

**International collaboration
is increasing worldwide!
Does it improve the output?**



BILAT  USA 2.0

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IOC

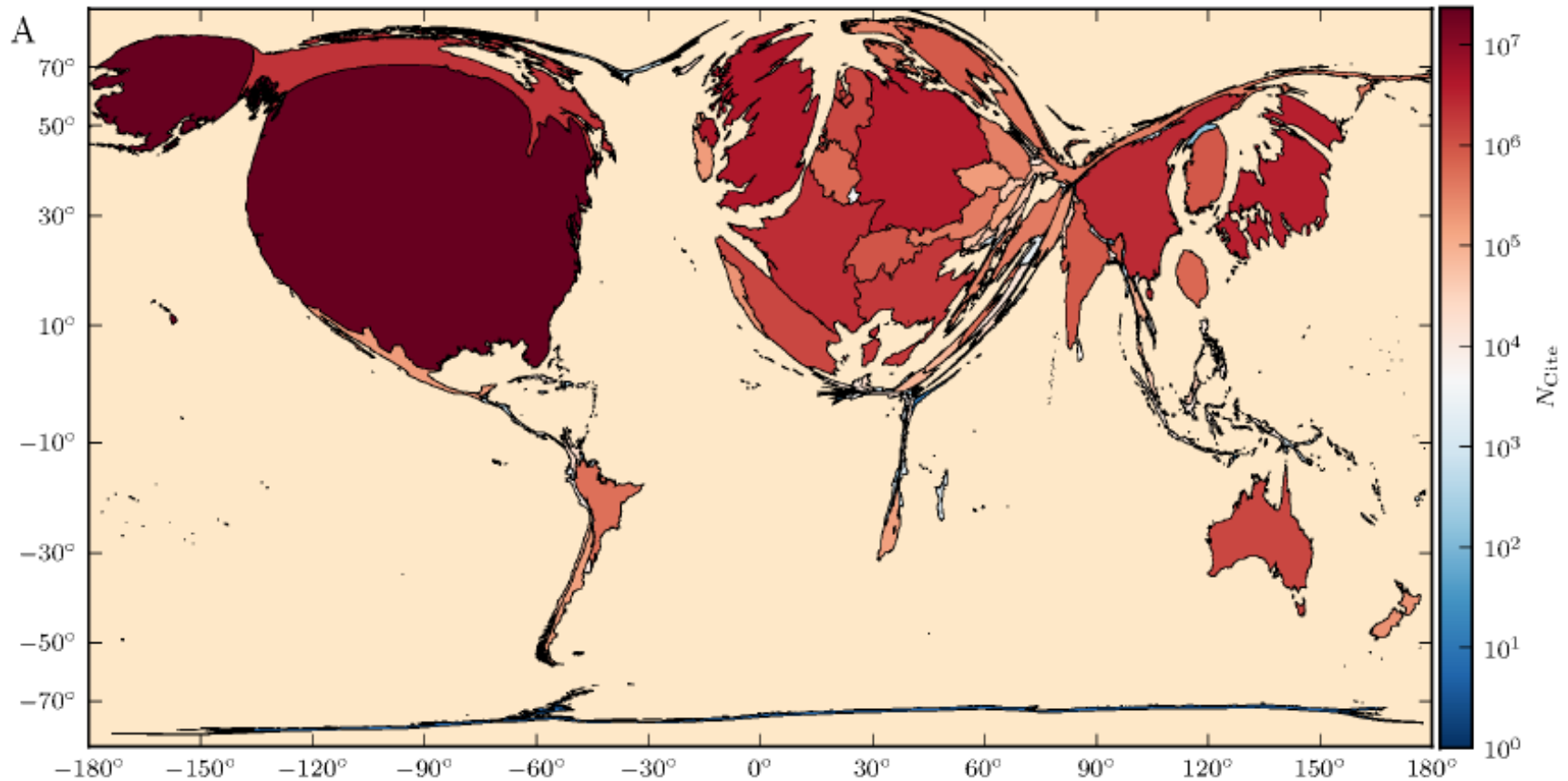
IOC in the UN



UNESCO is the only body of the UN system having the
“E” of Education and the “S” of Science

Its Intergovernmental Oceanographic Commission (IOC)
is the only body of the UN with a mandate in Ocean
Sciences

Science today - transfer of knowledge?



Citation map of the world where the area of each country is scaled and deformed according to the number of citations received, which is also indicated by the color of each country

Ocean Data sharing is increasing

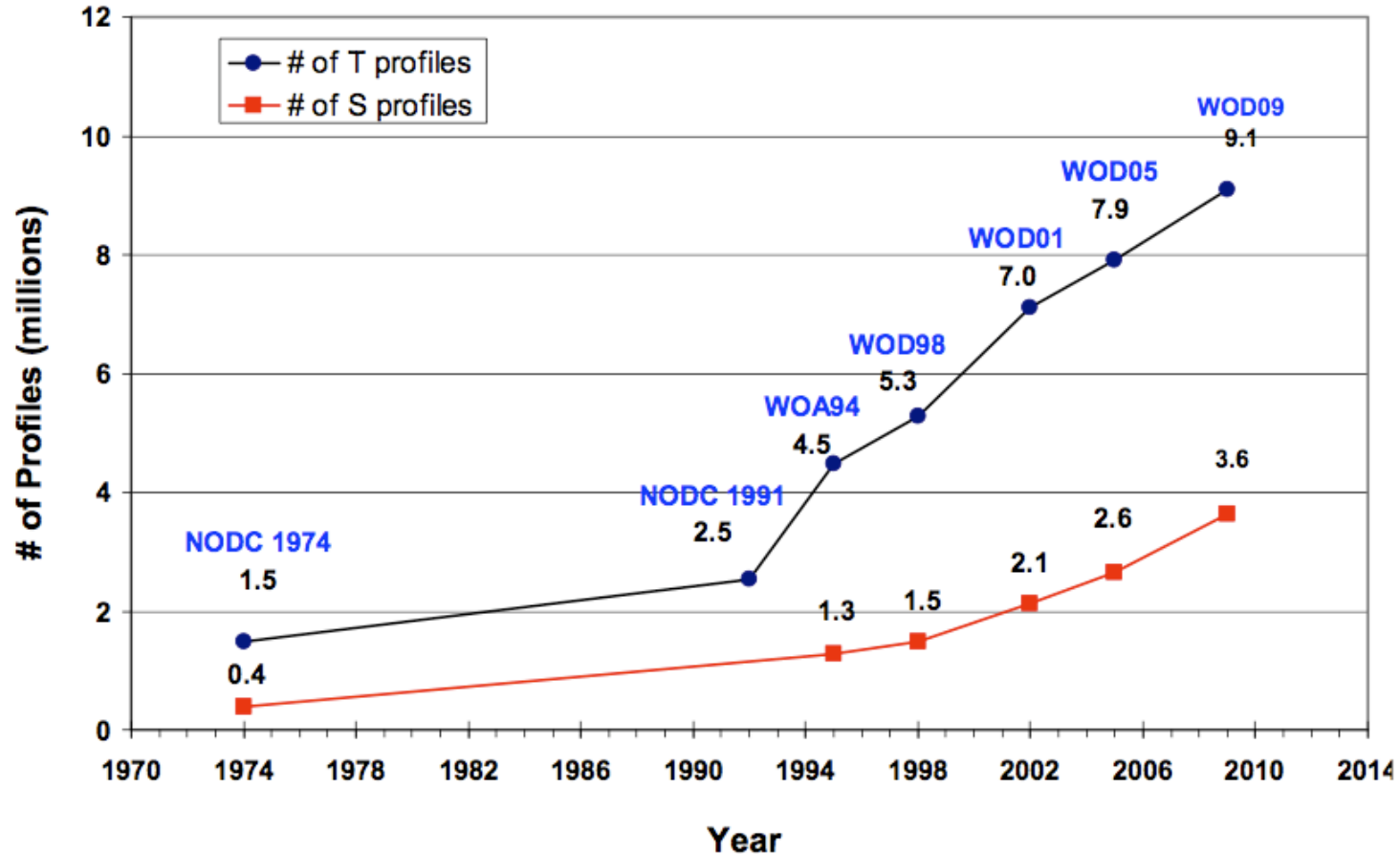


Figure 5: World Ocean Database growth of temperature and salinity profiles

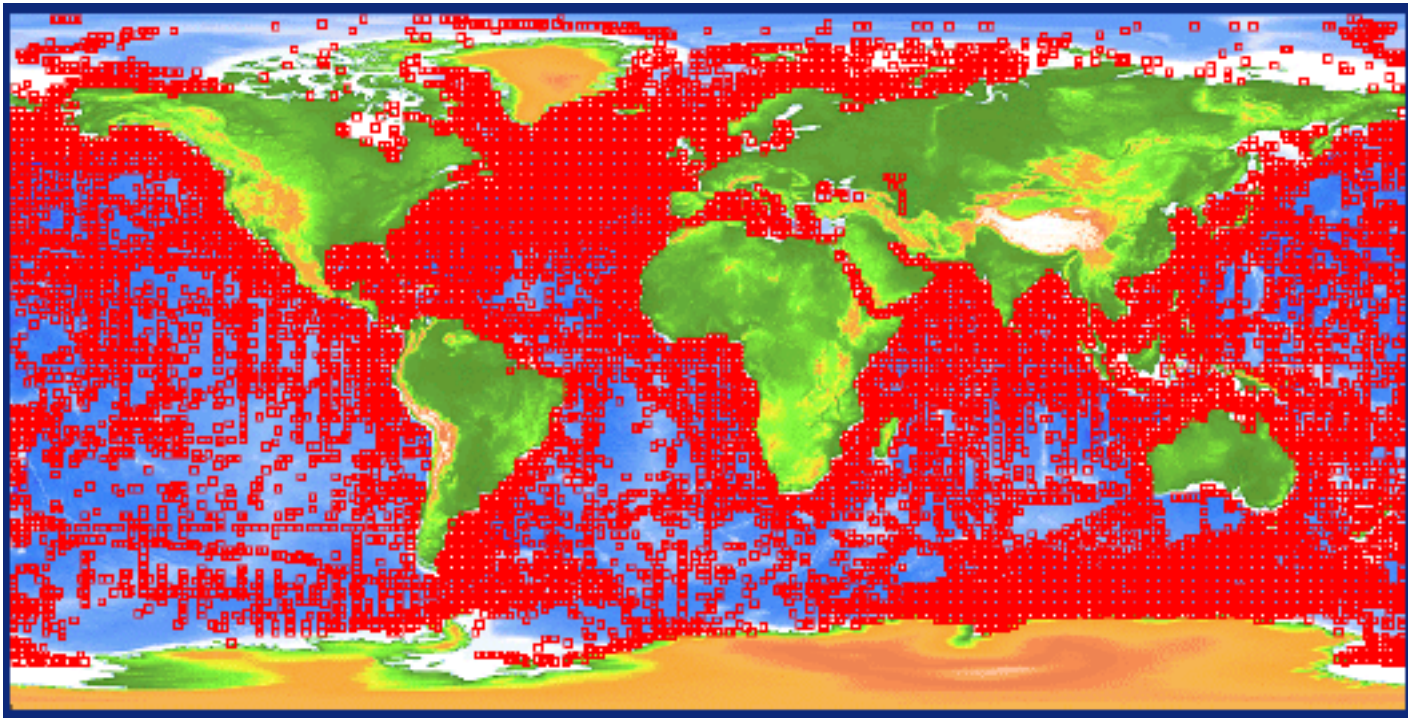


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Ocean Data sharing is increasing

Ocean Biogeographic Information System (OBIS)

Web-based provider of global geo-referenced information on marine species



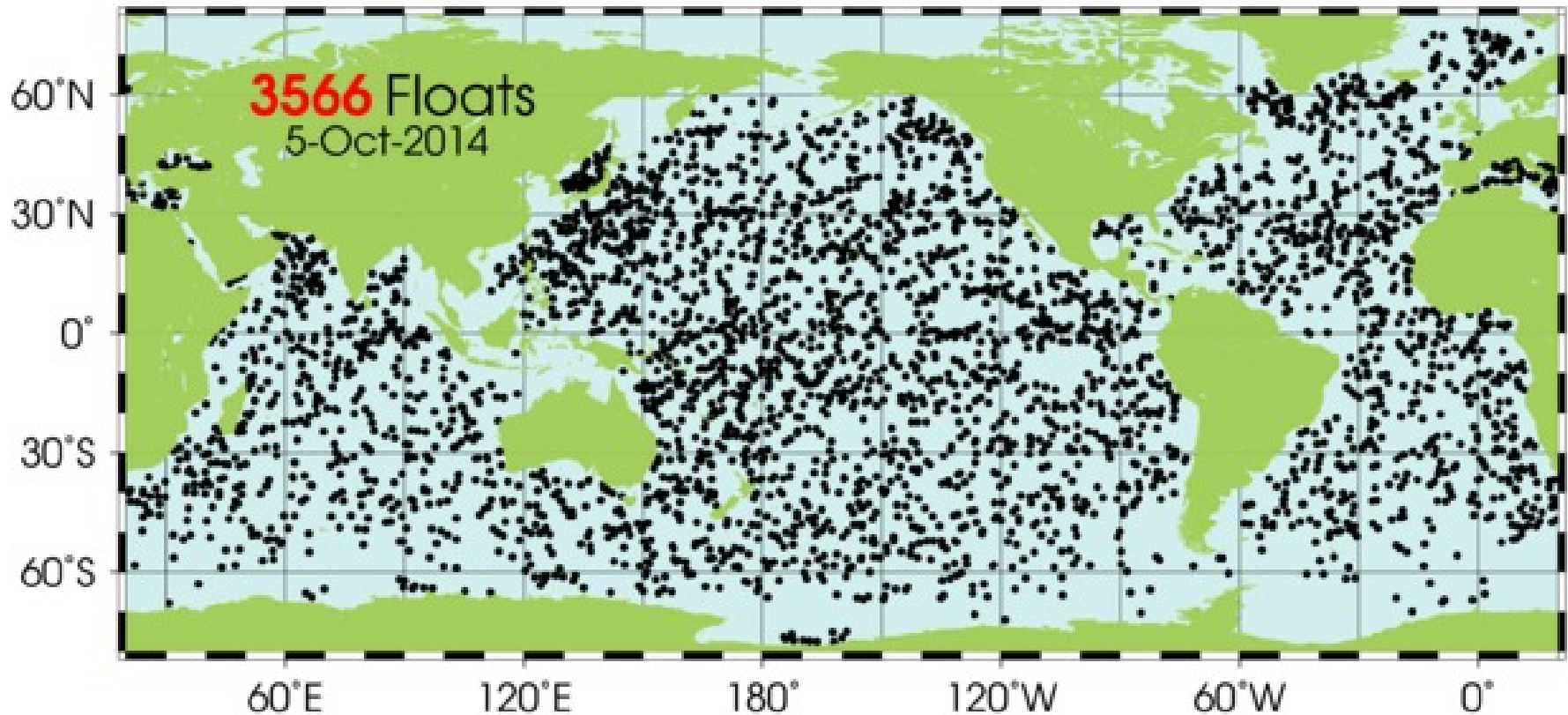
 **OBIS**
OCEAN BIOGEOGRAPHIC
INFORMATION SYSTEM

 **IODE**

Total number of records: 38,854,189 (26/6/2014)

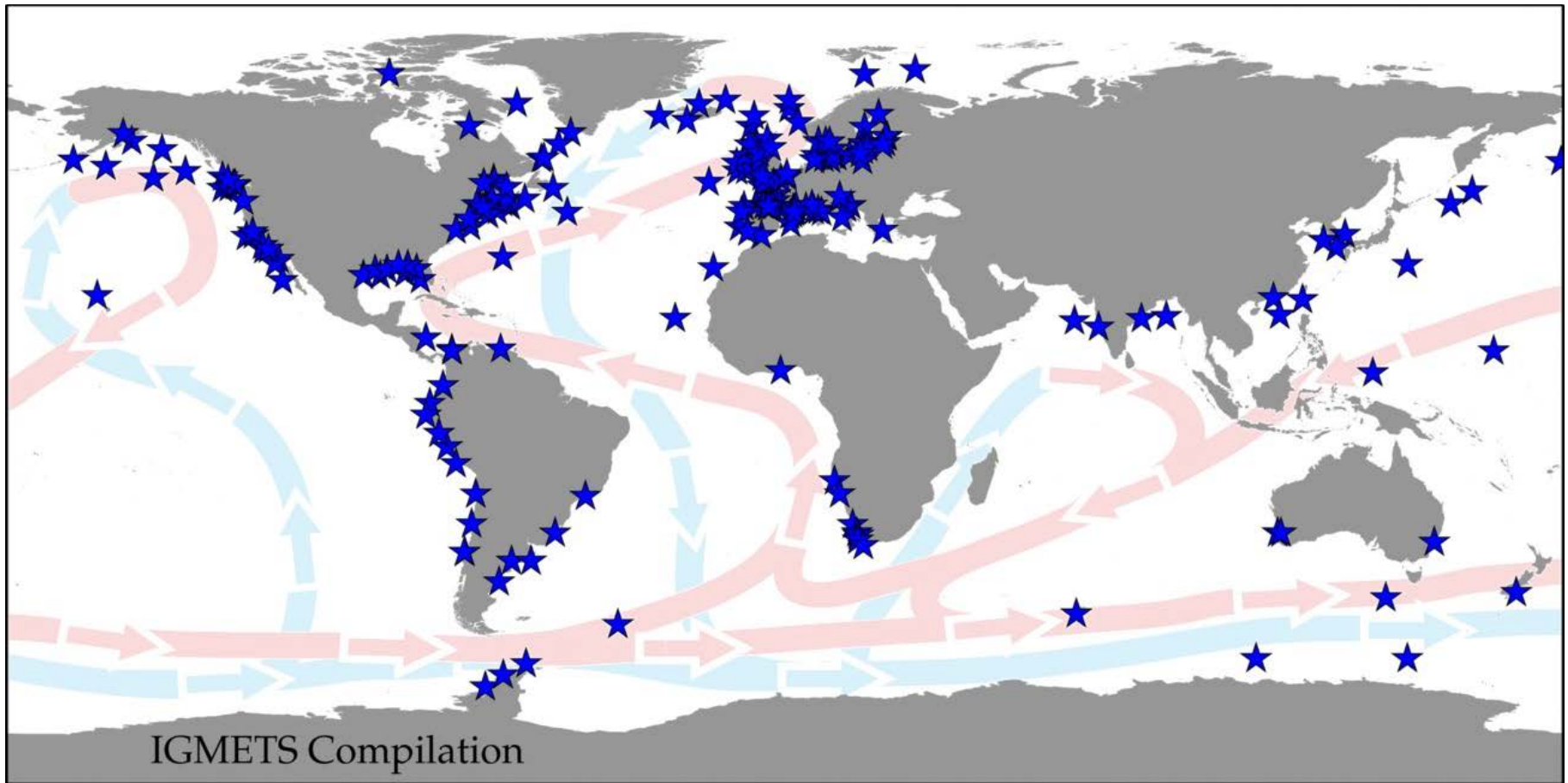
Ocean Data sharing is increasing

GOOS – Argo floats



Ocean Data sharing is increasing

Time series sampling sites 2014



Sampling once... using data multiple times

- (i) Evaluate the statistical significance of the ranges of variability of many parameters and environmental variables and biological communities.
- (ii) Established reference baselines to evaluate the magnitude of environmental perturbations and estimate recovery times on biodiversity and productivity of specific trophic levels.
- (i) Quantify and evaluate the dimension of the interactions between key physical/chemical oceanographic processes and biological rates in plankton communities.
- (ii) Estimate warming rates and trends as well as the effects of global change on biota.



Sampling once... using data multiple times

The UNESCO IOC advocates that:

- (i) An observation not made today is lost forever.
- (ii) Existing observations are lost if not made accessible.
- (iii) The collective value of data sets is greater than its dispersed value.
- (iv) Open access to standardised time series data must be pursued as a common, coordinated international goal.



IOC

Barriers to implementation

- (i) Conflicting priorities and policies, particularly at national level.
- (ii) Lack of monitoring and lack of systematic environmental data exchange across nations and the international community.
- (iii) Capacity gap between many developed and developing countries (capacity building, technology transfer).
- (iv) Limited educational, training and technical capacity and financial resources.
- (v) Ineffective enforcement of obligations at the national level.





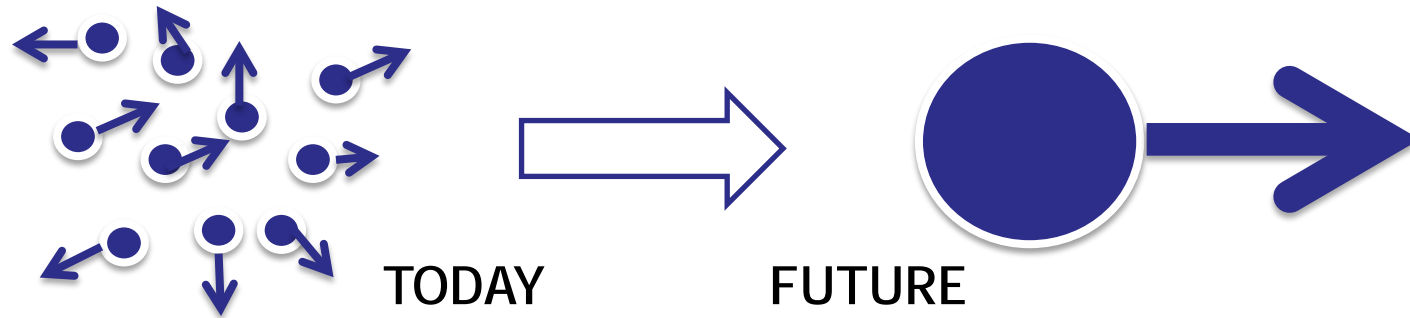
Periodic Table of the European Marine/Maritime Elements

Esf ESF															Ar ARCIC	Ices ICES	Cies CIESM	Bsc BLACK	
Mb MB	Eea EEA															Af NEAFC	Mf GFCM	As NASCO	At ICCAT
Erc ERC	Msa EMSA															Os OSPAR	He HELCOM	Ba BARC	Bc BUCA
Jpi JPI	Fc EFCA	Mse EMSEA	Myo MYOCEAN	Ges GMES	Mar MARS	Bef MARBEF	Cor CORIOLIS	Eco EMECO	Euo EUROCEAN	Efa EFARO	Msp EU	Acc EU	Bg EU	Bs EU	Re EU	Msf EU	Imp EU		
Df DRAEGER	Jrc JRC	Wise WISE	Vos Vol ob ship	Odr ECORD	Eng OCE ENERGY	Clu ENMC	Meg EMEC	Og OGP	Sp CMASV	Fish RACS	Ms EU	Bw EU	Wf EU	Ha EU	Na EU		Cfp EU		
Pa PRINCE	Era ERA	Cr WCRP	Gb IGBP	Bd DIVERSITAS	Hd IHDP	Oo GOOS	Geo GEO-GEOS	Oc IOCCP	Sl GLOSS	Hab HAB	Los UNCLOS	Ccc UNECCC	Lp LC/LP	Bw BALLAST	Cb CBD	St STOCKHOLM	Ci CITES		
Gul CALOUSTE	Esa ESA	Fp FP7	Ot OCEAN TOM	H2o HORIZON 2020	Nsf NSF-MS	Enet EMODNET	Sl PSMSL	Obis OBIS	Iode IODE	Ices ICES	Cc IPCC	Fa SOFIA	Bs IPBES	Woa WOA	NAt OSPAR SR	Bal HELCOM	EuW MSFD		

EU Marine International Scientific Councils	Databases
EU Regional Fisheries Organizations	International Programmes (IPO in Europe)
EU Regional Conventions	Funding instruments
UN conventions and treaties	Reporting Processes
EU legal framework on marine/maritime affairs	UN specialized agencies with marine/maritime mandate
Think tankers	Other marine International Organizations in Europe
European specialized agencies	Main Marine/Maritime NGOs in Europe
European Marine Scientific Clusters	Other main International NGOs
European Maritime Clusters	UN Funding instruments

Cbd CBD	Faol FAO	Iaea IAEA	Imo IMO	Isa ISA	De UN-DESA	Do DOALOS	Dp UNDP	Ep UNEP	Ioc UNESCO-IOC	Ido UNIDO	Wmo WMO	Wb WB	Iho IHO	Oec OECD	Ge GESAMP	UN UN-OCEANS
Icsu ICSU	Iucn IUCN	Po POGO	Idi IDDRI	Won WON	Mcf MCF	Sea SEAS AT RISK	Wwf WWF	Ps PLAST SOUP	Gp GREENPEACE	Ci CI	Pew PEW	Sca SCAR	SCO SCOR	Gof GOF	Gef GEF	Gpo WB-GOP

Prospects and opportunities



The EU as a key player in Ocean Governance:

- Joint directions towards an integrated maritime policy/marine strategy
- Enhance communication between the clusters to ensure a broad ecosystem focus
- Combine marine and maritime interests for a better development of coastal regions
- Prepare ourselves to use the science policy landscape in our own benefit as a vehicle to reinforce and add value to marine scientific research and to facilitate the transfer of knowledge and technology to third parties