MART

Frameworks for Managing Adaptation in Resilient Towns and Cities

PENNINE WATER GROUP

Investing in Opportunities

INTERREG IVB

FRC FloodResilienCity

skint

MARE

The Interreg IVB North Sea Region Programme

Investing in the future by working together for a sustainable and competitive region

The University Of Sheffield.

Organisations are broken down into divisions and sub-divisions to carry out the different tasks which go together to help them satisfy their aims and objectives.

This is differentiation

To counter this the need to integrate to achieve unity of effort among the various sub systems in the accomplishment of organisational task.

They need to hold together the individuals and departments straining to pursue their own paths

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FloodResilienCity
skint
MAR
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

They need to do this to

Minimise duplications and conflicts

Maximise the harmonisation of the objectives and programmes of the sub divisions and the utilisation of resources.

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FRC
FloodResilienCity
skint
MARE
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

In this context and in times of great uncertainty MART sets out to:

- Help local authorities to quantify what it is important for them to do to serve their communities
- Help them to identify the capacity building that they need to carry out to make them capable of doing it.

How?

- By establishing a transnational network of local authorities collaborating to develop multi disciplinary frameworks covering diverse, but interrelated aspects of their work to describe their corporate needs so that they can be integrated to create synergies.

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FRC
FloodResilienCity
skint
MAR
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

Once created in a common interdisciplinary language the frameworks can be used to:

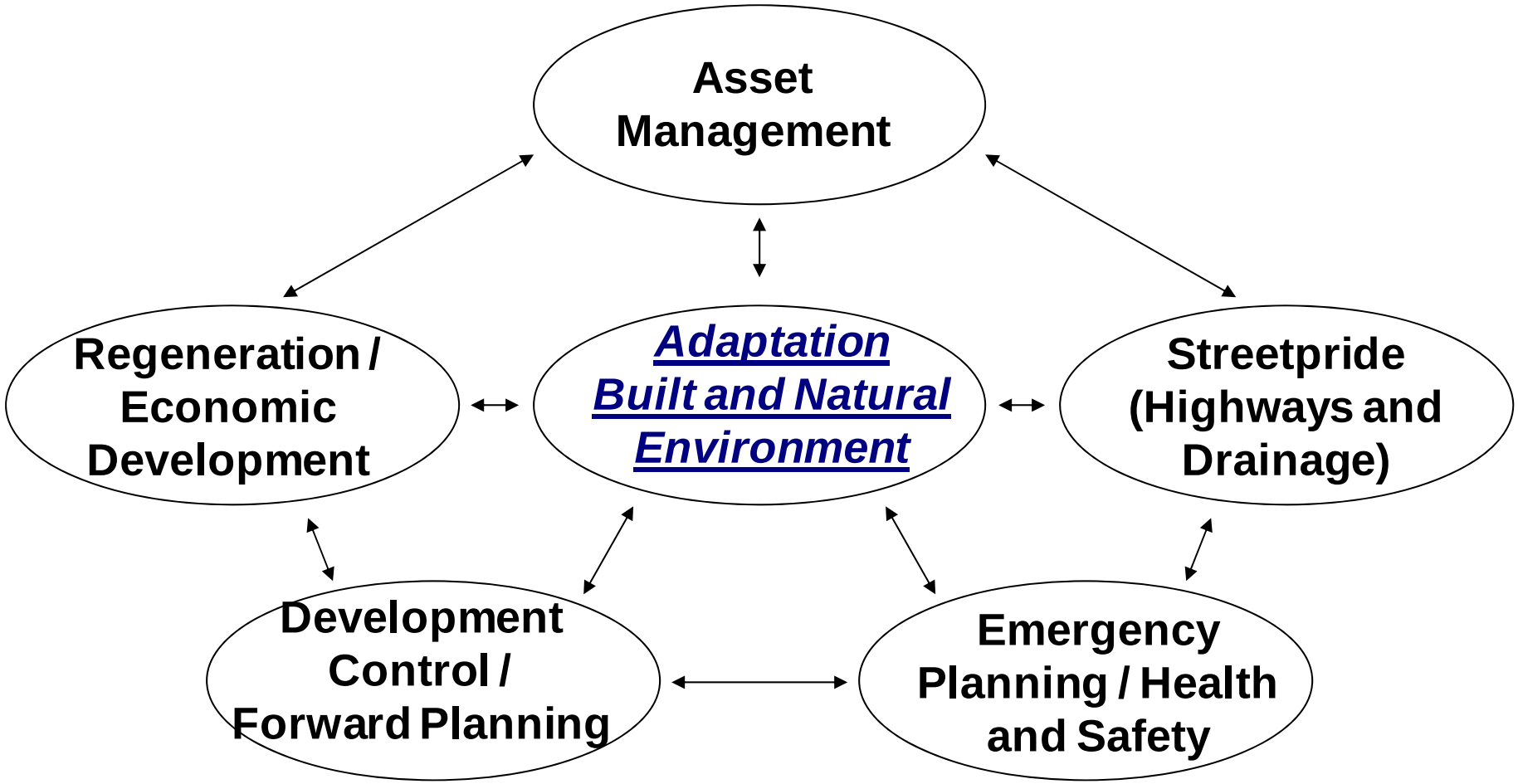
- Benchmark current activity.
- Record and prioritise those activities can and should be done.
- Identify the needs for capacity building for people.
- Implement the necessary changes.

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FRC
FloodResilienCity
skint
MAR
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

They can also be used to:

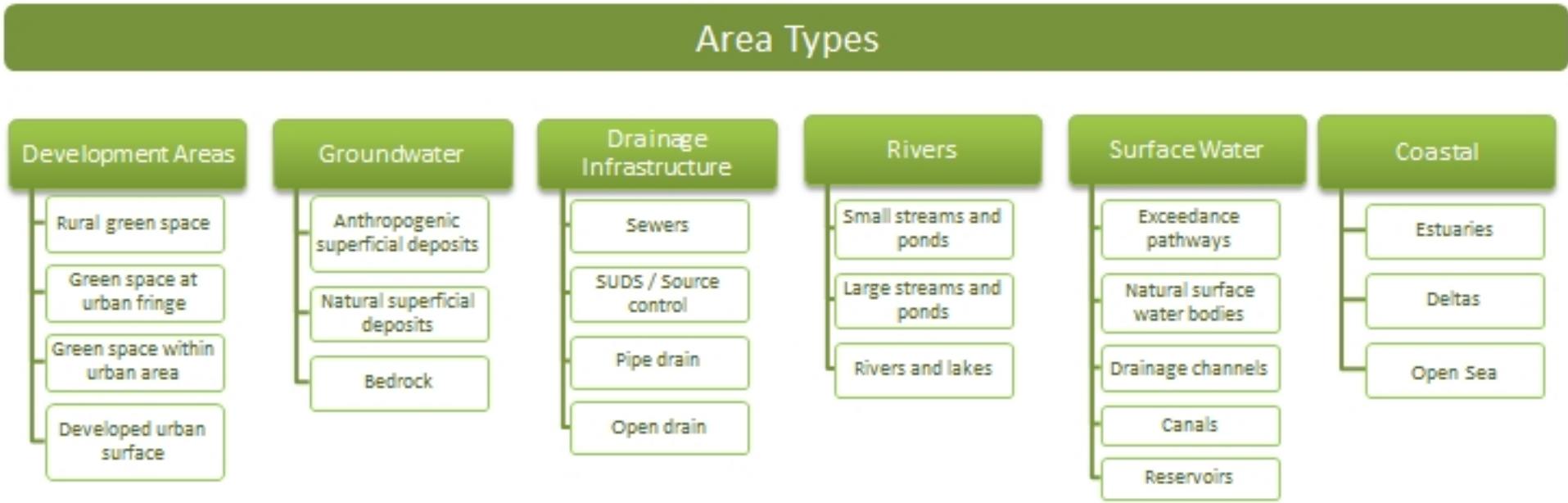
- Identify R & D needs to develop organisational infrastructure (tools and procedures, for technical tasks, management and communication)
- Identify appropriate means of funding, methods for implementation and knowledge acquisition and management.

An example of what could be linked



PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FloodResilienCity
skint
MARE
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

MARE, SKINT, FRC Framework – A starting point from the water perspective



PENNINE WATER GROUP

Investing in Opportunities

INTERREG IVB

FRC FloodResilienCity

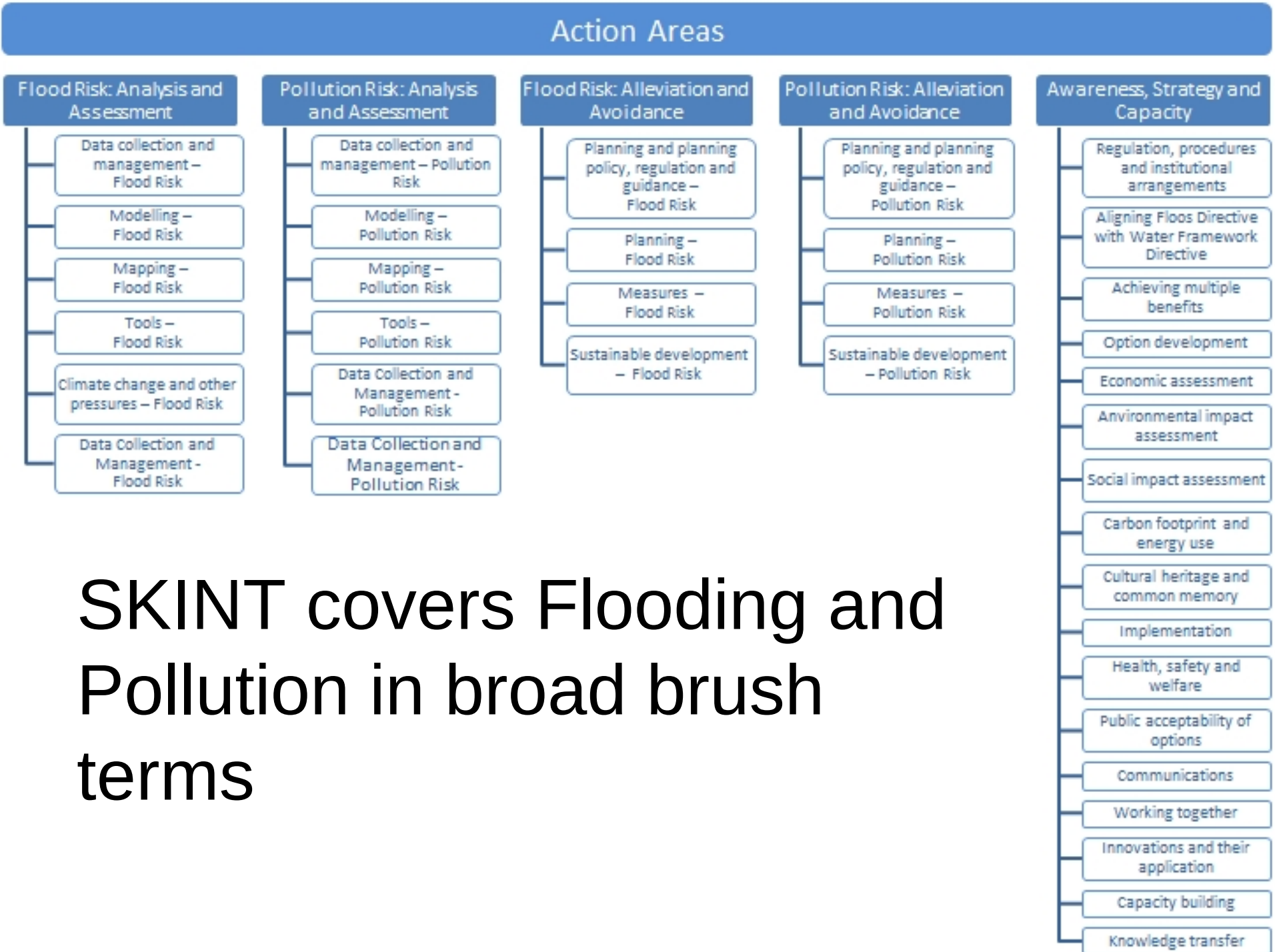
skint

MARE

The Interreg IVB North Sea Region Programme

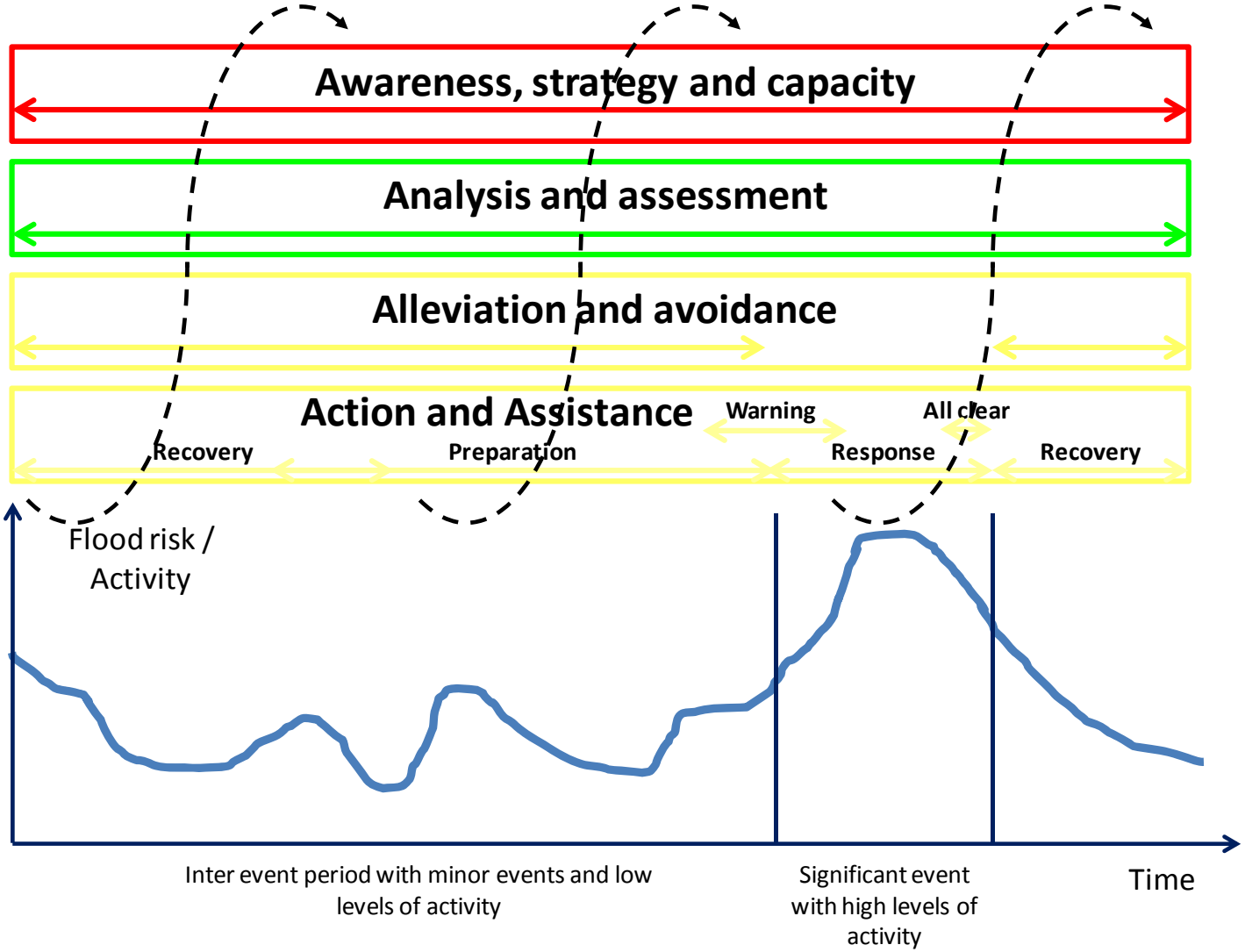
Investing in the future by working together for a sustainable and competitive region

The University Of Sheffield.



SKINT covers Flooding and Pollution in broad brush terms

MARE/FRC - more detail for flooding



PENNINE WATER GROUP

Investing in Opportunities

INTERREG IVB

FRC FloodResilienCity

skint

MARE

The Interreg IVB North Sea Region Programme

Investing in the future by working together for a sustainable and competitive region

The University Of Sheffield.

Using the framework - Who does what and why analysis

Table 1: Stakeholder involvement in flood analysis and assessment

This table may be used to identify who does what modelling etc.
1 – Sheffield City Council
2 - Environment Agency
3 - Water and Sewage Company (Yorkshire Water)
4 - English Heritage
5 – Landowners
6 – Insurance companies
D – Duty
P – Power
V - Voluntary

		Exceedence pathways	Surface water and soil				Groundwater			Drainage infrastructure				Small Streams and ponds	Large Streams and ponds	Rivers and lakes	Artificial water bodies			Estuaries	Deltas	Open sea
			Rural green space	Green space at urban fringe	Green space within urban area	Developed urban surface	Artificial superficial deposits(Made, Worked, In filled, Disturbed or Landscaped Ground)	Natural superficial deposits	Bedrock	Sewers	SUDS/Source control	Pipe drain	Open Drain				Drainage channels	Canals	Reservoirs			
Data collection and management	Rainfall																					
	Flow and depth									3D		5V	5V									
	Incident data		1D	1D	1D	1D		1D	1D	1D, 3D		1D, 5V	1D, 5V	1D	1D	2D	1D, 2V	1D, 2V	1D, 2D, 5D			
Modelling	Rainfall																					
	Probability and consequences (risk)					1V	1V			3D		1V	1V	1V	1V							
	Modelling joint probabilities					1V						1V	1V	1V	1V	2V			5D			
Economic damage assessment							6V			6V		6V		6V	6V	6V	6V	6V	6V	6V	6V	6V
Mapping	Hazard, probability and risk														1V	2D						
	Mapping joint probabilities									3D									5D			
Flood forecasting																	2 V			2V	2V	2V

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FRC FloodResilienCity
skint
MARE
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

Table 2: Partner involvement in flood alleviation and avoidance

This table may be used to identify the partners involved in developing and implementing appropriate measures for alleviating current flood risk and avoiding future risk. Many, but not all flood risk management measures are applicable to alleviation and avoidance so makes sense to merge the two. These stakeholders should work closely with those identified in Table 3 to manage flood risk

		Exceedence pathways	Surface water and soil				Ground water			Drainage infrastructure				Small Streams and ponds	Large Streams and ponds	Rivers and lakes	Artificial water bodies			Estuaries	Deltas	Fjords and inlets	Open sea
			Rural green space	Green space at urban fringe	Green space within urban area	Developed urban surface	Artificial superficial deposits	Natural superficial deposits	Bedrock	Sewers	SUDS/Source control	Pipe drain	Open Drain				Drainage channels and ponds	Canals and lakes	Reservoirs				
Strategy and master planning	Regulation						D	D									D	D					
	Guidance						D	D									D	D					
	Zoning, ordinances and maps																D	D					
Development control	Regulation																						
	Guidance						D	D									D	D					
Building control	Regulation																						
	Guidance						D	D									D	D					
Promoting/requiring water sensitive urban design							P	P									P	P					
Promoting/requiring resilient and resistant infrastructure							P	P									P	P					
Promoting/requiring resilient and resistant buildings (Flood adaptive architecture)							P	P									P	P					
Duties for surface water management							D	D									D	D					
Duties for surface water maintenance																	D	D					
Duties for developing alleviation options							P	P									P	P					
Duties for developing assessing and approving alleviation options							D	D									D	D					
Promoting/requiring appropriate use of adaptive and non adaptive responses																	V	V					
Promoting/requiring flood minimisation by flow management																	D	D					
Promoting use of insurance as a FRM measure																							
Promoting use of reserve funds as a FRM measure																							
Duties for FRM programme development																	D	D					
Duties for FRM programme implementation																	D	D					

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FRC FloodResilienCity
skint
MARE
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

Table 3: Partner involvement in assistance

This table may be used to identify the partners involved in assisting communities to prepare for, manage and recover from flood events. These partners should work closely with those identified in Table 3 to manage flood alleviation and avoidance. Because the partners in this table assist communities with all types of emergency and are very busy, all partners in the water and land management sector are advised to adopt a common framework to ease communication and improve the effectiveness of collaborative working.

		Exceedence pathways	Surface water and soil				Groundwater			Drainage infrastructure				Small Streams and ponds	Large Streams and ponds	Rivers and lakes	Artificial water bodies			Estuaries	Deltas	Fjords and inlets	Open sea
			Rural green space	Green space at urban fringe	Green space within urban area	Developed urban surface	Artificial superficial deposits(Made, Worked, In filled, Disturbed or Landscaped Ground)	Natural superficial deposits	Bedrock	Sewers	SUDS/Source control	Pipe drain	Open Drain				Drainage channels	Canals	Reservoirs				
Preparing for floods																y							
Flood warnings	Email																						
	SMSOn-line																						
	Door knocking																						
Responding to emergencies	Temporary flood protection															y							
	Emergency operations																						
The “All clear” process	Entscheidung treffen: Gefahr vorbei (alles klar)																						
Helping recovery																							

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FloodResilienCity
skint
MARE
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

Table 4: Stakeholders and their roles (110722)

In this table A means an advisory role and D means a decision making role

The reference numbers of the stakeholders can be used in the completion of Tables 1 - 3.

MARE partners shown in red

	Developers		Long term ownership		Interest																							
					Regulators										Planning bodies										Knowledge development			
					Wild life		Heritage		Environment		Water quality		Water quantity		Emergency planning		Strategy planners		Development control		Building control		Road/Transport		Initiators		Create state of the art knowledge		knowledge maintenance	
	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D
Public Authorities																														
1. City of Hannover	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Region Hannover	x	x			x	x			x	x		x	x		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x
3. Federal State Lower Saxony, Ministry	x	x	x	x		x		x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x
4. Federal State Lower Saxony, NLWKN (EA)									x		x		x	x	x		x		x		x						x		x	
5. Federal Republic	x	x	x	x		x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x
6.People, organisations and communities																														
e.g. University of Hannover as land owner	x	x	x	x	x		x		x		x		x		x	x	x						x		x					
7. interest groups					x		x		x		x		x		x		x						x		x					
8. Knowledge institutions																														
e.g. University of Hannover																									x		x		x	

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FRC FloodResilienCity
skint
MARE
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

Current progress

- UoS working with Rotherham MBC (MARE) and City of Bradford MDC (SKINT) to start the development of frameworks
- UoS working on the development of the detailed frameworks for pollution and non potable water
- UoS is developing the tool to store the frameworks (ready later in February)

The MART

English | Deutsch | Nederlands | Norsk | » Members Area

Frameworks for Managing Adaptation in Resilient Towns and Cities

Home | Frameworks | Stakeholders | Adaptation in the built, natural and water environments | Glossary | Links

Welcome to the MART

Ut in nulla enim. Phasellus molestie magna non est bibendum non venenatis nisl tempor. Suspendisse dictum feugiat nisl ut dapibus.

Mauris iaculis porttitor posuere. Praesent id metus massa, ut blandit odio. Proin quis tortor orci. Etiam at risus et justo dignissim congue. Donec congue lacinia dui, a porttitor lectus condimentum laoreet. Nunc eu ullamcorper orci. Quisque eget odio ac lectus vestibulum faucibus eget in metus. In pellentesque faucibus vestibulum.

Ut in nulla enim. Phasellus molestie magna non est bibendum non venenatis nisl tempor. Suspendisse dictum feugiat nisl ut dapibus. Mauris iaculis porttitor posuere. Praesent id metus massa, ut blandit odio. Proin quis tortor orci. Etiam at risus et justo dignissim congue.

Take me to the results »

Search website Go

MART Partners

Glossary of Terms view all »

Accepted Land Use
Donec congue lacinia dui, a porttitor lectus condiment laoreet. Nunc eu ullamcorper orci. read more »

Accepted Land Use
Donec congue lacinia dui, a porttitor lectus condiment laoreet. Nunc eu ullamcorper orci. read more »

Our Partners

PENNINE WATER GROUP

The University Of Sheffield.

© University of Sheffield 2013

PENNINE WATER GROUP

The University Of Sheffield.

Many hands make light work

Many hands also add perspective

PENNINE WATER GROUP
Investing in Opportunities
INTERREG IVB
FloodResilienCity
skint
MAR
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region
The University Of Sheffield.

Thank you for listening

PENNINE WATER GROUP

Investing in Opportunities

INTERREG IVB

FloodResilienCity

skint

MAR

The Interreg IVB North Sea Region Programme

Investing in the future by working together for a sustainable and competitive region

The University Of Sheffield.