

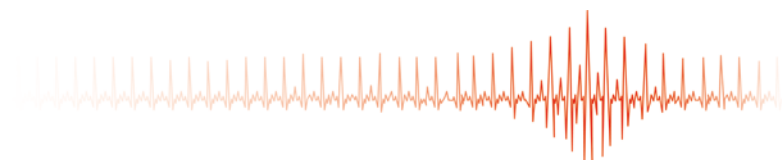
# Global Entrepreneurship Monitor

Scotland 2013



Jonathan Levie





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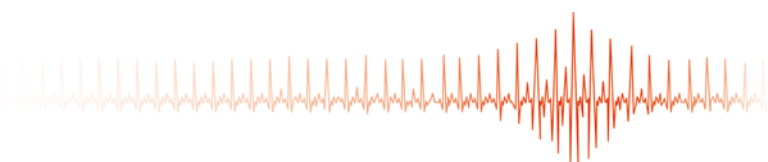
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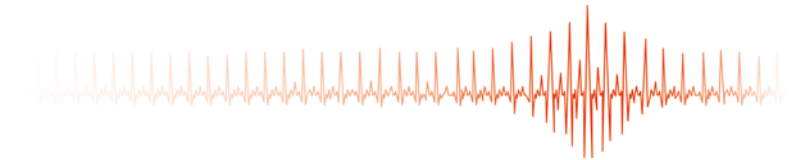
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There is no doubt 2014 will be a momentous year for Scotland as we decide upon our future in or out of the Union on September the 18<sup>th</sup>.

This Scottish GEM report for 2013 underscores just how much more we – in government, academia, education and business – need to do if we are to be a leading entrepreneurial nation in the world.

The Independence debate seems to have lost sight of the impact and importance of entrepreneurial business to our nation's future. To fund the social and educational care we seem to expect only tax generation has the answer and for that we need increased entrepreneurial success.

From a policy perspective I'd ask the Yes and No campaigns one key question – what are the three new policies you will implement to deliver sustained entrepreneurial growth for Scotland?

And by entrepreneurial growth – as this Report notes – I don't just mean in business but in Government and Academia; intrapreneurs have a pivotal role to play in our economic future.

There is some good news for Scotland embedded in this Report not least that high aspiration early stage entrepreneurs doubled from 2008-2010 to 2011-2013. Indeed early

stage entrepreneurial activity remained at an all time high, however that high still ranks us at best as average.

None of us I believe has our aspirations set on average – our TEA rates sit at 6.8%, only half the rate of the US or Canada; that's a gap we need to close.

To do so we need greater cooperation, increased focus on accelerating growth and more joined up thinking. To that end I'm delighted the Hunter Centre has established its own advisory Board including Business Gateway, Entrepreneurial Exchange, Saltire Foundation and E-Spark. That collective I believe will do more, better, faster. Indeed the leadership of Entex and Saltire in merging to create Entrepreneurial Scotland is to be applauded.

The Scottish Government has shown it's not only listening it's acting – Scotland Can Do and the Edge Fund are great examples of that action.

Critically I worry that the enterprise education that fuels the pipeline of enterprising employees and the occasional entrepreneur is being lost in the Curriculum for Excellence – we need reassurance it is not.

According to this Report we also need to pay far more attention to embedding a can do attitude when it comes to business exporting – we are woefully poor at it. On other hand we're good at being negative – a paradox if ever I heard one – with 40% fearing failure against an Arc of Prosperity average of 33%. Culturally we have a long way to go...

The University of Strathclyde, home to the Hunter Centre, won UK Entrepreneurial University of the Year, something to celebrate and to build upon. We need to create an entrepreneurial environment in Scotland that is world class, join the dots up, build on synergies and kick down the barriers and silence the naysayers.

The Independence debate Yes or No should offer us up an opportunity to pause, recalibrate and reenergize our commitment to build Scotland as a centre for a new enlightenment – difficult yes, impossible no... We simply cannot afford to do what we have always done, it takes us, if anything backwards.

We should come together to make Scotland the best place in the world to start and grow a business – why not?

**Sir Tom Hunter**

# Introduction

GEM is a major research project aimed at describing and analysing entrepreneurial processes within a wide range of countries.

GEM has three main objectives:

- To measure differences in entrepreneurial attitudes, activity and aspirations among economies.
- To uncover factors determining the nature and level of national entrepreneurial activity.
- To identify policy implications for enhancing entrepreneurship in an economy.

In 2013, GEM surveyed 70 economies, representing approximately 75% of the world's population and 90% of the world's GDP. More than 197,000 individuals have been surveyed and approximately 3,800 national experts on entrepreneurship participated in the study. Participating countries in 2013 were:

## 13 Factor-driven Economies<sup>1</sup>:

Algeria, Angola, Botswana, Ghana, India, Iran, Libya, Malawi, Nigeria, Philippines, Uganda, Vietnam, Zambia

## 31 Efficiency-driven Economies:

Argentina, Barbados, Bosnia and Herzegovina, Brazil, Chile, China, Colombia, Croatia, Ecuador, Estonia, Guatemala, Hungary, Indonesia, Jamaica, Latvia, Lithuania, Macedonia, Malaysia, Mexico, Namibia, Panama, Peru, Poland, Romania, Russian Federation, South Africa, Slovak Republic, Suriname, Thailand, Turkey, Uruguay

## 26 Innovation-driven Economies:

Belgium, Canada, Czech Republic, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Republic of Korea, Luxembourg,

Netherlands, Norway, Portugal, Puerto Rico, Singapore, Slovenia, Spain, Sweden, Switzerland, Taiwan, Trinidad & Tobago, United Kingdom, United States

## The Entrepreneurial Process

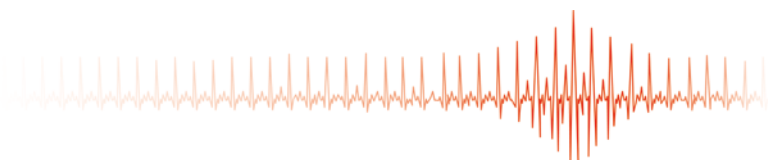
GEM views entrepreneurship as a process rather than as an event. An important manifestation of entrepreneurship (though not the only one) is new business activity. GEM collects data on the proportion of individuals in an economy who are expecting to start a business, are actively trying to start a business, are running their own young business, are running their own established business, and who have recently closed a business.

Nascent entrepreneurs are those individuals, between the ages of 18 and 64 years, who have taken some action towards creating a new business in the past year. In order to qualify in this category, these individuals must also expect to own a share of the business they are starting and the business must not have paid any wages or salaries for more than three months.

New business owners are individuals who are active as owner-managers of a new business that has paid wages or salaries for more than three months, but less than 42 months.

One of the principal measures in GEM is 'total early-stage entrepreneurial activity' (TEA), the proportion of people who are involved in setting up a business or owners-managers of new businesses. In addition to those individuals





who are currently involved in the early stages of a business, there are also many individuals who have owned and managed a business for a longer time. These individuals are included in GEM's estimates of the number of established business owners (EBO).

GEM can also measure other forms of entrepreneurial activity, including social entrepreneurial activity and employee entrepreneurial activity (intrapreneurship).

## Key Findings of GEM2013 Global Report<sup>2</sup>

### Entrepreneurial Attitudes

Individuals in factor-driven economies tend to report more positive attitudes on entrepreneurial measures such as perceived opportunities to start a business and perceived skills to start a business, in comparison to those in efficiency-driven and innovation-driven economies. Geographic patterns are also visible: individuals in the Sub-Saharan African economies tend to report highly positive attitudes in terms of opportunity perception, skills perception and fear of failure, and also almost half of non-entrepreneurially active respondents in Sub-Saharan Africa reported they intended to start a business in the next three years. In contrast, those in the European Union (EU) tend to report lower rates on these measures. The EU primarily hosts innovation-driven economies where the average perception of what a business entails is likely to differ from what people in factor-driven economies associate with having a business. This could be one explanation of why attitudes

about starting a business tend to decline with greater economic development levels.

### Entrepreneurial Activity

Total early-stage Entrepreneurial Activity (TEA) includes individuals in the process of starting a business and those running new businesses less than 3 ½ years old. As a percentage of the adult population, these rates tend to be highest for the factor-driven economies, and decline with increasing levels of GDP. The main reason for this stylized fact is that higher levels of GDP yield more and better job opportunities. At the very highest GDP levels, however, some economies deviate from this trend with higher TEA levels. Trinidad and Tobago and the United States showed the highest TEA rates among the innovation economies. Italy and Japan had the lowest TEA rates in 2013, 3.4% and 3.7% respectively.

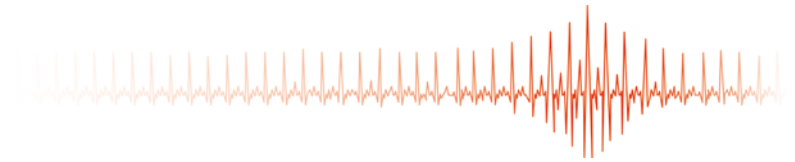
Women's participation in entrepreneurship relative to men ranges markedly: In Middle East/North Africa (MENA) economies more than two-thirds of the early-stage entrepreneurs are men, while in Sub-Saharan African economies there are nearly the same number of men and women involved in starting and owning-managing new businesses.

### Entrepreneurial Aspirations

In many economies, especially those with high TEA rates, the number of early-stage entrepreneurs indicating they expect to employ at least five employees within the next five years is rather low. Most MENA and European economies pair low TEA rates with

## What's new in GEM Scotland 2013?

1. GEM Scotland 2013 has fourteen years of data to draw on, with around 2000 individuals aged between 16 and 80 interviewed each year.
2. Chapter 4 conducts an in-depth analysis of entrepreneurship among men and women.
3. Chapters 5 and 6 contain analyses of two relatively rare forms of entrepreneurship: high-aspiration entrepreneurship and entrepreneurship among older individuals.



relatively higher percentages of early-stage entrepreneurs with high-growth expectations. Hence, the GEM results illustrate that if one is interested in linking entrepreneurship to indicators of economic performance (such as job growth) a simple count of start-ups or self-employed is not sufficient.

### **Entrepreneurship and Wellbeing**

This year, GEM introduced a novel approach to link entrepreneurship indicators with measures of well-being. New items included in the GEM assessment involve subjective well-being, satisfaction with one's current work and work-life balance. Initial results indicate that the prevalence of subjective well-being varies widely across world regions. Sub-Saharan African economies exhibit the lowest rates, whereas the American economies, both Latin and North America, have the highest rates. In all

regions, entrepreneurs exhibit relatively higher rates of subjective well-being in comparison to individuals who are not involved in the process of starting a business or owning-managing a business. Not surprisingly, necessity-driven entrepreneurs (entrepreneurs that are pushed into starting a business because they have no other options for work), have considerably lower rates of subjective well-being compared to opportunity-driven entrepreneurs.

Interestingly, female entrepreneurs in innovation-driven economies exhibit on average a higher degree of subjective well-being than males. Another interesting finding is that, in innovation-driven economies, early-stage entrepreneurs generally exhibit the highest levels subjective well-being, but they also tend to report more problems in work-life balance than those in efficiency-driven economies.

<sup>1</sup> Phases of economic development are decided on the level of GDP per capita and the extent to which countries are factor-driven in terms of the shares of exports of primary goods in total exports. See Schwab, K. (Ed.) (2013). The Global Competitiveness Report 2013-2014. Geneva, Switzerland: World Economic Forum.

<sup>2</sup> This section is extracted with permission from the Summary of the GEM 2013 Global report, available at [www.gemconsortium.org](http://www.gemconsortium.org)

- In 2013, opportunity perception continued to slowly recover in Scotland, although it remained much lower than in Arc of Prosperity (AOP) nations.
- The Total Early-Stage Entrepreneurial Activity (TEA) rate was steady at 6.8% (6.9% in 2012), and was very close to the UK rate of 7.3%, and the average for participating innovation-driven nations (7.1%) and AOP nations (6.9%).
- Men and women entrepreneurs tend to create different types of business and fund their start-ups differently. In Scotland as in the UK and AOP countries, half of all businesses run by women owner-managers are consumer-oriented businesses. Compared with their counterparts in AOP countries, Scottish female business owners are less likely to export and fewer of them expect to grow the business significantly in the next five years. Compared with their UK counterparts, female nascent entrepreneurs in Scotland are more likely to completely self-fund their business.
- Businesses run by male business owners in Scotland, the UK and AOP countries tend to be evenly distributed across transforming, business services and consumer-oriented sectors. Compared with their counterparts in AOP countries, Scottish male business owners are less likely to export but about equal proportions of Scottish and AOP male business owners are significant exporters.
- Scottish male business owners appear to have a similar distribution of aspiration for the growth of their business as the UK average. Male nascent entrepreneurs also have a similar funding profile for their business as their UK counterparts, with a wide range of external sources tapped for funding.
- By two different measures, the rate of early-stage entrepreneurs (i.e. nascent and new entrepreneurs) with high aspirations in Scotland has doubled from 2008-2010 to 2011-2013. High aspiration entrepreneurs tend to be more connected with the entrepreneurial community, more innovative, more likely to export, and to share ownership with multiple owners.
- Though established business ownership peaks between 50 and 64, entrepreneurial intention and activity declines rapidly after the age of 64. In Scotland, half of older new business owners are self-employed individuals without any intention of employing anyone.
- Scotland Can Do, a framework document for entrepreneurship and innovation policy in Scotland, was launched in 2013. It described four main themes that Team Scotland needed to focus on to transform Scotland's performance as an entrepreneurial and innovative nation: capability, ambition, networking and demand and opportunities.



# Entrepreneurial Business Attitudes, Activity and Aspirations in Scotland: 2013 Update

This chapter reports measures of entrepreneurial attitudes, activity and aspirations in Scotland in 2013. Where relevant, comparisons are made with the UK, Arc of Prosperity countries, and other innovation-driven, high income nations, and with measures in previous years<sup>1</sup>. A significant minority of UK households use only mobile phones and do not have fixed line telephones<sup>2</sup>. To reflect this, in 2013, 20% of the GEM sample across the UK consisted of mobile-only households. There was no significant difference in TEA rates between mobile only households and other households in Scotland in 2013.

## Entrepreneurial Attitudes

Table 3.1 displays historical trends of

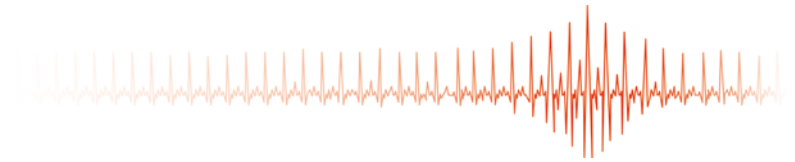
entrepreneurial attitudes among the non-entrepreneurially-active population – those who were not nascent, new or established business owner-managers. Opportunity perception continued to slowly recover in 2013, but fear of failure remained high. Opportunity perception is higher in Arc of Prosperity countries with the exception of Ireland. Non entrepreneurially-active individuals in Arc of Prosperity countries (again, with the exception of Ireland) tend to be less likely than those in Scotland and the UK generally to agree they have the skills, knowledge and experience to start a business, but more likely to agree that they know an entrepreneur, although the gap has narrowed in the past few years.

Item	Know someone who started a business in past 2 years			Good opportunities for starting a business in the next 6 months			Have knowledge, skills to start a business			Fear of failure would prevent me starting a business (among those who see opportunities)		
	Scot	UK	AOP	Scot	UK	AOP	Scot	UK	AOP	Scot	UK	AOP
Sample												
2002	19	21	46	23	26	44	37	41	36	40	37	33
2003	23	22	50	34	32	41	41	43	34	37	35	36
2004	26	24	43	33	33	43	47	46	36	36	36	36
2005	25	25	44	29	35	52	42	46	36	33	36	36
2006	25	25	43	34	34	52	45	45	36	33	37	39
2007	23	24	44	36	36	55	39	44	35	31	38	34
2008	20	24	43	33	27	41	41	44	36	34	38	35
2009	22	23	45	21	23	40	40	44	34	34	35	34
2010	27	31	38	25	27	42	44	47	37	43	36	35
2011	28	28	36	25	28	49	38	37	31	38	41	40
2012	26	27	33	27	31	45	37	39	30	43	43	41
2013	27	26	32	29	33	43	35	37	30	37	41	41

**Table 3.1: Entrepreneurial attitudes among non-entrepreneurial individuals in the Scottish, UK and Arc of Prosperity adult population samples, 2002 to 2013 (% agree with statement)**

Source: GEM UK and Global Surveys.

Note: 2009 AOP estimates exclude Ireland; 2011, 2012 and 2013 AOP estimates exclude Iceland, 2013 estimate excludes Denmark

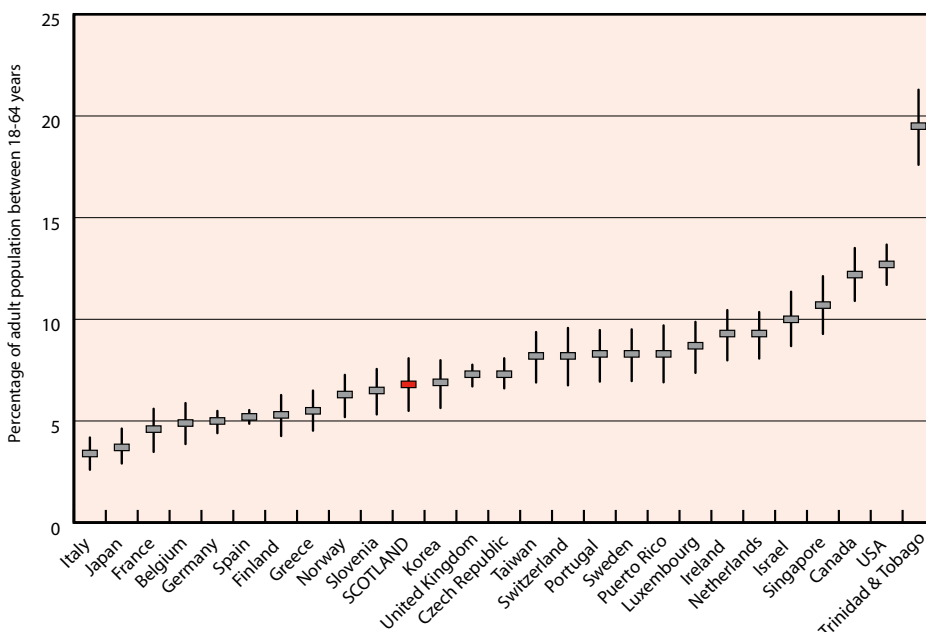


In 2013, only 49% of working age Scots thought that starting a business was a good career move, which was significantly below the UK average of 55%. (In 2012, the equivalent estimate for both the Scottish and UK samples was 50%.) Scotland ranked 17<sup>th</sup> in comparison with 23 innovation-based countries on this score, similar to Ireland (50%) and Norway (49%) but ahead of Finland (44%). There is also relatively low agreement in Scotland and the UK with the statement "you will often see stories in the public media about successful new businesses" in comparison with other countries. It was 51% in Scotland and the UK in 2013 (46% in 2012), ranking 13<sup>th</sup> in comparison with 23 innovation-driven countries; this is a relative improvement in ranking since 2012 when Scotland, with the UK, ranked third last. However, 79% of Scottish working age adults agreed that those successful at starting a new business have a high level of status and respect

(80% in UK). Scotland ranked fifth-highest on this measure with 24 innovation-driven countries, below Finland (85%), similar to Ireland (81%) and above Norway (75%).

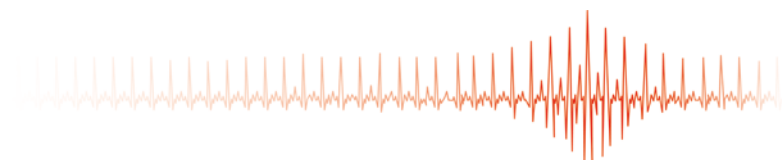
### Entrepreneurial Activity

In 2013, representative samples of the working age population (aged 18-64) were surveyed by GEM teams in a record 70 countries. Figure 3.1 shows the estimates of Total early-stage Entrepreneurial Activity (TEA) in each of the 26 innovation-driven (high income) sovereign nations participating in GEM2013, plus Scotland, ordered by TEA rate<sup>3</sup>. TEA measures the proportion of nascent and new business owner/managers in the population of working age adults. In "innovation-driven" nations such as Scotland, stimulating innovation and entrepreneurship should be a focus of government attention, according to the World Economic Forum<sup>4</sup>.



**Figure 3.1: National 2013 TEA rates for 26 sovereign innovation-driven nations and Scotland, ordered by TEA rate**

Source: 2013 GEM UK and Global Surveys



If the vertical bars on either side of the point estimates for TEA for any two countries do not overlap, they have statistically different TEA rates<sup>5</sup>. Figure 3.1 shows that Scotland was in the third quartile of innovation-driven countries in 2013, down from the second quartile in 2012 even though its TEA rate did not change (6.8% compared with 6.9% in 2012). This is because a number of innovation-driven countries with relatively high TEA rates were included in GEM in 2013 that were not in the 2012 sample. Among innovation-driven countries, only Japan and Italy had a significantly lower TEA rate than Scotland in 2013, while six of the first quartile countries: Netherlands, Israel, Singapore, Canada, USA, and Trinidad and Tobago, had TEA rates statistically higher than those of Scotland.

Table 3.2 benchmarks the TEA rate for Scotland for 2013 against the UK, "Arc of Prosperity" (AOP) nations that participated in 2012 and 2013 (Finland, Ireland, and Norway) and 21 high income/innovation-driven sovereign

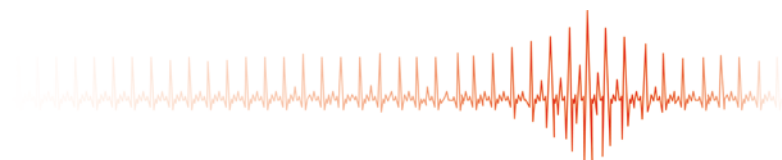
nations that participated in GEM in 2012 and 2013. The TEA rate in Scotland was static at 6.8% (6.9% in 2012), but the UK rate dropped significantly from 9.8% to 7.3%, closer to its 2011 rate of 7.6%. The Scottish TEA rate consistently remained below the UK rate between 2000 and 2012, and under-performed the average AOP rate until 2012. In 2013, however, Scotland had essentially the same TEA rate as its benchmarks for the first time since records began.

The latest official statistics of registered enterprise births in Scotland were issued in November 2013 for 2012. The official statistics show increases of 5% in 2010, 9% in 2011 and 3% in 2012. In contrast, business start-up estimates from the Committee of Scottish Clearing Banks, based on new business bank account openings, have shown year on year declines every year from 2008 to 2013. The correlation coefficient between registered enterprise births and the TEA rate each year from 2004 to 2012 was 0.57, while the correlation between registered

	TEA		% change	Scottish TEA as a % of other TEA rates	
	2012	2013		2012	2013
Scotland	6.9	6.8	-1%		
UK	9.8	7.3	-26%	70%	93%
21 High income/ innovation-driven nations (like-for-like)	6.9	7.1	3%	100%	96%
3 Arc of Prosperity nations (like-for-like)	6.3	6.9	10%	110%	99%

**Table 3.2: Scottish and benchmark TEA rates, 2012 and 2013**

Source: 2012 and 2013 GEM UK and Global Surveys



enterprise births and the business start-up estimates from the Committee of Scottish Clearing Banks for the same period was 0.08. (A correlation coefficient of 1.0 would be found if two series of numbers had a straight-line relationship with each other while a correlation coefficient of 0.0 would indicate that they have no straight-line relationship.)

Table 3.3 shows trends in four different entrepreneurial activity rates in Scotland, the UK and Arc of Prosperity countries. In contrast to 2012, there were no significant differences in the Scottish and UK figures for any of these measures. After a long period of decline in entrepreneurial activity in AOP nations, there are signs of a possible recovery, with entrepreneurial intentions in Finland and Ireland sharply up.

Item	I expect to start a business in the next 3 years (%)			Total early-stage Entrepreneurial Activity (TEA) rate (%)			Established Business Owner-manager (EBO) rate (%)			I have shut down a business in the last 12 months (%)		
	Scot	UK	AOP	Scot	UK	AOP	Scot	UK	AOP	Scot	UK	AOP
2002	5.9	6.7	11.9	5.0	5.4	8.0	4.4	5.6	7.7	1.3	1.7	2.2
2003	6.8	8.0	10.9	5.6	6.4	7.9	5.3	5.7	7.4	1.4	2.0	2.3
2004	<b>6.5</b>	<b>8.6</b>	11.4	5.0	5.8	7.6	4.8	4.7	6.5	1.6	1.8	2.1
2005	<b>6.2</b>	<b>8.7</b>	11.7	5.7	6.0	7.9	4.1	5.1	7.1	1.6	1.9	2.3
2006	<b>5.8</b>	<b>7.9</b>	11.1	<b>4.1</b>	<b>5.8</b>	7.6	4.2	5.3	6.9	1.6	2.0	2.2
2007	<b>5.6</b>	<b>6.8</b>	11.5	4.6	5.5	7.9	<b>3.9</b>	<b>5.8</b>	7.5	<b>1.3</b>	<b>2.0</b>	2.4
2008	<b>5.1</b>	<b>6.8</b>	10.6	4.5	5.5	7.6	5.5	6.0	7.2	<b>1.2</b>	<b>2.1</b>	2.9
2009	<b>4.3</b>	<b>6.2</b>	10.5	<b>3.6</b>	<b>5.8</b>	7.2	4.8	5.8	7.6	<b>1.2</b>	<b>2.2</b>	1.7
2010	6.0	7.3	10.6	<b>4.2</b>	<b>6.5</b>	6.9	6.5	6.2	7.5	1.0	1.2	2.4
2011	9.8	9.8	9.1	6.2	7.6	6.3	5.2	6.5	7.1	0.7	1.6	1.7
2012	<b>8.5</b>	<b>11.3</b>	5.5	<b>6.9</b>	<b>9.8</b>	6.1	<b>5.2</b>	<b>7.0</b>	6.4	1.2	1.0	1.1
2013	6.4	8.1	10.1	6.8	7.3	6.9	5.0	6.5	6.8	1.0	1.4	1.4

**Table 3.3: Entrepreneurial activity in the Scottish and UK adult population samples, 2002 to 2013 (% agree with statement)**

Source: GEM UK and Global Surveys

Note: Numbers in bold denote significant differences between Scottish and UK samples in the same year. Ireland did not participate in GEM in 2009, Iceland did not participate in 2011, 2012 or 2013 and Denmark did not participate in 2013.

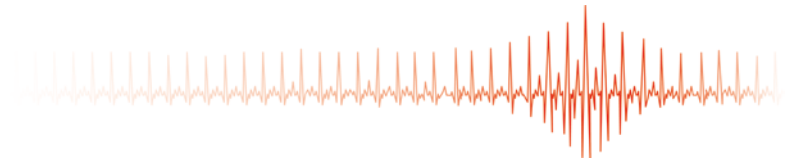


Figure 3.2 shows the two-year moving average TEA rates for 2002 to 2013 for three age groups: 18 to 29, 30 to 49 and 50 to 64 years. Moving averages are shown to smooth out random year-to-year fluctuations in small age group samples in the Scottish sample. This reveals a clear pattern in which the TEA rate of older individuals in Scotland is almost 90% of the equivalent UK TEA rate, and close to 95% over the last few years, but TEA rates of the high activity 30 to 49 age group in Scotland are only 75% that of the UK rate, with younger adults at 84% of the UK rate on average. Entrepreneurial activity among older people is the subject of Chapter 6.

### Entrepreneurial Aspirations

Table 3.4 shows estimates of how aspirational Scots early-stage entrepreneurs are compared with their peers in the UK and Arc of Prosperity

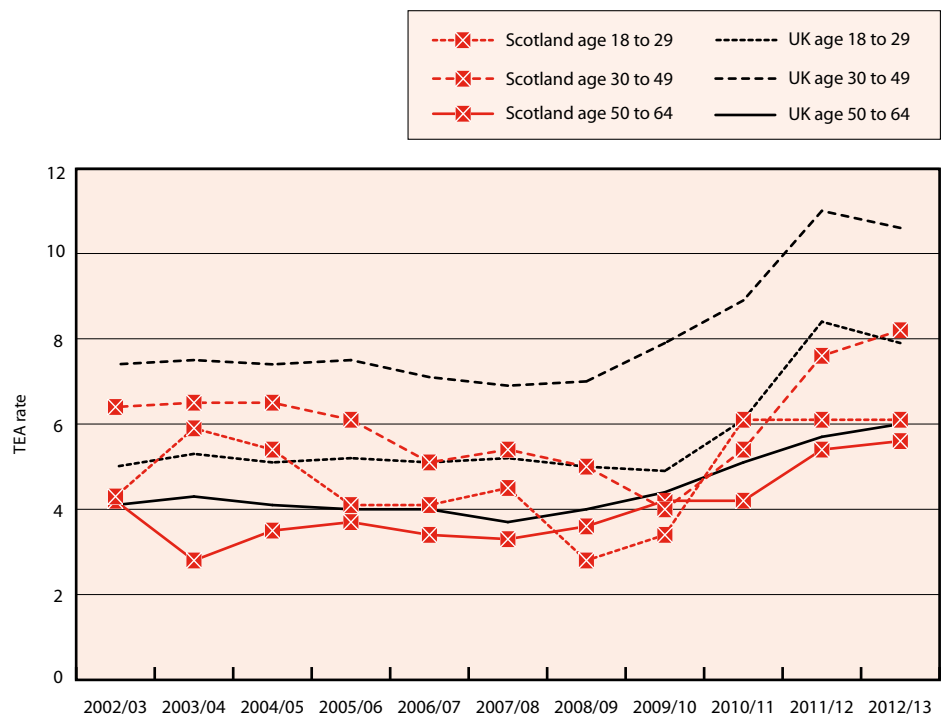
countries. Equivalent data for three measures of entrepreneurial aspiration are available for eight years. On each of these, the measures for Scotland do not appear very different from those of the UK or AOP countries.

High aspiration entrepreneurship is the subject of Chapter 5.

### Male and Female Entrepreneurial Activity

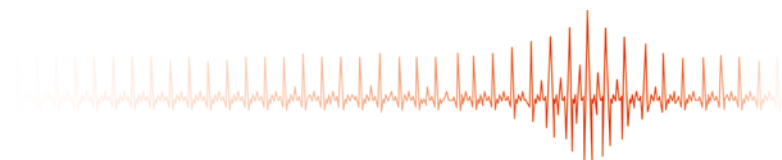
In 2013, the TEA rate among working age males was 8.5% (8.7% in UK) and among working age females was 5.2% (5.8% in UK).

Figure 3.3 compares the trend over time in male and female TEA rates in Scotland, the UK and participating Arc of Prosperity countries. Until recently, males and females in Scotland had lower TEA rates than their counterparts in



**Figure 3.2:** Two-year moving average TEA rates of Scottish and UK adults aged 18 to 29, 30 to 49 and 50 to 64, from 2002 to 2013

Source: GEM UK surveys 2002 to 2013



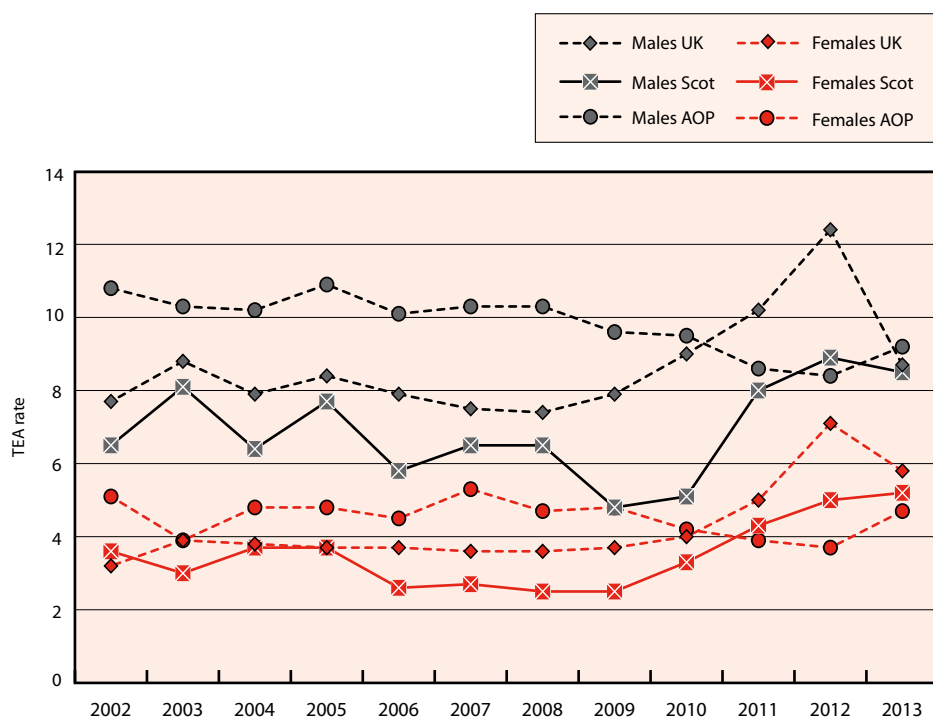
Item	High Job Expectation (% of TEA entrepreneurs expect at least ten jobs and growth>50% in five years)			New Product Market (% of all TEA entrepreneurs)			High or Medium technology sectors (% of all TEA entrepreneurs)		
	Scot	UK	AOP nations	Scot	UK	AOP nations	Scot	UK	AOP nations
2006	9.1	19.8	16.2	18.0	22.0	23.8	7.4	9.3	9.5
2007	18.0	16.5	16.2	22.9	19.7	24.2	5.3	9.4	9.3
2008	11.2	15.2	19.8	20.0	22.0	25.0	13.7	12.0	10.1
2009	14.4	17.6	18.1	18.9	25.8	35.8	15.0	8.3	3.5
2010	21.2	14.4	17.4	36.1	25.0	33.6	9.1	13.5	7.5
2011	21.8	17.3	18.1	38.0	39.2	35.3	<b>3.0</b>	<b>10.8</b>	8.6
2012	16.2	17.1	16.7	38.3	32.1	33.3	7.5	8.1	8.5
2013	17.5	15.9	14.6	25.9	26.3	23.1	7.6	4.8	8.7
Average 2006 to 2013	16.2	16.7	17.1	27.3	26.5	29.3	8.6	9.5	8.2

**Table 3.4: Entrepreneurial aspirations in the Scottish, UK and Arc of Prosperity nations adult population samples, 2002 to 2013 % agree with statement; numbers in bold are statistically significant)**

Source: GEM UK and Global Surveys

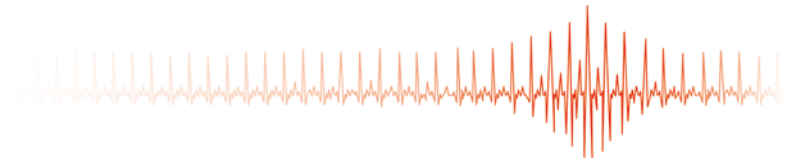
the UK and AOP countries. In 2013, there was hardly any difference in TEA rates by location. However, the "gender gap" in TEA rates has

remained. Entrepreneurial activity among males and females in Scotland is the subject of Chapter 4.



**Figure 3.3: TEA rates among males and females in Scotland, the UK, and Arc of Prosperity countries for 2002 to 2013**



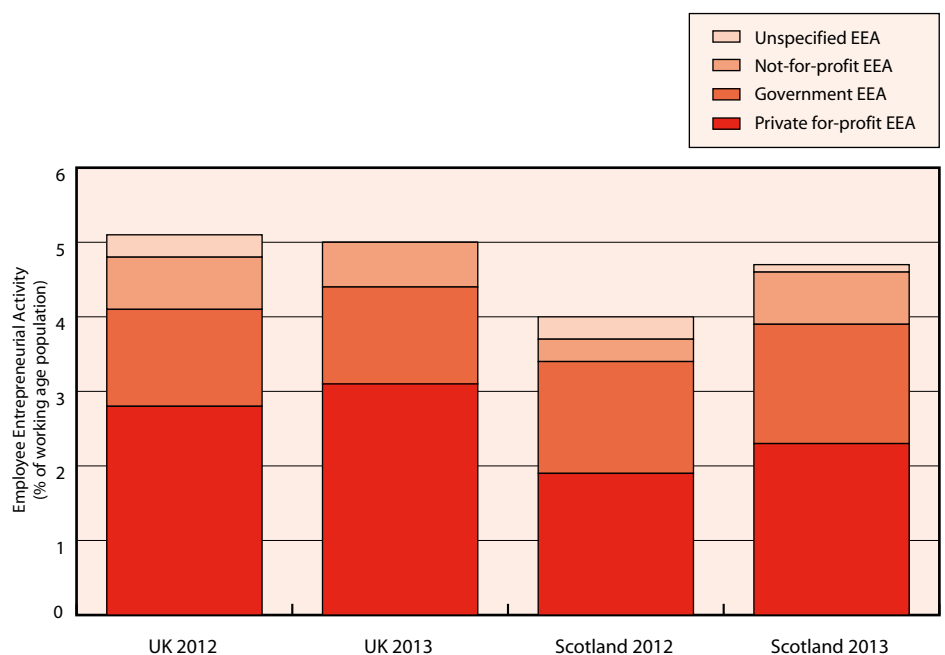


## Entrepreneurial employee activity

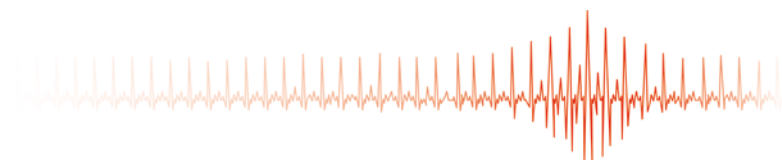
In 2012 and 2013, entrepreneurial activity by employees of private-for profit, government, and not-for profit organisations for their employer was measured, and the results are shown in Figure 3.4. The entrepreneurial employee activity (EEA) rate is defined as proportion of employees aged 18-64 who play a leading role in the creation and development of new business activities for the organization in which they work, specifically those involved in developing or launching new goods or services or setting up a new business unit, a new establishment or subsidiary. GEM research suggests that EEA entrepreneurs are more likely to have "substantially higher" job growth aspirations for their new initiatives than TEA entrepreneurs<sup>6</sup>, which means they

may be important sources of new wealth and employment. Figure 3.4 suggests that EEA is significant in Scotland, with similar EEA rates in the government and not-for-profit sectors in Scotland and the UK, but slightly smaller PEEA rates in Scotland than in the UK, reflecting in part the smaller share of the private sector in total employment in Scotland than in the UK as a whole (78% versus 82% by end 2013 according to the Office of National Statistics).

The total EEA rate in Scotland for 2013 at 4.7%, was very similar to the rate in the UK (5.0%) and Finland (4.7%) and compares favourably with the average for the five innovation-driven countries that measured EEA in 2013 (4.1%). The equivalent EEA estimates for 2012 were 4.0% (Scotland), 5.1% (UK), 9.4% (Denmark) and 4.3% (8 innovation-driven countries)<sup>7</sup>.



**Figure 3.4:** Entrepreneurial employee activity rates for different types of employer, UK and Scotland, 2012 and 2013

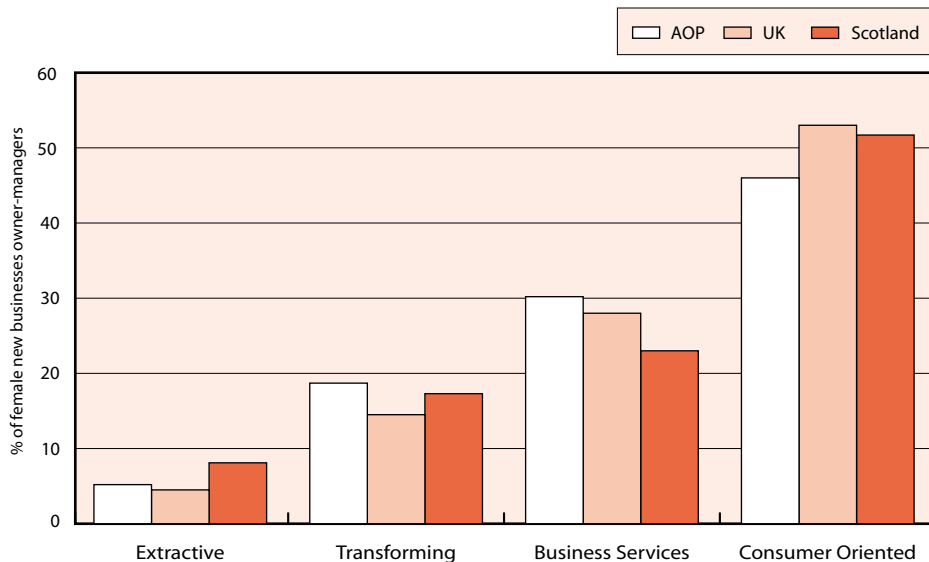


## Conclusion

In 2013, the TEA rate in the rest of the UK dropped significantly after a record high rate in 2012, but the TEA rate in Scotland stayed at the same level as in 2012, and for the first time since GEM records began, early-stage entrepreneurial activity in Scotland was close to all its benchmarks. EEA rates were also close to benchmark rates.

Over the past three years, employment patterns have shifted significantly in Scotland, with an additional 119,000 net jobs created in the private sector in Scotland between Q4 2011 and Q4 2013, a 6% increase, and 24,000 net jobs lost in public sector employment, a 4% decrease<sup>8</sup>. As business creation in Scotland reaches levels that one would expect for Scotland, more attention could be paid to understanding the extent to which business growth can be accelerated. The extent to which entrepreneurs and intrapreneurs in Scotland are growth-oriented is explored in Chapter 5.

- 1 "Arc of Prosperity" is a term used by the Scottish Government to describe five small, high income, independent nations that surround Scotland in an arc from Ireland to the west, Iceland to the North, and Norway, Finland and Denmark to the east.
- 2 According to an Ofcom Survey in Q1 2013, 15% of adults in the UK lived in households that were mobile-only, unchanged since 2011. This rose to 30% of those aged 16-34 and 26% in the DE socio-economic group. Source: The Communications Market 2013, Ofcom.
- 3 Comparison of Scotland with factor-driven or efficiency-driven countries is less useful because their environments are so different.
- 4 Porter, M.E. and Schwab, K. (2008), *The Global Competitiveness Report 2008-2009*, Geneva, Switzerland: World Economic Forum.
- 5 "Statistical significance" refers to a calculation of where the range within which the average value of 95 out of 100 replications of the survey would be expected to lie. This range is shown in Figure 3.1 by vertical bars on either side of each data point. The length of the vertical bars is a function of the sample size, the smaller the sample size, the lower the length. If the 'confidence intervals' (denoted by the vertical bars) of two national TEA rates do not overlap, the difference between the TEA rates is not statistically significant at the 0.05 level. Reference in this report to significant differences implies statistically significant difference at the 0.05 level.
- 6 Bosma, N. et al. (2013). Global Entrepreneurship Monitor Special Report on Entrepreneurial Employee Activity. London: GERA, p.50. Available at [www.gemconsortium.org](http://www.gemconsortium.org)
- 7 EEA will be measured in all participating nations from 2014.
- 8 Public Sector Employment in Scotland, Q4 2013. Web tables available at [www.scotland.gov.uk](http://www.scotland.gov.uk)

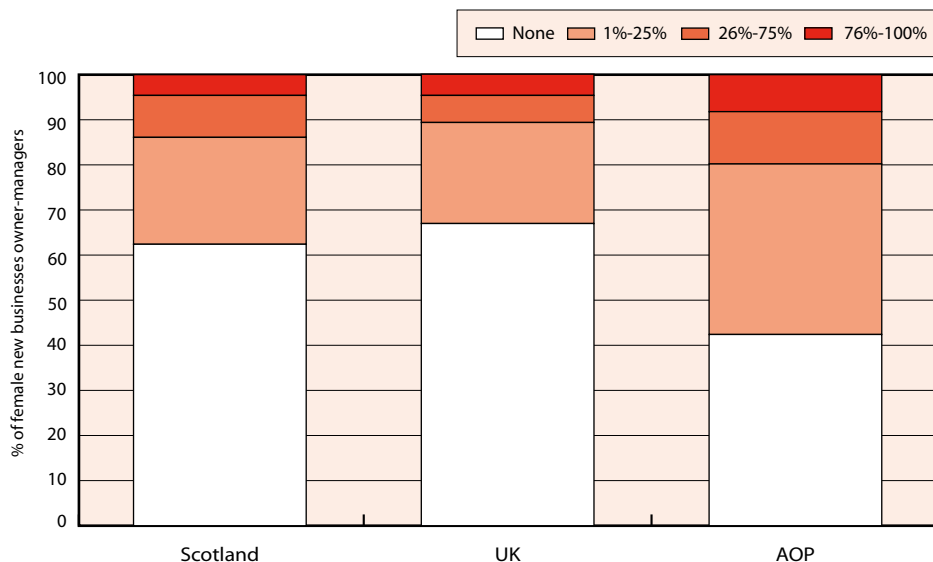


**Figure 4.1: Distribution by industry sector of female new business owner-managers in Scotland, the UK and AOP countries, averaged for the years 2002 to 2011**

Source: GEM APS surveys 2002 to 2011

**Figure 4.2: Distribution of women-owned new businesses in Scotland, the UK and AOP countries by proportion of customers who live outside the country, averaged over the years 2003 to 2011**

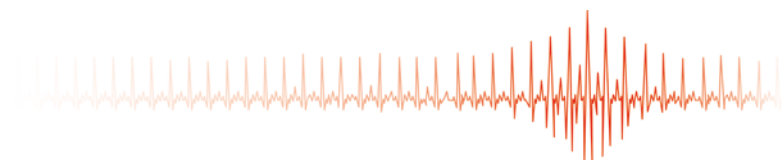
Source: GEM APS surveys 2003 to 2011



In this chapter, we explore the characteristics of the businesses started by women and men in Scotland, comparing them against their peers in benchmark nations.

Research on gender and entrepreneurship<sup>1</sup> suggests that women entrepreneurs differ widely in their motivations for starting a business, including career constraints, work-family balance, and financial freedom. Significant wealth creation tends to be of secondary importance for most but not all women entrepreneurs. Women entrepreneurs tend to identify existing customer needs that are not currently being met, and use information from previous working experience and their networks, especially family members, to create solutions to these unmet needs. Many of these opportunities are in businesses with relatively low start-up capital requirements such as personal services and retailing. Women tend to use their existing networks to access resources for a new business, especially people close to them, and tend to place strong importance on building relationships with their business stakeholders.

Research on men entrepreneurs reveals two principal and different motivations: independence and wealth creation. These motivations have implications for growth expectations and resource acquisition. Male entrepreneurs tend to start businesses in a wide variety of industries and access a wide range of resources depending on their level of ambition for their business. A significant minority identify new rather than existing markets that have unmet needs.



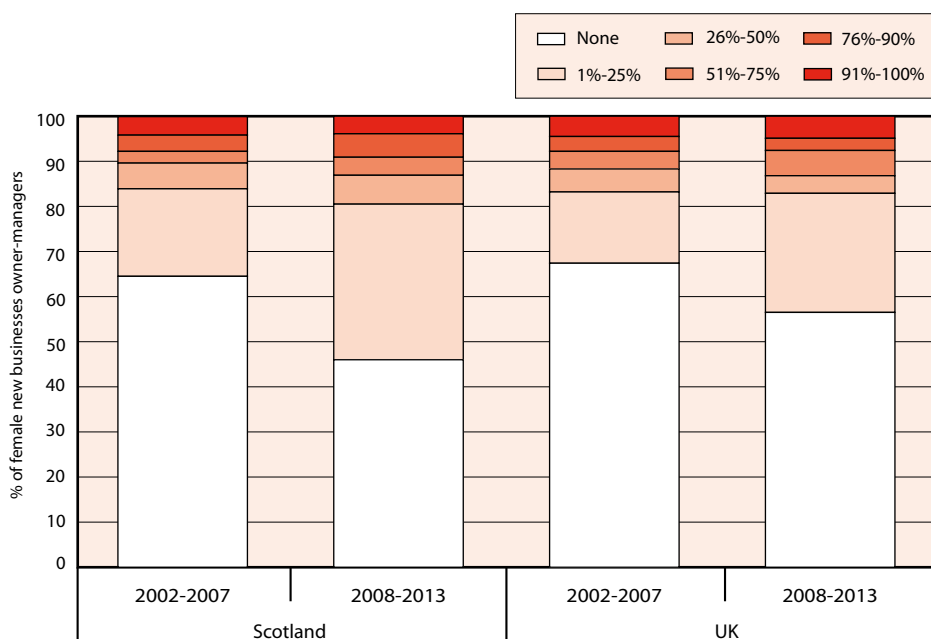
## Sector, export, and organisation size choices of female new business owner managers in Scotland

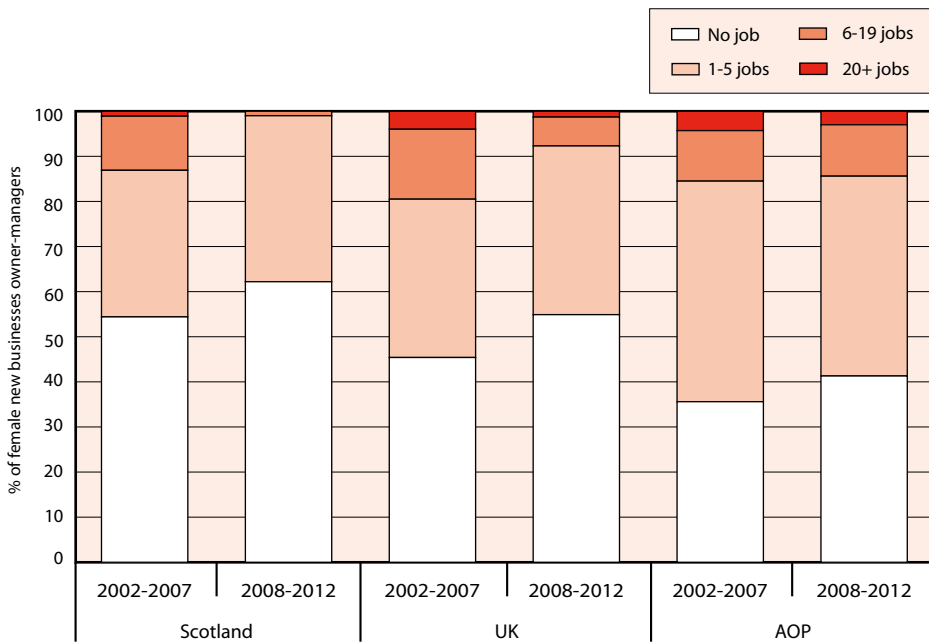
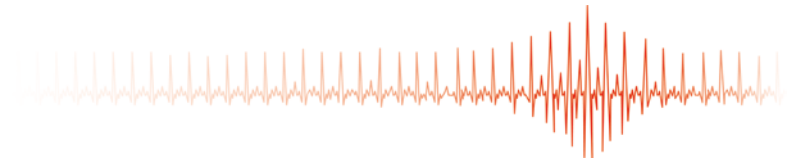
Figure 4.1 shows the distribution of industry sector entry choices by female new business owner-managers in Scotland, the UK and AOP countries for four broad categories, averaged for the years 2002 to 2011<sup>2</sup>. Activity is concentrated in consumer-oriented sectors in Scotland (46%), the UK (53%) and AOP countries (52%). A comparison of Scotland and the UK by ISIC code 3.1 for the years 2003 to 2009 showed a concentration in Scotland and the UK in the retail trade, hotels and restaurants (20% of Scottish and UK businesses); business services (24% Scotland versus 23% UK), government, health, education (17% Scotland versus 19% UK), and personal/consumer services activities (16% of Scottish and UK businesses). Using the ISIC 4.0 code for 2010 to 2013, women-owned businesses were concentrated in retail trade, hotels and restaurants (19% versus 23%), professional services (15% versus 12%) and government, health, education and social services (33% and 34%).

Women owner-managers of new businesses in AOP countries are much more likely to have customers outside the country than those in Scotland or the UK, as Figure 4.2 shows. This is partly because Scottish companies have a larger home market (the UK). However, the Scottish export profile looks at least as good if not slightly better than the UK as a whole. Figure 4.3 shows that after the onset of the

**Figure 4.3: Distribution of women-owned new businesses in Scotland, the UK and AOP countries by proportion of customers who live outside the country, averaged over the years 2002 to 2007 and 2008 to 2013**

Source: GEM UK APS surveys 2002 to 2013



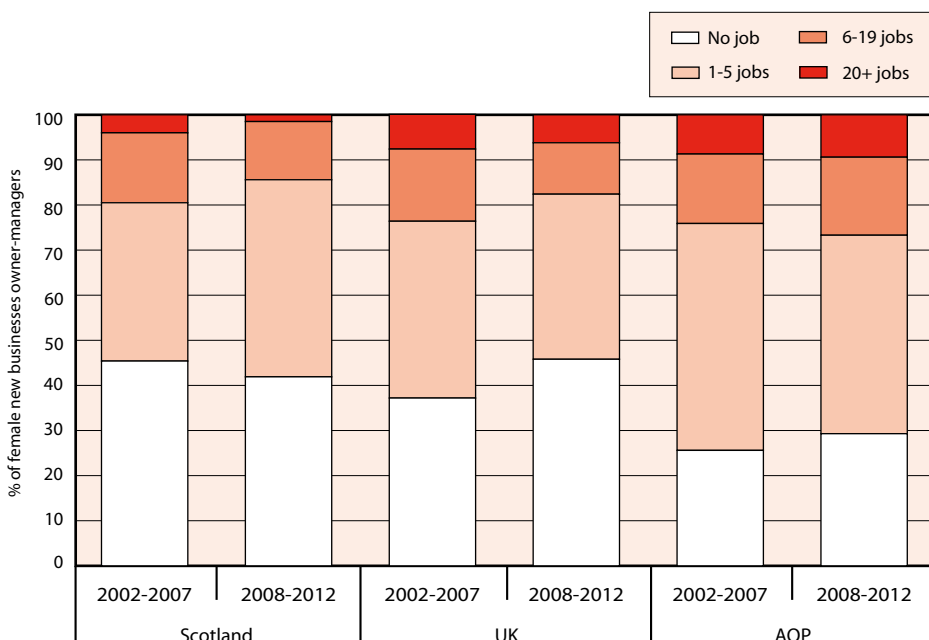


**Figure 4.4: Current employment distribution (other than the owners) reported by women owner-managers of new businesses, average for 2002 to 2007 and 2008 to 2012**

Source: GEM APS surveys 2002 to 2012

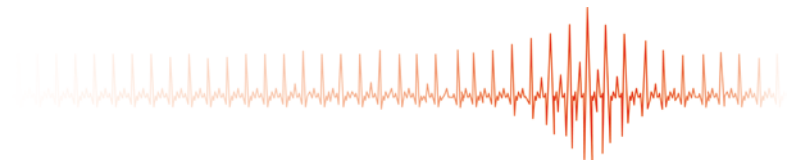
**Figure 4.5: Employment distribution (other than the owners) expected in five years' time reported by women owner-managers of new businesses, average for 2002 to 2007 and 2008 to 2012**

Source: GEM APS surveys 2002 to 2012



financial crisis, more new women-owned businesses had foreign customers, especially in Scotland.

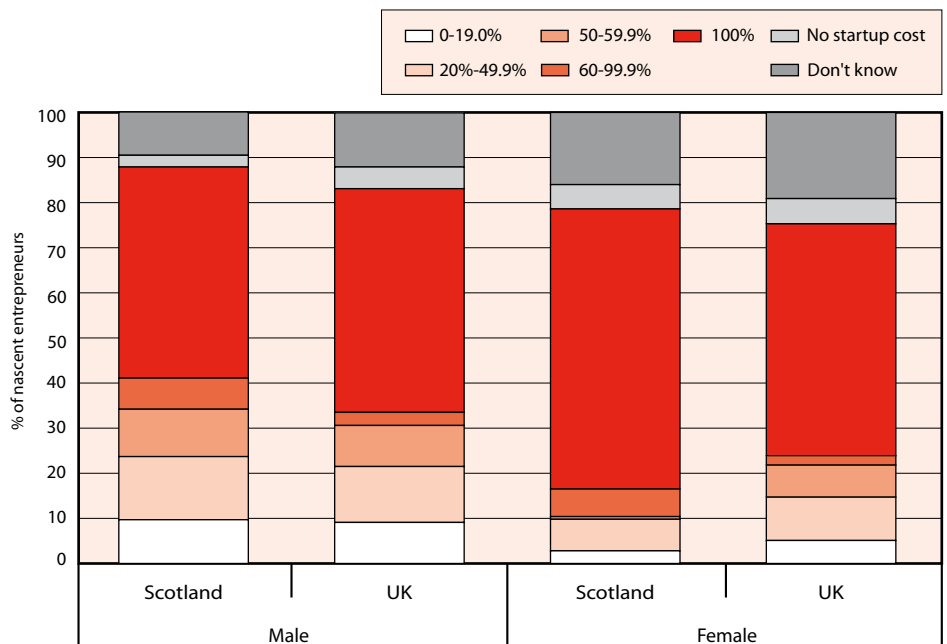
Comparing the distribution of average numbers of employees (other than the owners) in the current year and expected in five years across four size classes for Scottish, UK and AOP female owner-managers of new businesses before and after the financial crisis, Figures 4.4 and 4.5 show higher levels of employment and employment expectation in AOP countries than in Scotland, particularly since the recession. Employment size class distributions in the UK are midway between Scotland and the AOP average. The prevalence of high expectation among new female business owner-managers in Scotland since 2008 is very low.



## Funding expectations of female nascent entrepreneurs

For the 2006 to 2013 period, the median amount that Scottish female nascent entrepreneurs expected to require to start their business was £3000, compared with £5000 across the UK. Figure 4.6 shows differences in the expectation of contribution by female (and male) nascent entrepreneurs to start-up costs of their businesses in Scotland and the UK, averaged over the 2006 to 2013 period. Scottish female entrepreneurs expect to contribute a higher proportion than their peers across the UK, with 62% expecting to self-fund versus 51% in the UK. Almost one in five female nascent entrepreneurs (16% in Scotland and 19% in the UK) did not know what their contribution might be.

Table 4.1 shows the percentage of female nascent entrepreneurs expecting to get funding from different external sources. The most popular sources were banks, government programmes and close family members. Fewer women nascent entrepreneurs in Scotland tended to expect to use any of these different sources, although the differences in each category are not significant.



**Figure 4.6: Distribution of expected contribution by female and male nascent entrepreneurs to start-up costs of their businesses in Scotland and the UK, 2006 to 2013 average**

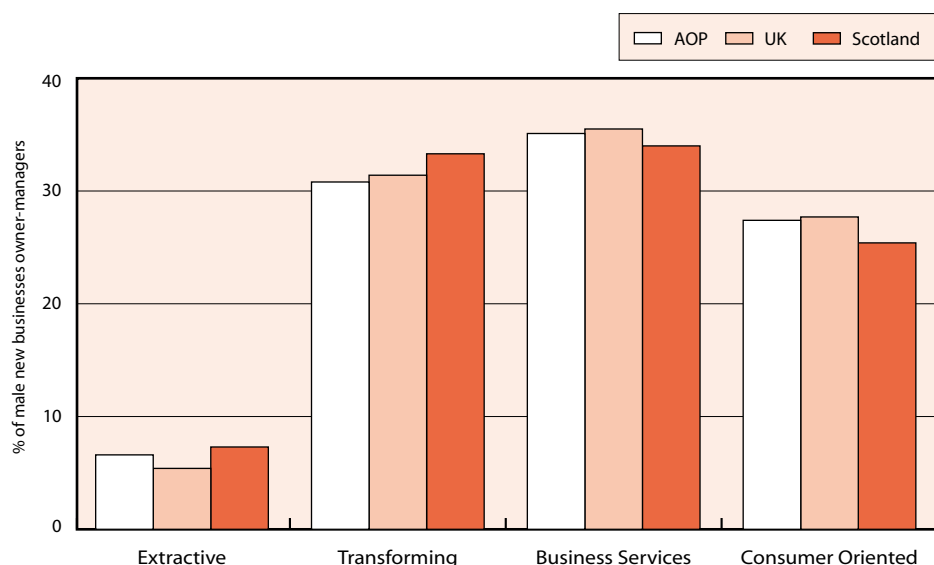
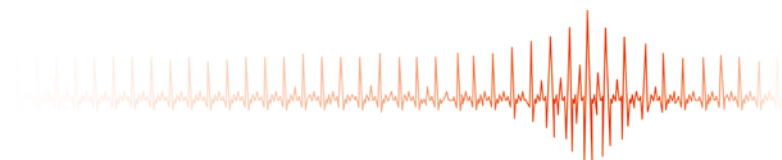
Source: GEM UK APS surveys 2006 to 2013

**Table 4.1: Percentage of female and male nascent entrepreneurs expecting to get funding from different external sources, Scotland and UK, average for 2006 to 2013**

Source: GEM APS surveys 2006 to 2013

	Male		Female	
	Scotland	UK	Scotland	UK
Close family member	11%	9%	7%	11%
Other relative	7%	6%	2%	5%
Friends or neighbours	3%	6%	3%	4%
Work colleagues	17%	10%	6%	6%
Stranger	4%	4%	3%	4%
Banks etc.	28%	23%	11%	19%
Government programmes	22%	15%	11%	14%
Other	12%	9%	7%	7%
N (unweighted)	168	2117	105	1223



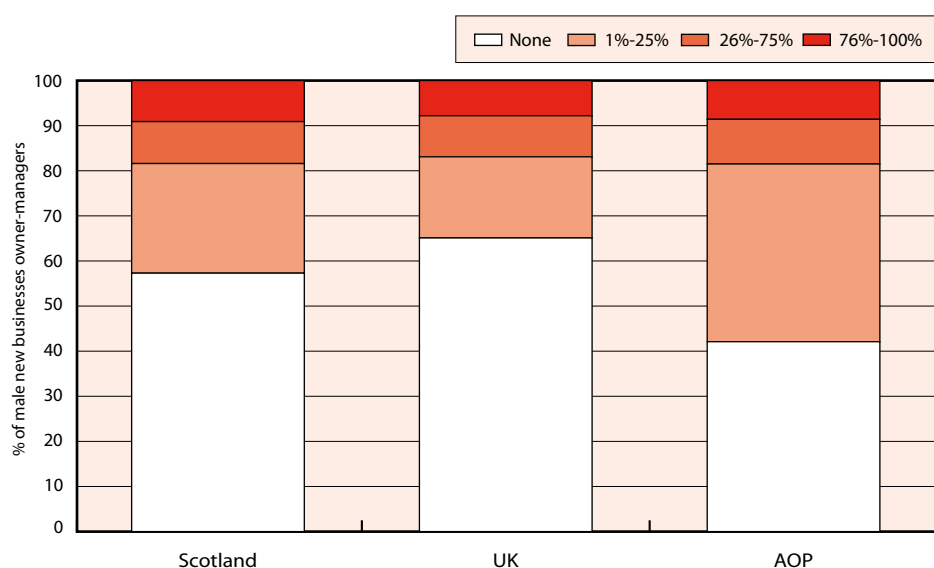


**Figure 4.7: Distribution by industry sector of male new business owner-managers in Scotland, the UK and AOP countries, averaged for the years 2002 to 2011**

Source: GEM APS surveys 2002 to 2011

**Figure 4.8: Distribution of men-owned new businesses in Scotland, the UK and AOP countries by proportion of customers who live outside the country, averaged over the years 2003 to 2011**

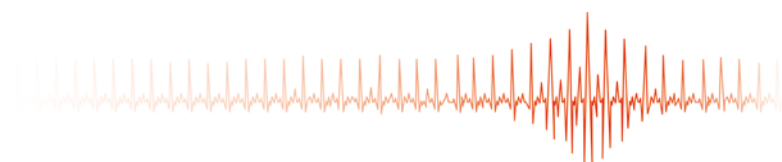
Source: GEM APS surveys 2003 to 2011



## Sector, export and organisation size choices of male new business owner managers

Figure 4.7 shows the distribution of industry sector entry choices by male new business owner-managers in Scotland, the UK and AOP for four broad categories, averaged for the years 2002 to 2011<sup>3</sup>. It shows a balance of activity in transforming (i.e. manufacturing and construction), business services and consumer-oriented sectors, with very similar proportions in Scotland, the UK and AOP countries. A comparison of Scotland with the UK by ISIC code 3.1 for the years 2003 to 2009 showed a concentration in Scotland and the UK in the mining and construction (18% in Scotland and 17% in UK), retail trade, hotels and restaurants (11% of Scottish and 14% in UK), and business services (25% Scotland versus 27% UK). Using the ISIC 4.0 code for 2010 to 2013, men-owned businesses were more distributed, with the main sectors being mining and construction (14% versus 12%) retail trade, hotels and restaurants (15% in Scotland and the UK), information and communication (6% and 10%), professional services (12% versus 19%), administrative services (10% and 9%), and government, health, education and social services (13% and 10%).

Figure 4.8 shows that male new business owner-managers in Scotland are more likely to have customers from outside the country than those in the UK but less likely than in AOP countries. However the proportion with more than 25% and more than 75% of customers from outside the country is similar in Scotland



and AOP countries. Figure 4.9 shows that after the onset of the financial crisis, more male new business owner-managers reported having foreign customers, especially in Scotland.

Comparing the distribution of average numbers of employees (other than the owners) in the current year and expected in five years for Scottish, UK and AOP male owner-managers of new businesses before and after the financial crisis, Figures 4.10 and 4.11 (next page) show higher levels of employment and employment expectation in AOP countries than in Scotland or the UK. The proportion of self-employed with no employees has increased in the UK and AOP countries since the financial crisis, but not in Scotland. The proportion of male owner-managers of new businesses with high numbers

of employees has reduced in Scotland, the UK and AOP countries. Employment expectations have held up well in Scotland and AOP countries.

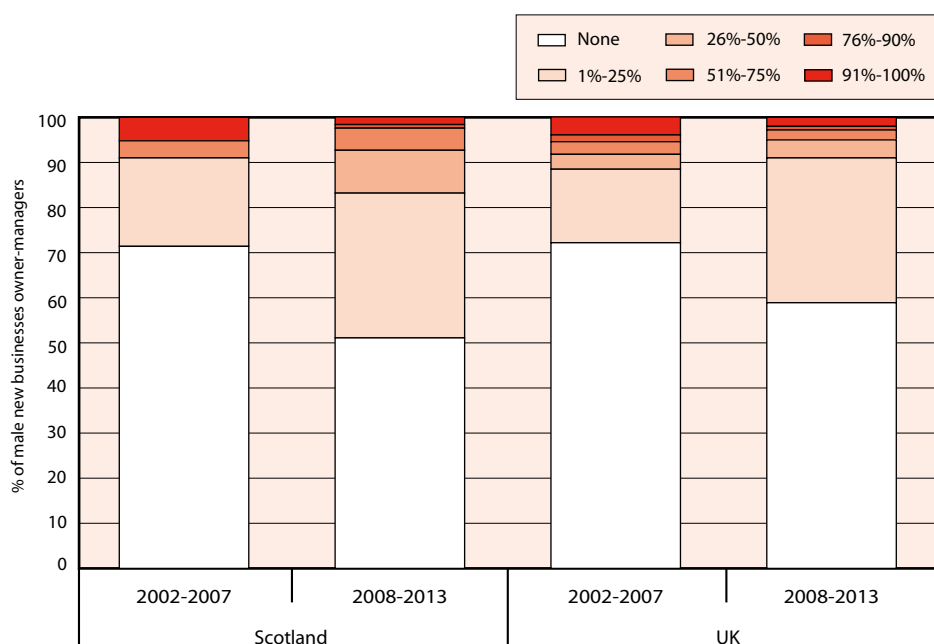
### Funding expectations of male nascent entrepreneurs

For the 2006 to 2013 period, the median amount that Scottish male nascent entrepreneurs expected to require to start their business was £12000, compared with £15000 across the UK<sup>4</sup>. Figure 4.6 (page 19) shows differences in the expectation of contribution by female (and male) nascent entrepreneurs to their businesses in Scotland and the UK, averaged over the 2006 to 2013 period. The funding profiles of male Scottish and UK nascent entrepreneurs are very similar, with around half the businesses being self-funded. Table 4.1 (page 19) suggests

that Scottish nascent entrepreneurs expected to tap a wider range of external sources than their UK counterparts, although the differences are not significant.

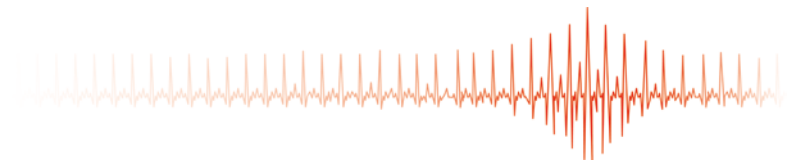
### Conclusion

The GEM data paint a very different picture of female and male early-stage entrepreneurs in Scotland. Despite these differences, the areas that female and male early-stage entrepreneurs feel they could do with support in are similar. 59% of male and 77% of female Scottish nascent entrepreneurs felt they would gain from mentoring from experienced entrepreneurs (compared with 72% and 70% in the UK). When asked to choose from a range of possible support in the 2013 survey, this was the most popular choice.



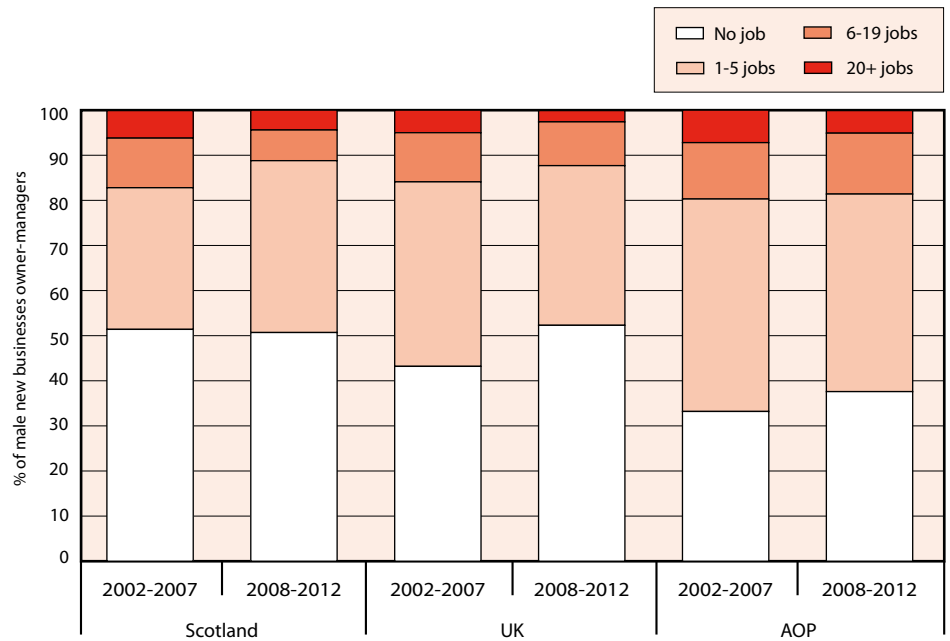
**Figure 4.9:** Distribution of men-owned new businesses in Scotland, the UK and AOP countries by proportion of customers who live outside the country, averaged over the years 2002 to 2007 and 2008 to 2013

Source: GEM UK APS surveys 2002 to 2013



**Figure 4.10: Current employment distribution (other than the owners) reported by men owner-managers of new businesses, average for 2002 to 2007 and 2008 to 2012**

Source: GEM APS surveys 2002 to 2012



1 See, for example, Sullivan, D.M. and Meek, W.R. (2012). Gender and entrepreneurship: A review and process model. *Journal of Managerial Psychology* 27(5): 428-458.

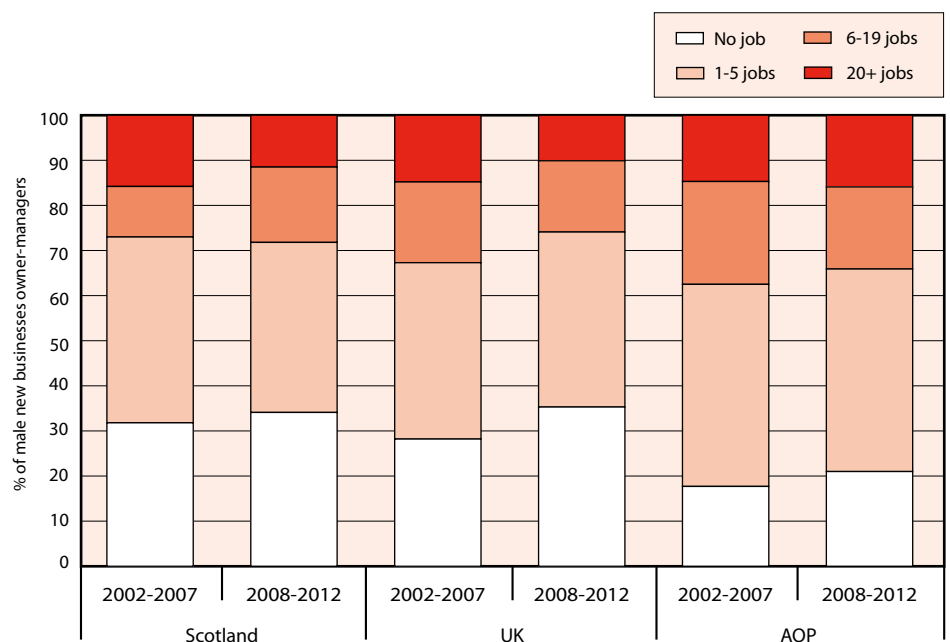
2 Comparable data for 2010, 2012 and 2013 by industry sector were not available at the time of writing.

3 Comparable data for 2010, 2012 and 2013 by industry sector were not available at the time of writing.

4 This is the unweighted median. Weighting by age and gender brought the Scottish median up to around £16,000.

**Figure 4.11: Employment distribution (other than the owners) expected in five years' time reported by men owner-managers of new businesses, average for 2002 to 2007 and 2008 to 2012**

Source: GEM APS surveys 2002 to 2012

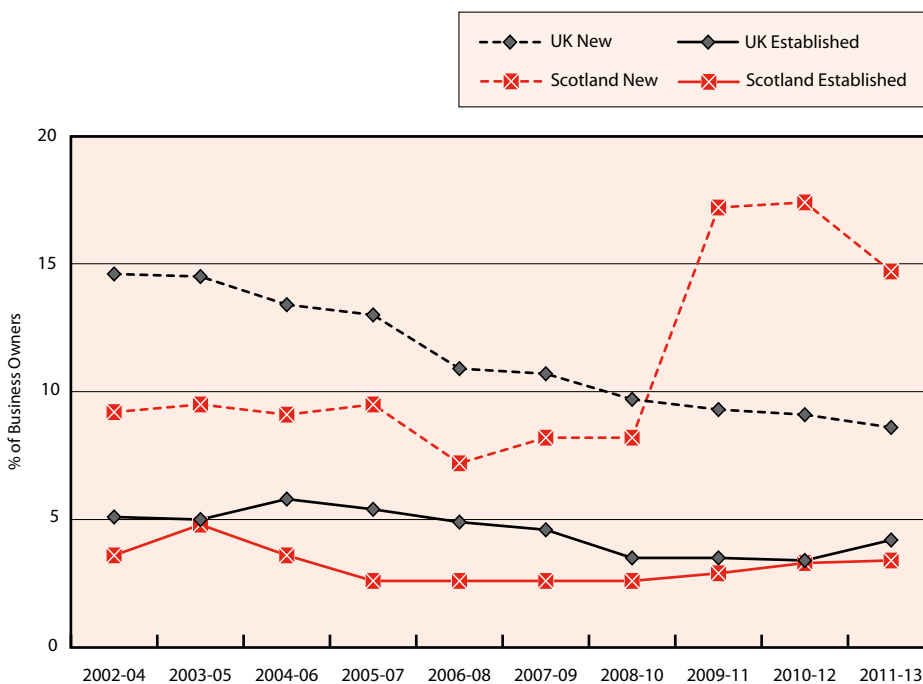


Research suggests that owner-managers who have high aspirations for their business are more likely to subsequently grow their business, although the effect of aspiration is small to medium rather than high, and is more robust for established than young businesses<sup>1</sup>. Business owners with high aspiration are defined here as those who expect to employ at least 10 more people in five years and increase total employment by at least 50%. On average between 2002 and 2013, they comprised 10% of new business owner-managers in Scotland (UK: 12%), and 3% of established owner-managers in Scotland (UK: 4%).

The rate of early-stage entrepreneurs with high aspirations in Scotland has doubled from 0.6% in 2008/10 to 1.2% in 2011/13 (UK: 0.9% to 1.4%). Likewise, the rate of early-stage entrepreneurs who expect to employ at least 20

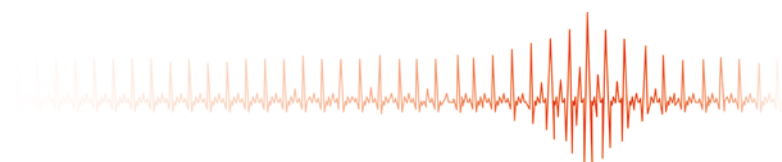
people in five years has doubled from 0.4% to 0.8% (UK: 0.6% to 0.9%). These increases are statistically significant.

The proportion of new business owners with high aspirations in the UK has declined between 2002 and 2013 (see Figure 5.1). This is partly because the proportion of new self-employed (new business owners who are self-employed without employees and have no plans to hire anyone) has risen from 28% in 2002 to 42% in 2013; also, since 2008, the proportion of new employers (new business owners with employees or an intention to employ someone) with high aspirations has reduced. In Scotland, the new self-employed have comprised around 35% of the new business owner population since 2002, and the proportion of new employers with high aspirations has not declined.



**Figure 5.1:** Percentage of new and established business owners in the UK and Scotland who have high aspiration, three year rolling averages from 2002 to 2013

Source: GEM UK APS 2002 to 2013 surveys



The distributions by age of new business owners who have high or low aspirations for their business are similar. However, older individuals (aged 55-64) comprised 28% of Scottish low aspiration established business owners (29% in the UK), but only 13% of high aspiration established business owners (15% in UK).

In the UK, among new (but not established) business owners with high aspiration, the female participation rate has risen from an annual average of 15% for 2002/07 to 23% for 2008/13. In Scotland, a similar rise from 14% to 19% is not statistically significant. Female representation among business owners with low aspiration did not change over this time (32% in UK and 36% in Scotland).

The more educated new and established

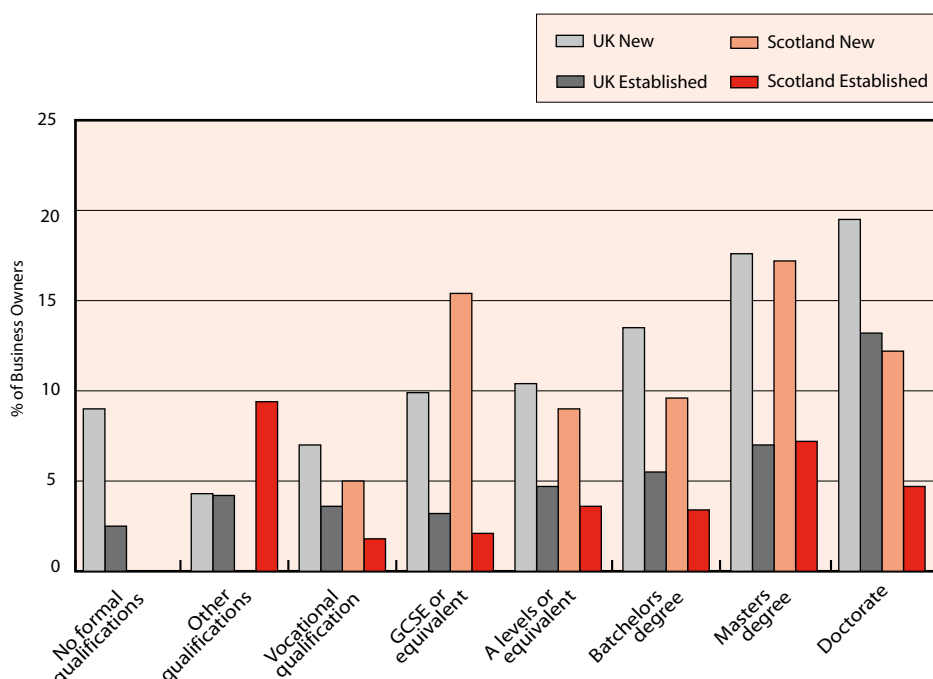
business owner-managers are, the more likely they will have high aspirations (see Figure 5.2). This association has grown in strength over time<sup>2</sup>.

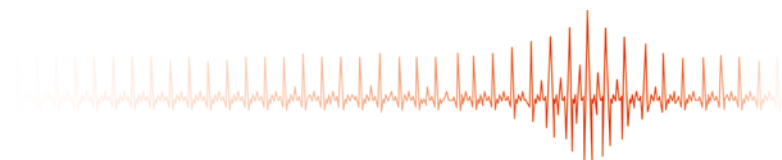
There is a strong positive linear relationship between level of aspiration of business owners and their household income, an exception being owners in the poorest households (see Figure 5.3).

On average in the UK between 2002 and 2013, 11% of white and Asian new business owners had high aspiration compared with 30% of mixed ethnic and 19% of black new business owners. Significantly fewer new business owners had high aspirations after 2008 in both white and ethnic minorities. Only 4% of white, 3% of mixed ethnic, and 5% of Asian but 23% of black established owners had high

**Figure 5.2: Percentage of new and established business owners in the UK and Scotland who have high aspiration by level of education, average of annual estimates from 2002 to 2013**

Source: GEM UK APS 2002 to 2013 surveys





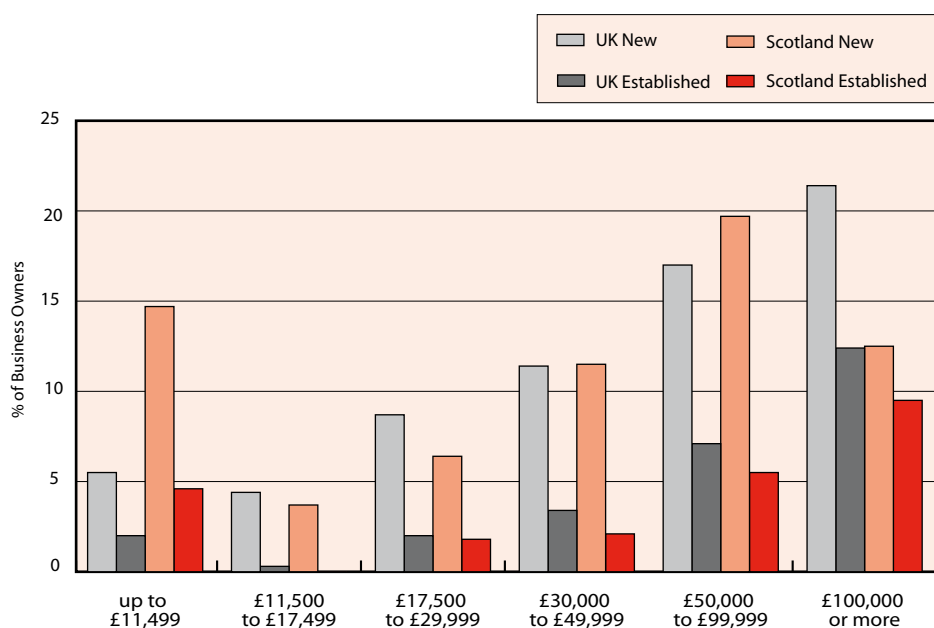
aspirations. Most of the few ethnic minority business owners in the Scottish sample had high aspirations.

Immigrant new business owners were more likely to have high aspirations than new business owners who were regional migrants or life-long residents, in the UK (18%, 12% and 9%) and Scotland (31%, 13%, 8%). However, the proportion of immigrant new business owners with high aspirations in the UK fell from 23% in 2002/07 to 15% in 2008/10 to 7% in 2011/13. There is no evidence of a decline in Scotland.

Some 27% of new business owners and 12% of established business owners with high aspirations in Scotland had invested in someone else's new business in the past three years, compared with 9% of other new business owners, 3% of other established

business owners and 1.3% of the working age population. The UK rates were very similar.

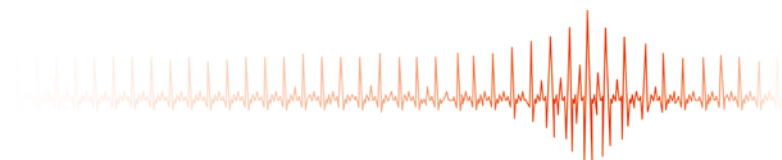
New business owners with high aspirations were twice as likely to know someone personally who has started their own business in the last two years (15% UK and 14% Scotland) than other new business owners (7% UK and 5% Scotland). They were twice as likely to agree they have the skills, knowledge and experience to start a business and also had a higher rate of business closure and, for established business owners, start-up activity, suggesting they are more likely to be serial or portfolio entrepreneurs. 17% of new business owners with high aspirations in the UK had shut down a business in the last 12 months compared with 11% of other new business owners. For established business owners, the equivalent figures were 9% and 4%. Figures



**Figure 5.3:** Percentage of new and established business owners in the UK and Scotland who have high aspiration by level of household income, average of annual estimates from 2002 to 2013

Source: GEM UK APS 2002 to 2013 surveys





- 1 Levie, J. and Autio, E. (2013). Growth and growth intentions- a meta-analysis of existing evidence. Enterprise Research Centre White Paper No. 1, April.
- 2 The Spearman correlation coefficient, a measure of association between ranked variables, rose from .83 ( $p < .05$ ) to .88 ( $p < .01$ ) for new business owners and .60 (n.s.) to .93 ( $p < .01$ ) for established business owners, when the average of the annual estimates of the percentage of business owners with high aspiration by different education levels for the years 2002 to 2007 was compared with the average of the annual estimates for the years 2008 to 2013.
- 3 Logistic regression, which returns the odds of a new business owner having high aspiration versus not having high aspiration if they possess a certain characteristic, controlling for all other factors. Year of survey, region and industry sector were used as controls but were not significant in the model.

were similar for Scotland but because of small numbers were not statistically significant.

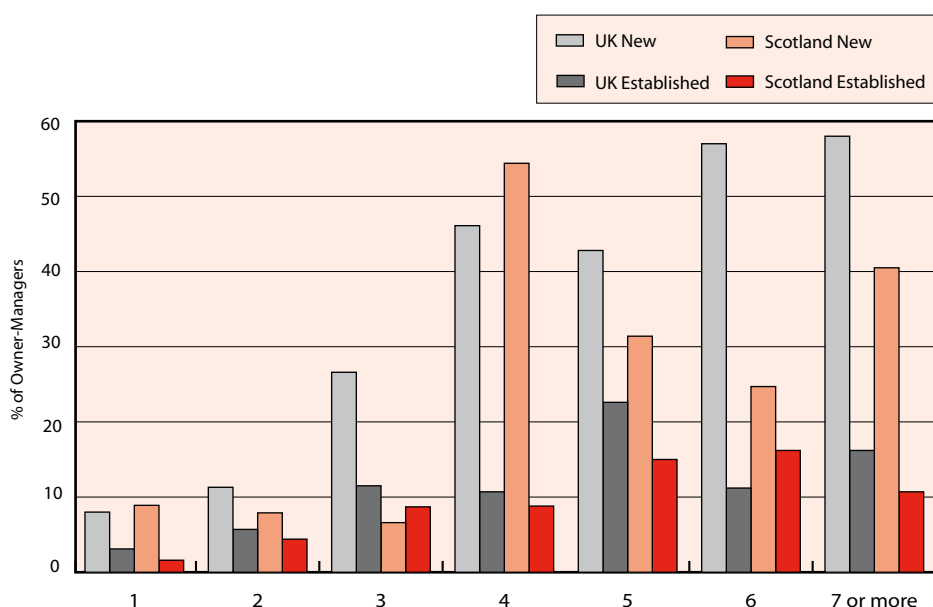
As figure 5.4 shows, the more people with whom a new business owner shared ownership, the higher the probability that owner had high aspirations for the business.

New and established business owners were twice as likely to have high aspirations for their business if they had any customers outside the country, both in the UK (17% versus 9% for new and 7% versus 3% for established) and Scotland (15% versus 7% for new and 4% versus 2% for established).

New business owners were at least twice as likely to have high aspirations for their business if they used technology in their business that was not available a year ago in the UK (25% versus 11%) and Scotland

(25% versus 9%). Similar results were found for those whose products were new to all customers versus those whose products were new to some or no customers (UK and Scotland) and those who had few competitors versus some or many (UK only). The same is true for established business owners in the UK; numbers in Scotland were too small to detect any effect.

Multivariate analysis<sup>3</sup> was used to gauge the independent effect of all these factors on the odds that a new business owner in the UK would have high aspirations. Seventy percent of high aspiration owners were correctly identified. The significant factors in order of importance were number of owners, household income, amount of competition, novelty of the product, knowing a start-up entrepreneur, opportunity perception, skills perception, and gender.



**Figure 5.4: Percentage of new and established business owners in the UK and Scotland who have high aspiration by number of owners in their business, average of annual estimates from 2002 to 2013**

Source: GEM UK APS 2002 to 2013 surveys

The launch of PRIME: the Prince's Initiative for Mature Enterprise in Scotland in 2013 has drawn attention to business creation as a possible route out of social exclusion for people aged 50 or over who have become less competitive in the labour market.

In theory, the over 50's should have more resources than younger adults in terms of experience and financial assets to draw on in generating new business activity. However, they may not be as alert as younger individuals to new opportunities that are attractive to a younger generation. In addition, many over 50's may have less energy for the fight of creating and growing a business of significant size. They may be focused more on security and sustainability, given the limited work span they face. All of these factors may affect the quantity and quality of entrepreneurial attitudes, activity and aspirations of the over 50's. In this chapter, we compare entrepreneurial attitudes, activity and aspirations of people in Scotland aged 50 to 64 and 64 and older with those aged 18 to 49. We also profile the types of businesses being started by the over 50's.

Table 6.1 shows that the older they get, the less people are likely to know a new entrepreneur than younger individuals, although more people know one after than before the recession. Opportunity and skills perception also decline, although the decline is delayed in the case of skills perception. Fear of failure however appears to decline with age.

Table 6.2 compares entrepreneurial activity in Scotland and the UK by age group. Though

Age group	Time period	I Know someone personally who started a business in the last 2 years	There are good opportunities to start a business in the next six months in my local area	I have the skills, knowledge and experience to start a business	Fear of failure would prevent me from starting a business
Age 18-49	2002-2006	<b>28.3</b>	<b>34.8</b>	<b>46.5</b>	<b>37.8</b>
	2008-2013	<b>32.1</b>	<b>30.6</b>	<b>43.5</b>	<b>42.6</b>
Age 50-64	2002-2006	<b>16.8</b>	<b>24.9</b>	44.5	<b>30.5</b>
	2008-2013	<b>22.8</b>	<b>25.6</b>	46.1	<b>36.8</b>
Age 65+	2002-2006	<b>9.4</b>	<b>20.2</b>	30.6	24.0
	2008-2013	<b>13.6</b>	<b>21.0</b>	34.1	26.2

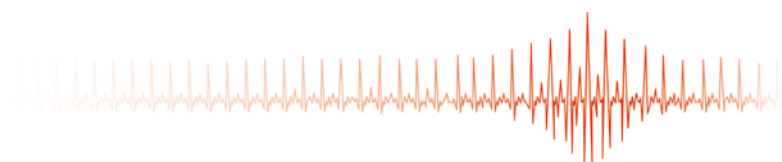
**Table 6.1: Entrepreneurial attitudes by age group in Scotland pre- and post-recession (percentages in bold are significantly different)**

Source: GEM Scotland APS Surveys 2002-2006 and 2008-2013 (data on those over the age of 64 was not collected in 2007)

**Table 6.2: Entrepreneurial activity by latest stage in the entrepreneurial process in Scotland and the UK by age group, combined 2002 to 2013 file (UK is average of annual estimates)**

Source: GEM UK APS surveys 2002 to 2006 and 2008 to 2013

		No entrepreneurial activity	Intend to start within 3 years	Nascent entrepreneur	New business owner	Established business owner
Scotland (N=21,862)	Age 18-49	85.2%	5.4%	2.6%	2.9%	3.9%
	Age 50-64	86.5%	2.1%	1.9%	2.0%	7.4%
	Age 65+	96.1%	0.4%	0.3%	0.5%	2.7%
UK (N=214,679)	Age 18-49	81.7%	6.6%	3.6%	3.6%	4.6%
	Age 50-64	84.0%	2.6%	2.0%	2.4%	9.0%
	Age 65+	95.2%	0.6%	0.5%	0.4%	3.3%



		Extractive (%)	Transforming (%)	Business Services (%)	Consumer oriented (%)	Total (%)
Men	Age 18-49	4	38	32	27	100
	Age 50-64	9	15	50	26	100
	Age 65+	7	20	37	36	100
	All	5	32	36	27	100
Women	Age 18-49	4	14	31	52	100
	Age 50-64	0	12	37	51	100
	Age 65+	0	0	25	75	100
	All	3	13	32	53	100
All	Age 18-49	4	29	32	35	100
	Age 50-64	7	14	46	33	100
	Age 65+	4	12	32	51	100
	All	4	25	35	35	100

**Table 6.3: Estimated distribution of new business owners by industry sector, age and gender in Scotland, combined 2002 to 2013 samples (N=490)**

Source: GEM UK APS surveys 2002 to 2006 and 2008 to 2013

**Table 6.4: New business ownership in Scotland and UK by age group, 2002-2013**

Source: GEM UK APS surveys 2002 to 2006 and 2008 to 2013

\* Defined as expecting to employ at least 10 more people and increase the number of employees by at least 50% in the next five years.

\*\* With no employees and no expectation of employing anyone within the next 5 years

	Age group	New business owner rate	% of new business owners with high aspirations*	Ratio of new self-employed** to all new business owners
Scotland (N = 505)	Age 18-49	3.0%	9.9%	33%
	Age 50-64	2.0%	10.0%	45%
	Age 65+	0.5%	0%	49%
UK (N=5698)	Age 18-49	3.6%	11.8%	32%
	Age 50-64	2.4%	11.2%	39%
	Age 65+	0.4%	10.9%	31%

established business ownership peaks between 50 and 64, entrepreneurial intention and activity declines rapidly after the age of 64.

Table 6.3 shows that older new business owners are more likely to opt for consumer oriented businesses than their younger counterparts; this is particularly marked among women owners. However, most of these consumer-oriented business owners are or expect to be employers. Those choosing transforming or business services are more likely to be self-employed. Those aged 50 to 64 are more likely to choose business services. Older new business owners in Scotland are much less likely to export (34%) than middle aged (53%) or younger (59%) owners. Perhaps surprisingly, older new business owners are significantly more likely to report they are using technology that was not available more than a year ago in their business, both in Scotland and the UK, than either middle-aged or younger owners.

Table 6.4 shows that in Scotland, half of older new business owners are self-employed individuals without any intention of employing anyone. Perhaps surprisingly, the proportion of new entrepreneurs with high aspiration was not lower in older age groups in the UK.

# Scottish Entrepreneurship Policy and Programmes Review 2013

In February, the Scottish EDGE Fund (Encouraging Dynamic Growth Entrepreneurs), launched in October 2012 by the Finance Secretary John Swinney, awarded £520,000 to 16 businesses. In June, £704,000 was awarded to 18 businesses. By October, it had been credited by its recipients for assisting in a combined increase in revenues of at least £600,000, leveraging a further £1.338m of investment for continued growth, and 59 new and sustainable jobs during its first year in operation<sup>1</sup>.

In February, the Prince's Initiative for Mature Enterprise (PRIME) launched in Scotland with a programme of awareness sessions and training for individuals over the age of 50 who are unemployed or under threat of redundancy and a three-year target to help create 300 new businesses with the over 50s.

In April, John Swinney announced a commitment of up to £1.65 million through Scottish Enterprise over the next three years to the Prince's Trust to help deliver its Youth Business Scotland programme.

In November, John Swinney launched "Scotland Can Do: Becoming a world-leading entrepreneurial and innovative nation<sup>2</sup>", a new policy framework to facilitate effective action

across the public, private and third sectors in the area of entrepreneurship and innovation, with a focus on those businesses and business ideas which have the greatest potential for growth, internationalisation and economic benefit. It contained no specific targets but set out five broad aims:

1. an increase in entrepreneurship and innovation activity from individuals and businesses in Scotland resulting in more businesses being formed and new products and services from existing businesses;
2. more people from all walks of life with the ambition and skills to create, lead and grow successful businesses;
3. an education system with entrepreneurship and innovation at its core, seizing the opportunities presented by Curriculum for Excellence, college reform and the world-leading strength of our universities;
4. more of our knowledge and intellectual capital being commercialised and greatly increased collaboration between business and the academic sector; and
5. a greater focus on, and share of, global markets as our business leaders grow in confidence and expand their horizons internationally.

The framework identified four main themes that if enhanced could transform Scotland's

performance as an entrepreneurial and innovative nation: Capable, Ambition, Networks and Demand and opportunities. Under each theme, four to six very general "priorities moving forward" were outlined. For example, under the "Capable" theme, the first priority listed was "Providing aligned and focussed business support to improve entrepreneurial and innovative capabilities."

Scottish Enterprise reported an increase in sales of £1 billion among the 2000 businesses it worked with most intensively in 2012/13, with a focus on growth companies, growth sectors and growth markets. In 2012/13, the Scottish Investment Bank's total investment, including deals done through the Scottish Loan Fund, reached £32.4 million, leveraging a further £60.4 million in private sector investment into over 106 companies. This compares with a reported £30million in 2011/12, which leveraged £62million from the private sector to invest in 91 Scottish companies. SIB's investment portfolio comprised 237 companies in 2012/13. However it worked with a total of 460 Scottish companies during 2012/13 to help them raise funding to grow their businesses, up from 300 in 2011/12. It also launched £103m Renewable Energy Investment Fund<sup>3</sup>.

<sup>1</sup> [www.scottish-enterprise.presscentre.com/Press-releases/Start-up-fund-creates-1-4m-in-entrepreneurial-investment-677.aspx](http://www.scottish-enterprise.presscentre.com/Press-releases/Start-up-fund-creates-1-4m-in-entrepreneurial-investment-677.aspx)

<sup>2</sup> [www.scotland.gov.uk/Publications/2013/11/7675](http://www.scotland.gov.uk/Publications/2013/11/7675)

<sup>3</sup> [www.scottish-enterprise.presscentre.com/Press-releases/Scots-firms-work-with-SIB-to-access-93m-69f.aspx](http://www.scottish-enterprise.presscentre.com/Press-releases/Scots-firms-work-with-SIB-to-access-93m-69f.aspx)

## GEM and Entrepreneurship Policy in Scotland

In 2013, early-stage entrepreneurial activity in Scotland remained at an all-time high and for the first time, Scotland matched all the benchmarks that this monitor has used for over a decade. This prompts one to ask: are the benchmarks still appropriate? Are there further mountains to climb?

Since the first GEM Scotland 2000 report, we have learned much about entrepreneurial activity and how it manifests itself in different ways in different national cultural and regulatory contexts. Individuals decide on how (and whether) to express their entrepreneurial capability by weighing up the relative attractiveness of the options available to them. For example, in Sweden, early-stage entrepreneurial activity is relatively low, but employee entrepreneurial activity is very high. It makes more sense for most entrepreneurial individuals in Sweden to be entrepreneurial for their employer than as independent entrepreneurs. The US and Australia are more individualistic societies and independent entrepreneurship is more attractive. In the UK, national culture and regulatory institutions are not skewed heavily one way or the other, and as the GEM Scotland 2011 report showed, the UK sits in the middle of the range in both early-stage and entrepreneurial employee activity among innovative nations. No nation has high levels of both early-stage entrepreneurial activity and entrepreneurial employee activity.

For this reason it is important to recognise that pushing independent start-up rates "to

the limit" may miss the point: start-ups are not the only form of entrepreneurial activity, and helping to create a lot of one-man bands may not be the most effective use of human and economic resources, unless that is what an individual wants to be or has little alternative. That is why it is good to see that the Scotland Can Do framework document covers both entrepreneurship and innovation, and focuses on capability, ambition, and networking. As chapter 5 on high aspiration entrepreneurs shows, there is a link between being innovative, international, and engaged in the entrepreneurial community, and being ambitious for one's business.

At the same time, Scotland Can Do sees entrepreneurship policy as an instrument to further social and economic inclusion. As Chapters 4 and 6 show, entrepreneurship may have a role to play in fostering economic inclusion, even if for many people who might be classed as socially excluded, growth may be less of a priority than sustainability. The GEM data on women and older entrepreneurs suggests a relative lack of connection with other entrepreneurs. There is clearly more work for Women's Enterprise Scotland and PRIME to do.

In converting broad brush policy into hard programmes, balancing a focus on growth and ambition with another focus on inclusion will not be easy. It will be important to remember that with entrepreneurship and innovation, success is unevenly distributed.

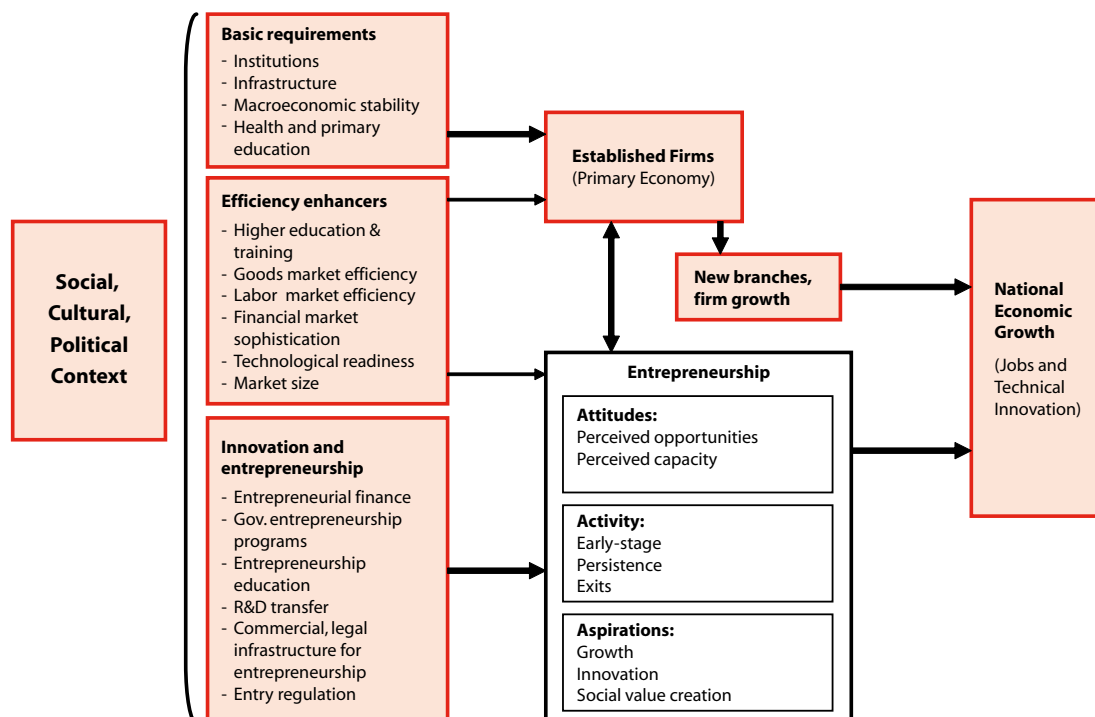
## Appendix 1

The diagram below shows the latest version of the GEM model<sup>1</sup>, which recognises that the nature and contribution of entrepreneurship may vary across countries with different levels of economic development, from "factor-driven economies", "efficiency-driven economies", and "innovation-driven economies"<sup>2</sup>. The model suggests a comparative study of entrepreneurship of an economy such as Scotland should focus on other innovation-driven economies rather than factor- or efficiency-driven economies.

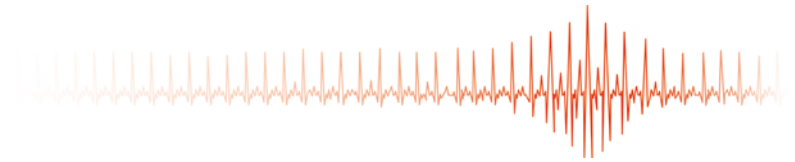
The GEM model is the recognition that entrepreneurship is multi-faceted, and may be expressed in different ways. This is represented in the diagram by the Entrepreneurship Profile which has three main components: attitudes, activity and aspirations and by the recognition given to the role of employee entrepreneurial activity. Given the right institutional context (as represented by the left hand side of the diagram), entrepreneurial attitudes, activity and aspiration interact to contribute to national economic growth through the provision of new economic activity.

<sup>1</sup> Amoros, J.E. and Bosma, N. (2014) Global Entrepreneurship Monitor 2013 Global Report. GERA: London.

<sup>2</sup> Phases of economic development are decided on the level of GDP per capita and the extent to which countries are factor-driven in terms of the shares of exports of primary goods in total exports. See Porter, M.E. and Schwab, K. (2008), *The Global Competitiveness Report 2008-2009*, Geneva, Switzerland: World Economic Forum.

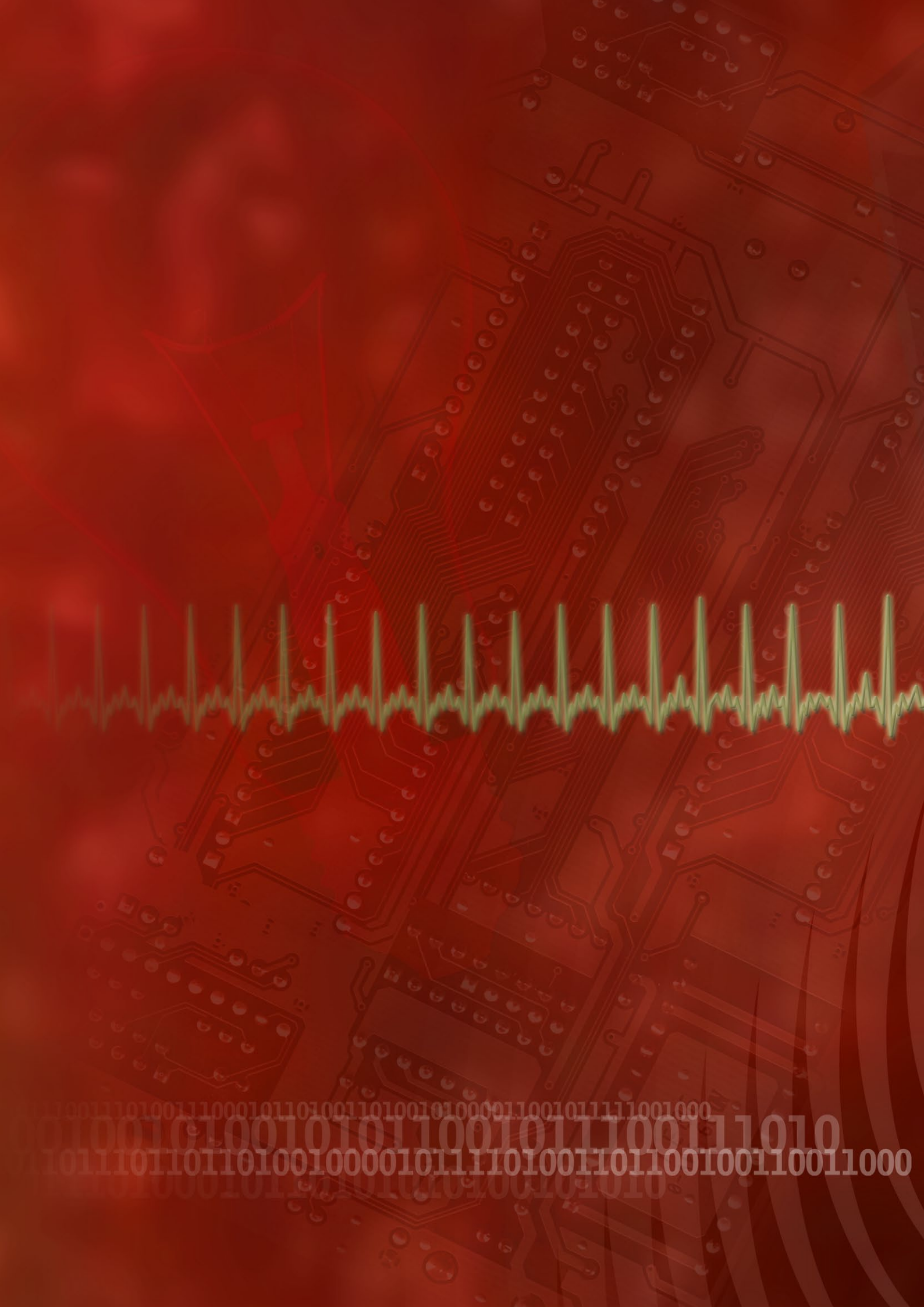






### Index of Special Topics covered in GEM Scotland reports, 2000 to 2013

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Female Entrepreneurship/Women in Enterprise	2001, 2004, 2013
Entrepreneurship and Education/Entrepreneurship Training	2001, 2005, 2007/8, 2012
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