THE UNIVERSITY of EDINBURGH

European Commission

Operationalising Ecosystem Research Applications (OPERAs)

Kick-off meeting, Edinburgh 21-23 January 2013

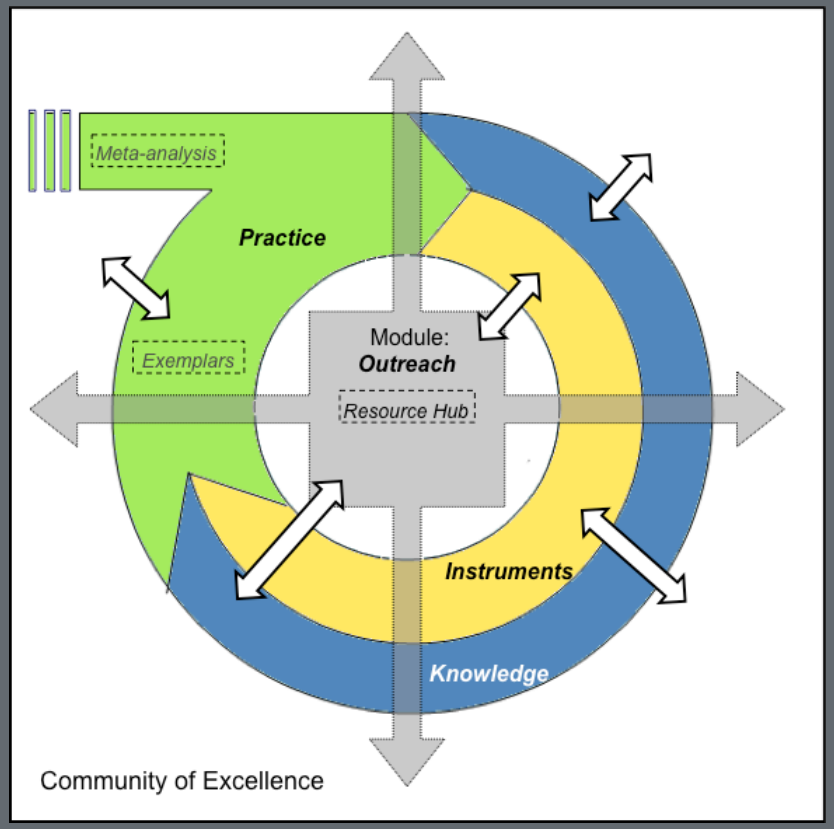
SEVENTH FRAMEWORK PROGRAMME

What's new since the proposal

- Original Modules have been relabelled as WPs
- Original WPs have been re-labelled as Tasks
- Original Tasks have been relabelled as Sub-tasks
- Some deliverables are new, changed or deleted
- Some milestones have changed (including former deliverables)
- New tasks and common deliverables have been introduced for the collaboration with OpenNESS
- Project Office: Sophie Vandewoestijne
- Project Manager: Jess Bryson

Overview of aims/objectives

- Improve understanding of how applying ES/NC concepts in managing ecosystems contributes to human well-being in different social-ecological systems
- Advance understanding of ecosystem functioning and its relationship with ES/NC, by testing and developing methods that assign values to the flow of ES from the stock of NC, and by establishing what constitutes good ES/NC governance and associated ecosystem management (Knowledge)
- Develop new instruments to operationalise the ES/NC concepts, in direct partnership with relevant policymakers and stakeholders and tested in exemplar case studies (Instruments)
- Communicate with ecosystem practitioners through a resource hub and associated Community of Excellence that will ensure the perennity of the project outcomes (Practice)



The OPERAs WPs allow for iterative exchanges between Practice, Knowledge and Instruments, and are focused on Outreach to a wide CoE

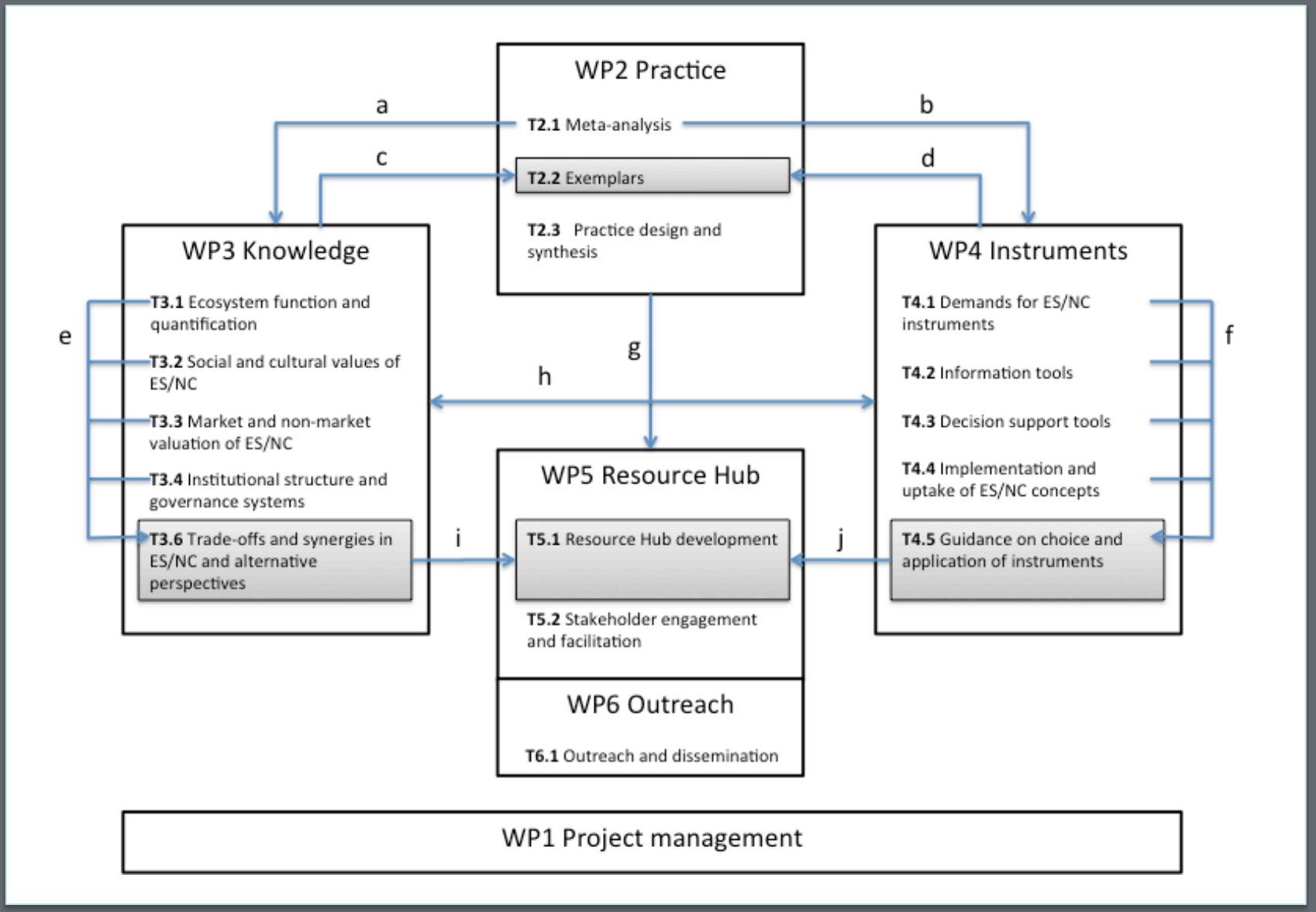
What is meant by ‘operationalize’

- Applying the ES concept to enhance the sustainable management of ecosystems, through ‘instruments’ that operationalize the ecosystem service concept

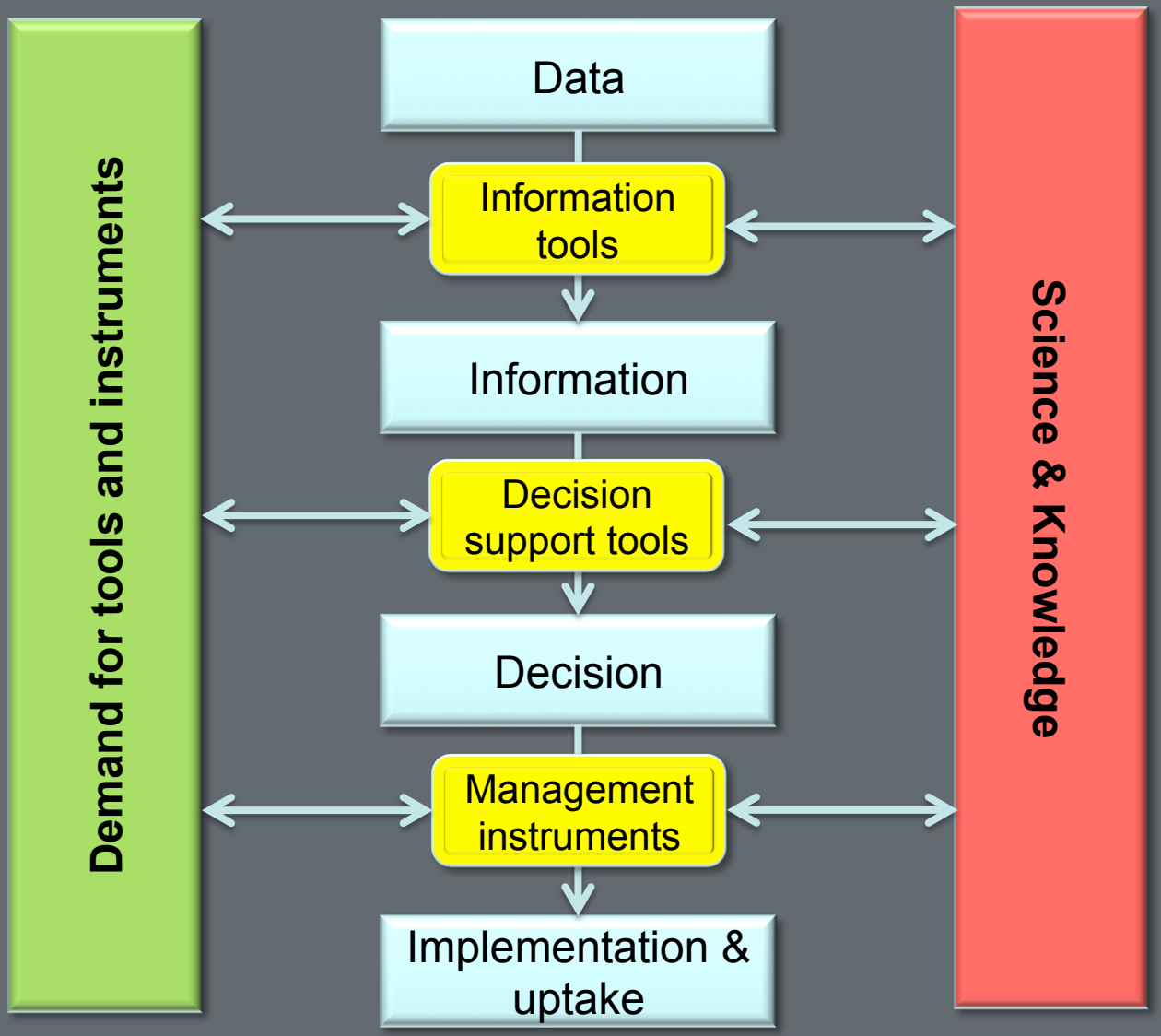
- ‘Instruments' is used here in the broadest sense to include:

  - information tools (e.g. databases and visualization)
  - decision support tools, including market-based instruments such as auditing, certification/labelling and PES schemes, and
  - policy instruments

Figure of WP relationships



Instruments in the information chain from data to action

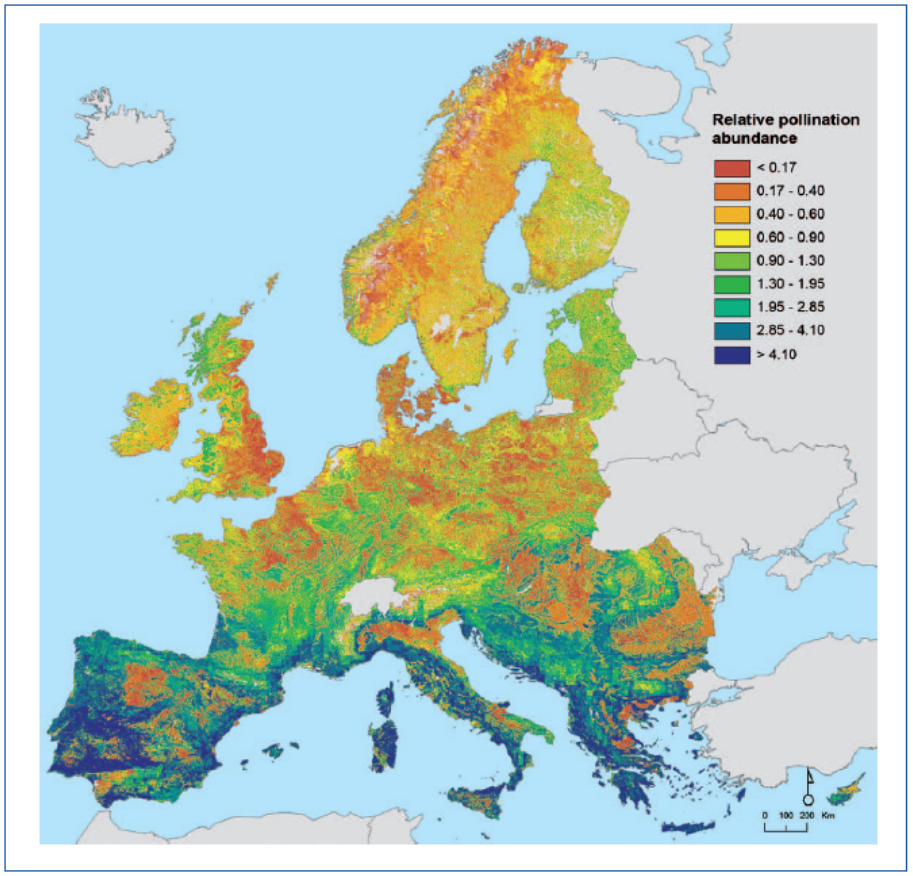


Information tools

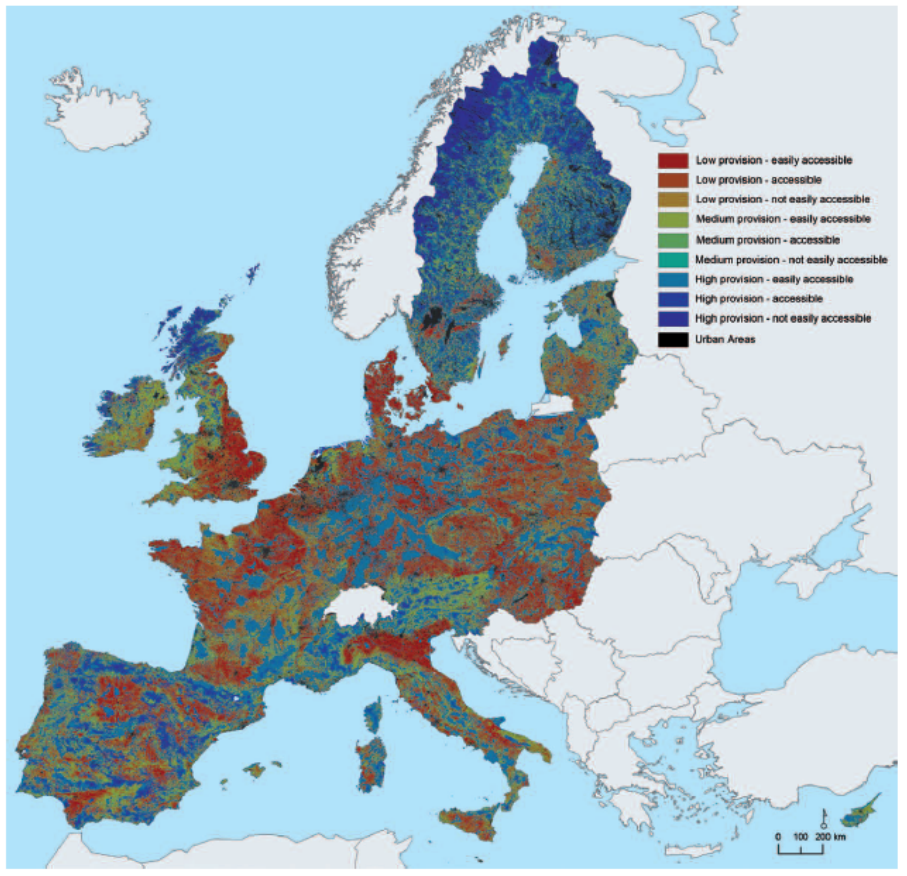
- Data services
  - indicator databases, monitoring, geographic information systems, mapping, visualization, …
- Models and simulation tools
  - simple spreadsheet accounting methods, integrated assessment models, agent-based models, …

Data → information → decision → implementation

Data: mapping ecosystem services in Europe



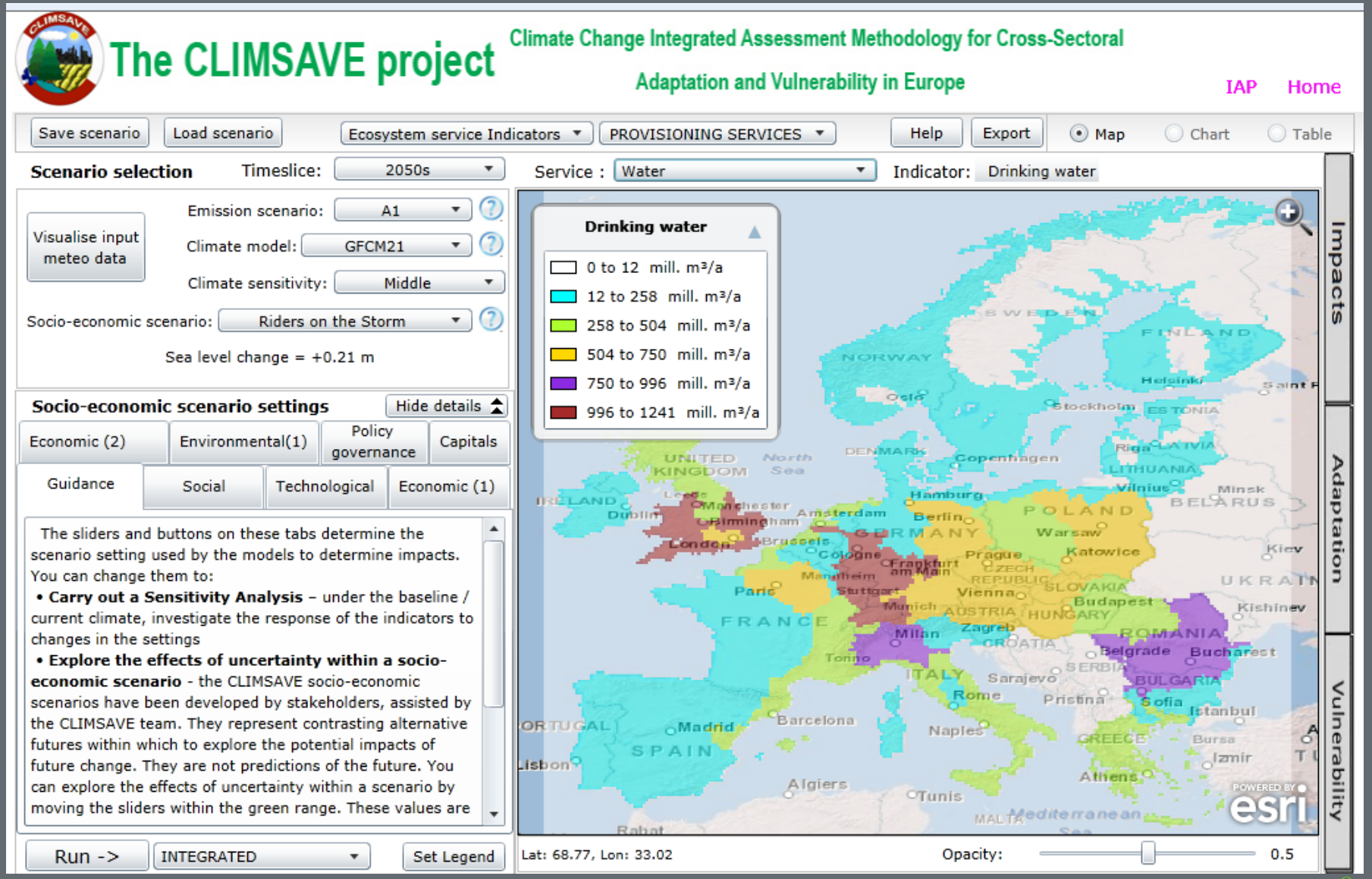
Relative pollinator abundance across Europe



Recreation Opportunity Spectrum (ROS) classifies ecosystems into 3 classes of accessibility and 3 classes of recreation potential

Source: PEER (Partnership for European Environmental Research)

Example of an integrated modelling tool

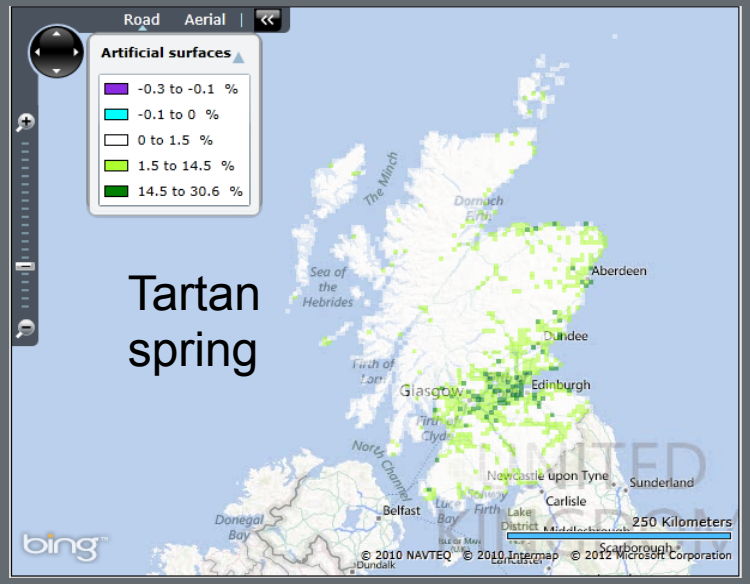


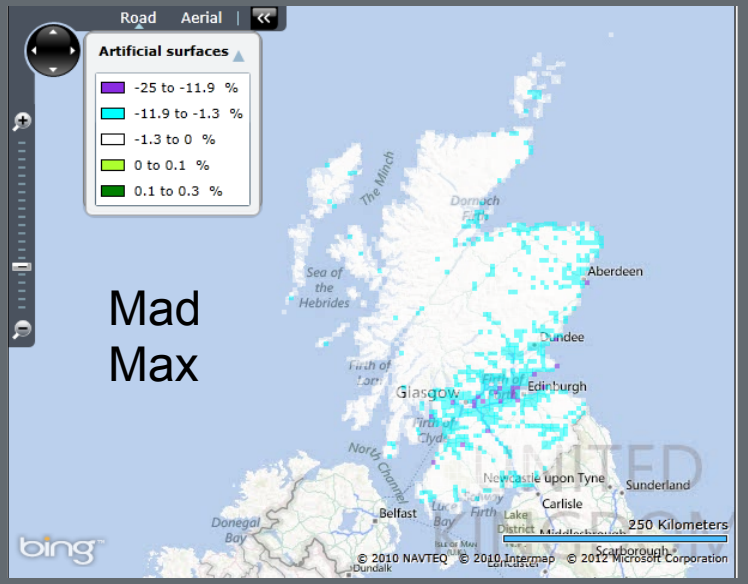
Decision support tools

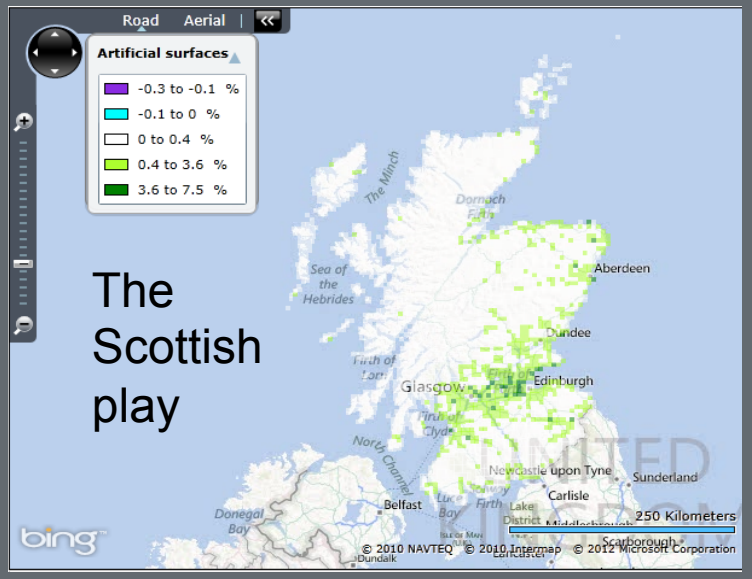
- Scenarios and futures analysis
- Economic and social valuation
  - payments for ecosystem services (PES),
  - contingent valuation,
  - hedonic pricing,
  - deliberative, participatory approaches, and
  - approaches to capture cultural identities attached to ES/NC…
- Benchmarking – tools to enable investors to understand the extent to which companies are dependent on (or impact on) biodiversity and ecosystem services

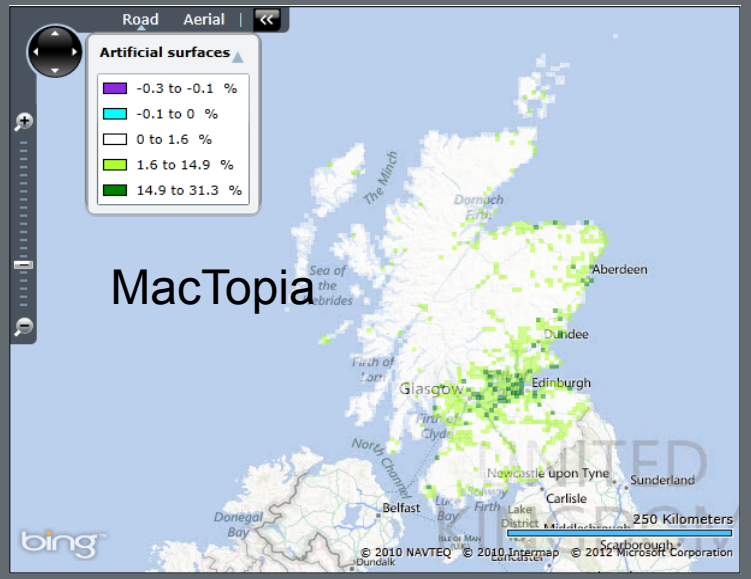
Data → information → decision → implementation

Scenarios and futures analysis









Management and policy instruments

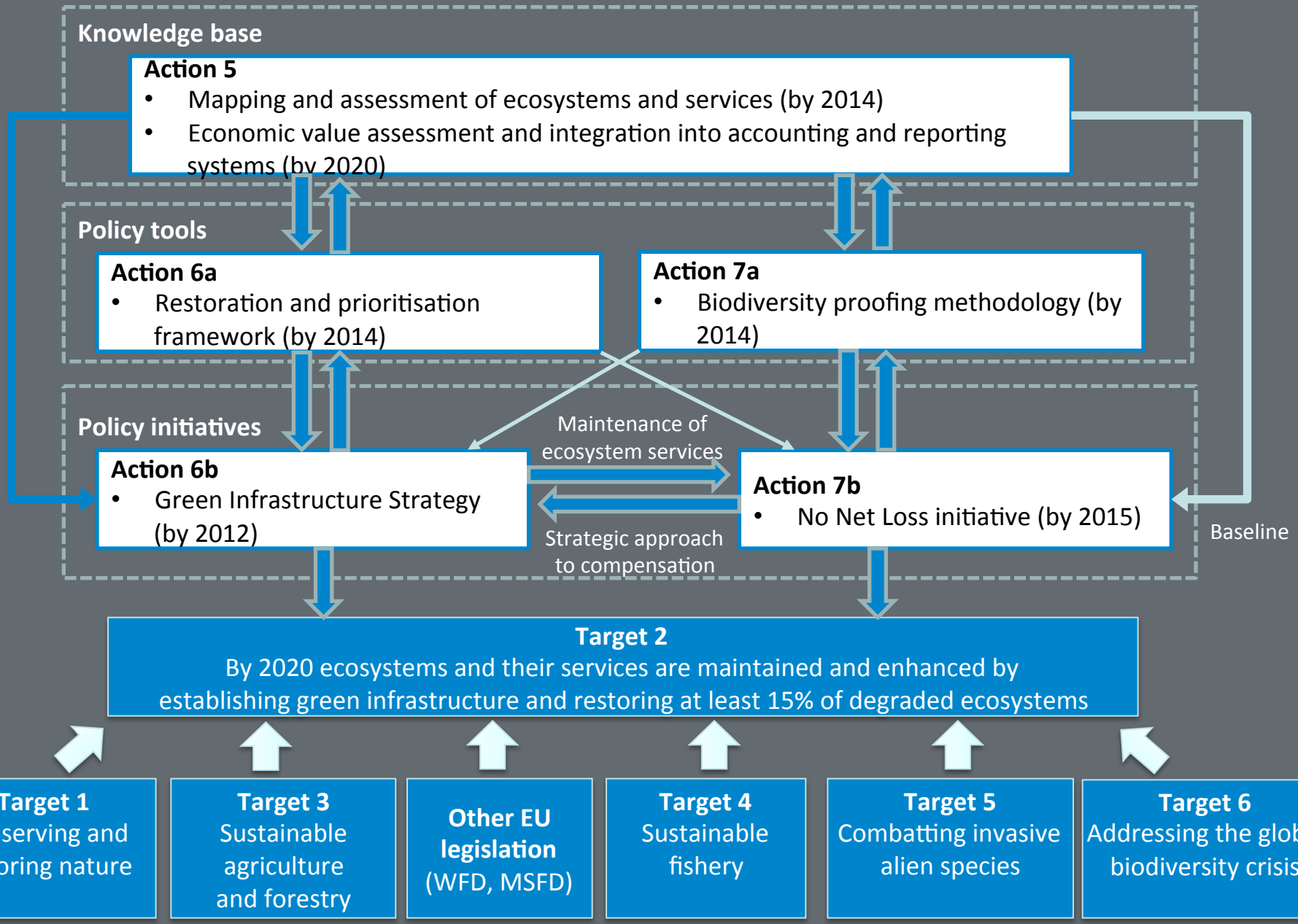
- Certification and Labelling
  - cf. energy rating, Fairtrade, organic labels, …
- Policy instruments and regulatory frameworks
  - markets, regulations, incentives, quotas, environmental protection, green infrastructure
- Mainstreaming ecosystem services
  - incorporating the ecosystem services into the policies and practices of sectors that deal with land and water-use planning

Data → information → decision → implementation

Example policy instruments and mainstreaming

- Common Agricultural Policy (CAP)
  - public payments for public goods - high nature value farming, agri-environmental schemes, less-favoured area payments
- Common Fisheries Policy (CFP)
- Water Framework Directive (WFD)
  - Implementing good ecological status
- REDD+
  - (Reduced Emissions from Deforestation and Degradation) supported by the UNFCCC and the UN CBD focusing on carbon
- The Habitats Directive (together with the Birds Directive)
  - the cornerstone of Europe's nature conservation policy built around the Natura-2000 network of protected sites and species protection.
- The European Commission's Green Infrastructure strategy
  - objective of ecosystem restoration as part of the 2020 biodiversity target
- Climate change adaptation (including the Adaptation Policy White Paper and the Floods directive)
  - synergies with ecosystem services

European Union Biodiversity Strategy to 2020



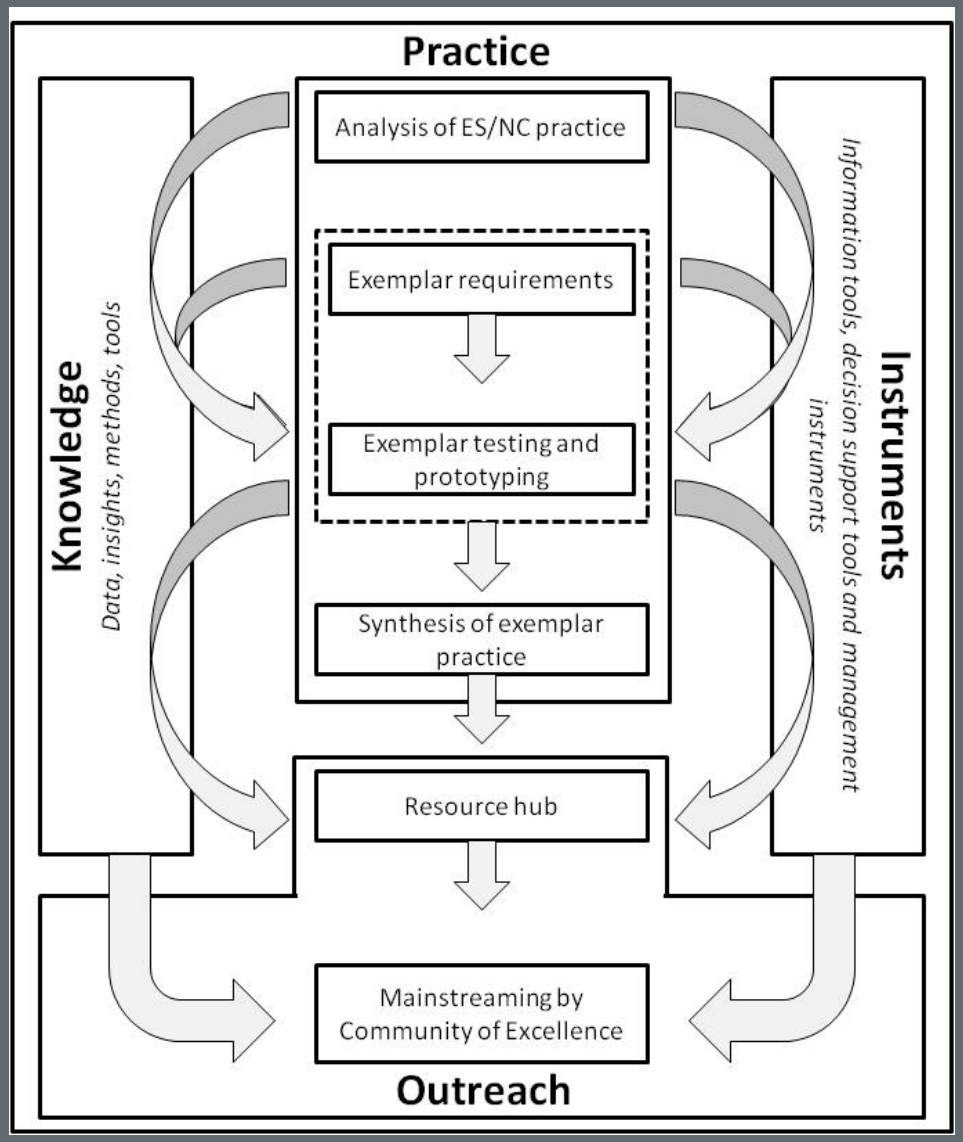
Testing instruments in the OPERAs exemplars

1. **Urban-rural fringe of the Greater Dublin Region.** Expanding cities and green infrastructure
2. **Urban dunes in Barcelona.** The value of urban dunes with multiple co-benefits
3. **Conservation of cultural landscapes in the LTER region of Montado in Portugal.** Ecological and cultural aspects of socio-ecological systems for the management of cork trees.
4. **Co-beneficiary management of marine/coastal ecosystems for Blue Carbon on the Balearic Islands.** Security of the Blue Carbon sink in seagrass meadows.
5. **Trans-boundary River and Wetland Management of the Lower Danube**. Flood mitigation, water quality, fishing grounds and C sequestration, across the Romanian-Bulgarian border.
6. **Effects of landscape management and infrastructure development on rural and peri-urban areas of the central Alps.** Planning and permits for infrastructure and peri-urban development.
7. **Wine production and cultural landscapes in Europe.** Communicating responsibly grown and made wines to consumers.
8. **Multi-scale implementation of environmental policy in Scotland.** Land use change, marine stewardship and climate change, from community implementation to the national policy level.
9. **Circum-Mediterranean agricultural land abandonment.** Policy options and land abandonment, risks of extreme events, semi-natural ecosystem integrity, water availability/ runoff, carbon storage
10. **Pan-European regulatory Directives.** Policy conflicts and synergies to showcase operational methods that improve policy design
11. **Mechanisms for Climate Protection and Habitat Conservation at the global scale**. Policy and market instruments for the twin goals of mitigating climate change and reducing habitat loss at the global scale.

The Resource Hub

- Building longevity and continuity (perennity)
- A web-based ‘Resource Hub’ containing
  - data (point-based and spatial),
  - exemplar studies,
  - meta-analyses and syntheses,
  - tools and methods,
  - best practice guidelines,
  - training programmes,
  - educational resources, …
- To support a Community of Excellence (CoE) of practitioners

Integration and outreach

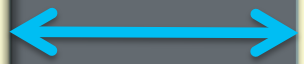


Collaboration between OPERAs and OpenNESS

Both projects are funded within the same call on "*operationalizing the ecosystem service concept*"

OPERAs:
Operational Potential of Ecosystem Research Applications

- **27 research and private sector partners**
- **14 European countries and 1 non-European country**
- **total budget of ca. €12m (ca. $15.5m)**



OpenNESS:
Operationalization of Natural Capital and EcoSytem Services: From Concepts to Real-world Applications

- **35 research and private sector partners**
- **14 European countries and 4 non-European countries**
- **total budget of ca. €11.5m ($15m)**

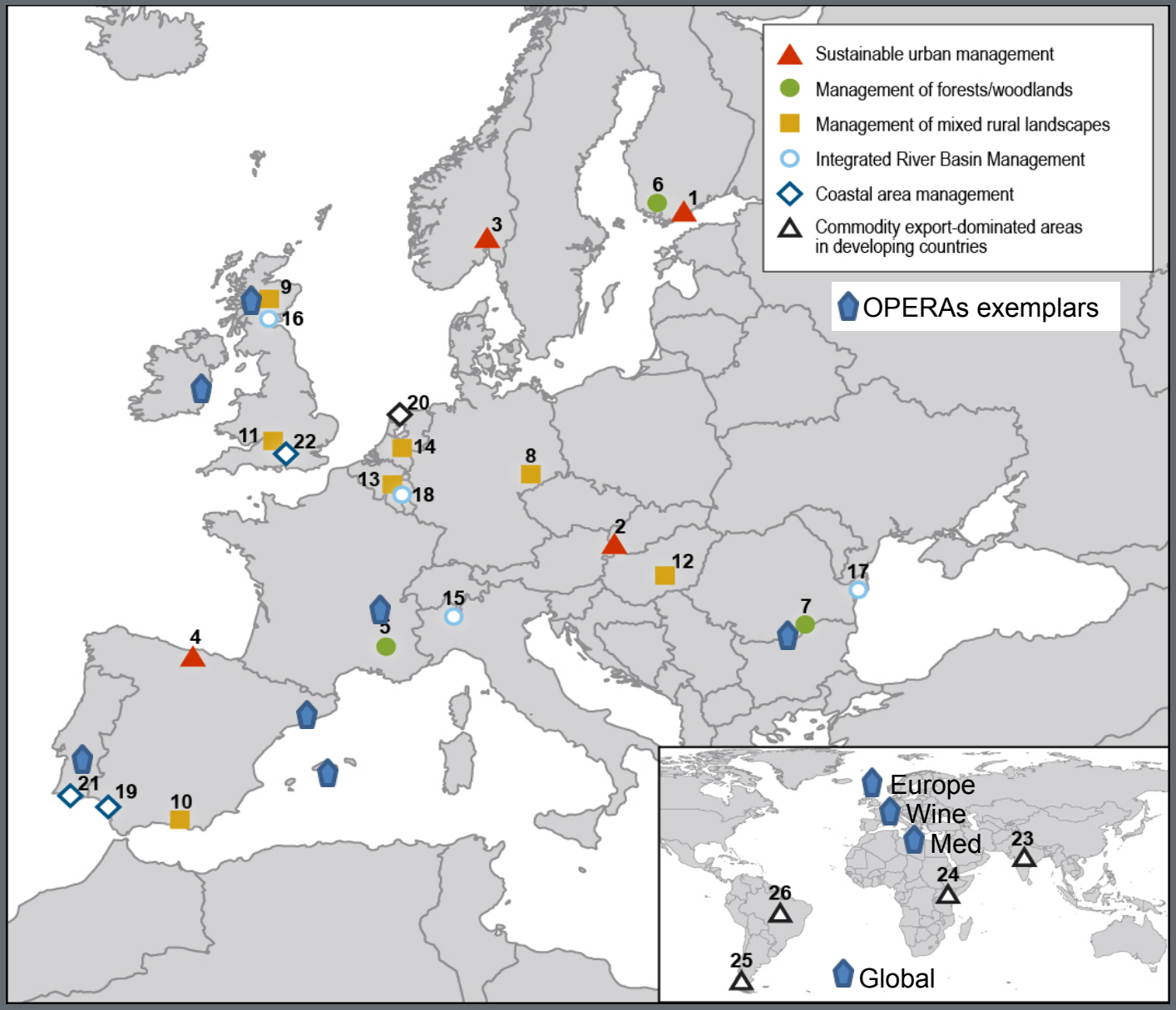
Work with OpenNESS part 1

- Common start date
- Joint meetings:
  - a) 2 policy meetings in Brussels (e.g. lunch debates),
  - b) 1 project meeting elsewhere (at an early stage of the work),
  - c) ad hoc project meetings to implement collaboration
- Joint Open Science Conference at the end of the projects
- Joint Special Issue linked to the final conference
- Joint stakeholder engagement and monitoring plan (to avoid overlap of individuals contacted)
- Communicate about protocols, methods and synthesis of exemplars/case studies - partner participation in workshops on
  - a) method development (early on), and
  - b) synthesis and comparison of results (later on)

Work with OpenNESS part 2

- Collaborate in the Lower Danube exemplar/case study
- Coordinate communication and dissemination strategies and plans
- Compare the project policy briefs, and avoid confusion where differences in messages arise
- A high degree of inter-operability of the OPERAs Resource Hub and the OpenNESS Clearinghouse through a common platform
- Ensure the perennity of the Resource Hub/Clearinghouse
- Joint business plan with the aim of commercialising the Resource Hub/ Clearinghouse common platform
- Coordinate Summer School(s) and other training elements
- Include common members within the project Advisory groups, especially the coordinators.

The OPERAs exemplars & OpenNESS case studies

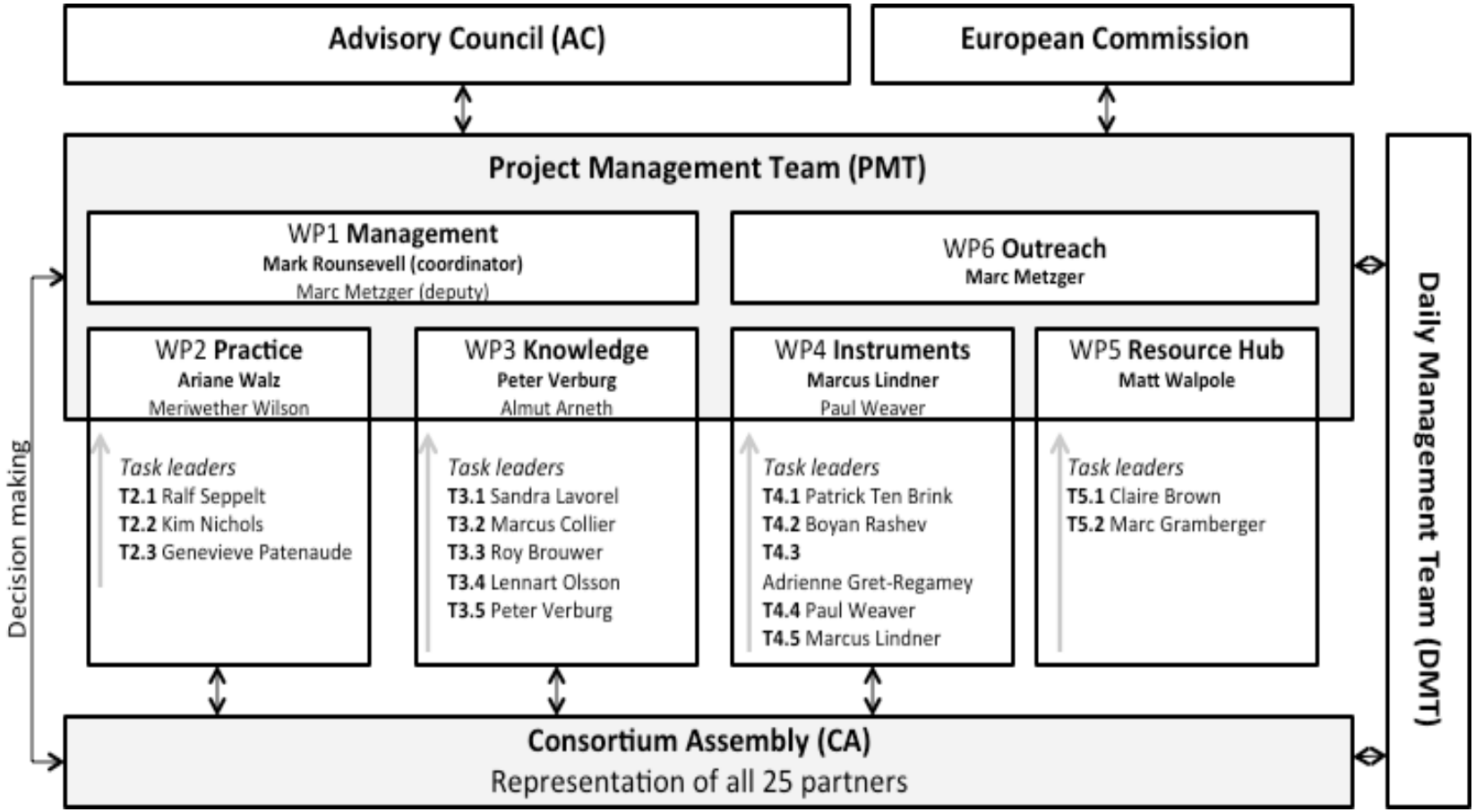


Total of 37 exemplar case studies (11+26)

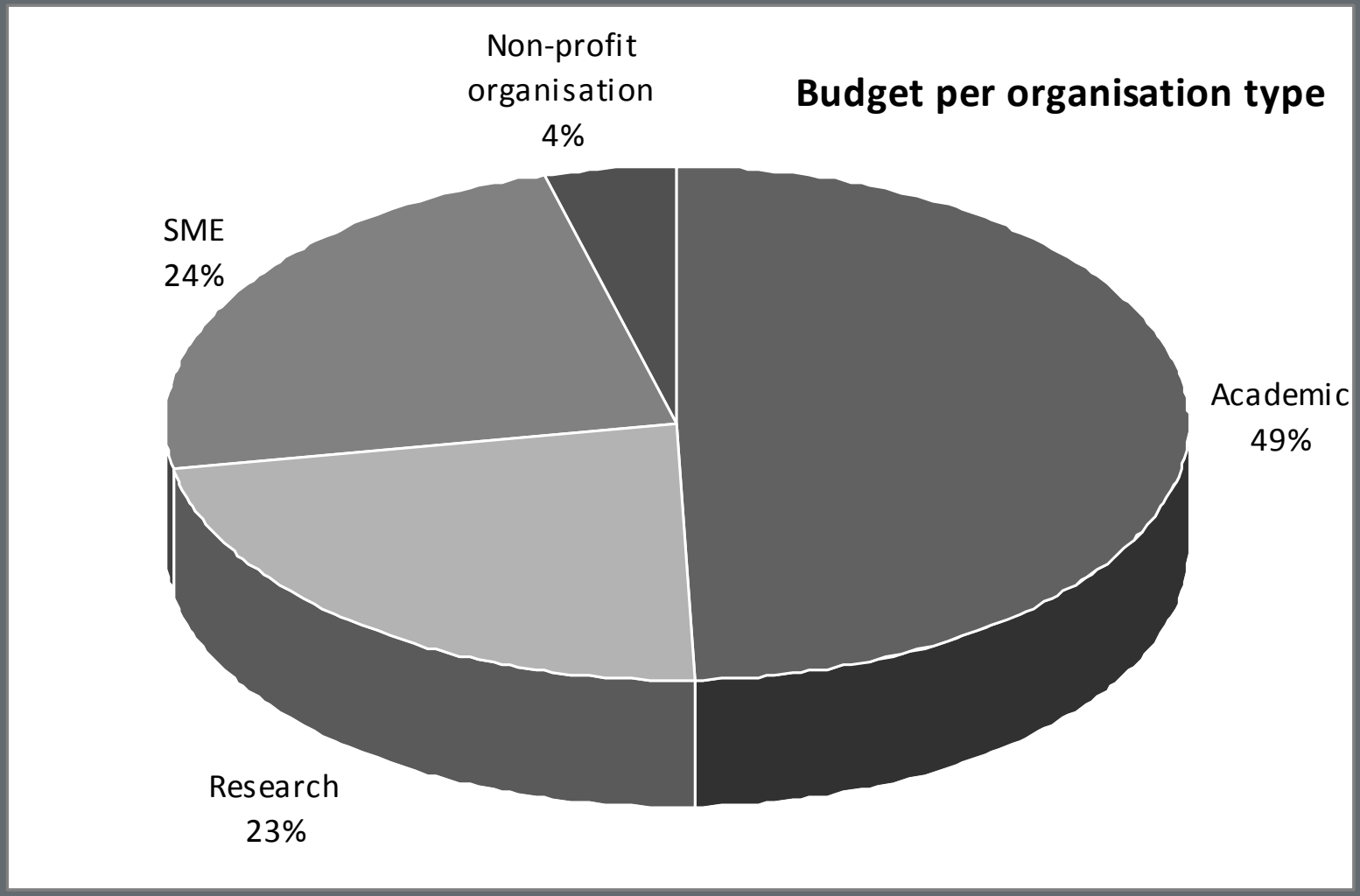
Deliverables due in the first 18 month reporting period

- D1.1 Management of project dissemination (M3)
- D1.2 OPERAs Research Implementation Plan (M6)
- D6.1 Dissemination strategy and plan (M12)
- D2.1 Description of study design: Exemplars, stakeholder needs and tested tools/instruments (M15)
- D4.1 Report and Policy brief on existing and emerging policy needs and opportunities (M16)
- D1.3 Updated Research Implementation Plan (M18)
- D3.1 Transferable geo-referenced metrics, and GIS based quantification and valuation functions (M18)
- D5.1 Report on testing the inter-operability with the OpenNESS Clearing House (M18)
- D6.2 Short films describing issues (M18)

Project management



A unique combination of partners …
… to develop and exploit the resource hub



What this meeting is trying to achieve

- Get to know one another again
- Revisit the project WPs
- Explore cross-WP integration
- Work toward the Research Implementation Plan (RIP)
- Complete the project timeline
- Take everyone's photo
- Produce short videos – talking heads on project themes

Overview of the meeting agenda

See the printed agenda

Highlight the timeline diagram for use during the meeting

Things to discuss at some point …

- The Advisory Council
- The policy for future project meetings (locations, timing, role of host, resourcing, …)
- Quality assurance policy and procedures

Housekeeping

- Room arrangements for break-outs and coffee/lunch breaks
- Toilets
- Alarms
- Dinner, whisky tasting, …

Any questions?