

Welcome and introduction

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Aim of today

- two way interaction – feedback
- information on estuary geomorphology
- introduce and explore the draft version of the Estuary Guide
- discuss benefits arising from the ERP deliverables through the resources and tools contained within the Estuary Guide
- participate in case study mini workshop



ERP

Estuaries Research Programme

- Supports

- the policy of developing a capability in sustainable estuary management



Benefits

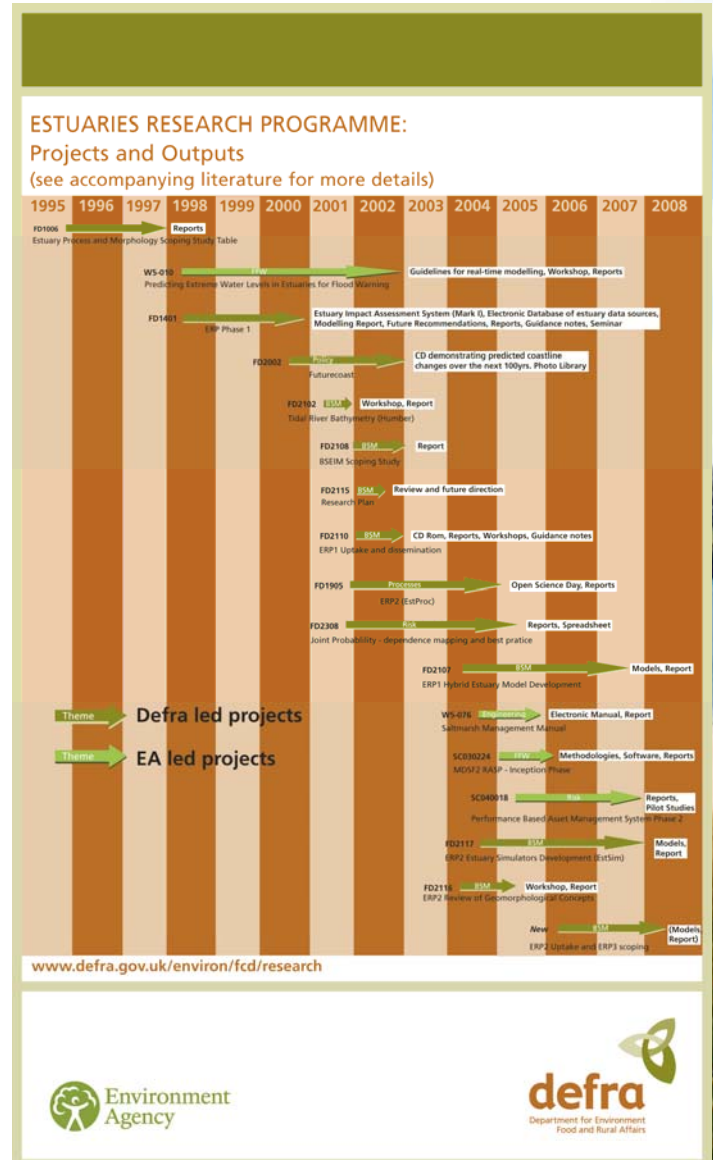
- **Identify** the environmental changes from proposed activities and the features of interest/receptors that could be affected
- **Understand** the nature of the environmental changes in terms of their exposure characteristics, the natural background system, and establish the sensitivity characteristics of specific features
- **Evaluate** the vulnerability of the features as a basis for assessing the nature of the impact and its significance
- **Manage** any impacts, which are found to be significant and require implementation of impact reduction measures



Background on ERP

- Scoping 1995-1997
- ERP phase 1
 - EMPHASYS 1998-2000
- ERP phase 2
 - uptake 1 in 2002
 - completion 2008
 - uptake of research
- ERP phase 3
 - integrated *EMS

*Estuary Management System



Estuary Impact Assessment System (EIAS)

- Defined in 1997 as follows:

	Estuarine Morphology	Water/sediment Quality	Ecology	Anthropogenic Influences
Bottom-up (Process-based, Short-term) Methods	Physics-based numerical models	Flow-plus-chemistry water quality models	Plant and animal biological understanding	Local socio-economic analysis/methods
Top-Down (Estuary-system, Long-term) Methods	Qualitative, empirical and regime methods	Sediment-pollutant models	Population dynamics models	Institutional framework / macro-economic models
Hybrid (Bottom-up Plus Top-down, Short to Long term) Methods	Long-term, physics - calibrated, morphological models	Long-term water/ sediment quality predictors	Long-term ecological development predictors	Long-term socio-economic predictors
Estuary impact Assessment System	Collection of the above tools			
Estuary Management System	Interlinked combination of all the above tools			

Source: Scoping Study Report, SR478 (HR Wallingford)



FD2119 Project details

- Consultation (completed)
- FCERM conference (completed)
- First draft of enhanced EIAS (completed)
- Training events (now)
- Confirm enhanced EIAS and release
- Scoping report for EMS
- Scoping on tools and benefits
- Dissemination event
- Final reporting hard copy/soft copy/web (Mar 08)



Today

- draft estuary guide
 - EIAS: collection of tools and supporting information

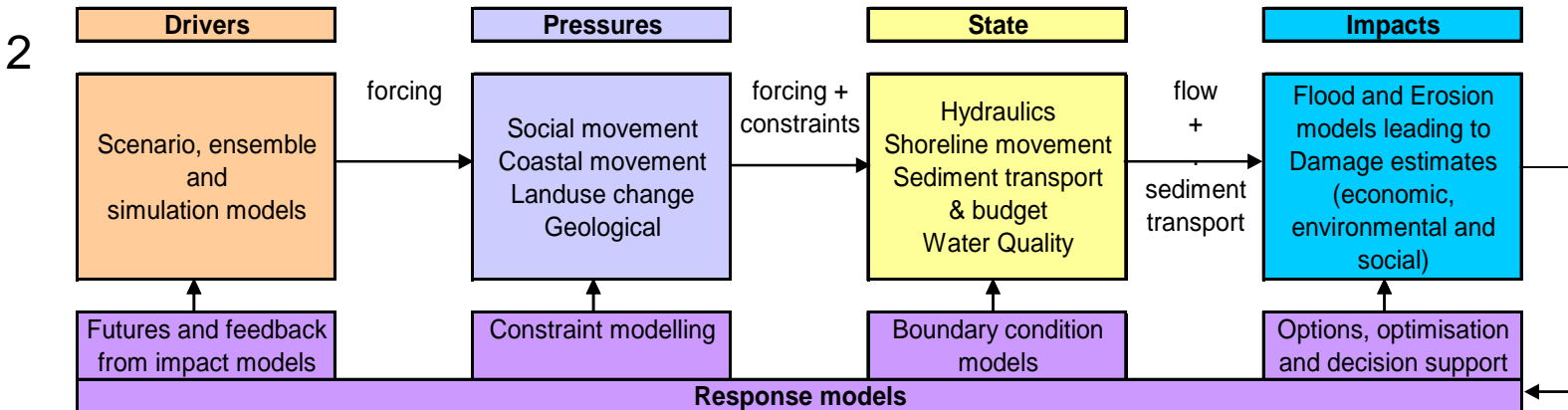
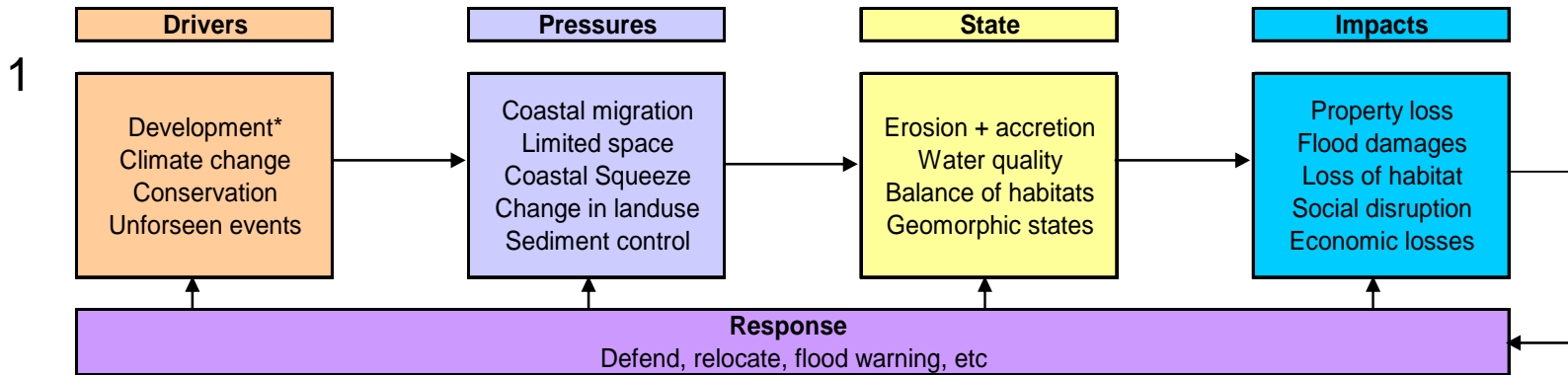
Future

- Estuary Management System
 - framework, data, methods, tools
 - supporting FCERM, Habitats Directive, WFD, [Marine Bill]
- DPSIR approach



DPSIR approach

1. system 2. modelling



Source: as copied from FD2119 inception report



Today's topics

- estuary processes and geomorphology
 - Alun Williams
- estuary guide
 - Chris Jackson
- improving confidence
 - Richard Whitehouse
- mini workshop on estuary case study
 - Noel Beech
- future requirements
 - Richard Whitehouse

