

Retrofit supply chain study summary

South west's retrofit specialists key to £1.1 billion green energy industry



ready for retrofit
warmer greener
homes



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Context

Regen SW is taking the lead in providing intensive business support to south west based businesses in the construction, energy efficiency and micro generation sectors through the European funded programme, 'Ready for Retrofit'.

The vision is to create a sustainable domestic energy efficiency and micro generation sector in the south west, capable of delivering a massive refurbishment of south west housing stock, and benefiting in full from national finance mechanisms to 2020, such as Feed in Tariffs, Renewable Heat Incentive, Green Deal and the new Energy Company Obligation.

The programme, part-financed with £4m of European Regional Development Funding, will create a new industry and a sustainable market in the South West capable of delivering over £1.7 billion sales, over £1 billion Gross Value Added (GVA) and potentially employing an additional 2,000 people between now and 2020.

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“ To date the **Ready for Retrofit** programme has supported over **550 businesses** in the domestic retrofit supply chain with the effect of creating **237 new jobs** and increasing turnover in the supply chain by **£29.5m.** ”

Aims of the project

To accelerate south west market growth, initially with and then without public subsidy.

To enable south west businesses to develop ahead of those in other regions and so develop a competitive advantage as the national market grows in response to Government policy initiatives, such as the Green Deal.

To stimulate greater long term growth in the south west through targeted demand and supply side sector development.

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Introduction and key messages

Under the Ready for Retrofit programme, Regen SW commissioned a detailed market analysis to better understand the workings of the domestic retrofit supply chain in the south west of England.

This includes all aspects of the design, supply and installation of energy efficiency measures and microrenewable technologies in privately-owned and social housing properties. The purpose was to gain a detailed understanding of the market, its barriers, opportunities and value chains in order to better inform Regen SW and stakeholders in supporting the industry for the future.

The study comprised of telephone interviews with 250 businesses both active and inactive in the market, followed by in depth interviews with 33 key stakeholders, including Green Deal and ECO providers, social housing landlords and the Department for Energy and Climate Change. These results guided the study towards two areas particular worthy of further investigation, i.e. external wall insulation (as an 'indicator' of intensive energy efficiency) and renewable heat (as an area for growth with complex supply chains).

“A small group of businesses specialising in retrofit work are key to the health and growth of the sector. Over 4,300 other businesses rely on this small group to provide a good proportion of their income.”

Key messages of the study

A relatively small group of 1,200 firms in the south west specialising in retrofit work are key to the continued growth of the sector as they have the necessary skills and multi-accreditations to undertake complex retrofit projects. Some 4,300 other firms also work in the sector and rely on these key businesses to provide a large part of their income.

Retrofit businesses tend to work on only one or two specific measures or renewable technologies, so larger projects involve many sub-contractors.

There are opportunities for growing the size of the market by improving customers' awareness of retrofit benefits and providing targeted advice.

It is necessary to improve skills, particularly in project management, and increase capacity in the south west so that forecast demand can be met by firms based in the region.

Introduction and key messages

(Cont.)

“The domestic retrofit sector in south west England supports 6400 businesses with a turnover of £1.1 billion.”

Market segment

During the study we identified three key groups in the sector:

Retrofit specialists; businesses generating at least 50% of their turnover through retrofit activity and have relevant accreditations such as certification to the Microgeneration Certification Scheme or PAS 2030.

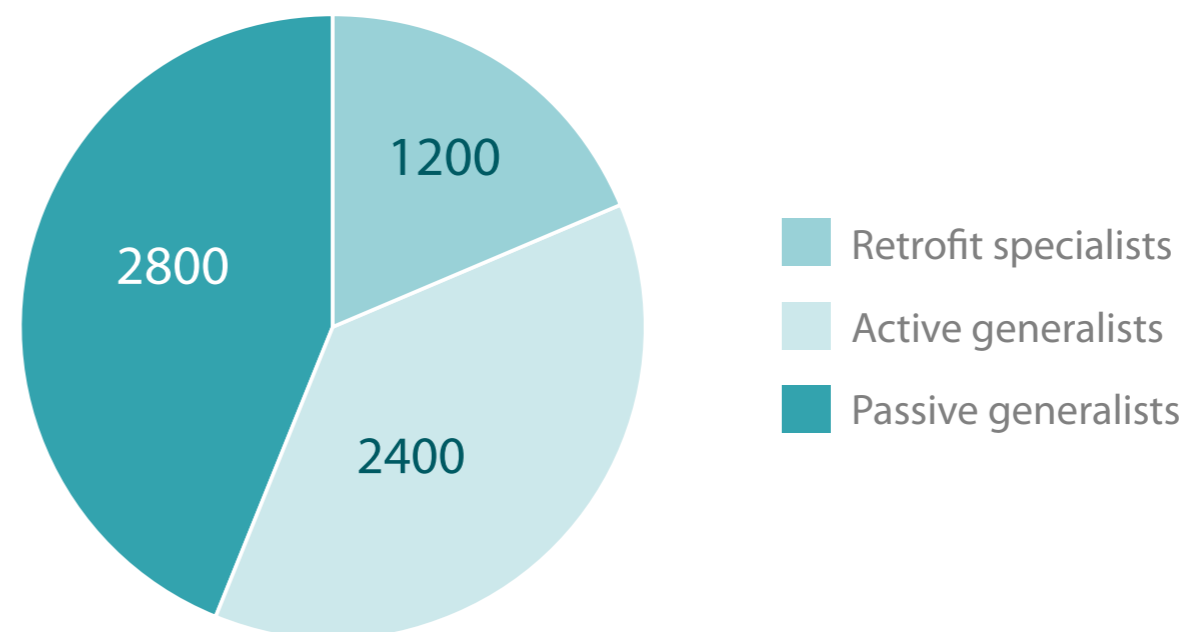
Active generalists; businesses generating a lower proportion (25% to 50%) of turnover through retrofit activity, without specific accreditations. These businesses are considered to be ‘active generalists’ because they perform activities related to specific retrofit sub-sectors either directly delivering work (e.g. smaller scale solid wall insulation as part of a wider job) or conducting supporting ancillary work (e.g. roofing and guttering work to support external wall insulation).

Passive generalists; businesses with minor involvement in retrofit (<25% of turnover) spanning across all measure sub-sectors.

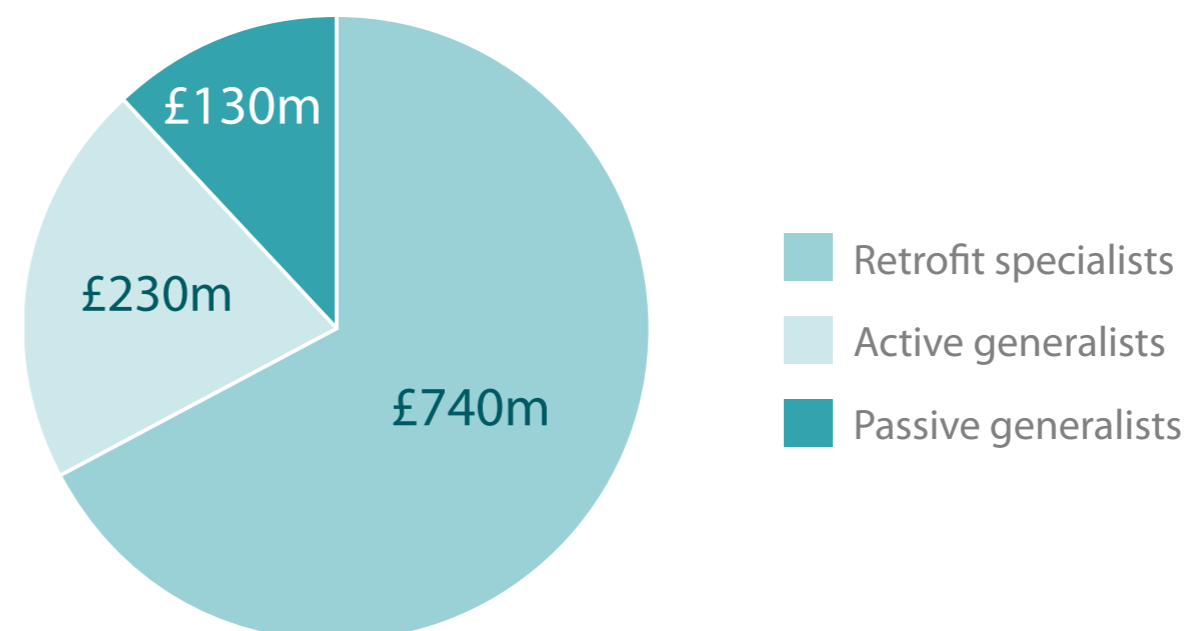
For an example of a value chain analysis see page 13.

Go to the full survey to see the complete range of sub-sector value chain analyses.

Number of business by market segment



Turnover by market segment



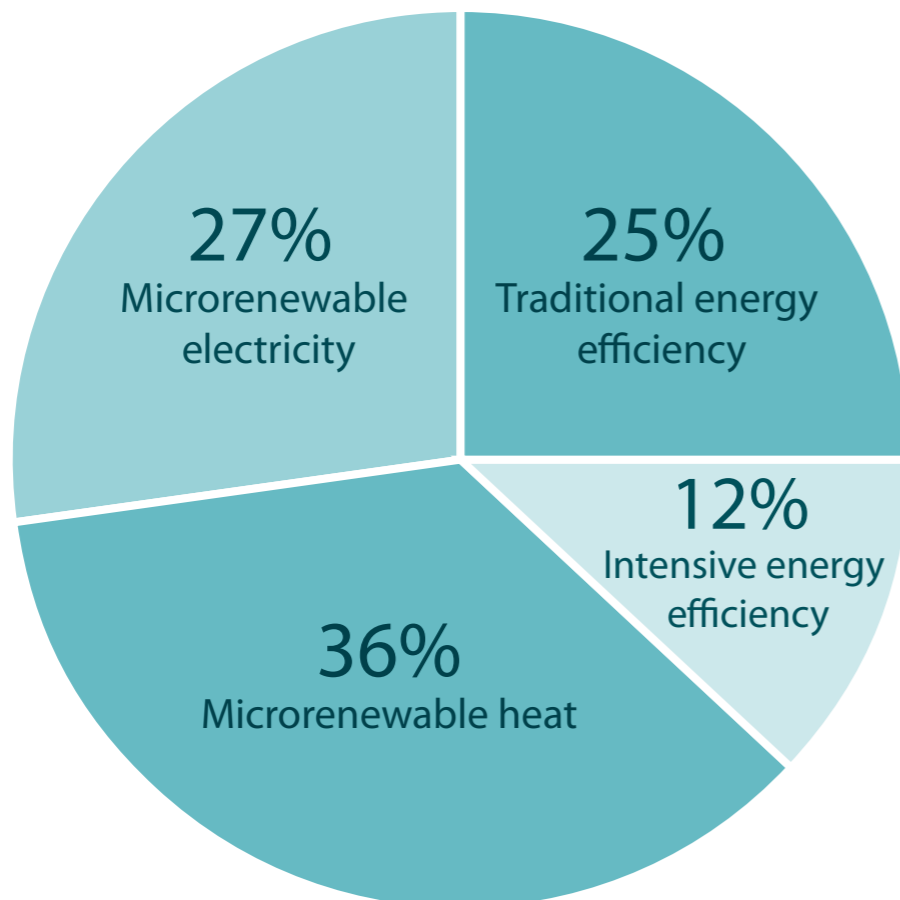
Sector overview

The breakdown of 6,500 businesses in the sector:
600 maintenance, 75 manufacture, 4400 installation
500 design, 460 supply, 300 Advice/consultancy

We estimate that the domestic retrofit market in the south west has 6,500 businesses and supports 16,000 jobs.

The 1,200 retrofit specialist firms form the foundation for the whole market as they possess the multi-accreditations required to install Energy Company Obligation¹ and Green Deal² funded work and they have the experience and contacts to drive large scale retrofit projects mainly for social landlords.

Division of the £1,100m annual turnover of the domestic retrofit market in the south west for 2012-13



Four main sub-sectors of the domestic retrofitting market

- 1 Traditional energy efficiency measures**
– such as loft and cavity wall insulation, and energy efficient lighting



- 2 Intensive energy efficiency measures**
– which includes external wall insulation and mechanical heat recovery



- 3 Microrenewable heat measures**
– for example heat pumps and small biomass boilers



- 4 Microrenewable electricity measures**
– such as solar PV



¹ ECO: www.ofgem.gov.uk/environmental-programmes/energy-companies-obligation-eco

² Green Deal: www.gov.uk/green-deal-energy-saving-measures

Barriers to growing the market

1 Lack of customer awareness

While social landlords are generally well informed about the retrofit measures available we found that private owner-occupiers either are not aware of retrofit solutions and technologies or do not fully understand them.

This is particularly true for renewable heat and intensive energy efficiency measures. It is said to be especially difficult to engage with low income and vulnerable households, particularly regarding intensive energy efficiency measures funded through ECO. In general we found that private owner occupiers do not clearly understand that the subsidies they receive are due to policies such as ECO and Green Deal, as most advertising tends to refer only vaguely to how the cost of specific measures is reduced by government subsidies.

“...Often people are not convinced by the payback periods and the public do not understand how to access the schemes or have had bad experiences using them before, so I do not think there is a demand there.”

2 Lack of customer interest

The reasons owner-occupiers do not undertake retrofit work can be due a lack of understanding of the benefits, the perceived difficulty of arranging the work and disruption while the work is in progress.

This applies particularly for intensive energy efficiency measures such as installing solid wall insulation or mechanical heat recovery.

Customers consider the cost of proposed measures carefully and the amount of subsidy is crucial:

- ▶ Social landlords considering retrofit solutions on their housing stock look for how much incentive they are able to get from policies such as ECO.
- ▶ Householders consider the financial implications of taking on a Green Deal loan and paying relatively high interest rates.

In addition it was reported that customers are not confident that the technologies and measures will produce the benefits promised. Potential maintenance issues can also be of concern, particularly for renewable heat technologies. A further issue was that often a 'measure-specific' approach is taken, as opposed to whole house retrofit, thus missing the cost savings of undertaking multiple measures at one time.

Barriers to growing the market

3 Inadequate skills and capacity

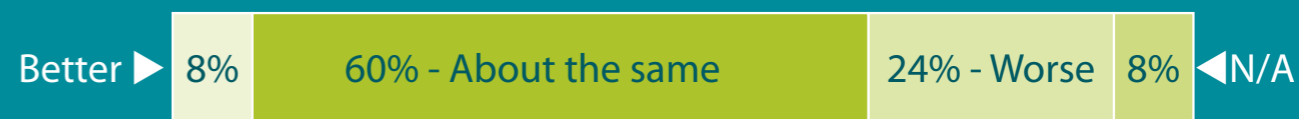
The current supply chain as a whole does not have the capacity to deliver domestic retrofit on the scale required to meet 2020 carbon emissions targets, and even at current levels of activity there are supply chain constraints.

For example, in the intensive energy efficiency sub-sector there is a lack of specialist skills required to manage a large scheme of installations whilst working alongside other technology installers and deliver a warranted and fit for purpose scheme. Issues that have been reported are wrongly specified measures and poor quality installation work. This results in the need for remedial works at a later date at great expense.

Supply chain respondents also reported that it is less commercially attractive to work in retrofit than other areas, due to the additional 'make good' repairs and ancillary requirements, e.g. re-instating facias and gutters after installation of external solid wall insulation

Lastly the need for accreditations such as PAS 2030, MCS and HETAS for retrofit schemes represent a financial and timescale barrier, with smaller firms finding it difficult to justify the investment. Out of the 6,500 businesses currently operating in the retrofit market, only about one third are accredited.

How does the profit margin on retrofit work compare to the profit margin on non-retrofit activity? (n=150)



4 Effectiveness of retrofit delivery

Across the market, we consider there is a major problem due to the absence of a joined-up approach to delivering retrofit activity at scale.

At present delivery is characterised by:

- ▶ Sub-contracting of multiple specialist and generalist organisations to deliver retrofit measures within projects.
- ▶ Small organisations with specialist skills conduct retrofit work within a narrow scope (e.g. specialising on single or few retrofit measures). Within this, there is a reported constraint in terms of the range of solutions provided by specialists, narrowing the applicability to some property or project types.
- ▶ A lack of south west based project contract managers able to manage large retrofit projects.

This means many south west firms find it difficult to deliver multiple retrofit measures in one project, such as whole house retrofits, and undertake large multiple-property projects.

Opportunities for growth

There are a number of key groups that are central to successfully increasing the uptake of domestic retrofit work. These are local authorities, social housing landlords, energy organisations like Regen SW, community groups and the retrofit supply chain businesses themselves.

Some of the actions we have identified in the following sections are for the supply chain to tackle – for example improving project management capabilities. Other approaches may require coordinated action from a number of regional and national partners, perhaps funded in part by the Local Enterprise Partnerships.



“ There are key groups in domestic retrofit supply chain that are key to driving demand and uptake of energy efficiency measures.... ”

Increasing demand – owner-occupiers

The uptake of earlier policies such as the Carbon Emissions Reduction Target (CERT) have been lower in the south west than other regions, suggesting under-deployment.

Approaches that could increase demand from owner occupiers are:

- ▶ Develop partnerships with local authorities with the aim of delivering large scale private sector retrofit schemes. An example is the Cosy Devon scheme, a partnership between E.ON and all Devon councils (except Plymouth), to deliver Green Deal and ECO in the county.
- ▶ There is an active community energy sector in the south west that can be a useful route to market. We suggest working with community groups to build their capacity and skills to undertake activities that refer households to available schemes.
- ▶ Encourage supply chain businesses to work with local and national groups to raise awareness. Supporting campaigns would also assist in developing confidence in the market, as messages from these sources are trusted.
- ▶ There are approximately 400,000 off-gas properties in the region where there is a compelling financial case for retrofit. We suggest focussing campaigns, perhaps with local partner organisations or local authorities, in off-gas areas of the region.

Opportunities for growth

Increasing demand in social housing

There is evidence that social landlords are not undertaking as much retrofit deployment as is feasible, and are not taking full advantage of opportunities provided by policies such as ECO, RHI and FIT.

This may be because social landlords find it is difficult to fit their statutory requirements within these policies. There would be value in showcasing existing, successful social housing projects to improve awareness and encourage social housing landlords to take a 'whole house' approach.



Have opportunities for retrofit businesses grown, shrunk or stayed the same?

45%
Grow

33%
Stay the same

19%
Shrink

Increasing demand in private rented sector

There is value in increasing the awareness of tenants to the opportunities available, for example the landlord's energy saving allowance, and the proposed ban from 2018 on letting properties with an EPC rating less than 'E'.

Work could be done with landlords, particularly those with large portfolios, to help develop retrofit schemes, to take advantage of the landlord energy saving allowance and future-proofing their stock for the proposed 2018 legislation.

More generally supply chain businesses collectively could:

- ▶ Persuade government to improve support and incentives for retrofit, in particular to improve householder uptake of Green Deal and fill the gaps in market support, previously delivered under CERT, but which now falls between ECO and Green Deal support.
- ▶ Support householders by providing impartial advice and the tools needed to help households decide which measures would be appropriate.
- ▶ Showcase measures and technologies in operation
- ▶ Target households that live in off-gas areas or in privately rented accommodation.

Opportunities for growth

Increasing supply

The south west market has a well-developed supply chain for microrenewable heat and electricity technologies compared to other regions.



Do you expect your retrofit turnover to grow, stay the same or shrink in the next 12 months?

45%
Grow

33%
Stay the same

19%
Shrink

Building on the supply chain will mean more retrofit work in the south west is delivered by the local supply chain. Suggested approaches are:

- ▶ Continually provide information and training on schemes such as ECO and Green Deal to support supply chain businesses who do not fully understand government's policy and its implications.
- ▶ Focus on increasing the number of larger retrofit contracts that are managed by south west businesses.
- ▶ Increase the range of retrofit services offered, enhancing capacity and skills to deliver whole house retrofit through in-house services and relationships with other retrofit specialists and generalists.
- ▶ Continue to provide advisory and financial support such as Ready for Retrofit, focussing on smaller businesses where there is a greater impact.
- ▶ Undertake communication activities within the supply chain, for example through supply chain networks, to improve understanding of the opportunities.
- ▶ Showcase supply chain excellence in the south west, such as microrenewables, to enhance the south west's reputation.

Conclusion

The study shows that retrofit is a large and growing market that provides employment for a wide range of people of all levels of skill across the south west. Retrofit installations reduce energy use and CO₂ emissions, save householders and tenants money, and can help households in fuel poverty.

With the detailed knowledge of the market that the study has given us, and our knowledge and experience gained in working on Ready for Retrofit, Regen SW will be pursuing some of the approaches the study identifies to increase the size of the market in the south west.

[Click for full details of this study](#)

[Click for more details of Ready For Retrofit](#)

“The development of the retrofit market provides a **significant job creation opportunity for the south west**, in particular for skilled and ancillary trades.”

Further information

Regen SW is a leading centre of sustainable energy expertise and pioneering project delivery. Towards the beginning of 2014 we commissioned a detailed market analysis³ to better understand the workings of the domestic retrofit supply chain in the south west of England. This includes all aspects of the design, supply and installation of energy efficiency measures and microrenewable technologies in privately-owned and social housing properties.

The study forms part of our Ready for Retrofit⁴ programme that we are delivering alongside the Energy Saving Trust and other partners utilising European ERDF funding. By mid-2014 the Ready For Retrofit programme had supported over 550 businesses in the domestic retrofit supply chain with the effect of creating 237 new jobs and increasing turnover in the supply chain by £29.5m.

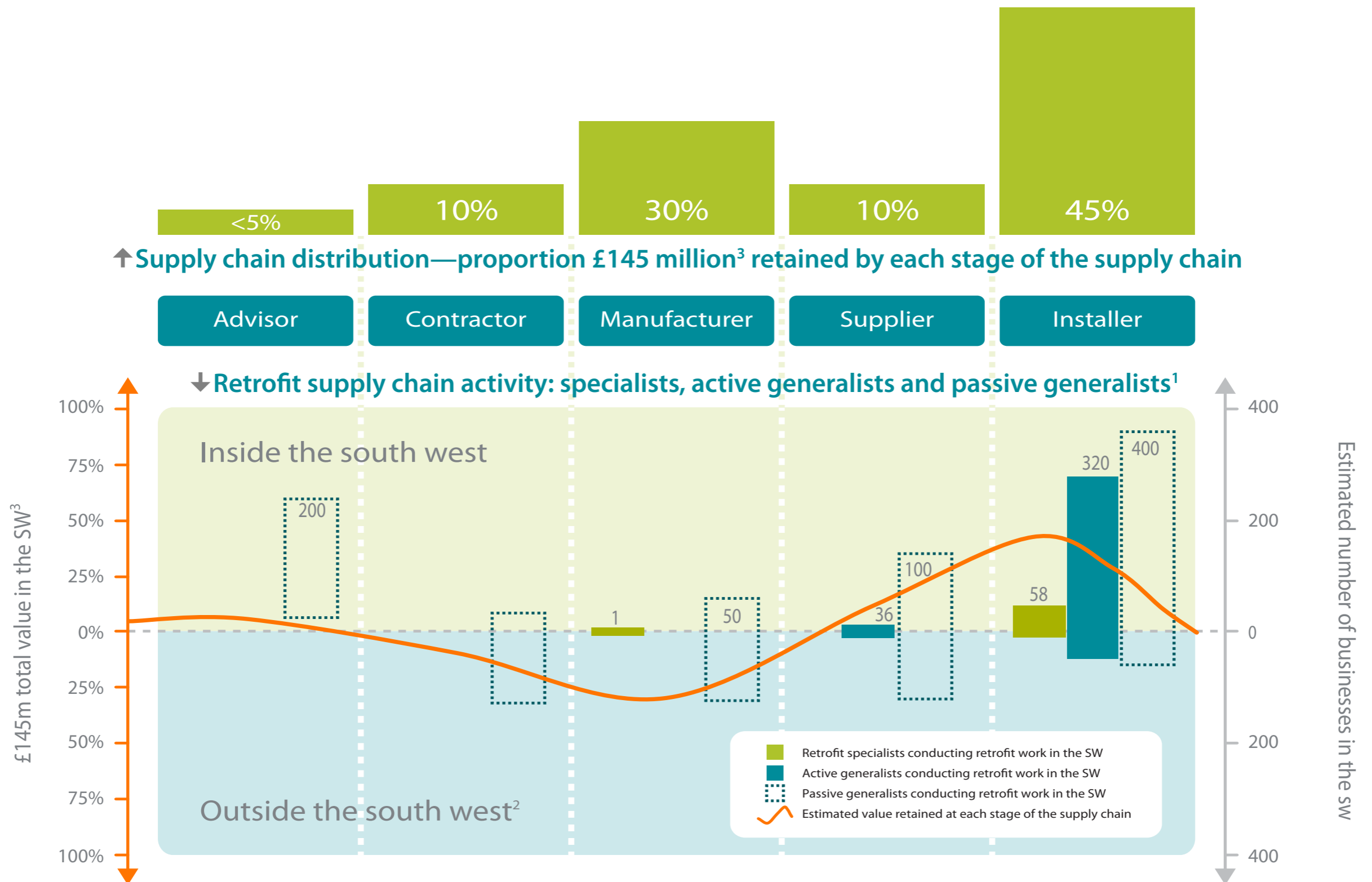
Our partners



³ South West Retrofit Market Analysis Study, Databuild Research & Solutions, February 2014

⁴ www.regensw.co.uk/projects/microgeneration-and-energy-efficiency/energy-efficiency/ready-for-retrofit

Value chain analysis example: "Intensive" energy efficiency value chain within social housing



¹ Number of passive generalists are estimates based on qualitative re-search

² It is not possible to estimate the number of business based outside the SW although the diagrams provide an indication based on anecdotal evidence in the qualitative interviews.

³ Value based on turnover generated by retrofit specialist installers across both social and private housing sectors.