analiza la dinámica del emprendimiento en Portugal y otros países de la Unión Europea en 2010, 2011, 2012, 2013 y 2014. Fueron utilizados los datos de Global Entrepreneurship Monitor (GEM), recogidos a través de muestras representativas de la población de cada país para analizar tres áreas principales: actividad emprendedora, actitudes emprendedoras y aspiraciones emprendedoras. Los resultados muestran que, en 2010, 2011, 2012 y 2013, la tasa de actividad emprendedora early-stage en Portugal fue igual a la media de los países de la Unión Europea, aunque más elevada en 2014. Sin embargo, este aumento de la actividad empresarial en Portugal, en 2014, fue principalmente motivada no por la oportunidad, sino por la necesidad. Los resultados también muestran que, a pesar del hecho de que en Portugal existe la percepción de que hay pocas oportunidades para la creación de empresas, en este periodo, los portugueses están simultáneamente convencidos de que poseen las habilidades y conocimientos necesarios para la creación de una empresa. En general, a pesar de que las actitudes emprendedoras en Portugal sean caracterizadas por intenciones emprendedoras de nivel medio, por menos oportunidades percibidas y por mayores capacidades percibidas para la creación de empresas, el miedo al fracaso impediría la creación de empresas. Estos resultados son importantes para reflexionar sobre la promoción del emprendimiento en Portugal.

**Palabras clave:** Emprendimiento; Actividad Empreendedora Early-Stage; Portugal; Unión Europea

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Entrepreneurship has been broadly conceptualized as critical to social, educational, regulatory and economic development (Holcombe, 1998; Acs and Szerb, 2007; Acs and Amorós, 2008). Today, most economists, politicians and decision makers acknowledge the important role entrepreneurs play in society. Economic development is associated with the introduction and implementation of innovative ideas, whether that be with regard to a product, a process, a market or organizational innovations. When new ventures are successfully launched, new jobs are also created and consequently, during times of economic crisis, reliance on entrepreneurship is even greater (e.g., Kotsios and Mitsios, 2013; Papaoikonomou et al., 2012).

Bygrave and Hofer (1991) clearly stressed the relevance of revealing the entrepreneurship process and model for society in general: "If researchers could develop a model or theory to explain entrepreneurial processes, they would have the key that unlocks the mystery of entrepreneurship. (...) With that kind of predictive power, we would have the key to economic growth! (...) Entrepreneurship would be the giant of the business sciences, perhaps all the social sciences!!" (p. 16). Hence, discovering the dynamics of entrepreneurship in a specific country or context can contribute towards clarifying the mysteries of entrepreneurship.

In this study, we aim to describe the dynamics of entrepreneurship in Portugal and other European Union (EU) countries from 2010 to 2014. These five consecutive years include the period when the economic, financial and social crises were at their most dramatic in Portugal (2010 to 2012) and the two subsequent years when there was a slow recovery from the crisis (2013 and 2014). We will focus on the indicators of entrepreneurial activity, entrepreneurial attitudes and entrepreneurial aspirations in Portugal and in other EU countries.

This paper contributes to understanding the evolution of entrepreneurship in Portugal during the crisis, in comparison to other EU countries. Theoretically, we contribute to the conceptualization of entrepreneurship indicators at a national level. In practice, our study allows us to analyse the strengths and weaknesses of entrepreneurship in Portugal during the years of crisis and slow recovery. We analyse the position of

Portugal in relation to other EU countries, and how close or far away it is from the "tipping point" of entrepreneurship, compared with those countries.

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The tipping point was described by Malcolm Gladwell (2000, p. 12) as "the moment of critical mass, the threshold, the boiling point" of the transformation of opportunities, social aspirations or tendencies into real action – that is: the launching of new businesses, changing of mentalities and innovating cultures. We borrow the expression "tipping point" as a metaphor for the transformation of entrepreneurial spirit into real entrepreneurial activities and cultures that are required in Portugal in order to contribute towards overcoming the crisis.

### Entrepreneurship activity and economic growth

Literature repeatedly suggests that entrepreneurial activity leads to economic growth, both at national and local level (Kreft and Sobel, 2005). More specifically, research conducted using the most relevant data – the worldwide barometer of entrepreneurship (Global Entrepreneurship Monitor – GEM) – showed that the level of entrepreneurial activity in a country can explain a significant part of the differences in economic growth rates (Reynolds et al., 1999).

In general, there is a U-shaped relationship between national entrepreneurship levels and economic growth (Wennekers et al., 2005). Nevertheless, there are several variables that influence this relationship. These include the different types of entrepreneurship: necessity vs. opportunity entrepreneurship – (Wong et al., 2005); types of economic development – emerging vs. developed countries (e.g., Valliere and Peterson, 2009); characteristics of export orientation (Hessels and van Stel, 2009); or income distribution (Martin et al., 2010).

Despite the relevance of the moderators in the relationship, the outcomes of entrepreneurial activity are, by themselves, highly associated with economic growth, since they are capable of fostering job creation, increasing income and wealth, opening new markets or establishing connections between local and global economies (e.g., Minniti, 1999; Bygrave and Cowling, 2007; Koellinger and Minniti, 2009).

In the context of the economic and financial crisis, entrepreneurship is considered to be one of the most promising engines that can help foster the dynamics of the system.

### The entrepreneurship barometer

GEM is a joint research initiative of Babson College in Wellesley (USA) and the London Business School. The first GEM data wave was collected in 1997. At that time, GEM focused on the G7 countries (i.e., Canada, France, Germany, Italy, Japan, United Kingdom and United States) and on Denmark, Finland, and Israel. Nowadays, GEM comprises 99 economies (Xavier et al., 2013).

The GEM defines entrepreneurship as “any attempt at new business or new venture creation, such as self-employment, a new business organisation, or the expansion of an existing business, by an individual, a team of individuals, or an established business” (Bosma et al., 2012, p. 9). The entrepreneurship process defined by the GEM comprises several phases. The first phase focuses on the intention to start a business and involves potential entrepreneurs. Following this, the process includes the nascent entrepreneurial activity, including those who are actually starting a business, or running new businesses; i.e., businesses with more than three months but less than three and a half years. Together, nascent and new business owners are part of the TEA in an economy. TEA is the main index of GEM research and represents the percentage of adults in the population who are involved in either nascent or new firms. The difference between nascent and new firms is that the first are those that have survived the start-up phase, i.e., they have been active for over twelve months. The next stage refers to established businesses, which includes those that have been in existence for more than three and a half years (Xavier et al., 2013).

The entrepreneurship process is embedded in an institutional environment that affects entrepreneurship and eco-

nommic development, which explains how entrepreneurship is affected by national conditions. This institutional environment includes entrepreneurial framework conditions that influence individual decisions and entrepreneurship profiles across economies (Bosma et al., 2009; Xavier et al., 2013).

Using the typology suggested by Porter et al. (2002), GEM classifies countries according to their economies that can be targeted for different purposes: factor-driven economies, efficiency-driven economies and innovation-driven economies. In factor-driven economies, the basis of economic development is still largely dependent on agricultural activity and progression of this economy is realized through the gradual migration of labour to the secondary and tertiary sectors. Some countries that are part of this group and participate in the GEM study include the Middle East and North Africa (e.g., Algeria, Egypt, Iran and Palestine), sub-Saharan Africa (e.g., Angola, Botswana, Ethiopia, Ghana, Malawi, Nigeria, Uganda and Zambia) and Asia Pacific and south Asia, Pakistan (Xavier et al., 2013).

In economies predominantly oriented towards efficiency, the industrial sector is already developed and new companies can enter the market to enhance economic productivity and generate capital investment. The efficiency-driven economies are in the regions of Latin-America and the Caribbean (e.g., Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Panama, Peru, Trinidad and Tobago, and Uruguay), in the Middle East and North Africa, such as Tunisia; in sub-Saharan Africa (e.g., Namibia and South Africa), in the Asia-Pacific region and South Asia (e.g., China, Malaysia, and Thailand), some countries in the European Union (e.g., Estonia, Hungary, Latvia, Lithuania, Croatia, Poland and Romania) and non-European Union countries (e.g., Bosnia and Herzegovina, Macedonia, Russia, and Turkey) (Xavier et al., 2013).

Finally, the innovation-driven economies are based on a large increase in the services sector, while the development of industry and agriculture undergoes considerable change and improvement. The fact that these economies take a gamble on innovation and R&D projects, promotes the growth of entrepreneurial activity that seeks to optimize the opportunities for innovation and is oriented to the needs of an increas-

ingly demanding population. In the Middle East and North Africa, Israel is the innovation economy country. In the Asia-Pacific region and South Asia the four countries which are considered to be innovation-driven are: Japan, Republic of Korea, Singapore, and Taiwan. In addition, the European Union (e.g., Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom), non-European union countries (e.g., Norway and Switzerland) and the United States are also integrated in this category of economic development (Xavier et al., 2013).

In addition to economic indicators, the GEM also takes into account three components of entrepreneurship: *entrepreneurial activity*, *entrepreneurial attitude*, and *entrepreneurial aspirations*. Entrepreneurial activity is the degree to which people actually implement their business ideas. *Entrepreneurial attitude* is the position of individuals in relation to entrepreneurship, which is to say – their perception of existing opportunities, or the perception of risk that individuals are willing to take. Finally, *entrepreneurial aspiration* reflects the qualitative nature of business opportunities with regard to its development, internationalization, and product innovation, among others.

To our knowledge, there are still a lot of questions regarding the impact of entrepreneurship in a context of crisis. Some exceptions include a study about the role of entrepreneurship in the Greek economy (Kotsios and Mitsios, 2013); and the role of entrepreneurial small and medium enterprises in times of crisis (Papaoikonomou et al., 2012).

In this paper, we describe the dynamics of entrepreneurship in Portugal and the other European Union countries in 2010, 2011 and 2012 – three years when the economic, financial and social crisis were more dramatic – and in 2013 and 2014 – two years when there was a slow recovery from the crisis. In the next section, we describe the measures and results of the entrepreneurship activity, entrepreneurial attitudes and entrepreneurial aspirations in Portugal and other European Union (EU) countries from 2010 to 2014. We focus our analysis on 2010, 2011 and 2012 because this time span is integrated in the Eurozone crisis (Quarterly Report on the Euro Area, 2010), and 2013 and 2014 as this is a time span characterized by a slow recovery from the crisis. In Box

1 we describe the European socio-economic environment during the period under analysis (see Box 1, p. 42).

## Method

### Sample

We used the GEM data based on representative samples, at the national level, from EU countries in 2010 (Kelley et al., 2011), 2011 (Kelley et al., 2012), 2012 (Xavier et al., 2013), 2013 (Amorós and Bosma, 2014) and 2014 (Singer et al., 2015). A total of 23 EU countries were included in our sample.

The GEM data were not collected in Bulgaria, Cyprus, Luxembourg, the Czech Republic and Malta for more than two years during this period, thus our analysis does not include these countries. Furthermore, some countries did not collect data in the five years we are interested in. Table 1 presents the countries and correspondent years on which we based our results (see Table 1, p. 43).

### Measures

Over a five-year period, we analysed entrepreneurship activity, entrepreneurial attitudes and entrepreneurial aspirations in the countries included in our study.

#### *The entrepreneurship activity indicators*

The main entrepreneurship activity indicators following the GEM model are: the TEA, necessity, and opportunity-driven entrepreneurs.

The TEA measures the proportion of adults (18 to 64 years old) in an economy who are nascent and new entrepreneurs. The TEA is, then, an analysis of entrepreneurial businesses which are up and running in the year in which the country is analysed (Bosma et al., 2012; Xavier et al., 2013).

The GEM also differentiates the individuals who start their own business in answer to their need for an income to support themselves and families; from those individuals who start their businesses as an answer to an opportunity they identified and decided to exploit. The former are named necessity entrepreneurs, and are driven by necessity motives such as no better job option, or a need to make a living to support families. The latter – named *improvement-driven opportunity entrepreneurs* – are driven by an opportunity

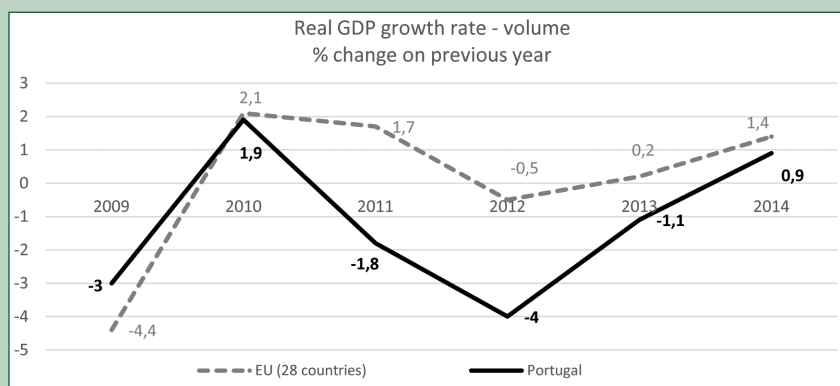
### Box 1

#### An outlook on the economic and labour indicators in the European Countries (EU-28) and Portugal between 2010 and 2014

The European Union started facing a global financial crisis in mid-September 2008 as a consequence of the intense financial tensions and increased spread of the real economy worldwide (BCE, 2008). A severe recession in most countries in 2009 was followed by a partial recovery in 2010, 2011, and 2012 (Eurostat Pocketbooks, 2012). In 2009, there was a contraction of the real GDP growth rate in the European Union (EU-28) to -4.5%; in 2010 it increased to 2.0%; in 2011 to 1.7%, in 2012 the rate contracted to -0.5%, in 2013 it increased to 0.2% and 1.4% in 2014 (Eurostat Statistics, 2015). Graph 1 depicts the real GDP growth rate, as a volume percentage change on the previous year, in the EU 28 countries and Portugal.

Graph 1

#### GDP growth rate, as a volume percentage change on the previous year, in the EU 28 countries and Portugal from 2009 to 2014

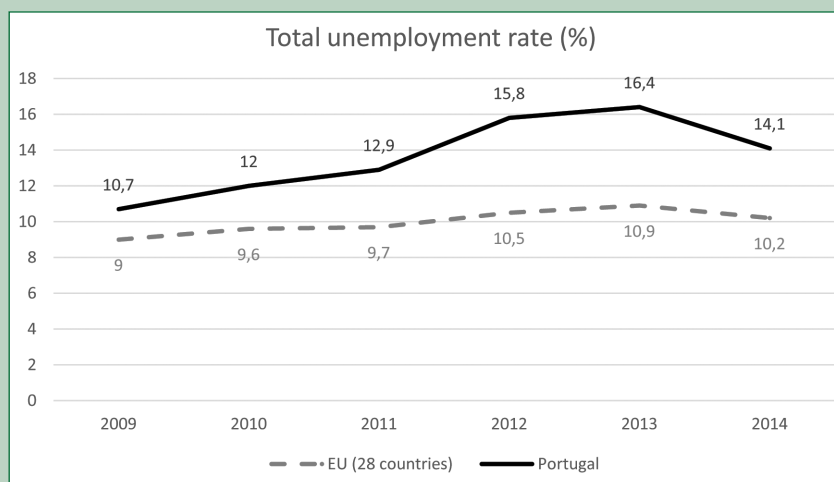


Source: Eurostat Statistics, 2015

As a result of the financial and economic crisis, the level of unemployment climbed in the EU-28. The total unemployment rate represents the unemployed as a percentage of the labour force. This comprises people aged between 15 to 74 who were without a work (Eurostat Statistics, Unemployment Bulletin, 2014). In 2010 and 2011 the unemployment rate in EU-28 was 9.7%, but in 2012 it climbed to 10.5%, 10.9% (2013) and 10.2% (2014) (Graph 2). In Portugal, the total unemployment rate is systematically higher than in EU-28.

Graph 2

#### Total unemployment rate in the EU 28 countries and Portugal from 2009 to 2014



Source: Eurostat Statistics, 2015

**Table 1**  
**EU countries and years included in the data analysis**

	2010	2011	2012	2013	2014
Austria	No data available	No data available	✓	✓	✓
Belgium	✓	✓	✓	✓	✓
Croatia	✓	✓	✓	✓	✓
Denmark	✓	✓	✓	No data available	✓
Estonia	No data available	No data available	✓	✓	✓
Finland	✓	✓	✓	✓	✓
France	✓	✓	✓	✓	✓
Germany	✓	✓	✓	✓	✓
Greece	✓	✓	✓	✓	✓
Hungary	✓	✓	✓	✓	✓
Ireland	✓	✓	✓	✓	✓
Italy	✓	No data available	✓	✓	✓
Latvia	✓	✓	✓	✓	No data available
Lithuania	No data available	✓	✓	✓	✓
Netherlands	✓	✓	✓	✓	✓
Poland	No data available	✓	✓	✓	✓
Portugal	✓	✓	✓	✓	✓
Romania	✓	✓	✓	✓	✓
Slovakia	No data available	✓	✓	✓	✓
Slovenia	✓	✓	✓	✓	✓
Spain	✓	✓	✓	✓	✓
Sweden	✓	✓	✓	✓	✓
United Kingdom	✓	✓	✓	✓	✓

<sup>a</sup> Except measure of innovative orientation



they have identified, and what motives them is a desire for greater independence and a higher income.

Thus, the necessity-driven entrepreneurs correspond to a percentage of those involved in total early-stage entrepreneurial activity who are involved in entrepreneurship because they had no other work option. The opportunity-driven entrepreneurs, on the other hand, correspond to the percentage of those involved in total early-stage entrepreneurial activity who: (i) claim to be driven by opportunity, as opposed to finding no other work option; and (ii) who indicate that the main driver for being involved in this opportunity is to become independent or increase their income, rather than merely maintain their income (Bosma et al., 2012; Xavier et al., 2013).

#### *The entrepreneurial attitude indicators*

The entrepreneurial attitude indicators include four measures: opportunity perceptions, capability perceptions, fear of failure and intention to start a business. These indicators, which refer to individual assessments based on perceptions, allow us insight into national beliefs on entrepreneurial attitudes.

Opportunity perceptions assess the perception of good opportunities to start a business in the area you live in and is operationalized by a question "In the next six months, will there be good opportunities for starting a business in the area where you live?" (e.g., Kelley et al., 2011). This refers to the percentage of 18-64-year olds who see good opportunities to start a firm in the area where they live.

Capability perceptions are a measure of whether someone has the required knowledge and skills to start a business. Capability perception is assessed through the question "Do you have the knowledge, skill and experience required to start a new business?", and refers to the percentage of 18-64-year-olds in the population who believe they have the required skills and knowledge to start a business.

Fear of failure is a measure of fear regarding the launch of a business and is assessed by means of the item "Would fear of failure prevent you from starting a business?". It corresponds to the percentage of 18-64-year-olds in the population with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business.

The intention to start a business is measured by the item "Are you, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years?" and relates to an individual's intention to launch a business. It refers to the percentage of the 18-64-year-old population (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years (Kelley et al., 2011; Bosma et al., 2012; Xavier et al., 2013).

#### *The entrepreneurial aspiration indicators*

Besides entrepreneurial activity and attitudes, the GEM model also includes entrepreneurial aspirations in order to assess the aspiration levels of the individuals involved in the entrepreneurial activity. Entrepreneurial aspirations involve three main indicators: growth expectations, new product or innovative orientation; and international orientation. These indicators can assess the qualitative nature of entrepreneurial activity, such as the growth in human resources, the introduction of new products or processes, or their entrance to foreign markets (Bosma et al., 2009).

Growth expectation early-stage entrepreneurial activity refers to the percentage of TEA that expect to employ at least five employees five years from now. This is assessed through the question "How many people will be working for this business, not counting the owners but including all exclusive sub-contractors, when it is five years old?".

The new product early-stage entrepreneurial activity, or innovative orientation, refers to the percentage of TEA that indicate their product or service is new to at least some customers. The item which allows us to assess the innovative orientation is "Will all, some, or none of your potential customers consider this product or service new and unfamiliar?".

The international orientation early-stage entrepreneurial activity is the percentage of TEA that indicate that at least 25% of the customers come from other countries, as the answer to the question "What proportion of your customers will normally live outside your country?".

In the next section, we present the results of our analysis, organized in three topics: entrepreneurship activity, entrepreneurial attitudes and entrepreneurial aspirations.



## Results

### Entrepreneurship activity results in Portugal in comparison with other European Union countries from 2010 to 2014

In 2010, Portugal evidenced a TEA index of 4.5%, showing that there were 4 to 5 early-stage entrepreneurs per 100 people aged between 18-64. In 2011, Portugal evidenced a TEA index of 7.5%. The 2012 TEA for Portugal was 7.7%, showing that there were 7 to 8 early-stage entrepreneurs per 100 people. In 2013, this increased to 8.2% and, in 2014, to 10%. Amongst the eighteen European Union (EU) countries participating in 2010, Portugal ranked 12<sup>th</sup>, preceded by Slovenia (TEA=4.7%) and followed by Romania (TEA=4.3%) and Spain (TEA=4.3%). Latvia had the highest early-stage entrepreneurial activity in 2010 (TEA=9.7%) and Italy the lowest (TEA = 2.3%). In 2011, data were collected in twenty countries and Portugal was ranked 8<sup>th</sup>, with Slovakia being ranked 1<sup>st</sup> (TEA=14.2%), and Slovenia the last (TEA=3.7%). Portugal was between Greece (TEA=8%) and Croatia (TEA=7.3%). In 2012, there were twenty-three countries involved. Estonia was the highest in the early stage entrepreneurial activity (TEA=14.3%) and Italy was the lowest (TEA=4.3%). Portugal occupied 11<sup>th</sup> position in the ranking, between Croatia (TEA=8.3%) and Lithuania (TEA=6.7%). Table 2 describes the early-stage entrepreneurial activity in the EU countries in the five years of analysis (see Table 2, p. 46).

Another entrepreneurship activity indicator refers to the motivation underlying the entrepreneurial activity: necessity (see Table 3) and improvement-driven opportunity entrepreneurship (see Table 4). In 2010, 22% of the Portuguese early-stage entrepreneurial activity was driven by necessity, while in 2011 and 2012 the percentage went down to the 18%. However, in 2013 and 2014 Portuguese necessity-driven entrepreneurial activity increased to 22% and 28%, respectively. In 2010, the necessity-driven result for Portugal was between Spain (25%) and Hungary (20%), with Croatia having the highest percentage (32%) and the Netherlands the lowest (8%). In 2011, the necessity-driven rate in Finland was equivalent to that of Portugal (18%), while the United Kingdom (UK) was slightly lower (17%). In 2012, Belgium, Estonia, France, Portugal and the UK all showed the same necessity-driven

rate (18%), and the EU countries results varied between 41% in Poland and 7% in Sweden. In 2013, the necessity-driven result of Portugal ranked 11<sup>th</sup>, between Lithuania (Necessity-driven=23%) and Latvia (Necessity-driven=21%), with Poland having the highest percentage (48%) and the Netherlands and Denmark the lowest (8%). In 2014, the necessity-driven TEA of Portugal occupied the 10<sup>th</sup> highest position in the ranking, between Romania (29%) and Slovenia (25%). But necessity-driven entrepreneurship cannot be dissociated from improvement-driven opportunity entrepreneurship. In fact, the results of both complement each other (see Tables 3 and 4, pp. 47-48).

The results of the improvement-opportunity driven early-stage entrepreneurial activity in Portugal were quite stable over four of the five years under analysis. More specifically, these were: 52% in 2010, 58% in 2011, 53% in 2012, and 51% in 2013. In 2014, the improvement-opportunity driven entrepreneurs in Portugal was 71%. In 2010, the highest improvement-driven opportunity rates were in Sweden (72%), in 2011 in Belgium (72%), in 2012 in Denmark (71%), in 2013 in Finland (66%) and in 2014 in Denmark (91%). Conversely, the lowest improvement-driven opportunity rates were in Ireland in 2010 (33%), in Hungary in 2011 (29%), in Italy in 2012 (22%) and 2013 (18%), and in Croatia in 2014 (51%).

**It is interesting to note that in Portugal the percentage of improvement-opportunity driven entrepreneurship was always higher than the percentage of necessity-driven entrepreneurship. This is the most recurrent pattern amongst the EU countries under analysis.**

It is interesting to note that in Portugal the percentage of improvement-opportunity driven entrepreneurship was always higher than the percentage of necessity-driven entrepreneurship. This is the most recurrent pattern amongst the EU countries under analysis. Nevertheless, there are some exceptions, such as Poland, Romania, Croatia and Hungary in 2011; and Poland in 2012, where necessity-driven entrepreneurship was higher than that of improvement-opportunity.

Table 2  
Early-stage entrepreneurial activity (TEA) in Portugal and the EU countries in 2010, 2011, 2012, 2013 and 2014

	2010	TEA 2010	2011	TEA 2011	2012	TEA 2012	2013	TEA 2013	2014	TEA 2014
1 <sup>st</sup>	Latvia	9.7	1 <sup>st</sup> Slovakia	14.2	1 <sup>st</sup> Estonia	14.3	1 <sup>st</sup> Latvia	13.3	1 <sup>st</sup> Lithuania	11.3
2 <sup>nd</sup>	Netherlands	7.2	2 <sup>nd</sup> Latvia	11.9	2 <sup>nd</sup> Latvia	13.4	2 <sup>nd</sup> Estonia	13.1	2 <sup>nd</sup> Romania	11.3
3 <sup>rd</sup>	Hungary	7.1	3 <sup>rd</sup> Lithuania	11.3	3 <sup>rd</sup> Netherlands	10.3	3 <sup>rd</sup> Lithuania	12.4	3 <sup>rd</sup> Slovakia	10.9
4 <sup>th</sup>	Ireland	6.8	4 <sup>th</sup> Romania	9.9	4 <sup>th</sup> Slovakia	10.2	4 <sup>th</sup> Romania	10.1	4 <sup>th</sup> United Kingdom	10.7
5 <sup>th</sup>	United Kingdom	6.4	5 <sup>th</sup> Poland	9	5 <sup>th</sup> Austria	9.6	5 <sup>th</sup> Hungary	9.7	5 <sup>th</sup> Portugal	10
6 <sup>th</sup>	France	5.8	6 <sup>th</sup> Netherlands	8.2	6 <sup>th</sup> Poland	9.4	6 <sup>th</sup> Slovakia	9.5	6 <sup>th</sup> Estonia	9.4
7 <sup>th</sup>	Finland	5.7	7 <sup>th</sup> Greece	8	7 <sup>th</sup> Hungary	9.2	7 <sup>th</sup> Netherlands	9.3	7 <sup>th</sup> Hungary	9.3
8 <sup>th</sup>	Croatia	5.5	8 <sup>th</sup> Portugal	7.5	8 <sup>th</sup> Romania	9.2	8 <sup>th</sup> Poland	9.3	8 <sup>th</sup> Poland	9.2
9 <sup>th</sup>	Greece	5.5	9 <sup>th</sup> Croatia	7.3	9 <sup>th</sup> United Kingdom	9	9 <sup>th</sup> Ireland	9.2	9 <sup>th</sup> Austria	8.7
10 <sup>th</sup>	Sweden	4.9	10 <sup>th</sup> United Kingdom	7.3	10 <sup>th</sup> Croatia	8.3	10 <sup>th</sup> Croatia	8.3	10 <sup>th</sup> Croatia	8
11 <sup>th</sup>	Slovenia	4.7	11 <sup>th</sup> Ireland	7.2	11 <sup>th</sup> Portugal	7.7	11 <sup>th</sup> Portugal	8.2	11 <sup>th</sup> Greece	7.9
12 <sup>th</sup>	Portugal	4.5	12 <sup>th</sup> Finland	6.3	12 <sup>th</sup> Lithuania	6.7	12 <sup>th</sup> Sweden	8.2	12 <sup>th</sup> Belgium	7.4
13 <sup>th</sup>	Romania	4.3	13 <sup>th</sup> Hungary	6.3	13 <sup>th</sup> Greece	6.5	13 <sup>th</sup> United Kingdom	7.1	13 <sup>th</sup> Netherlands	7.1
14 <sup>th</sup>	Spain	4.3	14 <sup>th</sup> Spain	5.8	14 <sup>th</sup> Sweden	6.4	14 <sup>th</sup> Slovenia	6.5	14 <sup>th</sup> Sweden	6.7
15 <sup>th</sup>	Germany	4.2	15 <sup>th</sup> Sweden	5.8	15 <sup>th</sup> Ireland	6.2	15 <sup>th</sup> Greece	5.5	15 <sup>th</sup> Ireland	6.5
16 <sup>th</sup>	Denmark	3.8	16 <sup>th</sup> Belgium	5.7	16 <sup>th</sup> Finland	6	16 <sup>th</sup> Finland	5.3	16 <sup>th</sup> Slovenia	6.3
17 <sup>th</sup>	Belgium	3.7	17 <sup>th</sup> France	5.7	17 <sup>th</sup> Spain	5.7	17 <sup>th</sup> Spain	5.2	17 <sup>th</sup> Finland	5.6
18 <sup>th</sup>	Italy	2.3	18 <sup>th</sup> Germany	5.6	18 <sup>th</sup> Denmark	5.4	18 <sup>th</sup> Germany	5	18 <sup>th</sup> Denmark	5.5
			19 <sup>th</sup> Denmark	4.6	19 <sup>th</sup> Slovenia	5.4	19 <sup>th</sup> Belgium	4.9	19 <sup>th</sup> Spain	5.5
			20 <sup>th</sup> Slovenia	3.7	20 <sup>th</sup> Germany	5.3	20 <sup>th</sup> France	4.6	20 <sup>th</sup> France	5.3
					21 <sup>st</sup> Belgium	5.2	21 <sup>st</sup> Italy	3.4	21 <sup>st</sup> Germany	5.3
					22 <sup>nd</sup> France	5.2			22 <sup>nd</sup> Italy	4.4
					23 <sup>rd</sup> Italy	4.3				

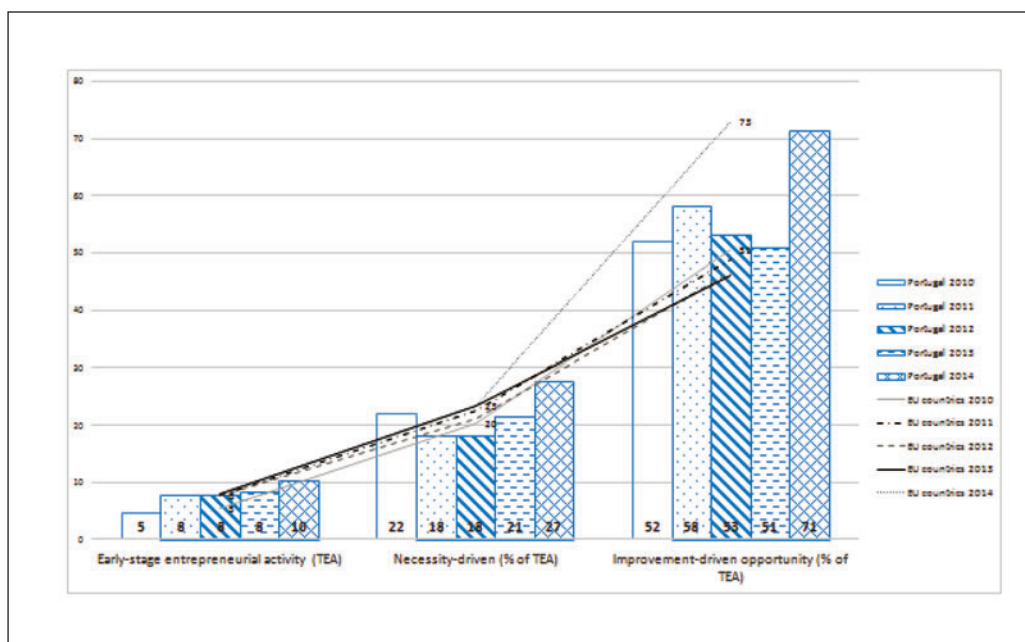
Table 3  
Necessity-driven entrepreneurial activity (% of TEA) in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014

2010		2011		2012		2013		2014	
Necessity TEA		Necessity TEA		Necessity TEA		Necessity TEA		Necessity TEA	
2010		2011		2012		2013		2014	
1 <sup>st</sup>	Croatia	32	48	41	Poland	1 <sup>st</sup>	Poland	1 <sup>st</sup>	Croatia
2 <sup>nd</sup>	Ireland	31	41	36	2 <sup>nd</sup>	Slovakia	2 <sup>nd</sup>	Poland	2 <sup>nd</sup>
3 <sup>rd</sup>	Romania	31	35	34	3 <sup>rd</sup>	Croatia	3 <sup>rd</sup>	Greece	3 <sup>rd</sup>
4 <sup>th</sup>	Greece	28	31	31	4 <sup>th</sup>	Romania	4 <sup>th</sup>	Hungary	4 <sup>th</sup>
5 <sup>th</sup>	Latvia	27	29	30	5 <sup>th</sup>	Spain	5 <sup>th</sup>	Slovakia	5 <sup>th</sup>
6 <sup>th</sup>	Germany	26	28	28	6 <sup>th</sup>	Belgium	6 <sup>th</sup>	Belgium	6 <sup>th</sup>
7 <sup>th</sup>	France	25	28	26	7 <sup>th</sup>	Hungary	7 <sup>th</sup>	Spain	7 <sup>th</sup>
8 <sup>th</sup>	Spain	25	26	25	8 <sup>th</sup>	Slovenia	8 <sup>th</sup>	Ireland	8 <sup>th</sup>
9 <sup>th</sup>	<b>Portugal</b>	22	26	25	9 <sup>th</sup>	Greece	9 <sup>th</sup>	Romania	9 <sup>th</sup>
10 <sup>th</sup>	Hungary	20	25	24	10 <sup>th</sup>	Lithuania	10 <sup>th</sup>	<b>Portugal</b>	10 <sup>th</sup>
11 <sup>th</sup>	Finland	18	19	22	11 <sup>th</sup>	<b>Portugal</b>	11 <sup>th</sup>	Slovenia	11 <sup>th</sup>
12 <sup>th</sup>	Slovenia	16	18	18	12 <sup>th</sup>	Latvia	12 <sup>th</sup>	Germany	12 <sup>th</sup>
13 <sup>th</sup>	Italy	13	18	18	13 <sup>th</sup>	Germany	13 <sup>th</sup>	Lithuania	13 <sup>th</sup>
14 <sup>th</sup>	Sweden	13	17	18	14 <sup>th</sup>	Italy	14 <sup>th</sup>	France	14 <sup>th</sup>
15 <sup>th</sup>	United Kingdom	11	15	18	15 <sup>th</sup>	Ireland	15 <sup>th</sup>	Netherlands	15 <sup>th</sup>
16 <sup>th</sup>	Belgium	10	12	18	16 <sup>th</sup>	Finland	16 <sup>th</sup>	Finland	16 <sup>th</sup>
17 <sup>th</sup>	Denmark	8	10	17	17 <sup>th</sup>	United Kingdom	17 <sup>th</sup>	Estonia	17 <sup>th</sup>
18 <sup>th</sup>	Netherlands	8	9	16	18 <sup>th</sup>	France	18 <sup>th</sup>	Italy	18 <sup>th</sup>
			7	11	19 <sup>th</sup>	Estonia	19 <sup>th</sup>	United Kingdom	19 <sup>th</sup>
			6	8	20 <sup>th</sup>	Denmark	20 <sup>th</sup>	Austria	20 <sup>th</sup>
				8	21 <sup>st</sup>	Netherlands	21 <sup>st</sup>	Sweden	21 <sup>st</sup>
				7	22 <sup>nd</sup>	Slovenia	22 <sup>nd</sup>	Denmark	22 <sup>nd</sup>
				7	23 <sup>rd</sup>	Sweden			

Table 4  
Improvement-driven opportunity entrepreneurial activity (% of TEA) in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014

2010	Opport. TEA 2010	2011	Opport. TEA 2011	2012	Opport. TEA 2012	2013	Opport. TEA 2013	2014	Opport. TEA 2014
1 <sup>st</sup> Sweden	72	1 <sup>st</sup> Belgium	72	1 <sup>st</sup> Denmark	71	1 <sup>st</sup> Finland	66	1 <sup>st</sup> Denmark	91
2 <sup>nd</sup> Netherlands	64	2 <sup>nd</sup> France	71	2 <sup>nd</sup> Netherlands	66	2 <sup>nd</sup> France	61	2 <sup>nd</sup> Sweden	84
3 <sup>rd</sup> France	56	3 <sup>rd</sup> Sweden	68	3 <sup>rd</sup> Slovenia	64	3 <sup>rd</sup> Sweden	58	3 <sup>rd</sup> United Kingdom	84
4 <sup>th</sup> Italy	55	4 <sup>th</sup> Denmark	64	4 <sup>th</sup> Belgium	62	4 <sup>th</sup> Germany	56	4 <sup>th</sup> France	82
5 <sup>th</sup> Belgium	54	5 <sup>th</sup> Netherlands	62	5 <sup>th</sup> Finland	60	5 <sup>th</sup> Lithuania	55	5 <sup>th</sup> Austria	82
6 <sup>th</sup> Denmark	54	6 <sup>th</sup> Finland	59	6 <sup>th</sup> France	59	6 <sup>th</sup> Netherlands	55	6 <sup>th</sup> Finland	81
7 <sup>th</sup> Finland	54	7 <sup>th</sup> Portugal	58	7 <sup>th</sup> Portugal	53	7 <sup>th</sup> Slovenia	53	7 <sup>th</sup> Netherlands	81
8 <sup>th</sup> Slovenia	54	8 <sup>th</sup> Germany	55	8 <sup>th</sup> Germany	51	8 <sup>th</sup> Latvia	53	8 <sup>th</sup> Lithuania	80
9 <sup>th</sup> Portugal	52	9 <sup>th</sup> Slovenia	51	9 <sup>th</sup> Lithuania	51	9 <sup>th</sup> Portugal	51	9 <sup>th</sup> Italy	78
10 <sup>th</sup> Latvia	51	10 <sup>th</sup> Lithuania	47	10 <sup>th</sup> Estonia	49	10 <sup>th</sup> Estonia	50	10 <sup>th</sup> Germany	76
11 <sup>th</sup> Croatia	49	11 <sup>th</sup> Latvia	46	11 <sup>th</sup> Sweden	49	11 <sup>th</sup> United Kingdom	45	11 <sup>th</sup> Estonia	75
12 <sup>th</sup> Germany	48	12 <sup>th</sup> United Kingdom	46	12 <sup>th</sup> Latvia	46	12 <sup>th</sup> Belgium	44	12 <sup>th</sup> Slovenia	71
13 <sup>th</sup> Romania	47	13 <sup>th</sup> Spain	39	13 <sup>th</sup> Slovakia	43	13 <sup>th</sup> Ireland	44	13 <sup>th</sup> Portugal	71
14 <sup>th</sup> Hungary	43	14 <sup>th</sup> Greece	37	14 <sup>th</sup> United Kingdom	43	14 <sup>th</sup> Slovakia	40	14 <sup>th</sup> Romania	70
15 <sup>th</sup> United Kingdom	43	15 <sup>th</sup> Ireland	37	15 <sup>th</sup> Ireland	41	15 <sup>th</sup> Hungary	39	15 <sup>th</sup> Ireland	68
16 <sup>th</sup> Spain	42	16 <sup>th</sup> Romania	34	16 <sup>th</sup> Austria	38	16 <sup>th</sup> Greece	36	16 <sup>th</sup> Spain	66
17 <sup>th</sup> Greece	39	17 <sup>th</sup> Slovakia	34	17 <sup>th</sup> Romania	38	17 <sup>th</sup> Spain	33	17 <sup>th</sup> Hungary	65
18 <sup>th</sup> Ireland	33	18 <sup>th</sup> Poland	32	18 <sup>th</sup> Croatia	36	18 <sup>th</sup> Poland	33	18 <sup>th</sup> Slovakia	64
		19 <sup>th</sup> Croatia	31	19 <sup>th</sup> Hungary	35	19 <sup>th</sup> Romania	32	19 <sup>th</sup> Belgium	63
		20 <sup>th</sup> Hungary	29	20 <sup>th</sup> Spain	33	20 <sup>th</sup> Croatia	30	20 <sup>th</sup> Greece	62
				21 <sup>st</sup> Greece	32	21 <sup>st</sup> Italy	18	21 <sup>st</sup> Poland	59
				22 <sup>nd</sup> Poland	30			22 <sup>nd</sup> Croatia	51
				23 <sup>rd</sup> Italy	22				

**Graph 3**  
**Entrepreneurial activity indicators in Portugal and the EU countries average in 2010, 2011, 2012, 2013 and 2014**



The results from the indicators of the entrepreneurial activity (TEA; necessity-driven entrepreneurship and improvement-driven opportunity entrepreneurship) showed that Portugal's results improved, albeit modestly, from 2010 to 2014. In general, this was the pattern throughout the EU countries: there was an increase in the early-stage entrepreneurial activity from 2010 to 2014 (e.g., Belgium, Croatia, Denmark, Hungary, Italy, Latvia, the Netherlands, Poland, Slovenia, Spain, Sweden and the United Kingdom). Nevertheless, it is relevant to stress that the TEA of Portugal was either below (2010) or equal (2011, 2012 and 2013) to the average TEA in the other EU countries. In 2014, the TEA of Portugal was slightly higher than the TEA in the other EU countries ( $TEA_{Portugal2014}=10$ ;  $TEA_{EU2014}=8$ ).

The behaviour of the necessity-driven entrepreneurship does not show a particular trend amongst the EU countries. The necessity-driven entrepreneurship in Portugal was above the EU average ( $M_{EU2010}=20.22\%$ ) in 2010, but was below the EU average in 2011, 2012 and 2013 ( $M_{EU2011}=23\%$ ;  $M_{EU2012}=21\%$ ;  $M_{EU2013}=23\%$ ). In 2014, necessity-driven entrepreneurship in Portugal was above the EU average ( $M_{EU2014}=23\%$  in EU countries and 27% in Portugal). The

behaviour of the improvement-driven opportunity entrepreneurship is quite similar. The percentage of improvement-driven opportunity in Portugal in 2010, 2011, 2012 and 2013 was always above the EU average ( $M_{EU2010}=51\%$ ;  $M_{EU2011}=49\%$ ;  $M_{EU2012}=47\%$ ;  $M_{EU2013}=46\%$ ), but in 2014 it was below the EU average ( $M_{EU2014}=73\%$ ). Graph 3 presents the position of Portugal's indicators of entrepreneurial activity from 2010 to 2014 and the EU countries average.

### Entrepreneurial attitude results in Portugal in comparison with other European Union countries from 2010 to 2012

From 2010 onward, perceived opportunities (see Table 5, p. 50) in Portugal were successively at the tail end of the EU countries. In 2010, Portugal had a score of 20%, in 2011 it was 17%, in 2012 it was 16%, in 2013 it was 20% and in 2014 it was 23%. These values pushed Portugal to the bottom of the EU ranking, and were in stark contrast to the highest scores for perceived opportunities that were evidenced in Sweden (2010=66%; 2011=71%; 2012=66%; 2013=64%; and 2014=70%). Also at the bottom of the EU ranking were

Table 5  
Perceived opportunities in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014

2010	Perceived Opport. 2010	2011	Perceived Opport. 2011	2012	Perceived Opport. 2012	2013	Perceived Opport. 2013	2014	Perceived Opport. 2014
1 <sup>st</sup> Sweden	66	1 <sup>st</sup> Sweden	71	1 <sup>st</sup> Sweden	66	1 <sup>st</sup> Sweden	64	1 <sup>st</sup> Sweden	70
2 <sup>nd</sup> Finland	51	2 <sup>nd</sup> Finland	61	2 <sup>nd</sup> Finland	55	2 <sup>nd</sup> Estonia	46	2 <sup>nd</sup> Denmark	60
3 <sup>rd</sup> Denmark	46	3 <sup>rd</sup> Netherlands	48	3 <sup>rd</sup> Austria	49	3 <sup>rd</sup> Finland	44	3 <sup>rd</sup> Estonia	49
4 <sup>th</sup> Netherlands	45	4 <sup>th</sup> Denmark	47	4 <sup>th</sup> Estonia	45	4 <sup>th</sup> United Kingdom	36	4 <sup>th</sup> Netherlands	46
5 <sup>th</sup> Belgium	40	5 <sup>th</sup> Belgium	43	5 <sup>th</sup> Denmark	44	5 <sup>th</sup> Latvia	35	5 <sup>th</sup> Austria	44
6 <sup>th</sup> France	34	6 <sup>th</sup> Romania	36	6 <sup>th</sup> France	38	6 <sup>th</sup> Netherlands	33	6 <sup>th</sup> Finland	42
7 <sup>th</sup> Hungary	33	7 <sup>th</sup> France	35	7 <sup>th</sup> Romania	37	7 <sup>th</sup> Belgium	32	7 <sup>th</sup> United Kingdom	41
8 <sup>th</sup> United Kingdom	29	8 <sup>th</sup> Germany	35	8 <sup>th</sup> Germany	36	8 <sup>th</sup> Germany	31	8 <sup>th</sup> Germany	38
9 <sup>th</sup> Latvia	29	9 <sup>th</sup> Poland	33	9 <sup>th</sup> Netherlands	34	9 <sup>th</sup> Romania	29	9 <sup>th</sup> Belgium	36
10 <sup>th</sup> Germany	29	10 <sup>th</sup> United Kingdom	33	10 <sup>th</sup> Belgium	33	10 <sup>th</sup> Lithuania	29	10 <sup>th</sup> Ireland	33
11 <sup>th</sup> Slovenia	27	11 <sup>th</sup> Ireland	26	11 <sup>th</sup> Latvia	33	11 <sup>th</sup> Ireland	28	11 <sup>th</sup> Romania	32
12 <sup>th</sup> Italy	25	12 <sup>th</sup> Latvia	24	12 <sup>th</sup> United Kingdom	33	12 <sup>th</sup> Poland	26	12 <sup>th</sup> Lithuania	32
13 <sup>th</sup> Croatia	23	13 <sup>th</sup> Lithuania	23	13 <sup>th</sup> Ireland	26	13 <sup>th</sup> France	23	13 <sup>th</sup> Poland	31
14 <sup>th</sup> Ireland	23	14 <sup>th</sup> Slovakia	23	14 <sup>th</sup> Italy	20	14 <sup>th</sup> Portugal	20	14 <sup>th</sup> France	28
15 <sup>th</sup> Portugal	20	15 <sup>th</sup> Croatia	18	15 <sup>th</sup> Poland	20	15 <sup>th</sup> Hungary	19	15 <sup>th</sup> Italy	27
16 <sup>th</sup> Spain	19	16 <sup>th</sup> Slovenia	18	16 <sup>th</sup> Slovenia	20	16 <sup>th</sup> Croatia	18	16 <sup>th</sup> Slovakia	24
17 <sup>th</sup> Romania	18	17 <sup>th</sup> Portugal	17	17 <sup>th</sup> Slovakia	18	17 <sup>th</sup> Italy	17	17 <sup>th</sup> Hungary	23
18 <sup>th</sup> Greece	16	18 <sup>th</sup> Hungary	14	18 <sup>th</sup> Croatia	17	18 <sup>th</sup> Slovakia	16	18 <sup>th</sup> Portugal	23
		19 <sup>th</sup> Spain	14	19 <sup>th</sup> Portugal	16	19 <sup>th</sup> Slovenia	16	19 <sup>th</sup> Spain	23
		20 <sup>th</sup> Greece	11	20 <sup>th</sup> Spain	14	20 <sup>th</sup> Spain	16	20 <sup>th</sup> Greece	20
				21 <sup>st</sup> Greece	13	21 <sup>st</sup> Greece	14	21 <sup>st</sup> Croatia	18
				22 <sup>nd</sup> Hungary	11			22 <sup>nd</sup> Slovenia	17
				23 <sup>rd</sup> Lithuania	3				



**Table 6**  
**Perceived entrepreneurial capabilities in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014**

2010	Perceived Opport. 2010	2011	Perceived Opport. 2011	2012	Perceived Opport. 2012	2013	Perceived Opport. 2013	2014	Perceived Opport. 2014
1 <sup>st</sup> Slovenia	56	1 <sup>st</sup> Slovakia	53	1 <sup>st</sup> Poland	54	1 <sup>st</sup> Poland	52	1 <sup>st</sup> Slovakia	54
2 <sup>nd</sup> Croatia	53	2 <sup>nd</sup> Poland	52	2 <sup>nd</sup> Slovenia	51	2 <sup>nd</sup> Slovenia	52	2 <sup>nd</sup> Poland	54
3 <sup>rd</sup> Greece	52	3 <sup>rd</sup> Slovenia	51	3 <sup>rd</sup> Austria	50	3 <sup>rd</sup> Slovakia	51	3 <sup>rd</sup> Austria	49
4 <sup>th</sup> <b>Portugal</b>	52	4 <sup>th</sup> Spain	51	4 <sup>th</sup> Greece	50	4 <sup>th</sup> <b>Portugal</b>	49	4 <sup>th</sup> Slovenia	49
5 <sup>th</sup> United Kingdom	52	5 <sup>th</sup> Greece	50	5 <sup>th</sup> Slovakia	50	5 <sup>th</sup> Latvia	48	5 <sup>th</sup> Romania	48
6 <sup>th</sup> Latvia	51	6 <sup>th</sup> Croatia	49	6 <sup>th</sup> Spain	50	6 <sup>th</sup> Spain	48	6 <sup>th</sup> Spain	48
7 <sup>th</sup> Spain	50	7 <sup>th</sup> Croatia	47	7 <sup>th</sup> <b>Portugal</b>	47	7 <sup>th</sup> Croatia	47	7 <sup>th</sup> Ireland	47
8 <sup>th</sup> Ireland	49	8 <sup>th</sup> <b>Portugal</b>	47	8 <sup>th</sup> United Kingdom	47	8 <sup>th</sup> Greece	46	8 <sup>th</sup> <b>Portugal</b>	46
9 <sup>th</sup> Netherlands	46	9 <sup>th</sup> Ireland	46	9 <sup>th</sup> Ireland	45	9 <sup>th</sup> Romania	46	9 <sup>th</sup> United Kingdom	46
10 <sup>th</sup> Belgium	45	10 <sup>th</sup> Belgium	44	10 <sup>th</sup> Croatia	44	10 <sup>th</sup> United Kingdom	44	10 <sup>th</sup> Croatia	46
11 <sup>th</sup> Hungary	43	11 <sup>th</sup> Netherlands	42	11 <sup>th</sup> Latvia	44	11 <sup>th</sup> Ireland	43	11 <sup>th</sup> Greece	46
12 <sup>th</sup> Italy	42	12 <sup>th</sup> Romania	42	12 <sup>th</sup> Estonia	43	12 <sup>th</sup> Netherlands	42	12 <sup>th</sup> Netherlands	44
13 <sup>th</sup> Sweden	42	13 <sup>th</sup> United Kingdom	42	13 <sup>th</sup> Netherlands	42	13 <sup>th</sup> Estonia	40	13 <sup>th</sup> Estonia	43
14 <sup>th</sup> Germany	42	14 <sup>th</sup> Hungary	40	14 <sup>th</sup> Hungary	40	14 <sup>th</sup> Sweden	39	14 <sup>th</sup> Hungary	41
15 <sup>th</sup> Denmark	41	15 <sup>th</sup> Sweden	40	15 <sup>th</sup> Romania	38	15 <sup>th</sup> Germany	38	15 <sup>th</sup> Sweden	37
16 <sup>th</sup> Finland	40	16 <sup>th</sup> France	38	16 <sup>th</sup> Belgium	37	16 <sup>th</sup> Hungary	38	16 <sup>th</sup> Germany	36
17 <sup>th</sup> Romania	38	17 <sup>th</sup> Finland	37	17 <sup>th</sup> Germany	37	17 <sup>th</sup> Lithuania	35	17 <sup>th</sup> France	35
18 <sup>th</sup> France	37	18 <sup>th</sup> Germany	37	18 <sup>th</sup> Sweden	37	18 <sup>th</sup> Belgium	34	18 <sup>th</sup> Denmark	35
		19 <sup>th</sup> Denmark	35	19 <sup>th</sup> France	36	19 <sup>th</sup> Finland	33	19 <sup>th</sup> Finland	35
		20 <sup>th</sup> Lithuania	35	20 <sup>th</sup> Finland	34	20 <sup>th</sup> France	33	20 <sup>th</sup> Lithuania	33
				21 <sup>st</sup> Denmark	31	21 <sup>st</sup> Italy	29	21 <sup>st</sup> Italy	31
				22 <sup>nd</sup> Italy	30	22 <sup>nd</sup> Poland	52	22 <sup>nd</sup> Belgium	30
				23 <sup>rd</sup> Lithuania	4				



Table 7  
Perceived fear for failure in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014

2010	Fear Failure. 2010	2011	Fear Failure. 2011	2012	Fear Failure 2012	2013	Fear Failure 2013	2014	Fear Failure 2014
1 <sup>st</sup> Greece	51	1 <sup>st</sup> Poland	43	1 <sup>st</sup> Greece	61	1 <sup>st</sup> Greece	49	1 <sup>st</sup> Greece	62
2 <sup>nd</sup> Hungary	42	2 <sup>nd</sup> Germany	42	2 <sup>nd</sup> Italy	58	2 <sup>nd</sup> Italy	49	2 <sup>nd</sup> Poland	51
3 <sup>rd</sup> Romania	41	3 <sup>rd</sup> Belgium	41	3 <sup>rd</sup> France	43	3 <sup>rd</sup> Belgium	47	3 <sup>rd</sup> Belgium	49
4 <sup>th</sup> France	41	4 <sup>th</sup> Denmark	41	4 <sup>th</sup> Poland	43	4 <sup>th</sup> Poland	47	4 <sup>th</sup> Italy	49
5 <sup>th</sup> Latvia	40	5 <sup>th</sup> Latvia	41	5 <sup>th</sup> Germany	42	5 <sup>th</sup> Hungary	45	5 <sup>th</sup> Lithuania	49
6 <sup>th</sup> Italy	37	6 <sup>th</sup> Lithuania	40	6 <sup>th</sup> Portugal	42	6 <sup>th</sup> Latvia	42	6 <sup>th</sup> Hungary	42
7 <sup>th</sup> Spain	36	7 <sup>th</sup> Portugal	40	7 <sup>th</sup> Spain	42	7 <sup>th</sup> Lithuania	42	7 <sup>th</sup> Estonia	42
8 <sup>th</sup> Belgium	35	8 <sup>th</sup> Spain	39	8 <sup>th</sup> Belgium	41	8 <sup>th</sup> France	41	8 <sup>th</sup> Romania	41
9 <sup>th</sup> Germany	34	9 <sup>th</sup> Greece	38	9 <sup>th</sup> Romania	41	9 <sup>th</sup> Ireland	40	9 <sup>th</sup> France	41
10 <sup>th</sup> Ireland	33	10 <sup>th</sup> France	37	10 <sup>th</sup> Denmark	39	10 <sup>th</sup> Portugal	40	10 <sup>th</sup> Denmark	41
11 <sup>th</sup> Denmark	32	11 <sup>th</sup> Romania	36	11 <sup>th</sup> Slovakia	38	11 <sup>th</sup> Estonia	39	11 <sup>th</sup> Germany	40
12 <sup>th</sup> Croatia	31	12 <sup>th</sup> United Kingdom	36	12 <sup>th</sup> Finland	37	12 <sup>th</sup> Germany	39	12 <sup>th</sup> Ireland	39
13 <sup>th</sup> United Kingdom	30	13 <sup>th</sup> Hungary	35	13 <sup>th</sup> Latvia	37	13 <sup>th</sup> Romania	38	13 <sup>th</sup> Portugal	38
14 <sup>th</sup> Portugal	30	14 <sup>th</sup> Netherlands	35	14 <sup>th</sup> Austria	36	14 <sup>th</sup> Finland	37	14 <sup>th</sup> Spain	38
15 <sup>th</sup> Sweden	29	15 <sup>th</sup> Sweden	35	15 <sup>th</sup> Croatia	36	15 <sup>th</sup> Netherlands	37	15 <sup>th</sup> Finland	37
16 <sup>th</sup> Finland	29	16 <sup>th</sup> Croatia	34	16 <sup>th</sup> United Kingdom	36	16 <sup>th</sup> Spain	37	16 <sup>th</sup> United Kingdom	37
17 <sup>th</sup> Slovenia	28	17 <sup>th</sup> Ireland	33	17 <sup>th</sup> Ireland	35	17 <sup>th</sup> Sweden	37	17 <sup>th</sup> Sweden	37
18 <sup>th</sup> Netherlands	24	18 <sup>th</sup> Finland	32	18 <sup>th</sup> Estonia	34	18 <sup>th</sup> United Kingdom	36	18 <sup>th</sup> Slovakia	36
		19 <sup>th</sup> Slovakia	32	19 <sup>th</sup> Hungary	34	19 <sup>th</sup> Croatia	35	19 <sup>th</sup> Austria	35
				20 <sup>th</sup> Sweden	33	20 <sup>th</sup> Slovakia	33	20 <sup>th</sup> Netherlands	35
				21 <sup>st</sup> Netherlands	30	21 <sup>st</sup> Slovenia	30	21 <sup>st</sup> Croatia	30
				22 <sup>nd</sup> Slovenia	27	22 <sup>nd</sup> Greece	49	22 <sup>nd</sup> Slovenia	29
				23 <sup>rd</sup> Lithuania	7				

**Table 8**  
**Perceived entrepreneurial intentions in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014**

2010	Entrep. Intention 2010	2011	Entrep. Intention 2011	2012	Entrep. Intention 2012	2013	Entrep. Intention 2013	2014	Entrep. Intention 2014
1 <sup>st</sup> Latvia	21	1 <sup>st</sup> Latvia	25	1 <sup>st</sup> Romania	27	1 <sup>st</sup> Romania	24	1 <sup>st</sup> Romania	32
2 <sup>nd</sup> France	14	2 <sup>nd</sup> Romania	25	2 <sup>nd</sup> Latvia	22	2 <sup>nd</sup> Latvia	23	2 <sup>nd</sup> Croatia	20
3 <sup>rd</sup> Hungary	14	3 <sup>rd</sup> Poland	23	3 <sup>rd</sup> Poland	22	3 <sup>rd</sup> Lithuania	22	3 <sup>rd</sup> Portugal	16
4 <sup>th</sup> Greece	13	4 <sup>th</sup> Hungary	20	4 <sup>th</sup> Croatia	19	4 <sup>th</sup> Croatia	20	4 <sup>th</sup> Poland	16
5 <sup>th</sup> Portugal	9	5 <sup>th</sup> Croatia	18	5 <sup>th</sup> France	17	5 <sup>th</sup> Estonia	19	5 <sup>th</sup> France	14
6 <sup>th</sup> Slovenia	9	6 <sup>th</sup> France	18	6 <sup>th</sup> Estonia	16	6 <sup>th</sup> Poland	17	6 <sup>th</sup> Hungary	14
7 <sup>th</sup> Romania	9	7 <sup>th</sup> Slovakia	18	7 <sup>th</sup> Portugal	14	7 <sup>th</sup> Slovakia	16	7 <sup>th</sup> Italy	11
8 <sup>th</sup> Sweden	9	8 <sup>th</sup> Lithuania	17	8 <sup>th</sup> Hungary	13	8 <sup>th</sup> Hungary	14	8 <sup>th</sup> Lithuania	11
9 <sup>th</sup> Belgium	8	9 <sup>th</sup> Portugal	12	9 <sup>th</sup> Slovenia	13	9 <sup>th</sup> France	13	9 <sup>th</sup> Slovenia	11
10 <sup>th</sup> Croatia	7	10 <sup>th</sup> Belgium	11	10 <sup>th</sup> Slovakia	12	10 <sup>th</sup> Ireland	13	10 <sup>th</sup> Belgium	11
11 <sup>th</sup> Germany	6	11 <sup>th</sup> Greece	10	11 <sup>th</sup> Italy	11	11 <sup>th</sup> Portugal	13	11 <sup>th</sup> Estonia	10
12 <sup>th</sup> Ireland	6	12 <sup>th</sup> Sweden	10	12 <sup>th</sup> Spain	11	12 <sup>th</sup> Slovenia	12	12 <sup>th</sup> Greece	10
13 <sup>th</sup> Denmark	6	13 <sup>th</sup> Netherlands	9	13 <sup>th</sup> Sweden	11	13 <sup>th</sup> Italy	10	13 <sup>th</sup> Netherlands	9
14 <sup>th</sup> Finland	6	14 <sup>th</sup> Slovenia	9	14 <sup>th</sup> Greece	10	14 <sup>th</sup> Sweden	10	14 <sup>th</sup> Sweden	9
15 <sup>th</sup> Spain	6	15 <sup>th</sup> United Kingdom	9	15 <sup>th</sup> United Kingdom	10	15 <sup>th</sup> Greece	9	15 <sup>th</sup> Austria	8
16 <sup>th</sup> Netherlands	6	16 <sup>th</sup> Spain	8	16 <sup>th</sup> Austria	9	16 <sup>th</sup> Netherlands	9	16 <sup>th</sup> Finland	8
17 <sup>th</sup> United Kingdom	5	17 <sup>th</sup> Denmark	7	17 <sup>th</sup> Belgium	9	17 <sup>th</sup> Belgium	8	17 <sup>th</sup> Ireland	7
18 <sup>th</sup> Italy	4	18 <sup>th</sup> Finland	7	18 <sup>th</sup> Netherlands	9	18 <sup>th</sup> Finland	8	18 <sup>th</sup> Slovakia	7
		19 <sup>th</sup> Ireland	6	19 <sup>th</sup> Finland	8	19 <sup>th</sup> Spain	8	19 <sup>th</sup> Spain	7
				20 <sup>th</sup> Lithuania	8	20 <sup>th</sup> Germany	7	20 <sup>th</sup> Denmark	7
				21 <sup>st</sup> Denmark	7	21 <sup>st</sup> United Kingdom	7	21 <sup>st</sup> United Kingdom	7
				22 <sup>nd</sup> Germany	6	22 <sup>nd</sup> Romania	24	22 <sup>nd</sup> Germany	6
				23 <sup>rd</sup> Ireland	5				

countries such as Greece (2010=16%; 2011=11%; 2013=14%), Lithuania (2012=3%) and Slovenia (2014=17%).

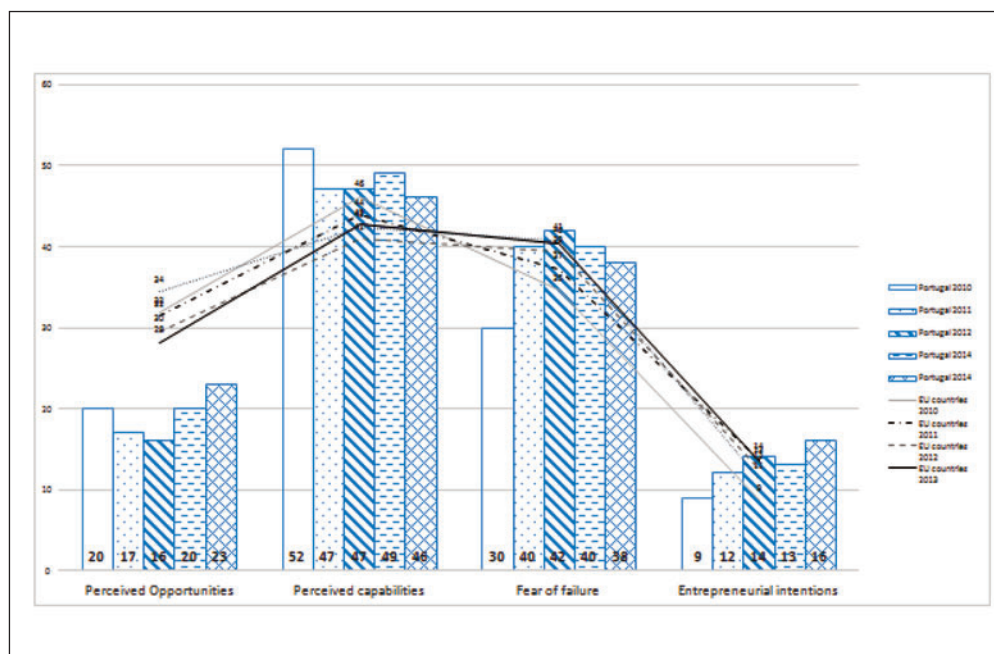
The results for perceived capabilities (see Table 6) in Portugal were among the top EU countries. For example, in 2010, 52% of the Portuguese population believed they had the required skills and knowledge to start a business. Only Croatia, Greece and Slovenia reported higher scores. At the tail end for their perceived capabilities for starting a business in 2010 were countries such as Finland, Romania and France (37%). In 2011, the Portuguese percentage went down to 47%, but it was still the 8<sup>th</sup> highest of the EU countries. In that year, Slovakia ranked top with 53%, and Lithuania was in the lowest position with 35% of the population believing they had the required skills and knowledge to start a business. In 2012, 47% of the populations in both Portugal and the United Kingdom believed they had the required skills and knowledge to start a business. Percentages above this were found in Poland (54%), Slovenia, Austria, Greece, Slovakia and Spain. Lithuania again registered the lowest value with a small percentage of 4%, in contrast to Italy the second lowest, with 30%. In 2013, Portugal was ranked 4<sup>th</sup> with 49% of peo-

ple confident of their perceived entrepreneurial capabilities. In 2014, the value decreased slightly to 46% (down to 8<sup>th</sup> position). These results are presented in detail in Table 6.

Fear of failure (see Table 7, p. 52) is another critical measure of entrepreneurial attitudes, and the behaviour of Portugal in this indicator showed changes from 2010 to 2014. In 2010, Portugal had one of the lowest scores in fear of failure (30%), with the Netherlands having the lowest value (24%). This meant that in Portugal in 2010, 30% of the population who perceived opportunities indicated that fear of failure would prevent them from setting up a business. In 2011, this percentage rose to 40% and in 2012 it rose to 42%. These results took Portugal to among the top ranked EU countries, with Poland having the highest result in 2011 (43%), and Greece in 2012 (61%). In 2013, Portugal decreased to 40% and then to 38% in 2014, which placed the country in middle position regarding fear of failure.

Entrepreneurial intentions (see Table 8, p. 53) in Portugal grew from 2010 to 2014. In 2010, 9% of the population intended to start a business within three years. In 2011, the percentage rose to 12%, in 2012 it was 14%, in 2013 it was

Graph 4  
Entrepreneurial attitude indicators in Portugal and the EU countries average from 2010 to 2014



13% and in 2014 it was 16%. The highest scores were in Latvia in 2010 (21%), and 2011 (25%), and in Romania in 2012 (27%), 2013 (24%) and 2014 (32%). The lowest scores were 4% in Italy 2010, 6% in Ireland 2011 and 2012, and Germany 2014 (6%).

**Portugal's scores in 2011, 2012, 2013 and 2014 increased to 20%, 24%, 27% and 23% respectively, showing greater aspiration in the growth of the early-stage entrepreneurs.**

The position of Portuguese entrepreneurial attitudes in relation to the other EU countries was not consistent over the four indicators. With regard to perceived opportunities, Portugal was below the EU average during the five years under analysis ( $M_{EU2010}=32\%$ ;  $M_{EU2011}=32\%$ ;  $M_{EU2012}=30\%$ ;  $M_{EU2013}=28\%$ ;  $M_{EU2014}=34\%$ ). As far as perceived capabilities are concerned, Portugal was above the EU average from 2010 to 2014 ( $M_{EU2010}=46\%$ ;  $M_{EU2011}=44\%$ ;  $M_{EU2012}=41\%$ ;  $M_{EU2013}=43\%$ ;  $M_{EU2014}=42\%$ ). In 2010, Portugal reported a lower fear of failure than the EU average ( $M_{EU2010}=35\%$ ), but this tendency was inverted in 2011 and 2012, when Portugal was above the EU average ( $M_{EU2011}=37\%$ ;  $M_{EU2012}=38\%$ ). In 2013 and 2014, the Portuguese fear of failure was again below the EU average ( $M_{EU2013}=40\%$ ;  $M_{EU2014}=34\%$ ). The position of entrepreneurial intentions in Portugal was the same as the EU average in 2010 ( $M_{EU2010}=9\%$ ), 2011 ( $M_{EU2011}=14\%$ ), 2012 ( $M_{EU2012}=14\%$ ), and 2013 ( $M_{EU2013}=13\%$ ), but was above the average in 2014 ( $M_{EU2014}=11\%$ ). Graph 4 presents the entrepreneurial attitude indicator scores in Portugal and the EU countries average from 2010 to 2014.

**Entrepreneurial aspiration results in Portugal in comparison with other European Union countries from 2010 to 2012**

Entrepreneurial aspirations comprise three main measures: growth expectations (see Table 9), innovative orientation (see Table 10), and international orientation (see Table 11). The highest growth expectations in 2010 amongst the EU countries was registered in Latvia (36%), with Portugal being far

below that value with a modest 12% of early-stage entrepreneurs who expected to employ at least five employees five years from that time. Portugal's scores in 2011, 2012, 2013 and 2014 increased to 20%, 24%, 27% and 23% respectively, showing greater aspiration in the growth of the early-stage entrepreneurs. From 2011 to 2014, Portugal was ranked in about the middle of the EU countries. Croatia was ranked 1<sup>st</sup> in 2011 (40%), Lithuania in 2012 (40%), Romania in 2013 (44%) and 2014 (47%). At the bottom of the EU countries was Spain in 2010 and 2011 (6% and 7%, respectively), Belgium in 2012 (8%), and Greece in 2013 and 2014 (8% and 12%), accordingly.

The pace of Portuguese growth expectation was accompanied by the innovative orientation of early stage entrepreneurs. In 2010, while Portugal's innovative orientation of 16% was one of the lowest values amongst the EU countries, the highest percentage was that of Latvia (40%). In 2011, although Portugal increased to 20%, it was again amongst the lowest percentages among the EU countries, followed by Finland (18%), Belgium (16%) and Greece (15%). The highest percentage in 2011 was, again, that of Latvia (47%). In 2012, innovative orientation in Portugal grew to 26% and reached a higher ranking; the lowest value was 13% in Spain. Once again, the highest score in innovative orientation in 2012 was that of Latvia (53%). In 2013, innovative orientation in Portugal grew to 54%, achieving 5<sup>th</sup> position in the ranking. In 2014, however, Portugal dropped dramatically to 18<sup>th</sup> place, with innovation orientation of 34%. These results showed that innovative orientation in Portugal peaked in 2013.

International orientation in Portugal also increased from 2010 to 2012. In 2010, although international orientation in Portugal was 28%, it was the third lowest amongst the EU countries, with Hungary (27%) and Croatia (25%) just below. This score contrasted with the two highest, which were Denmark with 60% and Ireland with 52%. In 2011, despite increasing to 32%, Portugal was the lowest amongst the EU countries. In 2012, however, international orientation in Portugal rose to 43% and the country took 13<sup>th</sup> place in the ranking. In 2013, international orientation in Portugal was the 4<sup>th</sup> highest among the EU countries, but reported a value of 30%, and in 2014 the value went down again to 22%, and Portugal was ranked 11<sup>th</sup>.

**Table 9**  
**Growth expectations in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014**

	Growth Expect. 2010	2011	Growth Expect. 2012	2013	Growth Expect. 2013	2014	Growth Expect. 2014
1 <sup>st</sup> Latvia	36	1 <sup>st</sup> Croatia	40	1 <sup>st</sup> Romania	44	1 <sup>st</sup> Romania	47
2 <sup>nd</sup> Croatia	29	2 <sup>nd</sup> Romania	39	2 <sup>nd</sup> Latvia	42	2 <sup>nd</sup> Hungary	41
3 <sup>rd</sup> Romania	27	3 <sup>rd</sup> Belgium	37	3 <sup>rd</sup> Poland	39	3 <sup>rd</sup> Croatia	41
4 <sup>th</sup> Belgium	25	4 <sup>th</sup> Latvia	30	4 <sup>th</sup> Lithuania	36	4 <sup>th</sup> Slovak Republic	34
5 <sup>th</sup> Hungary	23	5 <sup>th</sup> Hungary	29	5 <sup>th</sup> Slovenia	35	5 <sup>th</sup> Lithuania	34
6 <sup>th</sup> Ireland	23	6 <sup>th</sup> United Kingdom	26	6 <sup>th</sup> Estonia	31	6 <sup>th</sup> France	31
7 <sup>th</sup> United Kingdom	23	7 <sup>th</sup> Ireland	24	7 <sup>th</sup> France	30	7 <sup>th</sup> Slovenia	29
8 <sup>th</sup> Slovenia	22	8 <sup>th</sup> Lithuania	23	8 <sup>th</sup> Austria	26	8 <sup>th</sup> Poland	28
9 <sup>th</sup> Netherlands	15	9 <sup>th</sup> Slovenia	22	9 <sup>th</sup> Portugal	24	9 <sup>th</sup> United Kingdom	24
10 <sup>th</sup> Finland	14	10 <sup>th</sup> Denmark	21	10 <sup>th</sup> Sweden	22	10 <sup>th</sup> Portugal	23
11 <sup>th</sup> Germany	14	11 <sup>th</sup> Portugal	20	11 <sup>th</sup> United Kingdom	24	11 <sup>th</sup> Estonia	22
12 <sup>th</sup> France	13	12 <sup>th</sup> Germany	19	12 <sup>th</sup> France	21	12 <sup>th</sup> Denmark	22
13 <sup>th</sup> Italy	13	13 <sup>th</sup> Slovak Republic	18	13 <sup>th</sup> Belgium	21	13 <sup>th</sup> Sweden	22
14 <sup>th</sup> Portugal	12	14 <sup>th</sup> Poland	17	14 <sup>th</sup> Finland	21	14 <sup>th</sup> Netherlands	20
15 <sup>th</sup> Denmark	11	15 <sup>th</sup> France	16	15 <sup>th</sup> Greece	19	15 <sup>th</sup> Spain	19
16 <sup>th</sup> Greece	10	16 <sup>th</sup> Greece	16	16 <sup>th</sup> Poland	18	16 <sup>th</sup> Belgium	17
17 <sup>th</sup> Sweden	10	17 <sup>th</sup> Sweden	15	17 <sup>th</sup> Hungary	17	17 <sup>th</sup> Finland	16
18 <sup>th</sup> Spain	6	18 <sup>th</sup> Netherlands	13	18 <sup>th</sup> Italy	14	18 <sup>th</sup> Austria	15
		19 <sup>th</sup> Finland	12	19 <sup>th</sup> Netherlands	12	19 <sup>th</sup> Italy	14
		20 <sup>th</sup> Spain	7	19 <sup>th</sup> Greece	8	20 <sup>th</sup> Greece	12
				21 <sup>st</sup> Belgium	8		

**Table 10**  
**Innovative orientation in Portugal and the EU countries in 2010, 2011, 2012, 2013, and 2014**

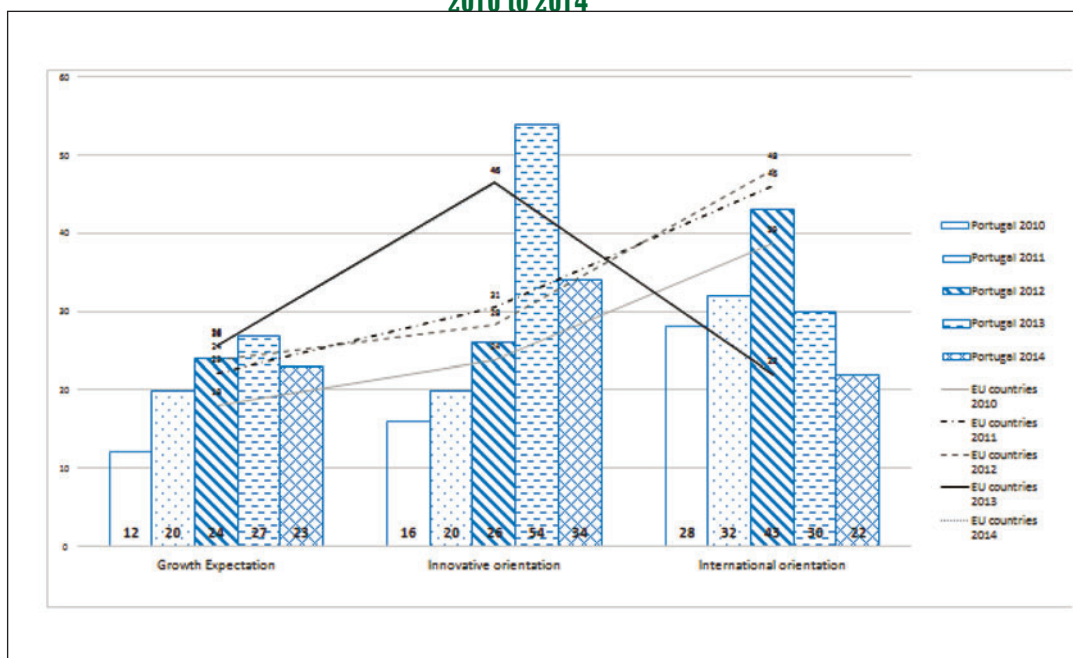
	Innov. Orient. 2010	2011	Innov. Orient. 2012	2013	Innov. Orient. 2013	2014	Innov. Orient. 2014
1 <sup>st</sup> Latvia	40	1 <sup>st</sup> Latvia	53	1 <sup>st</sup> Estonia	59	1 <sup>st</sup> Italy	69
2 <sup>nd</sup> Hungary	34	2 <sup>nd</sup> Romania	50	2 <sup>nd</sup> Slovenia	57	2 <sup>nd</sup> Poland	64
3 <sup>rd</sup> Croatia	33	3 <sup>rd</sup> Slovenia	49	3 <sup>rd</sup> France	55	3 <sup>rd</sup> Slovak Republic	63
4 <sup>th</sup> Ireland	33	4 <sup>th</sup> Poland	38	4 <sup>th</sup> Croatia	55	4 <sup>th</sup> Slovenia	58
5 <sup>th</sup> Romania	33	5 <sup>th</sup> Ireland	40	5 <sup>th</sup> Portugal	54	5 <sup>th</sup> Denmark	57
6 <sup>th</sup> Denmark	28	6 <sup>th</sup> Hungary	33	6 <sup>th</sup> United Kingdom	52	6 <sup>th</sup> France	51
7 <sup>th</sup> Italy	27	7 <sup>th</sup> Lithuania	32	7 <sup>th</sup> Sweden	51	7 <sup>th</sup> Lithuania	49
8 <sup>th</sup> Netherlands	27	8 <sup>th</sup> Croatia	31	8 <sup>th</sup> Netherlands	50	8 <sup>th</sup> Belgium	48
9 <sup>th</sup> Slovenia	27	9 <sup>th</sup> France	30	9 <sup>th</sup> Belgium	50	9 <sup>th</sup> Austria	47
10 <sup>th</sup> Germany	21	10 <sup>th</sup> Slovak Republic	30	10 <sup>th</sup> Latvia	49	10 <sup>th</sup> Estonia	47
11 <sup>th</sup> United Kingdom	21	11 <sup>th</sup> United Kingdom	26	11 <sup>th</sup> Spain	49	11 <sup>th</sup> Sweden	45
12 <sup>th</sup> France	20	12 <sup>th</sup> Sweden	26	12 <sup>th</sup> Greece	47	12 <sup>th</sup> Finland	43
13 <sup>th</sup> Sweden	19	13 <sup>th</sup> Denmark	25	13 <sup>th</sup> Lithuania	42	13 <sup>th</sup> Hungary	41
14 <sup>th</sup> Portugal	16	14 <sup>th</sup> Netherlands	24	14 <sup>th</sup> Romania	39	14 <sup>th</sup> Netherlands	40
15 <sup>th</sup> Finland	14	15 <sup>th</sup> Belgium	20	15 <sup>th</sup> Hungary	38	15 <sup>th</sup> Spain	39
16 <sup>th</sup> Greece	13	16 <sup>th</sup> Netherlands	18	16 <sup>th</sup> Italy	36	16 <sup>th</sup> Greece	37
17 <sup>th</sup> Belgium	12	17 <sup>th</sup> Italy	17	17 <sup>th</sup> Finland	34	17 <sup>th</sup> Romania	37
18 <sup>th</sup> Spain	11	18 <sup>th</sup> Sweden	17	18 <sup>th</sup> Slovak Republic	33	18 <sup>th</sup> Portugal	34
		19 <sup>th</sup> Greece	14	19 <sup>th</sup> Poland	33	19 <sup>th</sup> United Kingdom	31
		20 <sup>th</sup> Austria	13	20 <sup>th</sup> Croatia		20 <sup>th</sup> Croatia	27
		21 <sup>st</sup> Spain	13				

## Table 11

2010	Internat. Orient. 2010	2011	Internat. Orient. 2011	2012	Internat. Orient. 2012	2013	Internat. Orient. 2013	2014	Internat. Orient. 2014
1 <sup>st</sup> Denmark	60	1 <sup>st</sup> Poland	75	1 <sup>st</sup> Italy	79	1 <sup>st</sup> Croatia	41	1 <sup>st</sup> Croatia	38
2 <sup>nd</sup> Ireland	52	2 <sup>nd</sup> Denmark	67	2 <sup>nd</sup> Poland	72	2 <sup>nd</sup> Latvia	33	2 <sup>nd</sup> Belgium	33
3 <sup>rd</sup> France	50	3 <sup>rd</sup> France	53	3 <sup>rd</sup> France	69	3 <sup>rd</sup> Romania	32	3 <sup>rd</sup> Slovenia	32
4 <sup>th</sup> Greece	45	4 <sup>th</sup> Latvia	52	4 <sup>th</sup> Denmark	61	4 <sup>th</sup> Portugal	30	4 <sup>th</sup> Romania	29
5 <sup>th</sup> Latvia	45	5 <sup>th</sup> Netherlands	52	5 <sup>th</sup> Belgium	53	5 <sup>th</sup> Slovenia	26	5 <sup>th</sup> Sweden	27
6 <sup>th</sup> Slovenia	45	6 <sup>th</sup> United Kingdom	52	6 <sup>th</sup> Slovak Republic	52	6 <sup>th</sup> Estonia	26	6 <sup>th</sup> Austria	25
7 <sup>th</sup> Sweden	42	7 <sup>th</sup> Slovenia	51	7 <sup>th</sup> Estonia	51	7 <sup>th</sup> Lithuania	26	7 <sup>th</sup> Estonia	24
8 <sup>th</sup> Belgium	41	8 <sup>th</sup> Ireland	49	8 <sup>th</sup> Latvia	49	8 <sup>th</sup> Poland	24	8 <sup>th</sup> Hungary	23
9 <sup>th</sup> Italy	40	9 <sup>th</sup> Hungary	47	9 <sup>th</sup> Slovenia	49	9 <sup>th</sup> Hungary	22	9 <sup>th</sup> Lithuania	23
10 <sup>th</sup> Germany	38	10 <sup>th</sup> Finland	44	10 <sup>th</sup> Austria	48	10 <sup>th</sup> Sweden	22	10 <sup>th</sup> France	22
11 <sup>th</sup> Netherlands	36	11 <sup>th</sup> Greece	43	11 <sup>th</sup> Romania	48	11 <sup>th</sup> Slovak Republic	21	11 <sup>th</sup> Portugal	22
12 <sup>th</sup> Finland	34	12 <sup>th</sup> Romania	43	12 <sup>th</sup> Finland	44	12 <sup>th</sup> France	19	12 <sup>th</sup> Italy	21
13 <sup>th</sup> Spain	31	13 <sup>th</sup> Slovak Republic	42	13 <sup>th</sup> Portugal	43	13 <sup>th</sup> Italy	17	13 <sup>th</sup> Slovak Republic	19
14 <sup>th</sup> United Kingdom	30	14 <sup>th</sup> Sweden	41	14 <sup>th</sup> Netherlands	42	14 <sup>th</sup> United Kingdom	17	14 <sup>th</sup> Greece	18
15 <sup>th</sup> Romania	29	15 <sup>th</sup> Croatia	38	15 <sup>th</sup> Spain	42	15 <sup>th</sup> Belgium	14	15 <sup>th</sup> Netherlands	16
16 <sup>th</sup> Portugal	28	16 <sup>th</sup> Lithuania	37	16 <sup>th</sup> Greece	40	16 <sup>th</sup> Netherlands	14	16 <sup>th</sup> United Kingdom	15
17 <sup>th</sup> Hungary	27	17 <sup>th</sup> Spain	36	17 <sup>th</sup> United Kingdom	38	17 <sup>th</sup> Greece	13	17 <sup>th</sup> Poland	15
18 <sup>th</sup> Croatia	25	18 <sup>th</sup> Belgium	34	18 <sup>th</sup> Hungary	36	18 <sup>th</sup> Finland	11	18 <sup>th</sup> Spain	14
		19 <sup>th</sup> Germany	34	19 <sup>th</sup> Sweden	36	19 <sup>th</sup> Spain	9	19 <sup>th</sup> Denmark	13
		20 <sup>th</sup> Portugal	32	20 <sup>th</sup> Lithuania	31			20 <sup>th</sup> Finland	13
				21 <sup>st</sup> Croatia	30				



Graph 5  
Entrepreneurial aspiration indicators in Portugal and the EU countries average from 2010 to 2014



Once again, these results show a peak for Portugal in 2013, which is not in line with the results in the other years under analysis. Despite this atypical year, Portugal systematically ranked in the lower or middle positions in the EU countries.

**The entrepreneurship activity in Portugal kept up with the EU average from 2010 to 2013. In 2014, despite the fact that Portugal had more entrepreneurial activity than the other EU countries, these were mainly necessity-driven and not improvement-driven.**

Despite the fact that Portugal peaked in all the indicators of entrepreneurial aspirations in 2013, the results for the country were consistently below (or coincident with), the EU countries average in the other years. In 2010, the growth expectation average in the EU was 18%, in 2011 it was 22%, in 2012 it was 24%, and in 2013 and 2014 it was 26%. Similarly, the innovative orientation average amongst the EU

countries was also higher than the scores found in Portugal for all the years under analysis, except for the atypical 2013 ( $M_{EU2010}=24\%$ ;  $M_{EU2011}=31\%$ ;  $M_{EU2012}=28\%$ ;  $M_{EU2014}=46\%$ ). The same pattern was evidenced in the international orientation average, which was consecutively higher than the scores of Portugal in 2010, 2011, 2012 and 2014 ( $M_{EU2010}=39\%$ ;  $M_{EU2011}=46\%$ ;  $M_{EU2012}=48\%$ ;  $M_{EU2014}=22\%$ ). In Graph 5, we can analyse the position of the Portuguese results in the indicators of entrepreneurial aspirations in relation to the EU countries average.

### Discussion

#### Is entrepreneurship in Portugal far from or close to the tipping point?

The economic, financial and social crises that Portugal has been facing since 2009, is still taking its toll on the country today. In order to overcome this, entrepreneurship has been encouraged as a critical mechanism for contributing to economic development, following the evidence from scientific research (e.g., Wennekers and Thurik, 1999; Reynolds et al., 1999).

Despite this effort, there were several questions about the effective behaviour of Portuguese entrepreneurship indicators during the economic and financial crisis. To clarify these issues, we analysed the indicators of entrepreneurial activity, attitudes and aspirations in Portugal and the other European Union countries in the years of economic and social crisis (2010, 2011 and 2012) and in the two years that showed a slight recovery (2013 and 2014).

In general, the entrepreneurial activity results in Portugal from 2010 to 2014 kept pace with the trend in the rest of Europe. In 2010, 2011, 2012 and 2013, the TEA rate in Portugal was equivalent to the EU countries average. However, in 2014, it was higher, showing increased entrepreneurial activity in Portugal. Necessity-driven entrepreneurship in 2010 was slightly higher in Portugal than the EU countries average, but was lower in 2011, 2012 and 2013. In 2014, Portugal had more necessity-driven entrepreneurial activity than the average of the European countries.

This result suggests that the increase in the TEA rate in Portugal in 2014 was mainly due to necessity-based entrepreneurship, probably as a self-employment solution and income substitution, due to the high unemployment rates. Accordingly, there was less opportunity-driven entrepreneurship in 2014 in Portugal than in the average of the EU countries. However, the trend from 2010 to 2013 was that Portugal had more improvement-driven opportunity entrepreneurship than the average of the EU countries.

In sum, the entrepreneurship activity in Portugal kept up with the EU average from 2010 to 2013. In 2014, despite the fact that Portugal had more entrepreneurial activity than the other EU countries, these were mainly necessity-driven and not improvement-driven.

Perceived opportunities in Portugal were also consistently lower than the EU average. This would suggest that in Portugal, there is a perception of less good opportunities to start a business in the area they live than in the other European countries. This result can be potentially explained by the crisis and by the insecure environment perceived in Portugal during the economic crisis years. Despite the fact that Portugal was perceived to have low opportunities for new business during this period, this was also the country where there was a higher belief among the population that they had

the required knowledge and skills to start a business. Indeed, with regard to the perception of its entrepreneurial capabilities, between 2010 to 2014 Portugal had higher results than the average EU countries.

**Entrepreneurial aspirations in Portugal were consistently lower than in the other EU countries. Overall, this pattern of entrepreneurship results suggests that Portugal is far from the EU countries tipping point.**

The perception of fear of failure in 2010 was lower in Portugal than the average in the EU countries, but was equivalent in 2011, 2012, 2013 and 2014. This result shows that from 2011 onwards, fear of failure would prevent Portuguese entrepreneurs from setting up a business, as in the other EU countries. Entrepreneurial intentions in Portugal in 2010 and 2013 were coincident with the EU average, slightly lower in 2011 and slightly higher in 2012. The most interesting results were in 2014, when entrepreneurial intentions in Portugal were higher than the average of the EU countries. In general, entrepreneurial attitudes in Portugal are characterized by average entrepreneurial intentions, lower perceived opportunities, higher perceived capabilities to start a business, although fear of failure would prevent them from actually starting a business.

Compared to the EU countries average, entrepreneurial aspirations in Portugal were constantly lower in the three indicators and over time, except for 2013. This trend was consistent with growth expectation, innovative orientation and international orientation. Thus, Portugal in 2010, 2011, 2012 and 2014 revealed lower entrepreneurial aspirations than the average of the EU countries in growth expectation, in new product, and in international orientation early-stage entrepreneurial activity.

In general, these results indicate that Portugal has entrepreneurial activity that corresponds to the average of the other EU countries, as much at the total early entrepreneurship stage, as in necessity and improvement driven entrepreneurship. Surprisingly, and not congruently, there is a lower

perception about the availability of good business opportunities in the area they live and a higher fear of failure that would prevent individuals from launching a business. There is a higher perception of the individual skills and knowledge that are required to launch a business, so Portugal shows a national belief in its entrepreneurial skills and capabilities. Nevertheless, and probably due to the crisis environment, entrepreneurial aspirations in Portugal were consistently lower than in the other EU countries. Overall, this pattern of entrepreneurship results suggests that Portugal is far from the EU countries tipping point.

**In general, the success or failure of entrepreneurship does not depend on a set of individual, sporadic or surgical activities conducted at a national or local level. They will rely rather on combined intra and inter level strategies that trigger a shift towards an entrepreneurial culture, climate and method.**

As a consequence of this result, we suggest that Portugal should promote entrepreneurial attitudes and growth. National and international policy decision-makers refer to entrepreneurship as one of the main mechanisms driving economic development (e.g., Acs and Szerb, 2007; Acs, 2006; Martin et al., 2010; Stel et al., 2005; Wong et al., 2005), and thus attitudes, aspirations and growth gain a critical relevance. For instance, entrepreneurship can be conceptualized as a method, analogous to the scientific method, which can help to promote the necessary conditions for developing capacity for enterprise (Ventakaraman et al., 2012). The inclusion of curricula focused on developing entrepreneurial skills from the early school years would, by the generational effect, unleash the entrepreneurial potential of human nature.

By leveraging the generational process, entrepreneurship would solidify as an agent of transformation for careers, communities, and political, economic and social systems. This paradigm shift is ambitious, challenging and progressive. The contributions made by research and activities for entrepreneurship that we observe today are only the begin-

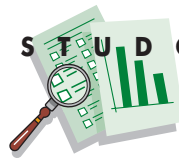
ning. And on their own, and as temporary and hitherto unframed policies, they will not have the desired effect. Entrepreneurship needs to be fostered and integrated in our culture as action, method and strategy.

Furthermore, at the macro and societal level, society needs to be culturally prepared to generate innovative ideas and effective and efficient management of resources. At the intermediate and group level, organizations, private and public institutions have to urgently start the process of intrapreneurship by encouraging employees to take risks, to accept and learn from failure and to be responsible for the development of innovative products or services for their businesses. Individually, each person chooses to engage in entrepreneurship and to stimulate their ability to recognize business opportunities, participate in business idea competitions (Santos and Caetano, 2014), and consider entrepreneurship as a stage in their active working life (Costa et al., in press). In general, the success or failure of entrepreneurship does not depend on a set of individual, sporadic or surgical activities conducted at a national or local level. They will rely rather on combined intra and inter level strategies that trigger a shift towards an entrepreneurial culture, climate and method.

In the present social and economic context in Portugal, specifically, and in Europe, in general, entrepreneurship appears as a “ray of light” (e.g., Caetano et al., 2012). It is perceived as a way to deal with countries’ main socio-economic problems such as unemployment, economic downturn and deep changes in employment patterns.

This study has several limitations. It was not possible to include all European Union countries, as data was not available. Thus, the description in our study is restricted to the countries and variables that were available. A second limitation refers to the period of time selected. At the present moment it is only possible to analyse data up to 2014. In future research, we will also integrate data from 2015 and 2016, when the Eurozone crisis is expected to be resolved.

This research aimed to be a first step towards developing systematic and analytical research on the entrepreneurial activity, attitudes and aspirations in Portugal. It would be interesting to extend this in future research in order to identify the determinants of these changes over time and across countries. ■



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