

VECTORS

consortium led by Mel Austen and Manuel Barange
Plymouth Marine Laboratory, UK

*Area 6.2.2.2 The Ocean of Tomorrow
ENV.2010.2.2.2-02 Vectors of changes in
ocean and seas marine life, impact on
economic sectors (Call: FP7-2010-OCEAN)*

WP7- KNOWLEDGE EXCHANGE

WP8- DATA MANAGEMENT

WP1- PRESSURES OF CHANGE

WP1.1. Indirect
WP1.2. Direct

WP2- MECHANISMS OF CHANGE

WP2.1. Invasive Species
WP2.2. Species Outbreaks
WP2.3. Distributions and Productivity
WP2.4. Biodiversity & Function

WP3- SOCIAL and ECONOMIC IMPLICATIONS of ECOLOGICAL CHANGE

WP3.1 Ecosystem Services
WP3.2 Bioeconomic modelling
WP3.3 Societal Governance

WP4- REGIONAL SEAS IMPACTS

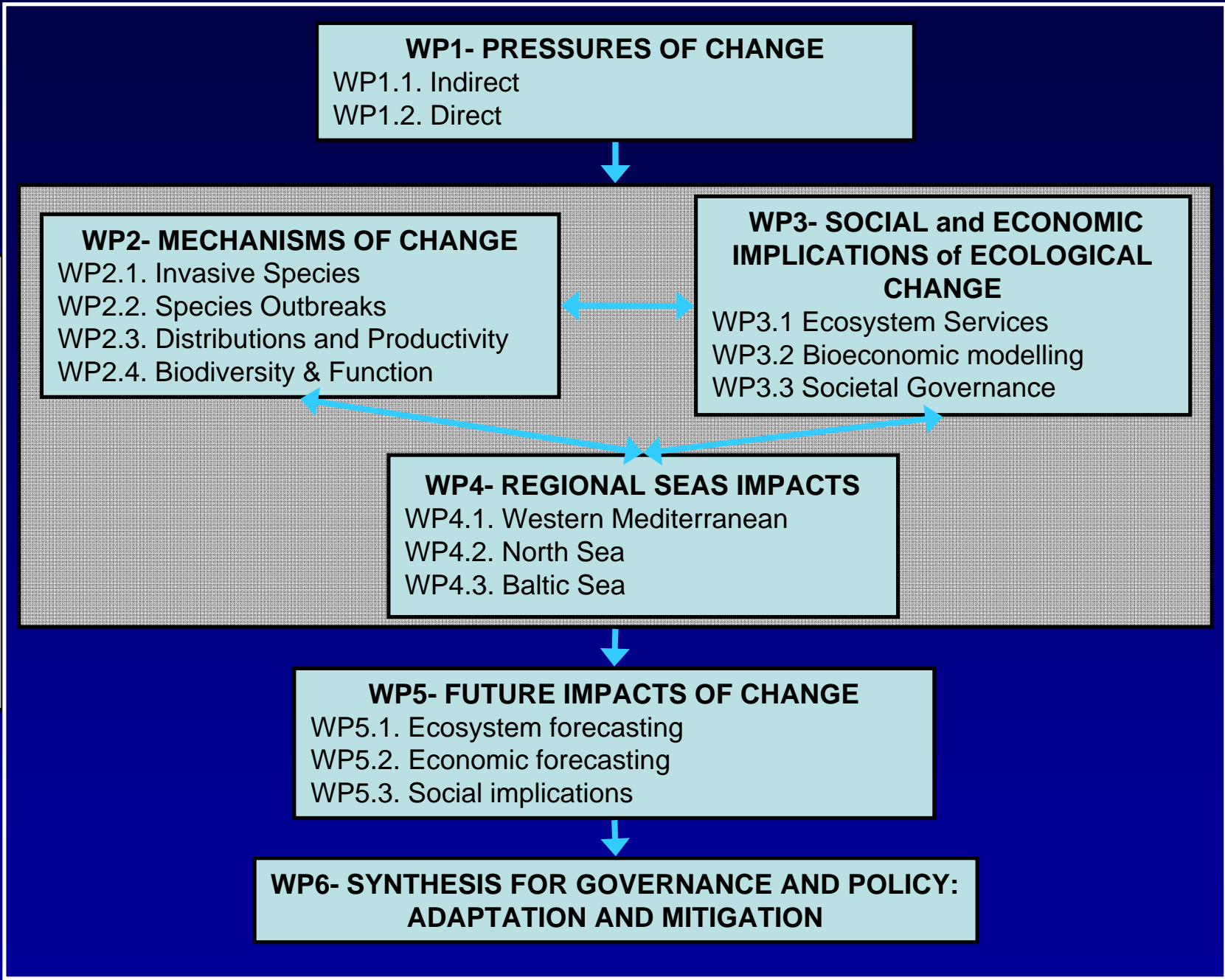
WP4.1. Western Mediterranean
WP4.2. North Sea
WP4.3. Baltic Sea

WP5- FUTURE IMPACTS OF CHANGE

WP5.1. Ecosystem forecasting
WP5.2. Economic forecasting
WP5.3. Social implications

WP6- SYNTHESIS FOR GOVERNANCE AND POLICY: ADAPTATION AND MITIGATION

WP9- CONSORTIUM MANAGEMENT



Indirect Pressures

- Energy demands
 - Mitigation of greenhouse gas accumulation
 - Driving the introduction of new technologies
- Economic
 - shipping, leisure and recreation, food
- Changes in policy
 - EU Maritime Policy, EU Marine Strategy, EU CFP, IMO Convention on ballast water management, Water Directive, Copenhagen 2009, Others?
- Governance
- Interactions between multiple policies and drivers

Direct Pressures

- Climate change (including extreme events)
- Ocean acidification
- Resource exploitation
- Pollution and discharges and hypoxia
- Introduction of new offshore renewable energy technologies (wind farming, wave, tidal)
- Introduction of new ballast water technologies and practices
- Maritime transport
- Interactions between multiple uses and sectors

Proposal Participants

Bangor University	UK	(ICM) CSIC, Barcelona	Spain
CEFAS, Lowestoft	UK	National Institute of Aquatic Resources	Denmark
CNR	Italy	NIOO	Netherlands
Deltares	Netherlands	PML	UK
IO-PAN	Poland	SAHFOS	UK
DiSTeBA	Italy	Terra	Spain
Estonian Marine Institute	Estonia	University College Dublin	Ireland
FEEM	Italy	Unifob Environmental Research	Norway
GoConsult	Germany	Uni-Hamb & VTI SF	Germany
HCMR	Greece	University of Hull	UK
Marine Research Institute	Iceland	University of Murcia	Spain
IFM	Denmark	University of Pisa	Italy
IFREMER	France	University of St Andrews	UK
IMARES	Netherlands	Wageningen University	Netherlands

Contact Details

Mel Austen mcva@pml.ac.uk
Plymouth Marine Laboratory, UK

Manuel Barange maba@pml.ac.uk
Plymouth Marine Laboratory, UK