



# **Frameworks for sediment management at the river basin scale**

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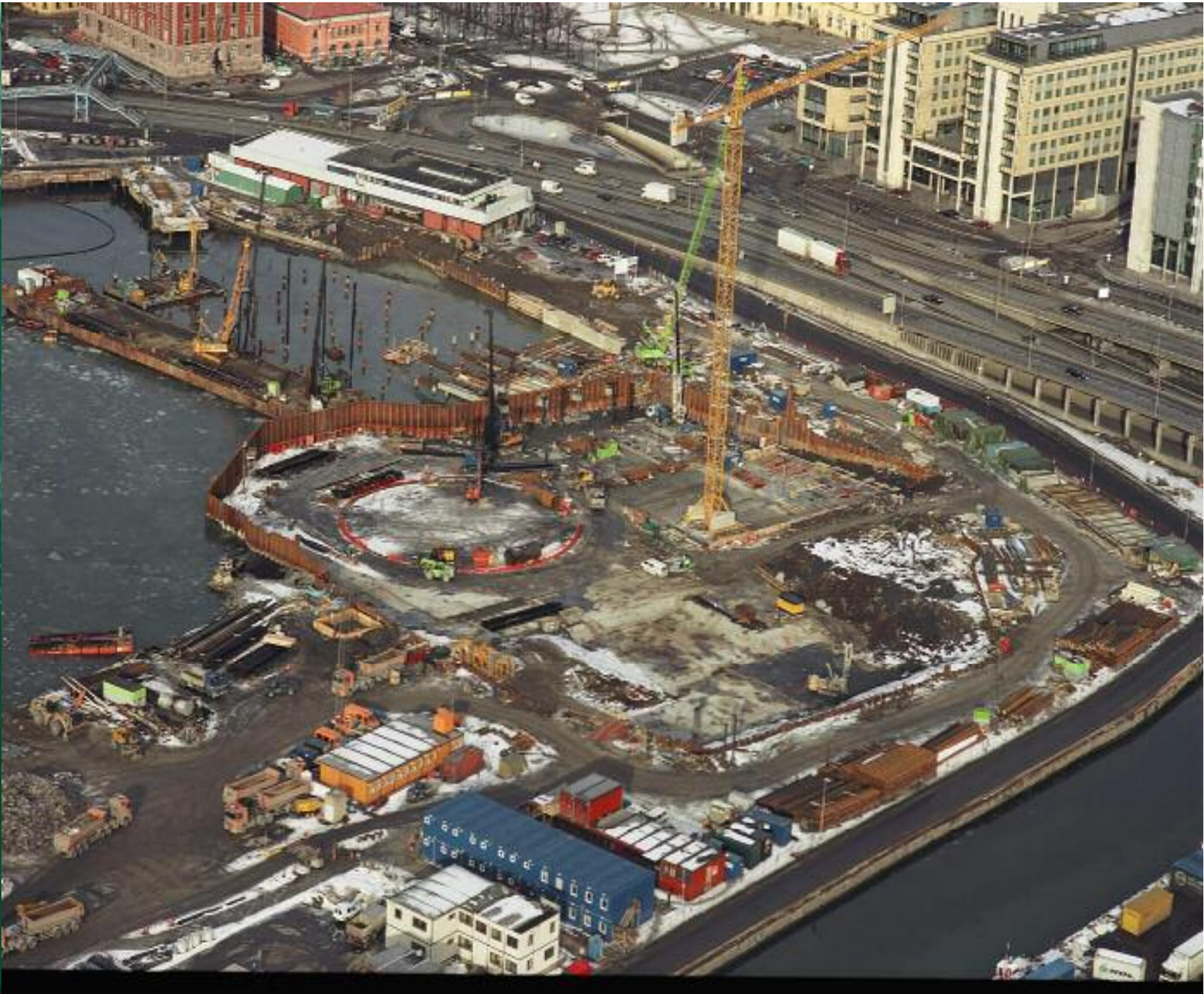


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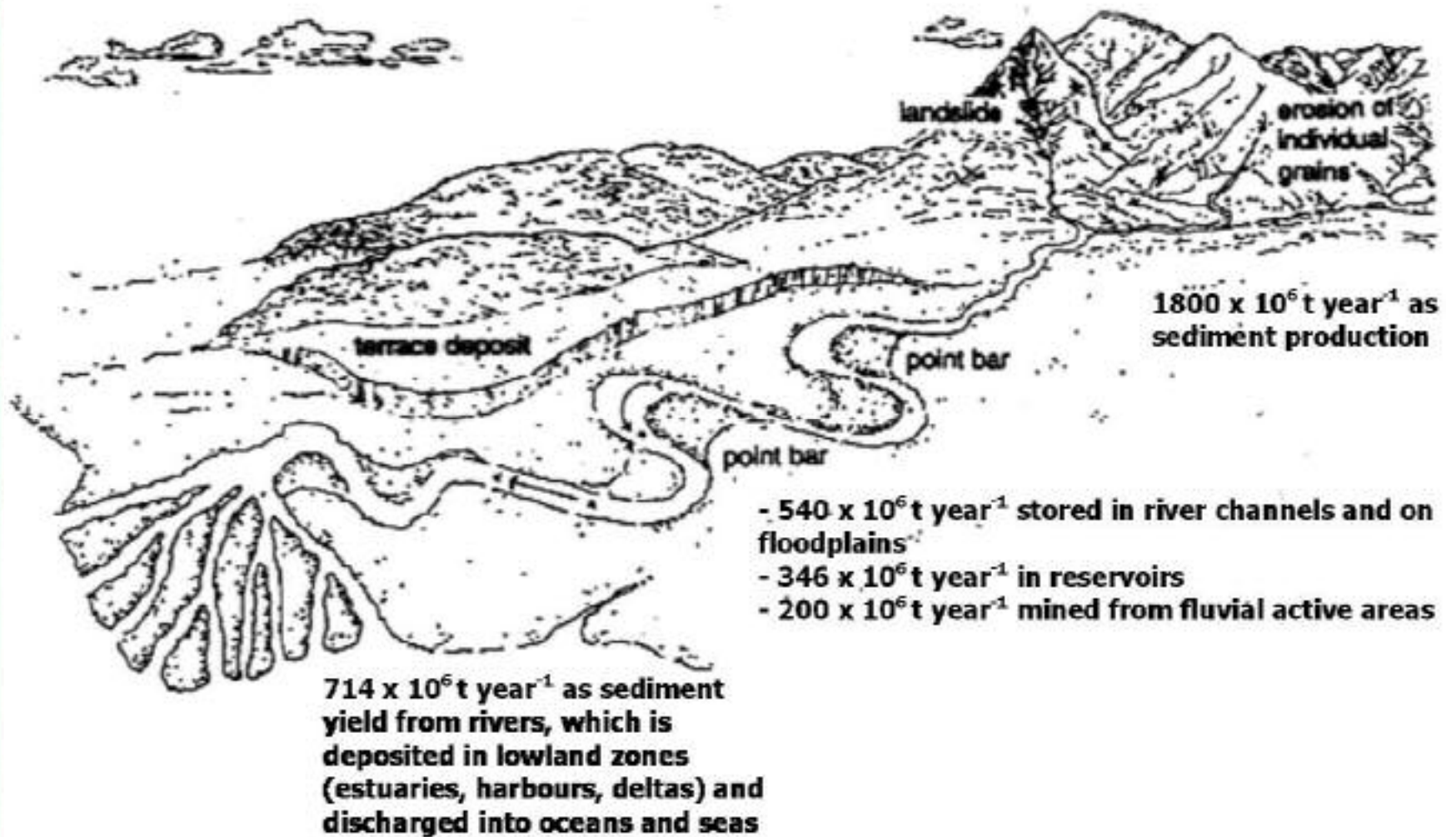
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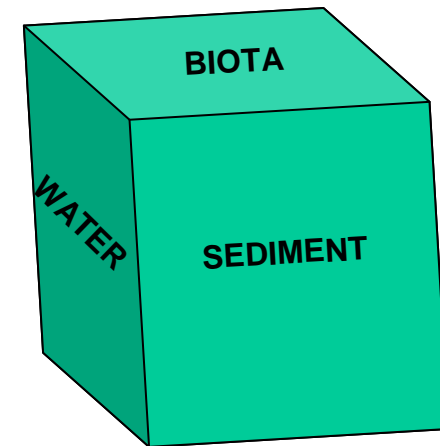






# Sediment is just one aspect of river basin management

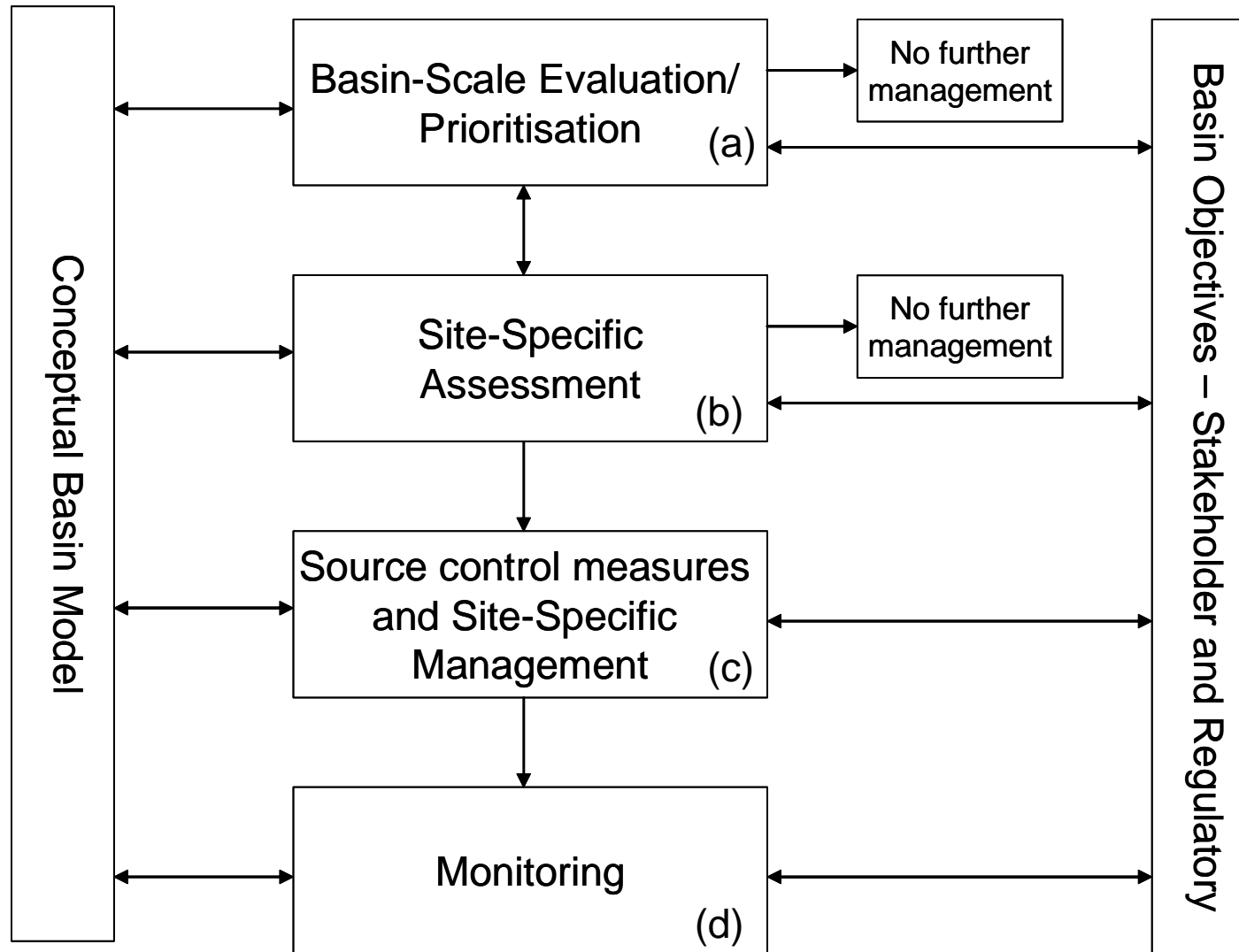
- It is important to remember that sediment management is just one face of a multi-faceted shape where other faces may represent:
  - Water management (resource, flooding)
  - Biota/habitat management
  - Agricultural production/policy
  - Industry policy and control
  - Socio-economics
- It is increasingly clear that we should not manage sediments alone - we should balance risks and goals in dynamic river basins



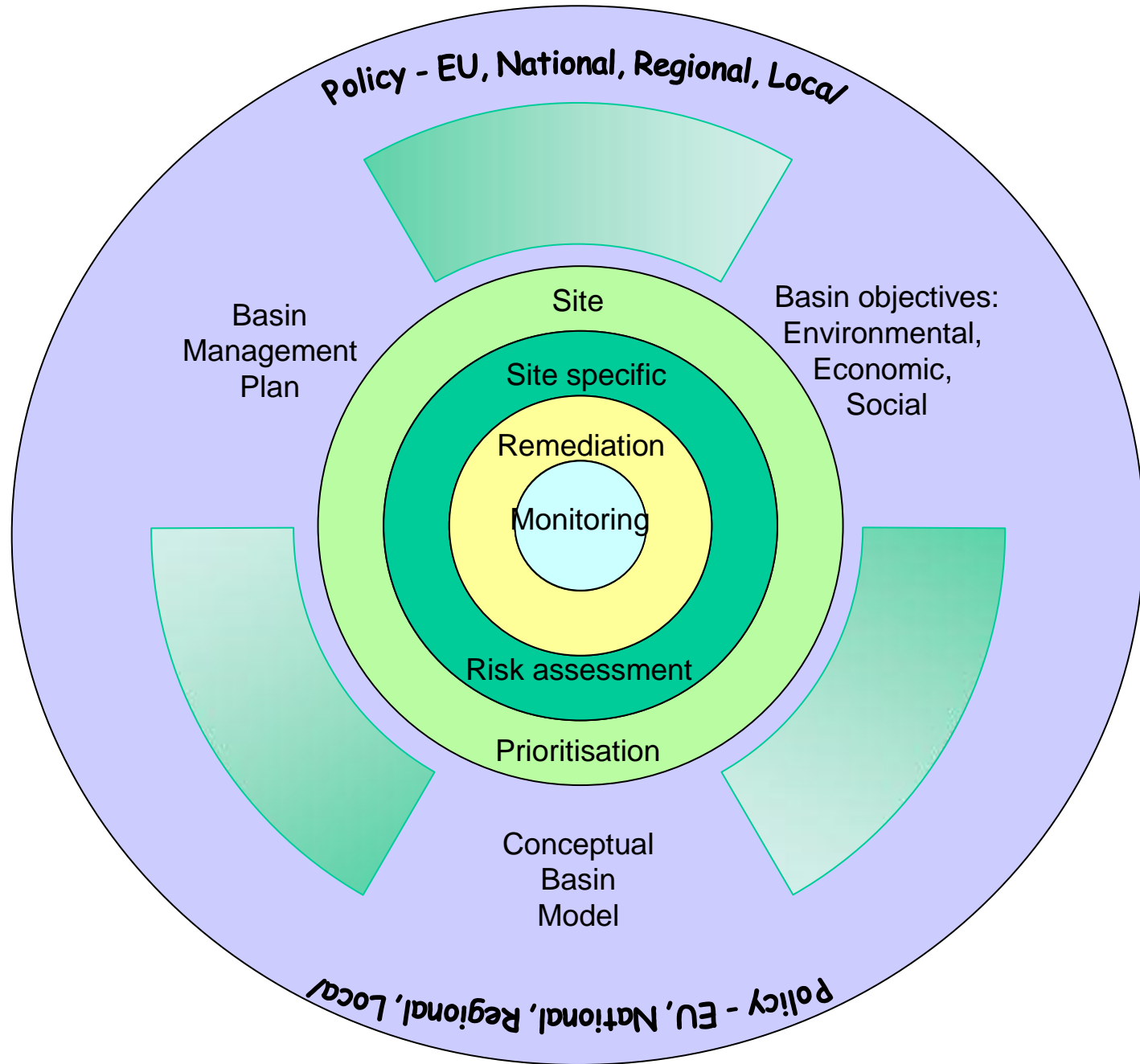
# A new approach for decision making: Basin-Scale/Site Specific Sediment Management Framework

- Identify interactions
- Define common issues and terms
- Expedite information exchange
  - Across organisations
  - Across scales
  - Across disciplines

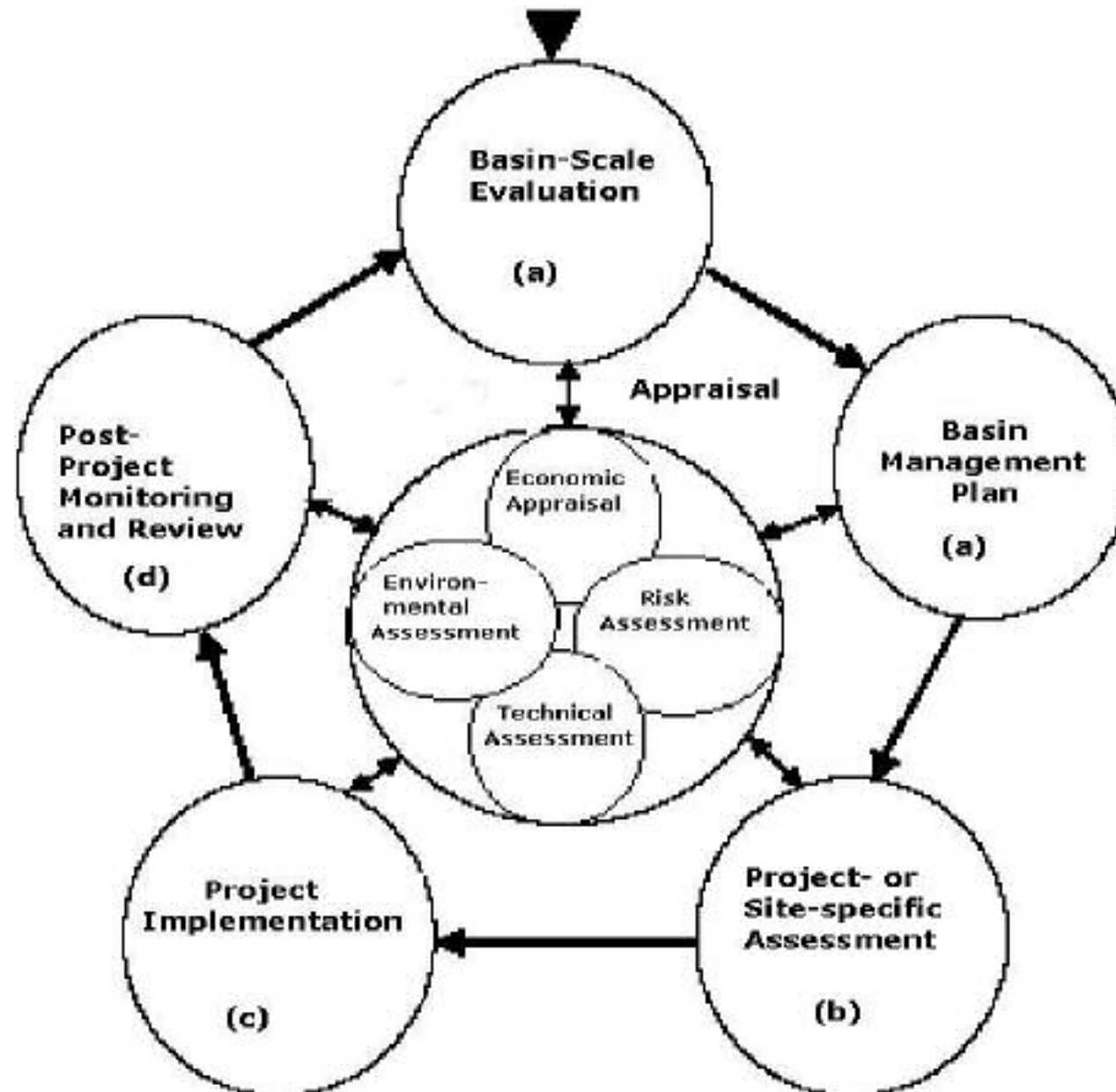
# A simplified strategic framework







# A process framework





## There are many sediment management frameworks

- Some already exist, some have been developed during the course of SedNet
- They are all valid and contribute to improved understanding and management
- Many can be viewed as expansions of the boxes and layers in the strategic framework
- We must remember where in the decision process these various frameworks fit

## There are many sediment management frameworks

For example, compare:

- A framework designed for dredged material disposal

With:

- A framework to determine the *in-situ* risk of contaminated sediments







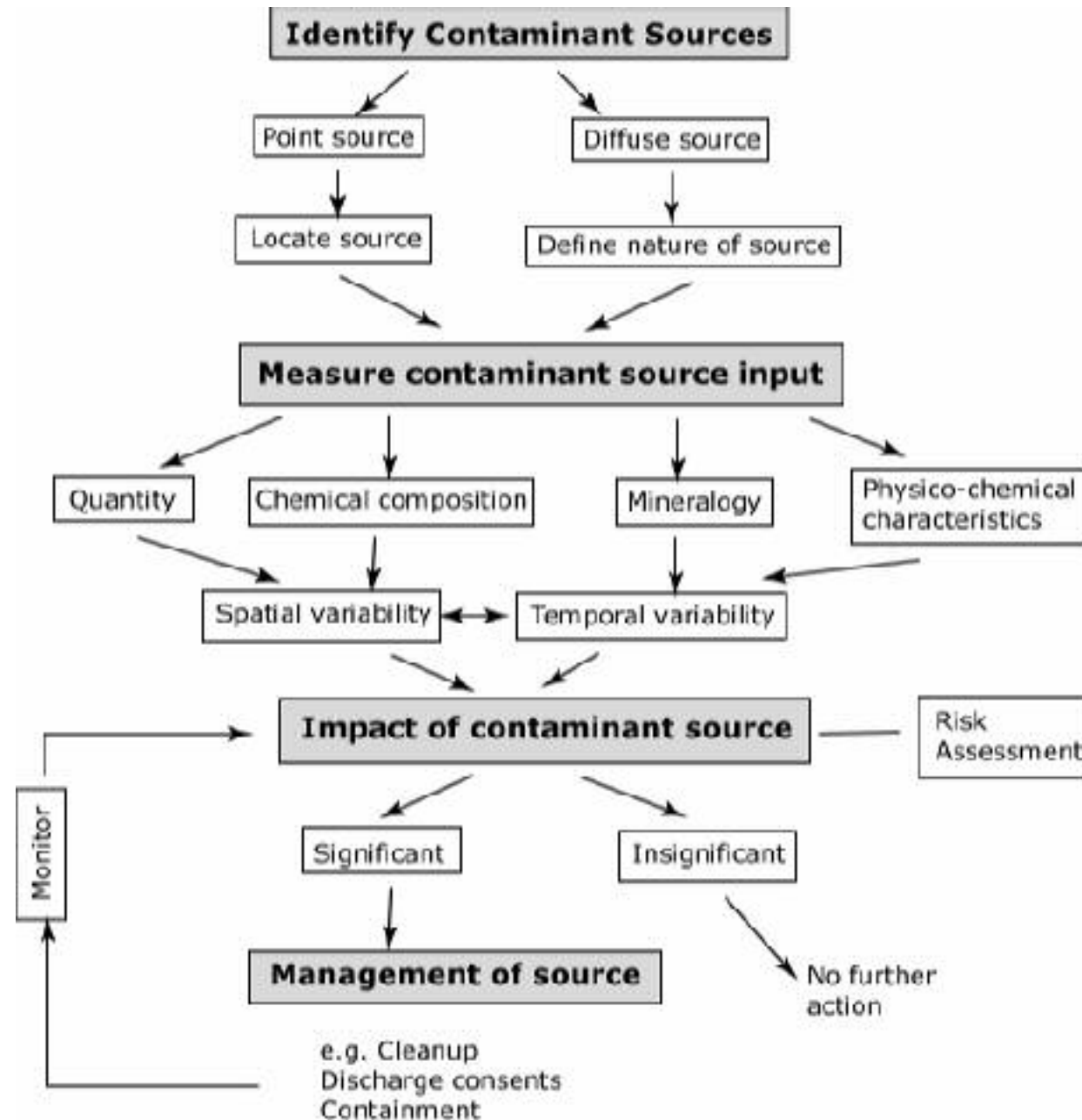
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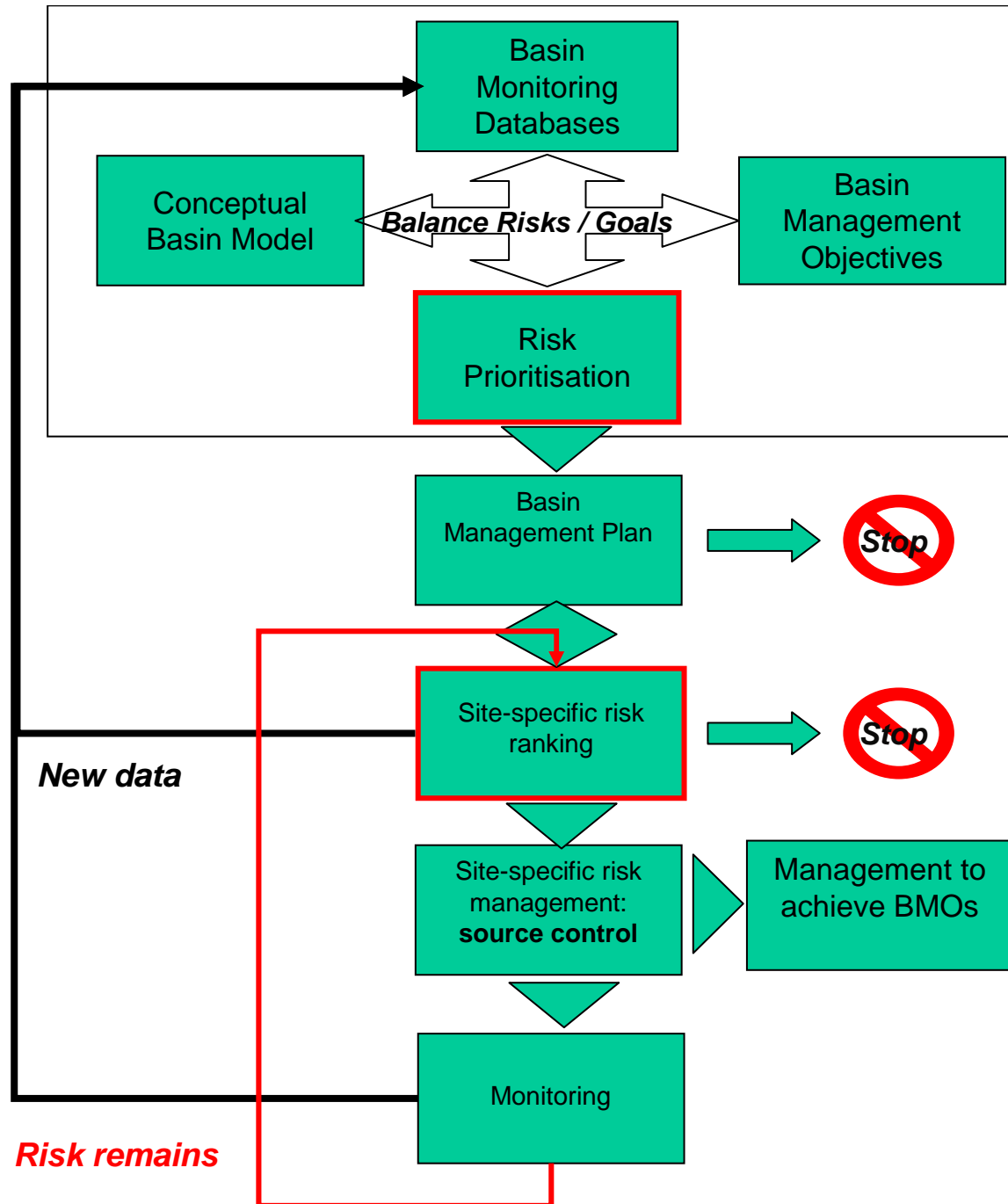


# A framework for contaminant control



## Ultimately sediment management is about balancing risks and goals

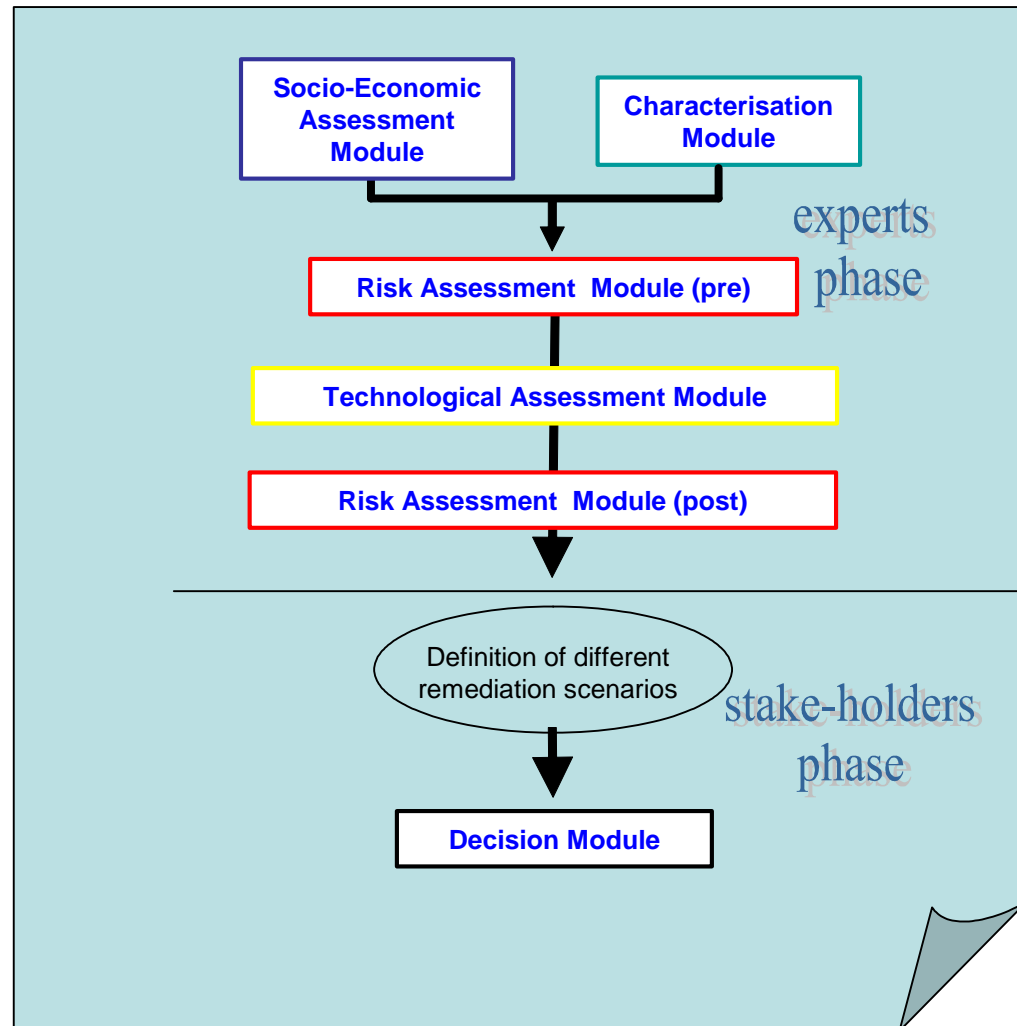
- This needs to happen in the context of the basin objectives and our understanding of basin functioning (the conceptual basin model)
- Decisions will be informed by available data
- The process is iterative, with post-intervention monitoring informing both the high level basin understanding and the site-specific assessment of a problem
- The various stages in risk assessment and prioritisation have been addressed by WP5





# Decision Support Systems Provide tools for bringing such disparate data together

*DESYRE modular structure*



Source: Claudio Carlon

# Conclusions

- Sediment management is just one part of an overall basin management strategy
- Sediment issues cut across many of the policy areas at European, national and basin level
- Ideally, site prioritisation should be used to derive a ranked list of sediment problems within a basin
- Site-specific sediment problems **MUST** be viewed within the basin context and as part of a multivariate basin management policy
- Sediment management frameworks help us to understand the interactions, intersections and information exchanges necessary to manage sediment sustainably