Maritime Spatial Planning (MSP) in the context of Offshore Windfarm Development:

Institutional Perspectives and Socio-Cultural Considerations

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Terminology

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Spatial Planning in the Sea

Maritime Spatial Planning

Marine Spatial Planning

…

} MSP

Several projects:

BMBF: Coastal Futures

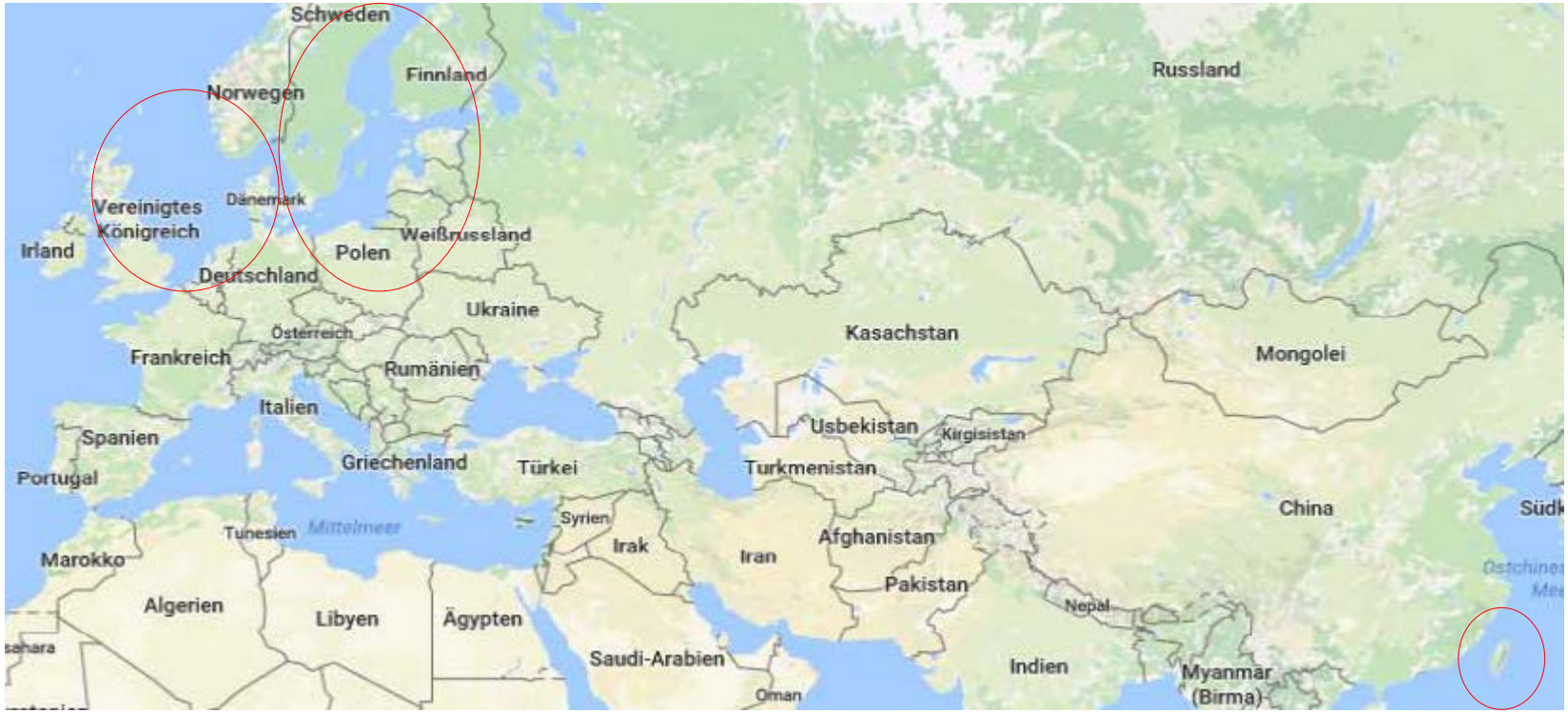
EU: KnowSeas, BaltSeaPlan, BONUS BALTSPACE

ICES (International Council for the Exploration of the Sea):

WGMPCZM

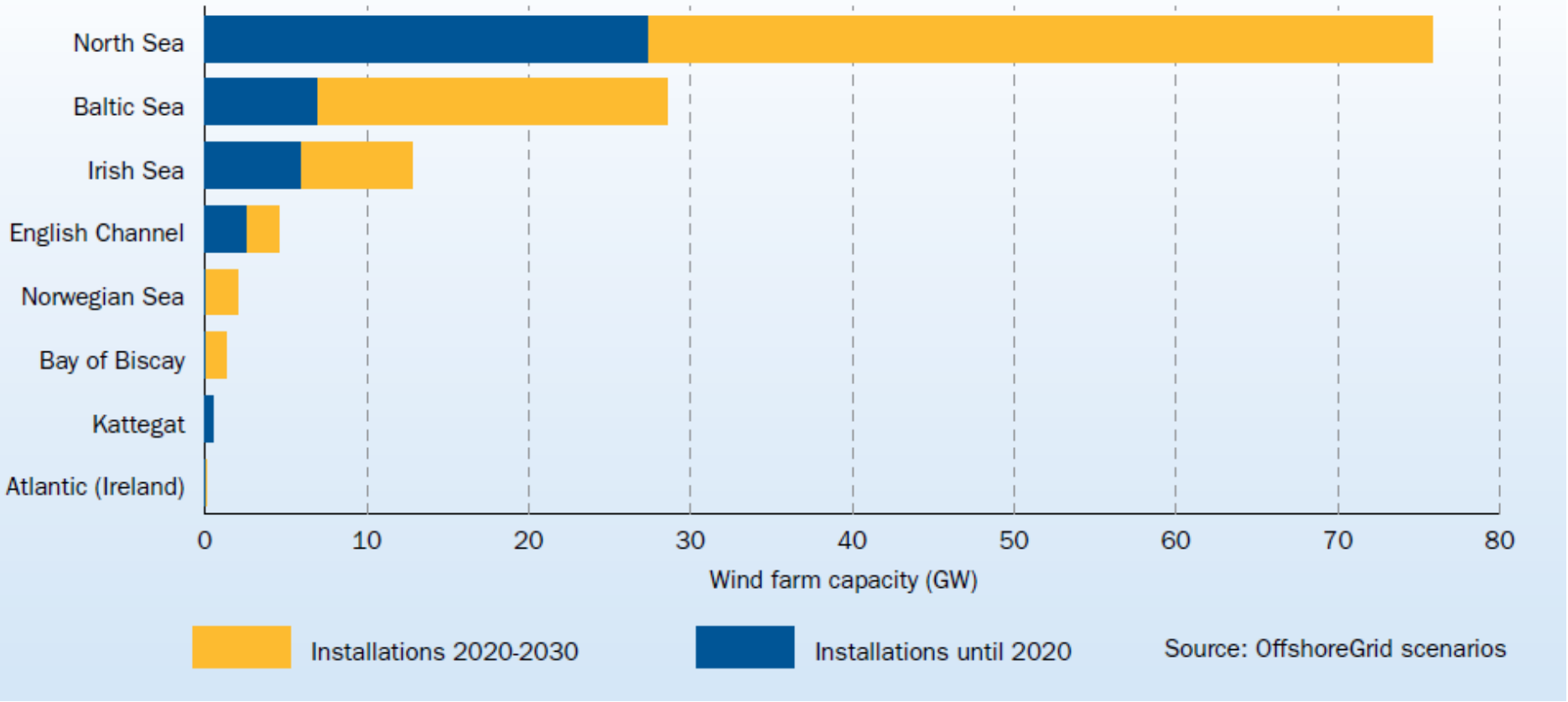
WKQAMSP 2012, WKCES 2013, WKCCMSP 2016

Geography


Schweden
Finnland
Norwegen
Russland
Vereinigtes Königreich
Dänemark
Irland
Weißrussland
Polen
Deutschland
Ukraine
Österreich
Kasachstan
Mongolei
Frankreich
Rumänien
Italien
Usbekistan
Kirgisistan
Spanien
Griechenland
Türkei
Turkmenistan
Portugal
China
Syrien
Tunesien
Mittelmeer
Irak
Afghanistan
Marokko
Iran
Pakistan
Algerien
Libyen
Ägypten
Nepal
Saudi-Arabien
Indien
Myanmar (Birma)
Oman

Potentially installed capacity of offshore wind farms in Northern Europe to 2030, OffshoreGrid scenarios (2011)

FIGURE 2.2: DISTRIBUTION OF INSTALLED CAPACITY PER SPECIFIC MARINE AREA



Geography: Multinational environments

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Potentially installed capacity of offshore wind farms in Northern Europe up to 2030, OffshoreGrid scenarios (2011)

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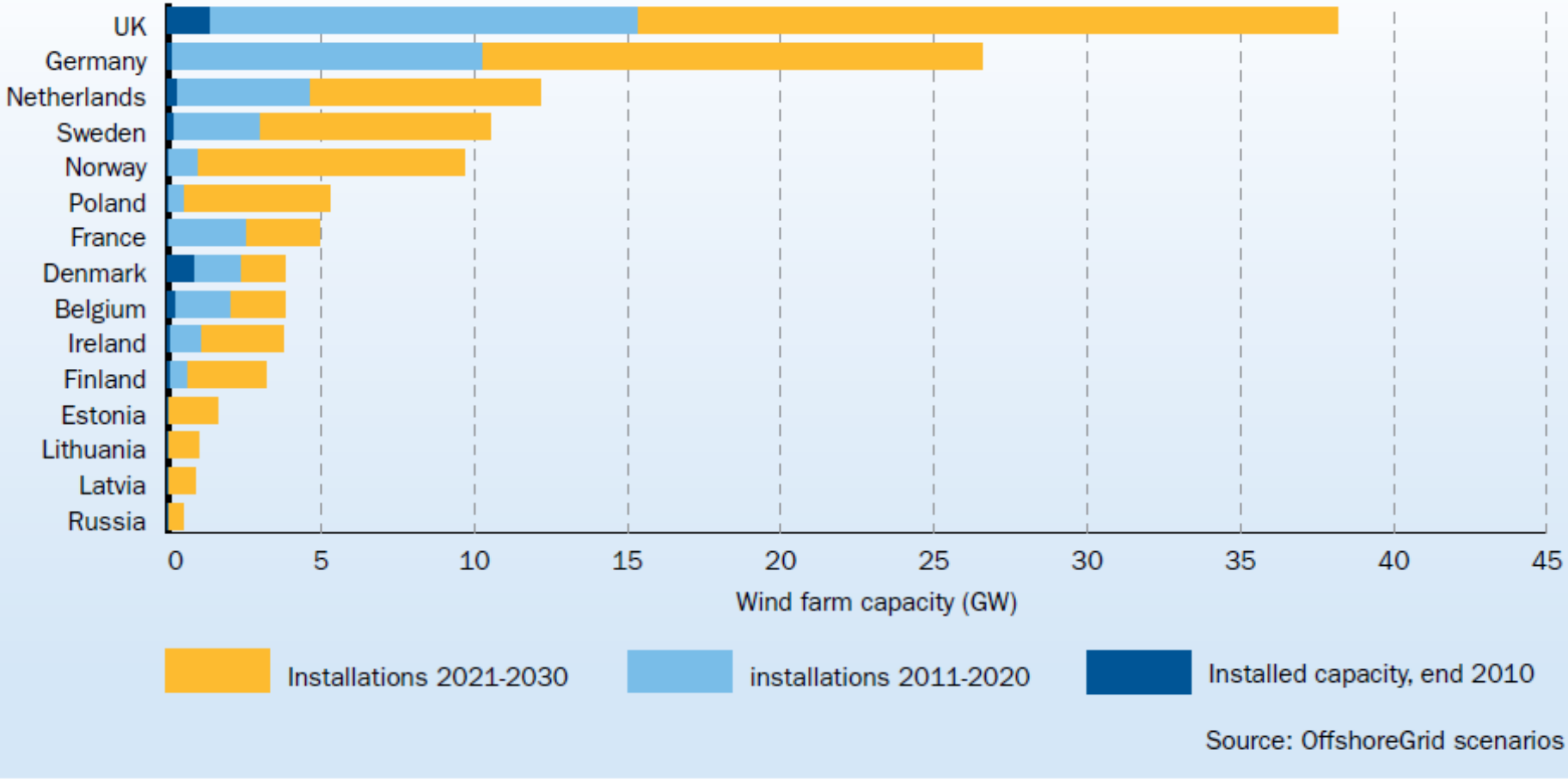
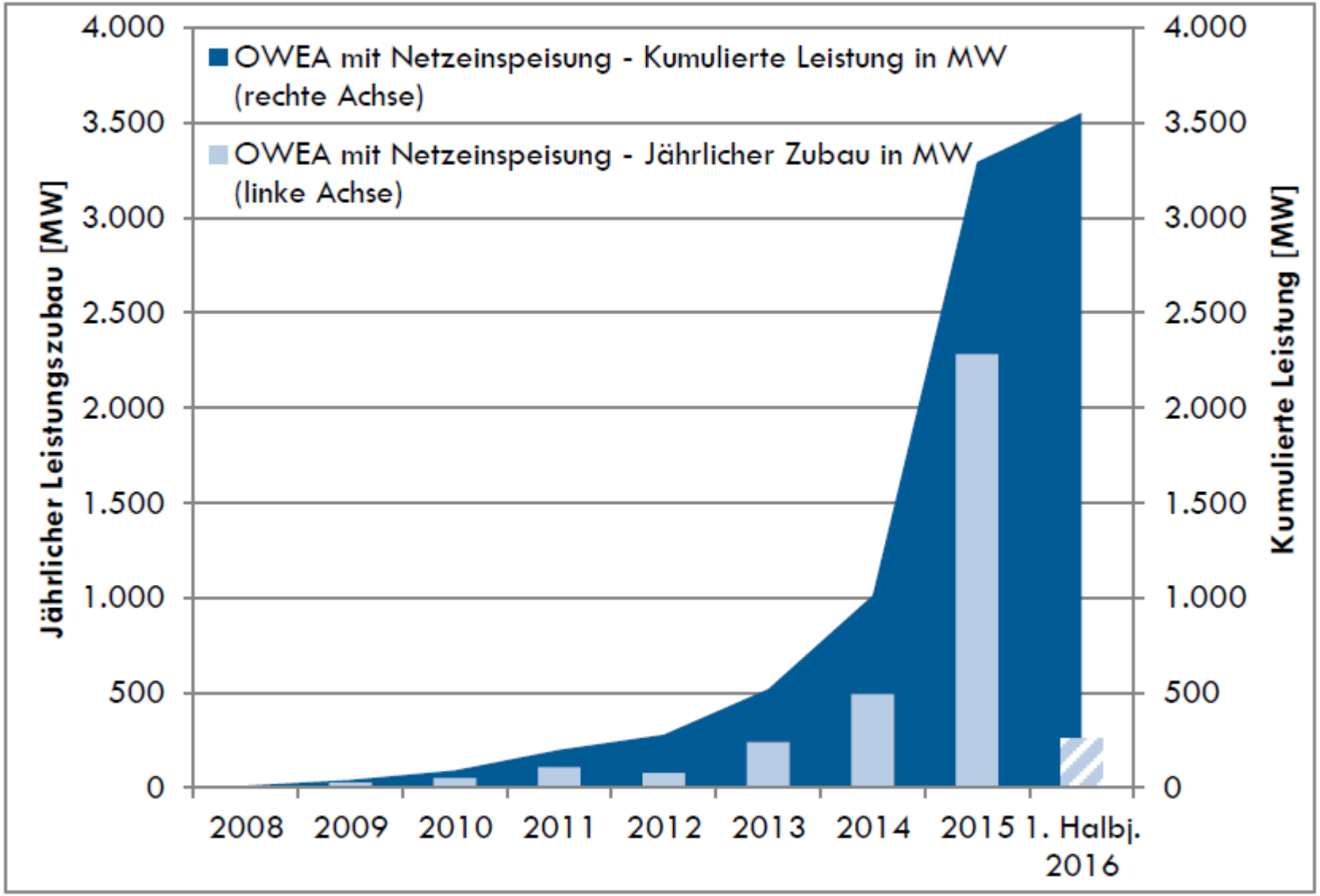


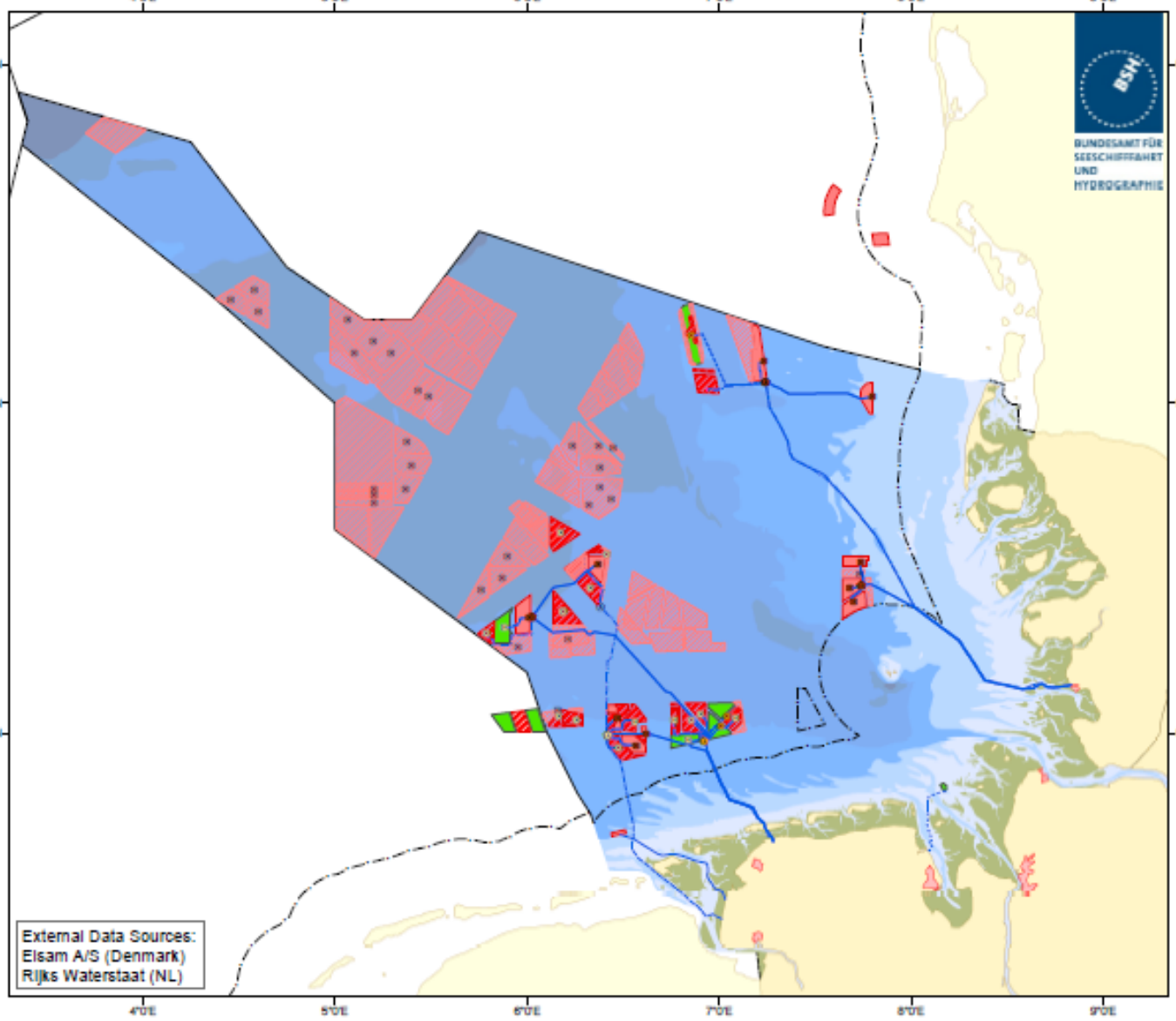
National context: Germany offshore

- Prospective huge growth in offshore wind farming in the (German) North Sea
- Ambitious targest initially, but considerable delays due to costs and problems with grid connection
- Offshore wind targets for 2030 scaled back from 25GW to 15GW (6.5 GW by 2020) to better reflect progress to date and to reduce costs to consumers
- 30 June 2016: 835 turbines with 3,552,2 MW are connected to the grid, 54 turbines with 324 MW are constructed, foundations exist for another 142 turbines

Offshore wind farm development over time (Source: German Wind Energy Association)



North Sea: Offshore Windfarms



Offshore Windfarms
- in use
- under construction
- approved
- application submitted

Platforms
- E-Transformer, in use
- E-Transformer, under construction
- E-Transformer, approved
- E-Transformer, application submitted
- E-Converter, inUse
- E-Converter, under construction
- E-Converter, approved
- E-Converter, application submitted

Cables (Offshore Windfarms)
- in use
- under construction
- approved
- application submitted

Boundaries
- Territorial Sea
- ContinentalShelf/EEZ
- International Boundary

Map Projection:
Mercator (54°N), WGS 84

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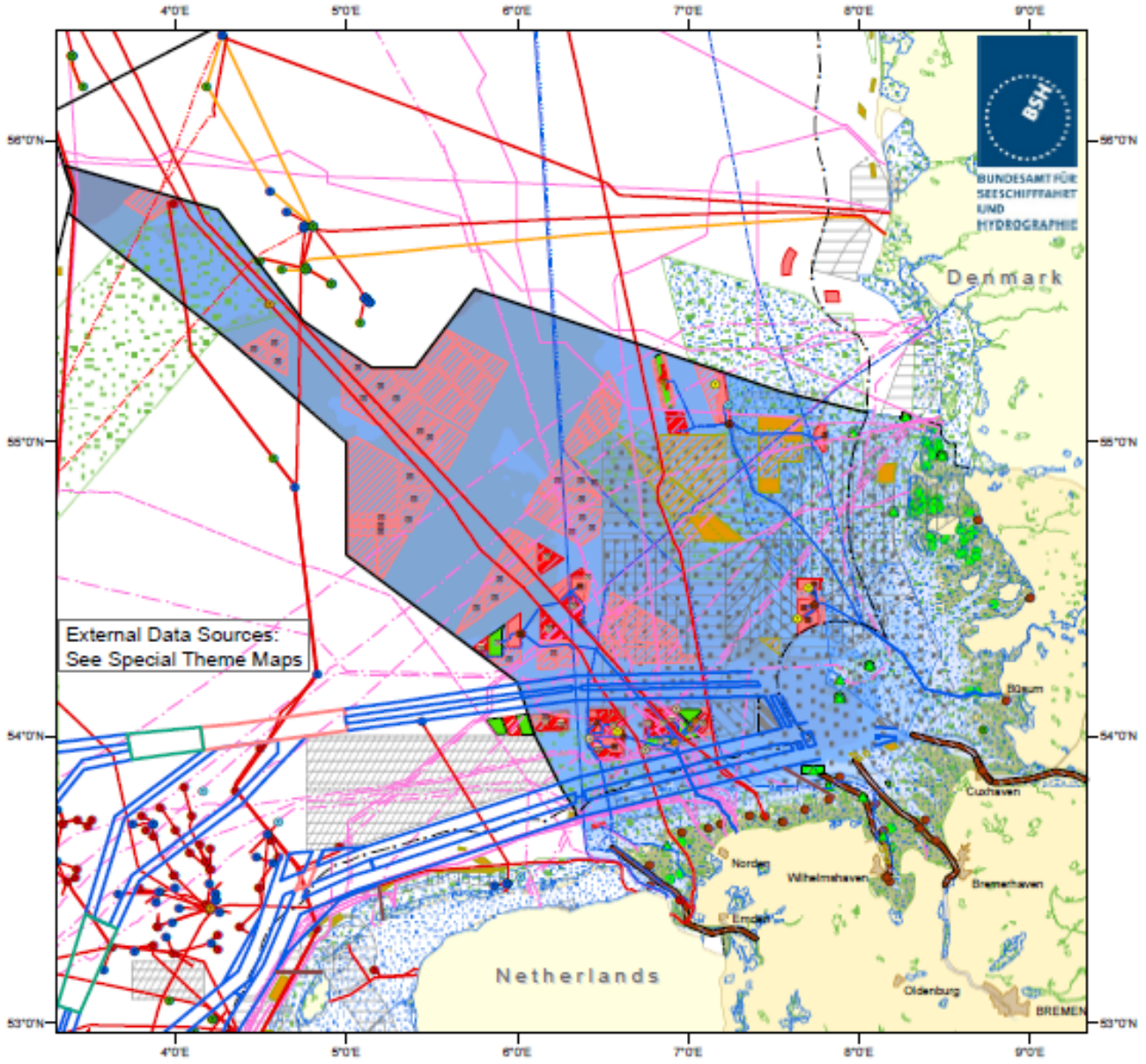
North Sea: Existing and Perspective Uses and Nature Conservation



Maritime Features
- Traffic separation zone
- Deep water route
- Precautionary area
- Inshore traffic zone
- Shipping lane, recommended
- Shipping lane, not classified

Boundaries
- Continental Shelf/EEZ
- Territorial Waters/12 nm Zone
- International Boundary
- Restricted Area
- Anchoring Area

Platforms
- Measurement Platform, in use
- Measurement Platform, under construction
- Measurement Platform, approved
- Measurement Platform, application submitted
- Petroleum Platform, in use
- Petroleum Platform, out of use
- Natural Gas Platform, in use
- Compressor Platform, in use
- Unclassified, in use
- Unclassified, approved
- Unclassified, out of use
- E-Transformer, in use
- E-Transformer, under construction
- E-Transformer, approved
- E-Transformer, application submitted
- E-Converter, in Use
- E-Converter, under construction
- E-Converter, approved
- E-Converter, application submitted

Pipelines
- Natural Gas Pipeline, in use
- Natural Gas Pipeline, under construction
- Natural Gas Pipeline, approved
- Natural Gas Pipeline, application submitted
- Hydrocarbons Pipeline, in use

Cables
- High Voltage Cable, in use
- High Voltage Cable, under construction
- High Voltage Cable, approved
- High Voltage Cable, application submitted
- Data Cable, in use
- Data Cable, application submitted
- Data Cable, out of use
- Data Cable, unknown

Offshore Windfarms
- in use
- under construction
- approved
- application submitted
- denied

Sediment Extraction
- in use
- approved
- application submitted

Dumping Grounds
- Dredged Material, in use
- Ammunition, out of use
- Dredged Material, in use
- Dredged Material, out of use
- Ammunition, out of use

Military Practice Area
- Unclassified
- Restricted Area
- Torpedo Exercise
- Submarine Exercise
- Firing Danger
- Mine Hunting Practice
- Air Force Exercise

Nature Conservation
- Natura2000 SCI
- Natura2000 SPA

Mariculture
- Culture Area

Preferred Areas
- Offshore Wind Energy

Geodetic Datum: WGS 84
Map Projection: Mercator (54°N)

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Why MSP? The drivers to do it…

- **Multiplicity of human activities, societal demands**
- **Problem driven, e.g. how to incorporate a new demand into an existing setting**
- Policy driven or legal obligation

Marine/Maritime Spatial Planning

"a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives that have been specified through a political process."

UNESCO-IOC

Maritime Spatial Planning (MSP)

seeks to shape and guide *future* developments rather than passively react to them.

promotes systematic, integrative and forward-looking planning based on common objectives and a shared understanding of common values.

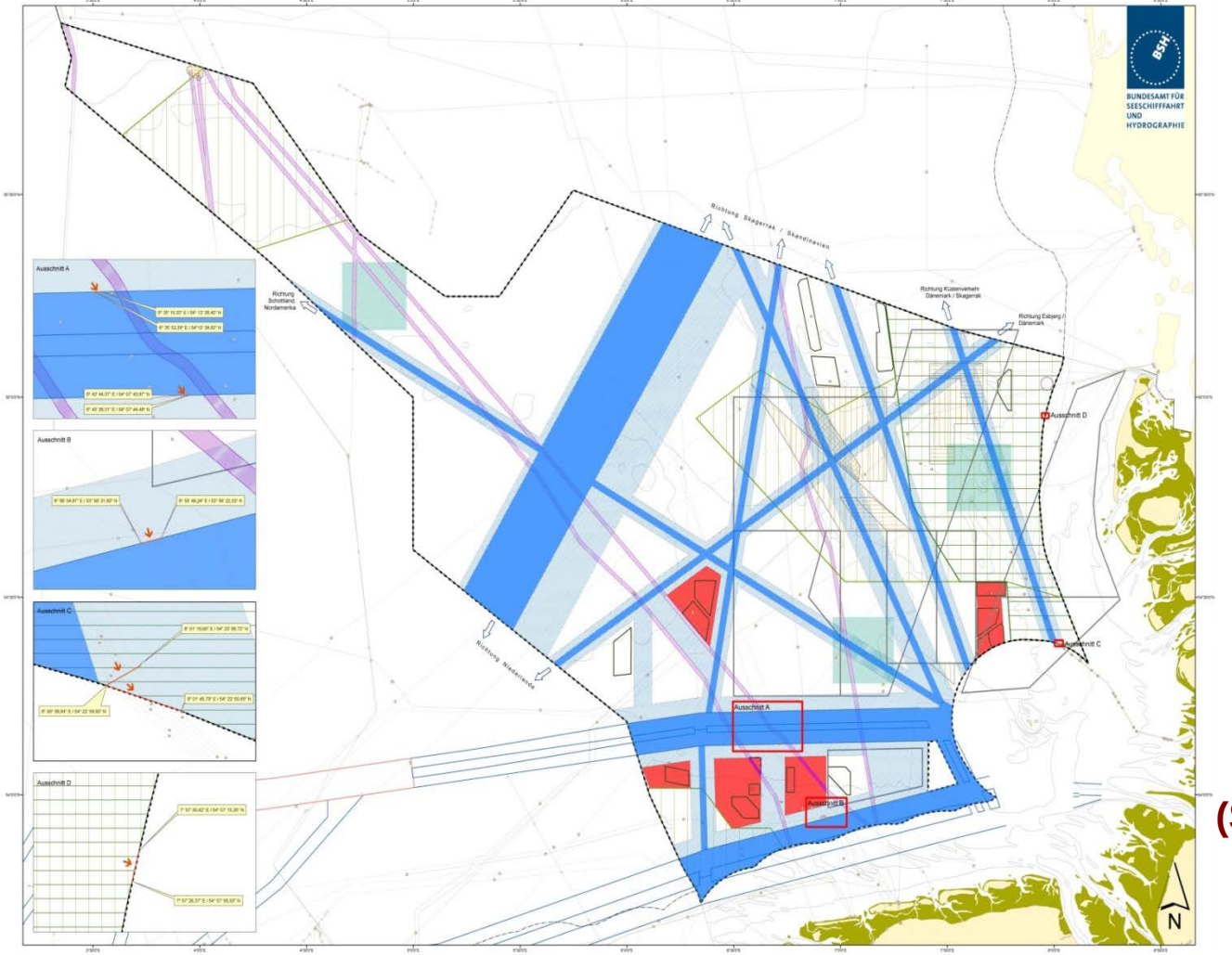
(Gee et al. 2011: BaltSeaPlan Vision 2030)

Different types of planning processes / procedures

- MSP – long-term – strategic, e.g. The Netherlands
- MSP – medium term – providing guidance for licensing and site specific plans, e.g. Germany (EEZ)

- *Licensing – site- and project specific*
- *Construction plan – site-, project- and technically specific*
- *Sectoral (spatial) plan*

Spatial Plan for the German North Sea EEZ



The tradional spatial (land) planning solution: Zoning

(Source: BSH, Federal Hydrographic and Maritime Agency)

European marine policies

- Integrated Maritime Policy (IMP)
- Blue Growth
- MSP Directive
- Common Fisheries and Agricultural Policy (CAP)

- Marine Strategy Framework Directive (MSFD)
- Water Framework Directive (WFD)
- Birds and Habitats Directive (NATURA 2000)

- Sectoral strategies and policies (Climate Change, Energy, Transport, Cohesion,…)

Policies at many scales

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Non-EU context

- UNCLOS
- Environmental Conventions and Agreements (e.g. CBD)
- IMO Regulations
- Regional Seas Conventions (OSPAR, HELCOM, Barcelona, etc.)

EU policies

National policies

Subnational policies (German states/Länder)

What to achieve in MSP along EU MSP Directive?

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Economic considerations formulated as objectives (expected outputs according to EU MSP Directive)

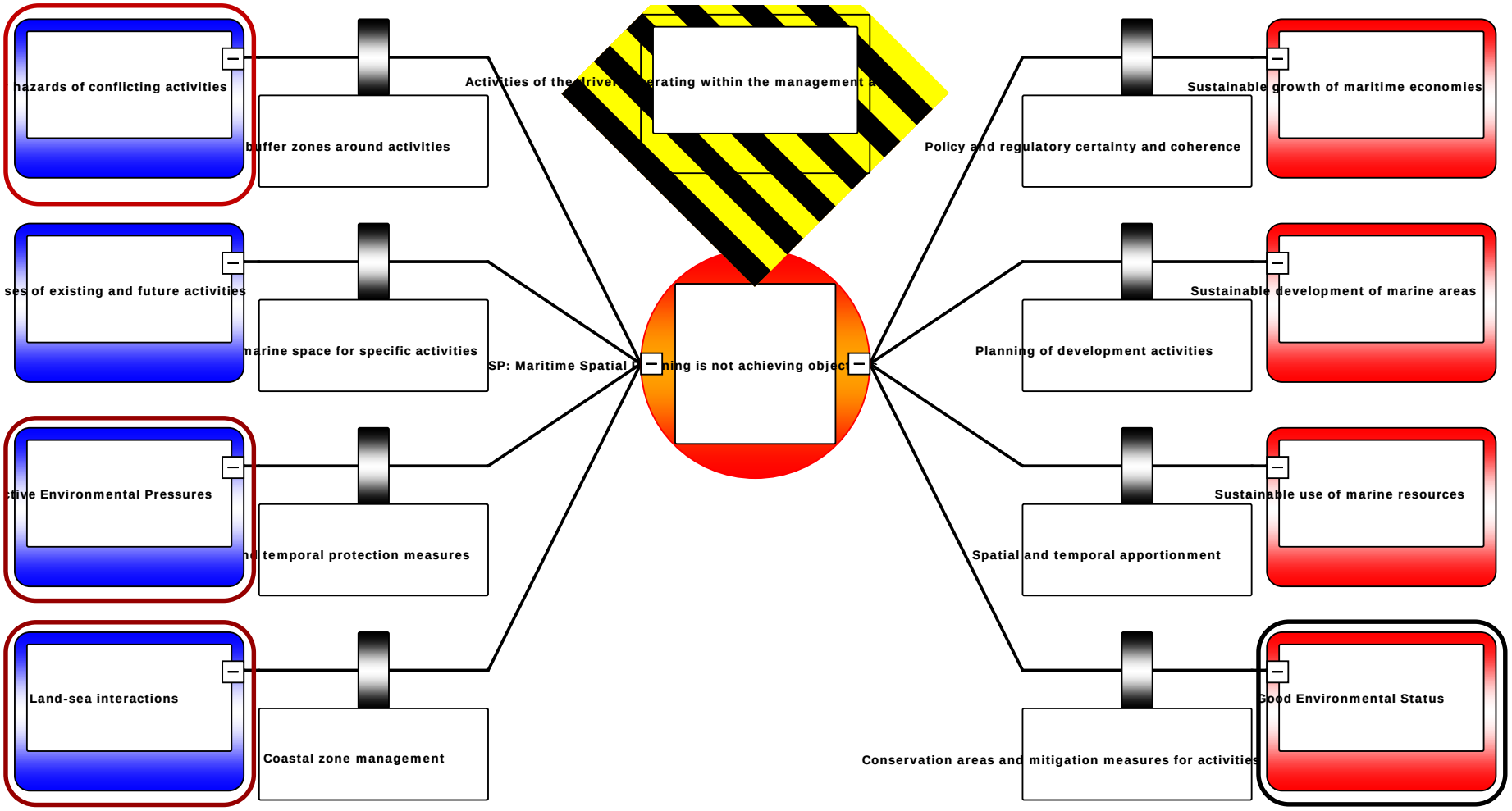
→ Growth of maritime economies / sectors
→ Development of marine areas
→ Use of marine resources

} Sustainable

Environmental considerations

→ Good Environmental Status (EU MSFD)
→ Strategic Environmental Assessment (SEA)
→ Protection of NATURA 2000 areas (Birds and Habitats Directives)

Policy risk analysis



based on Cormier et al., 2015, ICES Cooperative Research Report 327

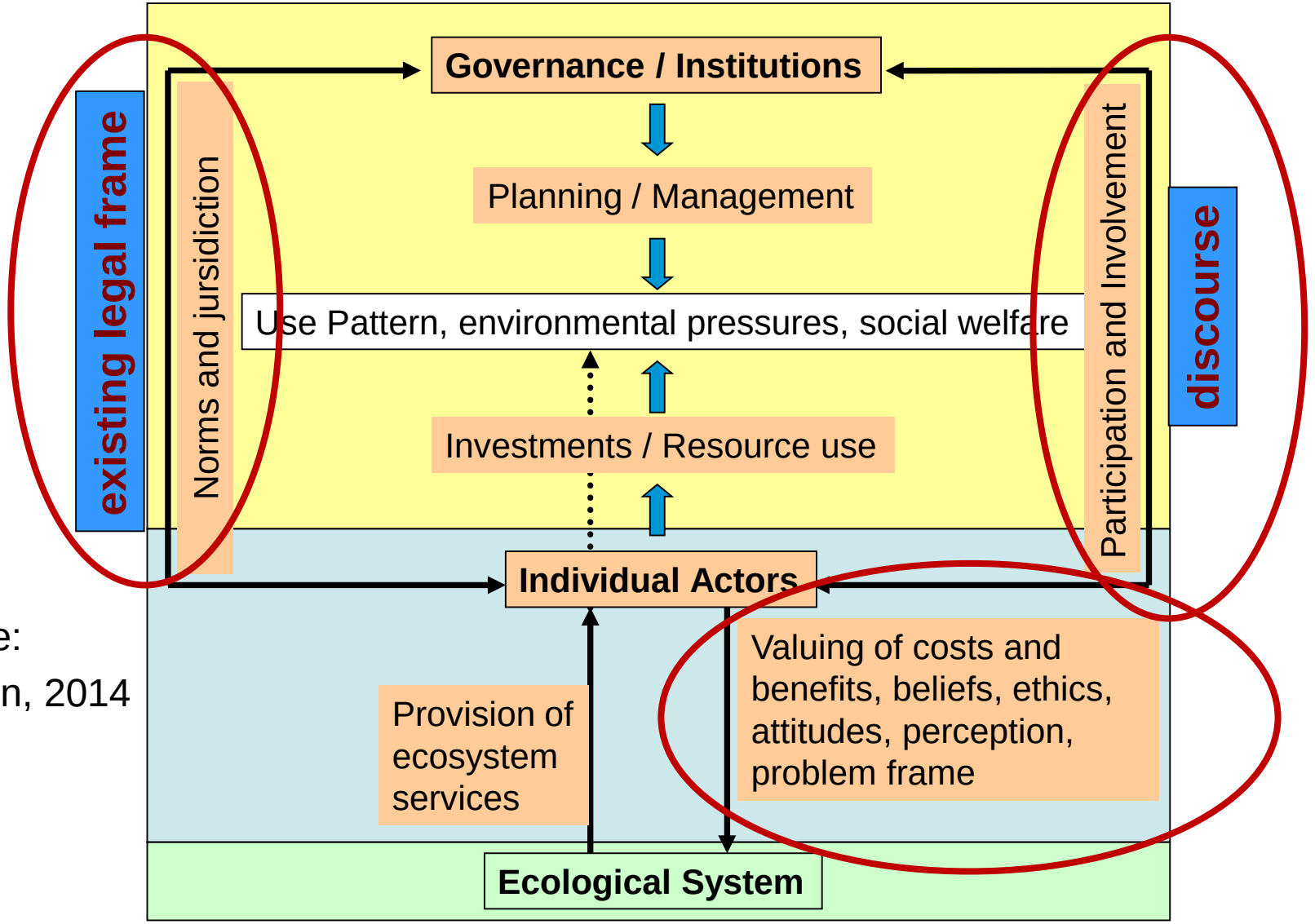
MSP deals with or should deal with

- different policy goals, interests, scales
- different perceptions, attitudes and values

MSP is

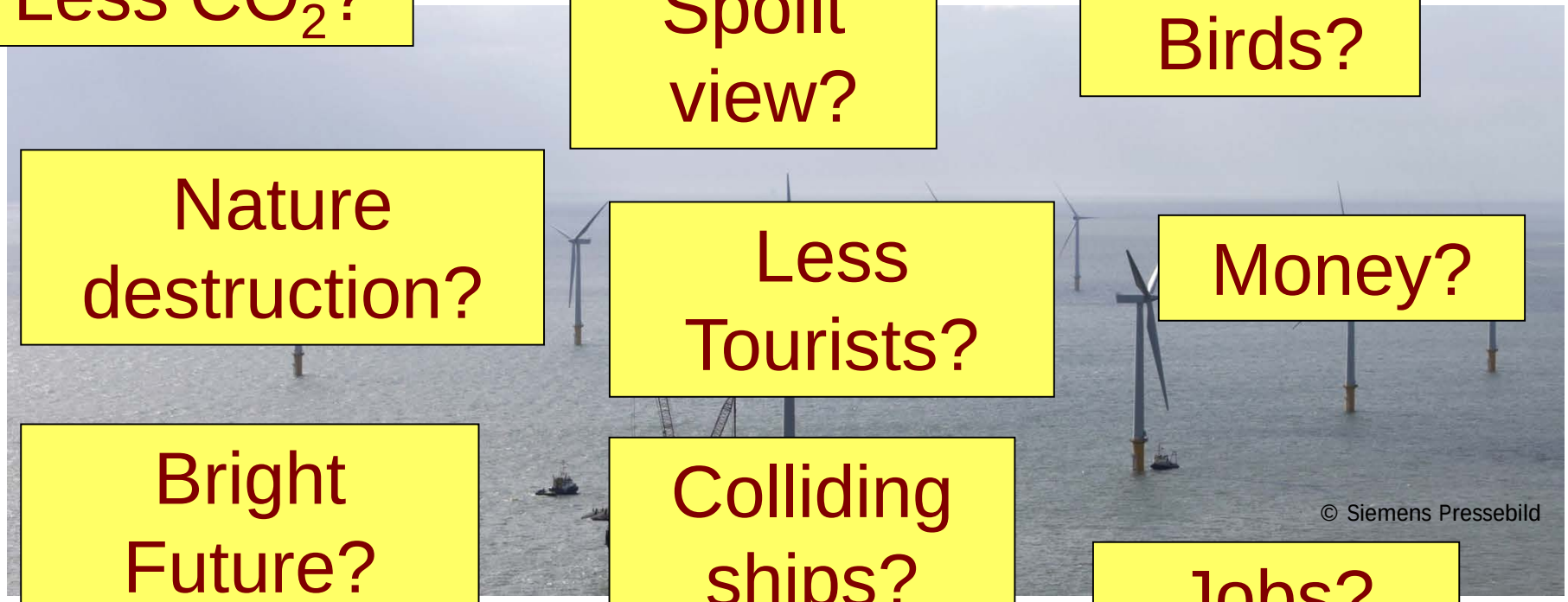
- a planning and/or negotiation element embedded in a wider system of social–ecological interactions and related governance structures (Kannen 2014)
- not simply rational data-based decision-making, but a social process

MSP as an institutional process



Source:
Kannen, 2014

What do you see?



Less CO_2?

Spoilt view?

Killed Birds?

Nature destruction?

Less Tourists?

Money?

Bright Future?

Colliding ships?

Jobs?

And what do you feel?

Just awful!

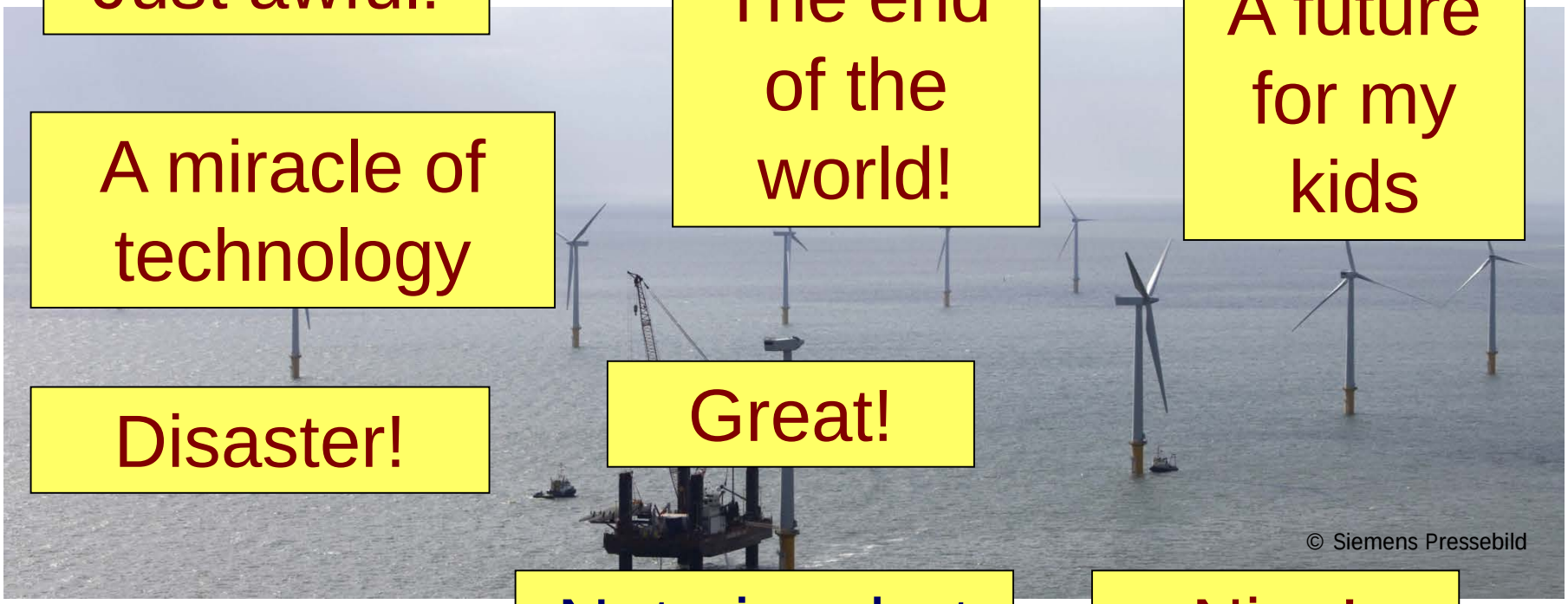
The end of the world!

A future for my kids

A miracle of technology

Disaster!

Great!



Not nice, but necessary

Nice!

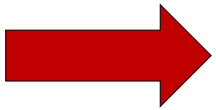
Why are social and cultural aspects important in MSP?

- people have an attachment to the sea and to areas they live in
- people have perceptions and emotions on what happens in their area
- people are sensitive to changes in their environment
- people are sensitive to missing transparency and processes perceived as unjust and unfair

Risks when ignoring social and cultural aspects

- missing acceptance for content of the PLAN

- failure in PROCESS
  - e.g. seen as unfair -> missing transparency of why specific decisions where taken and/or unclear roles



mistrust
ignorance
resistance against implementation

Towards socio-cultural impact assessment

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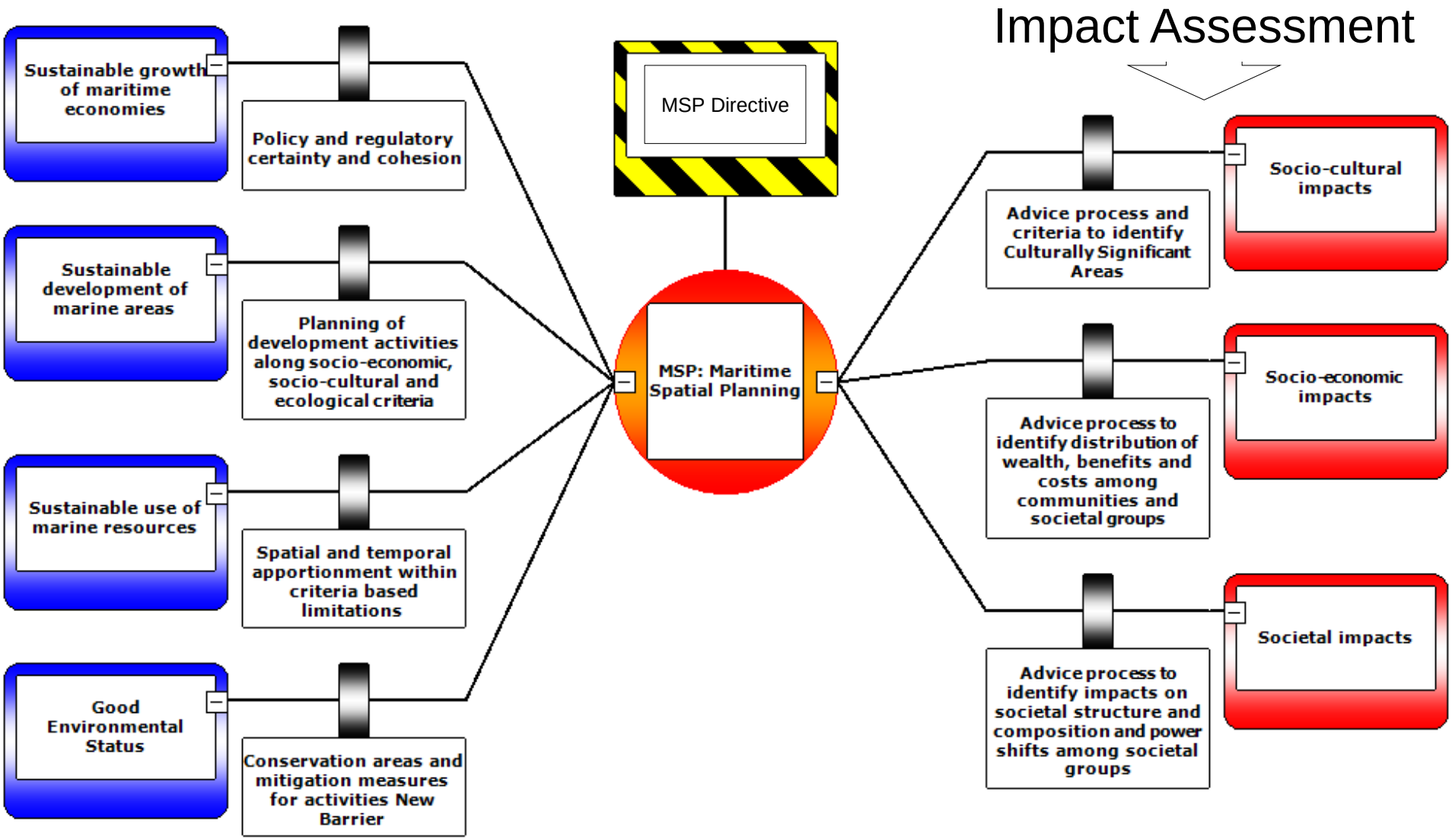


ICES WKCES proposal: Culturally Significant Areas

-> Identifying places of cultural importance

What is valued by people and **where** is it?

When is it relevant and to **whom** is it important?

What qualities are needed to sustain it?

-> Criteria for determining cultural significance of places

- ICES Expert Group Report WKCES2013 http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/SSGHIE/2013/WKCES13.pdf
- Gee et al., forthcoming in Ocean & Coastal Management

Including social and cultural aspects in MSP

- → provides an additional layer of information in the decision making process
- → does not prescribe that social and cultural aspects are valued higher in decision making than economic or ecological considerations
- → supports fairness and transparency
- → may support community engagement in the process

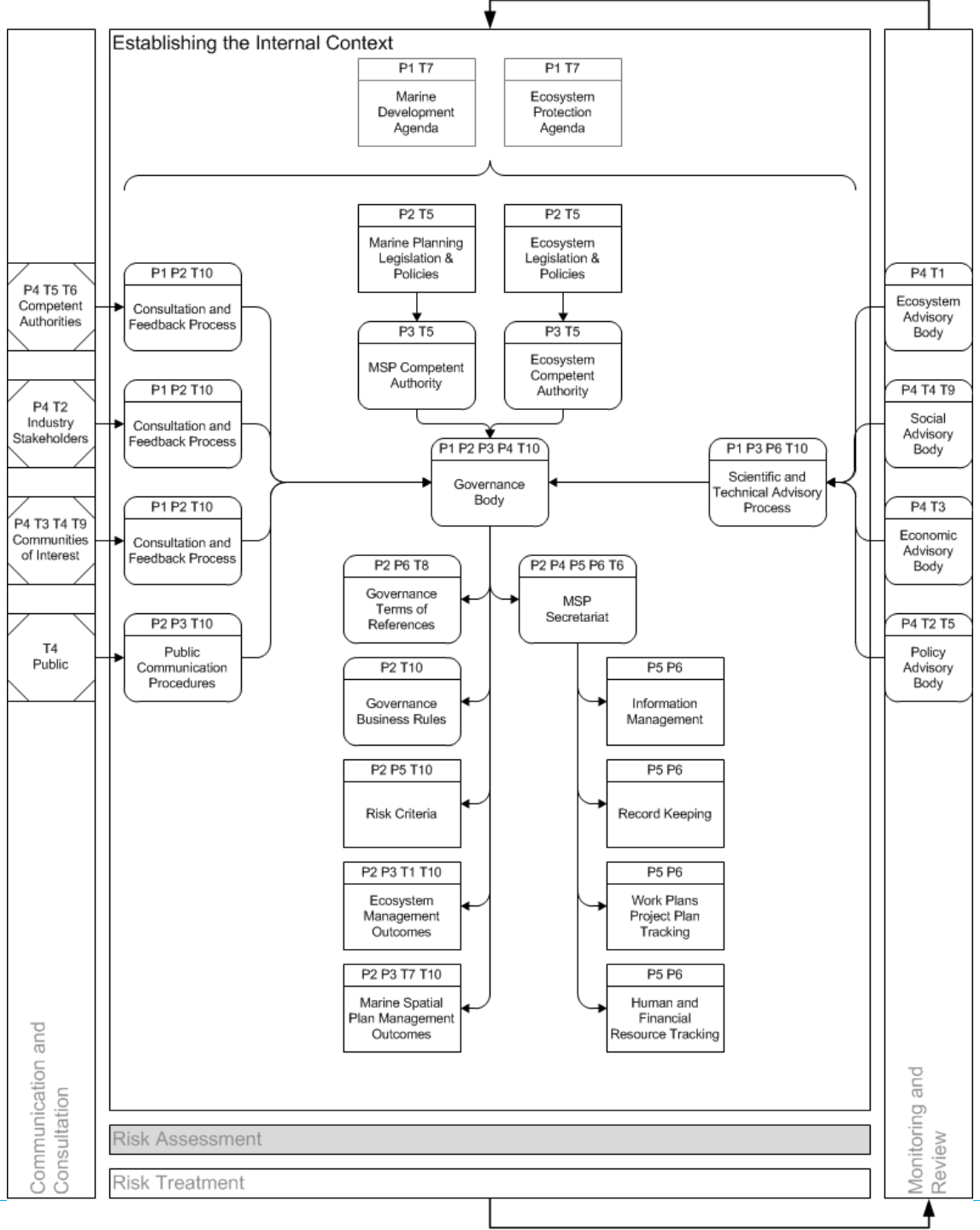
→ may increase support for implementation of the plan and reduce resistance

Option:
Use a Quality Management Approach to MSP

Cormier, R., Kannen, A., Elliott, M. and, Hall, P. (2015): Marine Spatial Planning Quality Management System. ICES Cooperative Research Report 327

http://www.ices.dk/sites/pub/Publication%20Reports/Cooperative%20Research%20Report%20%28CRR%29/crr327/Marine%20Spatial%20Planning%20Quality%20Management%20System%20CRR%20327.pdf

based on WKQAMSP in 2012


Establishing the Internal Context
P1 T7
Marine Development Agenda
P1 T7
Ecosystem Protection Agenda
P2 T5
Marine Planning Legislation & Policies
P2 T5
Ecosystem Legislation & Policies
P3 T5
MSP Competent Authority
P3 T5
Ecosystem Competent Authority
P4 T5 T6
Competent Authorities
P4 T2
Industry Stakeholders
P4 T3 T4 T9
Communities of Interest
T4
Public
P1 P2 T10
Consultation and Feedback Process
P1 P2 T10
Consultation and Feedback Process
P1 P2 T10
Consultation and Feedback Process
P2 P3 T10
Public Communication Procedures
P1 P2 P3 P4 T10
Governance Body
P1 P3 P6 T10
Scientific and Technical Advisory Process
P2 P6 T8
Governance Terms of References
P2 P4 P5 P6 T6
MSP Secretariat
P2 T10
Governance Business Rules
P2 P5 T10
Risk Criteria
P2 P3 T1 T10
Ecosystem Management Outcomes
P2 P3 T7 T10
Marine Spatial Plan Management Outcomes
P5 P6
Information Management
P5 P6
Record Keeping
P5 P6
Work Plans Project Plan Tracking
P5 P6
Human and Financial Resource Tracking
P4 T1
Ecosystem Advisory Body
P4 T4 T9
Social Advisory Body
P4 T3
Economic Advisory Body
P4 T2 T5
Policy Advisory Body
Communication and Consultation
Monitoring and Review
Risk Assessment
Risk Treatment

Recognising socio-cultural issues in risk identification

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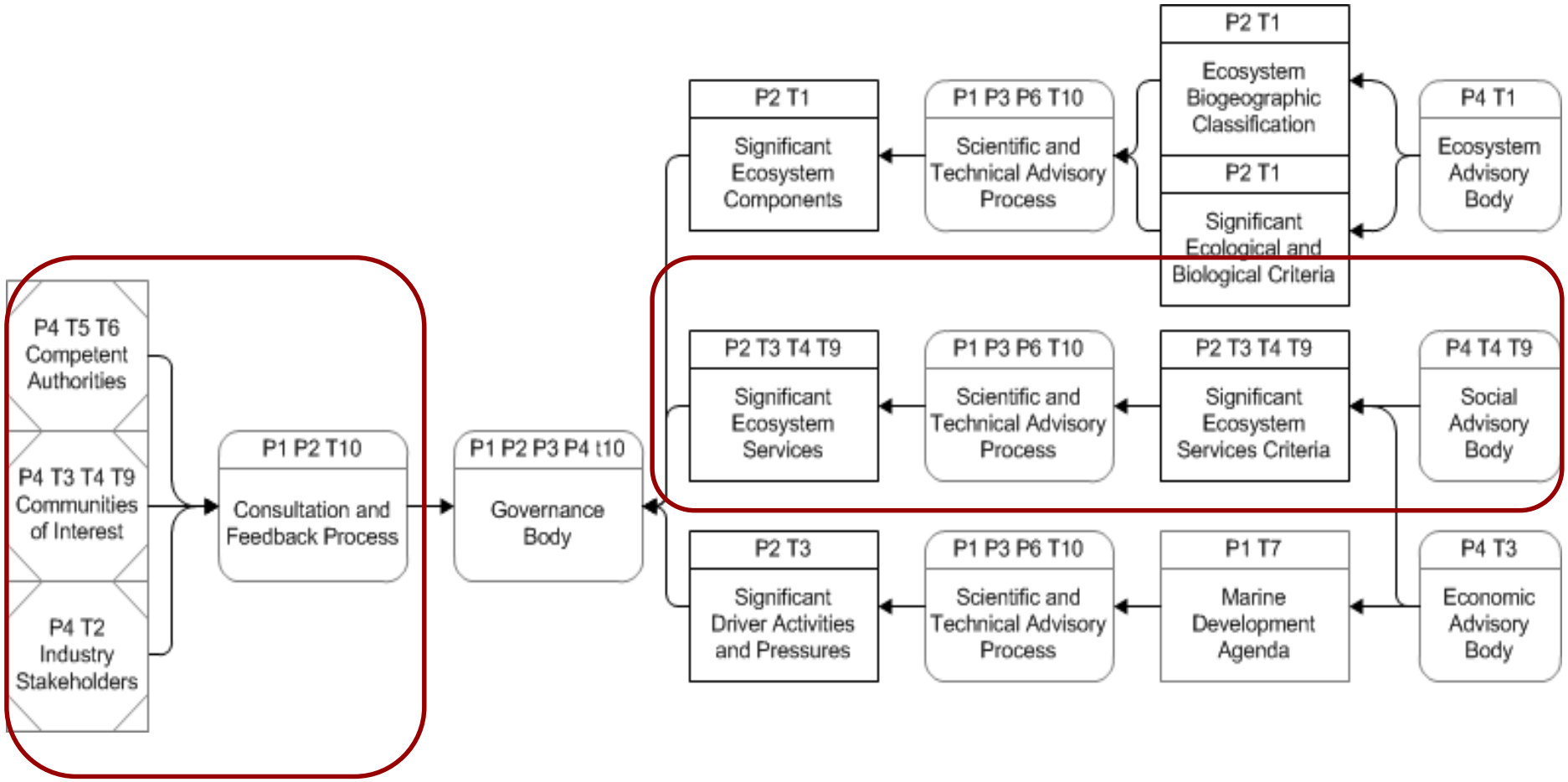

Recognising socio-cultural issues in risk analysis

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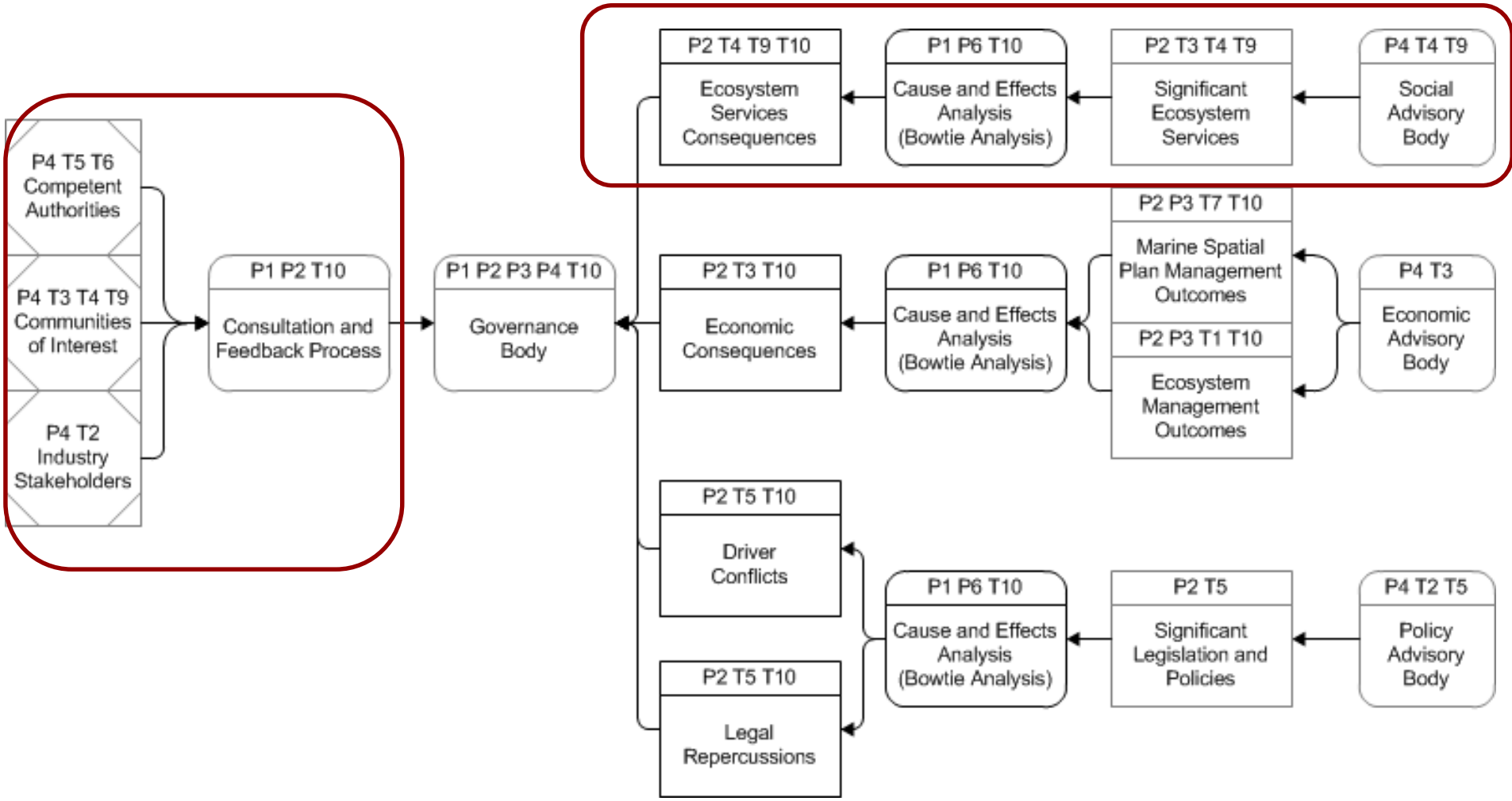

Recognising socio-cultural issues in risk treatment

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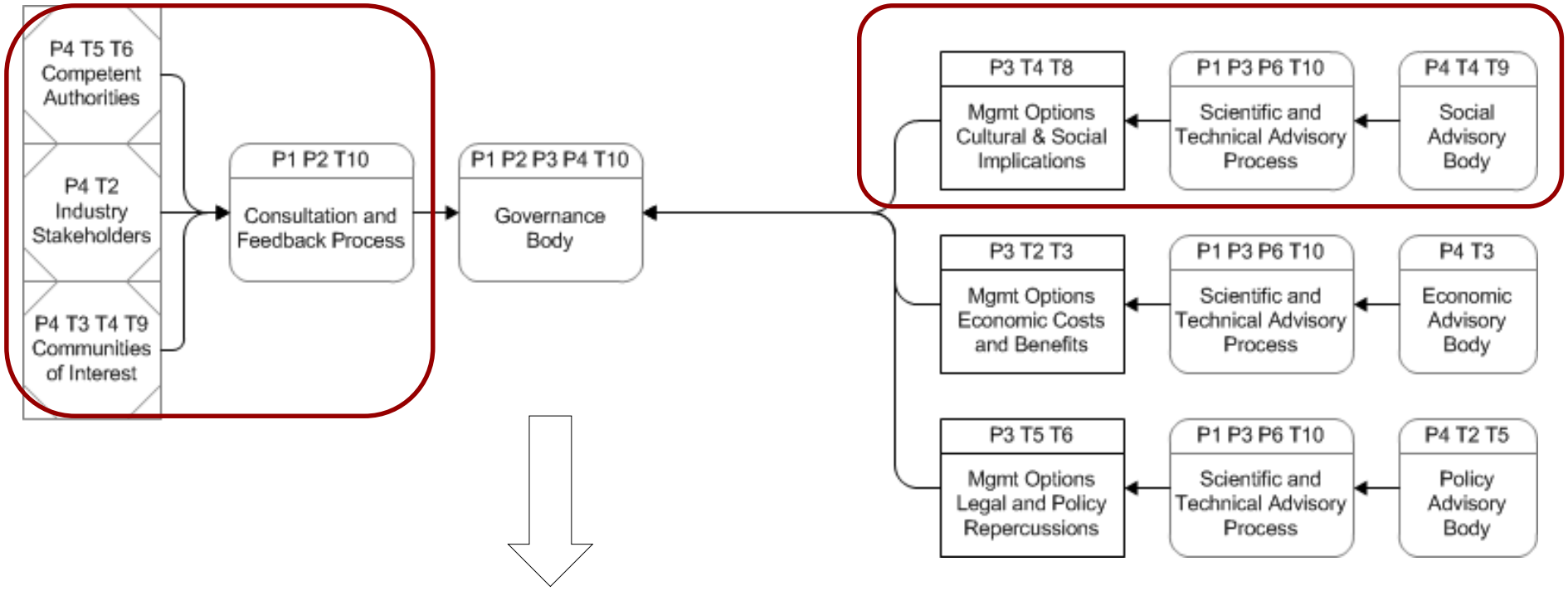

Maritime Spatial Plan

Final Remarks

- MSP depends on policy objectives and context
- Applying quality management objectives does not guarantee a good marine spatial plan, but ensures
  - a transparent, well-structured and documented process to develop the plan;
  - inclusiveness of stakeholders and actors into the planning process;
  - a decision process relying on the best available ecological, socio-economic and socio-cultural information;
  - transparency concerning trade-offs and priorities in decision making and lines of argumentation;

Contact

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Many thanks to colleagues in Coastal Futures, KnowSeas, BaltSeaPlan , BaltSpace, ICES WGMPCZM, ICES WKCES, ICES WKQAMSP, ICES WKRASM

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