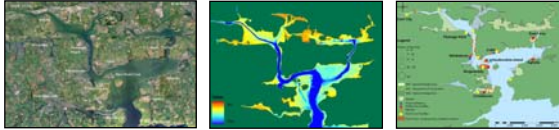


Cork Harbour SSA 8 Formulation Step

"Real world" Real System
 A data poor, normative, highly political environment



Virtual System
 A data intensive, positivist, reduced experimental environment

Cork Harbour governance

Policy makers and other stakeholders agree that Cork Harbour requires a multi-level, multi-scale integrative framework of participatory adaptive governance and co-management.

Cork Harbour SSA stakeholders want real solutions to *their* real world problems.

Talk of 'virtual systems' and computer models can be off-putting to stakeholders who deal primarily in people (votes) and costs-benefits.



WP13 Professionals' training workshop, UCC, Cork, June 2008: Cork SSA stakeholders preferred co-construction of conceptual models ('mind maps'), stakeholder mapping and other participatory techniques rather than computer models and virtual simulations.

The simpler and less technical the tool, the more likely it is to be taken up and used at the science-policy interface in Cork Harbour and elsewhere in Ireland.

Stakeholders want tools to assist negotiation of trade-offs between sustaining ecosystem structures, functions and services and the urgent demand for social and economic development. *It is unclear how or if EXTEND can deliver a simple comprehensible overview of the Cork SSA social-ecological system that non-expert stakeholders can use and further develop themselves.* Concept mapping tools may provide a much more inclusive alternative.

ICZM must be capable of addressing ALL human activities (policy issues) in Cork Harbour simultaneously through negotiation.

A complex cluster of "real world" problems (Policy Issues) challenges the sustainability and sustainable development of Cork Harbour and region. These problems are primarily normative, unquantifiable and involve negotiated trade-offs between stakeholders.

Science-policy integration

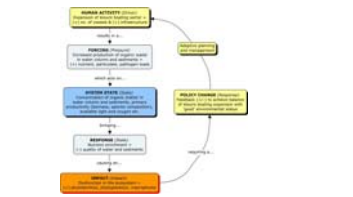
Trust is key at science-policy interface. Cork CZ stakeholders, including policy makers, require 'best available' scientific advice delivered through participatory multi-stakeholder mechanisms, rather than by 'black box' models of a virtual Cork Harbour system.

Whereas System Design opened path to 'systems thinking' approach to integration of socio-economic and ecological domains of the real world Cork Harbour complex system...

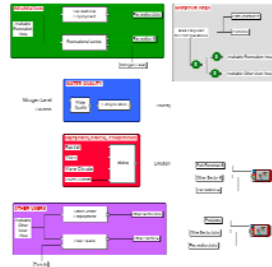
...System Formulation is doing the opposite.

SPICOSA Policy Issue

How to optimise the potential for expanding the leisure boat sector in the context of Cork Harbour's multi-use environment?

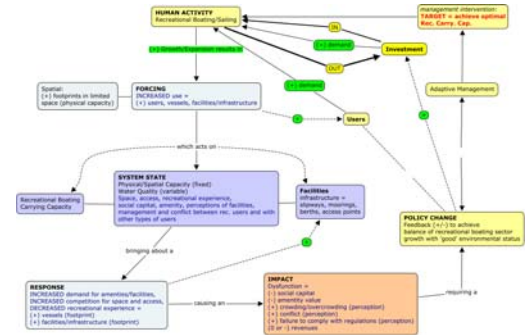


EXTEND model summary



Following economics workshop between Clyde & Cork SSAs and WP2 Task Force at SAMS, Oban, Scotland, 21-22 July 2008...
 ...The conceptual model was revised to fit the policy issue and modelling...

Problem (re)Scaling



Revised conceptual model (NB. did not involve Stakeholder Participants)

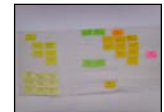


A 'science-policy' interface: meeting of the Cork Harbour Forum (i.e. the target 'audience' for SPICOSA methods and tools)



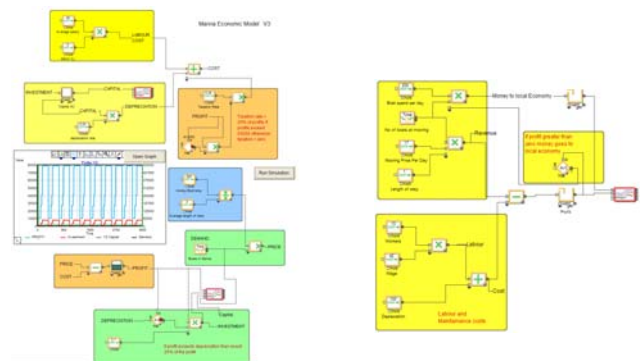
Exclusive

A stakeholder participant's perspective on alternative tools...



Inclusive

Oban workshop model blocks output (Clyde SSA/Cork SSA)



Generic marina economic model

Marina economics

Part of University College Cork, Ireland, the Coastal and Marine Resources Centre (CMRC) is a multi-disciplinary research centre active in the thematic areas of integrated coastal management, coastal processes and seabed mapping, seabeds and oceans and GIS and remote sensing.

The purpose of the Marine and Coastal Environment (MACE) Group at Cardiff University, Wales, is to conduct both pure and applied research on the marine and coastal environment with particular reference to the use of marine information and the development of education and training.

Envion is a consultancy and research group providing environmental services to the international community. It has extensive expertise in institutional capacity development for sustainable coastal management and experience of providing a wide range of tailored technical, management and professional training services.

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