



THE PROPERTY FLOOD RESILIENCE ACTION PLAN

An action plan to enable better uptake of resilience measures for properties at high flood risk



Department
for Environment
Food & Rural Affairs

Dr Peter Bonfield OBE FREng
Chairman
September 2016

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Ministerial foreword



Making properties more resilient to flooding can be hugely beneficial to individuals, families and businesses.


Thérèse Coffey

Parliamentary Under Secretary of State for the Environment and Rural Life Opportunities

The floods this past winter were catastrophic. We experienced the highest rainfall on-record over a single day, building on sustained rainfall over a number of weeks, leading to the highest river flow levels ever recorded. This resulted in a huge impact upon people, homes and businesses, with over 17,000 properties flooded and the cost of the damage caused expected to be £1.3bn.

During last winter homes were flooded across the north of England, with villages cut-off from their neighbours and families forced to leave their homes for months. Roads were closed and more than 100 bridges required inspection after they were damaged or destroyed and over 170,000 people had their power supply affected. Rail services were cancelled and delayed.

The Government's immediate emergency response was to protect lives and, where possible, property. Thanks to the dedication of thousands of people, we saw less devastation that we might otherwise have done. Many people within mountain rescue teams, the police, the military, councils, faith groups, the Environment Agency, and not least the communities themselves, worked tirelessly to help those affected.



Soon after I was appointed, I visited flood hit communities in Cumbria. I saw some of the practical repair and recovery work that has taken place as well as the measures being taken to better protect communities affected by last winter's flooding.

The Government has already paid out over £250 million as part of the support package of up to £5000 grants we made available for every property flooded, with homes and businesses able to put in measures that prepare them for future floods – both by stopping water from entering a property and by making adaptations to speed recovery if it did.

In a world where future extreme weather events are inevitable, the Government continues to have a key role to play in improving protection to those at risk, which is why we are spending £2.5bn on 1,500 new flood defence schemes to better protect 300,000 homes by 2021. The Government and the insurance industry have

also recently launched Flood Re, a new body that ensures affordable flood insurance for home owners at the highest flood risk.

Property Level Flood Resilience schemes are also a vital part of our toolkit. Making properties more resilient to flooding can be hugely beneficial to individuals, families and businesses. Too often people are unaware of where to go to for advice, the products that exist and the benefits that they can provide. They also don't routinely get any incentive from their insurance premiums for making their properties more flood resilient. And when there is the demand, builders and surveyors are not well placed to meet it. The necessary skills remain niche and the sector lacks well understood standards and certification schemes. We need to address these challenges to ensure that people have the information and confidence needed to make their homes more resilient.


That is why my predecessor, Rory Stewart, asked Peter Bonfield to chair a Roundtable to bring key business interests together and challenge them as to how they might contribute to bringing about significant change. The enthusiastic can-do attitude of the group has resulted in this Action Plan which sets a path for addressing the major barriers to people being able to better prepare their homes and businesses for future floods. It also offers some immediate, concrete progress. Ultimately, it will empower people to address the impact that flooding has on their lives and livelihoods.

Chairman's overview



In late 2015 I was asked by Rory Stewart, Parliamentary Under Secretary of State for Environment and Rural Affairs to bring commercial interests together in a Roundtable to consider how collectively we could best enable and encourage the use of property level resilience measures for buildings at risk of being flooded.

**Dr Peter Bonfield
OBE FEng**



This is about people and families in their homes, businesses and other organisations, being better equipped in a flood event to reduce the chances of their lives and livelihoods being disrupted; both by stopping flood water entering their properties, and speeding recovery if it does.

Our mission was to identify the reasons why people do not consistently prepare their properties for flooding, and then determine what as a Roundtable we could do to address the challenges. Our work quickly gained momentum, resulting in this Action Plan which sets out some tangible actions that we have either undertaken or plan to. We have also made some high level recommendations that set out the nature of the challenges we face, relevant for both Government and the business world. I do hope that this adds a valuable contribution to the overall debate as well as practically resulting in more homes and businesses being better prepared for flooding.

This Action Plan and its recommendations are a fitting accompaniment to the broader National Flood Resilience Review. They both help ensure

that the country is better prepared for future flood events, at a national and individual level.

Context

The climate is changing and this has resulted in extended periods of rain and/or higher intensity which in turn have led to a number of significant flood events over the last 10 years, with major incidents in 2007, 2009, 2012, and 2013/14. December 2015 was the wettest December on record, but also the wettest calendar month overall since records began in 1910. More than 17,000 properties were flooded or affected, including over 4000 businesses. As late as September 2016, over 2000 householders have been unable to return to their homes and 700 businesses are still not fully operational.

A key solution to reducing the costs of repair of homes and buildings and to reduce the misery and disruption caused by flooding to families and businesses is to install property level resilient measures into the building. These can be installed as either a preparatory

measure, for properties at risk of flooding, or during the repair of buildings after they have been flooded. Property measures can help prevent flood water ingress into a building or aid rapid recovery and allow householders to simply wash out and disinfect after flooding, rather than requiring wholesale replacement of the fabric or the property. This Report gives striking case studies that show how quickly buildings have become operational after flooding when flood resilient measures are used.

Yet, despite the obvious advantages of the approach, the take up of flood resilient measures remains low. It is not yet normal practice for properties in areas at high flood risk to be made more resilient following a flood. This Report has made a number of recommendations that aim to make the installation of flood resilient measures part of 'normal' business practice for those involved in the repair of buildings post flooding, and also to help them be proactively taken up by home and building owners exposed to flood risk.



A shared vision and commitment

These recommendations have been derived by a core team of private sector representatives from the charity, insurance, loss adjusting, business services, products, legal, surveying and flood recovery industries. This core team has in turn established task groups with wider stakeholder engagement to support the development and implementation of the recommendations of this Action Plan. We have been assisted by the Department of Environment Food and Rural Affairs and the Environment Agency.

Recommendations and outcomes:

There are some key steps that I believe are central to increasing the level of Property Level Resilience. They will have relevance for both industry and government:

- Further exploration of whether Building Regulations can be better used to encourage flood resistant and resilient construction in a way that is tailored to meet the needs of properties in areas at risk of flooding, with a focus on methods that speed their recovery from flooding.
- A programme of work undertaken by Flood Re to provide the evidence base over time, needed to understand how householders and insurers can be supported and potentially incentivised by Flood Re in the future to manage the risk of flooding and reduce the cost of claims through resilience and other measures.
- Rigorous independent standards with proper certification processes, that enjoy support across the industry, so that consumers or householder have confidence

in both the flood products they buy and the installation of them.

- An independently run on-line information portal and data warehouse that properly informs householders and small businesses about what to do to make their properties resilient to flooding. Including clarity on flood resilience measures, services and information on approaches.
- A strong partnership between insurers, surveyors, the legal profession, materials producers and the government, to encourage and enable the take up of flood resilient measures and more flood resilient behaviour by householders and small businesses. Including preparation for future flood events.

The work presented in this Action Plan has already delivered some practical outcomes across the property level resilience sector. Notably, an advice web portal and data warehouse has been established; and a number of parties have worked together in the field to support those recently flooded.

The page features a large teal graphic on the right side, which is a stylized representation of a water droplet or a wave. It contains a vertical ruler with markings and numbers (5, 6, 7, 8) and a series of horizontal lines. The background is a light blue color with several white water droplets scattered across it.

Going forward

Going forward these outcomes need to be further progressed and consolidated if we are to see real and lasting change. There is considerable will and intent within the Roundtable and further afield to harness the momentum that has been created by this work and further partnership working will help embed these changes; this is the start rather than end of a journey.

Dr Peter Bonfield OBE FREng

Vision

The Government is committed to making sure the country has the best possible protection for our homes and businesses to secure its strong economic future. It announced an extra £700m in funding to 2021, in addition to the £2.3bn capital funding it had already committed. The Flood Re scheme ensures that people at flood risk have access to affordable home in insurance.

However, there will always be some properties that are particularly difficult or uneconomic to protect with large defences. Property Level Resilience (PLR) has a valuable role to play in managing their flood risk.

The Roundtable and this resulting Action Plan seeks to better equip households and businesses to minimise the physical and emotional impact of flooding on their lives. It aims to do so by tapping into the unique skills, experiences and opportunities that the business world has to offer.

The Roundtable would like to see:

After a year - a better national understanding of what property level resilience is, amongst individuals, communities and businesses

After 2 years – significant progress towards developing the systems and practices within the insurance, building and finance sectors that normalise the uptake of property level resilience within existing activity

After 3 to 5 years – a situation where those at high flood risk have the knowledge, capability and means to adapt their properties in ways that limit the physical damage of flooding on homes and businesses, and speed up their recovery

After 5 years – an environment where it is standard practice for properties at high flood risk to be made resilient



Challenge

- Flooding is the most common and widespread natural source of damage to properties in the UK.
- There will always be some properties that are particularly difficult or uneconomic to protect with large defences. Property Level Resilience (PLR) has a valuable role to play in managing their flood risk.
- PLR can stop water entering a property or significantly reduce the time out of your home or business when it does. Taking positive steps also reduces the stress of feeling vulnerable.
- The typical range of measures have a cost-benefit ratio in excess of £5 for every £1 invested in terms of reduced damages.
- However, there is still relatively low uptake in England – people at high flood risk aren't routinely installing resilience measures in their homes and businesses.

What do we mean by Property Level Resilience?

Property Level Resilience (PLR) aims to **make people and their property less vulnerable to the physical and mental impacts of flooding.**

Actions that can be taken include installing flood doors, flood barriers, air brick covers, pointing or waterproofing brickwork, installing non-return valves, and moving vulnerable features such as sockets above floor level.

Properties need a package of measures, some of which prevent water entering a house and others that minimise the impact should water enter the house, speeding up the recovery process.

Sometimes the water should be let in. For floods over 60cm depth, or of prolonged duration, attempting to keep the water out can cause serious structural damage, owing to the unequal water pressures either side of the walls.

Reasons for the lack of uptake vary. Property owners may:


- not know they are at risk because the property has not flooded recently
- not accept they are at risk because they have not personally experienced a flood event
- consider a flood event they have just experienced as a 'one off'
- take the view that 'only the authorities' can manage flood risk and there is nothing they can do and/or should do, to improve their resilience.



CASE
STUDY

1

Flood Resilient Property East Peckham



**“It was the best flood I’ve ever had!
Everything was working, we didn’t aim to
make it perfectly dry...our aim was to keep
the water to one or two inches...It’s all about
slowing the water...it gives us time to get the
bricks, move the furniture, move the car.”**

Sue Chalkley, East Peckham - BBC News February 2014

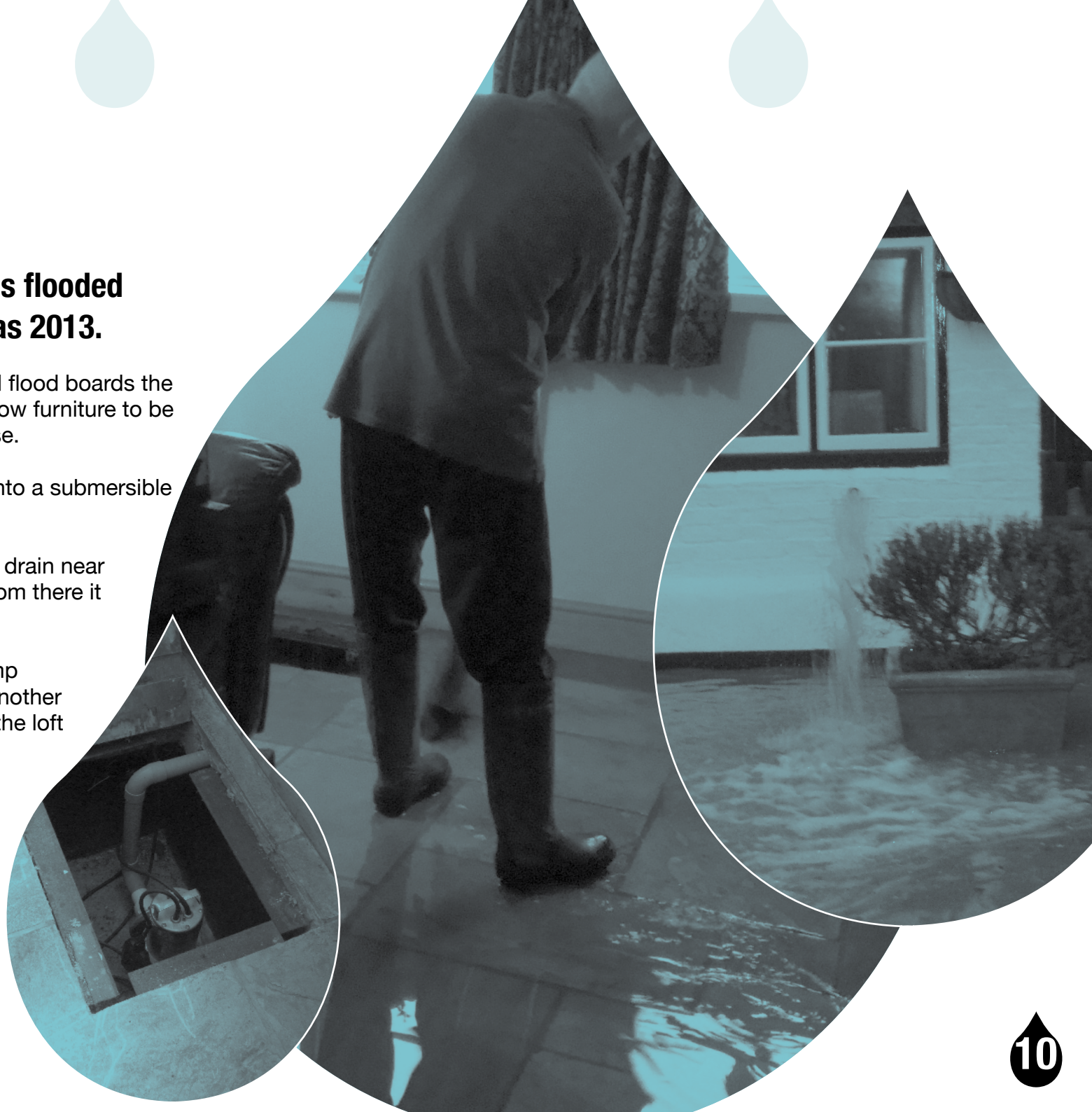
The village of East Peckham was flooded twice in two days over Christmas 2013.

In one property, fitted with flood gates and flood boards the ingress of water was slowed enough to allow furniture to be raised on bricks before it got into the house.

Water that entered the house was swept into a submersible pump in the living room.

A gully inside the house took water from a drain near the front door straight to the pump, and from there it was pumped outside.

Sue said 'On one occasion we were in temp accommodation for nine months and on another occasion we lived on the first floor and in the loft for nine months. In 2013 we had major disruption for one day but the next day, Christmas day, we had Christmas dinner as usual and made no insurance claim. We informed the insurance company and they monitored the drying out process – but we made no claim. There was only decoration damage which we dealt with'.



Approach

The Roundtable was established by Minister Rory Stewart to tackle the low uptake of measures that can make a property more resilient to flooding. He challenged businesses to bring their unique skills and experience to the table to help bring about change.

Peter Bonfield, CEO of BRE (formally the Building Research Establishment), was asked to chair the Roundtable. He invited a range of experts to join him who were well placed to use their skills and experience to innovate and find ways to incentivise the uptake of property flood resilience by consumers. The Roundtable was supported by officials from the Department for Environment, Food and Rural Affairs (Defra) who provided the secretariat and the Environment Agency.

The Roundtable was tasked with considering specific barriers identified as being key to preventing the uptake of resilience measures and to find solutions to address them.

Members took a proactive and collaborative approach. Volunteers led and established five complimentary Task Groups that focused on those areas that the Roundtable felt had most scope to bring about real change. Their

objectives were to:

- Increase uptake of the property level resilience grant following Storms Desmond and Eva, and to learn from this experience;
- Better embed resilience in the insurance business and in day-to-day for Small and Medium Enterprises (SMEs) at flood risk;
- Improve the sharing of information on resilience measures, specifically through developing a one-stop shop web portal;
- Develop the skills and standards necessary to deliver property level resilient measures to a consistently high and well understood standard;
- Address the communications and behavioural challenges that hamper uptake of property level resilience measures.

The Task Groups developed action plans and recommendations for the Roundtable, making use of wider expertise. These have formed the bases for the Task Group reports and the end of this document.





CASE
STUDY

2

Retail business flooded in 2007

This case study was developed by the Sesame Research Project <http://floodresilientbusiness.co.uk>

“If the building floods now we can forklift stuff onto the mezzanine level”

Peter

A new mezzanine level and the strengthened and raised floor.





Mess from the flood in 2007

“I couldn’t believe what was happening. We’d had bits of water come in before, but it would be very shallow and just lapping at the car park. When the 2007 floods came it was a completely different story. It was horrendous going in and seeing the devastation – and I felt all on my own with it.

But when the building was being re-made we put all the electrics high up in the walls and all machines were re-done with overhead power so the sockets wouldn’t get flooded.

Also, if the building floods now we can forklift stuff onto the mezzanine level (which we also put in when we refurbished). We also raised the floor level and strengthened the floor.

We haven’t used flood barriers as I feel that in our location they wouldn’t work as we are so close to the brook and river, but we have made these changes to the building and that has worked out really well.

We have been flooded since: one at Christmas and one at the end of January. The Christmas one came into the building 5- 6 inches above the floor but we’d taken the precaution of putting pallets under the machinery. It was good that we had changed the premises in certain ways in the 6 months we were closed.”

The task groups

Task group 1 - Immediate action

- The group considered barriers to accessing funding for the installation of resilience measures
- Established a pilot advisory service for flood victims and local authorities
- Looked to identify solutions and considered the need for technical assistance



Task group 2 - Embedding resilience

- The group considered barriers to the provision of resilience measures via insurers and others
- Looked at how to encourage SMEs to build resilience into their business and marketing plans
- Considered the impact of measures on insurance premiums



Task group 3 - One stop shop

- The group considered how the sharing of information on resilience measures can be improved
- Looked at information for private households and SMEs and the provision of information to business
- Developed an independent website to distil information



Task group 4 - Standards, certification and skills

- The group considered the lack of consistent standards
- Covered standards for products and certification related to property (new build, existing property and materials)
- Looked at skill needs in professionals (such as surveyors, contractors and builders)



Task group 5 - Communications and behaviour change

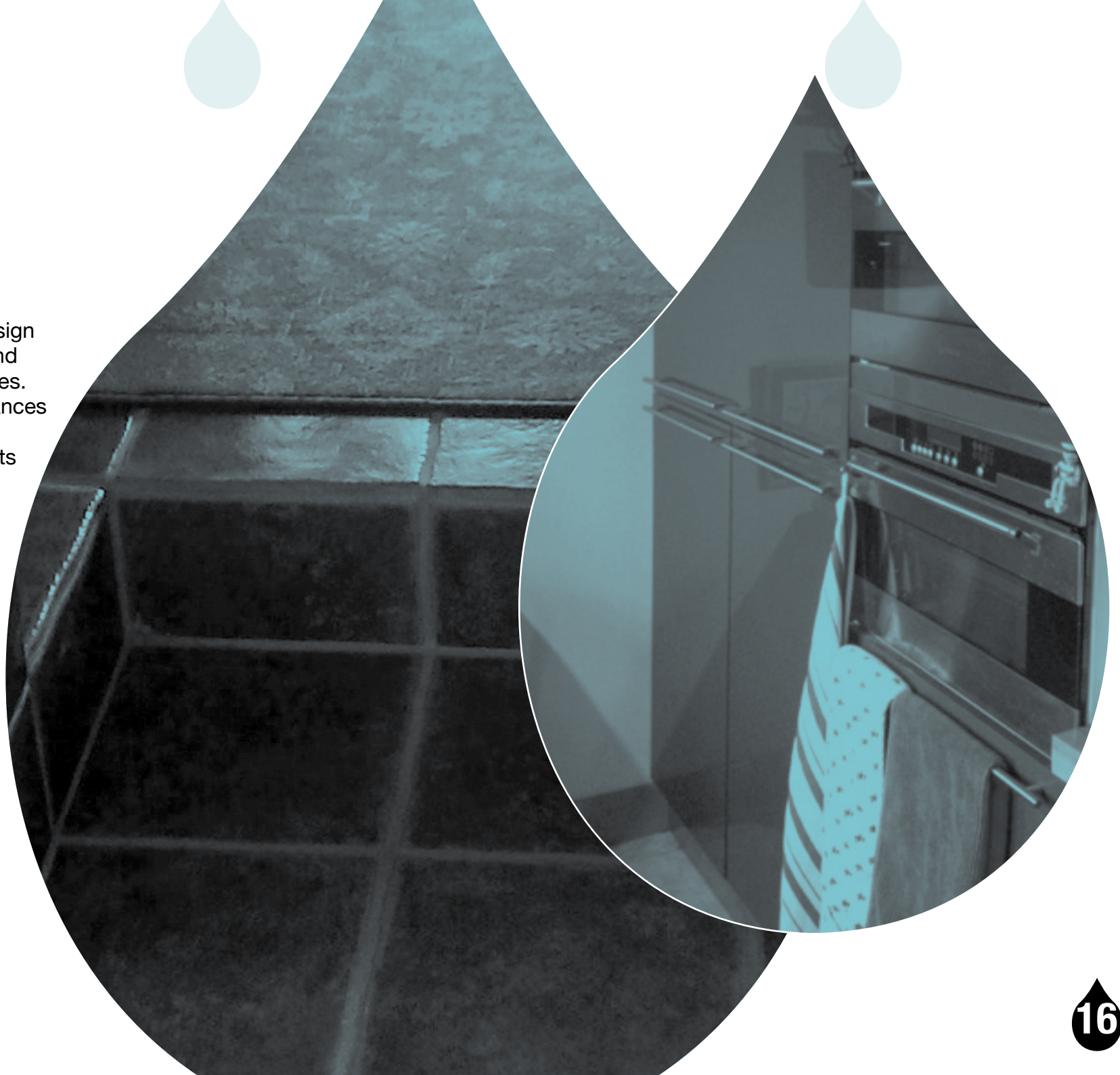
- The group considered the role of communications in driving behaviour change
- Looked at how to engage and empower individuals/communities to make their properties more resilient
- Built on experience of the resilient grand from this winter





Flood resilient kitchen

Flood resilient kitchen: good design can create attractive kitchens and incorporate flood resilient features. These can include raising appliances above likely flood levels, use of appropriate materials for cabinets and resilient floor tiles.



Actions & recommendations

We have made recommendations on what needs to happen to see a step-change in uptake of property level resilience measures. We are also committed to delivering a number of actions to address these challenges.

The recommendations summarised on the right have been informed by the Task Group's reports, which are set out in more detail in the next section.





Strengthening understanding of what measures are best to adopt

Recommendations:

More needs to be done to address the significant confusion that remains about what property level resilience actually is. We need greater clarity on which measures are most effective, recognising that every property is different.

Those promoting the approach need to be clear who the target audiences are and design simple messages to reach them. They must consider the 'PLR customer journey' and the channels / touch points through which we can reach them.

Actions

- Developing and promoting an independent web-portal that provides a one-stop shop for information on property level resilience. Aimed at a range of audiences, including householders, communities, small businesses as well as those businesses and local authorities that have a role in delivering flood resilience measures. To include simple infographics that inform people of the benefits of installing resilience measures and step-by-step guidance on property level resilience measures (Task Group Three).
- Establishing a group of industry and appropriate interested parties to determine a route-map for a set of flood resilience standards for building materials, services and products that are used as standard (Task Group Four).
- Developing an approach to certification of building materials, components and products (Task Group Four).
- Exploring the role of resilient repair in building regulations in England (Task Group Four).
- Building better PLR messaging in to the national flood risk campaign in November 2016 (Task Group Five).



Improving the skill sets of those involved in making properties more resilient

Recommendation:

We need appropriate training programmes for those who have a role in promoting and delivering resilient repair. Surveyors require particular attention, along with installers of resilient measures.

Actions

- Researching the potential for certification of resilient repair techniques (Task Group Four).
- Better understanding of common principles of flood resilience for installers of flood resistance and resilience measures to ensure consistency of approach and application of standards (Task Group Four).
- Creation of a certification scheme for flood surveyors linked to continuing professional development training for relevant specialists (Task Group Four).

Normalising property level protection in the commercial world

Recommendation:

There is a need for greater awareness across the commercial sector – both for those who would directly benefit from installing PLR measures (e.g. business owners, landlords) and those who drive consumer interest (lenders, insurers and loss adjusters). Evidence will be key to acceptance.

Actions

- Establishing a working party of insurers and brokers to explore the role these particular industries can have in acting as a catalyst to promote engagement by their customers (whether owners or tenants of commercial or residential property) on flood risk awareness and preparedness (Task Group Two).

- Developing a 'health check' for small businesses which will assess whether adequate insurance cover is in place, promote benefits of flood resilient measures and determine the overall cost benefit to the business (Task Group Two).
- Developing a group of case studies to demonstrate the benefits of flood resilience for small businesses, ensuring relevance for householders (Task Group Two).
- Working with lenders (banks and mortgage providers) to increase their understanding of the benefits to themselves and their role as a catalyst (Task Group Two).

Action following a flood event

Recommendation:

We should all learn lessons from this and previous occasions where PLR has been used without capacity building immediately following a flood event. The Task Group will be feeding in the lessons it is learning from the pilots it is running in three local authority areas into the Government's own review of flood recovery schemes used last winter.

Actions

- Providing an advisory service to support households and local authorities to effectively use the £5,000 resilience grant arising from Storms Desmond and Eva. A trailer and advisors were located at Kendal, Cockermouth and Lancaster (Task Group One).
- Working along side the Environment Agency to prepare for future flood events (Task Group Five).
- Feeding into the Government's review of last winter's flood recovery schemes to share experience of working with local authorities to help flood victims make their properties more resilient (Task Group One).

Next steps

Those involved in the Roundtable have committed to continuing to take forward work to improve the uptake of resilience measures.

- The Task Groups will now look to deliver the actions they have committed to in this report.
- Members of the Roundtable will actively promote the recommendations of this report and share learning with other actors/sectors with an interest in improving the uptake of flood resilience.
- The Roundtable will gather towards the end of 2016 to report on progress and consider how else they might help to address the challenges identified.



Task group reports



Action to assist flood victims



Group Leads:

Mark Calvert (Chief Executive, Adler & Allan) and **Joseph Tabone** (Business Emergency Resilience Group (BERG), Business in the Community (BITC))

Group members and contributors

Graham Brogden	Head of Technical Property Claims, Aviva
Mark Calvert	Chief Executive, Adler & Allan
Mike Still	Business Emergency Resilience Group and Marsh
Joseph Tabone	Business Emergency Resilience Group (BERG), Business in the Community (BITC)

Context

Business in the Community's Business Emergency Resilience Group (BERG) set out to pilot an advisory service in three of the 48 local authority areas affected by winter flooding. The intervention was led by one of their member companies, Adler and Allan. The first pilot was set up in Kendal, Cumbria, with a further two advisory services (led by business but in association with local government and the not-for-profit sector) in Cockermouth and Lancaster. BERG made arrangements with each local authority to operate in their area.

The pilot services are liaising with each local authority, to help identify and remove obstacles and raise awareness and increase applications for the Property Level Resilience Grants. In addition, the pilot will look to test whether linking with

insurers, contractors and others would improve the uptake of resilience measures.

The pilot offers survey services to residents, in addition to those available from the local authority and/or local surveyors.

At the end of the pilot, BERG will create a lessons learned report based on our experiences to assist the work of the Government review and with other local authorities affected by the winter storms.

BERG set up the pilots in Kendal, Cockermouth and Lancaster with the aim to:

- Improve delivery options of property level resilience grants.
- Identify cost effective ways to deliver the installation of resilience measures and to identify and remove possible barriers.

- Identify practical assistance and technical advice to supplement local expertise in areas affected by the floods.
- Deliver advice directly to the affected communities in collaboration with local businesses and the local authority.
- Promote the scheme and increase uptake of the grant.

PLR reduces the level of damage from flooding rather than the likelihood that there will be flood events. Managing public expectations about the benefits of what they install and the requirements that it places on them, is an important when any activity to promote the uptake of such measures is undertaken.

Recommendations

The schemes in each local authority area are still open which makes it too early to draw firm conclusions on the impact of the actions we have taken to improve the grant application process. The ultimate aim of the pilot is, however, to improve the number of flood affected properties that receive resilient/resistant repairs so that the future flood risk is reduced and recovery times decreased.

Action Plan

The Task Group understands the Government is carrying out its own review of flood recovery schemes used last winter. It will therefore look to feed in findings from the pilot. The findings will also contribute to the wider body of evidence around PLR and delivery of schemes by risk management authorities through other grant schemes structures.

Embedding resilience in small businesses



Group Lead:
Graham Brogden (Aviva)

Group members and contributors:

Andrew Creedon	Flood Re
Jonathan Davison	British Damage Management Association
Ian Gibbs	Cunningham Lindsey
Mark Halliday	Sharkey Group
Sue Highmore	Thomson Reuters Legal
David Hughes	AXA Insurance
Andy Poole	Federation of Small Businesses (FSB)

Paul Redington	Zurich Insurance
Tim Smith	Flood Re
Joey Tabone	Business Emergency Resilience Group (BERG), Business in the Community (BITC)
Graeme Trudgill	British Insurance Broker Association (BIBA)
Andrew Walkley	QBE

Context

For businesses flooding not only affects the building but it can affect its ability to trade, and the wider community. Small businesses are particularly vulnerable and make up a significant proportion of the country's businesses. Most businesses recognise the potential damage that severe weather can do, at least in theory. However, it is clear that many do not feel empowered or motivated to carry out significant investment in this area: often due to financial or practical constraints, lack of trusted information and services or even through over confidence in their ability to manage a flood event.

The commercial world can play a valuable role in helping to improve small businesses' resilience to flooding, through the insurance, loss adjusting, property and financial industries. There is a need

to better recognise and reward the increased resilience and reduction in risk, thus creating greater awareness and a market for property level resilience.

Many of the benefits would apply to the household market too, which would complement the efforts of Flood Re to help householders at high risk transition to risk-reflective prices by 2039.

In May 2016, the British Insurance Brokers' Association (BIBA) undertook a survey of its members to understand more of the role of flood resilience, resistance and property-level protection for small businesses in Flood Risk areas. This sought to evaluate its current effect on premiums, deductibles (such as excesses), and the availability of cover. The survey (see Annex One) has identified broker interest in flood resilience. This will inform how we take forward work with actors in this sector.

Recommendations

The Task Group looked at ways in which to reach out to all businesses to raise awareness of what resilience is and to demonstrate the benefit and importance of taking such measures. It concluded that there is a need to:

- Explore new opportunities to raise awareness amongst brokers in the commercial sector
- Provide evidence directly to businesses about the benefits of making their property resilient to flooding
- Work across the insurance industry to understand and encourage the development of products and solutions that support businesses at risk of flooding
- Engage key small businesses (for example, landlords and business owners) who have different objectives and perspectives on this issue about the value and benefits of resilience measures to them.

Action Plan

Raising awareness, particularly across the small business space will take time and the questions that it will prompt from business owners will need to be addressed, including those affecting the insurance industry. The group has committed to:

- **Establish a working party** of insurers and brokers to explore how underwriters and brokers are assessing the impact of different types of flood resilience measures on SMEs. It will consider how this might influence the decisions that small businesses take to invest in certain areas; the direct financial benefits of such measures; how to improve insurance underwriters' and brokers' understanding of the reduced risk exposure; and to improve the availability of a competitive quotes that incentivise small businesses to take action.
- **Expertise and Purchase power:** compile a 'health check' for small businesses. This will check whether adequate insurance cover is in place, assess benefits of flood

resilient measures and determine the overall cost benefit to the business. We will then explore if insurers could use their purchasing power to leverage deals on appropriate flood resilient products for SMEs.

- **Building trust:** develop case studies to demonstrate the benefits of flood resilience measures, taking account of the demographic of the small business market to ensure that the examples are relevant.
- **Property ownership:** work with lenders to increase their understanding of the benefits to themselves and their role as a catalyst to encourage the uptake of resilience measures and promote engagement by their borrowers (whether owners or tenants of commercial or residential property) on flood risk awareness and preparedness. In these circumstances, lenders could integrate the cost of establishing the level of flood risk into their charges.

One stop shop



Group Leads:

Sam Turner and Matthew Barker
(BRE)

Group members and contributors:

Matt Barker	BRE
Martin Friel	AXA Insurance
Stephen Garvin	BRE
Sue Highmore	Thomson Reuters
Andrew Poole	Federation of Small Businesses
Sophie Timms	Zurich Insurance
Sam Turner	BRE

Context

The site was conceived as an action by the Roundtable with the main aim to create a “one stop shop” website providing flood guidance, suitable for any audience who may have been affected by recent flood events and advice for preparation measures in the future.

This portal will provide step-by-step guidance of what to do in the event of a flood and information of who to contact following a flood to ensure damage does not happen in the future. The content for the site will need to be regularly updated and incorporate additional appropriate guidance information and advice as it becomes available.

With the appropriate promotion through alternative websites, search engine optimisation, and through

the use of social media, the Centre for Resilience Flood Guidance Portal can deliver appropriate assistance to all target audiences across the United Kingdom.

The main aims of the website are:

- To make property owners aware of the risks of flooding, how to assess whether a property is at risk and the procedures to follow if a flood event occurs.
- To provide an access portal of independent advice of who to contact regarding damage repair of the property.
- To incorporate information on the best strategy to prevent similar flooding events from occurring in the future.



Recommendations

- Develop procedures and governance structures to ensure the impartiality of the website.
- Form independent chair group to take responsibility for review and development of the portal .
- Develop fast and simple dissemination from website homepage for different target audiences as well as for those that have been flooded and those at risk of flooding.

Action Plan

- Improve navigation routes for website users.
 - Involve a greater range of independent companies to provide a larger pool of background knowledge.
 - Target multiple audiences using specific information for property owners that:
 - have previously been flooded
 - are looking to protect their property against future flood events.
 - Generate simple infographics that guide the reader what to do in the case of a flood event.
- Create guidance web pages giving detailed step-by-step guidance on what to do before, during and after a flood; and property level resilience measures. Incorporation of video links and infographics with case study information.
 - Ensure successful promotion of website through search engine optimisation, so site becomes one of first links to be accessed.
 - Develop strategy to moderate the content from additional sources aiming to contribute to the website.

Standards, certifications and skills



Group Lead:
Stephen Garvin (BRE)

Group members and contributors:

Kevin Blunden	CABE
Peter Caplehorn	Concrete Products Association
Alan Cripps	Royal Institute of Chartered Surveyors
Damian Cross	AVIVA
Neil Curling	HBOS/Halifax
Rob Dakin	AXA
Martyn Foulds	HBOS/Halifax
Stephen Garvin	BRE
Peter Kershaw	Zurich

Chris Longley	Federation of Small Businesses
Ian Marsh	Saga
Mark Shepherd	Association of British Insurers
Joey Tabone	Business Emergency Resilience Group (BERG), Business in the Community (BITC)
Elaine Toogood	Concrete Centre
Graeme Trudgill	British Insurance Broker Association (BIBA)
Oliver Wright	Zurich

Context

Appropriate standards, certification schemes and skills are needed in the property resilience industry to provide reassurance that work has been done correctly and to high standards. The colour coded table at Annex Two shows current development needs for all three areas.

Recommendations

- Develop appropriate training programmes for surveyors and installers of flood resistance and resilience in property.
- Develop training for insurers and loss adjusters on resilient repair, technologies and working with clients to achieve appropriate solutions.
- Develop the approach to certification of building materials, components and products.

- Promote use of existing standards, in particular, ensuring that PAS1188 products are referenced in procurement documents and that BS85500 is adopted by house builders and commercial builders in areas at risk of flooding.

Action Plan

We will identify a champion to lead on taking forward each area of recommendations. In particular:

On training

- Create a route-map to the creation of a certification scheme for flood surveyors linked to standards and appropriate continuing professional development training for relevant specialists.
- The scheme should be based upon work carried out for Defra; “Surveying for Flood Resilience at the Level of an Individual Property” (FD2681 on the Randd research website) and informed by review of organisations such as NAPIT, Gas Safety and

FENSA - who approve elements of Building Regulations.

- Bring together initiatives (e.g. the new BSi Kitemark scheme for installation of measures meeting PAS1188) for installers of flood resistance and resilience measures to ensure consistency of approach and application of standards.

On certification

- Establish a group of industry and appropriate stakeholders to determine a route-map for a set of flood resilience standards (or standards approach) for building materials and products. This should consider whether a specific standard and certified approach for assessment of all types of products is possible, or certification should be incorporated appropriately in current product standards and certification.
- Research the potential for certification of resilient repair techniques. For post flood insurance related repairs, develop a protocol for greater cooperation between ‘local authority building control’ and insurance

companies on post flood repairs. Develop a protocol to simplify the approval of flood resilient measures in property.

On building regulations

- Explore whether Building Regulation can be used to encourage flood resistant and resilient construction in a way that is tailored to meet the needs of properties in areas at risk of flooding; with a focus on methods that speed their recovery.
- Flood resilient materials and products to be supported by a fitness for purpose assessment that establishes their value in making property more resilient.
- Review the current approach to Radon Standards, to establish if there are lessons that could be applied to this area of work.

Communication and behaviour change



Group Lead:
Emma Howard-Boyd (Environment Agency)

Group members and contributors:

Alison Baptiste	Environment Agency	Emma Howard-Boyd	Environment Agency
Kevin Barnes	Environment Agency	Abi Howells	Environment Agency
Mark Calvert	Adler and Allan	Tony Johnson	DCLG
Paul Cobbing	National Flood Forum	Amanda Mackenzie	Aviva
Jacqui Cotton	Environment Agency	Jane Meek	Carlisle City Council
Stephen Garvin	BRE	Craig Woolhouse	Environment Agency

Context

Our focus was on the enablers that encourage people to take up property level resilience and the next steps in terms of communication and behaviour change that would improve the uptake of property level resilience.

The range of issues that emerged include

- Recovery – there is a disconnect between insurance reinstatement and resilient repair of property: loss adjustors and builders do not understand the benefits of resilient measures. In addition, it is unlikely that, immediately

after a flood event, people are in a position to think about the installation of such measures – people want to be back in the properties with the minimum disruption/difficulty.

- Insurance buy-in – it is not clear that the insurance industry value property level resilience or incentivising people to have it. Its effectiveness is also questioned by flood victims and the building / insurance industry.
- Community understanding – funding schemes are harder to develop in less cohesive communities. If flood resilience was a ‘social norm’ it is more likely to be widely adopted. ‘Does my neighbour have it?’

Recommendations

- Those promoting the approach need to be clear who the target audiences are and design simple messages that link clearly to desired action.
- We need to better understand the 'PLR customer journey' and the channels / touch points at which we can reach our target audiences.
- We should use a mix of micro and mass marketing to reach and engage.
- There is a need to consider timing – when is the best time to approach a community or individual to discuss PLR options?

Action Plan

These are currently being developed into a more detailed action plan by the Environment Agency:

- Build better PLR messaging in to the national flood risk campaign in November 2016. Draft simple key messages and calls to action by learning from other successful campaigns like 'love food, hate waste', the UN's Global Goals and the Business Emergency Resilience Group's '10 minute plan'.

- The National Flood Forum and the Business Emergency Resilience Group should prepare a guidance note to help Environment Agency staff work more effectively with voluntary groups and make better use of their capabilities.
- The Environment Agency will also work with the Roundtable in its planned 'winter ready' exercise.

Roundtable contributors

ABI	Mark Shepherd Laura Hughes	Carlisle City Council	Jane Meek
Adler and Allan	Mark Calvert	Chartered Association of Building Engineers	John Hooper Kevin Blunden
Aviva	Graham Brogden Amanda Mackenzie Damian Cross	Construction Products Association	Peter Caplehorn
AXA	Rob Dakin David Hughes Martin Friel	Coop	Jonathan Guy
Business Emergency Resilience Group (BERG)	Joey Tabone	Cunningham Lindsey	Roy Shevlin Ian Gibbs
British Insurance Brokers Association (BIBA)	Graeme Trudgill	DCLG	Sally Haslam Paul Philpott Tony Johnson Nick Price
British Damage Management Association (BDMA)	Jonathan Davison	DEFRA	Robbie Craig Anna Sargeant Matthew Whittles
BRE/Centre for Resilience	Steven Garvin Matt Barker Sam Turner Peter Bonfield Jeremy Watson	Environment Agency	Emma Howard-Boyd Alison Baptiste Craig Woolhouse Caroline Douglas Abigail Howells Cath Brooks Kevin Barnes Jacqui Cotton

Federation of Small Businesses	Andrew Poole Allan Creedy Chris Longley
Flood Re	Brendan McCafferty Tim Smith Andrew Creedon
HBOS/Halifax	Martyn Foulds Neil Curling
Law Society	Diane Latter
Marsh Insurance	Mike Still
MPA - The Concrete Centre & British Precast	Elaine Toogood Andrew Minson
National Association of Estate Agents	Mark Hayward
National Flood Forum	Paul Cobbing

National Housing Federation	Rachel Fisher
Nationwide Building Society	Chris Bose
Practical Law QBE	Sue Highmore Andrew Walkley Tim Hayward
Royal Institute of Chartered Surveyors	Alan Cripps
SAGA	Ian Marsh
Sharkey Group	Mark Halliday
Zurich Insurance Company Ltd	Peter Kershaw Paul Redington Oliver Wright David Nash Sophie Timms John Parvin

Annex 1 : How flood resilience measures are viewed in the insurance market

About BIBA

The British Insurance Brokers' Association (BIBA) is the UK's leading general insurance intermediary organisation representing the interests of insurance brokers, intermediaries and their customers.

BIBA membership includes nearly 2,000 regulated firms, who employ more than 100,000 staff. General insurance brokers contribute 1% of GDP to the UK economy, they arrange 54% of all general insurance and 78% of all commercial insurance business.

The research

On 17 May 2016, the British Insurance Brokers' Association (BIBA) undertook a survey of its members to understand more of the role of flood resilience, resistance and property-level protection for small businesses in Flood Risk areas. This sought to evaluate its current effect on premiums, deductibles, such as excess, and the availability of cover. It targeted those brokers who had engaged previously with BIBA on flood insurance-related issues.

In total, 90 firms responded to the survey giving their views via a combination of multiple choice as well as free-text answers.

Communication with small business clients

The results showed that where brokers communicate with small business clients about flood resilience, the most common way of doing this was via face-to-face conversations (51%). The next most popular method was via telephone. The results for different forms of written communications (email/website/newsletter) were negligible [Figure 1].

In terms of the timing of these conversations, they were most likely to occur at renewal (54%) or at the new business stage (21%) [Figure 2].

Figure 1: What is the most common method of communication with your SME clients about flood resilience?

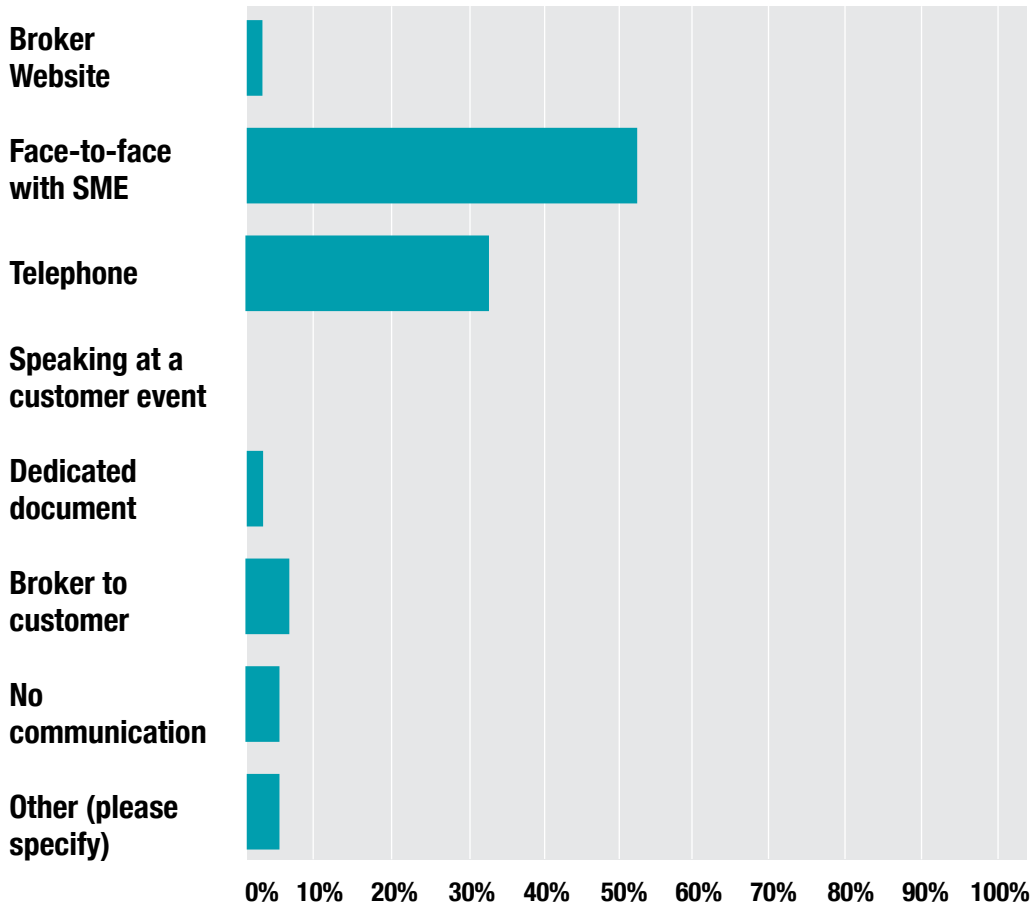
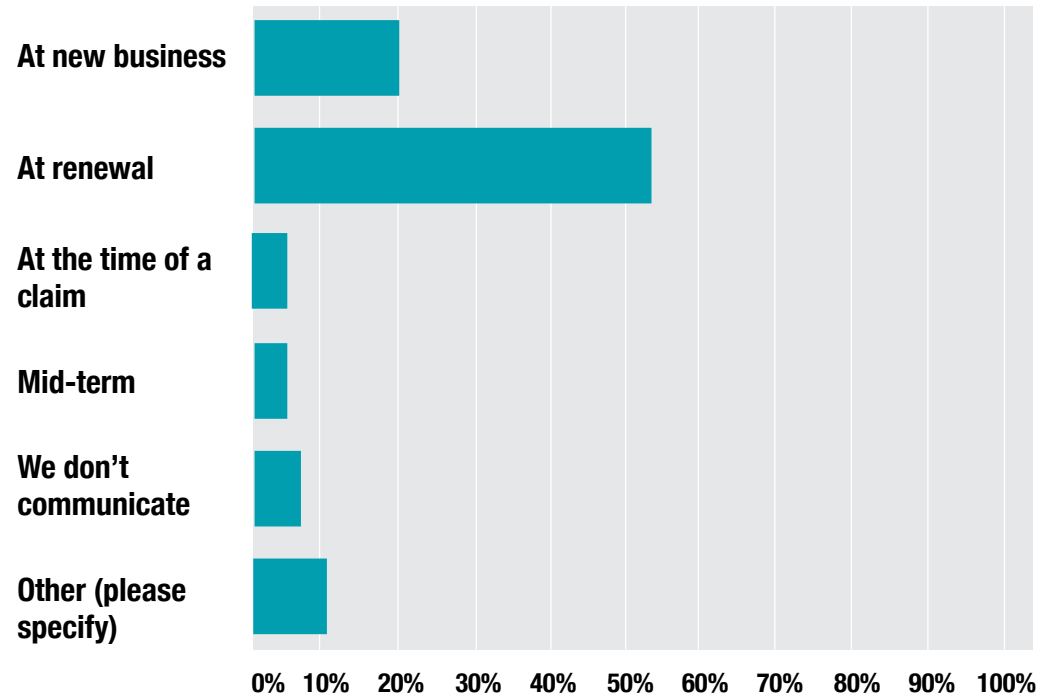


Figure 2: How would you most likely communicate with your customer about flood resilience/assistance?



Effectiveness of resilience/resistance measure

We asked insurance brokers to rank how effective different resistance/resilience measures were in helping an insurer to provide a quote for a risk they may not have quoted for without the measures.

Signing up to the Environment Agency’s flood alert was overwhelmingly ineffective with 46% saying it made no effect whatsoever.

In terms of measures that were seen in a positive light by underwriters, internal improvements to the property (e.g. hard flooring, waterproof walls, moving electrics to a higher level on the wall) were the most effective, with 45% of respondents stating they were effective or very effective in gaining a quote.

However, there was a noticeable split between brokers who saw this measure to be not very effective versus effective (34% versus 36%) which may suggest that using a flood specialist broker may be the key to unlocking the potential of installing these improvements [Figure 3].

Figure 3

	No effect whatsoever	Not very effective	Effective	Very effective	Extremely effective
Signing up the environment agency food alerts	46.43%	29.76%	21.43%	2.38%	0.00%
Door and window shields	16.87%	54.22%	25.30%	3.61%	0.00%
Non-return sewer valves	16.87%	42.17%	36.14%	4.82%	0.00%
Air brick covers	19.28%	48.19%	25.30%	7.23%	0.00%
Internal improvements to the property (e.g. hard flooring, waterproof walls, moving electrics to a higher level on the wall)	5.85%	34.15%	36.59%	8.54%	4.88%

The vast majority of respondents stated that insurers do not recognise any standards for resilience measures (95%) [Figure 4]. Those that did respond with a positive answer to this question reported that the request was on an ad-hoc basis and this was not a common occurrence.

Similarly, respondents reported that insurers very rarely ask for any certification of firms who install such defences (96%) [Figure 5].

Figure 4: Do the insurers you use recognise any particular certification or standard for defences or resilience measures?

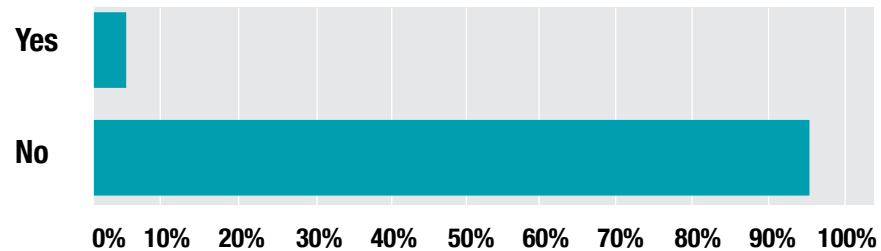
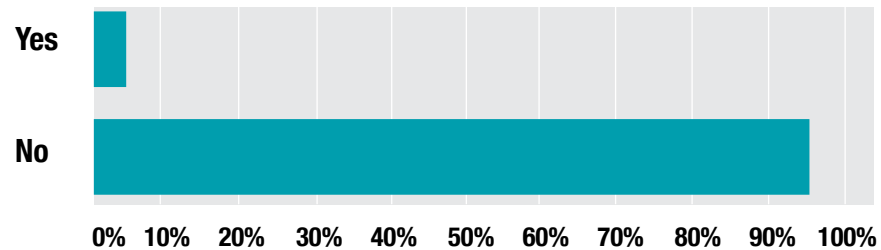


Figure 5: Do the insurers you use recognise any particular certification or standard for the firms installing defences or resilience measures?

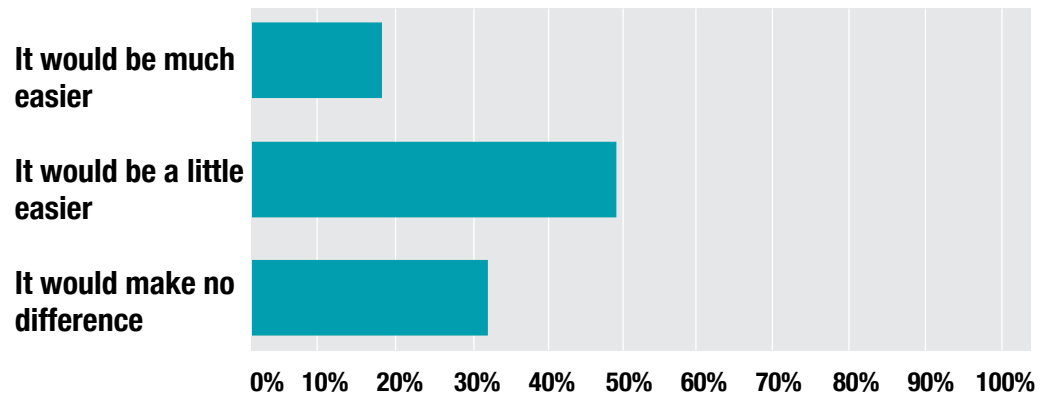


Funding for resilience measures

We asked brokers if their small business (SME) client was able to access a £5,000 grant (similar to the repair and renew grants) offered following recent flooding events, to be used to implement effective resilience and resistance measures before any flooding, would this improve the broker's ability to place their risk. 67% of brokers reported it would be either a little easier or much easier to place the risk [Figure 6].

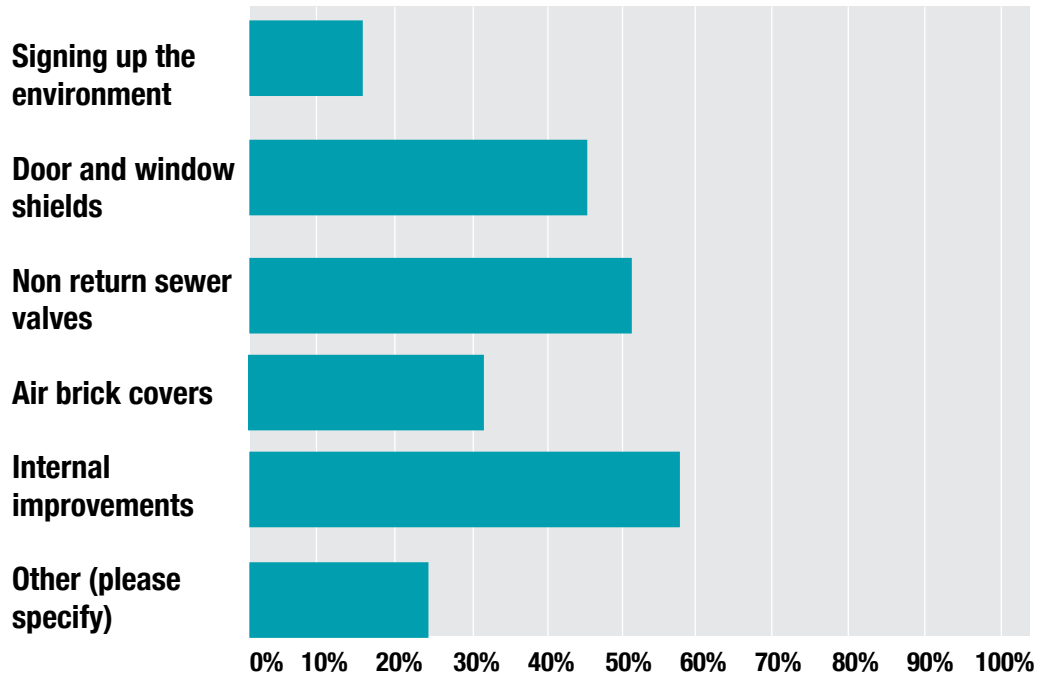
Flood resilience measures have developed rapidly over the last few years and anecdotal evidence suggests the industry is becoming increasingly interested in resilience measures. Indeed, the forthcoming BIBA Small Business insurance scheme including flood cover, which is in the advanced stages of development, will recognise where approved measures have been put in place in terms of pricing.

Figure 6: If your SME client were able to utilise a £5,000 Government grant to implement effective resilience and resistance measures before any flooding, would this improve your ability to place their risk?



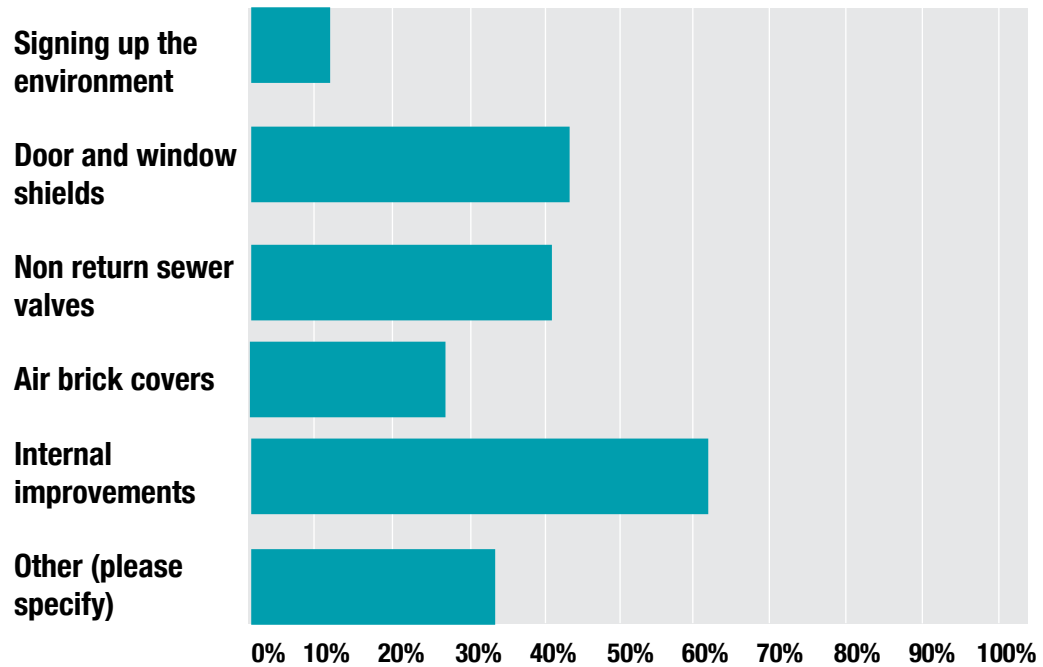
Echoing the responses shown in Figure 3, the measures most likely to result in a lower premium were internal improvements that would reduce the size of loss, rather than prevent the flooding episode from happening (60%) [Figure 7]. As respondents could tick all options that applied, non return sewer valves and door shields were also seen to be somewhat effective in achieving a lower premium. In the free-text fields the comments also showed that, for some brokers, measures made no difference and for many others, it made the difference between being able to secure cover or not – but made no difference to the premium or terms offered. This again suggests that the key to obtaining better terms is to use a specialist flood insurance broker.

Figure 7: Which resilience/resistance measures can achieve improved terms from an insurer, eg a lower flood excess? Tick all that apply.



The principle of indemnity in insurance is to put the insured back in the same position they were in prior to the loss. When it comes to flooding, often a more resilient repair would be preferable as this would reduce the size of loss if there was a further flood. We asked brokers if the panel of insurers they used would allow more resilient repair if it was cost neutral. 69% of brokers stated their insurer would allow this, whilst 31% said their insurer panel would not allow this.

Figure 8: Which resilience/resistance measures can lead to a lower premium? Tick all that apply.



Next we asked if brokers' insurer panels would allow the customer to pay for resilient repairs if it turned out to be more expensive to repair in that way.

Far fewer broker (48%) reported that the insurer they work with would be prepared to allow this to happen [Figure 10].

Finally, we asked brokers if they had any further comments on the topic of resilience. We received 34 responses free-text to this question, many of which indicated that there is not wide-spread recognition of resilience by insurers.

Figure 9: Would your insurer panel allow resilient/resistant repair after a claim if it was cost neutral?

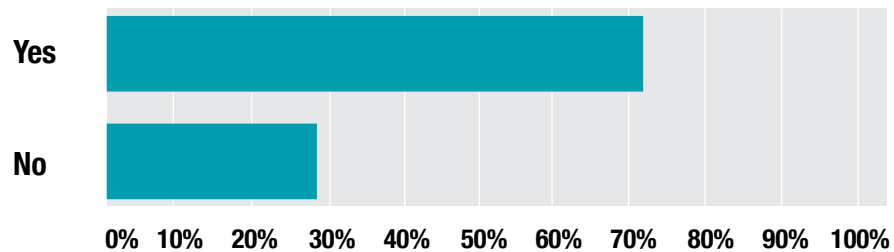
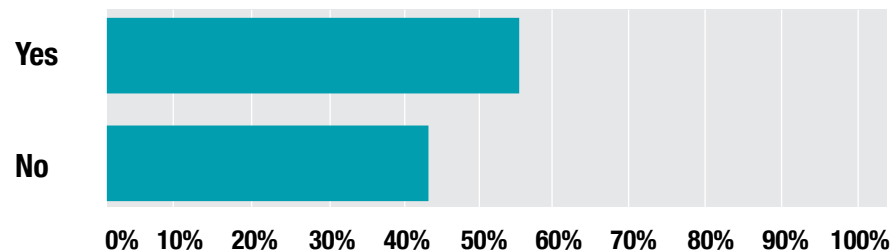


Figure 10: Would the insurer allow the customer to pay for or towards resilient/resistant repairs if they were more expensive to repair in that way?



Annex 2: Standards and certificates, development needs

Appropriate standards, certification schemes and skills are needed in the property resilience industry to provide reassurance that work has been done correctly and to high standards. The colour coded table below shows current development needs for all three areas.

- **Red for full development needed;**
- **Amber for part development;**
- **Green for where the area has been developed already to substantial extent, although some needs have been identified.**

Area	Standard	Needs	Comment
Risk assessment	BS8533	None	Further training required for professionals, particularly those involved in planning flood resilient repair schemes.
	BS8582		Further consideration of the needed for professional guidance and training courses required.
Surveyors	None	Full	Training courses as well as standards and certification need to be developed. Up to 150,000 UK properties in flood risk areas are sold each year. Training related to conveyancing surveyors in flood risk is required.
Installers	PAS1188	Part	The BSi scheme is new to the market, it requires further understanding and acceptance; consideration of the role of non-certifiable products is required.
Building materials / products	None	Full	Materials and products resilience standards required to compliment property standards. Fitness for purpose of materials and products for flood resilience needs to be further addressed. Refer to BSi/CB committee for construction to consider further. PAS or similar standard required to grade the flood resilience of materials and measures involved.

Area	Standard	Needs	Comment
Property design and construction	BS85500 (CIRIA C623 DCLG, 2007)	Part	Greater uptake of design and construction in new build and repaired required. A demonstration of what can be done is required.
Flood resistance technology	PAS1188 FM Global BS EN13564	Part	PAS/BS EN does not cover all types of products; not all manufacturers work to these standards and procurement does not enforce use of standards. Flood doors need to be covered by CEN TC33/BS538.
Flood resilience technology	None	Full	This also links with the needs for flood resilience in building materials, however, training, standards and certification around the whole range of resilience products is needed. Resilience products: including 'smart' technology requires standards and certification.
Drying buildings	PAS64	None	British Damage Management Association accredits member companies for such work. Wider dissemination and use of the standard required, ensure insurers take on board
Management - recovery	BS12999	Part	Standard in place, but requirements for certification and training still to be advanced
Management – installation of flood resilience	CIRIA C624 6 steps guidance	Part	National standards, training and certification required; contractor and specifier all lacking.

