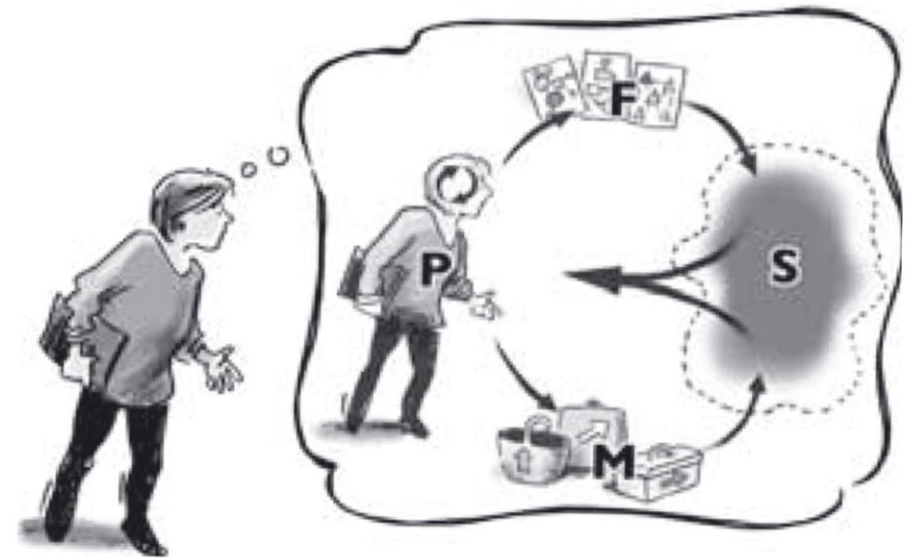


Towards systemic governance?

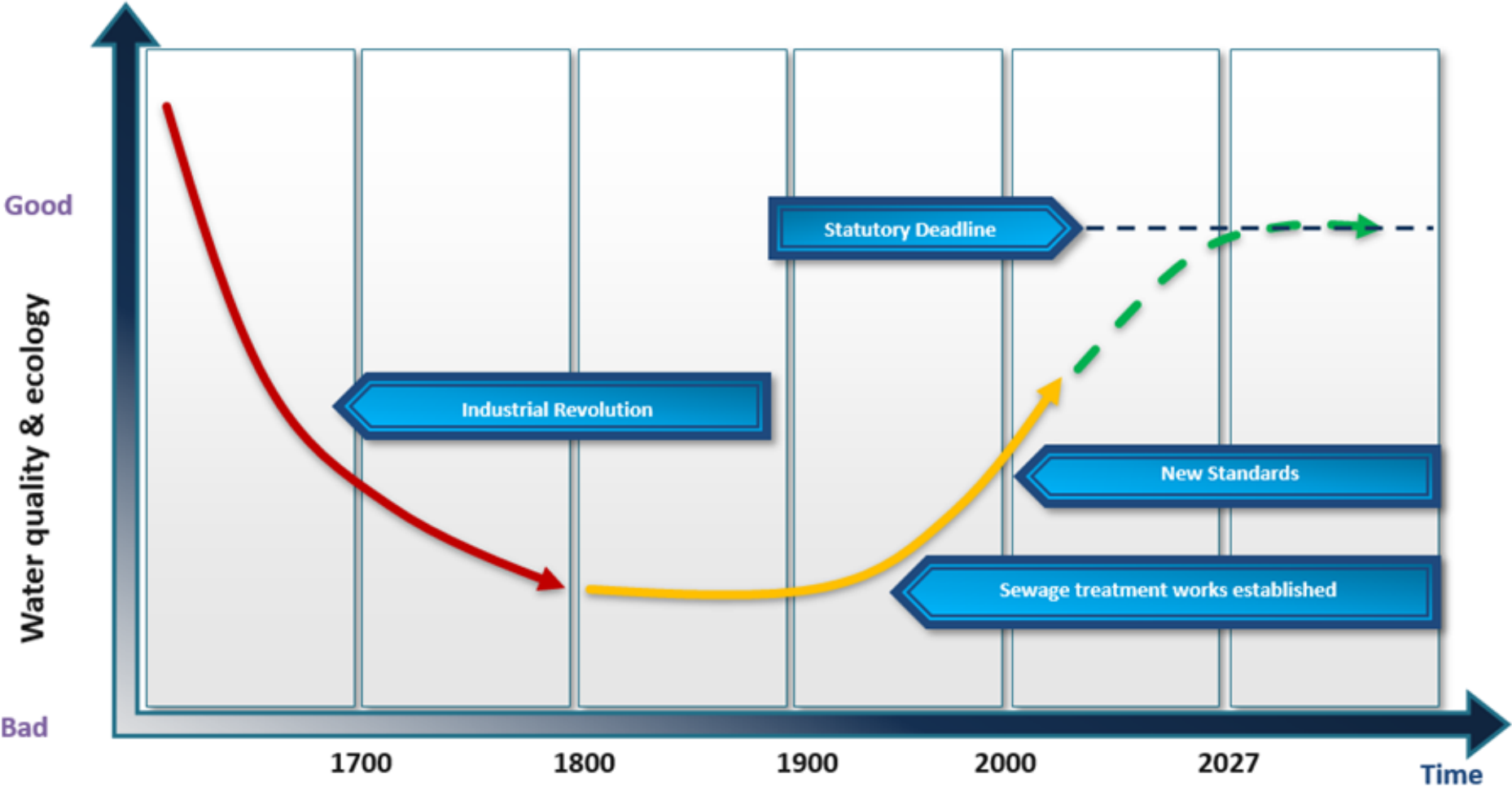
Partnerships for action in river basin planning and catchment governance

Contents

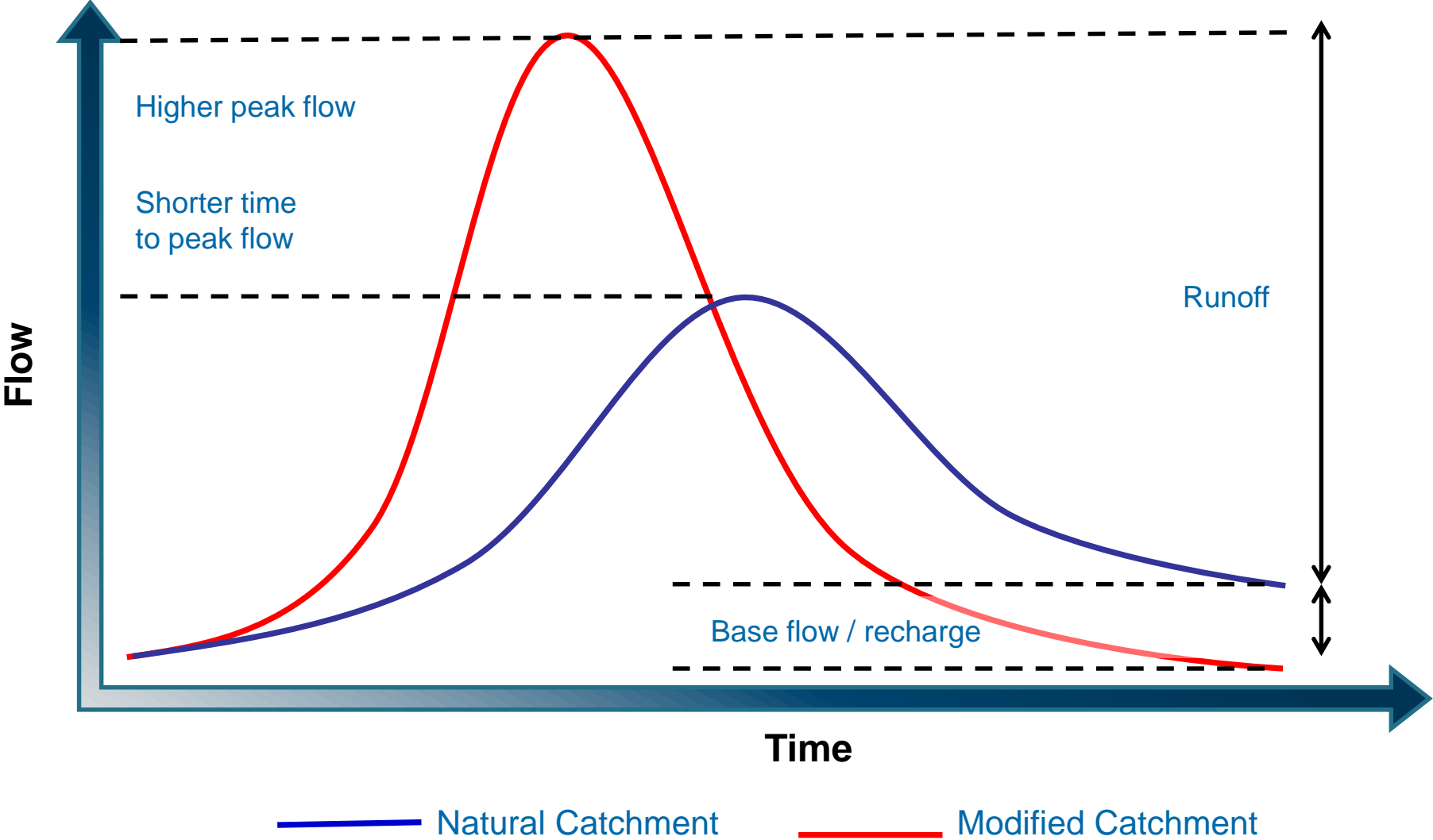
- **Background** and context for river basin and catchment governance in England
- Conceptual **framework** for action
- **Methods** of action
- Catchments = **situation(s)** for action
- So what...?
- What next...?



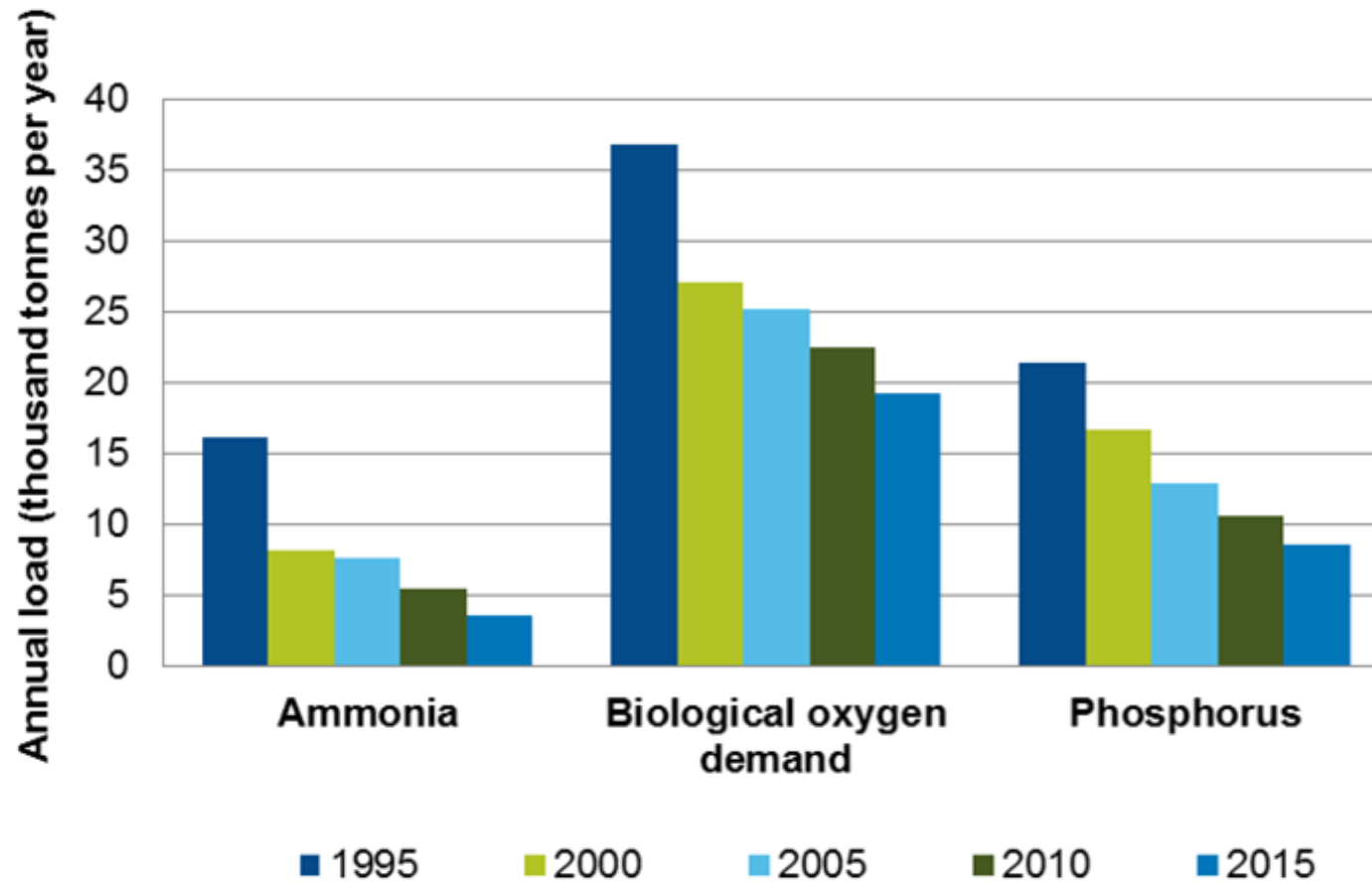
State of the Water Environment



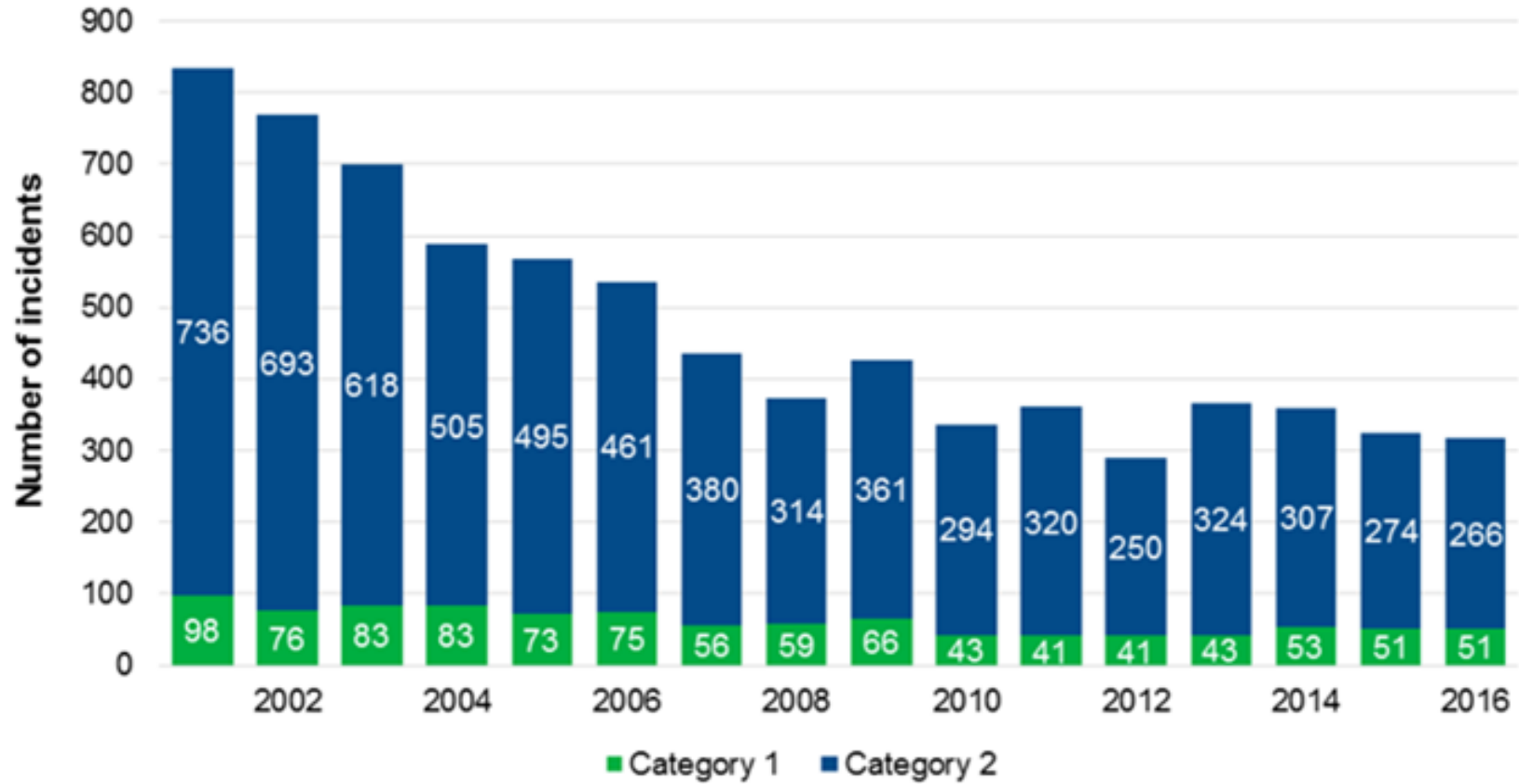
Hydrology



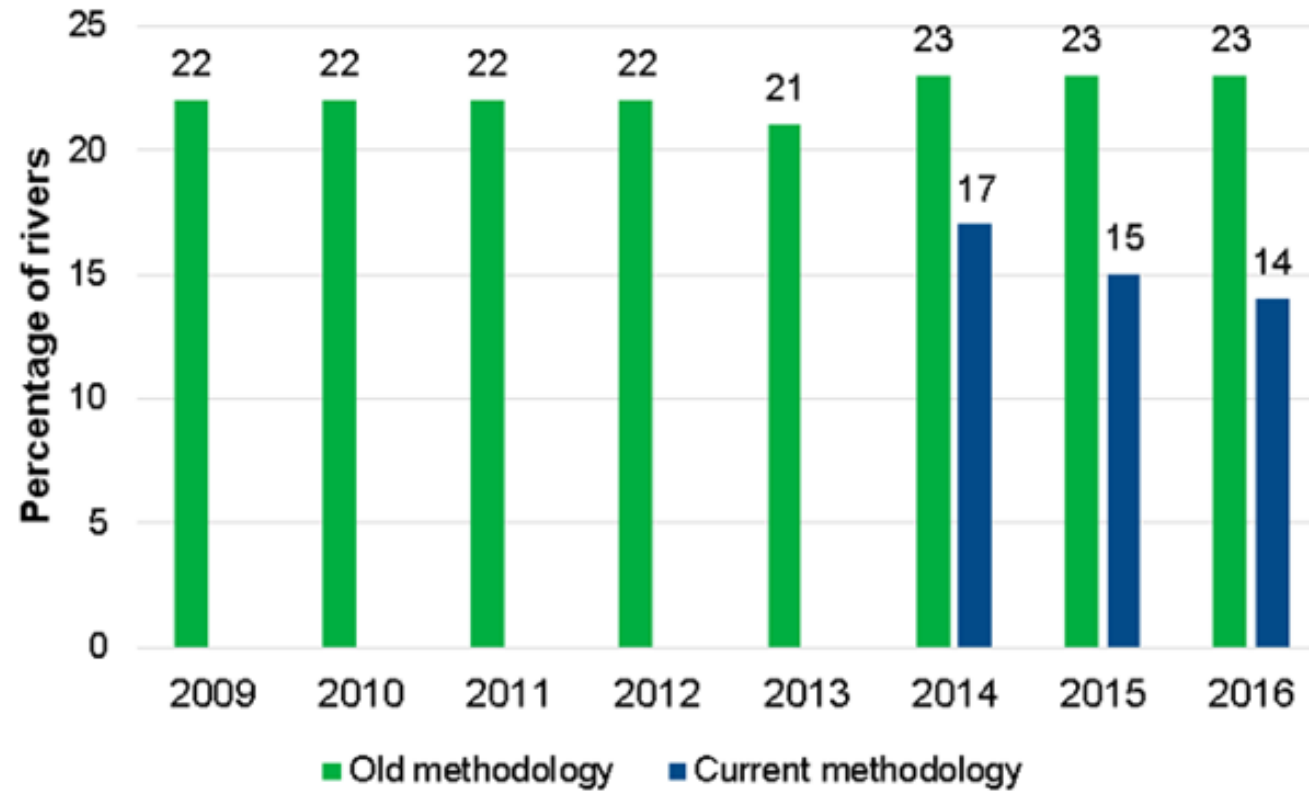
Pollutant loads to roads rivers from the water industry 1995 - 2015



Serious water pollution incidents 2001 - 2016

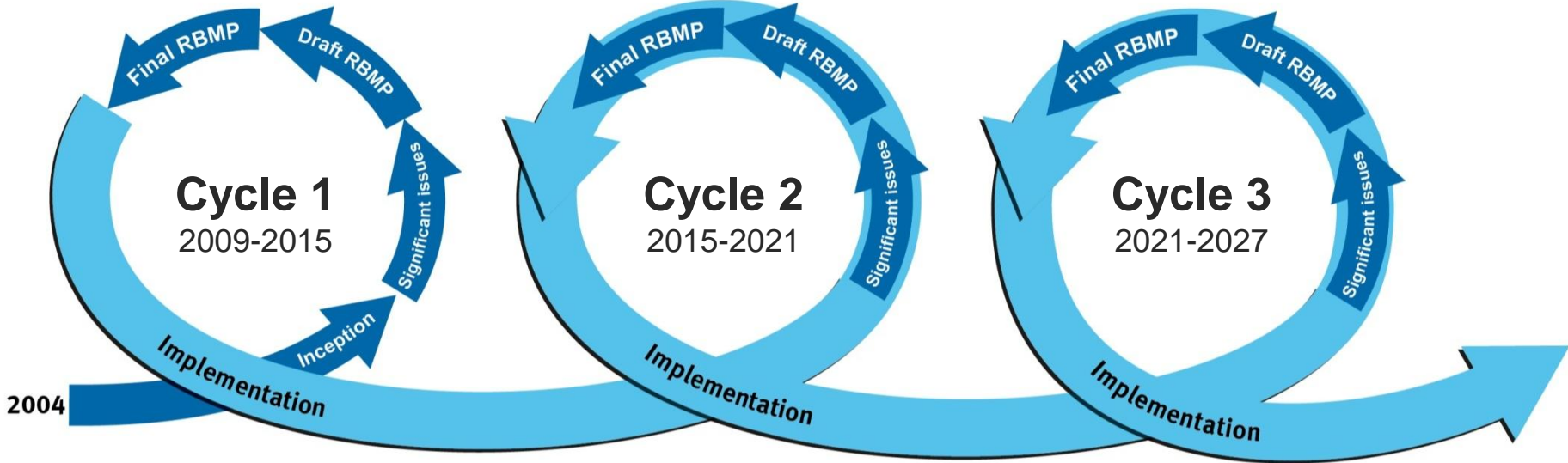


Rivers achieving good or better biological status 2009 - 2016



Note: Assessment methodology changed in 2014

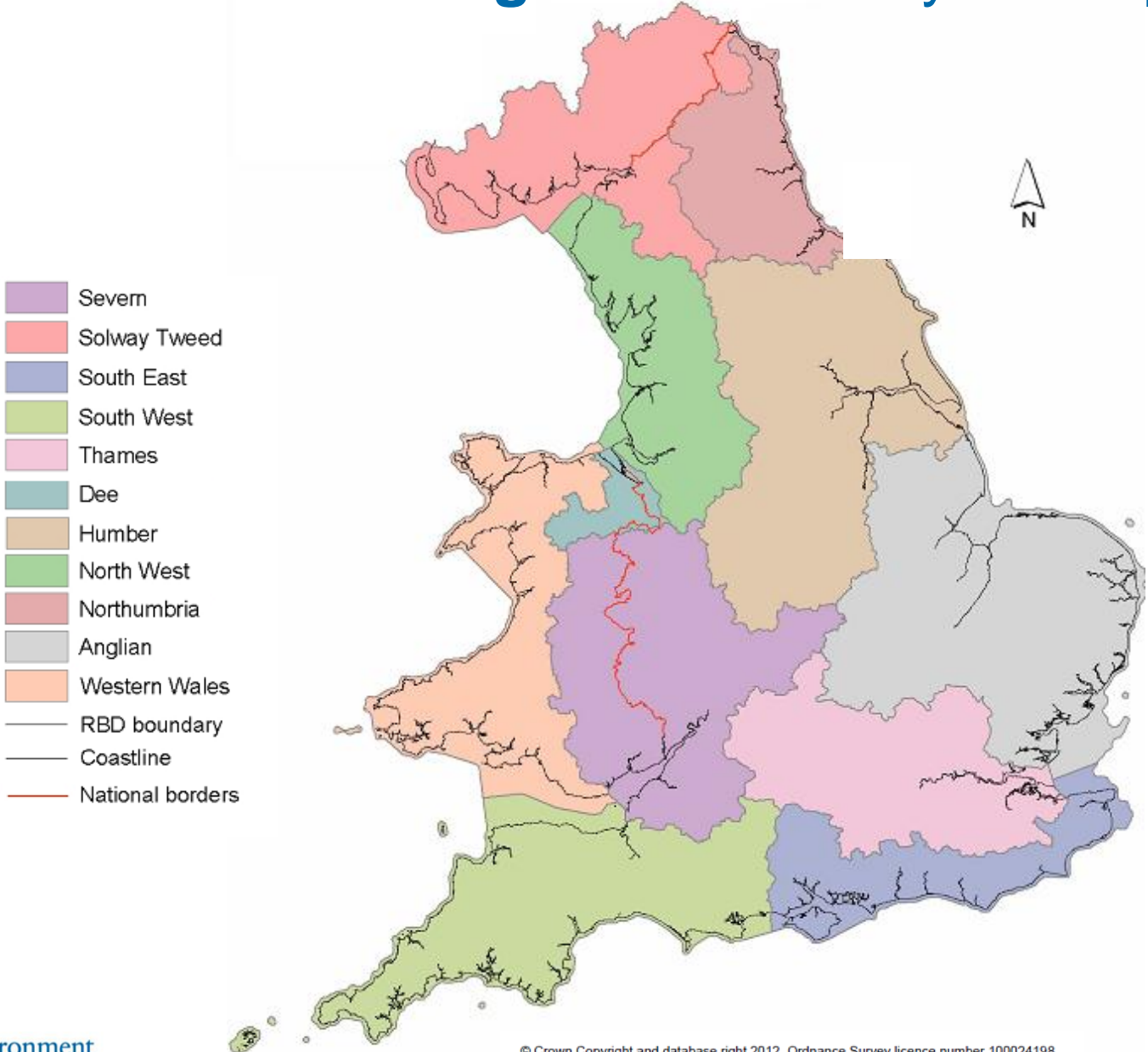
River Basin Planning



Statutory Framework: *Plan-Do-Check-Review*

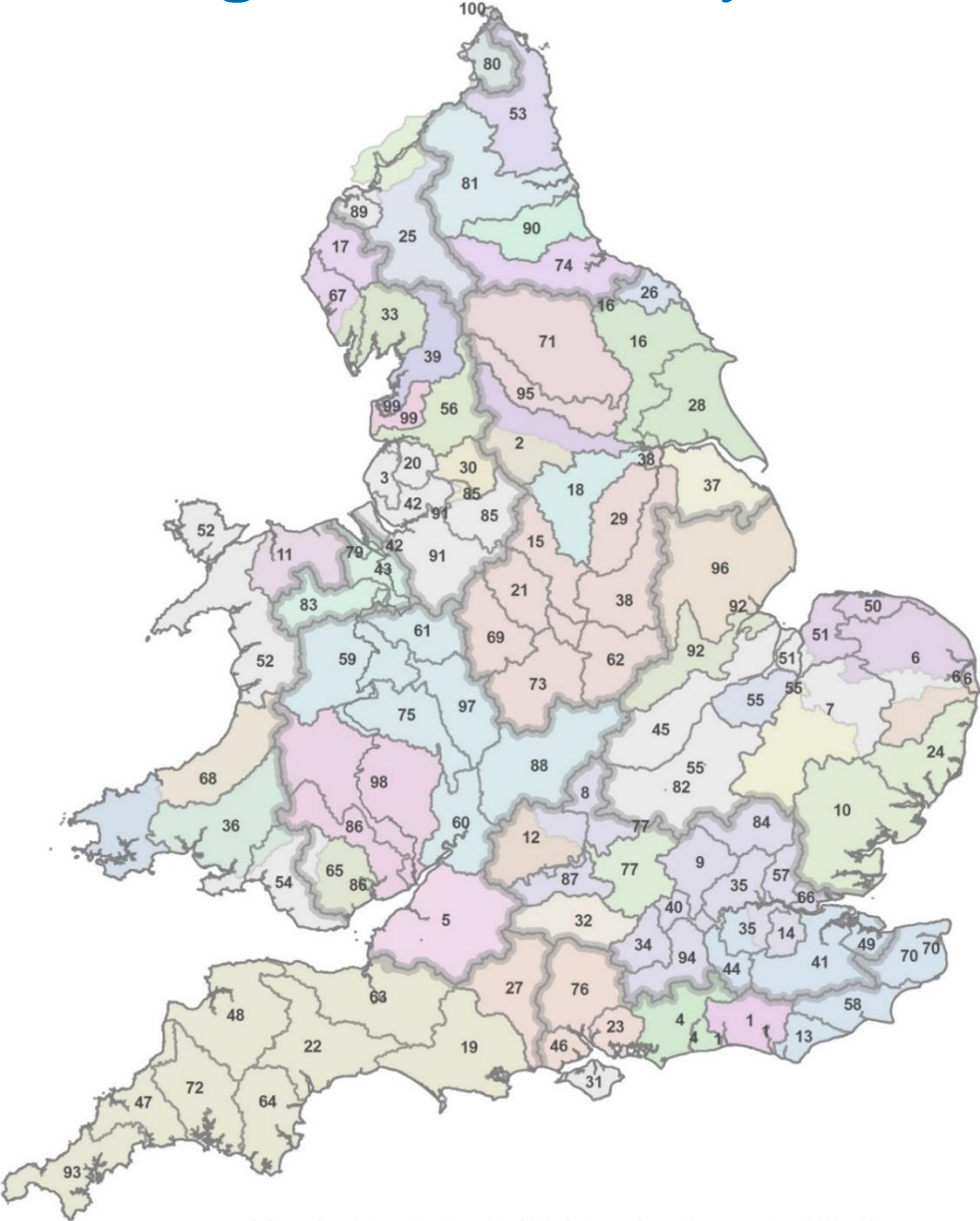
River Basin Planning

Cycle 1 Approach

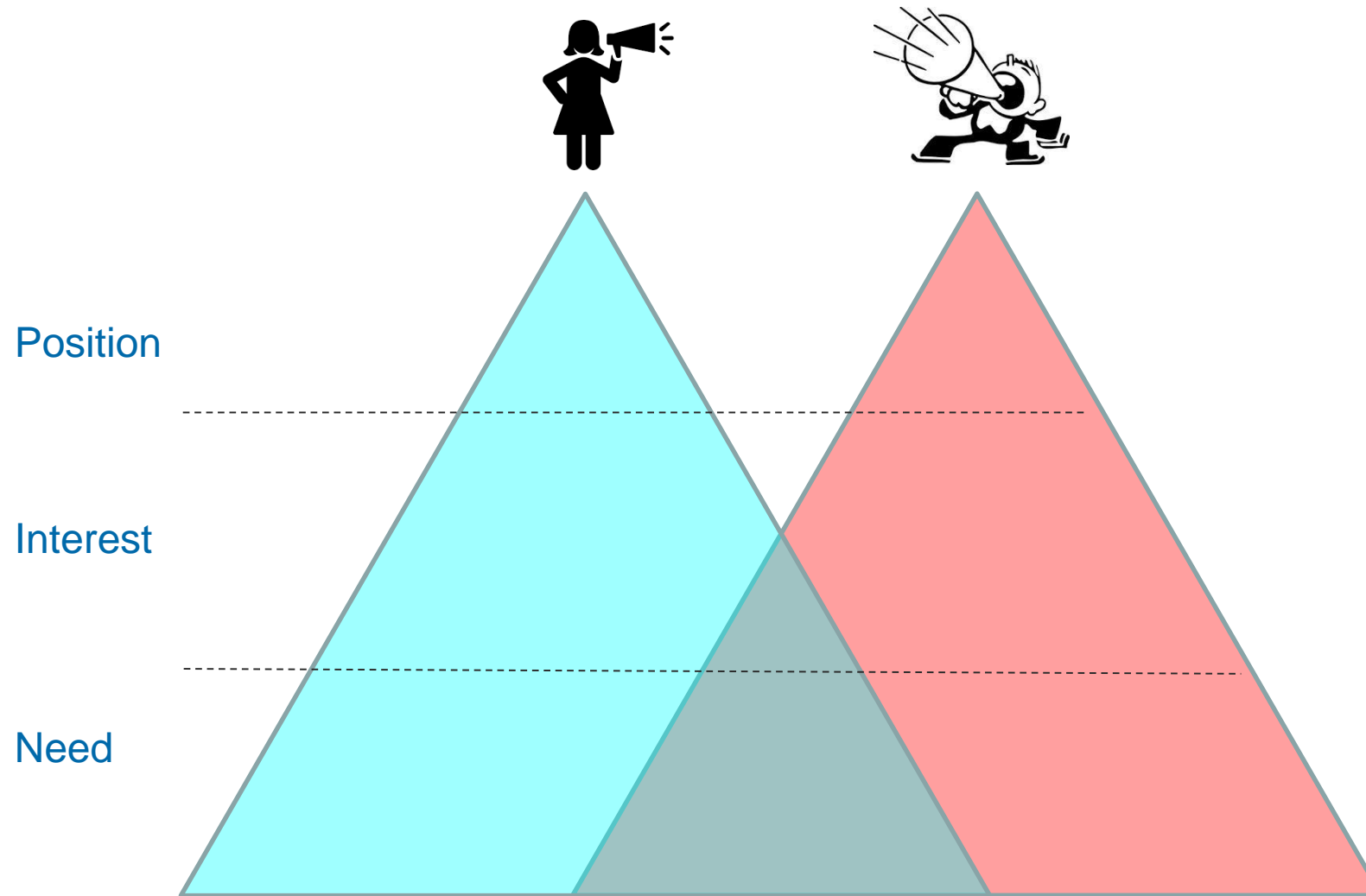


River Basin Planning

Cycle 2 Transition

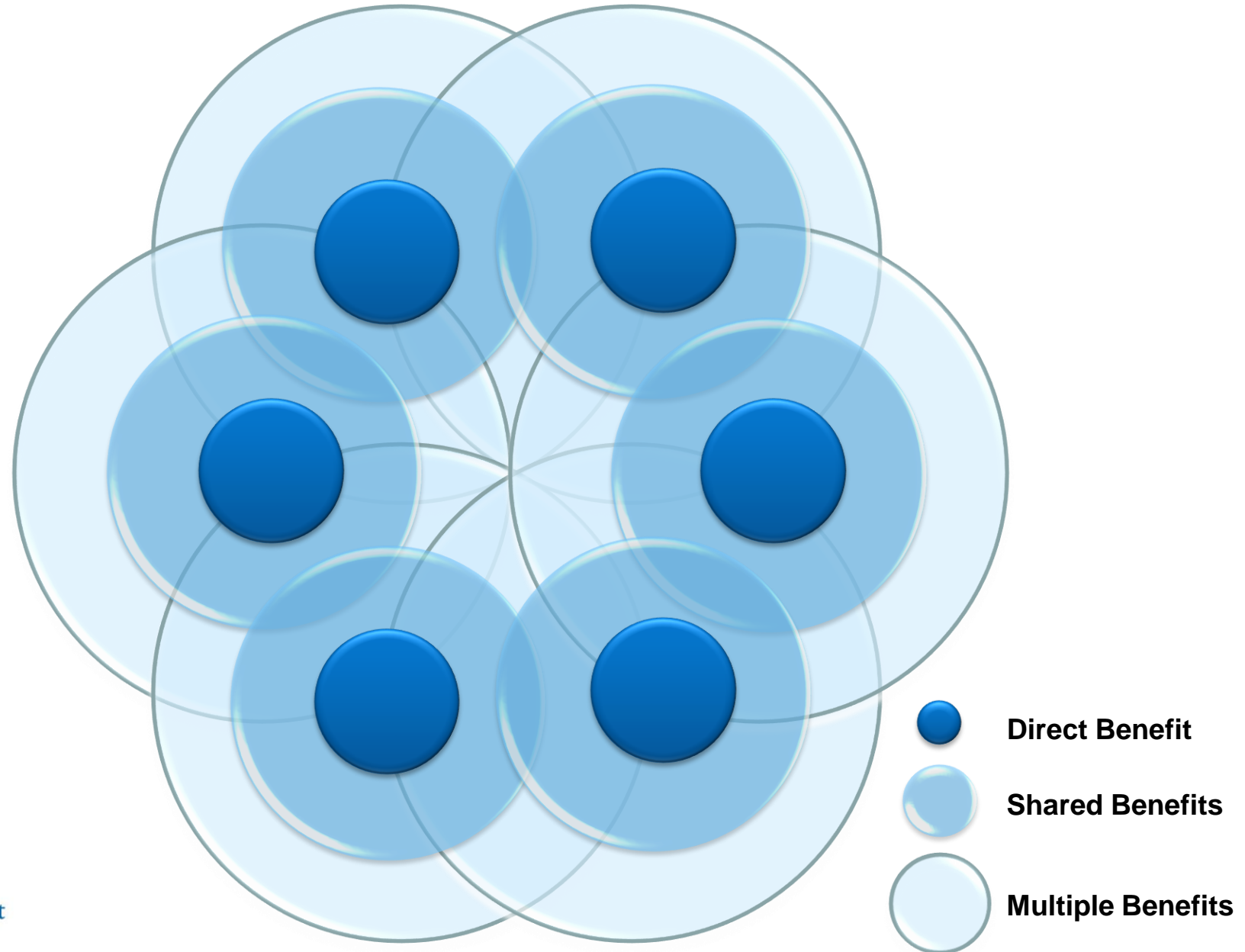


A Partnership Approach - *Defining the Concept*

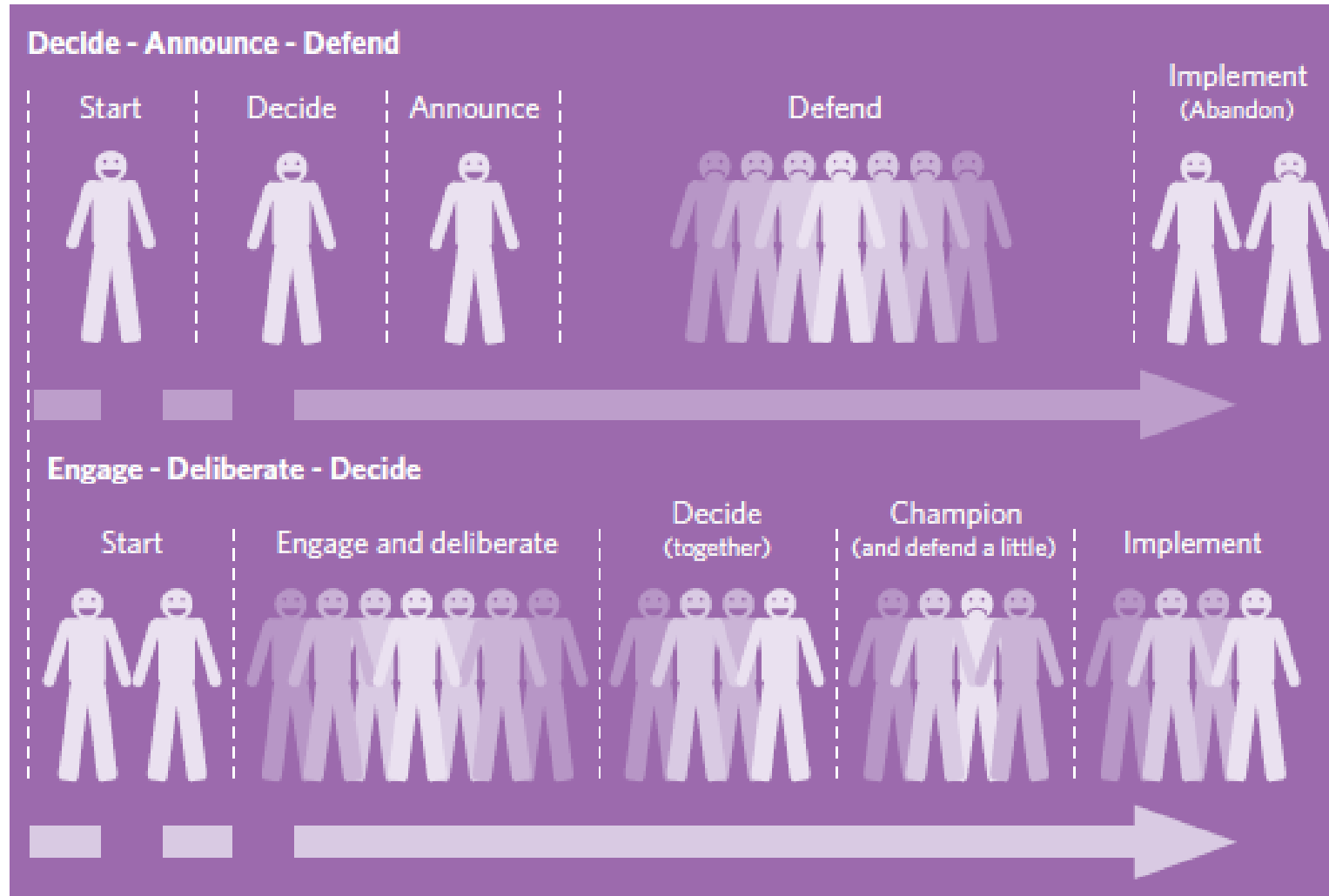


For a wise outcome reconcile interests and needs rather than positions

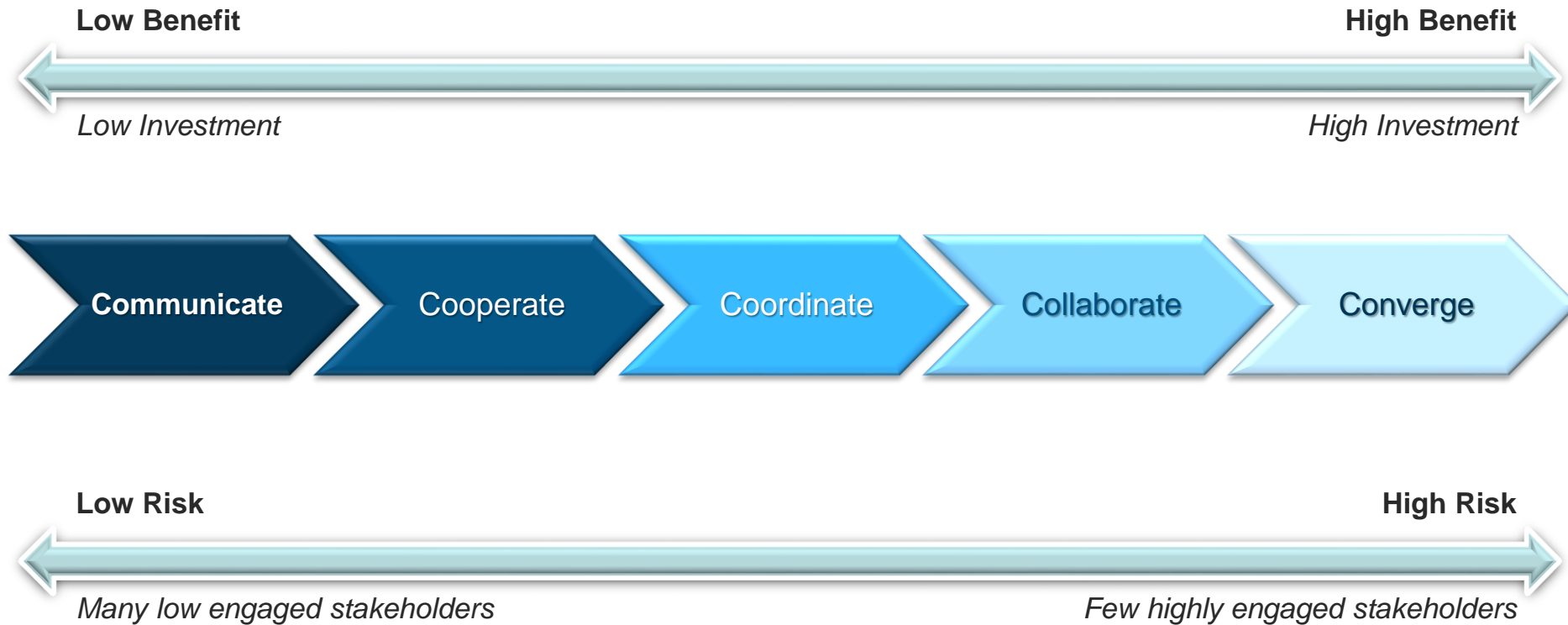
A Partnership Approach - *Designing the Concept*



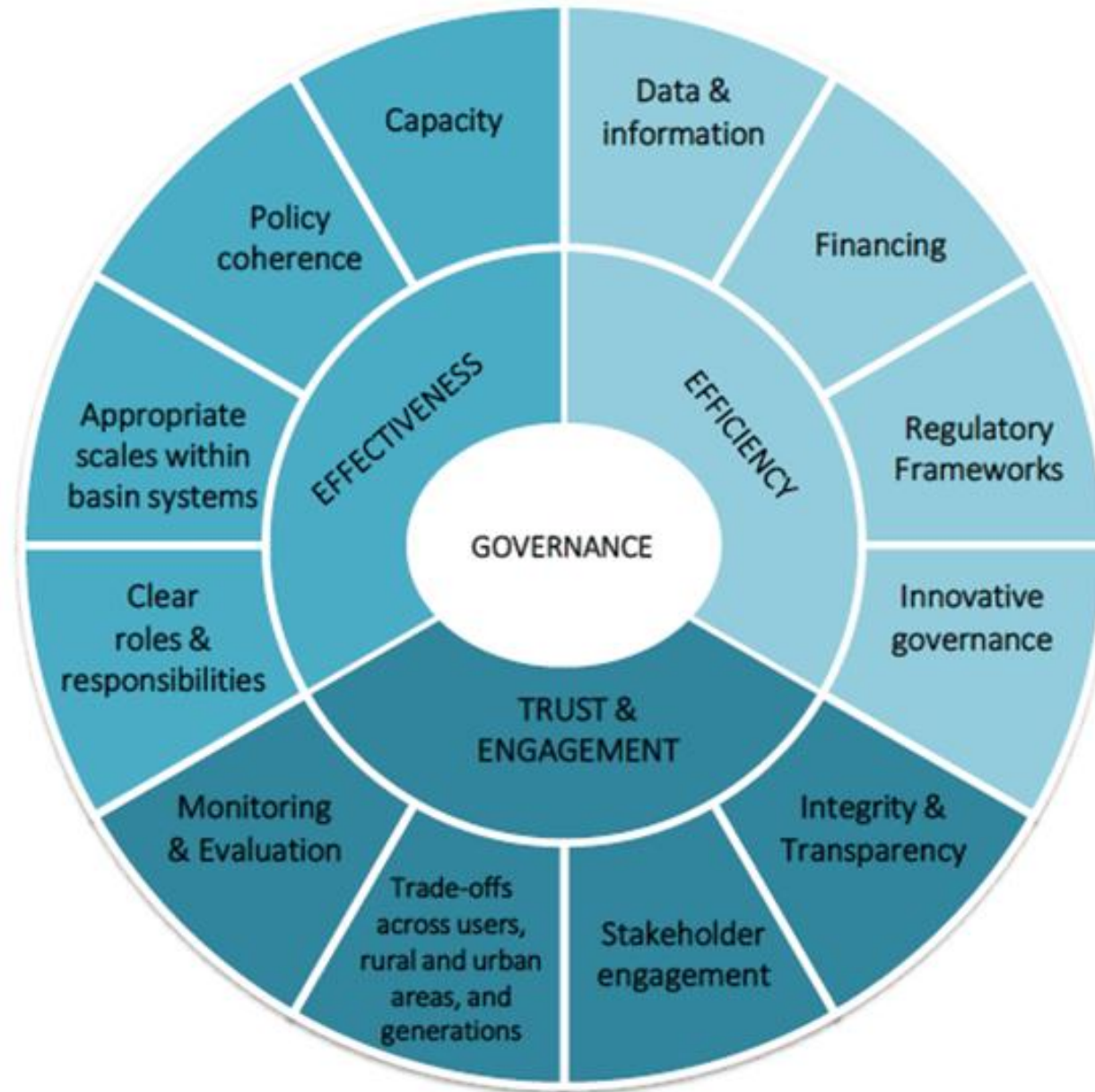
A Partnership Approach - *Developing the Concept*



A Partnership Approach - *Delivering the Concept*



Governance - Principles





Use the catchment data explorer to navigate to catchments and water bodies, view catchment summaries and download data. This site supports the consultation on the updates to the river basin management plans. You can get involved here. [Show more »](#)

Search by: Place name:

River Basin Districts

To get started select a River Basin District on the map or use the searches above.



- Anglian**
River Basin District
- Dee**
River Basin District
- Humber**
River Basin District
- North West**
River Basin District
- Northumbria**
River Basin District
- Severn**
River Basin District
- Solway Tweed**
River Basin District
- South East**
River Basin District
- South West**
River Basin District
- Thames**
River Basin District
- Western Wales**
River Basin District

Legend

River Basin District



Use the catchment data explorer to navigate
This site supports the consultation on the
[Show more »](#)

Search by: Place name:

River Basin Districts

To get started select a River Basin District



Legend

■ River Basin District



Search by: Place name:

Severn

River Basin District

The Severn River Basin District has a varied landscape from the uplands of Wales, down through valleys and rolling hills, to the lowlands and the Severn Estuary. As well as the River Severn and its main tributaries, the Warwickshire Avon, and the Teme, the river basin district includes the rivers of South East Wales, including the Wye, Usk and Taff, and those of the South West, including the Bristol Avon, that drain directly into the Severn Estuary.

The district is home to more than 5.3 million people, and includes the major urban centres of Bristol, Cardiff and Coventry. Much of the river basin is rural in character, with around 80% of the land managed for agriculture and forestry. This includes extensive beef and sheep farming, large dairy units, conifer plantations and some arable and specialist horticulture. While agriculture dominates the landscape it only makes up a small part of the economy, the main sectors being related to business, transport, health and industry.

The natural environment of the River Basin District is also valued for its navigational and recreation uses and is an attraction for the people who live and work here, in addition to the many visiting tourists. The district includes many important habitat and wildlife areas of national and international importance. Most significantly, the unique environment of the Severn Estuary and its surrounding area are protected for their bird populations, habitats and migratory fish such as Atlantic salmon, lamprey and eel.

Photo credit: Nick Stewart



Management Catchments

Show entries Search:

Name
Avon Bristol and North Somerset Streams
Avon Warwickshire
Severn Middle Shropshire
Severn Middle Worcestershire
Severn Uplands
Severn Vale
South East Valleys



Legend
■ River Basin District ■ Management Catchment

Operational Catchments

Show entries Search:

Name
Arrow, Lugg and Frome
Avon - Midlands West
Avon Rural
Avon Urban
Avonmouth Merleia Mudstone
Bath Colliery
Bristol Airport - Carboniferous Limestone



Use the catchment data explorer to navigate
This site supports the consultation on the
[Show more »](#)

Search by: Place name:

River Basin Districts

To get started select a River Basin District



Legend
River Basin District



Search by: Place name:

Severn

River Basin District

The Severn River Basin District has a varied landscape from the uplands of Wales, down through valleys and rolling hills, to the lowlands and the Severn Estuary. As well as the River Severn and its main tributaries, the Warwickshire Avon, and the Teme, the river basin district includes the rivers of South East Wales, including the Wye, Usk and Taff, and those of the South West, including the Bristol Avon, that drain directly into the Severn Estuary.

The district is home to more than 5.3 million people, and includes the major urban centres of Bristol, Cardiff and Coventry. Much of the river basin is rural in character, with around 80% of the land managed for agriculture and forestry. This includes extensive beef and sheep farming, large dairy units, conifer plantations and some arable and specialist horticulture. While agriculture dominates the landscape it only makes up a small part of the economy, the main sectors being related to business, transport, health and industry.

The natural environment of the River Basin District is also valued for its navigational and recreation uses and is an attraction for the people who live and work here, in addition to the many visiting tourists. The district includes many important habitat and wildlife areas of national and international importance. Most significantly, the unique environment of the Severn Estuary and its surrounding area are protected for their bird populations, habitats and migratory fish such as Atlantic salmon, lamprey and eel.

Photo credit: Nick Stewart



Management Catchments

Show entries Search:

Name
Avon Bristol and North Somerset Streams
Avon Warwickshire
Severn Middle Shropshire
Severn Middle Worcestershire
Severn Uplands
Severn Vale
South East Valleys

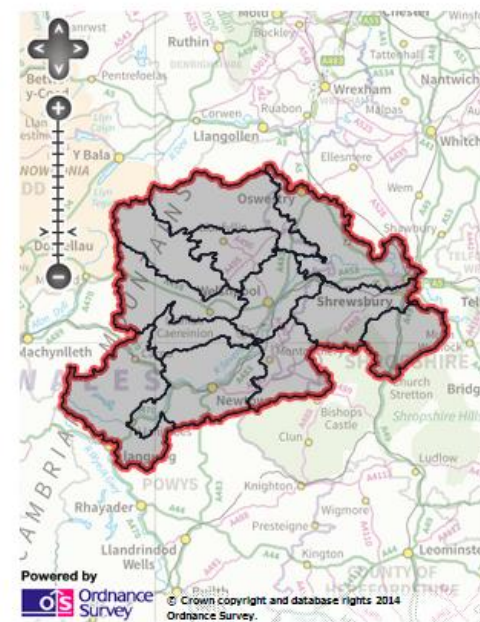


Search by: Place name:

Severn [»](#) Severn Uplands

Severn Uplands

Management Catchment



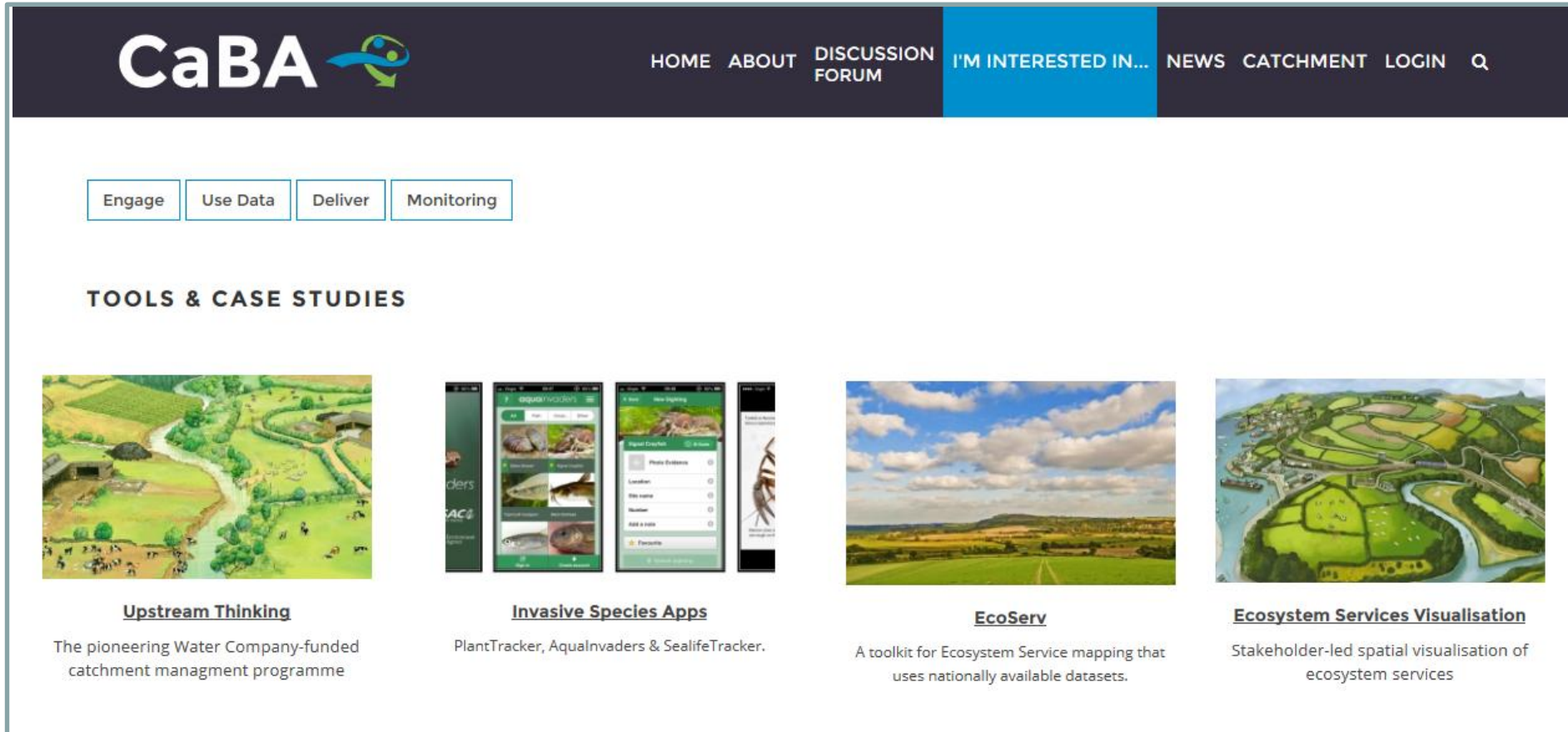
Legend
Operational Catchment Management Catchment

Operational Catchments

Show entries Search:

Name
Cound Brook
Montgomery Canal
Morda and Severn North Shropshire
Rea Brook
Severn I In Trannon Clweddun


Building Capacity and Capability




The screenshot shows the CaBA website interface. At the top left is the CaBA logo. To its right are navigation links: HOME, ABOUT, DISCUSSION FORUM, I'M INTERESTED IN... (highlighted in blue), NEWS, CATCHMENT, LOGIN, and a search icon. Below the navigation bar are four buttons: Engage, Use Data, Deliver, and Monitoring. The main content area is titled 'TOOLS & CASE STUDIES' and features four columns, each with an image and a description of a tool or case study.

Engage **Use Data** **Deliver** **Monitoring**


TOOLS & CASE STUDIES




Upstream Thinking
The pioneering Water Company-funded catchment management programme



Invasive Species Apps
PlantTracker, AqualInvaders & SealifeTracker.



EcoServ
A toolkit for Ecosystem Service mapping that uses nationally available datasets.



Ecosystem Services Visualisation
Stakeholder-led spatial visualisation of ecosystem services

<https://www.catchmentbasedapproach.org/resources/tools-and-casestudies>

Opportunities for Collaboration: PR19

Managing pollution and enhancing water quality, river flows and biodiversity and habitats.

Improving resilience of water company assets where they are at risk of flooding, coastal erosion and water outages.

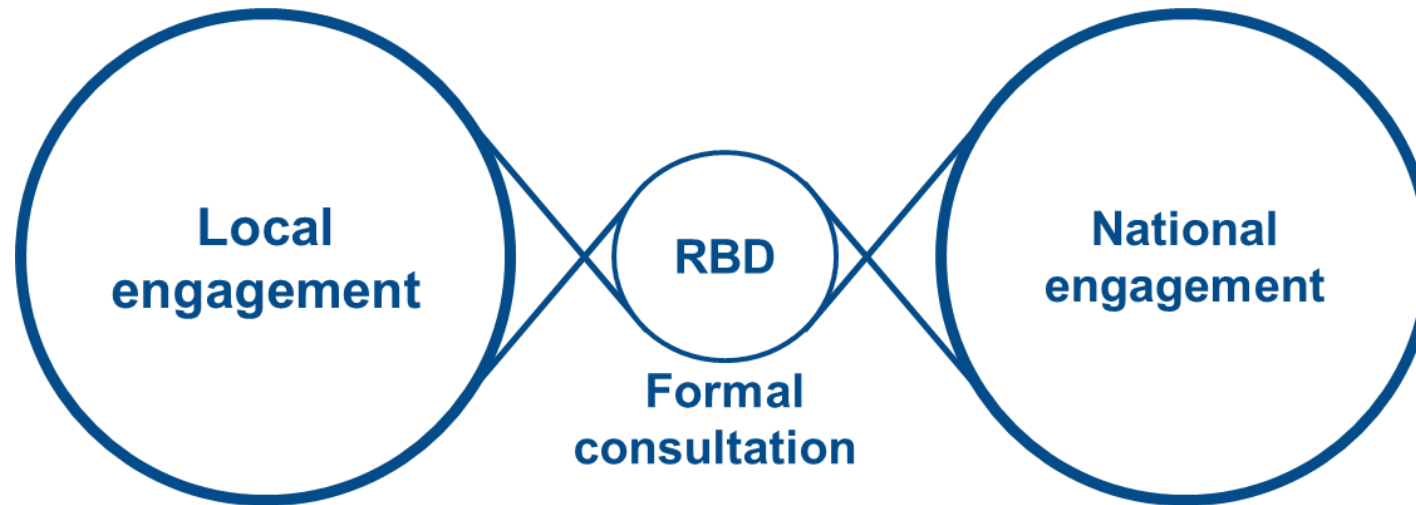


Reducing flooding where the public sewer network is part of the source or pathway.

Creating capacity within water and wastewater networks and improving water efficiency to accommodate future development.

River Basin Management Plans

- ➔ Review and update by 2021
- ➔ Emphasis on engagement - increased role for catchment partnerships



Governance - *Environment Pioneers*



Catchment



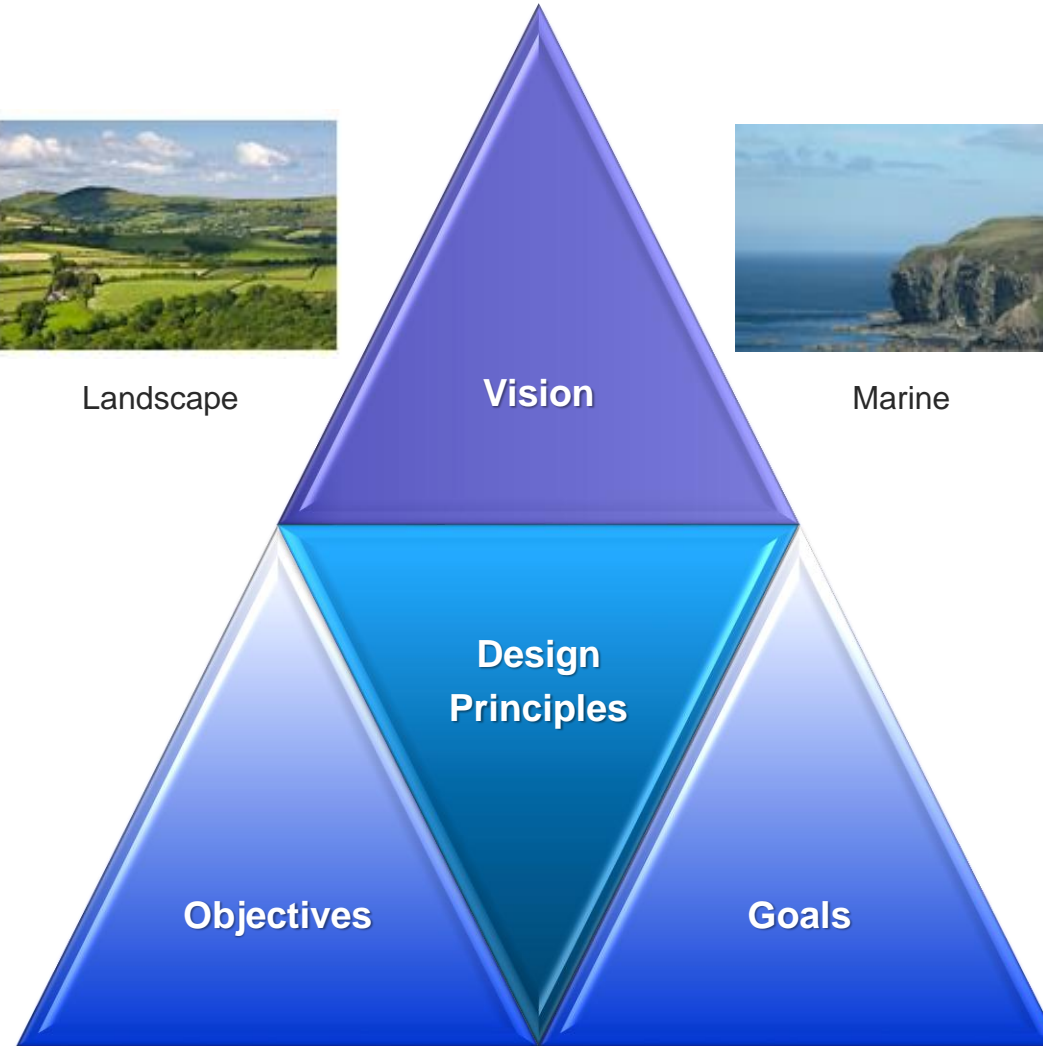
Landscape



Marine



Urban

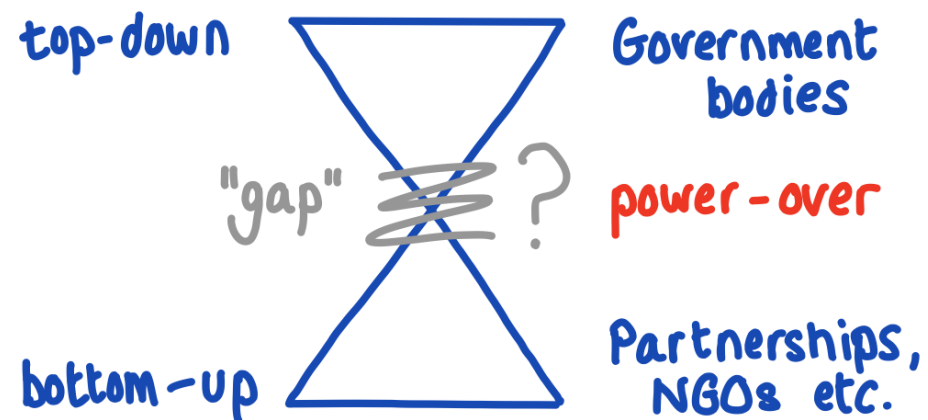


CADWAGO

governance learning events



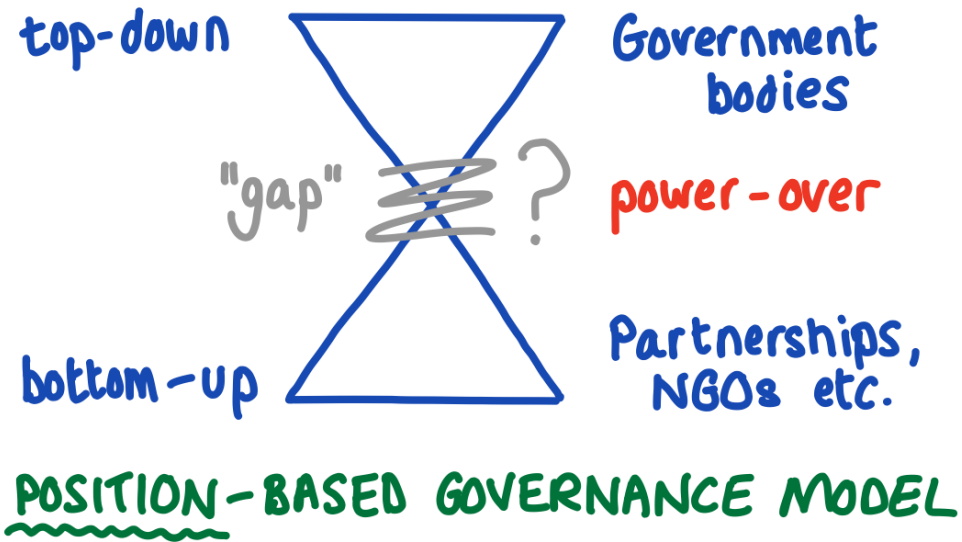
Current situation – “Mind the gap!”



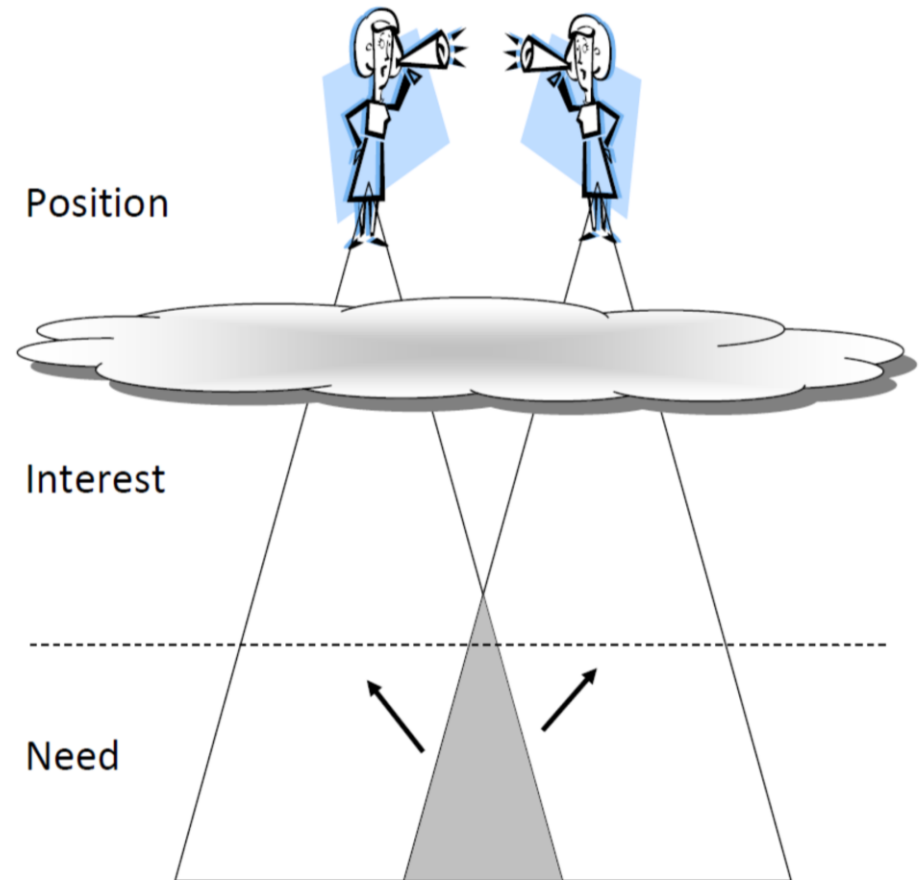
POSITION-BASED GOVERNANCE MODEL

- discussions and negotiations based mainly on what stakeholders are allowed or permitted to do by those with power

Current situation



- discussions and negotiations based mainly on what stakeholders are allowed or permitted to do by those with power



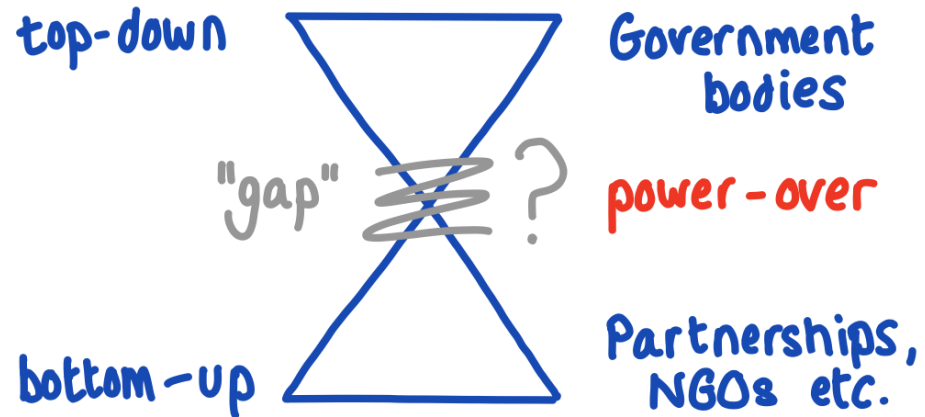
"For a wise outcome, reconcile interests, not positions."

Source: InterAct Networks (2012)

Current

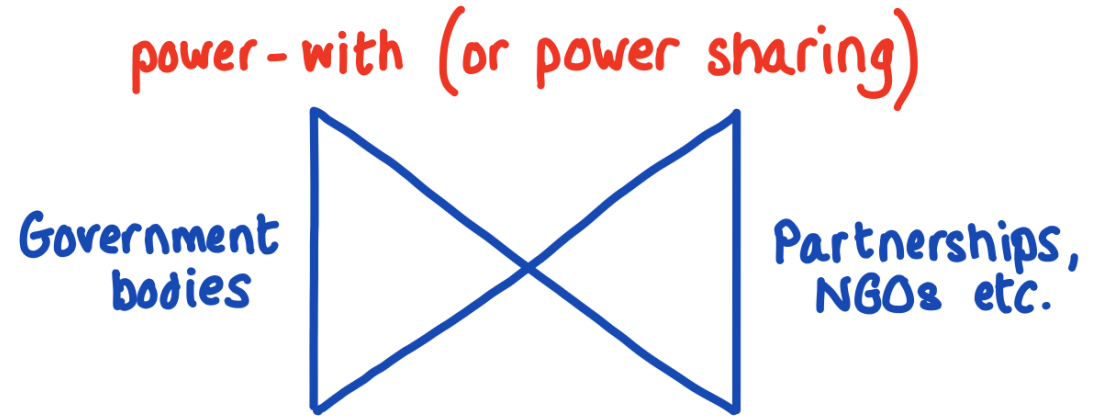
turn the model sideways

Future?



POSITION-BASED GOVERNANCE MODEL

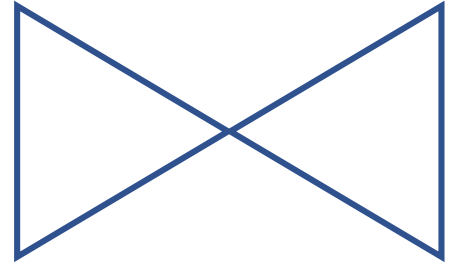
- discussions and negotiations based mainly on what stakeholders are allowed or permitted to do by those with power



INTEREST-BASED GOVERNANCE MODEL

- discussions and negotiations focused on each stakeholder's need to meet their own obligations and interests (e.g. legal, financial, moral)

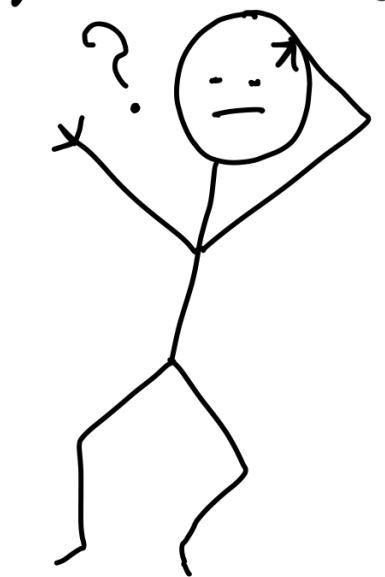
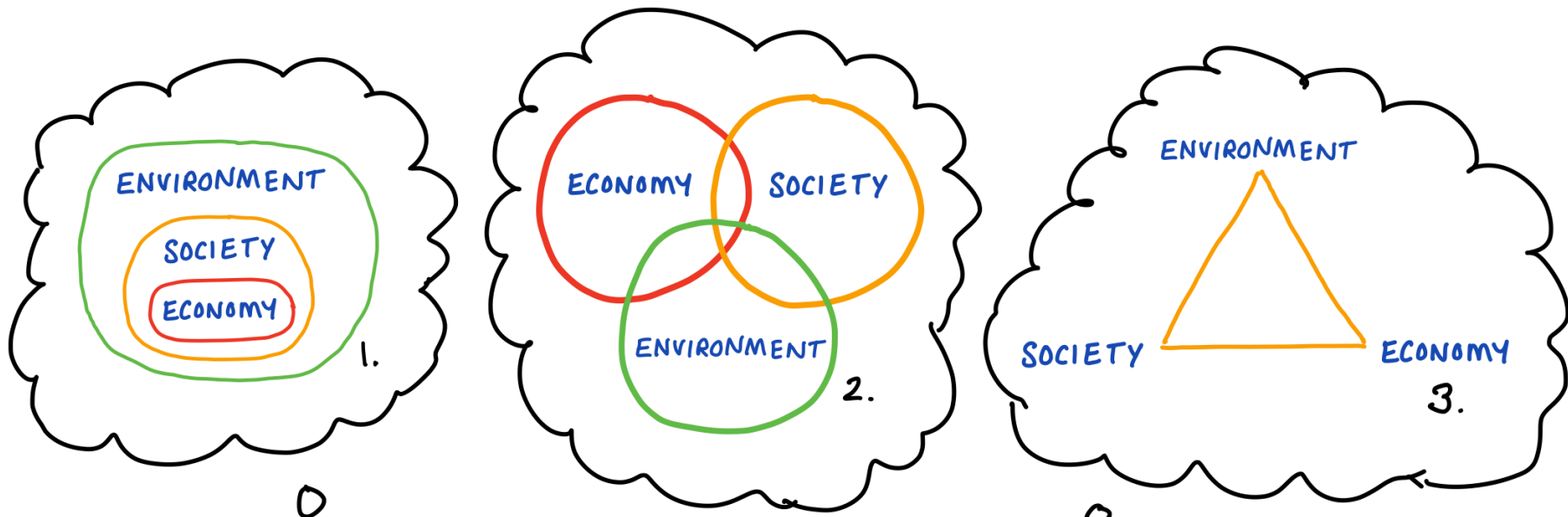
Conceptual framework for action



- Interest-based dialogue rather than position-based negotiation
- Need to begin by working out the must does, should does and could does...
- ...then how we can achieve them in the most efficient way (by sharing knowledge, skills, experiences etc.)
- Measures of performance should incorporate all of the above, not just environmental objectives (above and beyond GES!)

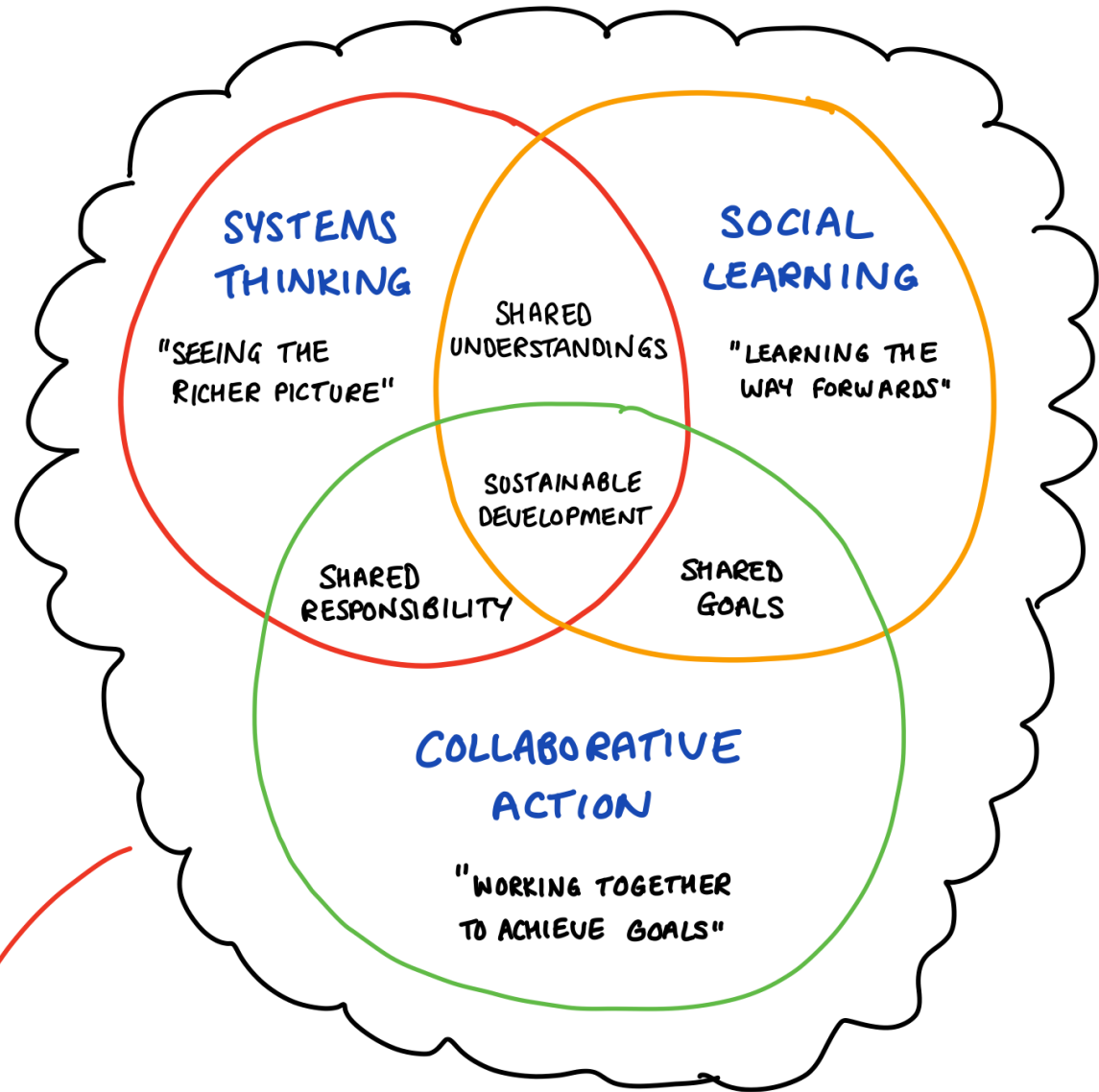
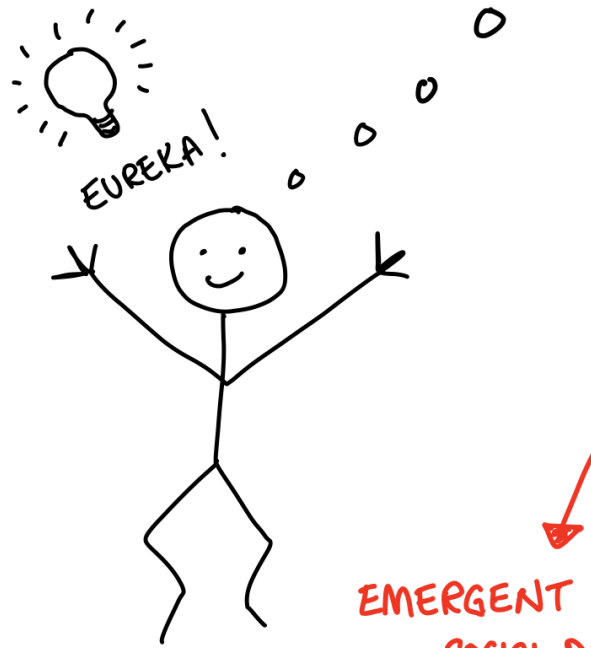
Re-defining the pillars of sustainable development

- Pillars of sustainable development set at 2002 world summit, but more than fifteen years later, there is still much to be done to achieve SD
- So what is the problem...?
- **The scope of sustainable development is so great that it can not be achieved by any one individual or organization**
- Requires working together across all scales and levels of governance
- Need to focus on the process of sustainable development (systems thinking, social learning, collaborative action) rather than the outcomes (social development, economic development, environmental protection)
- Sustainable development emerges from shared understandings, shared responsibilities and shared goals



2002 EARTH SUMMIT

2016 (ON A TRAIN)



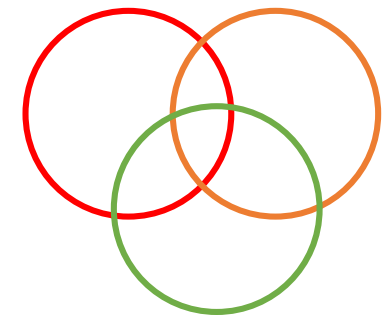
EMERGENT OUTCOMES:

- SOCIAL DEVELOPMENT
- ECONOMIC DEVELOPMENT
- ENVIRONMENTAL PROTECTION

=

SUSTAINABLE DEVELOPMENT

Methods of action



- `doing' systems thinking, social learning and collaborative action in a partnership/forum-type context
- use diagrams, models, etc. as heuristics to learn the way forwards
- need to integrate new and existing measures, e.g. Love Where You Live, CaBA, primary/secondary/higher education with CaBA

Local integrated delivery emerges from the process (“doing more for less”)

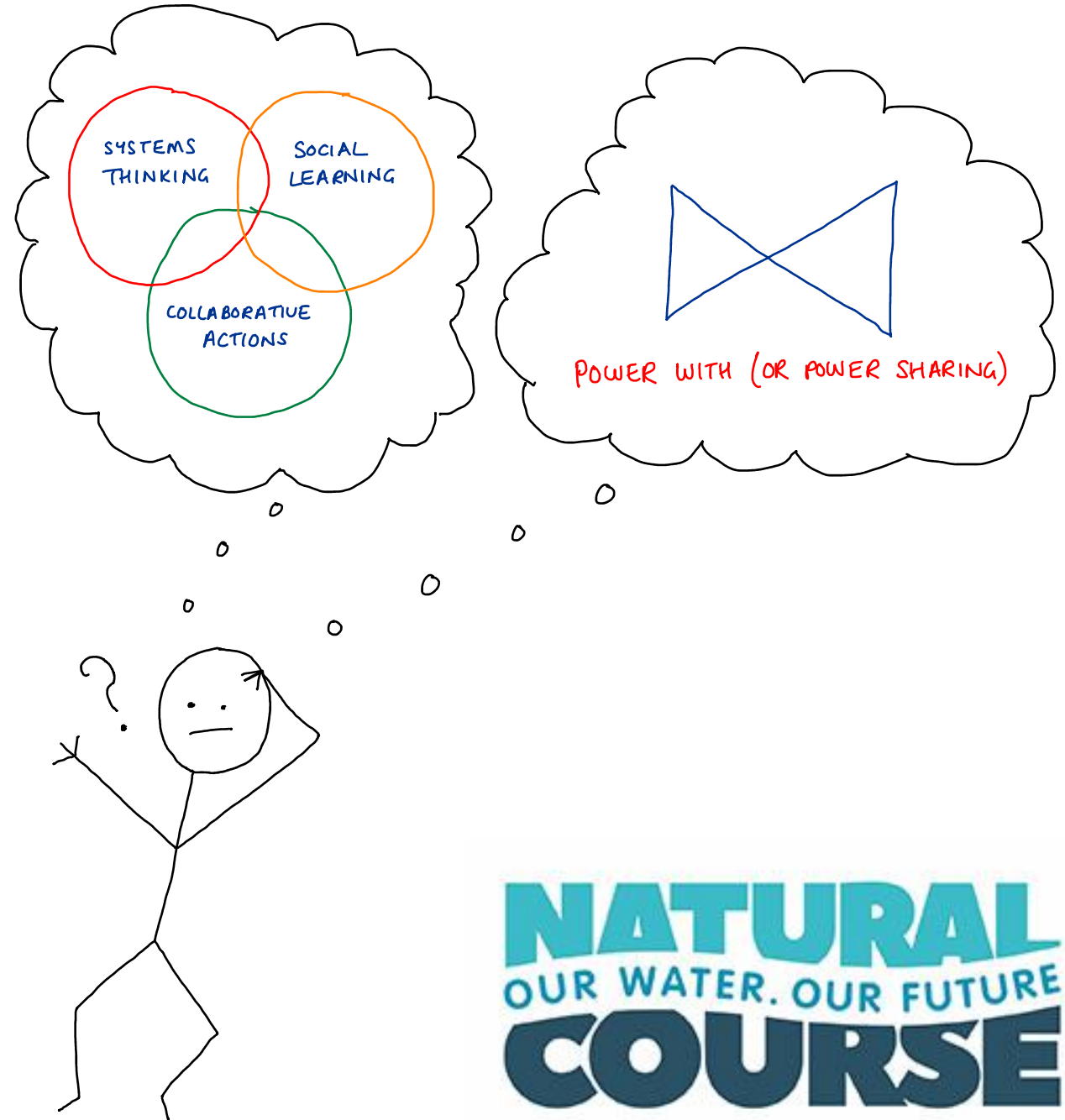
Pilot catchments = case studies

1. Identify catchments in NW River Basin District to work with (just one for now, expanding to more catchments in phase 2)
2. Compare current governance arrangements with conceptual framework and prepare recommendations
3. Develop phase 2 (putting recommendations into practice)



So what?

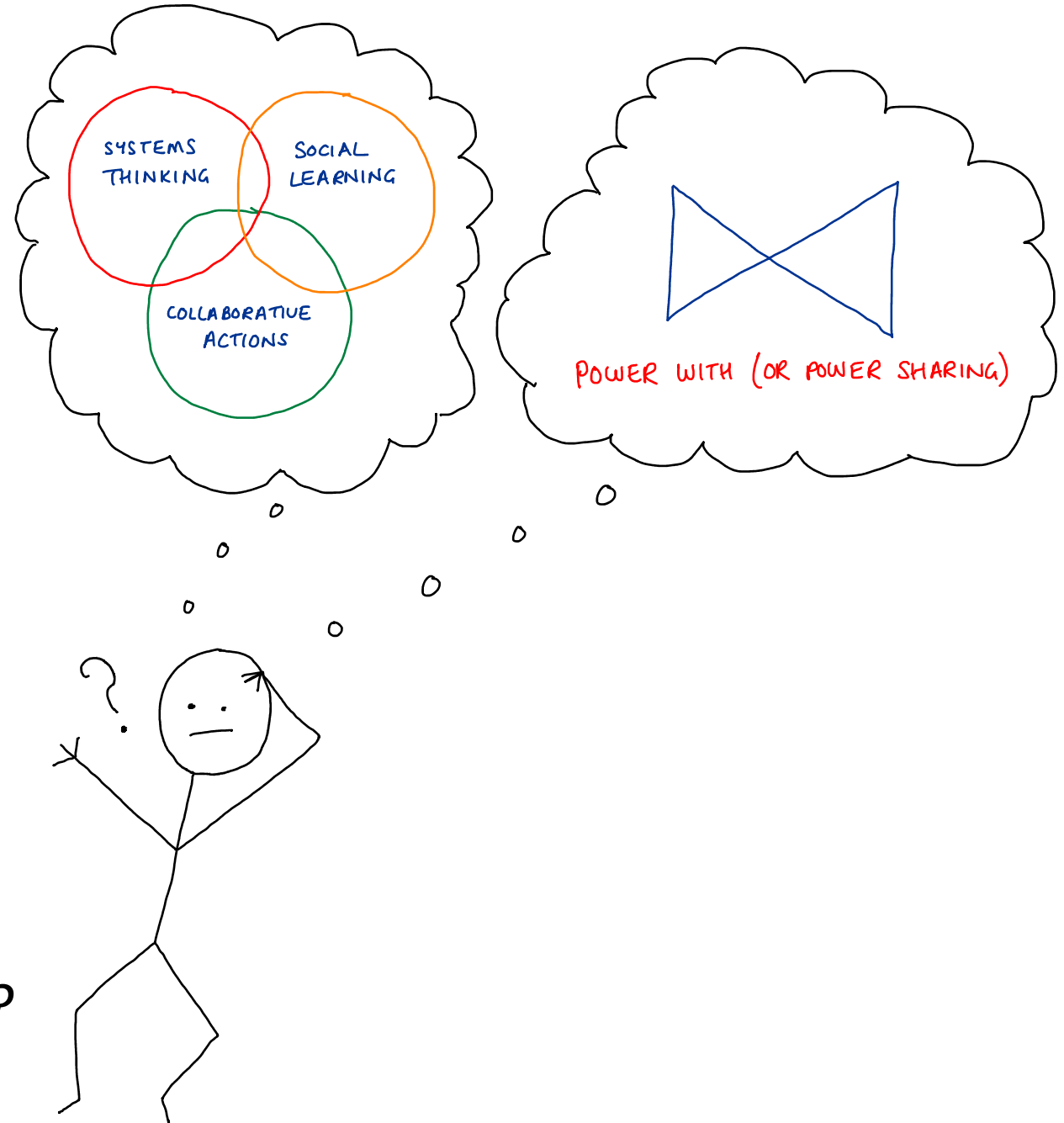
- Systems thinking
- Social learning
- Collaborative actions
- Governance structure



NATURAL
OUR WATER. OUR FUTURE
COURSE

What next?

1. *To what extent are you doing **systems thinking, social learning and collaborative actions**?*
2. *And in what context and **governance structure**?*
3. *How can you **better engage** with people in your catchment?*



Thank You

Damian Crilly, Environment Agency



Natalie Foster, The Open University

