



Community Resilience to Extreme Events

15th April 2019

University of Stirling

UNIVERSITY of
STIRLING



Extreme Events

Who we are and why we are
here

April 15, 2019

BE THE DIFFERENCE

Extreme Events in Science and Society

- A transdisciplinary research programme with representatives from all academic faculties at Stirling united by common interest
- We work to understand times of sudden and gradual change and unite around the concept of working with change rather than against it.
- We seek to share understanding across research areas
- **Key Messages:**
 - To bring people together
 - Blend disciplines and work together
 - To find solutions to challenges and key problems through interdisciplinary research
 - To find new approaches and combine methodologies to solve global problems.



Community Resilience to Extreme Events

Aims

- Identify models of good practice in community resilience to extreme events that can inform approaches across policy, practice and research
- Develop a network of expertise that links Scotland into international developments and good practice

Community Resilience to Extreme Events

Objectives

- Engage in knowledge exchange between national/international experts from across disciplines and sectors, who have been involved/interested in working with communities in the context of resilience, community development and responses to extreme events
- Provide scenarios from around the globe of community resilience practice to help us better understand how community resilience works, in what contexts and to encourage further community resilience good practice in the face of extreme events

Resilient Communities

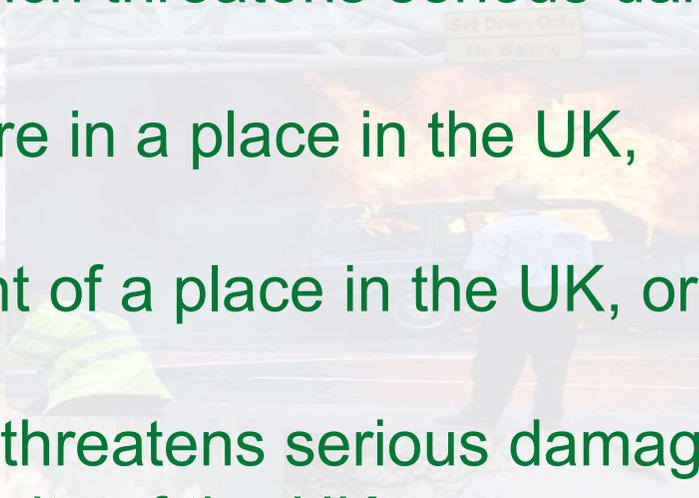
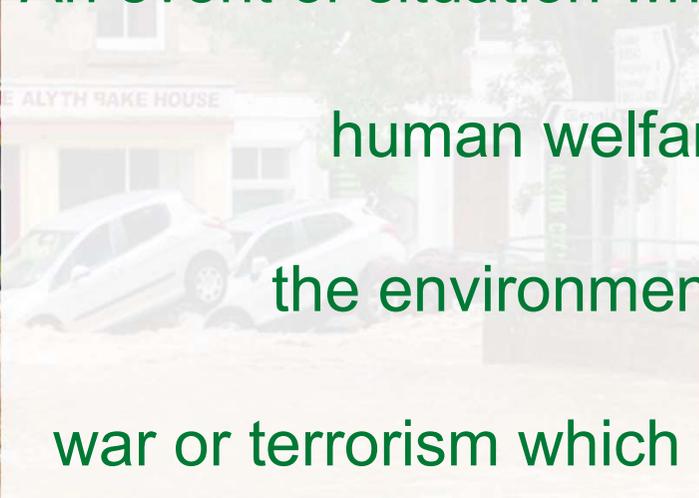
Kerry Jardine
Ralph Throp

April 2019





An event or situation which threatens serious damage to:
human welfare in a place in the UK,
the environment of a place in the UK, or
war or terrorism which threatens serious damage to the
security of the UK.



SWINE FLU
INFORMATION
0800 1 513 513
www.nhs.uk
www.direct.gov.uk/swineflu



IMPORTANT INFORMATION ABOUT SWINE FLU

This leaflet contains important information to help you and your family - **KEEP IT SAFE**



Resilience Division





Ready Scotland

Preparing for and dealing with emergencies

Follow us



Search the site



Safer
Scotland

HOME

ARE YOU READY?

AT HOME

MY BUSINESS

MY COMMUNITY

VOLUNTARY RESPONSE

READY GOVERNMENT

Ready for winter

Advice on being prepared for severe weather

Find out more



Take the readiness quiz

Take the quiz and get ready to protect yourself, your home, family and business

Take the quiz now



An aerial photograph of a coastal region, likely in the Pacific Northwest, showing lush green hills and turquoise water. The text is overlaid on the image.

RESILIENT COMMUNITIES

**Resilience Division's
Strategic Framework
and Delivery Plan 2017-21**

**I
M
P
A
C
T**

Catastrophic 5					
Significant 4					
Moderate 3					
Minor 2					
Insignificant 1					
	Negligible 1	Rare 2	Unlikely 3	Possible 4	Probable 5

LIKELIHOOD



PRINCIPLES - APPROACH - GOOD PRACTICE

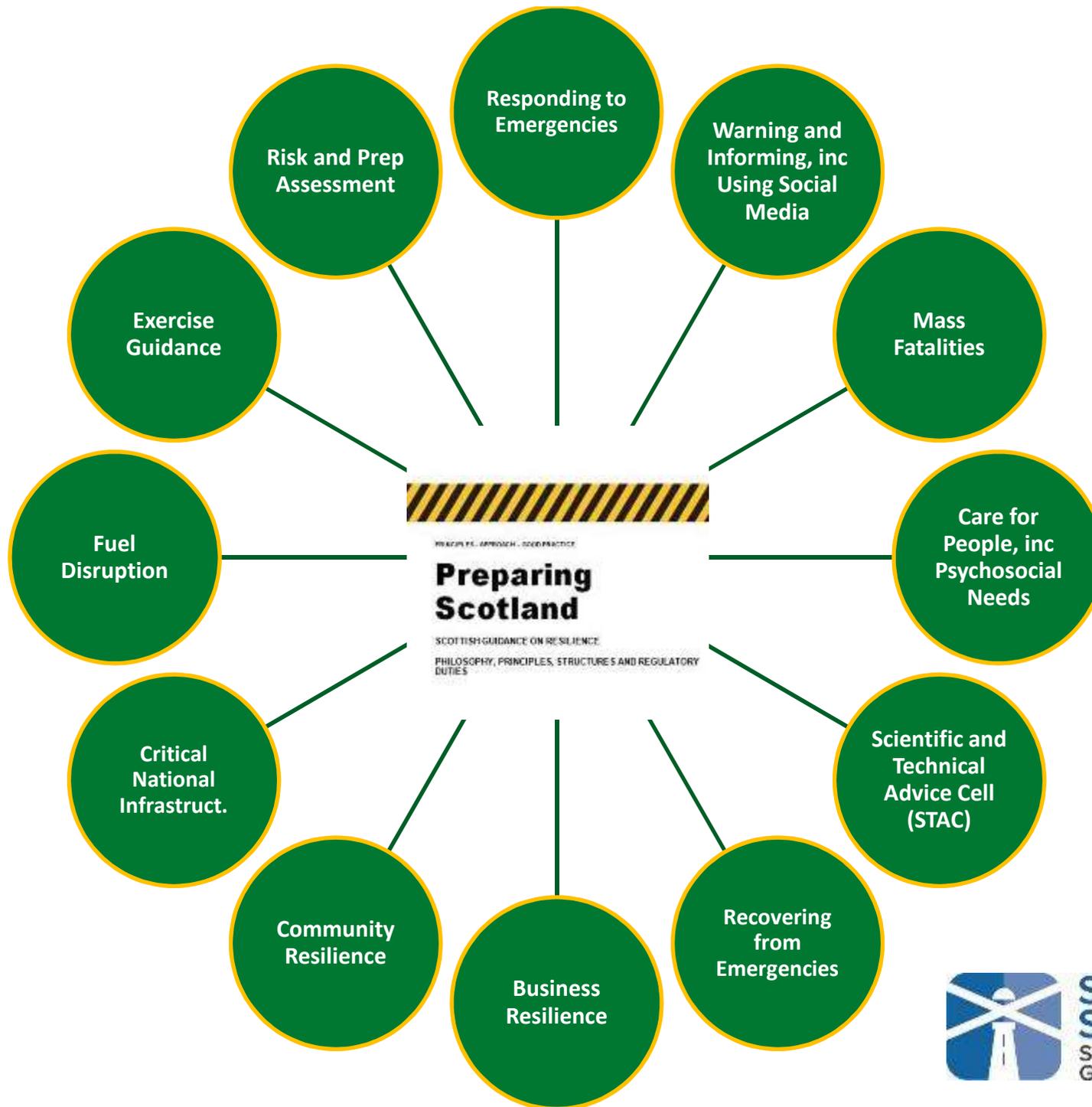
Preparing Scotland

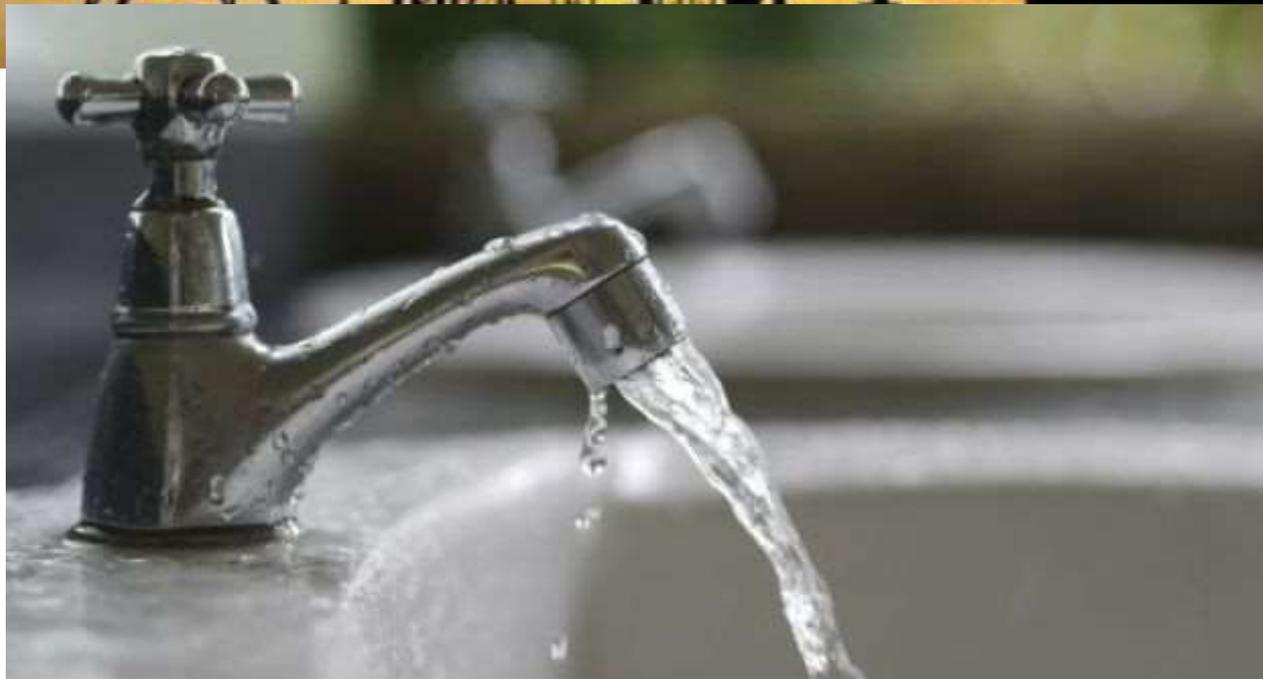
SCOTTISH GUIDANCE ON RESILIENCE

PHILOSOPHY, PRINCIPLES, STRUCTURES AND REGULATORY
DUTIES

June 2016









- WEST LRP**
- Ayrshires
 - Lanarkshire
 - Glasgow and East Dunbarton
 - Argyll, Bute and West Dunbarton
 - Dumfries and Galloway
 - Renfrewshire and Inverclyde

North of Scotland
Regional Resilience Partnership

- NORTH LRP**
- Highlands and Islands
 - Grampian
 - Tayside



- EAST LRP**
- Fife
 - Forth Valley
 - Lothian and Borders

Category 1 Responders

Can be described as the “CORE” responders.

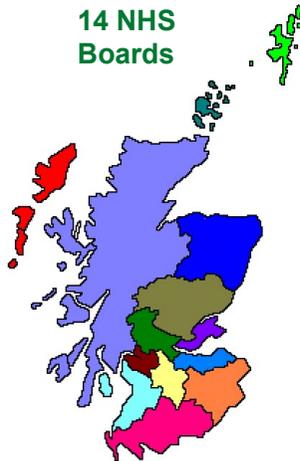
Public sector organisations providing vital services in an emergency.



32 Local Authorities



14 NHS Boards



Category 2 Responders

Can be described as ‘co-operating bodies’

Public and Private sector bodies that provide key infrastructure services that are regulated by other legislation related to preparing for an emergency.

Utilities



Transport



Harbour Authorities



NHS National Services Scotland
Supporting Scotland's Health





Co-operation

**Information
Sharing**

Promotion of BC

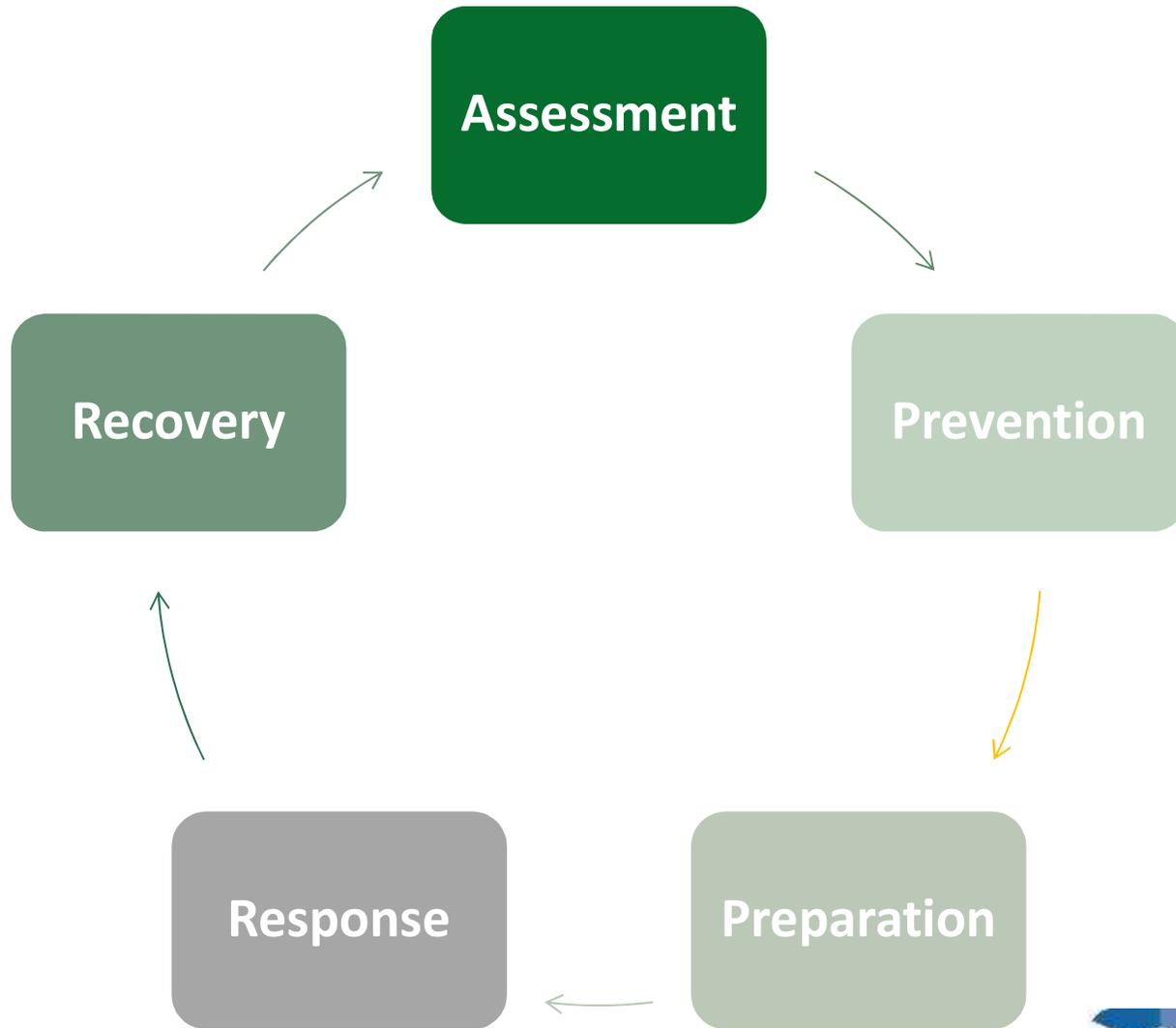
Business
Continuity (BC)

Warning & Informing
the Public

Risk Assessment

Emergency Planning

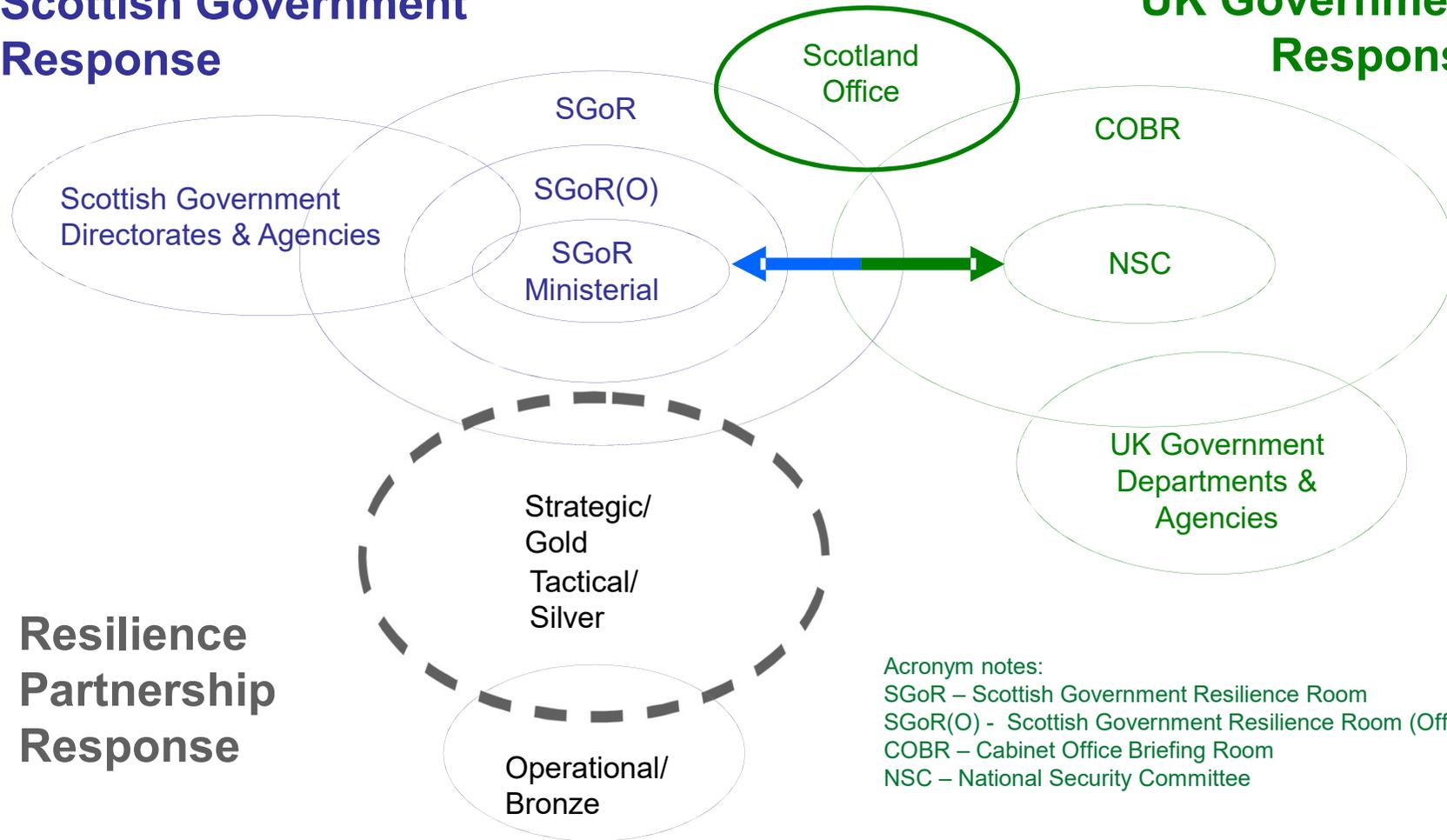
INTEGRATED EMERGENCY MANAGEMENT (IEM)



UK and Scottish Response Structures

Scottish Government Response

UK Government Response



Acronym notes:

SGoR – Scottish Government Resilience Room

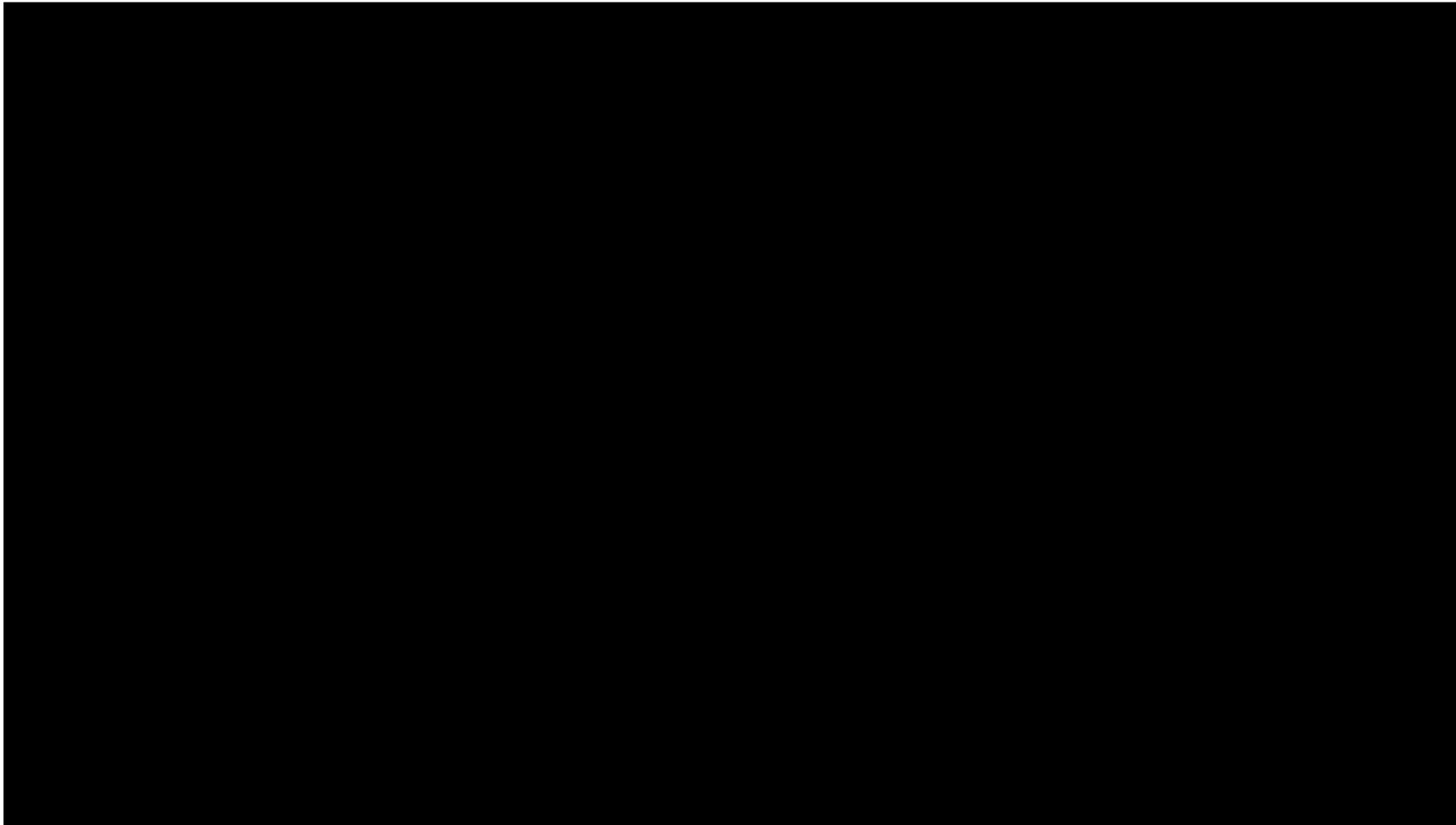
SGoR(O) - Scottish Government Resilience Room (Officials)

COBR – Cabinet Office Briefing Room

NSC – National Security Committee

What does this look like in real
life?





<https://youtu.be/CknIfO2wffc>



Timeline

Friday 22 March

- Overnight severe snow had resulted in a power outage – 4000 properties without power. Roads blocked on west side of island. Lambing season affected
- Generators were to be taken to island but ferries not sailing.
- Helos grounded

Saturday 23 March

- SGoR(M) sat 1000
- Catering Units and generators sent to island
- Rest Centres opened.
- Telephone lines down
- Missing person
- Snow blowers taken over to island to clear String Road
- Bottled water issued

Monday 25 March

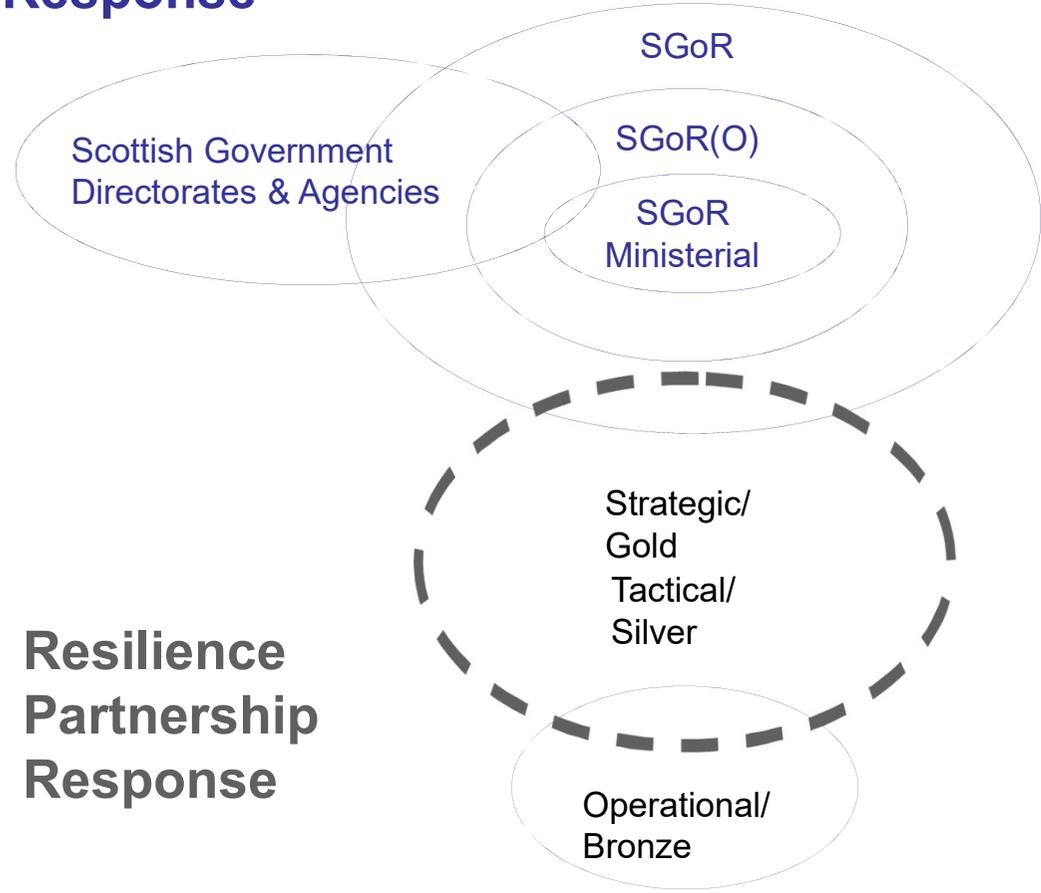
- Minister for transport visited island

Thursday 28th March

- Handover to Recovery phase



Scottish Government Response



Resilience Partnership Response

What would the Scottish Government be thinking about?

National Comms strategy

- Agreed objectives
- Identified target audience

Media

- Support for responders by Ministers
- Responding to enquiries from public
- Miss-reporting

Farming Issues

- Agricultural Task force
- National Fallen Stock Company
- Relaxation of EU Drivers regulations

Financial consequences

- Triggered the Belwin Scheme

What the SG brings to a response

- Brings people and agendas together
- See the national picture and make the links, particularly with other sectors
- Picks up the economic piece.
- Deployment of the military
- Media, incident may not be a MI, but may be 'interesting'
- Accelerate processes
- Adds greater value the more complicated the piece.

What I'll cover...

Our strategic approach.

Why focus on communities?

What are the key features of an inclusive, empowered, resilient and safe community, and what does that mean for resilience?

National Performance Framework

- create a more successful country
- give opportunities to all people living in Scotland
- increase the wellbeing of people living in Scotland
- create sustainable and inclusive growth
- reduce inequalities and

Gives equal importance to economic, environmental and social progress.



We live in communities that are inclusive, empowered, resilient and safe



WHEN CRISIS COMES
WE BEGIN TO SEE THAT
COMMUNITY
IS THE TRUE AND
IRREPLACEABLE
INFRASTRUCTURE

***“We live in a
brittle society”***

(Edwards 2009)

***“Next generation
resilience relies on
citizens and
communities, not
the institutions of
the state”***

OUR STRATEGIC AIM

Communities, individuals and organisations harnessing resources and expertise to help themselves assess and understand risk, take appropriate measures to prevent, prepare for, respond to and recover from emergencies, in a way that complements the work of the emergency responders.



FIVE E'S



Engaged public

The public have a greater understanding of the risks they face and take appropriate action to prepare for emergencies. People help others in their communities.



Empowered communities

Communities are empowered and supported to take collective action to address the resilience issues that affect them, by developing local initiatives and plans, that complement the actions of the Emergency Responders.



Enabled collaboration and co-production

Public, private, voluntary, and other civil society organisations work together effectively through the IEM process to assess and mitigate risk, prepare for, respond to and recover from emergencies.



Education and learning

Resilience is embedded in teaching practice as part of Curriculum for Excellence, and is delivered in formal and informal educational settings by teachers and youth workers, working with responders.



Evaluation and improvement

A positive culture of evaluation underpins innovation and supports stakeholder effort, maximising the tangible and intangible resources of both SG and other stakeholders.

- The Ready Scotland website and campaign.
- Dealing better with spontaneous donations and volunteers.
- Support and resources for community resilience groups
- Integration of voluntary and community sector organisations into Resilience partnerships.
- Scotland's annual resilient communities conference.
- Using resilience as part of curriculum for excellence resilience into the.
- Underpinning everything with a culture of analysis, evaluation and learning lessons.

Why focus on communities?

Communities are where:

People live, have friends and neighbours

Most easily access services and amenities

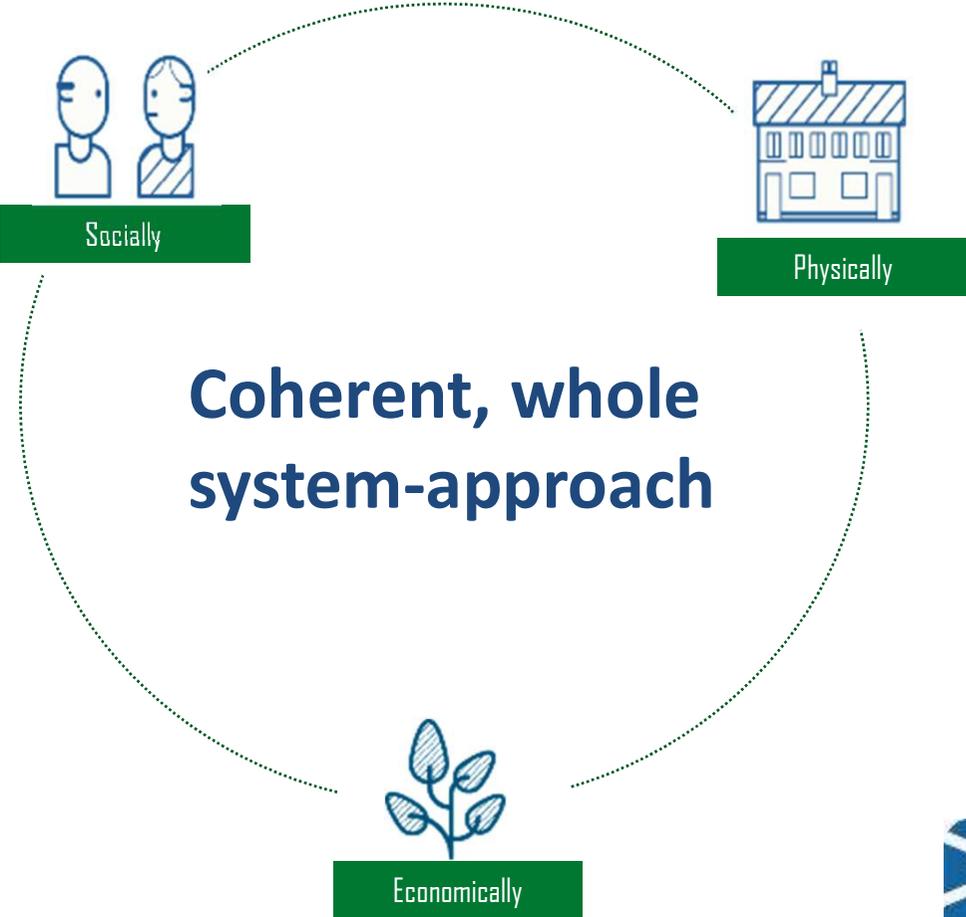
Communities shape opportunities and outcomes

Place-based approaches are vital...

...but need to be combined with direct focus on people (e.g. social security)

INCLUSIVE, EMPOWERED, RESILIENT & SAFE COMMUNITIES

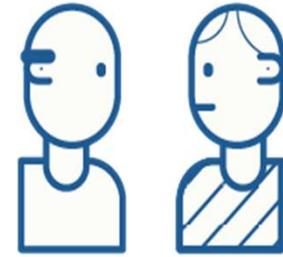
Are those which function well:



INCLUSIVE, EMPOWERED, RESILIENT & SAFE COMMUNITIES

Are those which function well:

- Networks and connections
- Everyday relationships and kindness
- Mutual help and support
- Engaged and empowered in local decision-making
- People feel safe, that they belong and can trust others
- Communities are fair and inclusive



Socially

INCLUSIVE, EMPOWERED, RESILIENT & SAFE COMMUNITIES



Physically

Are those which function well:

- Physical environment enables social interaction (e.g. street layout, traffic measures)
- Well planned neighbourhoods with accessible facilities, public services and community meeting spaces
- Infrastructure provides supportive social function
- Quality design and upkeep of buildings and spaces
- Quality public space and green space
- Infrastructure links to employment opportunities (e.g. affordable and accessible public transport links)



INCLUSIVE, EMPOWERED, RESILIENT & SAFE COMMUNITIES



Economically

Are those which function well:

- Strong, diverse local economies providing access to good, quality jobs
- Flexible multi-skilled workforce
- People have sufficient pay to lift them out of poverty
- Thriving private and social enterprise sector
- Community enterprises operate innovatively and successfully

The New “Emergencies” Resilience Environment

- Police and Fire service reforms
- New resilience partnerships
- Regional co-ordination teams
- National Centre for Resilience
- Scottish Resilience Partnership
- Constrained financial resources
- Restructuring and rationalisation
- Changing role of private sector
- Enhanced focus on risk and prevention
- **Stronger role for communities**



“It is not the strongest of the species that survives, nor the most intelligent. It is the one that is most adaptable to **change**”. Charles Darwin

ORGANISATION TYPE	EXAMPLES	Current main points of engagement with IEM process				
		Assessment	Preparation	Prevention	Response	Recovery
Local multi-purpose groups Local community groups set up specifically to build resilience and respond to specific emergencies, or all types of emergencies.	Local community resilience and emergency planning groups Local flood response groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Resilience specialists. Groups set up to provide specialist resilience services, usually in a response setting but also in building resilience.	4x4 Response teams, Mountain Rescue Teams, Raynet, Scottish Business Resilience Centre,		<input type="checkbox"/>		<input type="checkbox"/>	
Resilience supporters. VS organisations which provide build capacity before and provide supportive functions during and after emergencies	British Red Cross, RVS, St. Andrews First Aid, Salvation Army, Scottish Flood Forum.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large civil society groups Large VS organisations, for whom emergency response work is not a key aim, but which are engaged in related areas of work, and have a role in capacity and building resilient communities.	Keep Scotland Beautiful, SNIFFER, Neighbourhood Watch, TCV		<input type="checkbox"/>	<input type="checkbox"/>		
Small civil society groups Small community groups for whom emergency resilience is not a key aim, but which may have a key role to play building resilience in their members or service users, and in local response and recovery.	Lunch clubs for older people, parent and baby groups, village hall committees, community development trusts.		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Keeping Scotland resilient



Thanks.

Group discussions – Improving links between communities and policy

1. What is important?

- Resources (money, time people) over the long-term
- Two-way communication, listening to what both communities and policy/statutory bodies need
- Building trust
- Identifying who are the relevant people and groups across the various groups involved
- Valuing, hearing and learning from community knowledge and past experience
- Understanding the 'why' change is needed as well as the 'what' change is needed

2. What is missing?

- Long-term planning and support mechanisms
- Strategies for prevention from a range of threats
- Real local democracy
- Co-production of solutions
- Credible communication strategies

3. What practical steps are needed?

- Communication strategies in the 'community'
- More funding for community groups and initiatives
- Strategies for balancing interest of small community groups and large corporations
- Recognise possible antagonistic relationship between community and authorities (e.g. police)
- Access to support services e.g. creches to allow volunteering
- Mapping of what's happening in terms of community and responsive services
- Local emergency planning officer/response teams to coordinate the information sharing with communities pre-event and help with response efforts
- Remove the jargon
- Policy templates (no point in reinventing the wheel), but need to regularly updated
- Presence of community resilience groups and emergency response teams at community events so local people know who to contact with questions/concerns
- Local emergency planning officers who are in touch with local issues/concerns

4. Who needs to be involved?

- Trusted organisations
- Businesses invested in the area
- People not engaged with community groups or organisations on a regular basis
- Those most impacted
- Anchor organisations
- First responders
- Key link people between different organisation levels
- Young people
- The entire community!



How can research help link community groups and policy?

Dr Hugh Deeming

www.hdresearch.uk

@HasisD



Stirling Court Hotel,
University of Stirling, April 15th 2019







Samuel Prince and the explosion in Halifax harbour (Dec, 1917)



Convergence (Fritz, 1957)

- * Returnees
 - * The Anxious
 - * The Helpers
 - * The Curious
- * The Exploiters
 - * Looters
 - * Pilferers or souvenir hunters
 - * Relief stealers
 - * Profiteers
 - * Others

Disaster Myths

- * People panic



- * Looting is prevalent



- * Anti-social behaviour prevails



- * Role abandonment is common



Disaster ~~Myths~~ Truths

~~* People panic~~

~~* Looting is prevalent~~

~~* Anti-social behaviour prevails~~

~~* Role abandonment is common~~

* Members of the public behave proactively and prosocially to assist one another

* There is a tendency for a lower incidence of deviant behaviour than during non-disaster times

* While role conflict is common, role abandonment from that is rare

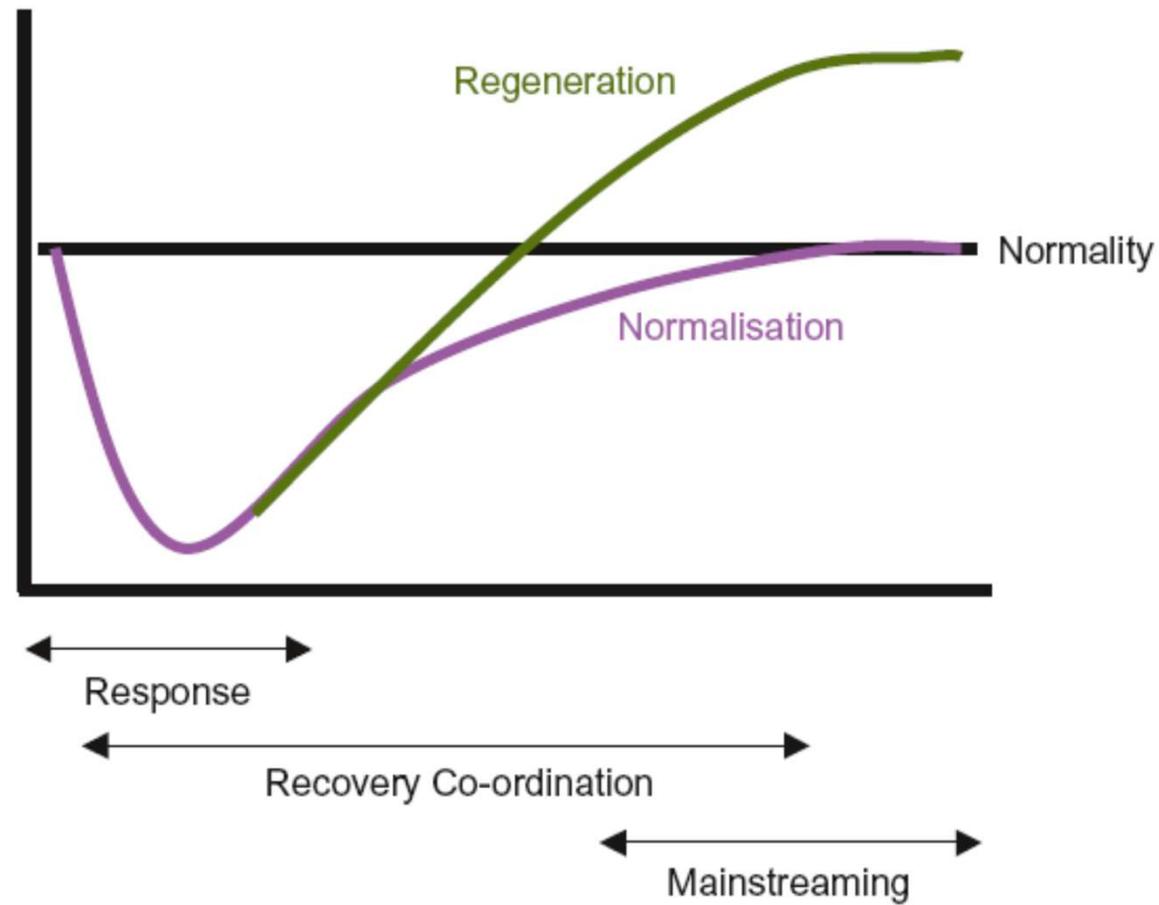
Hull Floods, 2007



E·S·R·C
ECONOMIC
& SOCIAL
RESEARCH
COUNCIL

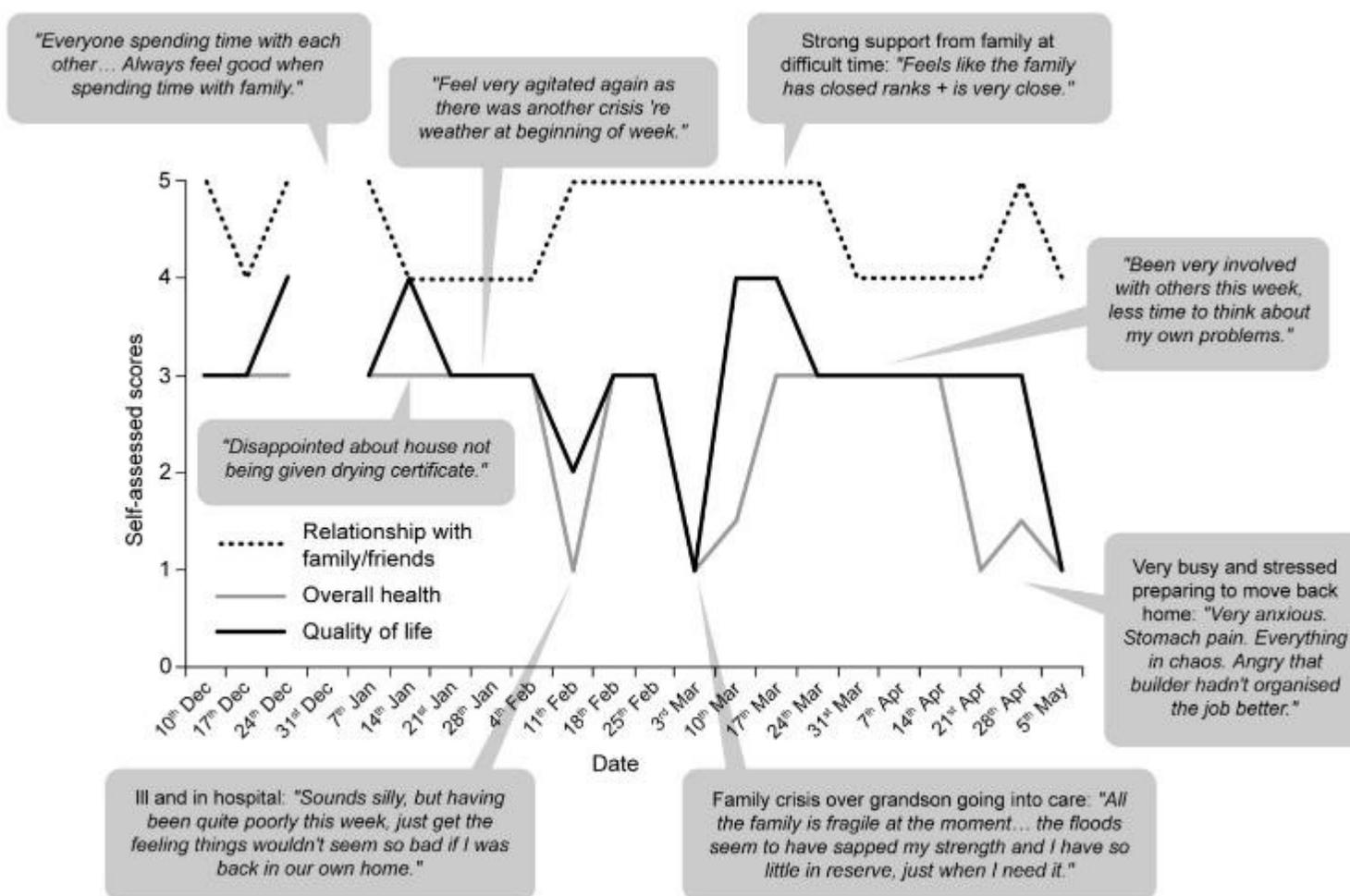


Hull Floods, 2007



Source: Pitt (2008: p.398)

Hull Floods, 2007



Self-assessed scores key: 5 = very good 4 = good 3 = average 2 = poor 1 = very poor

Hull Floods, 2007



* The Recovery Gap

“The recovery gap emerges during the longer process of recovery at the point where the legally-defined contingency arrangements provided to the community by its local authority diminish and where the less well-defined services provided by the private sector (e.g. insurance, builders etc.) start.” Whittle et al., (2010: p.1)

Hull Floods, 2007



* Re-traumatisation

“The key point is that mistakes, delays, obstructions, poor communication etc., for whatever reason, can result in re-traumatising effects for residents who might otherwise have coped well with the flood recovery process.” Whittle et al., (2010: p.48)

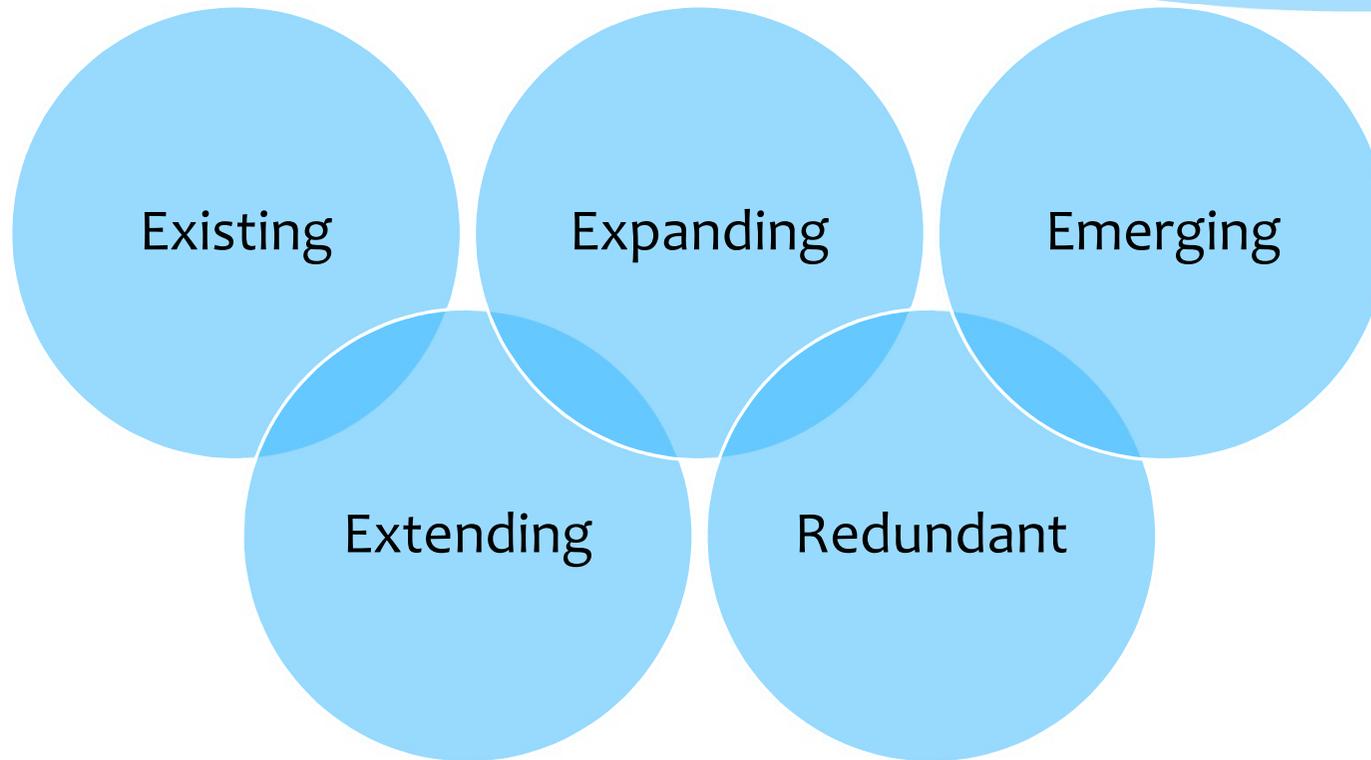
Hull Floods, 2007



* Frontline Recovery Workers

1. Permanent and temporary staff whose jobs were created specifically to deal with the issue of flood recovery. In Hull these included staff employed on the City Council's Flood Advice Service.
2. Those whose pre-existing job roles were *extended* to deal with flooding issues. The best example of this in Hull was the work of the City Council's Community Wardens.
3. "Traditional" intermediary roles, e.g. the work of the loss adjusters and the Citizen's Advice Bureau (extending).
4. Informal work that was carried out in a voluntary capacity by community groups across the city (emergent)

Organisation and Social Capital



Dynes (1994, et seq)

Social capital

*“The norms and networks that enable people to act **collectively**”*

(Woolcock and Narayan, 2000)

- Social Networks (Structural)
- Social Trust / Reciprocity (Cognitive)

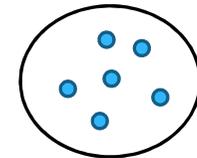
Social capital



Social capital: networks

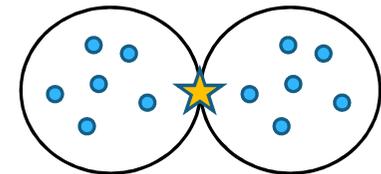
- **Bonded** (Family and kin groups)

- Exclusive, 'getting by'... Super Glue



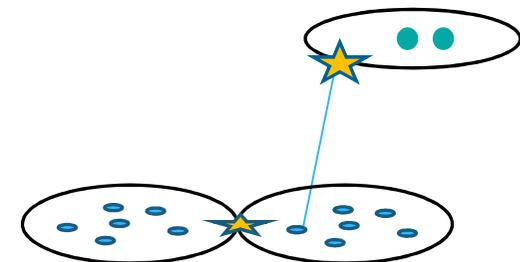
- **Bridged** (Friends, Groups, etc.)

- Lateral, 'getting ahead'... WD40



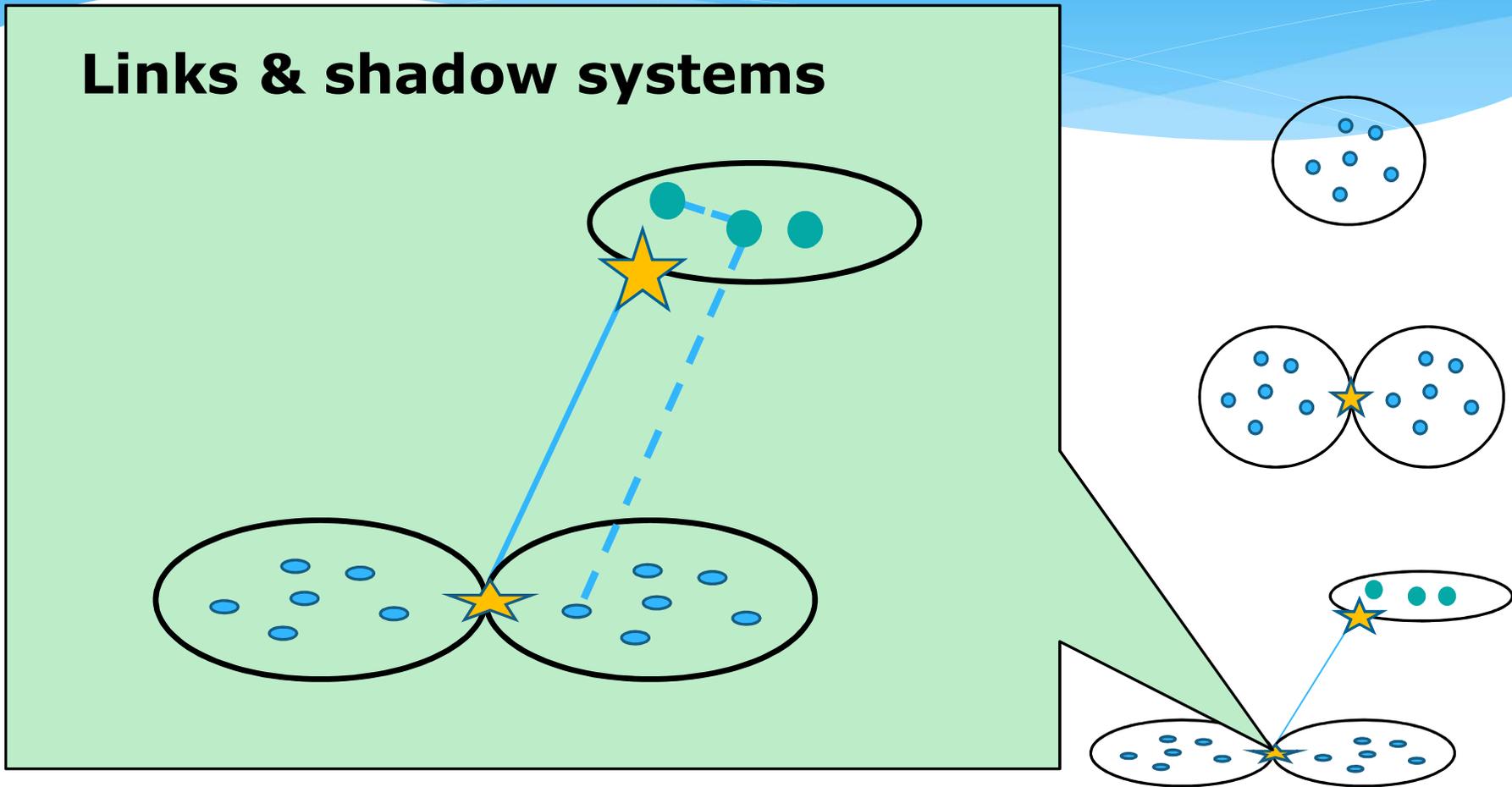
- **Linked** (Hierarchical connections)

- 'Boundary people', authority relations



Social capital: networks

Links & shadow systems



Social capital: The Trust Dichotomy

- * Social trust

"I have trust in my relations with you!"

- * Fundamental factor in social capital

- * Generalised (*Thin*)

- * Particularised (*Thick*)



Social capital: The Trust Dichotomy

- * Trust in authority
 - "I declare my dependency on you"*
- * Division of labour
 - * Eases daily pressures, reduces perceived risk
- * BUT
 - * Perceived transgressions enhance feelings of 'wrongness'



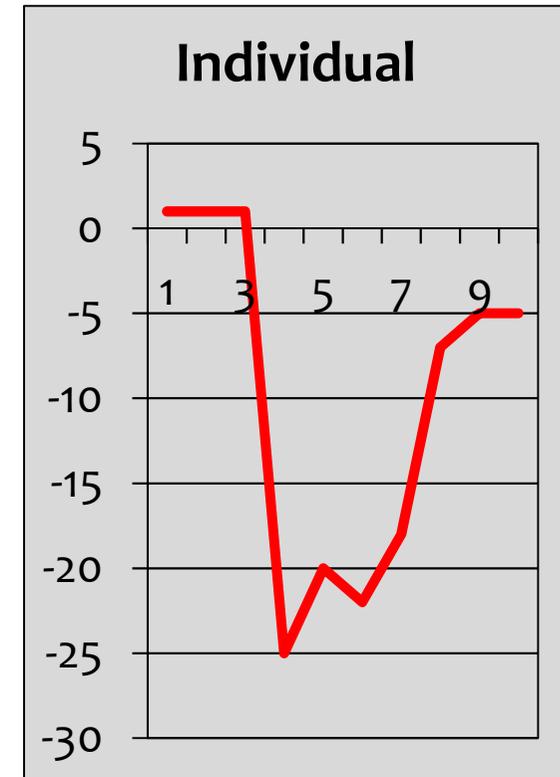
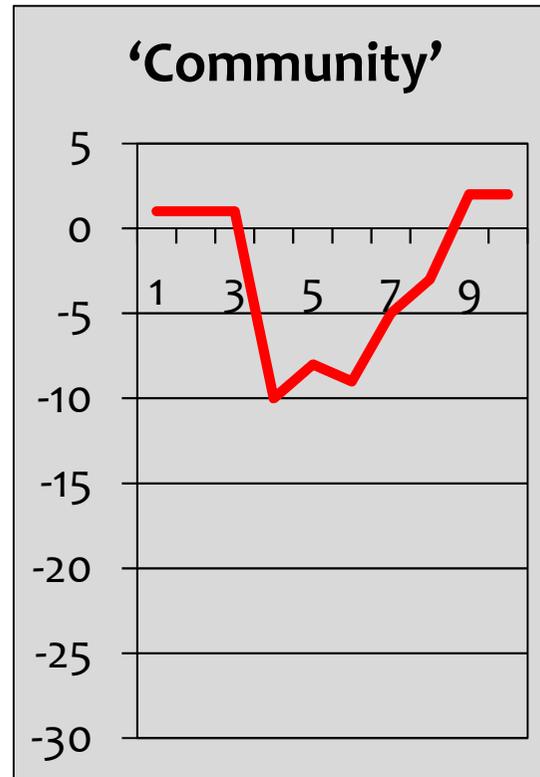
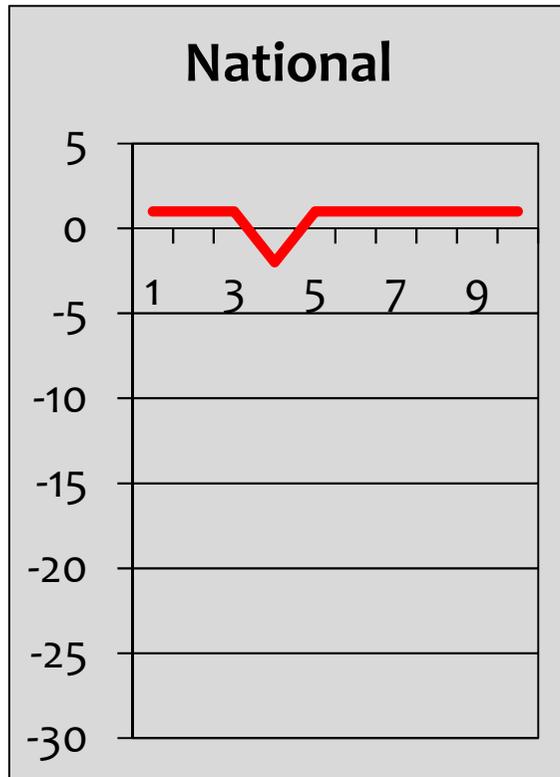


Social capital: a challenge for resilience builders?

- * Multiple and complex network configurations within any [geographical] 'community'
 - * Inclusive / exclusive
 - * Linked or discrete
 - * Potentially over-reliant on charismatic leaders
 - * Potentially 'subversive'
- * Delicate trust relations
 - * Social, intra-network trust is independent of trust in authority

Resilience: Scale Matters

- * The impact of an event can be experienced very differently at different scales



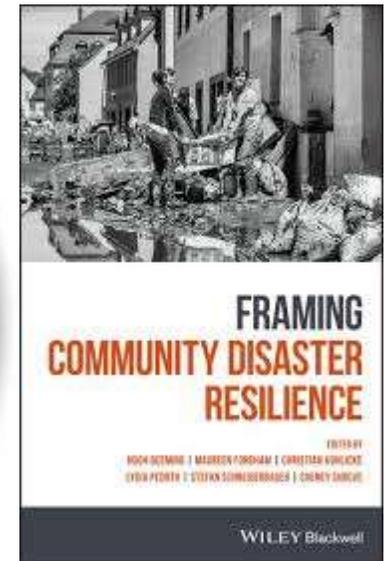
'Community'?

- * Geography (Place)
- * Interest
- * Circumstance
- * Identity
- * Practice

Community of [Resilience] Practice

“... groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an **on-going** basis”

(Wenger et al., 2002: p.4)



Disaster Risk Governance

Laws, Policies, Responsibilities



FRAMING COMMUNITY DISASTER RESILIENCE

EDITED BY
HOON KUCHEM | MADRICK FOREMAN | CHRISTIAN KUCIENKA
LYDIA PERRY | STEFAN SCHNEIDERBACH | COLINY DARGatz

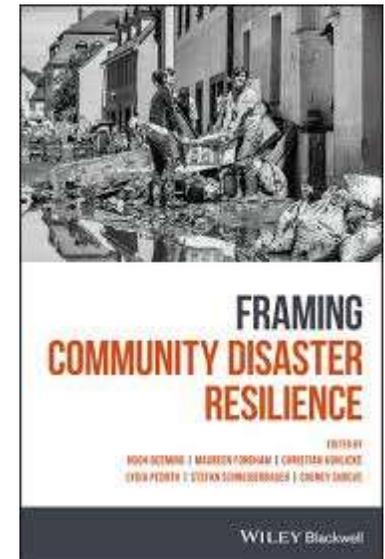
WILEY Blackwell

*em***BRACE**

Context – Change – Disturbance

Disaster Risk Governance

Laws, Policies, Responsibilities



Learning as a Community of [Resilience] Practice

*em*BRACE

“... groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an **on-going** basis”

(Wenger et al., 2002: p.4)

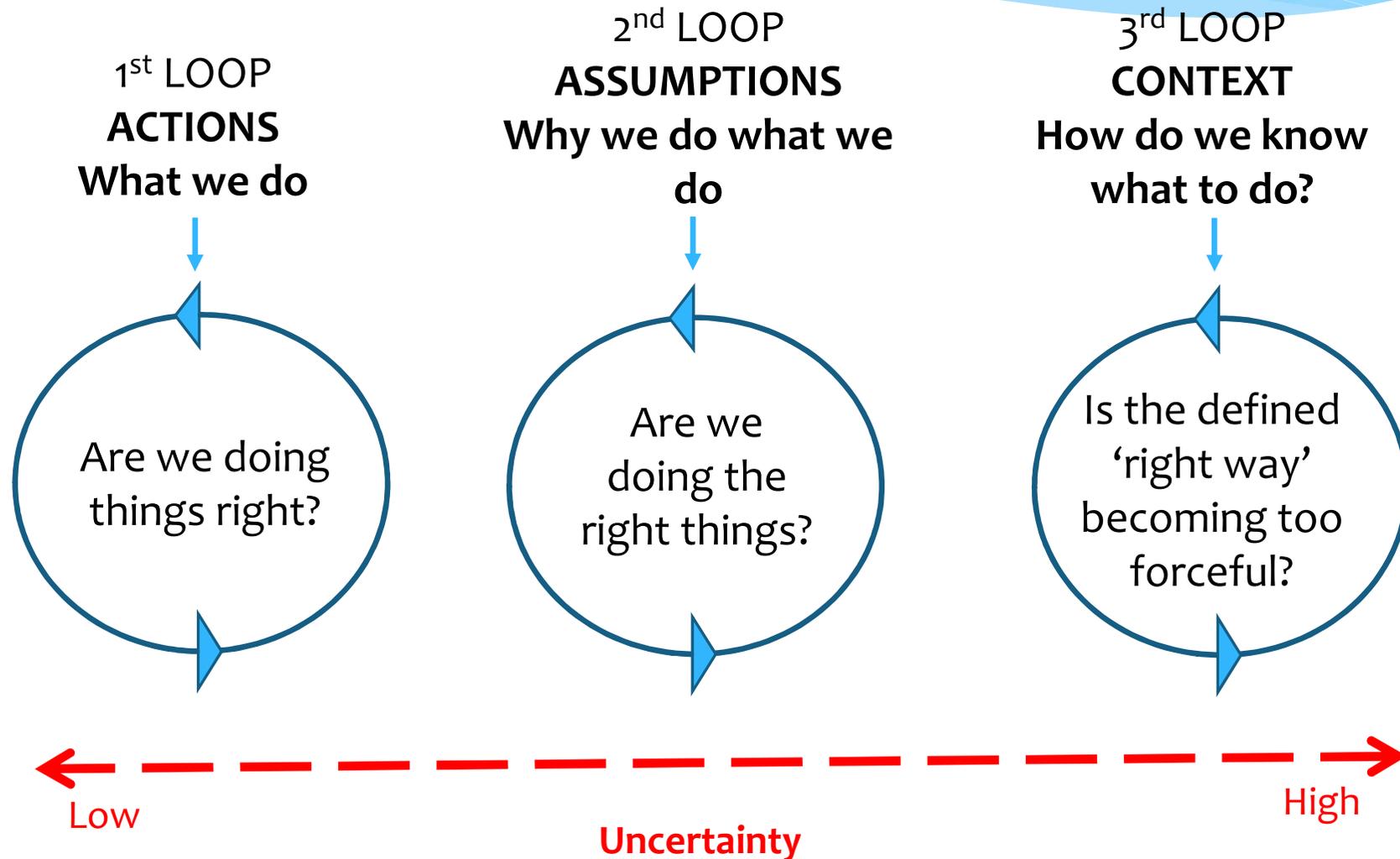
Learning within a Community of [Resilience] Practice

emBRACE



Three Loops of Learning

emBRACE

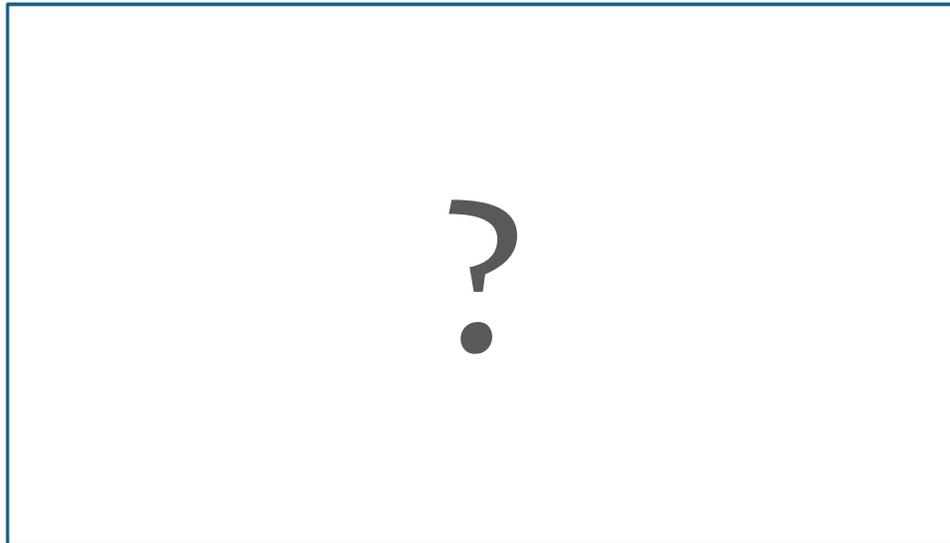


Adapted from Flood & Romm (1996), Bryant (2009)

Cumbria Floods

emBRACE

2005
Keswick



~100 properties flooded
Cumbria: ~2,250 affected

2009
Keswick



~300 properties flooded
Cumbria: ~1,800 affected

2005

2009

Cumbria Floods: Learning

emBRACE



"How would my community survive the first 48 hours of a serious emergency?"

BE PREPARED!
10 STEPS
TO COMPLETE YOUR
COMMUNITY EMERGENCY PLAN



Revised by ACT101 with Communities in Control, revised by Roger Pinnock, Brian Sibley Consulting, with the advice and support of Cumbria Quality Council, Cumbria Local and Environment Agency, and ACT101 members.

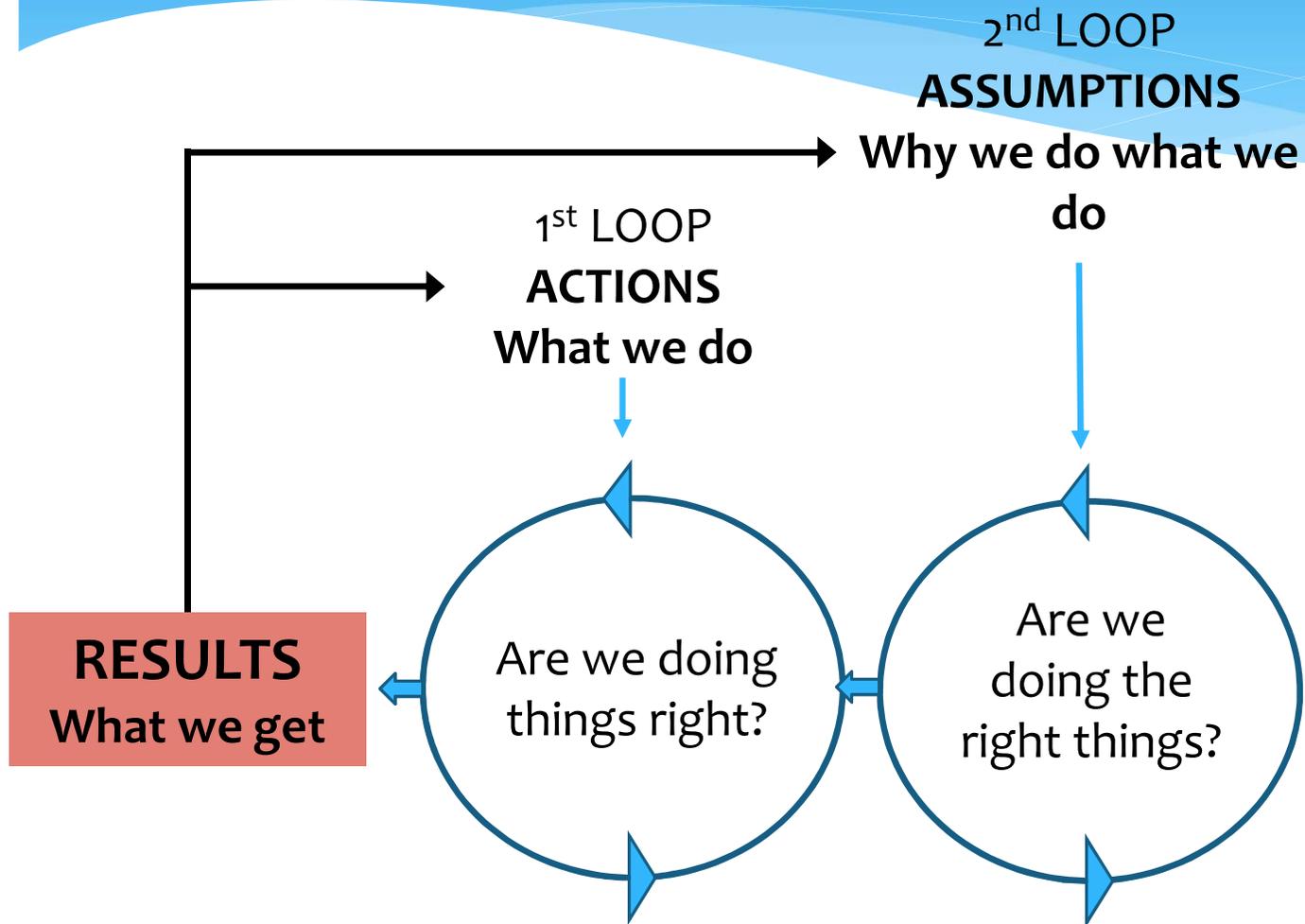


2009

2010

2012

Double Loop Learning



Adapted from Flood & Romm (1996), Bryant (2009)

The Manifestation of Residual Risk?

2009
Keswick

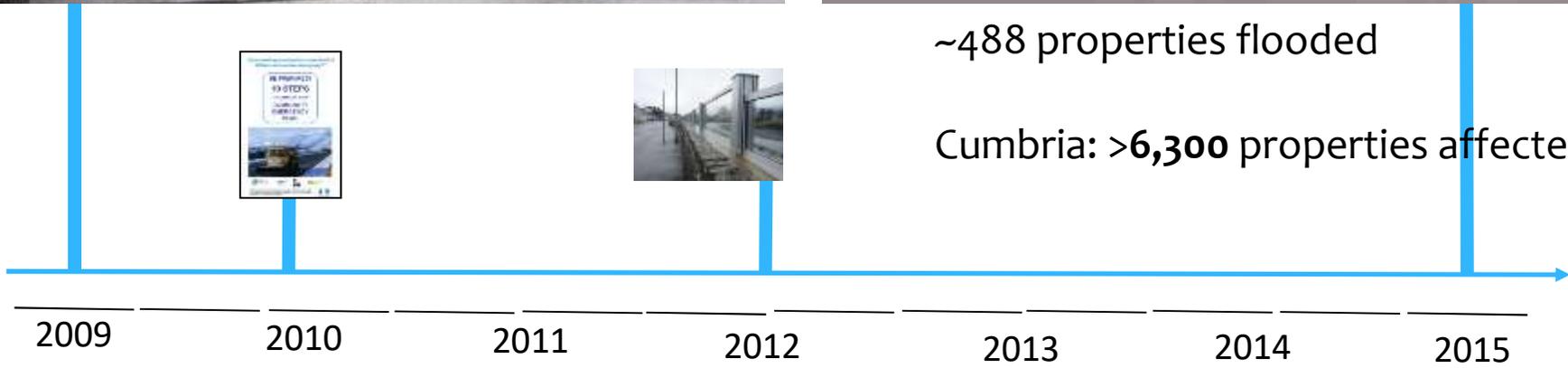


2015
Keswick



~488 properties flooded

Cumbria: >6,300 properties affected



The Manifestation of Residual Risk?

2002

Grimma, Saxony, Germany



2013



Quelle: pa/dpa/dpaweb

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

Cumbria Floods: Learning

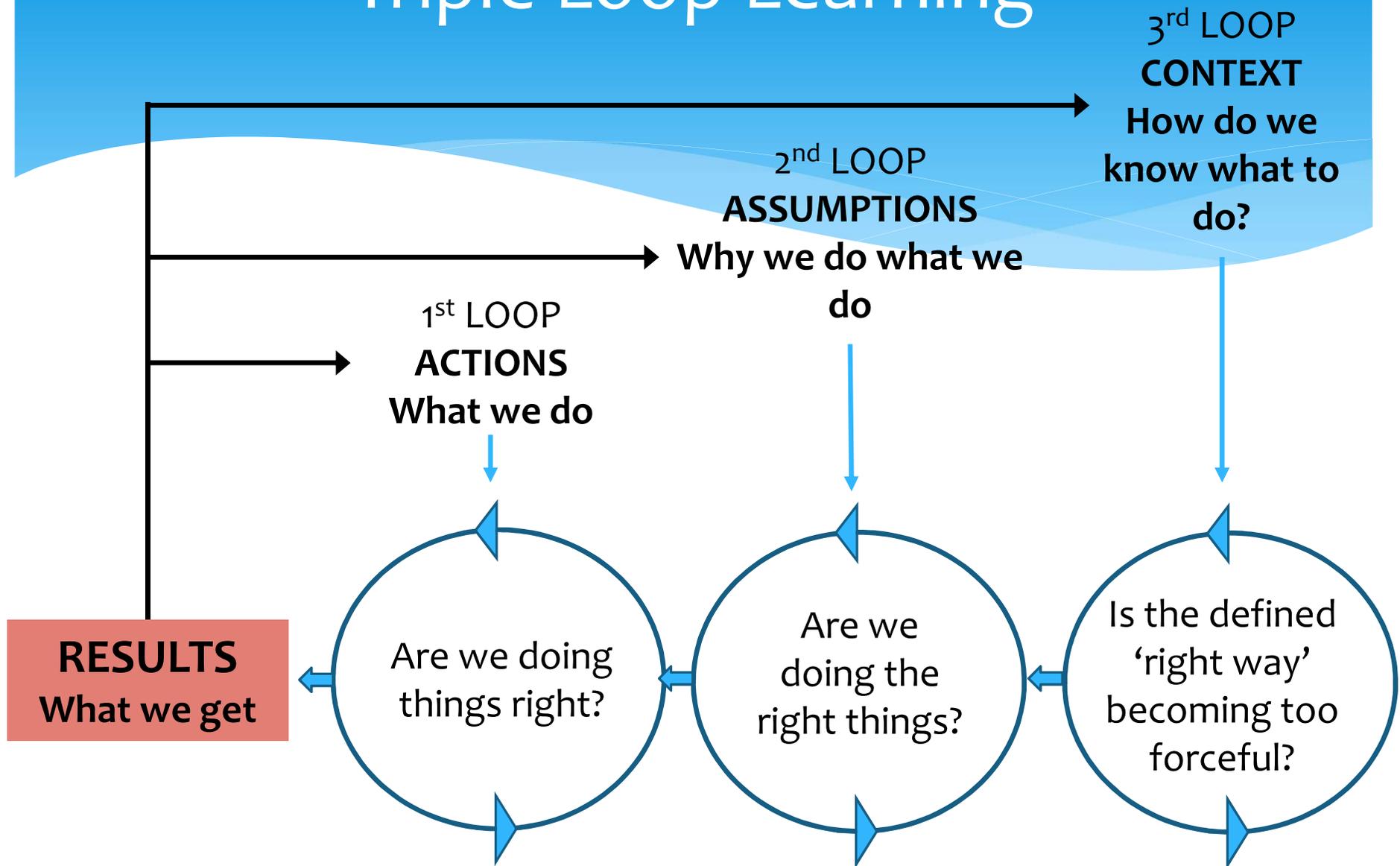


2005

2009

2015

Triple Loop Learning



Adapted from Flood & Romm (1996), Bryant (2009)

Crisis as catalyst for triple-looped 'New' thinking



Cumbria Floods

“... the frontline often emerges in unexpected places”

Convery et al. (2006)



<http://imgarcade.com/1/coast-guard-rescue-katrina/>

USCG – Hurricane Katrina response:

- Praised by the Senate
- Able to operate with ‘control slack’ because...
- ...it “trusts itself”

"We give extraordinary, life-and-death responsibilities to 2nd class petty officers"

Cumbria Floods: the Frontline



Cumbria Floods: the Frontline

Cumbria County Council Area Support Team
(Community Engagement/Development Officers).

Skillset:

- 1) their capacity to operate largely autonomously (control slack)
- 2) their ability to connect people with resources (social, physical, etc.) without seeming to be the ones doing it, i.e. they are in effect highly trained social-network facilitators / 'brokers'

The Manchester Arena Attack

- * IED detonation occurred at 22:30hrs on Monday 22nd May 2017 in the foyer area of the Manchester Arena
- * ~14,000 concert goers (high % children and young people)
- * 22 dead, ~800 physically or mentally wounded
- * Disruption to city region's transport network and day-to-day life
- * On-going response over 9 days; including raids and arrests conducted at short notice

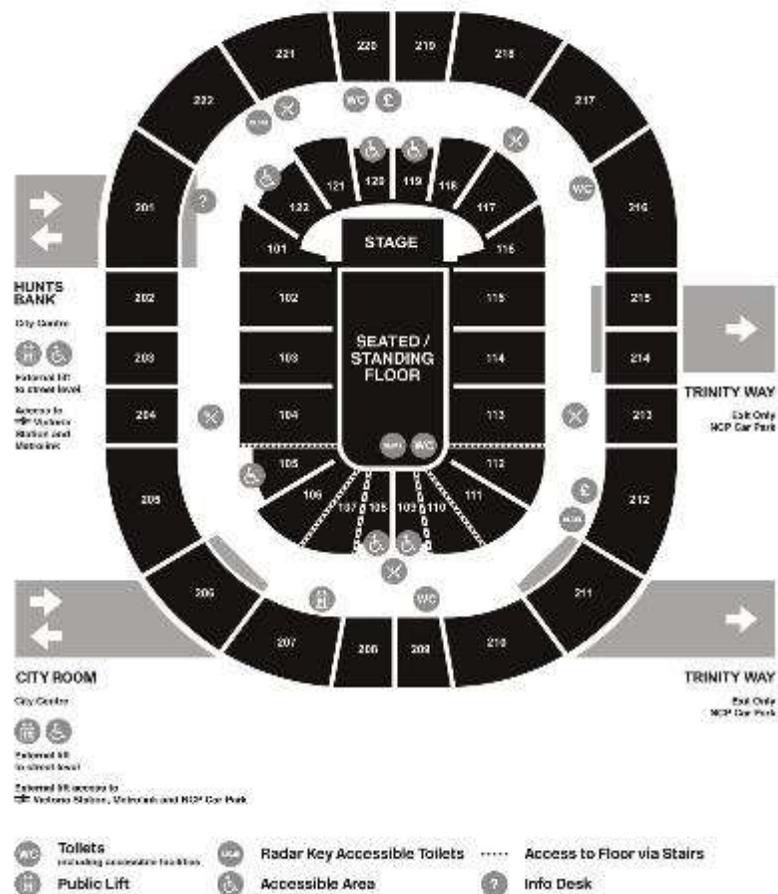
The Kerslake Report:

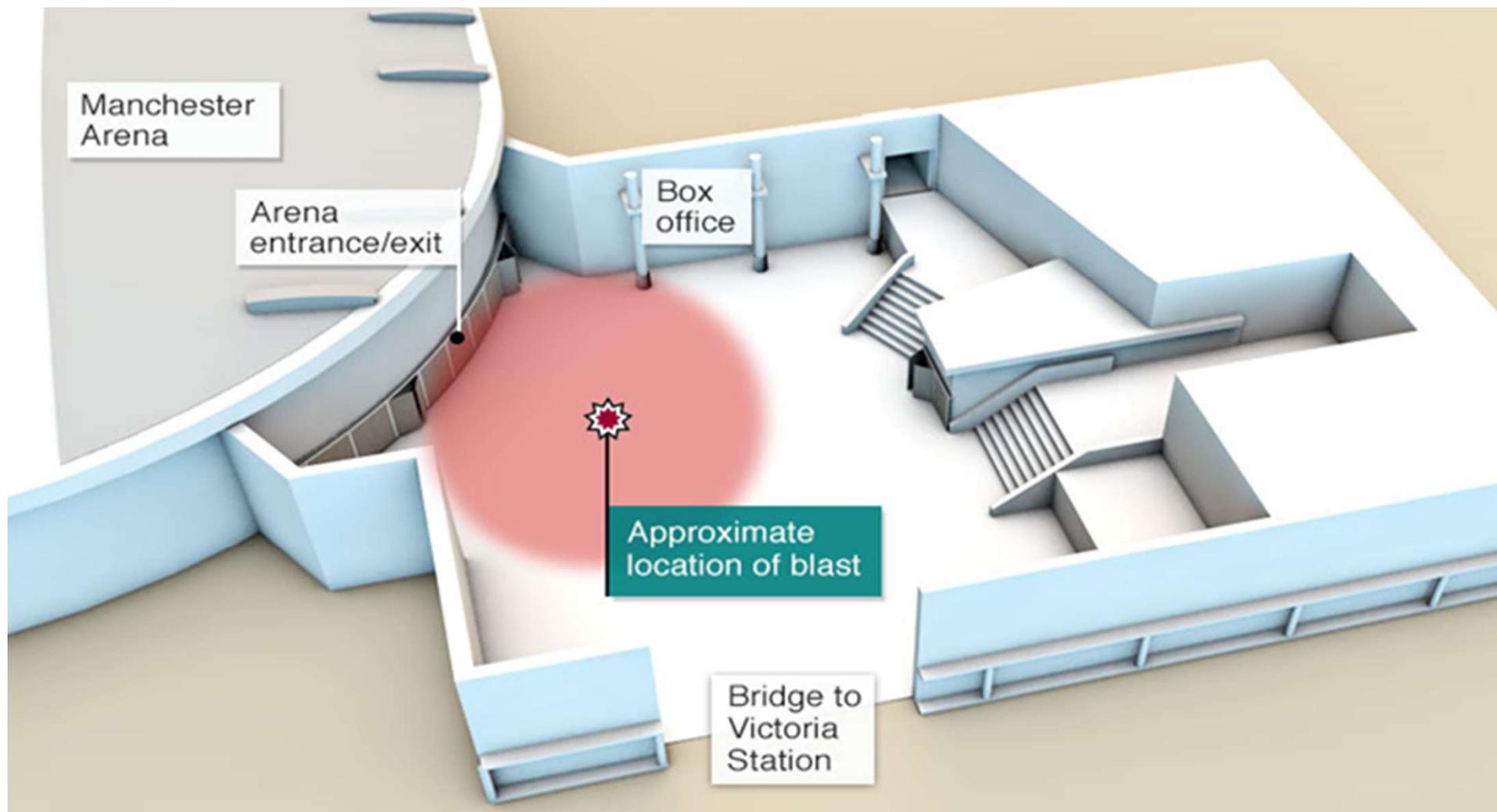
An independent review into the preparedness for, and emergency response to, the Manchester Arena attack on 22nd May 2017

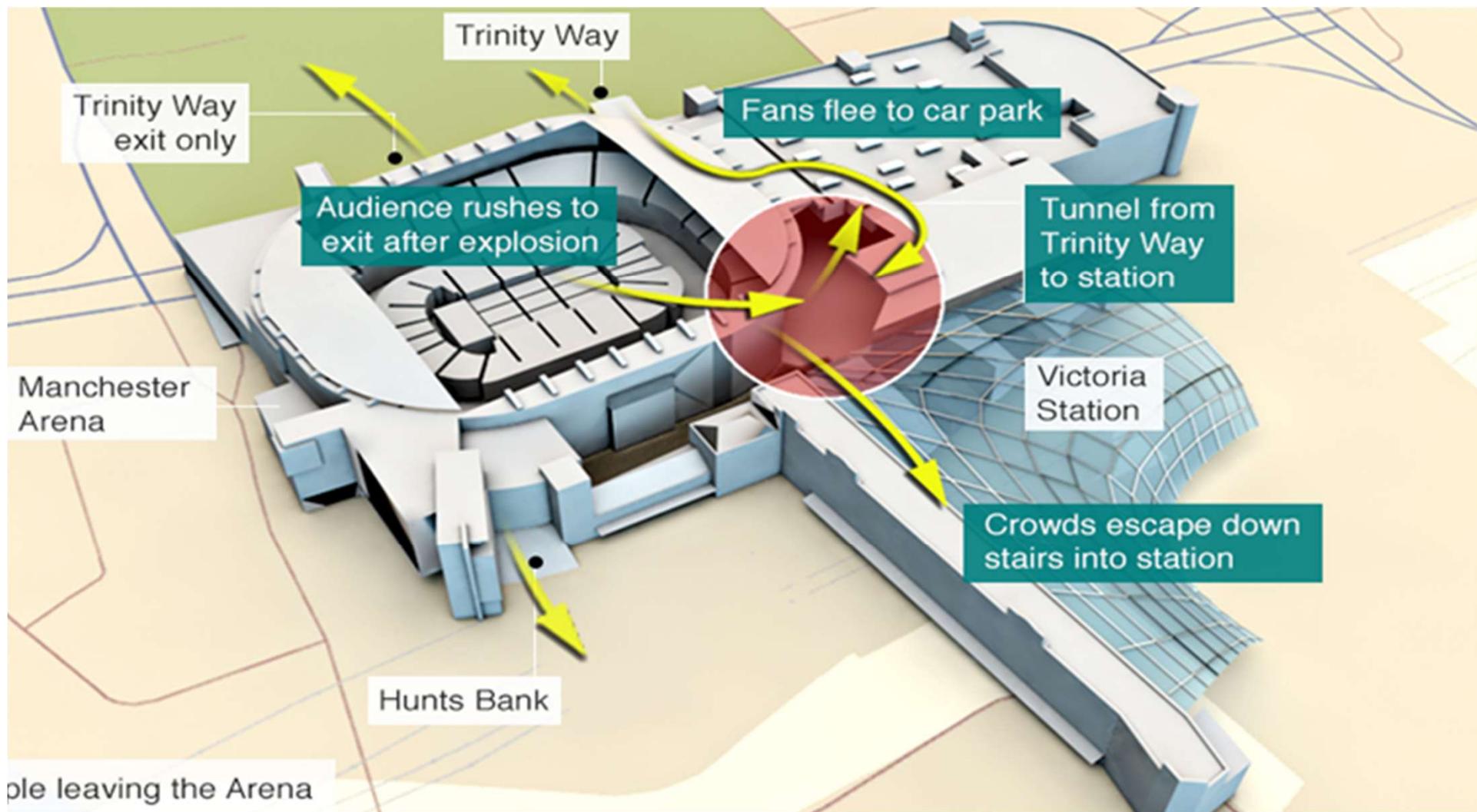
EMBARGOED UNTIL NOON ON TUESDAY 27TH MARCH

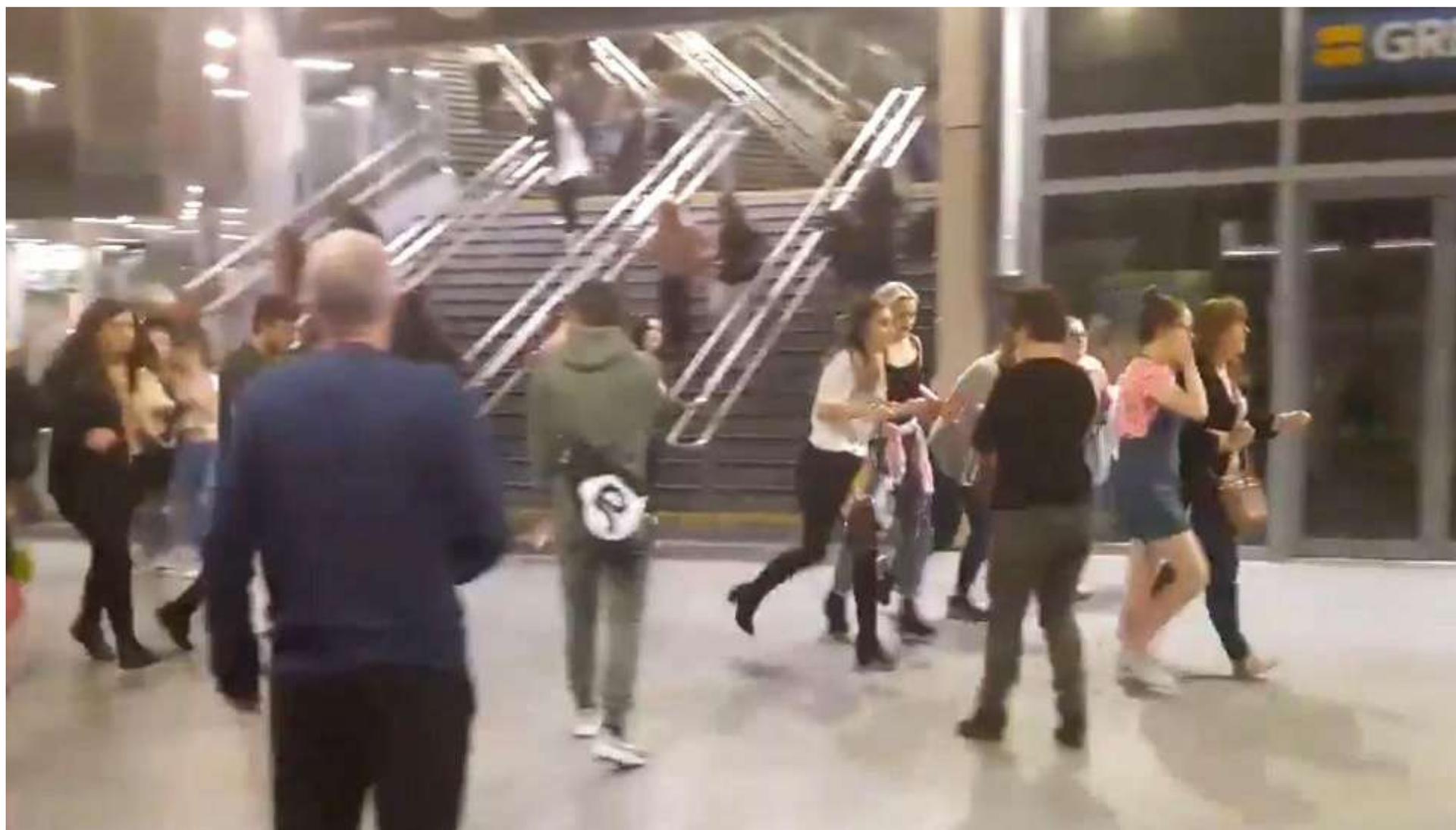
Manchester Arena

ARENA MAP









'Zero responders' in the Foyer

- * "Zero responders" (as defined by Cocking to describe bystander response to 7/7 attacks) acted as 'force multipliers' in the response to the attack
- * 59 casualties in Manchester Arena foyer, being tended by bystanders, responders, Rail and Arena staff and contractors
- * Knowledge of presence of 'zero responders' influenced Responders' decision to not evacuate the foyer as 'Hot Zone'

‘Zero responders’ in the Foyer

“It is the Panel’s opinion that everyone operating in the foyer in the aftermath of the explosion (i.e. the public, the Arena and station staff, the staff from Emergency Training UK and the emergency services) undoubtedly provided essential combined capacity to the medical response, and all of those involved should be immensely proud of their contributions.”

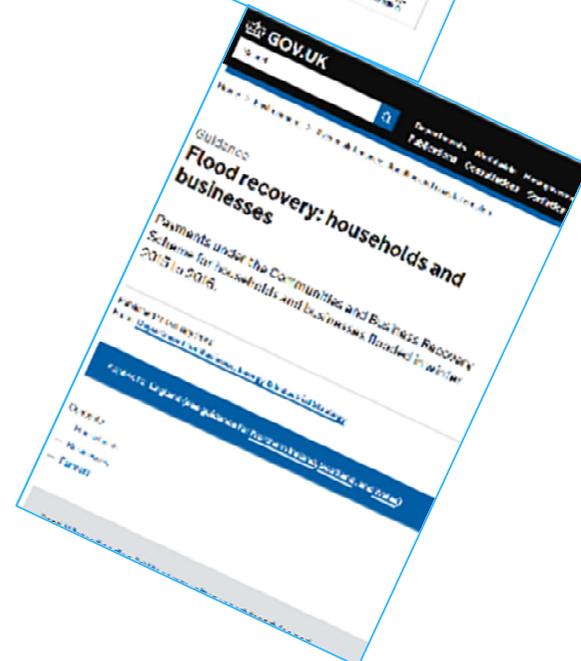
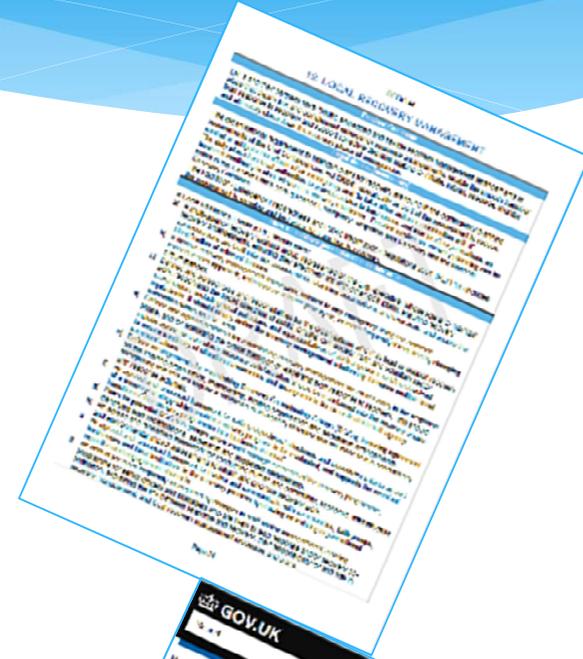
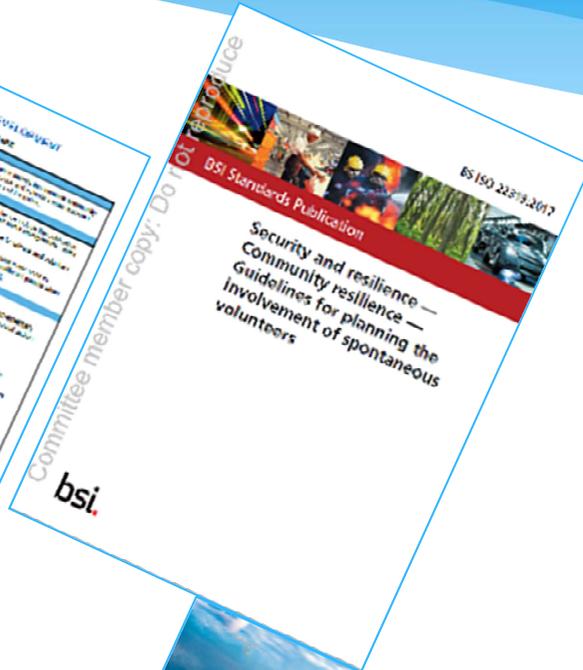
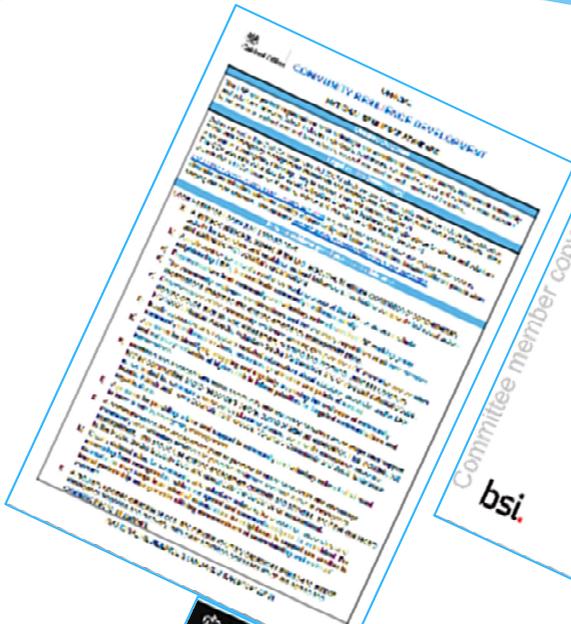
Kerslake (2018: p.167)

To conclude

Research tells policy makers that:

- * Communities are diverse and change dynamically in time and place
- * Community Resilience is underpinned by an on-going process of learning
- * Community Resilience needs to be understood as operating beyond organisational boundaries and into institutional settings (e.g. Co[R]P)
- * Effective learning networks can be formal and/or informal
- * Critical reflection can identify both lessons to be learned and unrecognised community-resilience building assets
- * Effective learning should integrate diverse perspectives if uncertainty is a factor

How research has influenced policy



Case Studies

We held a World Café session where participants were given the chance to visit up to three of the case study groups. We asked the groups to discuss what they felt has worked well and what could work well in the future, using the expert knowledge of those from each case study with input from these 'external' sources

What has worked well

- Neutral space can be crucial
- Organic growth from within
- Building on and embedding existing community links and knowledge
- Partnership working with external organisations/bodies
- Some need a common agenda, others need to be agenda-free
- Matching complimentary skills
- Working with key community figures in formal and informal ways
- Be welcoming to all-comers
- Geographically isolated communities (susceptible to isolating weather events) are more inclined to work together as external influences are limited

What has worked well

- Find innovative and flexible solutions which can meet multiple needs
- Agree clear definitions of roles and activities
- Resilience plan included in community action plan – this makes it more positive and keeps it live
- Identifying different needs and challenges of individual communities
- Acknowledging that conflict is part of the process
- Using one ‘small’ idea/change to bring about bigger changes
- Small practical projects (at least at the start)
- Fact finding and mapping of resources and issues
- Action planning

What could work well in the future

- Learn from failures and mistakes
- Share good practice
- Encourage communities to help each other
- Collect good baseline data
- Embed evaluation from the start
- Co-design with communities
- Develop real community empowerment
- Continually review role and evidence
- Communication in conjunction with trusted local sources to leverage their credibility
- Consistent funding
- Private sector contributions/commitments
- National government commitment
- Build around core ideas that also represent fundamental elements in the idea of community

Final open-floor session – what we have learned

- ‘Normal’ role and professional roles overlap when it comes to communities
- Existing research projects could build community resilience into their projects in a better way
- Heartened by the energy trying to link policy, research and community. Reassuring that others feel this.
- A solution to one problem might also work for other problems too
- Small, local projects versus faceless organisations are important
- Need a ‘coffee room’ in communities, somewhere where people can come together to chat – faceless reassessment on use of that space/resource can be dangerous (i.e. people not using it so get rid of it – needs to be there and available when the time comes)
- Need research that will actually help communities – community-led and fully participatory
- Need more chances for people to come together after these events

Closing thoughts (Sandra and Tony)

- Building a movement is about bringing the power of people together. If we look at our case studies alone, if we can share their good practice and link all these people together we can try and build something that didn't and doesn't exist.
- We don't think we're aiming for a 'resilience' movement, per se. More of a 'community' movement. Need to see where we can link with others and build on existing energy and connections.
- One way to keep the momentum going will be online interactive forum (versus email), so something like a Slack site.
- As academics we feel research is key link for policy and practice/community. We need to know how we can help policy-makers and practitioners. Research is a transaction. We all need to ask 'what will 'I' get out of this research?'

Community Resilience to Extreme Events

15th April 2019

University of Stirling