

The Risk Capital Market in Scotland

Annual Report 2015

Prepared for Scottish Enterprise by Young Company Finance



INTRODUCTION

The purpose of this report is to provide a detailed and comprehensive analysis of the early stage risk capital market in Scotland for the calendar year 2015.

The report is one of a series dating back to 2003. The most recent report in the series covered 2014 and was published in June last year.

The report is intended to improve the understanding of the scale and characteristics of the early stage risk capital market in Scotland. The risk capital market in the USA set the pace for investment globally in 2015, although no other country or region saw the same levels of investment or extremely high company valuations which become almost commonplace in California, Boston, and New York. That said, Scotland saw two of its companies – Skyscanner and FanDuel - reach unicorn status (valued at over US\$1 billion) in 2015, and as the following pages show, large value deals have become a regular feature of the market, even if not reaching the levels seen in the USA.

The analyses in the following Report are intended to identify the contribution made by risk capital investment to business ventures in Scotland and provides evidence for the development and evaluation of policies to stimulate the market.

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June 2016

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EXECUTIVE SUMMARY

TWO ‘MEGADEALS’ TOOK THE TOTAL MARKET TO UNPRECEDENTED HEIGHTS

There have been seven deals over £10 million since 2012. Even without these included in the totals, 2015 saw high levels of investment.

OMITTING DEALS OVER £10m, INVESTMENT LEVELS REMAINED AT A HIGH LEVEL

Exceeding the levels seen in the decade up to 2014.

THE TOP TEN DEALS ACCOUNTED FOR 74% OF TOTAL INVESTMENT

The next ten deals accounted for a further 7%, and the remainder 19%. This illustrates a much greater concentration of the market totals in high value deals than in recent years.

ANGEL INVESTORS HAD ANOTHER STRONG YEAR

The number of deals and the amounts invested exceeded last year’s records, with ‘new’ investments in companies that had not previously secured independent equity investment also holding up.

VC AND INSTITUTIONAL INVESTMENT MORE THAN DOUBLED FROM THE PREVIOUS YEAR

Thanks to the megadeals, VCs and institutional investors burst through all previous records.

HIGH VALUE DEALS (OVER £2M) WERE SPREAD ACROSS ALL SECTORS

This included investments in energy and renewables, which are largely absent from the middle investment band.

THE NUMBER OF NEW (FIRST TIME) INVESTMENTS, AND THE AMOUNTS INVESTED, REMAINED AT A HIGH LEVEL

In 2015 new investments maintained the level seen in 2014, following substantial increases in the previous two years.

AVERAGE TIME TO FIRST INVESTMENT WAS 2.4 YEARS

This was lower than in the previous four years.

COMPANIES IN THE EAST OF SCOTLAND AGAIN SECURED OVER HALF THE TOTAL INVESTMENT

This was partly due to the mega-investment in FanDuel, but even without this deal the East led the West and Aberdeen in amounts invested, with these three regions taking almost 90% of the total.

2015 SAW A SMALL INCREASE IN EXITS

In 2015 we tracked 12 trade sales (following 9 in 2014), but no IPOs. As the sums paid or company valuations were not disclosed in most cases, it is difficult to assess the impact of these transactions, but they do represent a slight easing of the market for early stage investors, in the sense that investors have been able to recover some of their funds otherwise locked in investee companies.

BACKGROUND

Access to a strong supply of early stage risk equity capital is important for national and regional economies due to the catalytic role that it plays in the entrepreneurial process. UK and Scottish Government policy recognises that the market does not always enable SMEs to grow rapidly because of the existence of equity gap(s) beyond the levels banks will lend and beyond the means of most informal investors and business angels, but below the level usually considered for venture capital funding.

In common with early stage markets elsewhere, the Scottish risk capital market continues to be fragmented with many parts of the market not visible in the public domain. This presents challenges when determining the extent to which it is efficient in how it functions in channelling growth finance to early stage companies.

Scottish Enterprise commissions research to identify the investment activity of all participants and to estimate the total flow of risk capital investment into early stage Scottish companies. This includes investigating the characteristics of the industry's key players and beneficiary companies, the scale of the annual flow of new investment, and establishing whether there is evidence of gaps in the supply of risk capital. From this analysis SE is able to quantify the impact on the market of its early stage equity investment funds to ensure that SE interventions remain 'fit for purpose' and able to optimise economic impact.

Approach

Full details of the methodology adopted are given in Appendix 1. The approach is intended to separate actual flows of funds from the so-called 'headline' investments. These are the figures quoted in press releases and other statements by investors and investees, and include the total equity commitment (which is usually invested in tranches after the investee reaches agreed milestones). These headline announcements often include non-equity finance such as bank facilities and grant awards.

This report covers only equity investments by independent third party investors, omitting where possible investments by 'founders, friends and family' or other non-independent investors prior to what the market usually terms a Series A round, meaning the first round in which independent investors participate.

The report also excludes commercial loans or other forms of debt finance.

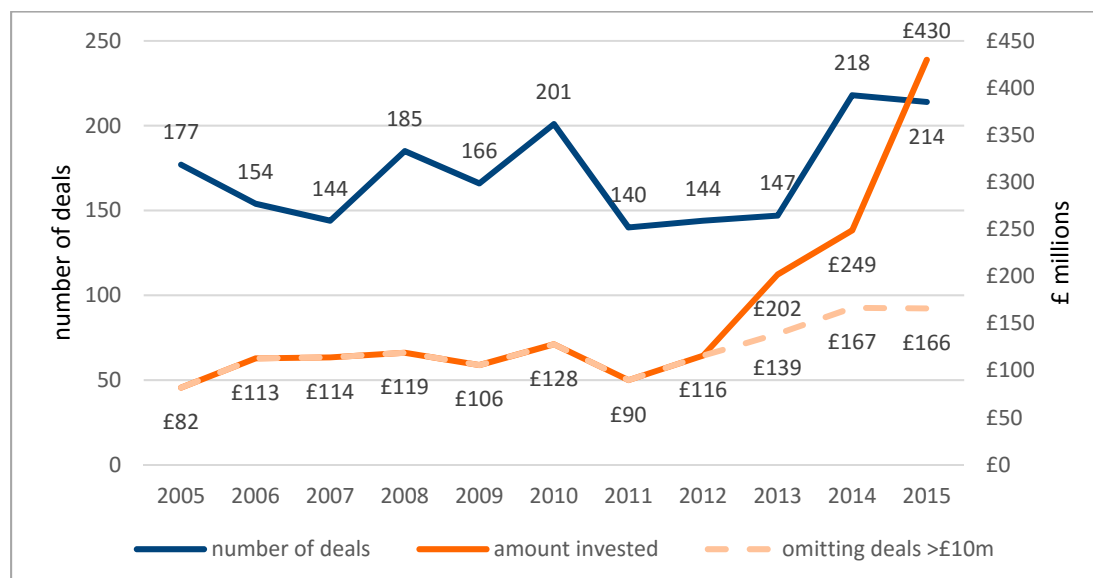
Where regular independent investors such as angel groups make a relatively small early investment in a company in the form of a convertible loan, this is included in the figures in this report in the same way as equity investments. Such loans are not structured like commercial loans with a fixed repayment schedule, but are usually converted to equity at a relatively early stage rather than repaid.

REPORT FINDINGS

1 KEY TRENDS

1.1 TRENDS IN INVESTMENT VALUE

Figure 1: Trends 2005-2015 – numbers and £m



Despite the slight decrease in deal numbers, 2015 saw a very large increase in amounts invested. Readers of previous reports in this series will recognise the effect that very large deals have on the overall results. The earliest reports in the series by Gavin Don and Richard Harrison from 2003 onwards identified and commented on what they called ‘blockbuster’ deals, at the time having values of around £2 million. There are now many investments in Scottish companies at that level, but the presence of significant outlier deals continues to be a feature of the market, exaggerated in 2015 by a two exceptionally large deals:

FanDuel July 2015 \$275m (£176m)

TauRx October 2015 \$135m (£88m)

These were followed in January 2016 by an investment of £128m in Skyscanner.

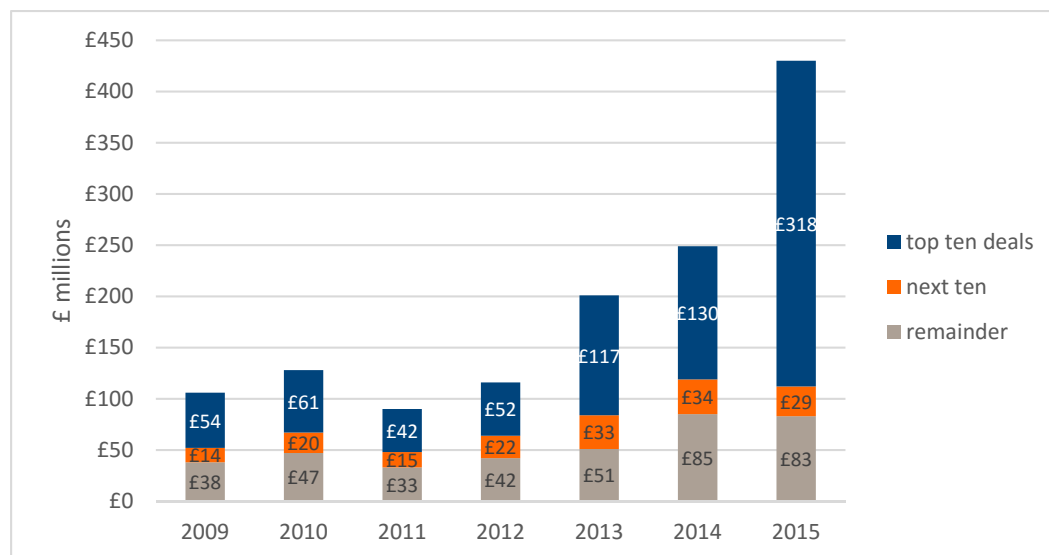
We have recorded just seven investment deals over £10m in value, all in the three years 2013-2015; Skyscanner and FanDuel account for two each (including those in 2015 mentioned above), with the others in Nucana BioMed, Scopus Engineering, and Tidal Power Scotland. We have shown total investments excluding these seven deals in the dotted line in the chart above, which demonstrates that even without these deals the market remained at a high level in 2015. (The number of deals includes all these exceptional deals, and would not be much affected by their omission).

Such ‘megadeals’ however pose the problem of how best to depict the results so that trends can be identified for comment. For this report, we approach this question by including the megadeals in all the totals – they are large enough to be identifiable in most of the analyses – while looking in more detail at the ‘middle band’ of investment, which remains the most active in terms of deal numbers.

Following on from the chart above, our figures for the first quarter of 2016 show a decline from the highs in 2015; the overall level of investment stayed higher than the average up to 2012, but the decline was noticeable in the middle band, which has traditionally been the driver of the market.

As in last year's report, we analyse below how large investments influence the overall pattern in a number of ways. One approach is to isolate the top ten or twenty deals in each year, as follows:

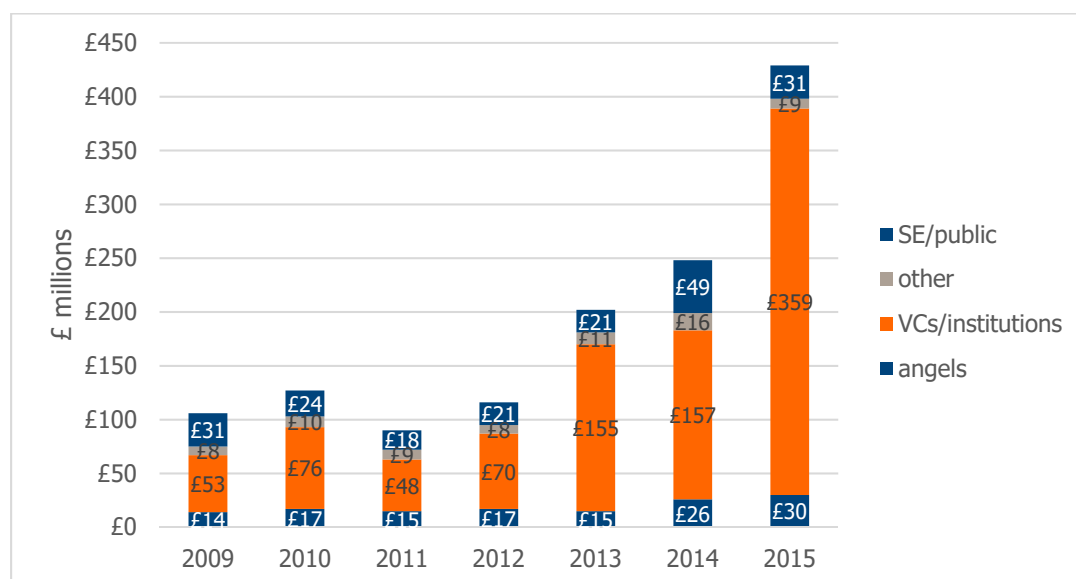
Figure 2: Top twenty deals v remainder 2009-2015 £m



Clearly, the top ten deals count for a large proportion of the total market. The value of the next ten deals has stayed relatively constant over the past three years, and the remainder, although slightly down in 2015, is also much higher than before in previous years.

An alternative perspective is to take the type of investors participating in the deals, and establish which category accounts for the largest increases, as follows:

Figure 3: Investment by investor type 2009-2015 £m



Unsurprisingly, the largest increases in investment were from VCs and other institutional investors, who are involved in all the megadeals. Angel investors continued with a strong investment performance, although inevitably overshadowed by the large VC deals.

The category SE/public includes the Scottish Investment Bank co-investment funds, plus a small number of other public sector investors.

The angel, VC, and institutional investors are listed in Appendix 3.

A further analysis, used in previous Risk Capital Market reports, is to differentiate between deals in different size bands, which we examine in the following section.

1.2 INVESTMENTS BY BAND

The bands used in previous reports are: **higher** (over £2 million); **middle** (£100k to £2 million); and **lower** (under £100k).

The total number of deals, and the amounts invested in these bands, are shown in the following two charts:

Figure 4: Number of deals by size band 2009-2015

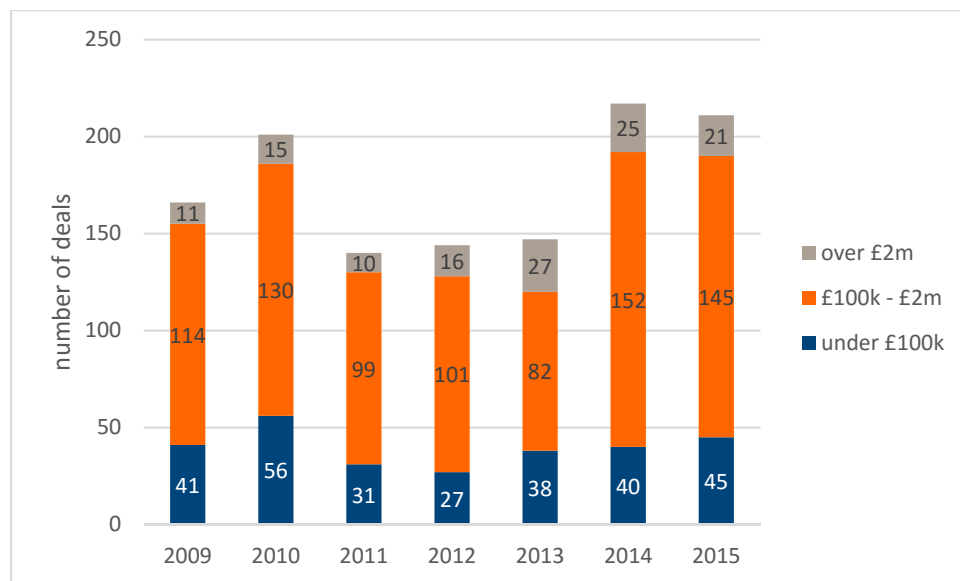
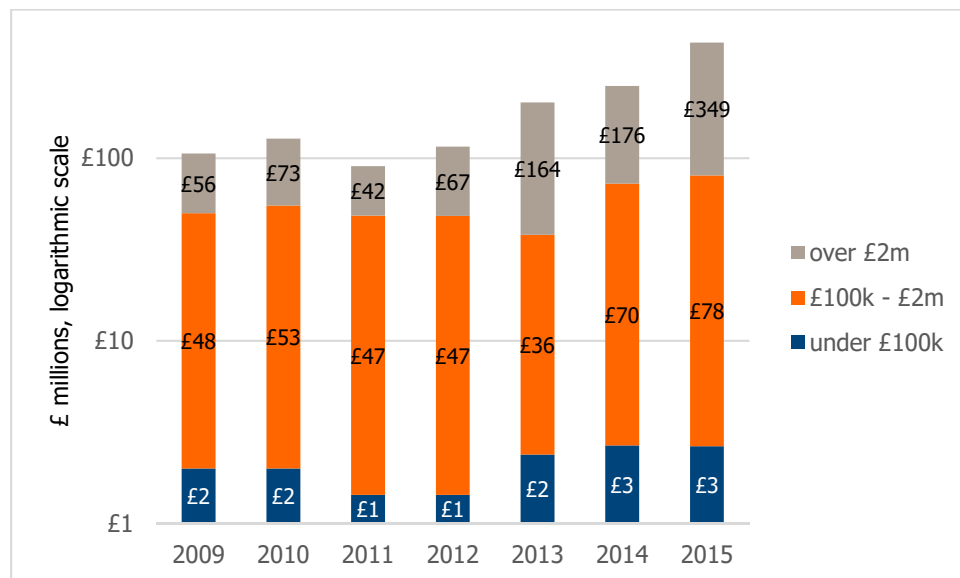


Figure 5: Investments by size band 2009-2015 £m

NB – this chart uses a logarithmic scale



As we have commented before, the number of deals in the lower band looks small, and can cover only a part of activity at this level, as it is difficult to trace small investments by solo business angels, often investing in just one or two companies. However, the data for this report is collected on a consistent basis, by checking with all investors whose deals have been reported in previous reports or in our monthly journal Young Company Finance during the year, and following up all companies which have appeared at pitching competitions or won grant awards, or otherwise came on to our radar, so the comparisons from year to year have some validity. As is clear from the above charts, investments at this level do not account for a large proportion of the totals, and even a substantial increase in deal numbers would not make a significant difference to the totals.

The higher band figures reflect the presence of the megadeals, with a slight decrease in volume countered by an increase of almost 100% in value. The middle band deals also saw a small decline in volume, but an increase in amounts invested, in both cases staying well above recent norms.

Lower band

Lower value deals have fluctuated in number over the ten years shown, but account for a very small share of total investment.

Many lower band investments are made into companies securing equity funding for the first time; this aspect of the statistics is analysed further in section 1.4 below.

Middle band

Like the higher band, this section of the deals in 2015 was down a little in number (by 5%), but up by 10% in terms of amounts invested. This remains well above the average for the past ten years.

This range, from £100k to £2 million, is wide and can be broken down further as follows:

Figure 6: Middle band, breakdown by number of deals 2012-2015

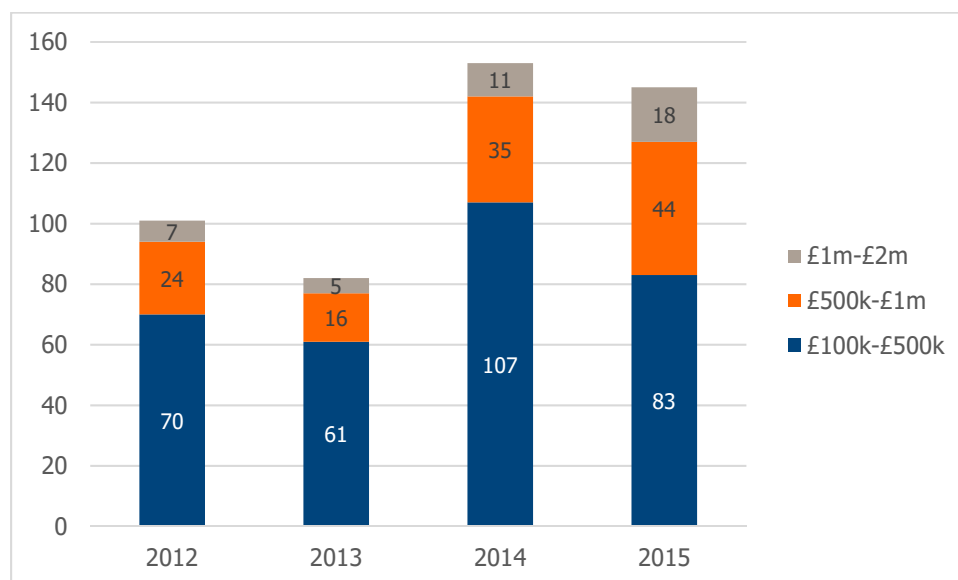
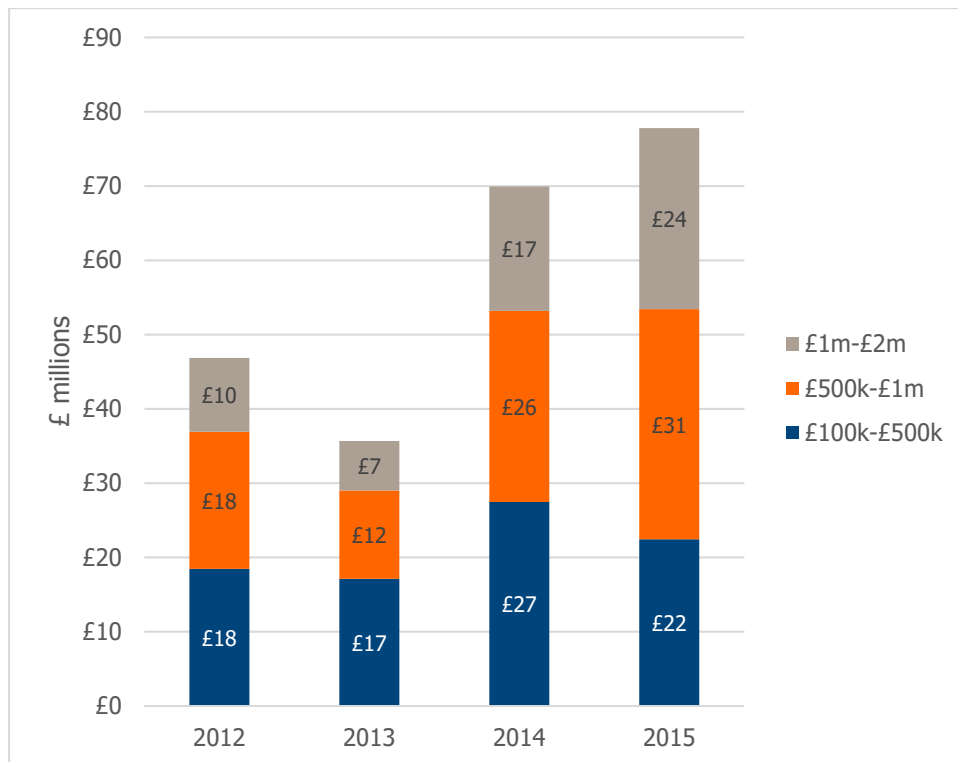


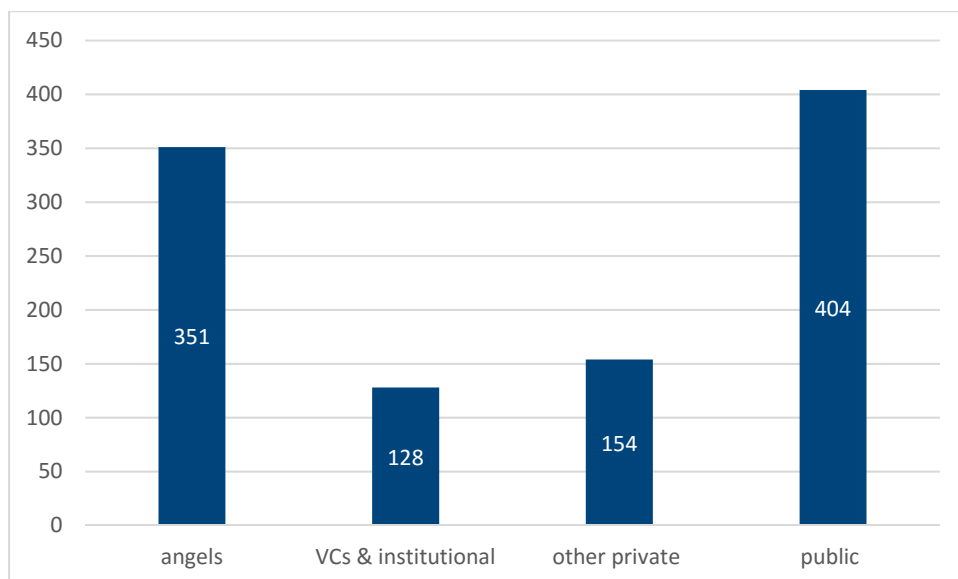
Figure 7: Middle band, breakdown by investment levels 2012-2015 £m



The increases in investment in this band have come in the higher categories, with a substantial decline from 2014 to 2015 in number of deals (a less pronounced decline in investment amounts) at the £100k - £500k level.

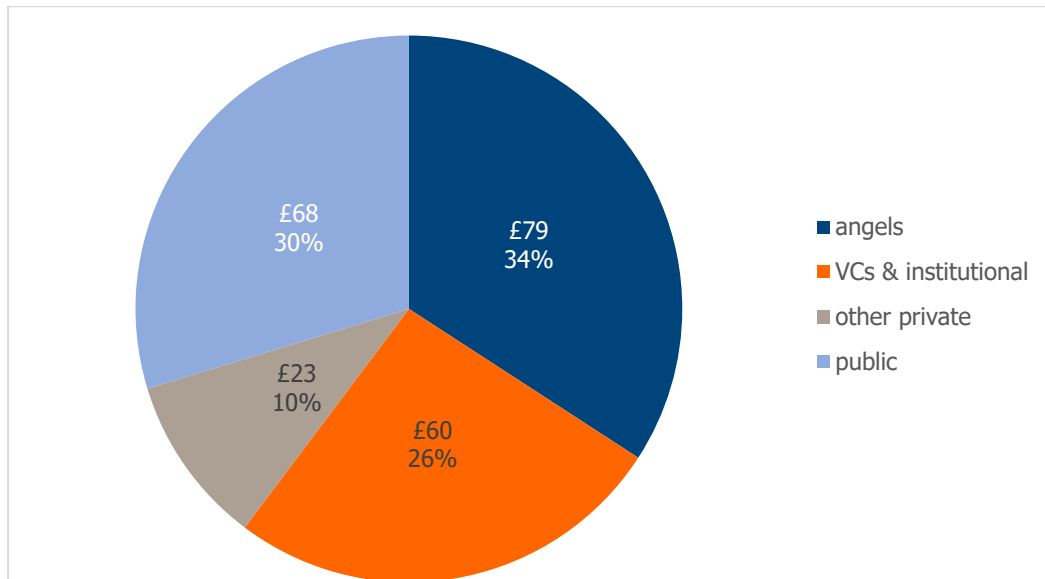
Taking the four years together, we can analyse the types of investor involved:

Figure 8: Middle band, number of investments by investor type 2012-2015



NB: Most deals have more than one category of investor, so the totals shown add up to a larger figure than the number of completed deals.

Figure 9: Middle band, investment totals by investor type 2012-2015 £m



Business angels and angel groups continue to focus on this middle band, making almost 70% of their deals at this level, but accounting for over 90% of their total investment. The number of deals by angels in this middle band has not changed much from the previous year, although total investment has increased by almost 30%.

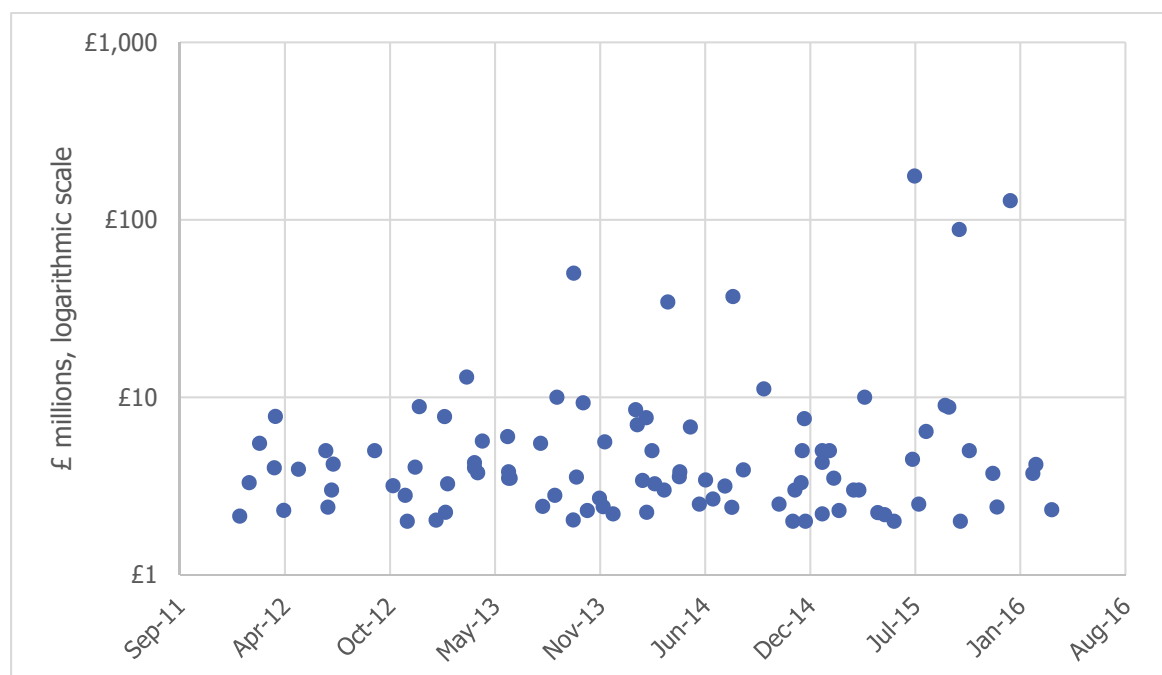
VCs and institutional investors also continue to be active at this level, with 64% of their deals in this category, which because of the higher value megadeals account for just 6% of their total investment. This represents a slight decrease in deal numbers, and a modest increase (14%) in amounts invested at this level from 2014.

Higher band

The following scatter chart shows every deal over £2 million in date order, to illustrate the outliers and their distribution. Note that the chart uses a logarithmic scale for the deal values. The chart has been continued into the first quarter of 2016 (the dates on the x axis, including August 2016, are arbitrarily set, as the deal distribution is not regular), to show the continuing pattern of high value and megadeals.

Figure 10: Higher band over £2m, distribution of individual deals 2012-2015

NB – this chart uses a logarithmic scale



The outliers on this chart – the megadeals – show a consistency which is probably misleading, as they are at a level which is at present quite exceptional for the market in Scotland. The distribution of the high value deals nearer the £2 million baseline however is sufficiently frequent to suggest that we can expect to see a handful of deals at this level in most years. The frequency however reduced in the second half of 2015 and into 2016, and it remains to be seen whether or not Scottish companies will benefit from the tailwinds of the VC activity in the USA, which tended to push company valuations up across the globe.

We comment in the next section on the distribution of all deals by market sector, but it is worth analysing the breakdown of investments in this higher band over £2 million to see any significant patterns. As elsewhere, the megadeals dominate the analysis by investment amounts, although their effect on the number of deals is clearly less important.

Figure 11: Higher band number of investments by sector 2012-2015, percentage of total

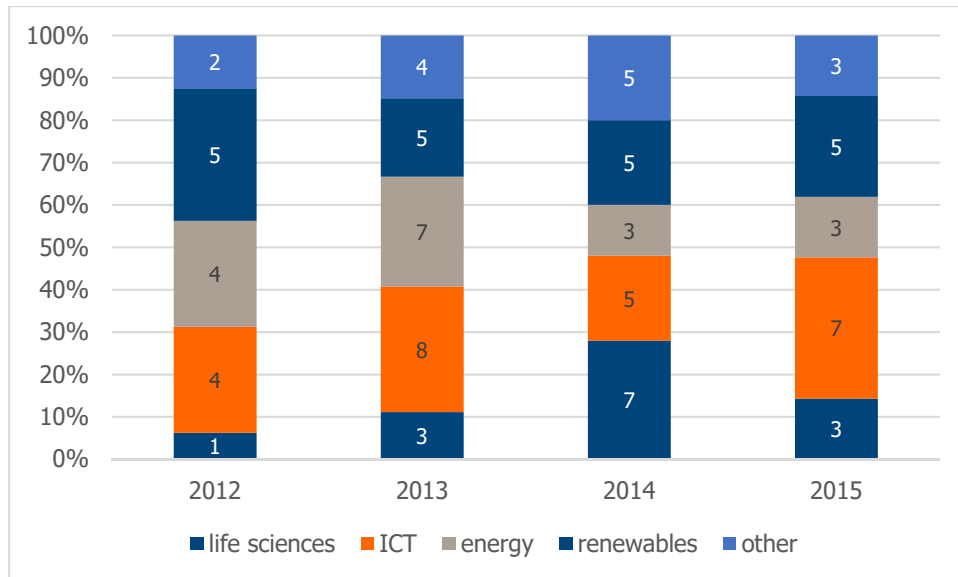
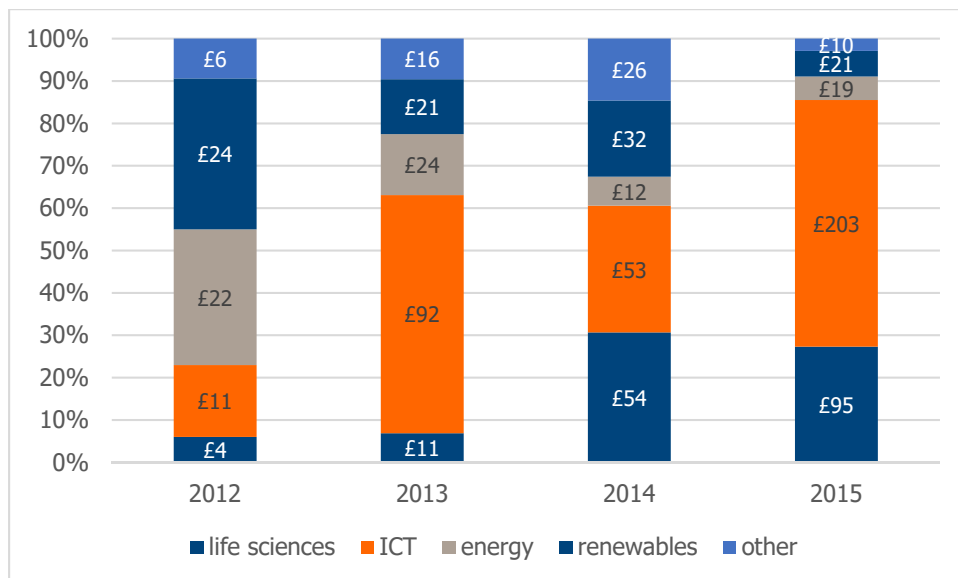


Figure 12: Higher band, value of investments by sector 2012-2015, percentage of total



The distribution of higher band deals is more evenly spread than in the lower value bands, with all sectors being represented. The 'other' category at this level includes companies in the food & drink, and business services sectors. The renewables market has stayed fairly constant through the four years covered by the charts above; energy deals have fluctuated a little more widely, but have a regular presence. The big increases in investment values are in ICT and life sciences, much affected by the megadeals.

1.3 INVESTMENT BY SECTOR

Figure 13: Number of deals by sector 2009-2015

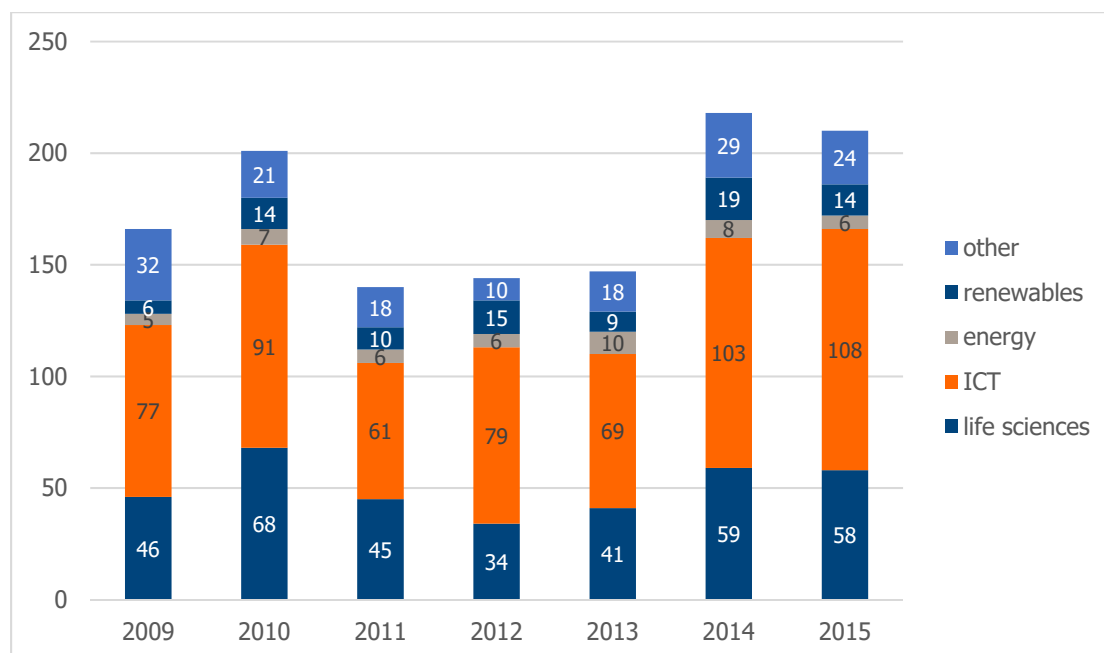
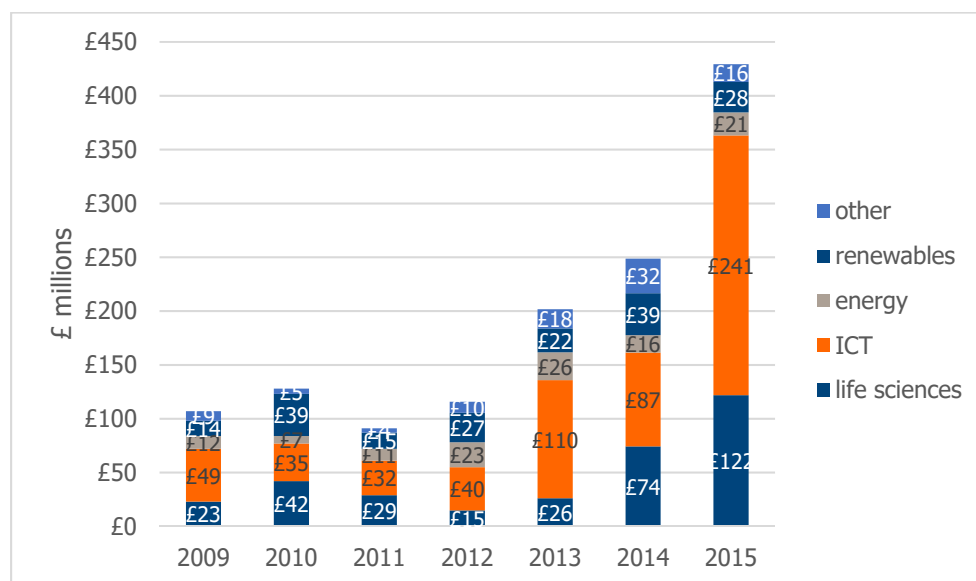


Figure 14: Investment totals by sector 2009-2015 £m

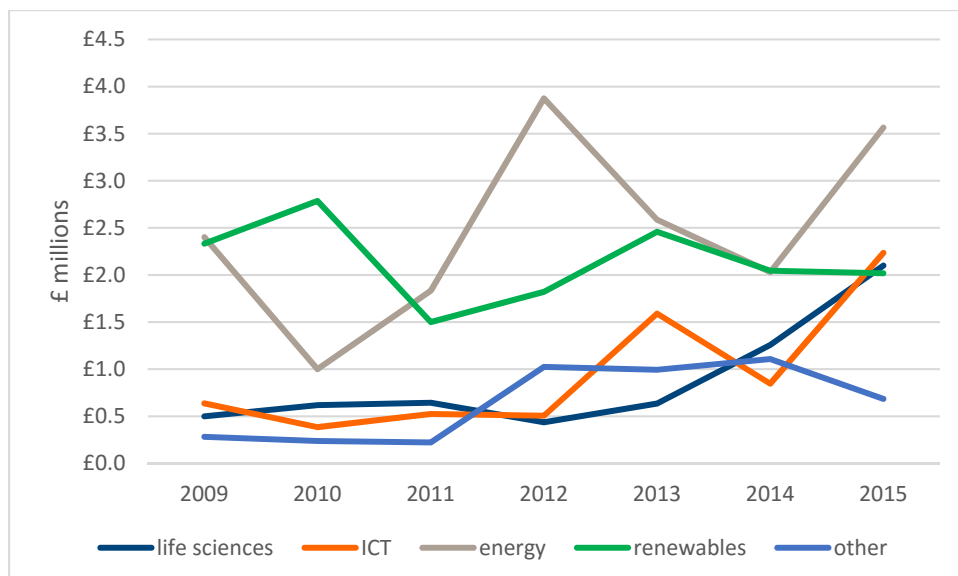


The two dominant sectors, ICT and life sciences, continued from 2014 with high number of deals, with ICT companies in particular maintaining the significant increase seen from 2013. Both categories saw very large increases in amount invested, due to the megadeals listed earlier.

Most of the companies in the 'other' category are in the food & drink sector, with some in manufacturing, construction, and business services.

The average deal sizes in each sector are as follows.

Figure 15: Average investments by sector 2009-2015 £m



Energy and renewables companies have had higher average investments over the period shown in the chart. The lower averages for the other sectors reflect the fact that start-ups in these markets usually need more rounds of investment, with the earlier rounds likely to be at lesser values. Many of the deals included in this report are ‘tranching’, where the investor commits to invest a ‘headline’ total, but delivers the money only upon completion of agreed milestones; where possible the analysis here is based upon separate tranches of investment rather than headline totals, keeping the average figures low.

In the renewables and energy sectors, the nature of the markets means that companies often need more substantial investment at an earlier stage.

The large increases in ICT and life sciences average investment levels in 2015 is heavily influenced by the inclusion of the megadeals.

1.4 NEW AND FOLLOW-ON INVESTMENTS

The following charts show the number of investments and amounts invested in 'new' companies, being the first time that these companies have secured independent equity investment, and follow-on investments where we are aware of previous equity investments in the company.

Figure 16: Number of new and follow-on deals 2012-2015

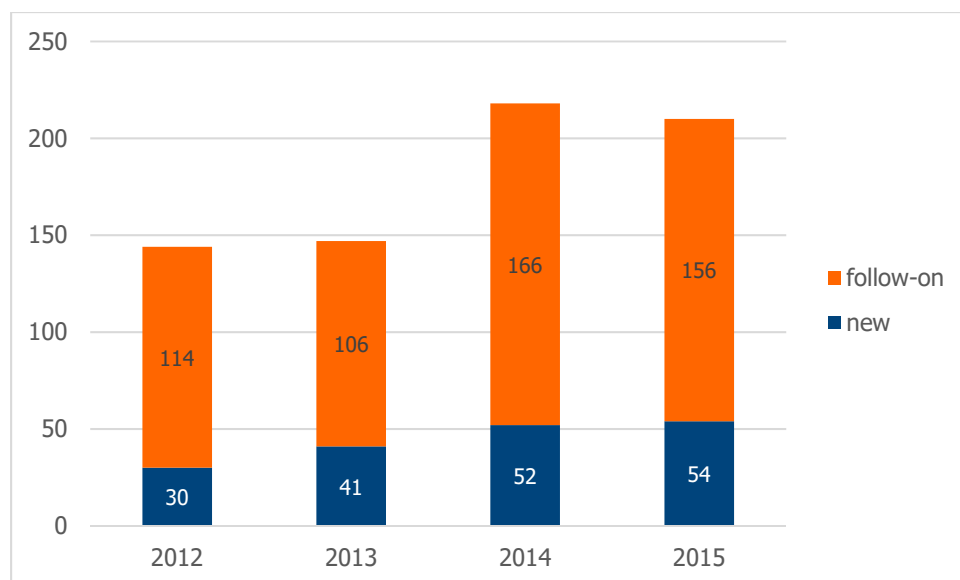
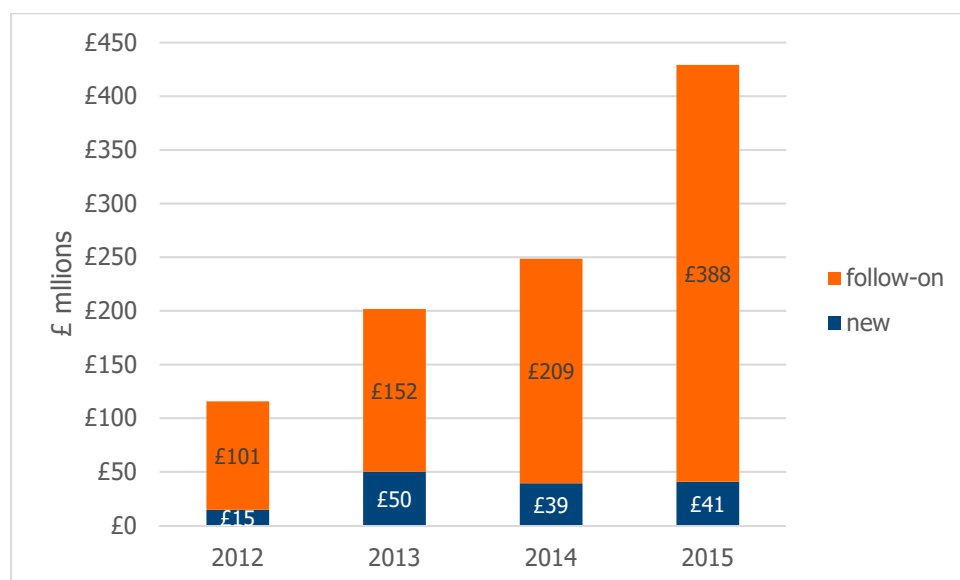


Figure 17: Investments in new and follow-on deals 2012-2015 £m



Following large increases in the number of companies securing investment for the first time over the previous two years, in 2015 the number of new deals remained high. The total investment in these companies also remained well above the 2012 figure, even though it had slipped back from the high point in 2013.

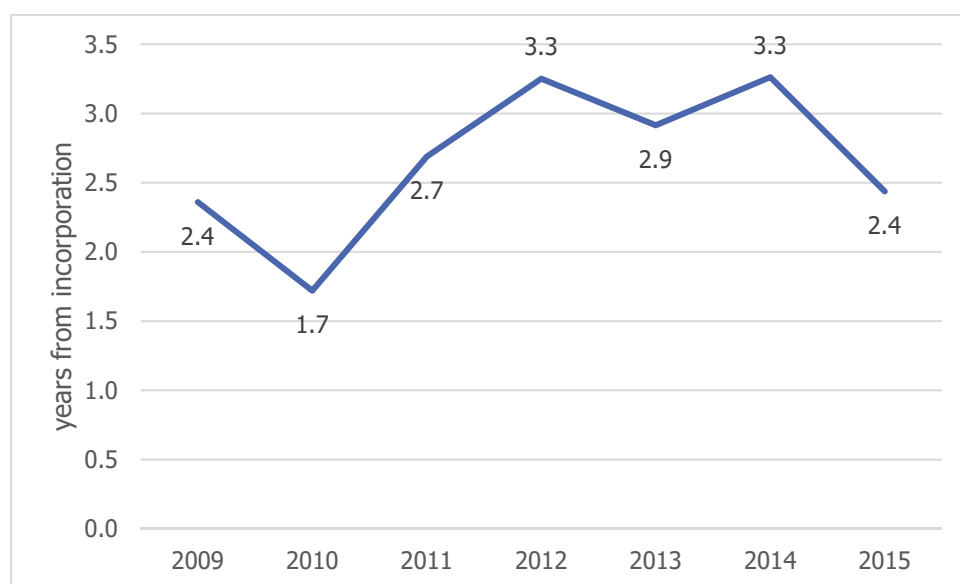
Before 2015, the first time investments shown in the charts were spread across all sectors and regions, without any obvious pattern. In 2015, there was a disproportionate number of ICT companies securing investment for the first time.

1.5 TIME TO INVESTMENT

The following chart shows the average age of companies at the time they reached their first independent equity investment (ie the time from date of incorporation to the date of deal completion).

In 2015 there were fewer companies needing over five years to secure their first investment, with the result that the average time to first investment reduced considerably from the previous three years, putting it closer to the levels in 2009 and 2010. The median (as opposed to average) period for companies reaching first investment in 2015 was 2.1 years, compared with 2.7 years for 2014. It is not clear what has caused this reduction in time to first investment, but we will continue to monitor this trend and use it to inform more detailed research.

Figure 18: Average years to first investment 2009-2015



2 COMPANIES

2.1 LOCATION

Figure 19: Number of deals by region of investee 2012-2015

	2012	2013	2014	2015
Aberdeen	7	13	12	6
East	80	64	104	112
Highlands & Islands	8	7	15	10
South	2	1	3	2
Tayside	8	11	16	13
West	39	51	68	68

Figure 20: Investment by region of investee 2012-2015 £m

	2012	2013	2014	2015
Aberdeen	£18.4	£51.4	£16.1	£112.3
East	£48.9	£106.4	£142.7	£243.2
Highlands & Islands	£13.8	£3.8	£34.1	£14.7
South	£0.5	£0.2	£0.9	£0.9
Tayside	£8.4	£17.3	£9.1	£5.7
West	£25.7	£22.6	£45.9	£52.6

The East continued its domination of the risk capital market, being the only region to see an increase in deal numbers in 2015 (with the West staying level, but at a recent high). As in 2014, the East accounts for over half the number of deals and amounts invested, or stated differently, more than all the other regions added together. If we exclude the FanDuel megadeal in 2015 however, the total investment in companies in the East was £67m, still high but less than half the total market. Excluding the TauRx investment from the Aberdeen figures in 2015 leaves a total of £24m, higher than in most recent years.

Companies in the West saw an increase in investment amounts, without benefiting from the inclusion of any of the megadeals featured in the figures for the East and Aberdeen.

2.2 UNIVERSITY SPINOUTS

Figure 21: Number of investments in spinouts as % of all deals 2012-2015

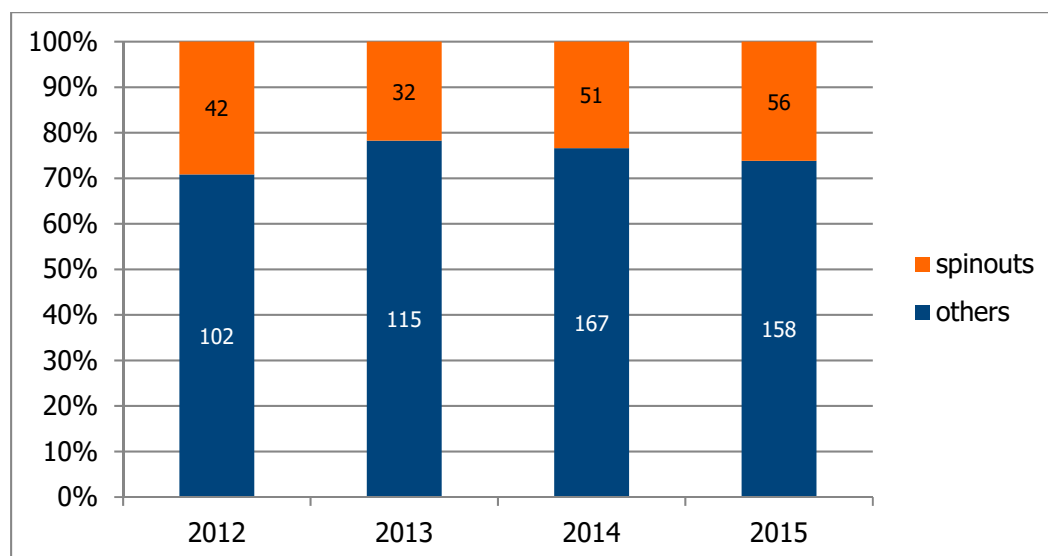
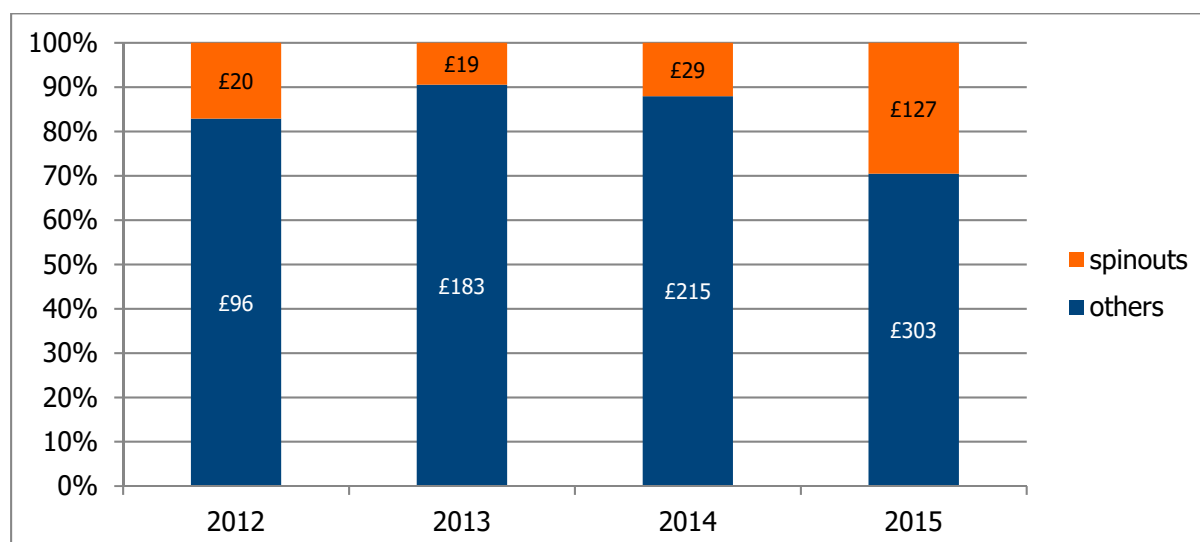


Figure 22: Value (£ millions) of all investments in spinouts, as % of total investment, 2012-2015



The companies included in the charts above are spinouts (companies established to commercialise intellectual property owned by a university) – together with those start-ups (companies started by members of staff or recent graduates which have not licensed university-owned IP, but are usually developing technology arising at the university) which have secured risk capital funding in the past four years.

These companies accounted for just over a quarter (26%) of all deals in 2015, and 30% of the amounts invested, largely because of the investment in University of Aberdeen spinout TauRx (FanDuel is not included in the totals here, although it was originally based at the University of Edinburgh).

University of Edinburgh companies saw the most investment deals (19) in 2015, but the majority of these were follow-on investments. Strathclyde ran close second with 17 deals, but in aggregate over the past four years was roughly level with Edinburgh, with 60 deals securing £27.3 million versus 59 deals and £34.0 million for Edinburgh spinouts and start-ups. Other universities in Scotland were well behind this level of investment, although Aberdeen, Dundee, Glasgow, and Edinburgh Napier all reached over ten investment deals over the four years shown here; the Aberdeen total includes the TauRx investment, so it easily tops the list of investment totals.

2.3 EXITS

2015 saw more exits than the previous year, but are often difficult to track. YCF has recorded the following exits by trade sale; there were no IPOs of early stage companies in 2015 of which we are aware. As always, there is little information about values, as acquirers in trade sales are often reluctant to disclose this information.

Figure 23: Exits by early stage Scottish companies 2015

company	incorp	exit	valuation	acquirer	location
Camel Audio	04-Jul-03	25-Feb-15	n/d	Apple	USA
Optos	26-Aug-92	27-Feb-15	£259m	Nikon Corp	Japan
Sigma Seven	15-Nov-00	06-Mar-15	n/d	Capita plc	UK
Green Highland Renewables	01-Feb-07	21-Apr-15	n/d	Ancala Renewables	UK
Blackcircles	16-Oct-01	08-May-15	£50m	Michelin	France
Barrachd	31-Aug-07	09-Jul-15	n/d	Capita plc	UK
Kotikan	05-Nov-07	20-Jul-15	n/d	FanDuel	Scotland
CXR Biosciences	09-Oct-00	17-Aug-15	n/d	Concept Life Sciences	UK
Maximyser	29-Nov-04	20-Aug-15	n/d	Oracle	USA
Sphinx Medical	25-Nov-08	07-Sep-15	n/d	Promedon	Argentina
Bloxx	10-Dec-99	02-Nov-15	n/d	Akamai Technologies	USA
Aircraft Medical	29-Jan-01	18-Nov-15	\$110m	Medtronic	Ireland
Biopta	09-May-02	10-Dec-15	n/d	ReproCELL Inc	Japan

Optos, the outstanding exit on this list, was the first investment by the founders of the Archangels angel syndicate. The company floated on the London Stock Exchange in early 2006, some 14 years after incorporation, when original investors had the opportunity to take an exit, and the trade sale to Nikon Corp last year would have given those who stayed with the company some further returns.

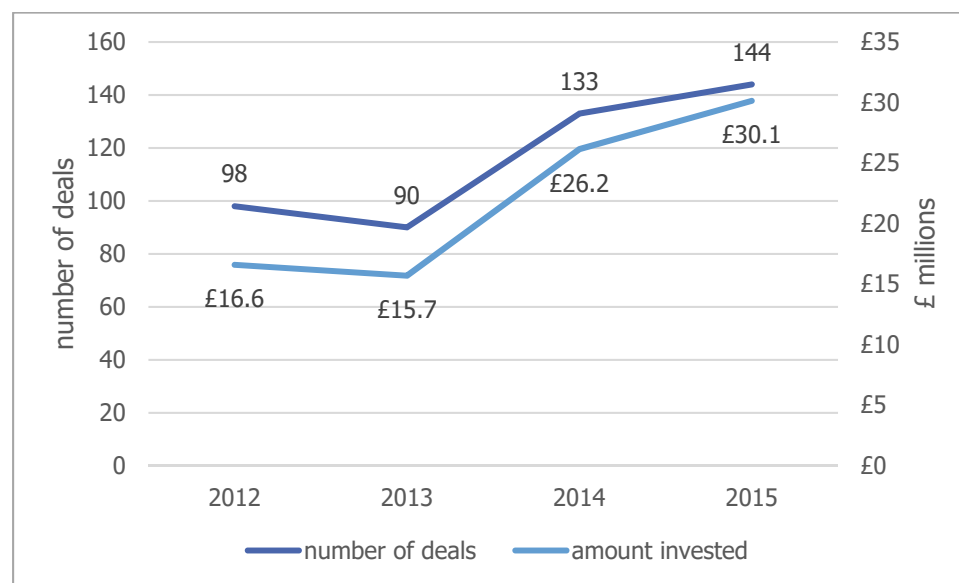
Excluding Optos, the average time to reach an exit for the companies in this list was 11.7 years. This is well above the 8 – 10 years for exits in the previous ten years, but is based on a small sample and does not necessarily indicate a trend.

3 INVESTORS

3.1 BUSINESS ANGELS

Business angels had another record year in 2015. In the chart below we include angel syndicates and solo angels, as well as equity crowdfunding deals (discussed separately below). The amounts shown are not complete deal totals, but only the amounts invested by business angels; in most cases, there were co-investments, mainly from the Scottish Investment Bank, and in some cases from institutional or 'other' investors.

Figure 24: Business angel investments, 2012-2015



Not surprisingly, in a pattern which has been repeated over the past four years, the majority of investments were in the main categories of ICT and life sciences, with relatively few investments in renewables or energy

Figure 25: Business angel investments 2012-2015 by sector, number of deals

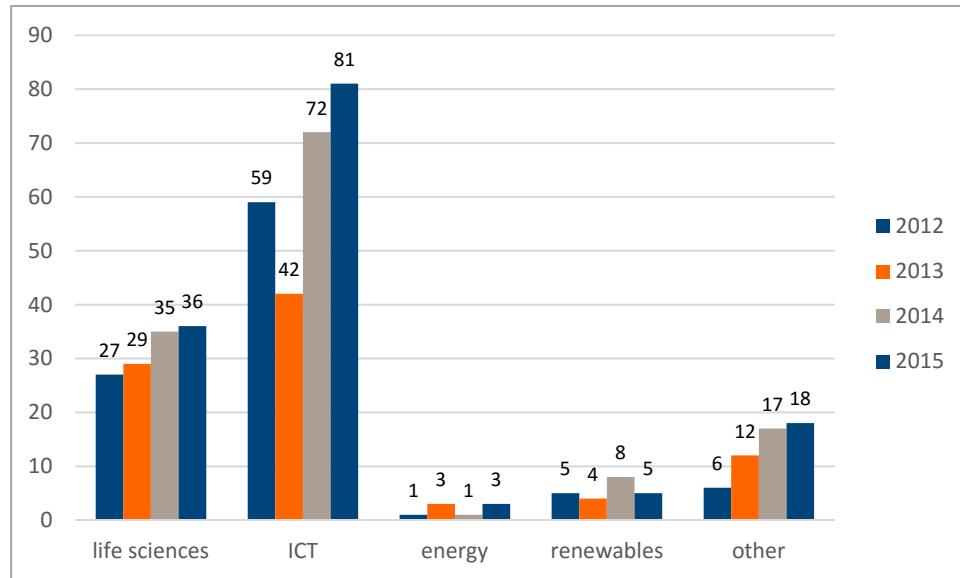
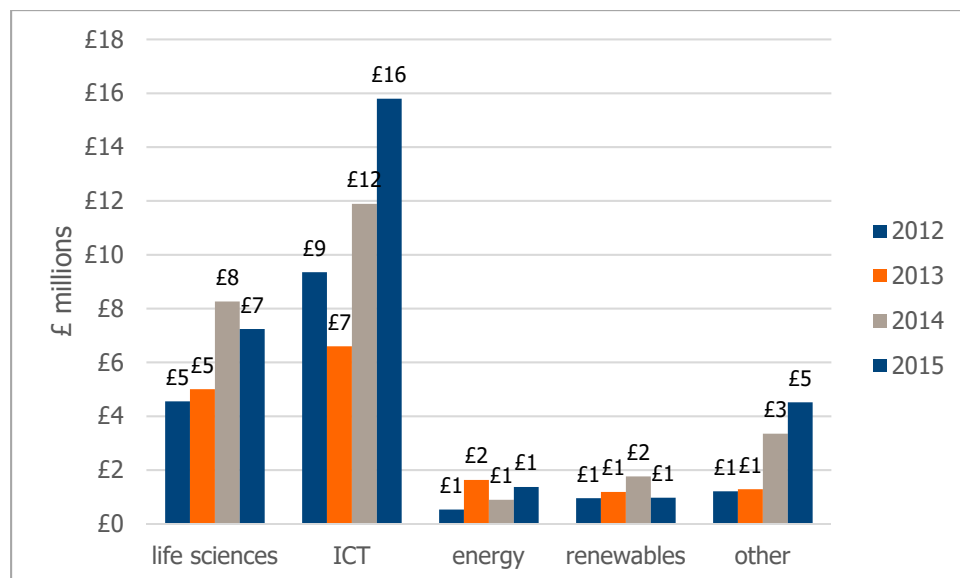


Figure 26: Business angel investments 2012-2015 by sector, £m



And again following a familiar pattern, most angel investments were into companies based in the East of Scotland (mainly Edinburgh), with the West some way behind and other regions having only intermittent investment.

Figure 27: Business angel investments 2012-2015 by investee region, number of deals

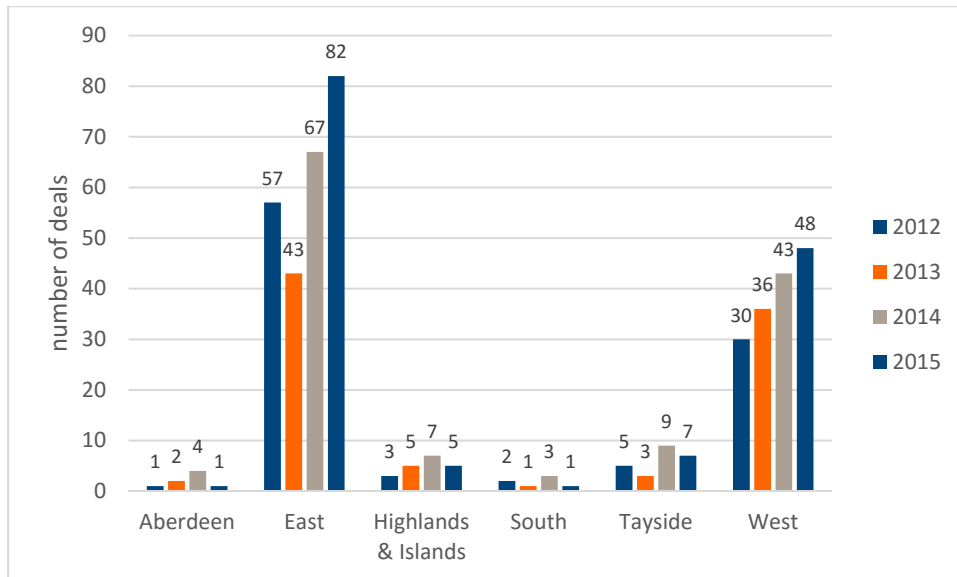
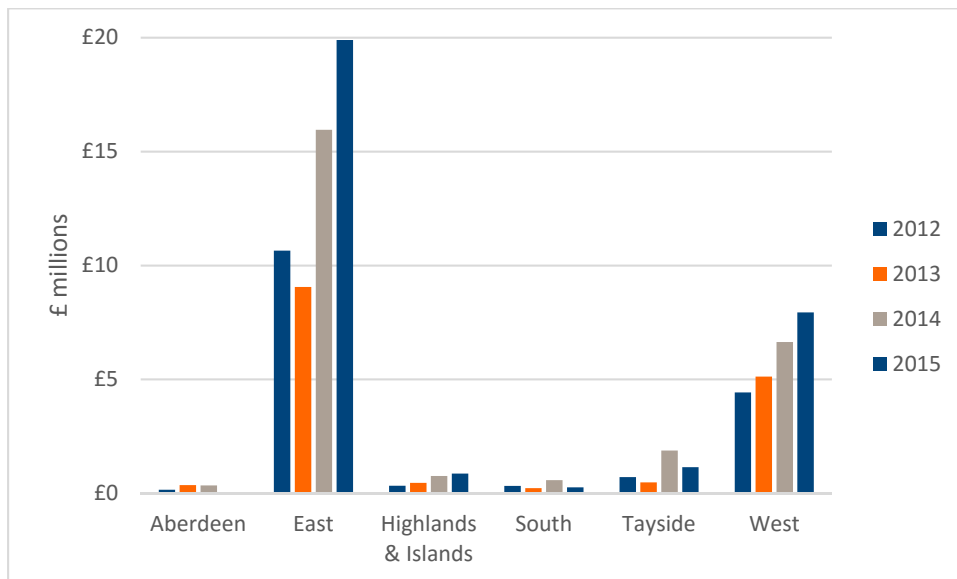


Figure 28: Business angel investments 2012-2015 by investee region, £m

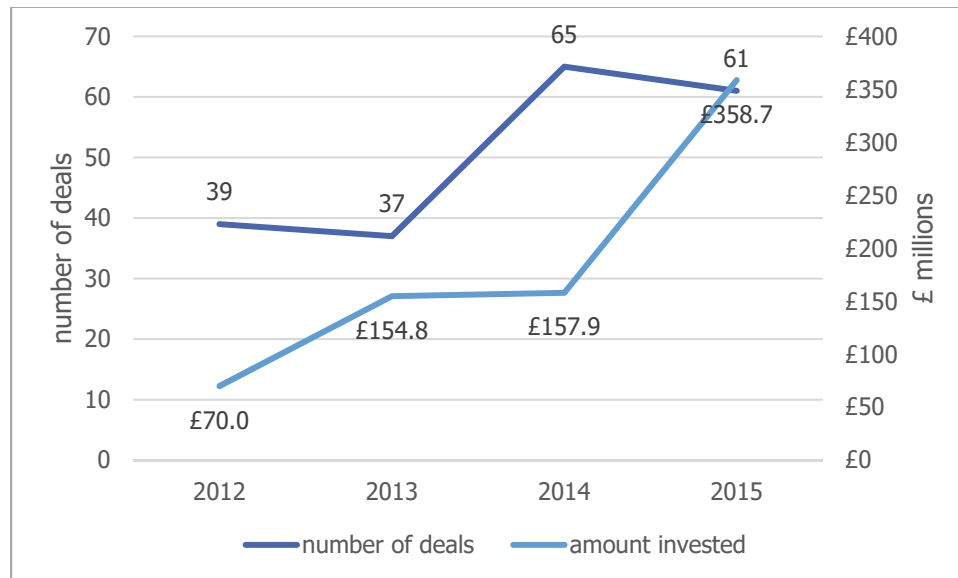


3.2 VENTURE CAPITAL

In this category we include not only venture capital firms as conventionally described, but also corporate venturers, university funds, and some other institutional investors such as Nesta Impact Capital and UK Steel Enterprise. A full list of the organisations in this category known to have made investments in Scottish companies in 2015 is given in Appendix 3.

The figures are greatly influenced by the megadeals mentioned several times previously in this Report, but even without these, show a healthy level of interest by such investors in Scottish companies.

Figure 29: VC and institutional investments 2012-2015



Rather than give separate charts for each aspect of VC and institutional investing, we have included all the data in the table below.

Figure 30: VC and institutional investments by sector, region, and new/follow-on 2012-2015

	2012	2013	2014	2015		2012	2013	2014	2015
sector									
life sciences	7	9	17	20		£5.3	£10.8	£52.9	£103.3
ICT	16	15	25	27		£15.9	£91.9	£56.0	£210.3
energy	5	6	7	3		£22.1	£21.8	£13.8	£19.3
renewables	8	3	7	7		£20.3	£14.5	£17.3	£19.1
other	3	4	9	4		£6.3	£15.7	£18.0	£6.8
region									
Aberdeen	6	10	5	5		£17.8	£49.8	£13.9	£112.3
East	18	14	33	31		£22.3	£77.5	£101.0	£207.5
Highlands & Islands	2	1	5	3		£10.8	£2.8	£10.9	£4.0
South	0	0	0	1		£0.0	£0.0	£0.0	£0.2
Tayside	3	6	3	3		£3.5	£16.2	£4.8	£2.1
West	10	6	19	18		£15.6	£8.5	£27.4	£32.6
new / follow-on									
new	8	10	11	12		£8.2	£41.7	£15.6	£21.5
follow-on	31	27	54	49		£61.8	£113.1	£142.4	£337.2

Approximately 44% of VC and institutional investments were in the ICT sector, with a further third in life sciences. ICT companies however accounted for 59% of total investment, influenced by the FanDuel deal (with both FanDuel and Skyscanner boosting totals in 2013 and 2014). The energy and renewables sectors remained relatively steady, with fluctuations in either deal numbers or in investment amounts in specific years balancing out over the four years shown in the chart.

Companies in the East of Scotland accounted for over half of VC investments by number (nearer 60% by value, due to FanDuel), with the West some way behind, and Aberdeen benefiting from the TauRx investment and occasional large investments in the energy sector.

Partly due to the activity of specialist early stage investors such as IP Group, Parkwalk, and Epidarex, the number of investments by VCs in companies securing equity funding for the first time comprised 20% of the total number of deals, although investments at this stage were smaller than the follow-on transactions and accounted for 6% of total amounts.

Figure 31: VC and institutional investors, percentage of deals by investor location 2012-2015

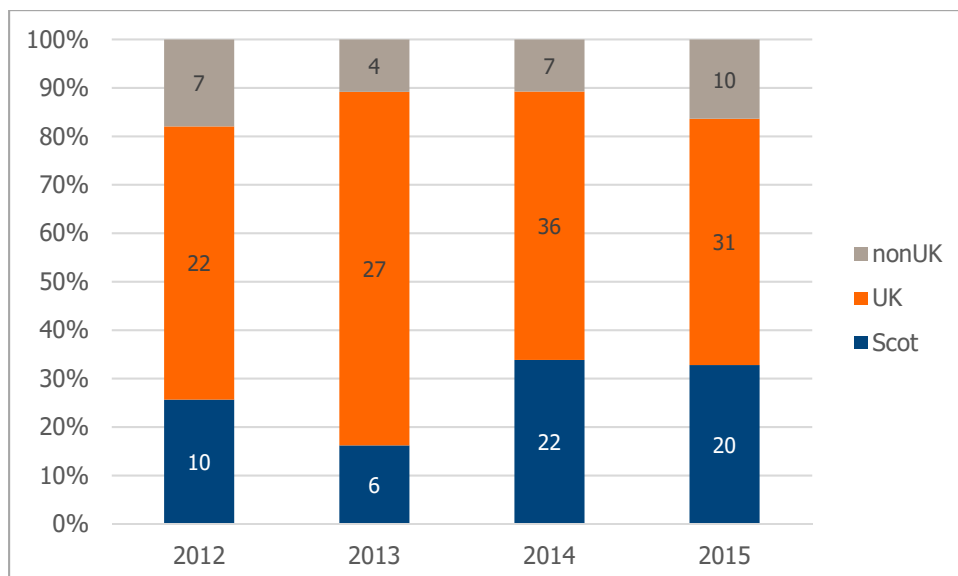
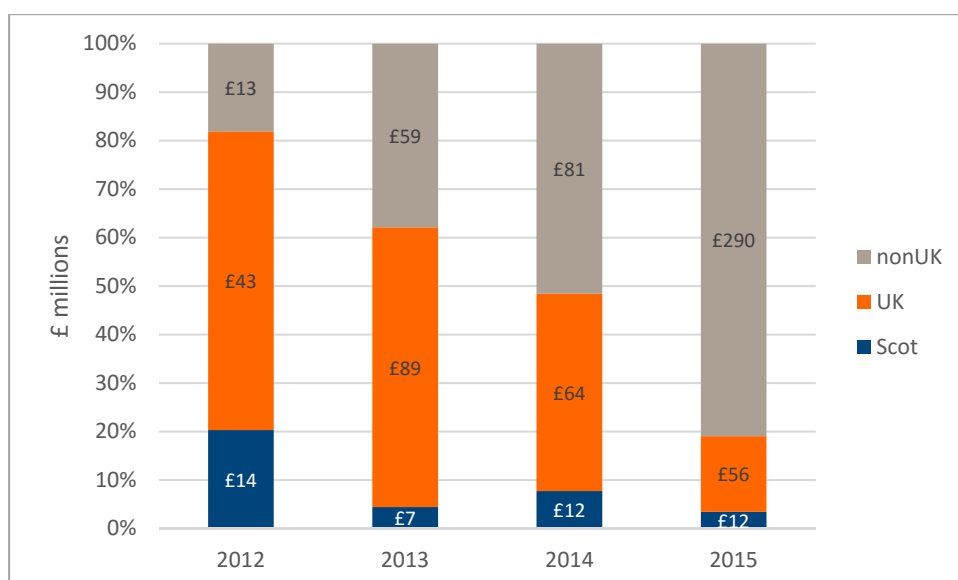


Figure 32: VC and institutional investors, percentage of investment by investor location 2012-2015



The charts above represent the location of the lead investor in each deal, and show total deal values, although there is considerable co-investment between all the three categories. The relatively high number of deals by Scottish institutional investors over the past two years may surprise some commentators who maintain that there is little or no VC investment in Scotland. The Scotland based investors include a range of different types of fund such as Par Equity (its VC fund rather than its angel syndicate), Old College Capital, Epidarex, DC Thomson, and SEP.

VCs and other institutional investors based elsewhere in the UK continue to make a substantial number of investments in Scottish companies. Deal values have reduced over the past two years, although with VC investing it must be remembered that large individual deals skew the totals on a year by year comparison. The very large deal totals by non-UK investors are mainly the investments in the megadeals, but as the deal numbers show, there is a steady level of interest in Scottish companies by overseas VCs.

3.3 CORPORATE VENTURING

Several corporates made follow-on investments in the energy and renewables sectors, including Saudi Aramco, Fred Olsen, and ABB, while Siemens and DC Thomson continued to have a presence in the market. However, we saw few new corporate venture investors entering the Scottish market in 2015, with the notable exception of the investors in FanDuel who included the likes of Google and Time Warner.

Global Corporate Venturing has observed that “there are 1,600 CVCs [worldwide] but only half are active in any 12-month period”, and goes on to comment that many of these funds struggle to differentiate themselves in the eyes of their stakeholders by finding first rate dealflow. This suggests that there are still plenty of opportunities for Scottish companies to attract corporate venture funds, but finding the right fund is not easy.

3.4 CROWDFUNDING AND ALTERNATIVE FINANCE

The most active UK equity crowdfunding platforms all hosted successful campaigns for Scottish companies in 2015, including Crowdcube, Seedrs, and Asset Match. The majority of the investments were in food and drink companies, with craft beers and chocolate manufacturers again featuring in the lists as did similar companies in 2014.

One interesting development was the decision by ShareIn to make its platform available to companies on a ‘white label’ basis, rather than hosting campaigns on its own site; dental health company Reminova secured £600k in a very targeted campaign to its own contacts in the industry using this approach.

APPENDICES

Appendix 1: Glossary of key terms

Term	Definition
angels	Private individuals who invest their own capital either alone or part of a syndicate, and who personally own the equity they purchase.
angel syndicates	Networks of business angel investors, who combine their investments in a company. Also referred to as angel groups.
corporate venturing, corporate venture capital (CVC)	investment by large (often global) non-financial companies, for the purpose of building innovative capacity which might give the investor competitive value.
deal	The transaction between an investor and a company, which may be standalone or part of an investment involving other investors.
equity investment	A discrete purchase of share capital in a company by one or more investors at a given time.
institutional investors	Organisations which invest on behalf of others and offer guidance and advice on investment. These include Venture Capital companies, partnerships, corporations and corporate venture firms, banks and investment trusts.
ICT	information and communications technology
IP	intellectual property
LS	life sciences
new investment	The first significant external equity investment in a company, excluding early small scale investment by founders, friends, and family. Often referred to in the industry as a Series A round.
others	The category 'others' refers to individual investors who are not part of an angel group (and are not 'founders, family, or friends'), but also includes investors whose identity it has not been possible to determine.
public	Public sector investments include those by the Scottish Investment Bank funds and by Highlands and Islands Enterprise.
SE	Scottish Enterprise
SIB	Scottish Investment Bank, a division of Scottish Enterprise that provides investment funds to support company growth in Scotland.
spinout	a company set up to exploit IP owned by a university or other research institution.
syndication	Investment by two or more groups or firms, investing under the same terms and conditions in order to increase the total deal size.
VC	Venture capital, or venture capital firm. Typically, VCs are investing funds with a specified time scale, often ten years, within which they aim to generate returns on the investments of the fund's LLP (limited liability partner) stakeholders.

Appendix 2: Methodology

STAGE 1: DATA COLLECTION

Companies

The current report is a continuation of an ongoing series, and is based on a list of known investment deals originating initially with deals listings from YCF, LINC Scotland, and the Scottish Investment Bank.

The database was built up by including other potential investee companies which are similar in origin or nature to those in the first list, but were not known to have secured investment. This included companies from the previous Risk Capital Market reports and previous YCF deals listings, winners of SMART awards, presenters at pitching events such as Informatics Ventures' EIE, tenants of science parks and incubators, and Scottish companies supported by Nesta, Innovate UK, and other relevant early stage support organisations.

The Companies House database was also checked for all these companies, to establish the dates of any returns indicating the issue or allotment of shares, which usually represent new investment. SH01 forms were used to verify the dates and actual amount of investments.

Investors

In addition to checking the investments made by those investing organisations included in the SIB, LINC, and YCF lists, other key early stage investors were researched to establish whether or not they had made investments in Scotland in 2014. The investors known to have invested in Scottish companies in 2015 are listed in Appendix 3.

STAGE 2: ANALYSIS

The raw investment data (deal date, amounts by investor) was supplemented by company details (date of incorporation, location, sector) and further information such as the location of the investors.

For all the metrics covered in this report, formulae were created to count the number of deals and give total investment amounts, with the resulting information charted in order to have a visual representation of patterns and trends as the basis for commentary.

Appendix 3: Investors by type

The following investors all made investments in Scottish companies in 2015.

ANGEL GROUPS

Scotland

AngelLab	EOS Technology Investment	Lancaster Capital
Apollo Informal Investment	Equity Gap	London Scottish Investment Partners
Archangel Investors	ESM Investments	Par Equity Syndicate
Barwell plc	Gabriel Investments	Strathtay Ventures
Bradenham Partners	Highland VC	TRI Capital
ChimaeraBio	Investing Women	
Discovery Investment Fund	Kelvin Capital	

outside Scotland none tracked in 2015

CROWDFUNDING

Asset Match	ShareIn	Squareknot
Crowdcube	Seedrs	

VCS AND INSTITUTIONAL INVESTORS

Scotland

Albany Ventures	Panoramic Growth Equity	University of Glasgow
DC Thomson	Par Equity	University of Strathclyde
Epidarex	Rubus Investment	Velotek (IP)
Maven Capital Partners	SEP	
Old College Capital	Strategeyes	

other UK

24Haymarket	Imprimatur Capital	Seraphim
Albion Ventures	Invesco	Shackleton Ventures
Buckthorn Partners	IP Group	Tate & Lyle Ventures
Business Growth Fund	Jenson Seed EIS Fund	Tech Stars
Calculus Capital	London Co-investment Fund	Triple Point LLP
Catapult Growth Funds	Longwall Venture Partners	UK Steel Enterprise
Downing LLP	Mobius Life Sciences Fund	Woodford Investment
EC1 Capital	Nesta Impact Investments	Management
Endeavour LLP	Oxford Capital	
Harwood Capital	Parkwalk Advisors	

outside UK

ABB Technology Ventures	Goodmark Medical LLC	Saudi Aramco Energy
Atlantis Resources	Google Capital	Ventures
Boulton Enterprises	KKR	Siemens Technology
Chevron Technology	Lundbeckfond Ventures	Station Technology Invest AS
Ventures	NBA	Time Warner Investments
ConocoPhillips	NBGI Private Equity	Tencent Holdings
DP Energy	NFL	Turner Sports
Fred Olsen		Zouk Capital

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Jonathan Harris is the editor of Young Company Finance (www.ycfscotland.co.uk), a monthly publication which tracks and reports on the progress of early stage high growth companies in Scotland, from start-up or spin-out to maturity, with special reference to how they finance their development. Since it was started by Gavin Don in 1998, YCF has given detailed reports of over 1,200 investment deals, together with news and features about investors, major grants, funding initiatives, business awards, company pitches, and analysis and comment on the sector.

Since February 2011, the operations of YCF Scotland have been licensed to LINC Scotland, the national business angel association.

Outside Scotland, YCF initiated and runs the Spinouts UK project, an online database of spinouts and start-ups from all universities across the UK (www.spinoutsuk.co.uk). A Quarterly Report gives details of new spinouts and start-ups, recent exits by way of trade sale or IPO, and major investments in spinout companies, together with news and analysis on the sector, and helps ensure that the database is kept up to date.