

# Workshop on Practices: Marine Energy

## Introduction

# Framework

**Marine renewable energy resources** are various and plentiful. **Wind energy** both on-shore and off-shore is a **pioneering practice** in utilizing these resources.

Approaches to make use of **currents, waves, chemical gradients or biomass for energetic purposes** have already started.

**Hot spots** of the emerging activities are **coastal and shallow marine waters**.



**Current practices** **proof** the marine energy sector (i) to remain a **challenging innovation**, (ii) to need an **ecosystem approach** and (iii) to be **conflicting with other established sectors** and the respective stakeholders as well.

# Aims

The **workshop aims** to identify some of the **crucial aspects** of **future sustainable practices** of marine energy and maritime activities.

From **socio-ecological** and **socio-technical perspectives**, we aim to address topics like **ecosystems as foundation of energy resources** needed to be defined and **embedded in societal processes**.



# 6 Topics - Practices: Marine Energy

## 1. Learning from off-shore wind energy -

- What are the main **obstacles** of marine renewable energy resources – **political and economical reason vs technological developments**?
- How are huge development projects like offshore wind power **incorporated in local cultural practices** in coastal areas and on islands?
- How to **implement technologies** (e.g. emerging energies) and to **transform the economic production in coastal areas**?
- Lessons learnt from ecological studies related to existing wind farms – what are **essentials for an 'ecosystem approach'**?
- What is the contribution of a maritime energy landscape **to energy and climate goals**?



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## 2. Energy in spatial planning –

- How to put **marine spatial planning** into **practice**?
- What to **learn from land**?
- How to ensure **stakeholder participation and inclusion**?
- How to **define** the **priorities**?
- ***Social and economic values*** of ecologically sound land and sea use?
- What about **conflicts** with **nature conservation plans**?



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## 3. Societal interaction -

- How do marine energy sector **proponents/actors communicate and collaborate** with other actors?
- What are **major conflicts** and how are they dealt with?
- How to **address stakeholders** in the public-policy arena to **create dialog** processes that create new research questions/insights.



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## 4. International and transnational learning -

- What are the **differences between (European) countries** in dealing with offshore wind energy?
- Which **conflicts** between the offshore wind and traditional sectors **are specific** for the Baltic Sea?
- Local knowledge vs. scientific knowledge: How to let the World participate - **development co-operation** in maritime renewable energies?



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## 5. Methods and tools -

- Do we need **innovative forms of GIS** for the marine environment?
- How to **use current monitoring schemes**?

## 6. Higher education –

- How to **train skilled people**?
- Is **networking** in higher education on marine energies and marine spatial planning helpful?



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# Cross-cutting Issues

- Ocean Governance – Marine Spatial Planning – Integrated Coastal Management
- Images – Perceptions – Values – Decisions
- Technology: Lost Remnants - Innovations
- Higher education // Forms of Knowledge - Context of Knowledge

