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EARLY-STAGE ENTREPRENEURIAL ACTIVITY IN THE EUROPEAN UNION: SOME ISSUES AND CHALLENGES

by Niels Bosma, Stephen Hunt, Sander Wennekers and Jolanda Hessels

1 Introduction

In this document[1] we present the levels of Total early-stage Entrepreneurial Activity (TEA) across 16 Member States of the European Union participating in the Global Entrepreneurship Monitor (GEM) 2004 research[2]. We also compare the average TEA rate for these 16 EU-countries participating in GEM with the average for some other OECD-countries, further referred to as "Anglo"-countries: the United States of America, Canada, Australia and New Zealand. Next, we relate the striking differences in TEA across countries to underlying cultural and institutional differences. We also examine some other current issues associated with entrepreneurial activity in Europe, such as ageing of the population, and technology-based start-ups. Finally, we draw some conclusions and formulate policy challenges for the EU.

2 Early-Stage Entrepreneurial Activity in the European Union

The Total early-stage Entrepreneurial Activity (TEA) rates for the 16 countries in the European Union (5.1% on average) are remarkably and significantly lower than those for the Anglo-countries (12% on average). This geographical distinction between Europe and these four other economies suggests that there may be various cultural and institutional factors at play. However, within the European Union, there are also some notable differences between countries' entrepreneurial activity rates. The TEA rates for the sixteen European Union Member States involved in GEM 2004 are presented in figure 1.[3] The vertical bars indicate the statistical precision of the estimate at the 95% confidence level. Where these bars overlap, as is the case for Belgium and Slovenia, it is impossible to state with certainty that there is a difference

[1] This document is an expanded version of Bosma N., S. Hunt and S. Wennekers (2005), 'Regional Commentary: European Union', in: Hancock, M. and P. Fitzsimons, Global Entrepreneurship Monitor 2004, National & regional summaries.

[2] Acs, Zoltan J., Pia Arenius, Michael Hay and Maria Minniti, Global Entrepreneurship Monitor, 2004 Executive Report, Babson College/London Business School. Detailed information on GEM and reports can be found on www.gemconsortium.org.

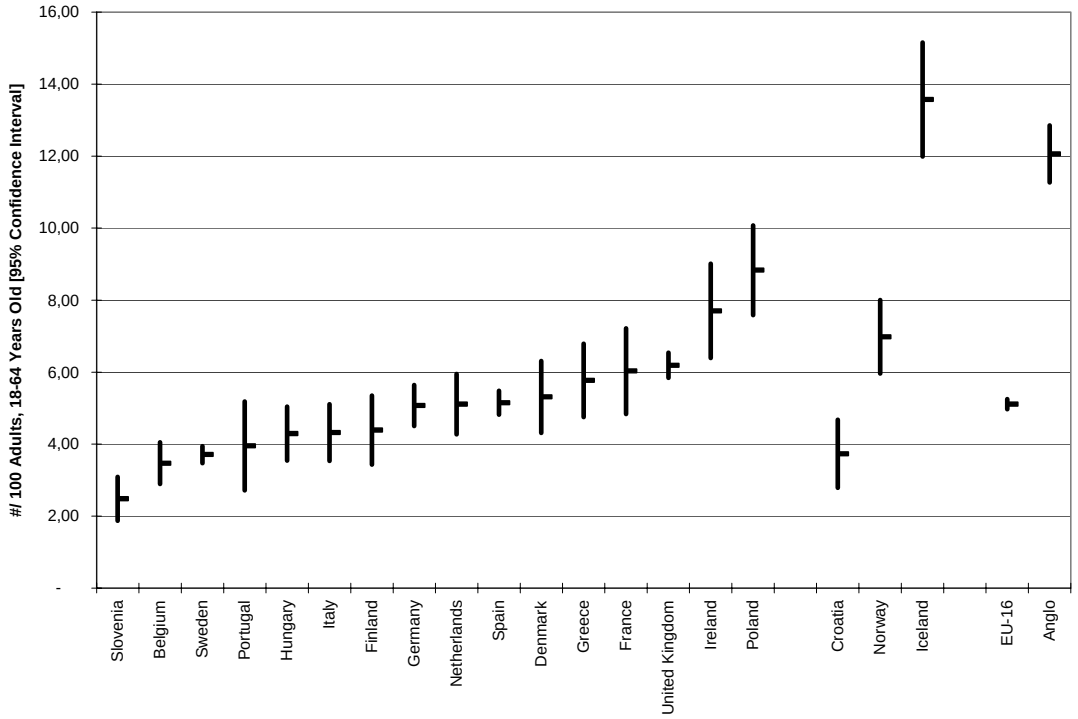
[3] The figure also includes TEA rates in Croatia, Iceland and Norway.

in these countries' TEA rates. Similarly, while the TEA rate for Poland is not significantly greater than Ireland's it is greater than those for all other EU countries.

Poland and Ireland then emerge as the EU-countries with the highest TEA rates. However, the two countries do not share identical patterns of entrepreneurial activity: in Poland, as many as 35% of entrepreneurs indicated their involvement was motivated by necessity, while in Ireland this figure was only 13%.[4] Furthermore, the relatively higher rates of entrepreneurship in Ireland and the United Kingdom may partly reflect the importance of the English language in the contemporary business world, as Canada, United States, Australia and New Zealand also have relatively high TEA rates. Ireland and United Kingdom also have relatively low costs associated with starting a business.[5] Southern European countries (Portugal, Spain, Italy and Greece) have higher levels of self-employment, with a relatively large number of small businesses involved in retail. However, entrepreneurial *dynamics*, as reflected in TEA rates, are relatively low in these countries.

[4] Other countries with relatively high shares of necessity entrepreneurship are Hungary (29%), Greece (29%), Germany (27%), Portugal (25%) and France (23%).
[5] Worldbank: Doing Business 2005. Denmark, Sweden and France also have low start-up costs relative to GNP per capita.

Figure 1 Total early-stage Entrepreneurial Activity (TEA Prevalence) in Europe 2004, by country



Below, we describe some features of entrepreneurship in the European Union and assess key issues related to entrepreneurship.

3 Some cultural and institutional factors

3.1 The entrepreneurial mindset

Attitudes towards entrepreneurship in the EU tend be less positive than in the Anglo-countries. Table 1 shows that this holds for national support for entrepreneurship, for perceived individual opportunities and for entrepreneurial intentions. There also appears to be a high degree of variation between the EU-countries. The relative gap between the EU-16 average and that of the Anglo-countries is slightly larger in the final two columns of table 1, where the assessment is “closer to the individual”. Put differently, national support for entrepreneurship in the EU is, in comparison with the Anglo-countries, less frequently reflected in perceived entrepreneurial skills and opportunities, or in entrepreneurial intentions.

Table 1 Percentage of adults indicating positive attitude to entrepreneurship in 2004: national support, perceptions and intentions

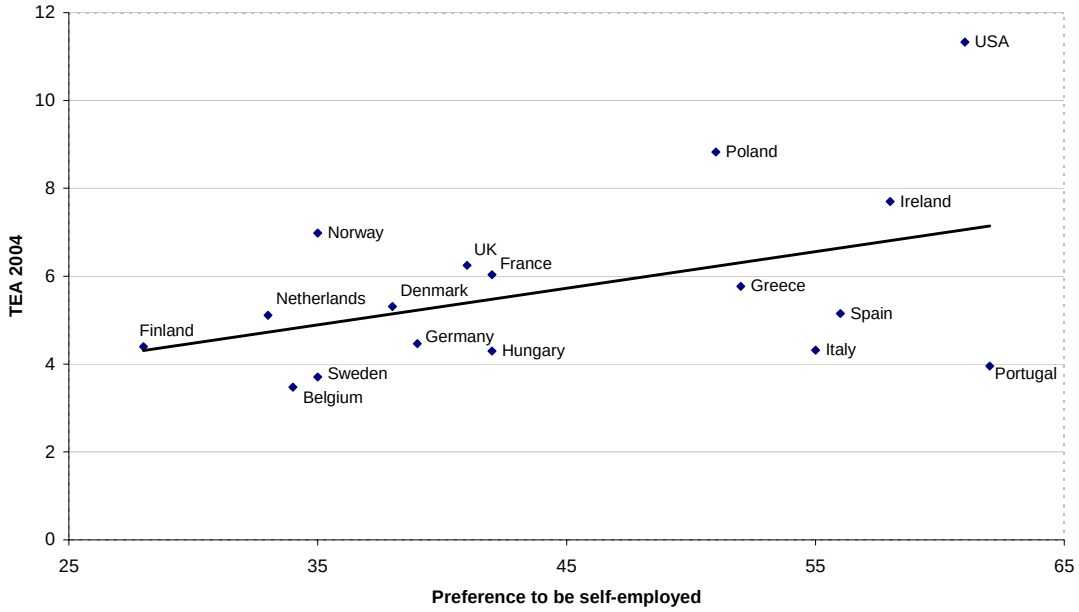
	Positive about *national* support for entrepreneurship [a)]	**Positive about *individual* skills and entrepreneurial opportunities** [b)]	**Entrepreneurial *intention:* expects to start a business** [c)]
Belgium	21	7	7
Denmark	27	9	10
Finland	29	6	5
France	20	7	14
Germany	27	3	7
Greece	25	8	14
Hungary	25	3	4
Ireland	48	11	11
Italy	31	7	12
Netherlands	36	7	7
Poland	18	9	22
Portugal	22	5	4
Slovenia	33	8	10
Spain	20	13	5
Sweden	26	18	12
United Kingdom	28	10	10
EU-16 average	27	8	10
Anglo	38	13	16

a) Percentage of 18-64 years old indicating that in their country (i) starting a business is considered to be a good career choice; (ii) people setting up new firms receive high status and (iii) there is high media coverage on new and growing businesses.
b) Percentage of 18-64 years old indicating that (i) they have the skills to set-up a business themselves and (ii) there are good opportunities to start a business in their environment.
c) Percentage of 18-64 years old indicating that they expect to start a new firm in the next three years.

GEM research indicates that the level of entrepreneurial orientation in national culture is positively linked with the level of entrepreneurial activity across the 24 economically most developed GEM countries.[6] Also, there is a significant positive correlation of the TEA rate with data from the Eurobarometer on "preference to be self-employed" (correlation coefficient equals 0.54; $p<0.05$) (see figure 2).[7] However the correlation is less strong when the United States is excluded ((correlation coefficient then equals 0.46; $p<0.10$). So attitudes and preferences are in themselves important for entrepreneurship.

[6] This GEM measure, based on surveys held among key-informants on entrepreneurship, correlates positively with the TEA 2004 index (coefficient equals 0,74; $p<0.001$) in the OECD-countries participating in GEM.
[7] European Commission (2004, *Flash Eurobarometer 160 (2004), Entrepreneurship*. Citizens were asked whether they prefer to be self-employed or employee. The question has been asked in the EU Member States and the USA.

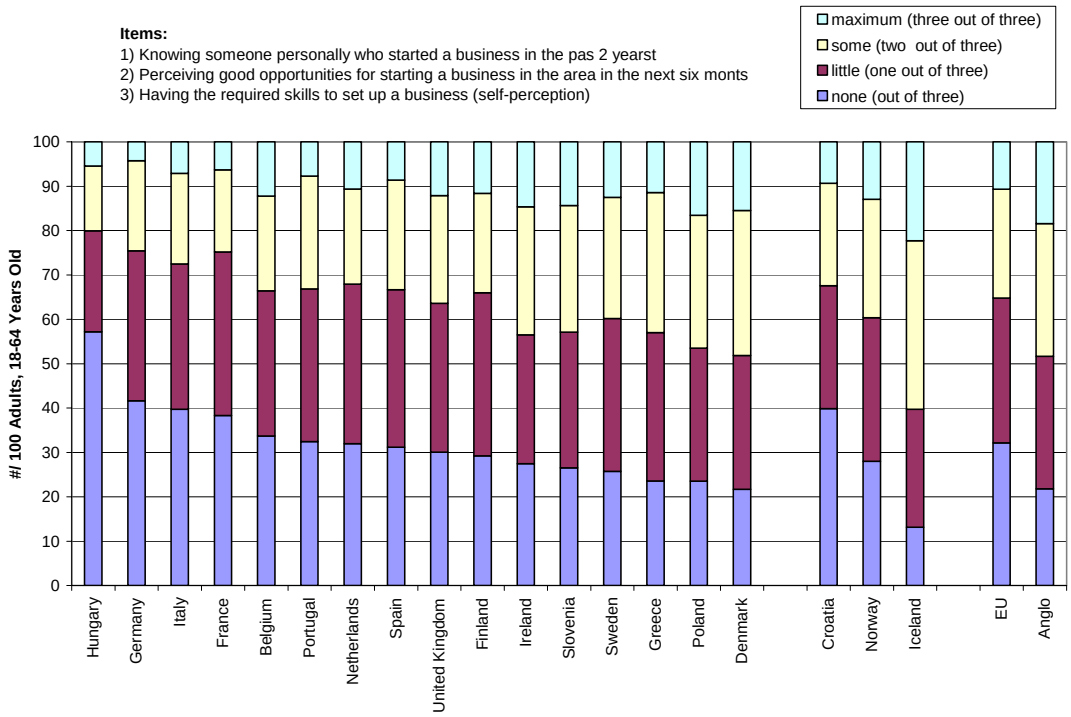
Figure 2 Total early-stage Entrepreneurial Activity (TEA Prevalence) 2004 and preference to be self-employed



The European Union has thus rightly identified a need to enhance positive attitudes by 'fuelling the entrepreneurial mindset'.[8] This approach includes giving entrepreneurship a more prominent place in educational programs, and promoting role models through the media, and so putatively enhancing cultural support for entrepreneurial activity. Figure 3 elaborates the current state of perceptions and attitudes towards entrepreneurship, based on three items. Measured across the entire adult population aged between 18 and 64, the mindset in most EU-countries tends to be less well disposed towards entrepreneurship than in Anglo-countries. Attitudinal variables are at play here, but possibly, institutional factors also play a role (see section 3.2).

[8] European Commission, 2004, 'Action Plan: The European agenda for Entrepreneurship', communication from the Commission to the council, the European parliament, The European economic and social committee and the Committee of the regions, Brussels.

Figure 3 Perceptions and attitudes towards entrepreneurship in 2004



Taking a particular attitudinal measure, there are also considerable differences between EU countries in terms of the proportion of people who feel a 'fear of failure' would effectively prevent them from setting up a business (Table 2). However, the percentages shown in the table are not (negatively) correlated with TEA rates.[9] Nor are there signs that national levels of 'fear of failure' have changed significantly over the past four years.

Summarizing these GEM results, perceived national support for entrepreneurship is fairly positive in the EU (while it is less positive than in Anglo-countries), but relatively few choose to involve themselves in entrepreneurial activity, (see also Grilo and Irigoyen, 2005).[10]

[9] EU-countries only

[10] Grilo, I and J-M Irigoyen, 2005, Entrepreneurship in the EU: to wish and not to be, *Discussion Papers on Entrepreneurship, Growth and Public Policy* 0105, Max Planck Institute for Research into Economic Sytems, Jena, Germany.

Table 2 Percentage of adults indicating that fear of failure would prevent them from setting up a business

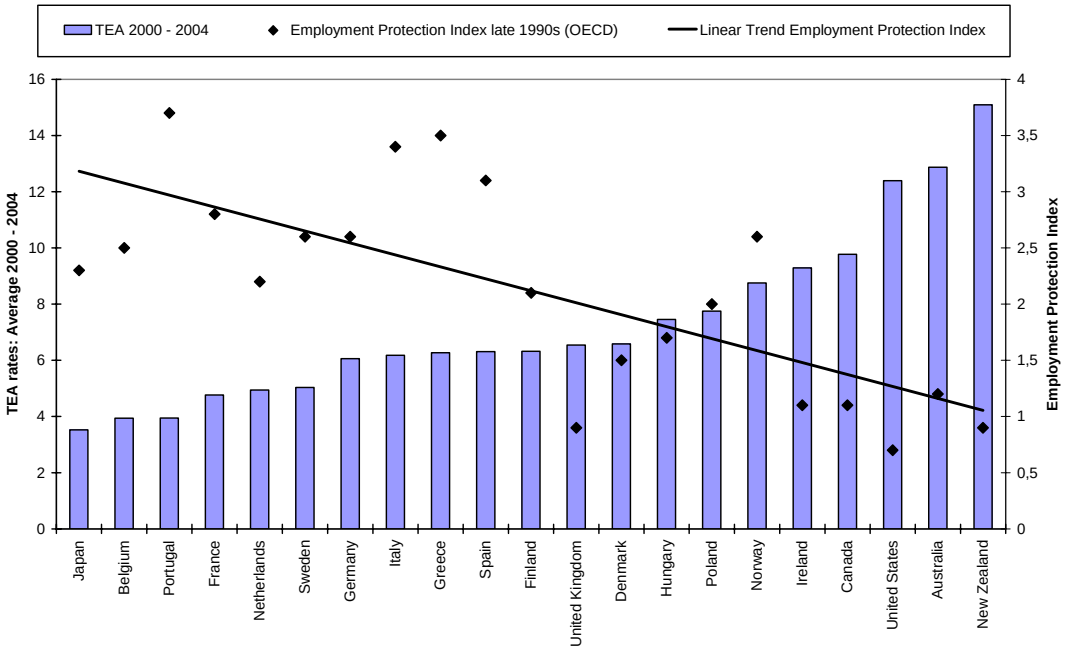
	2004	2003	2002	2001	*2001-2004 average*
Hungary	24		26	26	25
Netherlands	32	28	24	25	27
Denmark	27	31	29	30	29
Belgium	30	34	27	32	31
Slovenia	35	35	32		34
Sweden	36	34	32	34	34
United Kingdom	33	34	34	34	34
Italy	40	40	30	35	36
Finland	41	37	30	38	37
Ireland	39	41	35	42	39
France	50	45	36	33	41
Poland	43		27	53	41
Portugal	43			40	41
Spain	51	37	44	38	42
Germany	48	49	49	53	50
Greece	53	59			56
Norway	27	24	24	29	26
Croatia	42		32		37
Iceland	40	39	39		39
EU-16	39	39	32	34	37
Anglo	29	29	28	29	29

3.2 Employment security

In this section we examine one specific institutional factor: “employment protection”. The relatively low TEA rates of many EU countries partly reflect a lower 'urgency' to engage in entrepreneurial activity: employment protection is comparatively strong and unemployment benefit schemes are relatively generous. Furthermore, the ‘opportunity costs’ of engaging in entrepreneurship are higher. Finally, potential employers in the EU are discouraged to employ people because of high costs of dismissal and low labour market flexibility. Figure 4 demonstrates that, across OECD countries, lower levels of “employment protection” are associated with higher TEA rates (correlation coefficient equals –0.68). This relationship also holds *within* the European Union (correlation coefficient equals –0.59). The employment protection rates reflect the situation in the late 1990s and are composed of several indices concerning regular employment, temporary employment and collective dismissals.[11] TEA rates reflect average (early-stage) entrepreneurial activity during 2000-2004.

[11] OECD, 1999, Employment Outlook, Table 2.5.

*Figure 4 Employment protection and Total Entrepreneurial Activity in the OECD**



** Averages TEA for 2000-2004 except for Ireland and the Netherlands (2001-2004), Hungary and Poland (2001, 2003, 2004), Portugal (2001 and 2004), Slovenia (2002-2004) and Greece (2003 and 2004)*

4 Other issues

4.1 Age structure

In addition to cultural and institutional factors demographic variables also play a role in explaining the differences in entrepreneurial activity across countries. Consistently over all 34 GEM-countries, people over 50 are less likely to be involved in new entrepreneurial activities than people below 35. The correlation between the prevalence of people below 35 and the 2004 TEA rate is 0.72, which is significant at the 0.001 level. Indeed, within Europe countries with a greater proportion of younger adults tend to have higher TEA rates.[12] Therefore, an ageing population is, all else being equal, a factor exerting a negative influence on business start-up rates. Consequently, because many EU-countries are experiencing an increase in the proportion of their population over 50, establishing a greater awareness of entrepreneurship as a "further career option" for the over 50's is important if levels of entrepreneurial activity are to be enhanced. Establishing such awareness may also

[12] Ireland, Poland and Hungary have highest shares of younger people. Mediterranean countries Portugal, Spain and Greece also have relatively high shares of younger people. In a multiple linear regression across OECD countries in which the TEA averages for 2001-2004 are explained by employment protection level (-) and prevalence of people aged 18 - 35 (+), both coefficients are found to be significant with predicted signs. The associated R-square is 0.58.

capitalize on other societal changes taking place throughout the EU. Extending the retirement age, something currently underway or being considered in many EU countries, may provide a practical reason to give running a business of one's own more serious consideration than before: the 'finish' is further away than previously expected, and people may want to spend the final phase of their working life pursuing personal goals. There may also be more opportunities for 'senior entrepreneurship' as the market of senior consumers develops.

A further effect of an aging population is that many incumbent firm-owners will retire in the near future. The EU estimates that one third of EU entrepreneurs, mainly those running family enterprises, will quit their activities in the next ten years. This would, EU-wide, affect some 610,000 firms and 2.4 million jobs every year.[13] As fewer business are inherited by family members, more family run enterprises will need to be transferred to employees or other third parties. Immigrants, a group that frequently demonstrates a high degree of entrepreneurial behavior, may also fill part of the vacuum created by an ageing population.

4.2 Technology-based startups

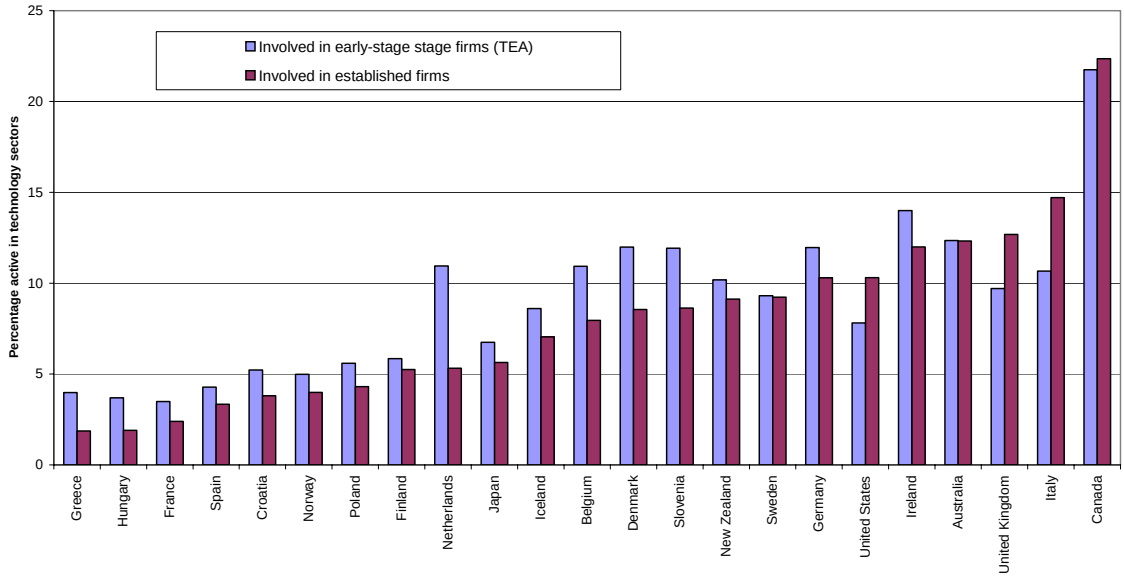
For the governments in the EU-countries, increasing the number of new business start-ups is the first major challenge. The next is to increase particular types of new business start-ups. Specifically, to increase the proportion of new ventures developing into businesses providing large numbers of jobs, and, perhaps even more importantly stimulating *innovative* start-ups. Figure 5 shows the percentage of the enterprises active in high-tech or medium-tech sectors based on the GEM sample for those OECD countries involved.[14] France and Spain in particular underperform in this respect. Greece, Hungary, the Netherlands, Belgium, Denmark and Slovenia have markedly higher percentages of early-stage firms based in technology sectors than established firms; while the reverse is the case for the United States, the United Kingdom and Italy.

[13] European Commission, 2004, 'Action Plan: The European agenda for Entrepreneurship', communication from the Commission to the council, the European parliament, The European economic and social committee and the Committee of the regions, Brussels.
[14] High-tech and medium-tech sectors are identified by OECD standards.

Enhancing innovation is a crucial element of the so-called 'Lisbon strategy', the highly ambitious aim, agreed on by all EU countries in 2000, to become the world's most competitive economy by 2010. Now halfway through the decade this goal still seems as distant. In particular, Europe has difficulties transferring existing technological knowledge into new business activities. These difficulties can partly be explained by the fact that complex regulations governing business practice and prevailing throughout much of Europe often hinder new ventures starting, hiring additional employees, or growing. Yet even where innovation is encouraged conditions in which small firms operate may not always be favorable in practice.[15] Further explanation may lie in the pervading culture and reward systems that effectively work against knowledge transfer, as well as a lack of venture capital into start-ups. Although some progress has been made to deregulate and liberalize markets, administrative and regulatory burdens on business start-ups and small firms still remain considerable.

[15] In the United States, for example, the government is being forced to devote 2.5% of their innovation budget to small firms' facilitated innovation in the small business sector. The Small Business Innovation Research program (SBIR) has actively stimulated innovation in small businesses. Federal agencies with extramural research and development budgets over $100 million are required to administer SBIR programs using an annual set-aside of 2.5% for small companies to conduct innovative research or research and development (R/R&D) that has potential for commercialization and public benefit. Also, in other public procurement, a fair share has to be directed to the small business sector.

*Figure 5 Early-stage activities and established firms in technology sectors, 2004**



* *Portugal is not included in this figure due to a restricted sample size*

5 Conclusions

Levels of total entrepreneurial activity are lower throughout the EU as compared to the four Anglo-countries considered in this document. This paper has also shown that attitudes, perceptions and preferences towards entrepreneurship are important for the level of entrepreneurial activity in a country. In the coming years, the EU intends to focus on enhancing cultural support for entrepreneurship through for example education, media and role models. In addition, Europe faces specific institutional barriers to entrepreneurship, such as employment protection and complex regulation of start-ups and business practice. Finally ageing is a great challenge for the EU in the coming years. Ageing may have a negative influence on the level of entrepreneurial activity since people over 50 are less likely to become entrepreneurs and also because more entrepreneurs will retire.