

On the 15th of May 2019 some 65 participants gathered at the Museum of Natural Sciences in Brussels to discuss during the annual EFARO organised seminar, how to operationalise the Ecosystem Approach in the context of the Blue Economy. The audience consisted of representatives from research organisations, NGOs, policy makers and industry. Below you will find an impression of the day and the main conclusions.

Ensuring sustainable use of our Seas; Linking the Ecosystem Approach with the quest for a Sustainable Blue Economy

The State of Play of Europe's Blue Growth Strategy

"There has been a shift of activity from land to sea: possibilities have been identified in the maritime sector. Our overall goal is to achieve healthy oceans, seas and coastal & inland waters. With the support of the European Maritime Fisheries Fund we can aim for this involving both shared management and direct management."



Juan Ronco Zapatero EU DG MARE



Roger Martini Senior Fisheries Policy Analyst OECD

The Ocean Economy in 2030

"We expect the size of the blue economy to double by 2030. There is already a lot of pressure on the ocean space in terms of pollution, overfishing among others, but we have to get control on harvest and achieve a change in policies to get to a sustainable level. Despite the concerns of declining fish stocks and depletion, we still see substantial overfishing and declining fish stocks, but it does not match the urgency and demand we need to catch up on. Question is how can we design good subsidies for the fisheries sector as only less than 10% of some subsidies becomes income for fishers?"

Interview with Reinier Hille Ris Lambers, WWF-NL

"Instead of looking at the North Sea in different sectors as wind, fisheries and nature, try to see if we could build more synergy. And when you consider the Ecosystem as both delivering ecosystem goods and services but at the same time being the entity producing this, you can compare it to looking at a machine; you can perceive the value of the machine as to what it produces, but you also need to maintain the machine. There is a lot of funding available, but little has been used. Research institutes should ask themselves: what types of governance mechanisms should we have to not just make a small step, but to be ready for 2030?"



On the left: Reinier Hille Ris Lambers. WWF-NL

Essential Ecosystem Approach to Fisheries Management

"We need to think of sustainability in fisheries in three main boxes: ecological wellbeing, human wellbeing (both at community and national level) and the ability to achieve (governance, impact on environment). Policies are often not clear: there is a need to integrate fisheries in a broader process of coastal planning together with other marine sectors, making this integration challenging. We cannot move alone, we need to promote broad stakeholder participation in order to achieve our goals. Yet limited means and capacity exist which has a draw back on how to provide the appropriate data for EAF implementation, and good social and economic information is lacking."



Marcelo Vasconcellos, Fishery Resources Officer at FAO

Interview Emily McGregor Marine Stewardship Council (MSC) Fisheries Assessment Manager

"The overall goal is to minimize environmental impact and therefore three pillars are identified: achieve sustainable fish stocks, minimize the impact of sea life and perform effective fisheries management. Despite the fact that 60% of our seafood consumed in EU comes from outside, MSC remains very relevant to ensure sustainability and traceability of the product. Behind the crest of the wave: science and management practices are moving, and we as MSC follow along."



Emily McGregor Marine Stewardship Council (MSC) Fisheries Assessment Manager

Interview Raúl Prelezzo Principal Researcher AZTI

"The profit of the fleet is not only an economic thing; we also need to understand the use of ecosystem services, the impact we have on them and the social circumstances under which we use and produce them. In the light of a blue growth opportunity, we are not only trying to meet the demand that is there, but we need to try to create ways to address changing and growing new demands and cater for a Blue Economy that expands. We know the pros and cons of ecosystem based management, but there are still some issues: as the marine sector in the EU is small, in terms of overall contribution to the GDP, all the main developments and drivers come from outside the sector such as for example the rapid development in information & communication technology and practices."



Raúl Prelezzo Principal Researcher AZTI

Interview Matjaž Malgaj Head of Unit Marine Environment and Water Industry DG ENVIRONMENT European Commission

"Keeping the oceans relatively healthy is the overall primary objective. There is a need to achieve an equal understanding between scientists and policymakers."



Matjaž Malgaj Head of Unit Marine Environment and Water Industry DG ENVIRONMENT European Commission



Tammo Bult, President EFARO

"Don't be afraid of complexity. If people feel the urgency and take responsibility, they will overcome complexity."

The presentations made during the day will be made available as PDF on the EFARO website (www.EFARO.EU)



State of Play of Europe's Blue Growth Strategy



State of play of Europe's Blue Growth Strategy

Juan RONCO
DG MARE
European Commission
EFARO Seminar
Brussels 15 May 2019


Current Blue Growth Framework (« 2012 Communication »)

1. Push for sustainable growth in the maritime economy, with a particular **focus on five sectors: energy, aquaculture, tourism, biotechnology and marine mineral resources**. These sectors were selected because of their innovation and jobs creation potential;
2. Underpin growth by working on **key "enablers" such as data and information, research, spatial planning, skills, environmental protection and maritime surveillance**. These 'enablers' are common prerequisites for the maritime economy to thrive;
3. **mobilise EU funding instruments** to support the development of Blue Growth; and
4. encourage and promote **partnerships in regions, between Member States and non-EU countries, public authorities and economic players**, in order to foster scale effects and mutually reinforcing learning and investment.




Global challenges

- Planet Earth
 - catastrophic warming
 - acidifying ocean
 - lack of freshwater and land
 - growing population
 - reduced biodiversity
- Imperatives
 - reduce emissions
 - circular economy

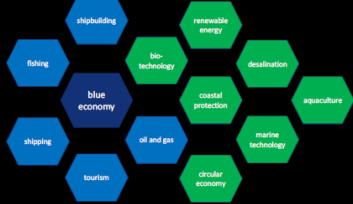


Shifting from land to sea

- Half global primary production
 - less than 1% of Europe's waters could provide 3 times more seafood than we consume today
- Energy to provide 3 times planet's needs
 - wind, tides, waves, thermal gradients, algal biofuel
- More biodiversity than on land
 - new medicines

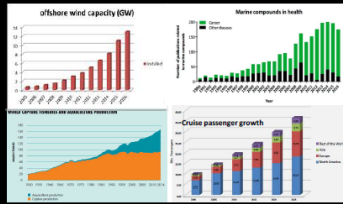


Emerging sectors



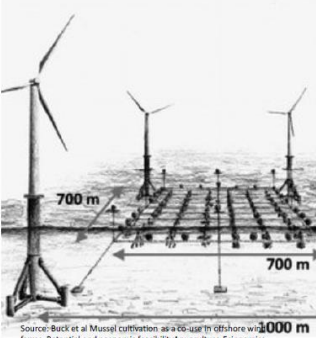
The diagram shows a central blue circle labeled "blue economy" surrounded by various sectors in green circles: shipbuilding, fishing, shipping, tourism, oil and gas, coastal protection, renewable energy, bio-technology, decarbonisation, aquaculture, marine technology, and circular economy.

Growth: emerging activities



The charts show: 1) Offshore wind capacity (GW) from 2000 to 2015, showing a sharp increase starting around 2010. 2) Marine compounds in health, showing a steady increase from 2000 to 2015. 3) Cruise passenger growth, showing a steady increase from 2000 to 2015. 4) Cruise passenger growth by region, showing a steady increase from 2000 to 2015.

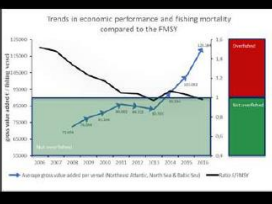
- food and energy can live together
- pilots already ongoing Belgium



Source: Buck et al. Mussel cultivation as a co-use in offshore wind farms: Potential and economic feasibility. *Aquaculture Economics*, 2019.

Sustainability

Sustainability creates economic rewards.



Trends in economic performance and fishing mortality compared to the FMSY

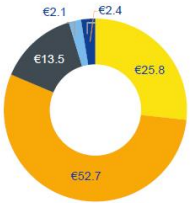
Increasing investment

- better & more research
- better data
- more skills
- easier access to funding



And better governance!

Horizon Europe: €100 billion*



Category	Amount (€ billion)
Open Science	2.4
Global Challenges & Industrial Competitiveness	25.8
Open Innovation	13.5
Strengthening ERA	2.1
Euratom	52.7

* This envelope includes € 3.5 billion allocated under the InvestEU Fund.

Horizon Europe 2021-2027

- 27 March 2019
 - common understanding reached between the Council presidency and the European Parliament
- 3 pillars
 - Open science
 - European Research Council
 - Marie Skłodowska-Curie actions
 - Global challenges
 - societal challenges
 - EU-wide missions (Healthy Ocean, Seas and Coastal and Inland waters)
 - Partnerships (Climate neutral, sustainable and productive Blue Economy)
 - Open innovation (bottom up innovation)
 - European Innovation Council
 - European Institute of Technology (Marine, maritime and water KIC)



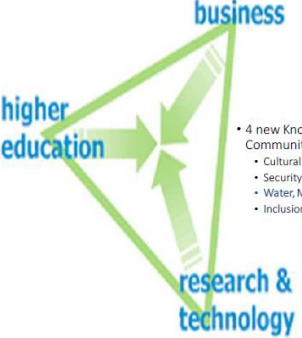
Main changes

breakthrough innovation	European Innovation Council
more impact	Missions
Strengthen international cooperation	Extended openness to association and international cooperation
Reinforce openness	Open science policy
Rationalise the funding landscape	New approach to Partnerships

Healthy ocean, seas and coastal and inland waters

- should have clear targets, milestones,
- could have budget of €1 billion
- call for expression of interest to select Mission Board
- wide consultation on content till end of year



Knowledge Innovation Community



- 4 new Knowledge Innovation Communities proposed
 - Cultural and Creative Industries
 - Security and Resilience
 - Water, Marine and Maritime
 - Inclusion, Integration and Migration


Proposal from European Institute of Technology

- Knowledge Innovation Community on "water, marine and maritime"
- starting in 2021
- €400-€600 million over 7 to 15 years
- educational courses in entrepreneurship,
- acceleration of promising ideas and
- joint projects between industry and academia.
- decision 2019





Coming a long way in data sharing

Year	State of Data Sharing
2009	<ul style="list-style-type: none"> data stored in hundreds of institutions • difficult to find <ul style="list-style-type: none"> • nobody knew what was available • difficult to get access <ul style="list-style-type: none"> • written permission needed • difficult to put together <ul style="list-style-type: none"> • different formats, nomenclatures standards, baselines
2019	<ul style="list-style-type: none"> hundred institutions in partnership • single access to data • searchable, viewable, downloadable • common standards



2019 - new pan-European data layers



- coastal erosion
- shipping density
- marine litter

Sector skills alliance – Marine engineering

- strategic plan
 - tackle skill shortages
 - contribute to a more resilient labour market, capable of adapting to new scenarios,
 - safeguard well-being of maritime-dependent communities and competitiveness of the industry
- started
 - 1 January 2018
- ends
 - 31 December 2021










Sector skills alliance – Maritime transport

- Futureproof Skills for the Maritime Transport Sector
 - cooperation between industry, education and training providers and authorities,
 - a strategy for future proof education and training
 - both seafarers and on-shore workers
 - training standards for seafarers
- started
 - January 2019
- ends
 - December 2022



Better access to funding for profitable and sustainable investments


circular economy		waste to 3D printers	
energy efficiency		fuel saving 5-30%	
food security		sustainable live feed	

COMMON POLICY OBJECTIVES FOR UNION FUNDS

11 objectives simplified and consolidated to 5:


1. A smarter Europe (innovative & smart economic transformation)
2. A greener, low-carbon Europe (including energy transition, green and blue investments, the circular economy, climate adaptation and risk management)
3. A more connected Europe (mobility and ICT connectivity)
4. A more social Europe (the European Pillar of Social Rights)
5. A Europe closer to citizens (sustainable development of urban, rural and coastal areas and local initiatives)

From 6 UP to 4 EMFF Priorities



EMFF BUDGET AND ALLOCATION OF RESOURCES

- Proposed budget for 2021-2027: **EUR 6.140 billion** in current price
- Shared management: EUR 5.311 billion (86.5%)
- Direct management: EUR 829 million (13.5%)
- Definition of national allocations under shared management based on the 2014-2020 shares



OBJECTIVES

4 priorities:

1. Fostering sustainable fisheries and the conservation of marine biological resources
2. Contributing to food security in the Union through competitive and sustainable aquaculture and markets
3. Enabling the growth of a sustainable blue economy and fostering prosperous coastal communities
4. Strengthening international ocean governance and enabling safe, secure, clean and sustainably managed seas and oceans



SCOPE OF SUPPORT (1)

PRIORITY	SHARED MANAGEMENT	DIRECT MANAGEMENT
(1) Fostering sustainable fisheries and the conservation of marine biological resources	<ul style="list-style-type: none"> - Achievement of the environmental, economic, social and employment objectives of the CFP - Investments in small-scale coastal fishing vessels - Management of fisheries and fishing fleets - Extraordinary cessation of fishing activities - Control and enforcement - Collection and processing of data - Compensation for the additional costs in the outermost regions - Protection and restoration of marine and coastal biodiversity 	<ul style="list-style-type: none"> - Scientific advice - Control and enforcement - Advisory Councils - Voluntary contributions to international organisations - Achievement of good environmental status in the marine environment - Implementation of the European strategy for plastics in a circular economy



SCOPE OF SUPPORT (2)

PRIORITY	SHARED MANAGEMENT	DIRECT MANAGEMENT
(2) Contributing to food security in the Union through competitive and sustainable aquaculture and markets	<ul style="list-style-type: none"> - Aquaculture - Marketing of fishery and aquaculture products - Processing of fishery and aquaculture products 	<ul style="list-style-type: none"> - Market intelligence for fishery and aquaculture products






SCOPE OF SUPPORT (3)

PRIORITY	SHARED MANAGEMENT	DIRECT MANAGEMENT
(3) Enabling the growth of a sustainable blue economy and fostering prosperous coastal communities	<ul style="list-style-type: none"> - Community-led local development (scope extended to the blue economy) - Marine knowledge (Habitats' and 'Birds' Directives, maritime spatial planning, EMODnet) 	<ul style="list-style-type: none"> - Promotion of a sustainable, low-carbon and climate-resilient blue economy - Integrated governance and management of the maritime space - Transfer and uptake of research, innovation and technology in the sustainable blue economy - Maritime skills, ocean literacy and sharing of socio-economic data - Development of project pipelines and innovative financing instruments



SCOPE OF SUPPORT (4)

PRIORITY	SHARED MANAGEMENT	DIRECT MANAGEMENT
(4) Strengthening international ocean governance and enabling safe, secure, clean and sustainably managed seas and oceans	<ul style="list-style-type: none"> - Maritime surveillance (CISE) - Coastguard cooperation 	<ul style="list-style-type: none"> - Maritime security and surveillance - Implementation of the international ocean governance policy (international cooperation in the context of UNCLOS, the 2030 Agenda for Sustainable Development and other agreements) - Fight against IUU fishing at international level

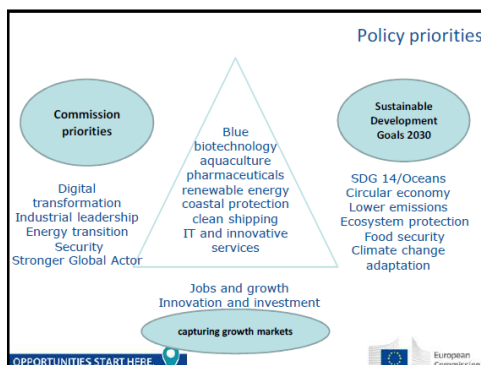




Facilitating Investment in the Blue Economy

#BlueInvest
#InvestEU





OPPORTUNITIES START HERE. 

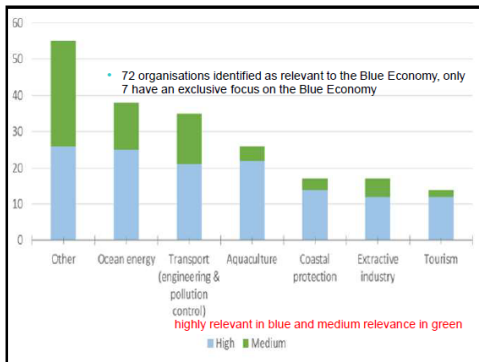
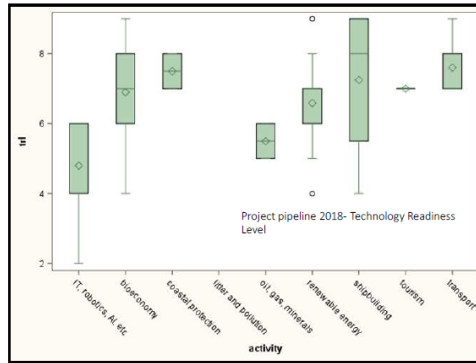
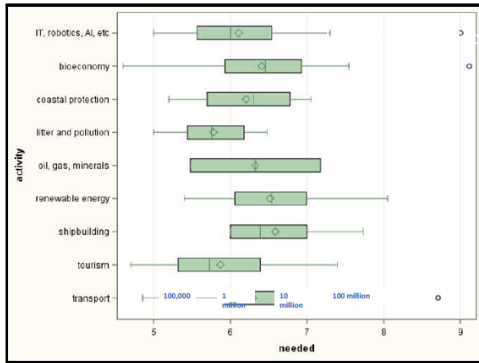


Scale of investment needed

Decommissioning oil platforms	€30 billion over 30 years
European seaports	€48 billion 2018-2027
Coastal protection (not adjusting to climate change)	€100-250 billion
Offshore wind	€90-123 billion by 2020
Ocean energy (optimistic scenario)	€9.4 billion by 2030
Ocean energy (pessimistic scenario)	€2.8 billion by 2030


OPPORTUNITIES START HERE. 





Investment Gaps Identified

- Sectors :**
 - bio-economy
 - food, feed, fuel
 - high technology
 - IT, shipbuilding, equipment, materials.
 - ocean energy ([separate study](#))
 - ancillary services
 - natural resources
 - circular economy, working with nature
- Geographical :**
 - Southern Europe, the Baltic States and Eastern Europe.
- Stage requiring further support:**
 - companies moving to commercialisation and growth companies.
 - amounts between €2m and €15m.

OPPORTUNITIES START HERE. 

DG MARE Investment Study (1/2018-9/2018)


Project team compiled a pipeline of investable projects and proposed a blue economy investment platform

Stage 1

- Market assessment
- Financial participants
- Investment projects/500+ identified
- Initial long list of qualifying companies – 100 pass to evaluation round
- Detailed information collection on targeted companies

Stage 2

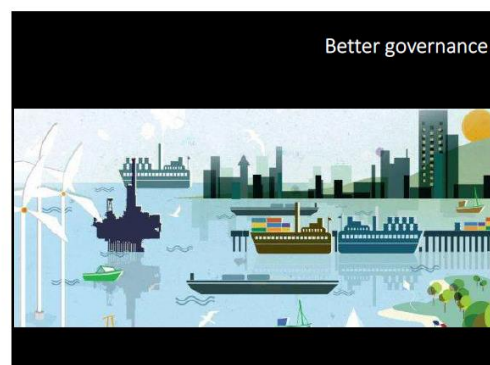
- Shortlist of credible sustainable businesses / projects reduced to 35
- Investment dossiers prepared on 35
- Specification of investment platform for EU Blue Economy sector based on final list

OPPORTUNITIES START HERE. 

DG MARE Investment Study

- Strong emphasis on companies in the market (projects are less present)**
- Major effort to learn from real dialogues taking place in the market (matchmaking events)**
- Pragmatic approach including interactions with public sector leaders like EIB/EIF**

OPPORTUNITIES START HERE. 





EU Commission (DG MARE) Study on Economic Impact of MSP

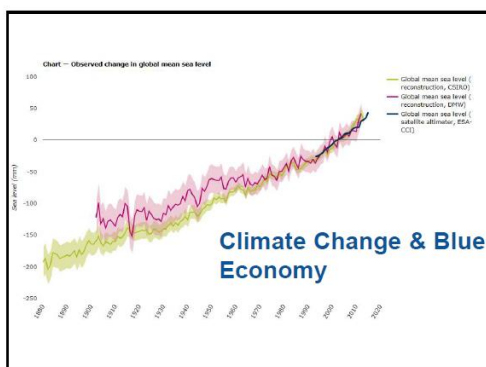
- **Objectives of the study:**
 - to explore evidence of effects stemming from the implementation of Maritime Spatial Planning, with a particular focus on economic effects
 - to provide additional information to Member States on how to maximise benefits from Maritime Spatial Planning
- Launched in the 3rd Quarter of 2018. Expected completion -> Autumn 2019.
- Contractor: Consortium led by COGEA Sprl

EU Commission (DG MARE) Study on integrating Ecosystems Based Approach and Ecosystems Services into MSP

- **Objectives of the study:**
 - to document how the concept of ecosystem-based approach has been incorporated in maritime spatial planning processes in the EU and;
 - to explore how the implementation, monitoring and reporting of Good Environmental Status (GES) and the related objectives and measures of the Marine Strategy Framework Directive (MSFD) could be used in the context of MSP.
- To be launched in the 2nd Quarter of 2019. Expected completion -> Early 2020.
- <https://etendering.ted.europa.eu/cft/cft-display.html?cftId=4555>

Commission Communication (published on 28 November, 2018)

Our vision: Climate neutral Europe by 2050

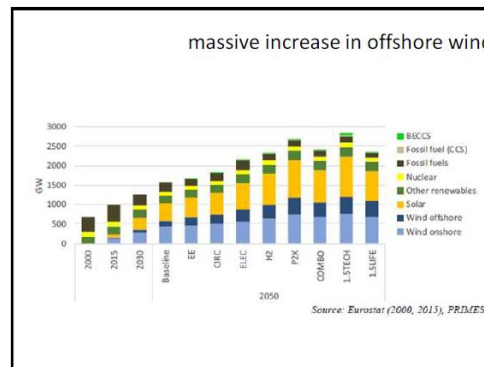
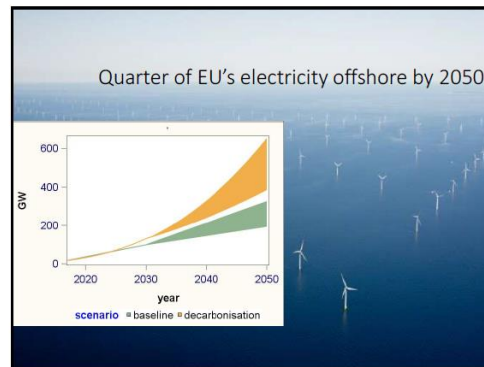
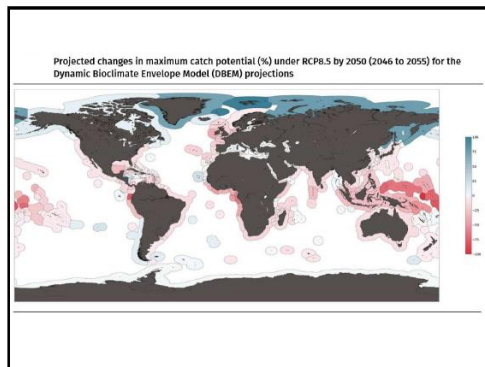
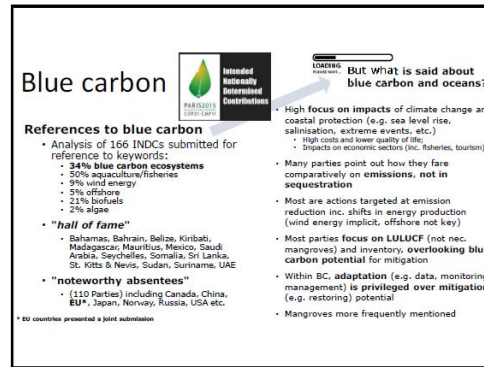
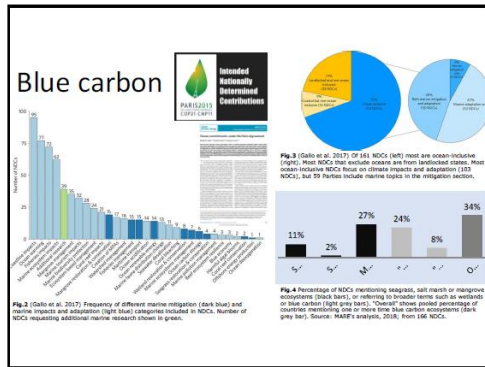


Blue carbon

Global Distribution of Blue Carbon Ecosystems

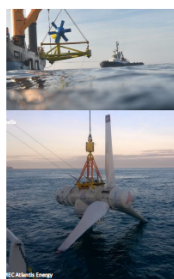


FIG.1 Global mapping of selected 'blue carbon' ecosystems (mangroves, salt marshes, seagrasses).



Wave and Tide Power

- prototypes in the water and connected to the grid
- regular delivery of power complements wind and solar power
- can decarbonise islands
- Ocean Energy Europe reckon 100 GW in Europe by 2050



Research questions

- *What is the value of marine space?*
- *Maritime/Marine space: from « commonising » to « privatising »?*
- *Fisheries and other maritime/marine sectors - > are there « opportunity » costs?*
- *Blue economy: should we « sacrifice » some marine sectors to decarbonise the economy?*



Research questions

- *Fisheries and MSP: friends or foes?*
- *Do we it in land, rather than on the sea? (e.g. Aquaculture)*
- *Or move we things from land to sea? (e.g. algae culture replacing agriculture?)*
- *Reversibility: should be we do things at sea because they can be easily rolled back? Is the latter true?*
- *Investment in the blue economy -> is it more value to invest in ecosystems, rather than in « industrial » sectors?*
- *What about sustainable Blue Economy finance? Can we measure it? How to measure performance against the 14 principles?*




Thank you for your attention

Juan.Ronco@ec.europa.eu

More background information at:
<http://ec.europa.eu/maritimeaffairs/>




The Ocean Economy in 2030



Encouraging policy reform towards a sustainable and resilient Blue Economy
An OECD perspective

Roger Martini
OECD Trade and Agriculture Directorate





Future Directions of Blue Economy?
The Ocean Economy in 2030

- Provides an **global** forward-looking assessment of the ocean economy to 2030 and beyond.
- Places particular emphasis on the **development potential** of established and emerging ocean-based industries,
- As well as on the **implications** for the ocean environment and ocean management.

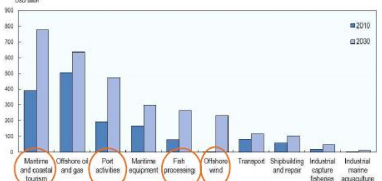
The Ocean Economy in 2030






The Blue economy
A key source of jobs, food & growth for the future

- At least 3% of world GDP in 2010
- Dramatic potential for growth, notably in emerging & developing countries

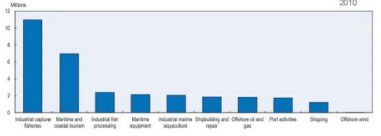


Source: OECD (2016), *The Ocean Economy in 2030*, OECD Publishing.



The Blue economy
A key source of jobs, food & growth for the future

- Employment doesn't track GVA by industry very closely
- Industrial fishing has smallest GVA but largest employment (and this doesn't include artisanal fishers and processors)



Source: OECD (2016), *The Ocean Economy in 2030*, OECD Publishing.

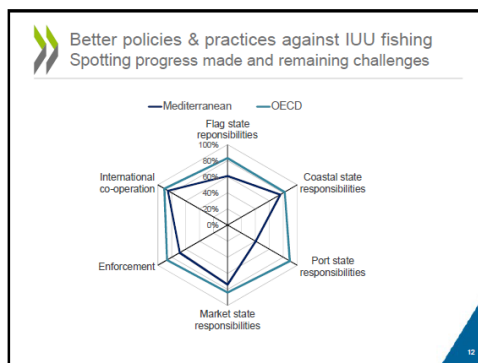
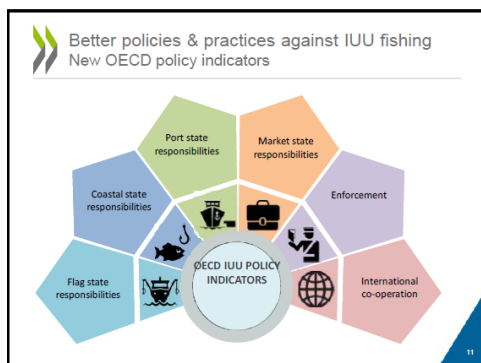
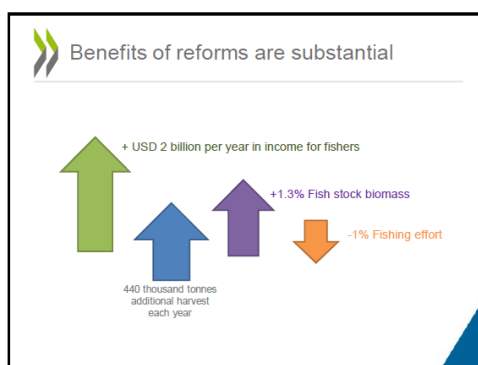
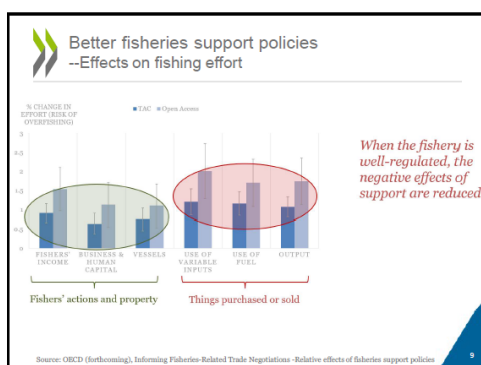
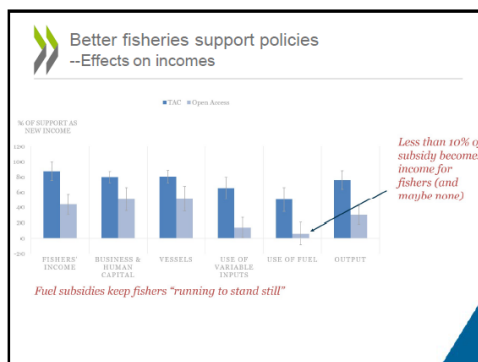
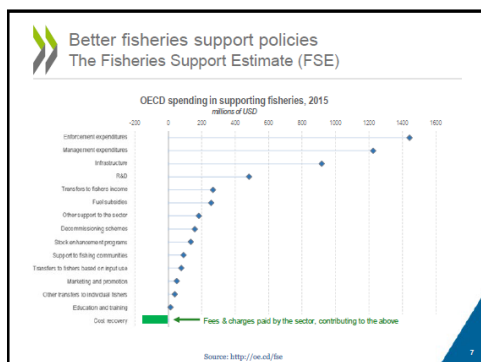



Future Directions of Blue Economy?
A need for better policies

- **Better policies** are needed to enable the blue economy to thrive sustainably and sustain resilient communities worldwide
- A **multilateral response** is underway, but **action at local and national levels** is urgently needed to put commitments into practice
- A **concerted "blue" vision** that sustains a whole of government approach to policy reform can guide policy change in all relevant sectors



POLICY RESPONSES:
HOW CAN THE OECD
HELP?





Objectives for sustainable ocean use are often undermined by policies to support incomes or production

Key elements for successful reforms:

- Data & science mobilisation
- Targeted incentives, compensation & transition measures
- Commitment mechanisms
- Whole of government approach
- Transparent & balanced dialogue with all stakeholders


13




Find out more in recent OECD reports

- OECD (2018) [Relative effects of fisheries support policies](#)
- OECD (2018) [Closing Gaps in National Regulations Against IUU Fishing](#)
- OECD (2019) [Encouraging policy change for sustainable and resilient fisheries](#)
- OECD (2017) [The Political Economy of Biodiversity Policy Reform](#)
- OECD (2016) [The Ocean Economy in 2030](#)
- OECD (2017) [Marine Protected Areas: Economics, Management, Effective Policy Mixes](#)


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We look forward to hearing from you!




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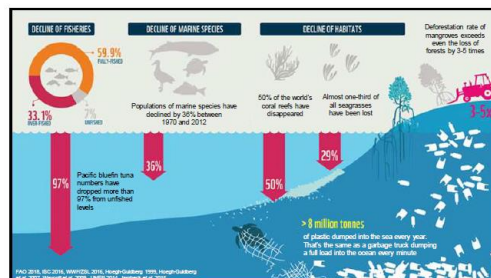
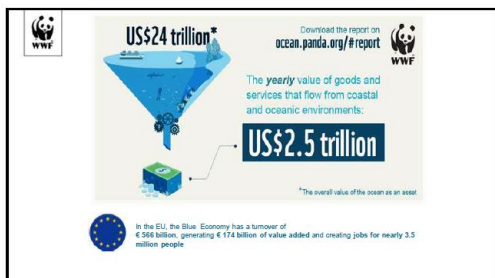
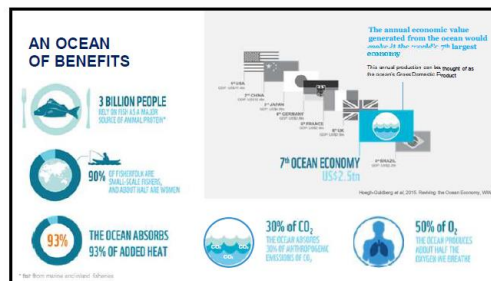
BETTER POLICIES FOR BETTER LIVES

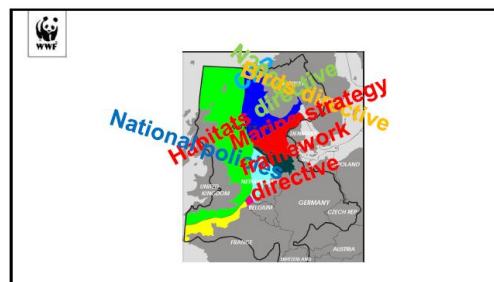
WWF and the Blue Economy

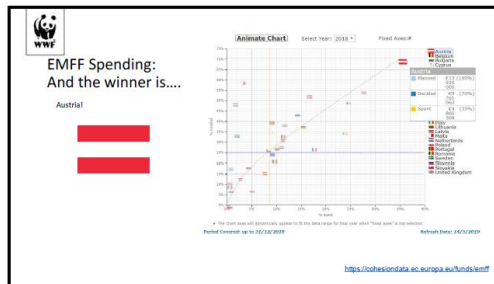
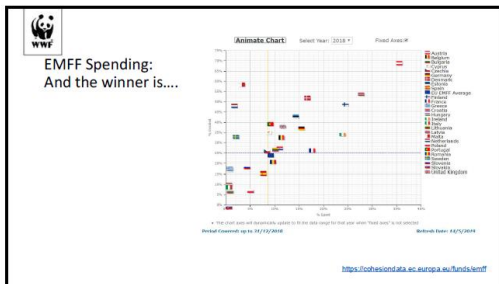
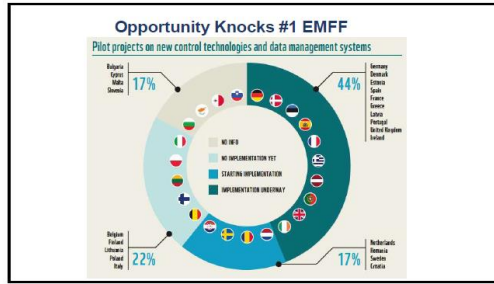


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1. A business case for shellfish restoration: collaboration for a investible seascape



Sustainable fishing zone
• Ecosystems biodiversity restored

Aquaculture zone
• Ecosystems biodiversity restored

Restored Reef Zone
• Ecosystems biodiversity restored

Aquaculture zone
• Ecosystems biodiversity restored

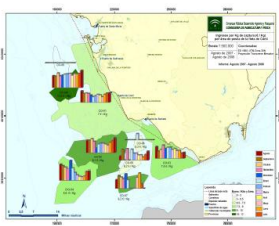

Sustainable fishing zone
• Ecosystems biodiversity restored



Samantha Burgess, Head of Marine Policy, WWF European Policy Office
Elisa Riller, Head of Unit, CSDP and Sustainable Growth, Policy Development and Coordination, DG MARE
Luc van Hoof, European Research Development, Wageningen Marine Research
Nanette Fortmeier-Muller, President, ALP, Lure, Cadix, Ebro
Sebastijan Rajčević, 30th generation fisher, Co-Management Committee, Telašćica MPA

http://www.wwf.eu/media/centra/vents/progress_successes_in_eu_common_fisheries_policy/

2. Comanagement/Cash in Cadiz

Sebastijan Rajčević



3. Croatia: Telašćica MPA

Sebastijan Rajčević

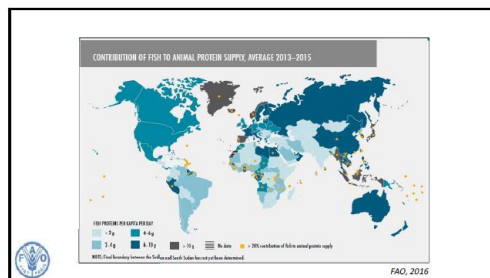
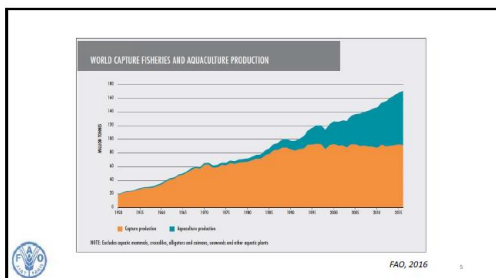
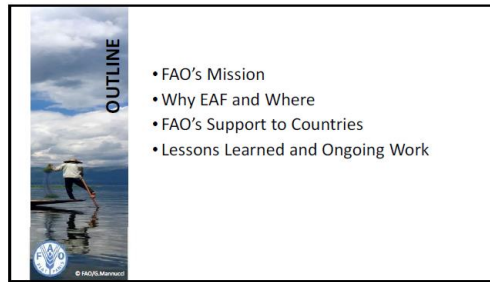
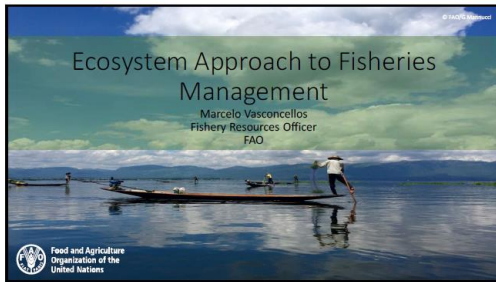
THINGS TO DO:

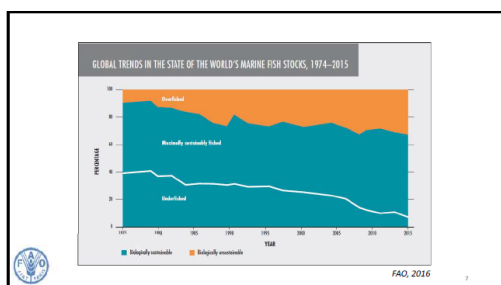
- ☐ 1. Implementation, Implementation, Implementation
- ☐ 2. Cooperation, Cooperation, Cooperation
- ☐ 3. Look to the Future.
- ☐ 4. Integrative versus zero - sum



Things were different in the good old days!

Essential Ecosystem Approach to Fisheries Management





The cost of mismanagement

Income lost annually due to mismanagement of the world's marine fisheries: **US\$ 80 billion in 2012**

The restoration of fishing would yield substantial returns:

- Increase in the abundance of resources
- Average price increase
- Recovery of higher valued species currently overexploited


The Sunk Billions Revisited
Progress and Challenges in Global Marine Fisheries

Why an ecosystem approach to fisheries management?

- Poor performance of current management practices and lessons learnt from past FM failures
- Degradation of fishery resources and the marine environment
- Recognition of a wide range of societal interests in marine ecosystems and the need to reconcile these

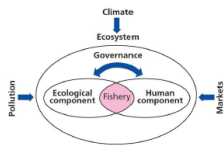
EAF – People Are Critical

An Ecosystem Approach to Fisheries strives to **balance diverse societal objectives**, by taking account the knowledge and uncertainties about **biotic, abiotic and human components of ecosystems** and their interactions



Ecosystem Approach to Fisheries (EAF)

Purpose: Plan, develop and manage fisheries as social-ecological systems, considering the multiple long-term social needs derived from ecosystem services



Key challenge: reconciling food security, economic development and biodiversity conservation

Multi-(cross-) sectoral

(e.g. EBM, IOM, LME, ICAM, MSP)

Sectoral

- Develop integrated plans (across sectors) for a given region/ecosystem
- Set common conservation and development objectives

Each sector is managed in a way that is consistent with overall principles and broad objectives set for the given region

Ecological Approach to Fisheries and Aquaculture | Ecosystem Approach to Tourism | Ecosystem Approach to Energy and Oil | OTHERS

Basic Principles of an EAF

- Maintain ecosystem integrity
- Improve human well-being and equity
- Apply the precautionary approach
- Develop an adaptive management systems
- Ensure compatibility of management measures (across jurisdictions)
- Broaden stakeholder participation and promote sectoral integration
- Improve research to better understand ecosystems in all components
- Conservation and management decisions based on the best available knowledge



None of the principles that underlie the EAF are new (re. *sustainable development*)
Implementation of these principles lags behind.



Actions to raise awareness and develop capacity on EAF

FAO has devoted substantial efforts to promote the EAF among its member countries:

- Regional and expert meetings
- Technical guidelines and documents
- Training courses
- Implementation of pilot projects

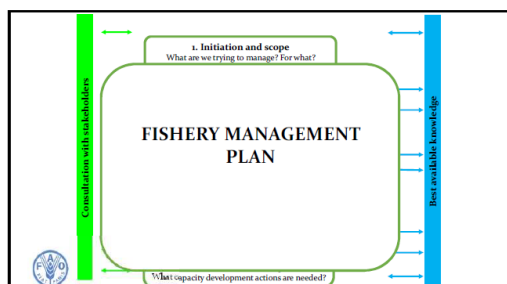
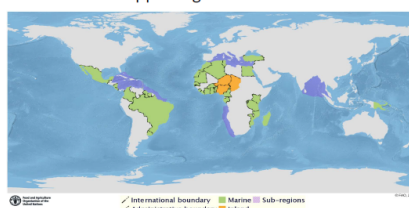
• The actions focused on the fisheries management planning process.



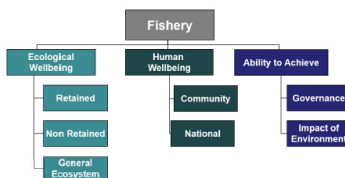
Global Guidance on EAF



Where FAO is Supporting EAF



Problems are addressed at three dimensions of sustainable development

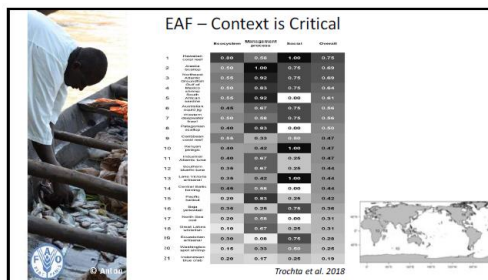


Implementation Progress

- More than 40% of the RFMOs included a specific reference to EAF in their plans
- National governments reporting inclusion of EAF in management plans went from 69% (2011) to 79% (2015)

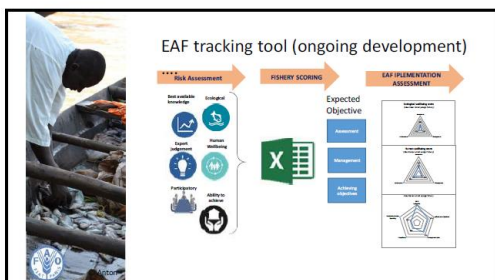
Region	Percentage
Africa	77%
Asia	86%
Europe	75%
Latin America and the Caribbean	84%
North East	56%
North America	100%
South West Pacific	78%

EAF – Context is Critical



Trochita et al. 2018

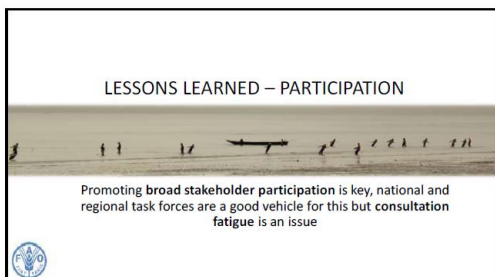
EAF tracking tool (ongoing development)



LESSONS LEARNED

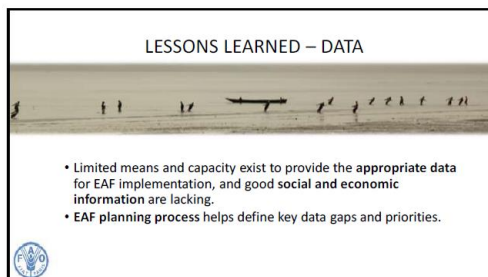
- Participation
- Data
- Governance
- Support
- External drivers

LESSONS LEARNED – PARTICIPATION




Promoting **broad stakeholder participation** is key, national and regional task forces are a good vehicle for this but **consultation fatigue** is an issue

LESSONS LEARNED – DATA




- Limited means and capacity exist to provide the **appropriate data** for EAF implementation, and good social and economic information are lacking.
- EAF planning process helps define key data gaps and priorities.

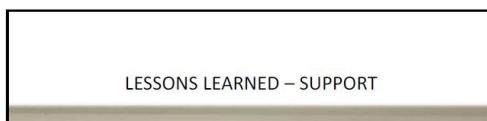
LESSONS LEARNED – GOVERNANCE




- Inadequate institutional frameworks to help promote coherence among socio-economic and environmental policies are in place.
- There is a need to integrate fisheries in a broader process of marine coastal planning and powerful sectors (oil and mining) make this integration challenging



LESSONS LEARNED – SUPPORT



- Facilitating EAF processes remains key, limited capacity to shepherd independently exists
- It is critical to have local champions
- Continuous support at the technical, financial and institutional level is needed



LESSONS LEARNED – EXTERNAL DRIVERS



Developing robust management systems to external drivers such as climate and global markets remains an important challenge



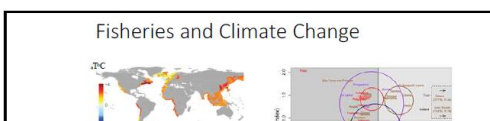
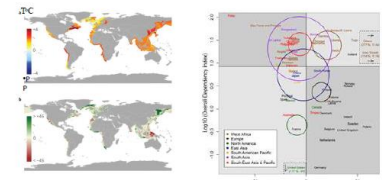
ONGOING WORK




- Adaptation tools for climate change
- Synergies between EAF and Blue Growth



Fisheries and Climate Change

Barange et al 2014



Impacts of climate change on fisheries and aquaculture




FAO Fisheries and Aquaculture Department
Technical Paper No. 627

<http://www.fao.org/3/a/i4450en.pdf>



