The UN architecture for ocean science and ocean governance

Dr. Luis Valdés

Instituto Español de Oceanografía
Centro Oceanográfico de Santander-Spain

25 Years of PICES:
Celebrating the Past, Imagining the Future

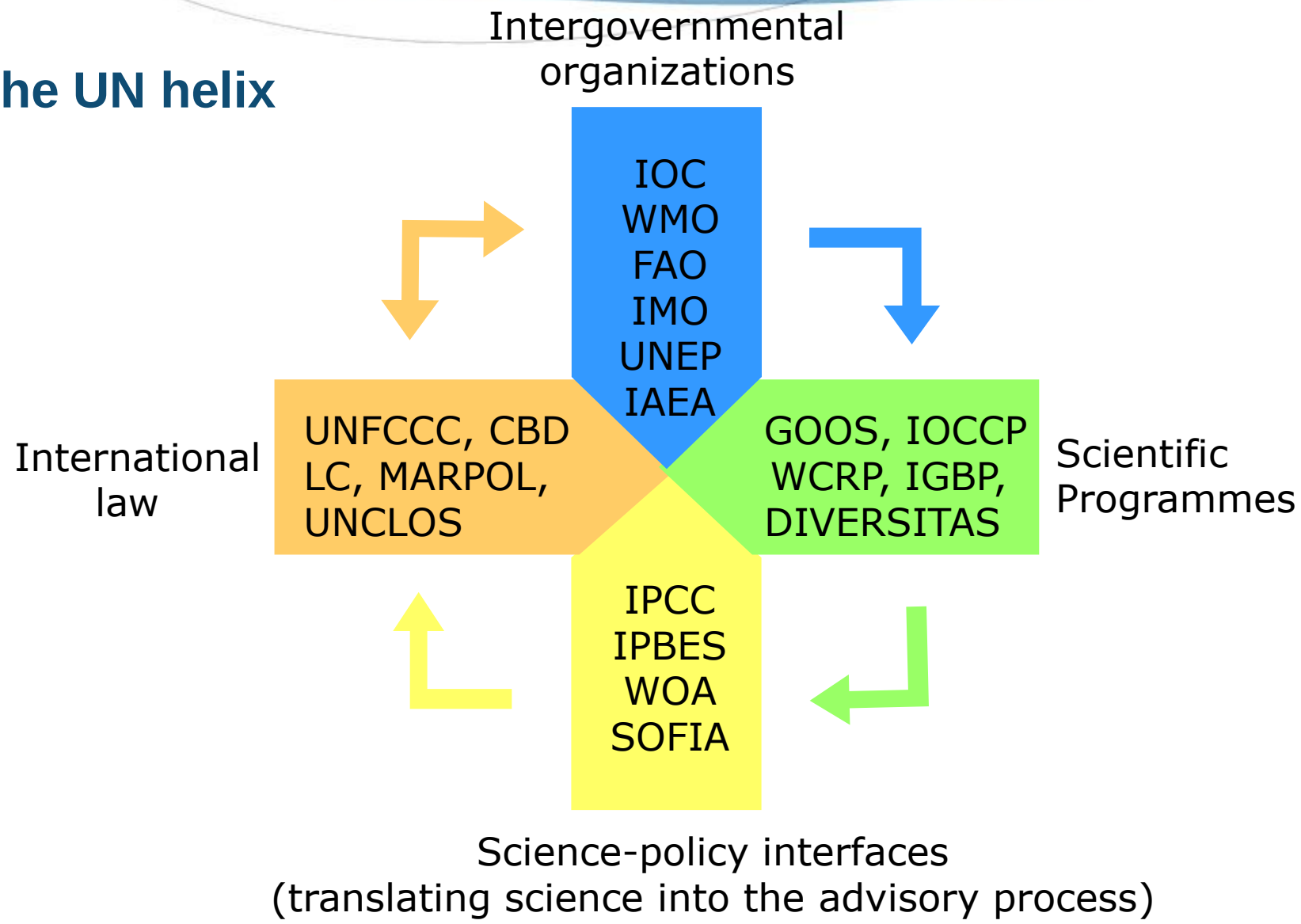
November 2-13, 2016
San Diego, USA

North Pacific Marine
Science Organization
2016 Annual Meeting

UN architecture for ocean knowledge and governance

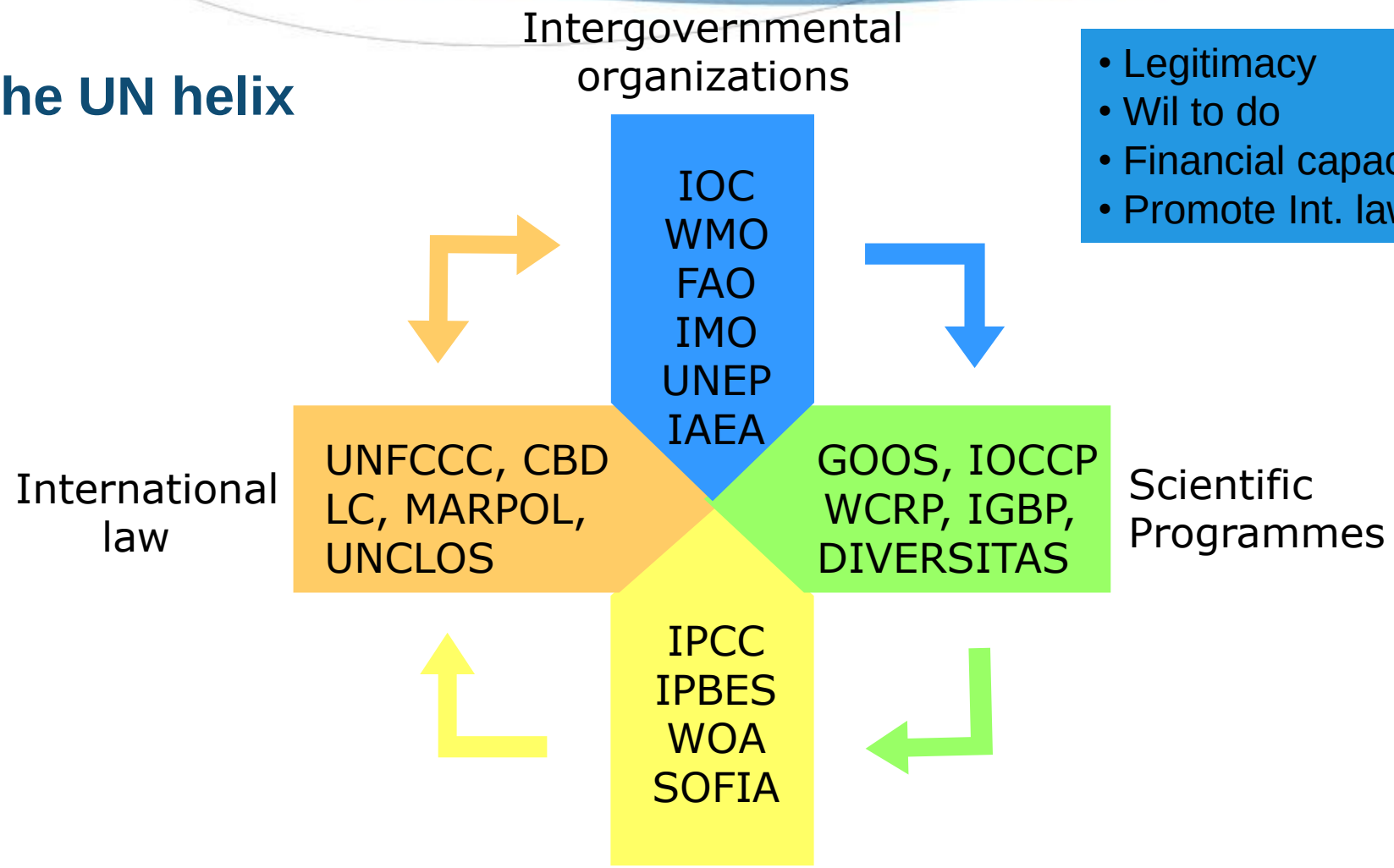
UN architecture for ocean knowledge and governance

The UN helix



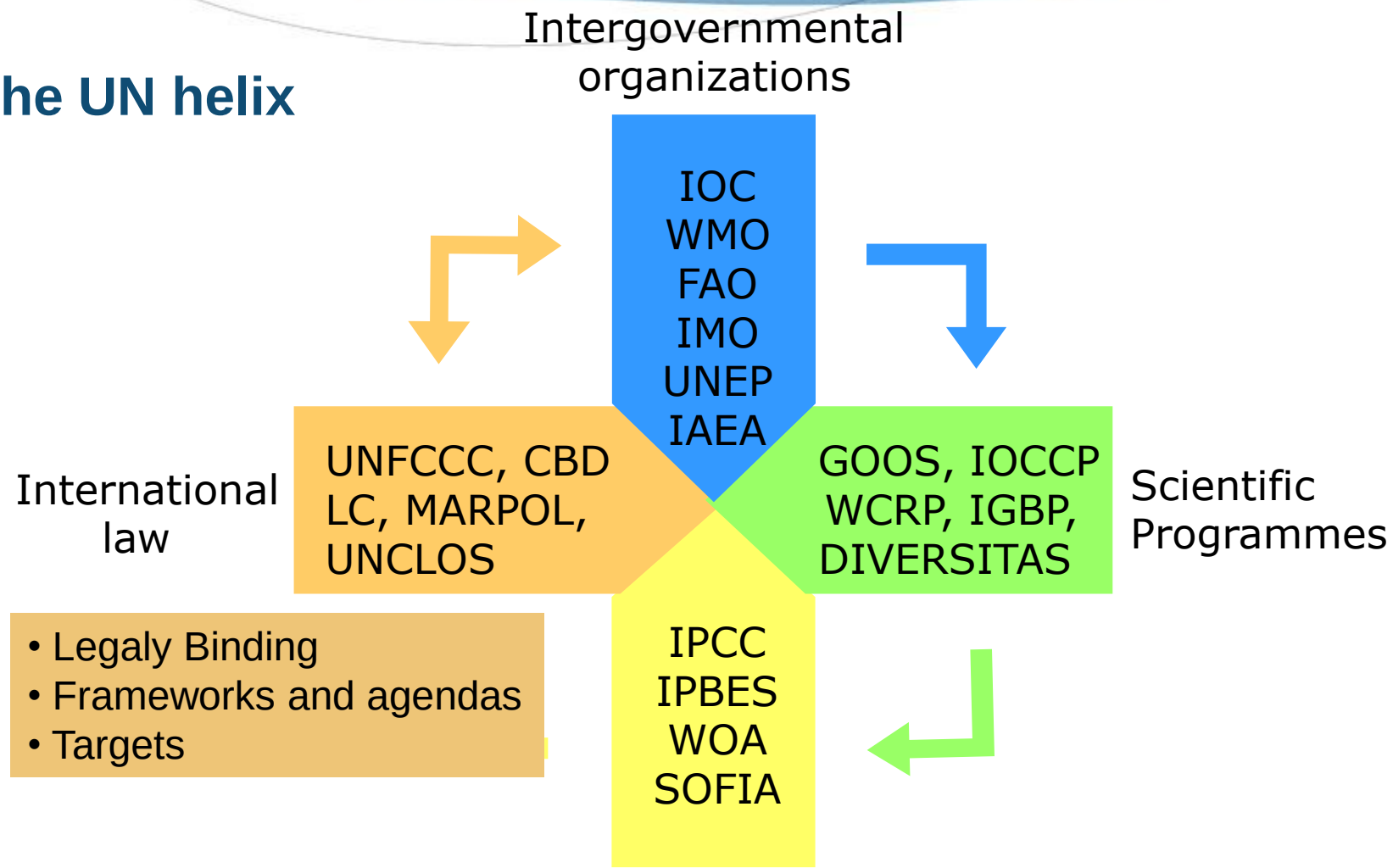
UN architecture for ocean knowledge and governance

The UN helix



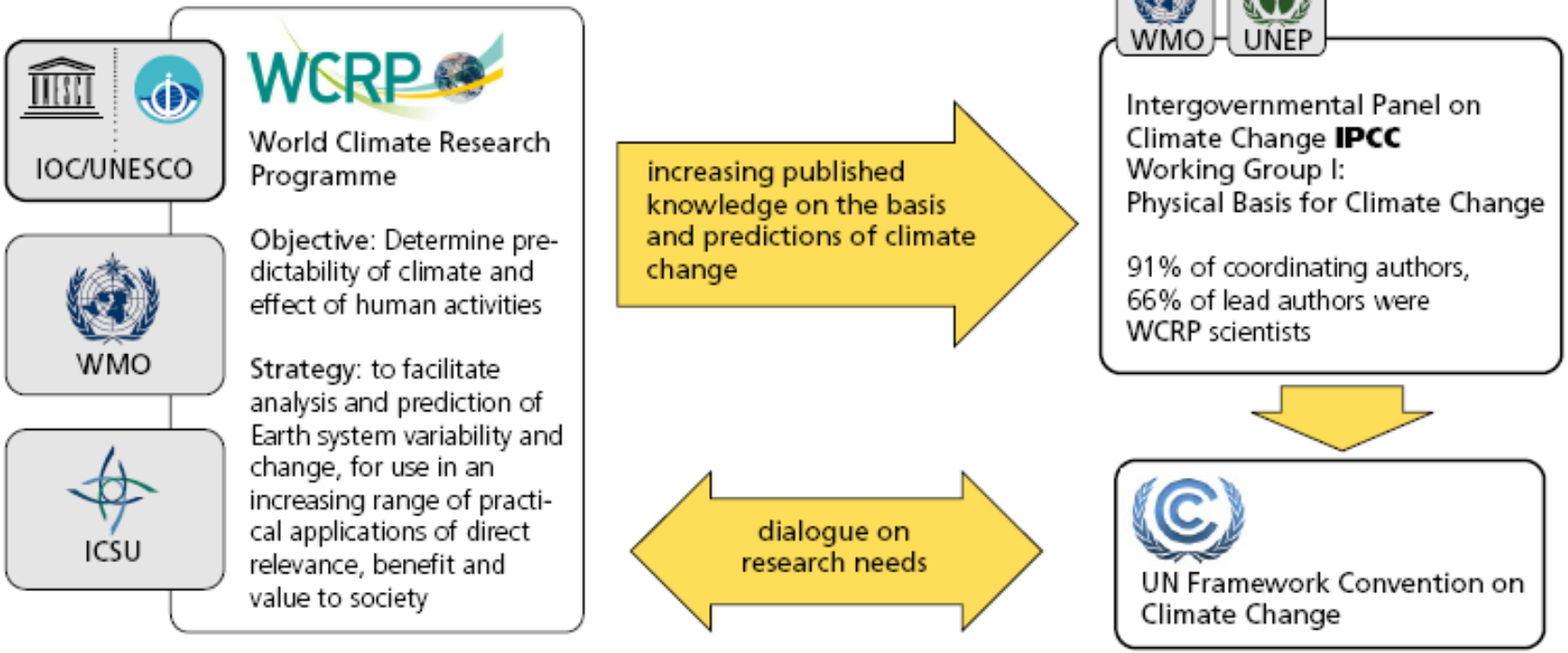
UN architecture for ocean knowledge and governance

The UN helix



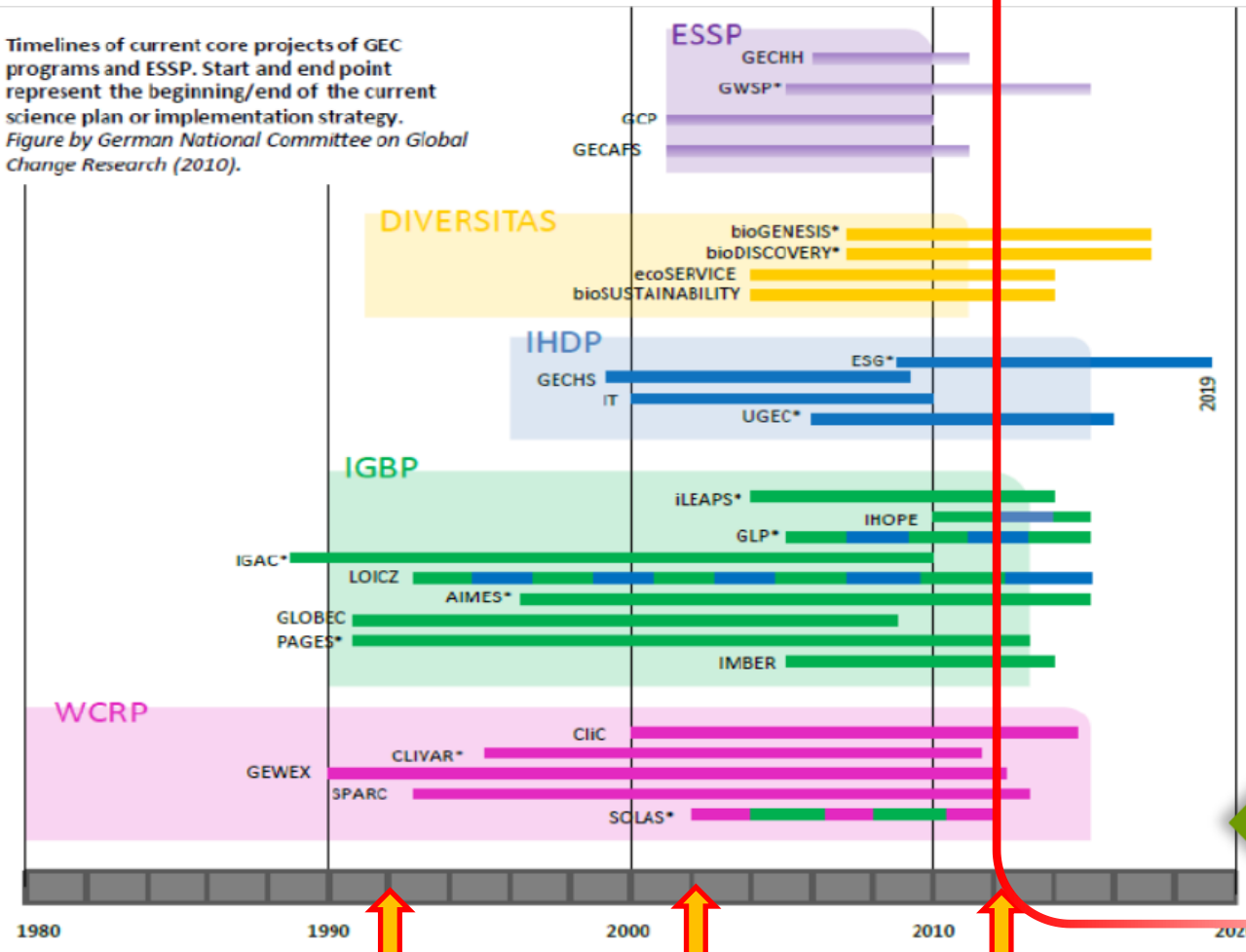
UN architecture for ocean knowledge and governance

The UN helix



Research programmes after Rio 92 and Johannesburg 02

Timelines of current core projects of GEC programs and ESSP. Start and end point represent the beginning/end of the current science plan or implementation strategy.
Figure by German National Committee on Global Change Research (2010).



1992 2002 2012

ICSU
International Council for Science

Future earth

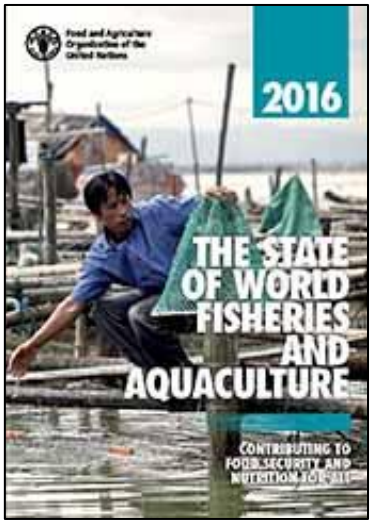
Scientific programmes

UN science-policy interfaces

Climate Change

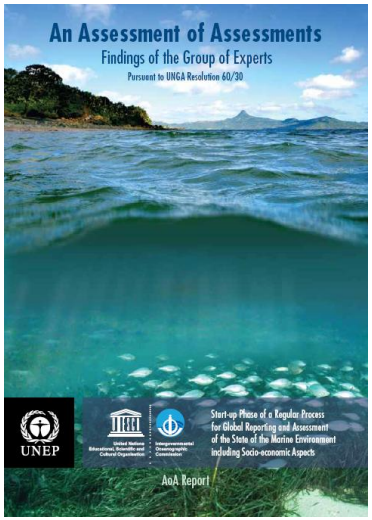
AR5

Fisheries & Aq.



SOFIA

Ocean state



WOA

Biodiversity

IPBES

Science-policy interfaces
(translating science into the advisory process)

UN Oceans

Integration with other UN Activities

UN-OCEANS

GESAMP

UN Oceans

***Table 1**: Areas of activity declared by the UN-Ocean organizations in 2014*

	IOC-UNESCO	WMO	FAO	UNEP-CBD	UNDP	IMO-WMU	IAEA	UNHCR	UNCTAD	DOALOS-ISA	UN DESA
Sustainable development	■	■	■	■	■	■	■	■	■	■	■
Science	■	■	■	■	■	■	■				
Marine environment	■	■	■	■	■	■	■	■			
Marine biodiversity	■		■	■	■	■				■	
Fisheries	■	■	■	■	■		■				
Exploitation non-living resources					■					■	■
Cables & pipelines		■								■	
Marine safety & security	■	■	■	■		■	■	■	■		
People at sea and education	■	■	■			■		■	■		
Underwater cultural heritage	■	■									

UN Oceans

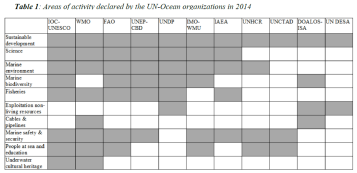
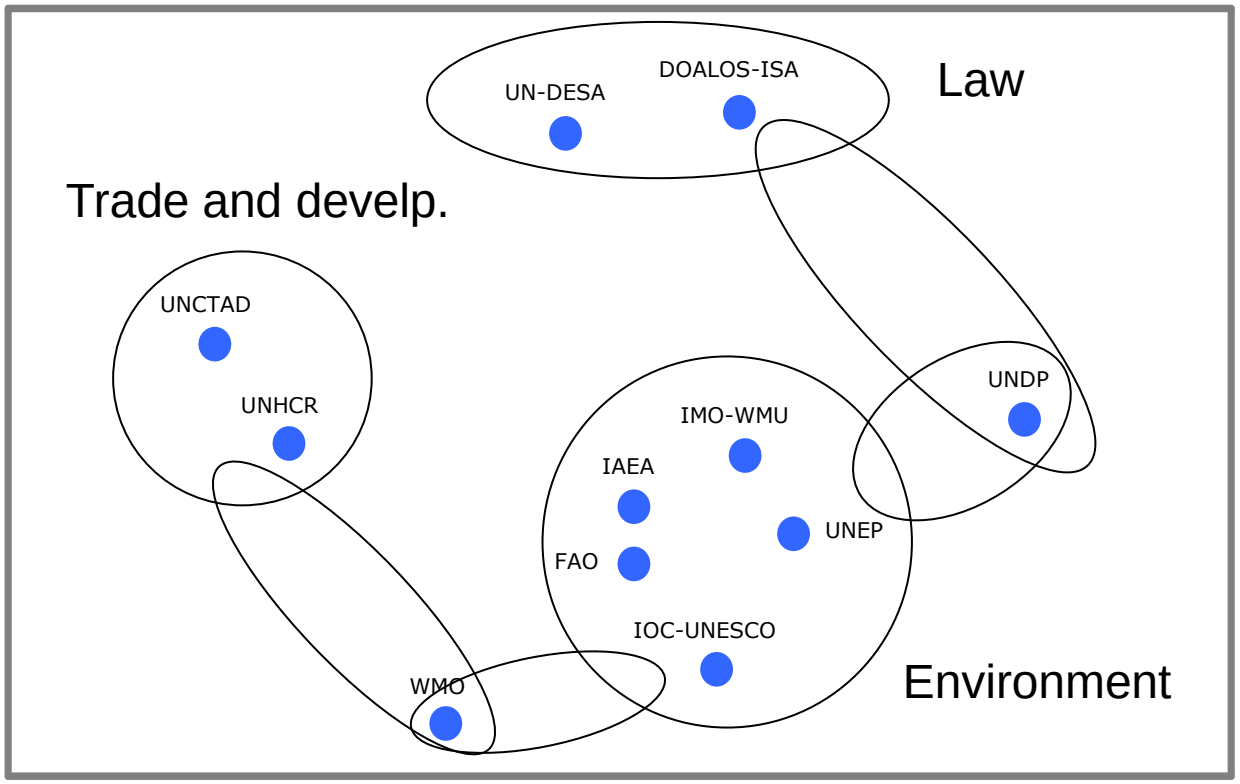


Table 1: Areas of activity declared by the UN-Ocean organizations in 2014

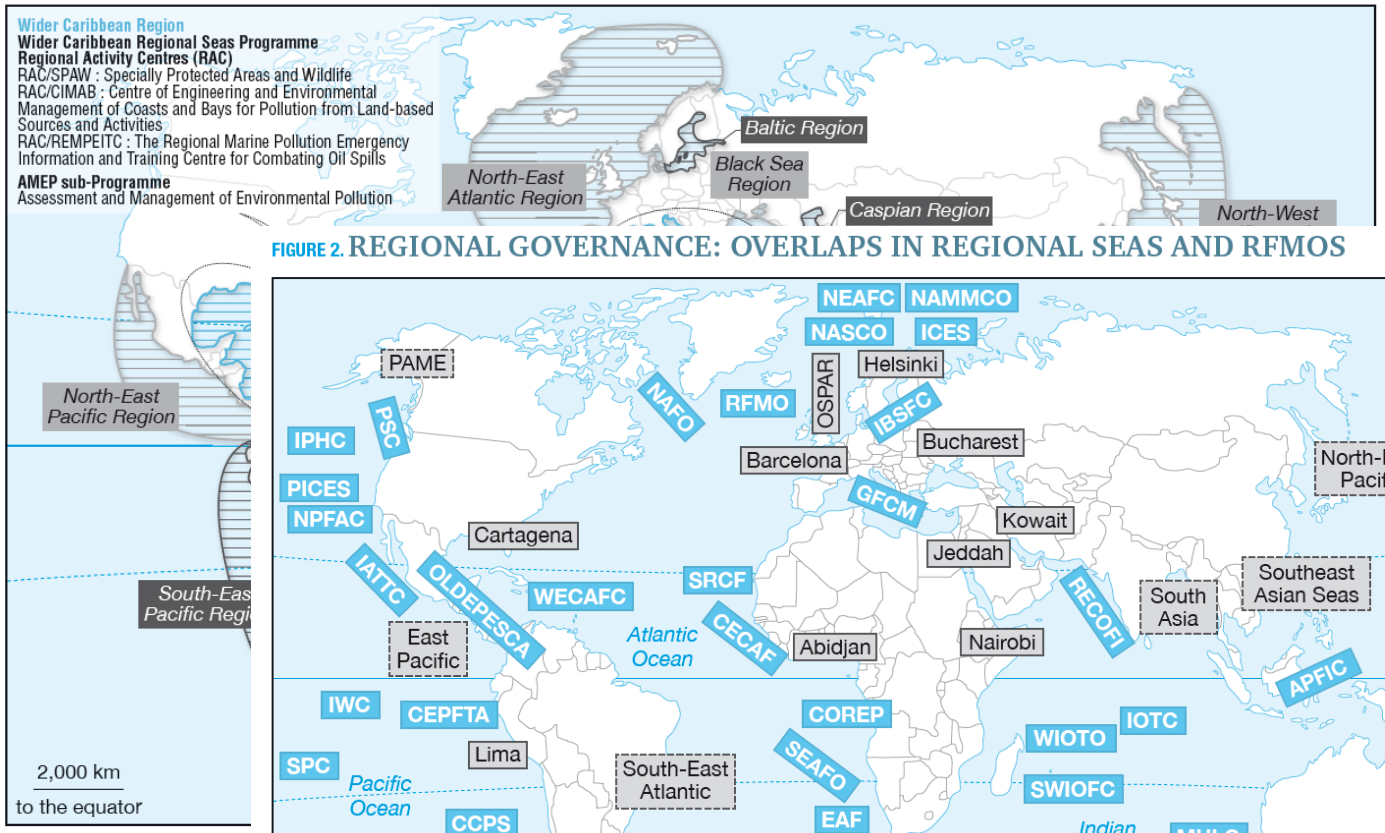
	IOC-UNESCO	WMO	FAO	UNEP-CBD	UNDP	IMO-WMU	IAEA	UNHCR	UNCTAD	DOALOS-ISA	UN DESA
Sustainable development											
Science											
Marine environment											
Marine biodiversity											
Fisheries											
Exploitation non-living resources											
Cables & pipelines											
Marine safety & security											
People at sea and education											
Underwater cultural heritage											

Scatterplot 2D distance matrix 1-Pearson r



UN Regional seas and governance

FIGURE 1. REGIONAL SEAS PROGRAMMES AND INITIATIVES

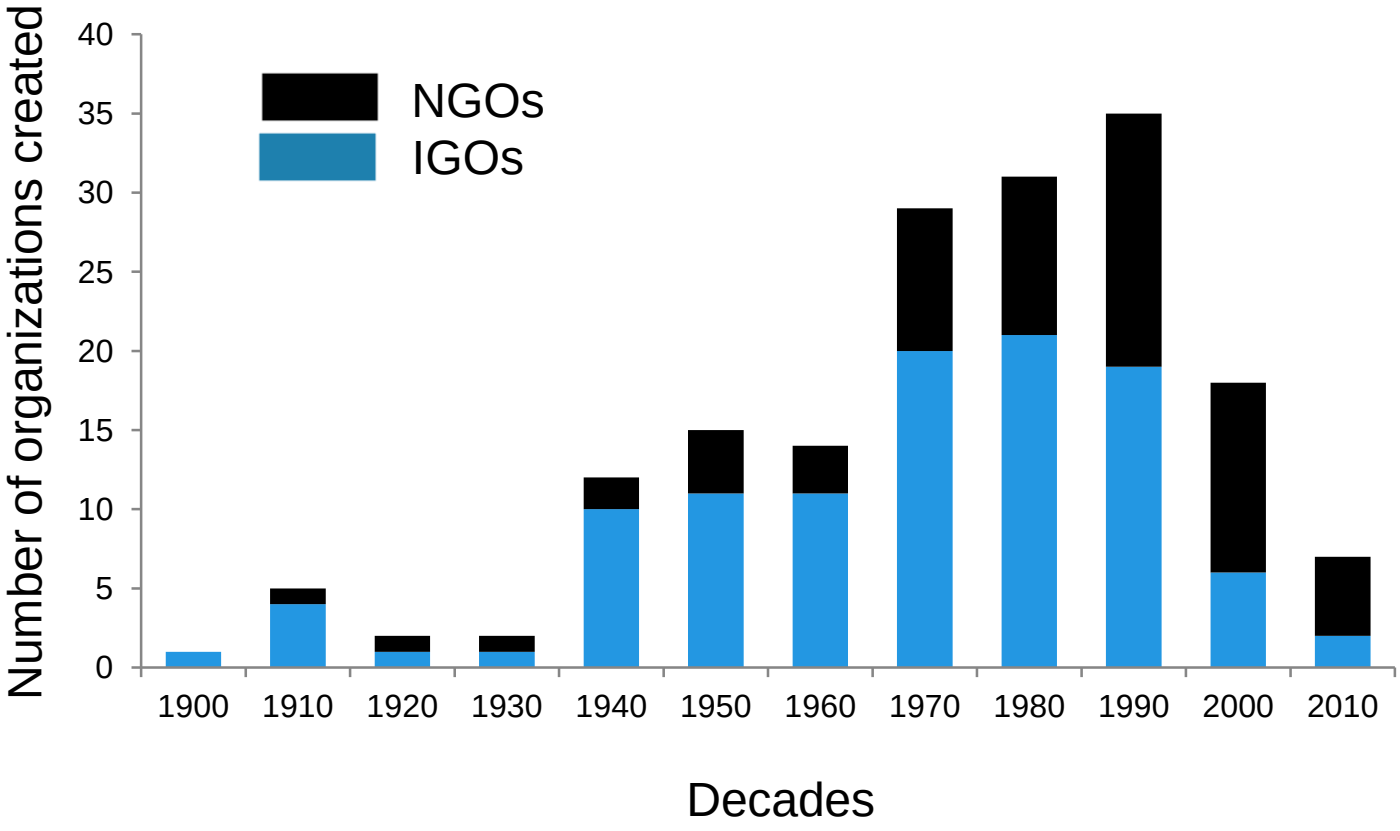


Source: UNEP (1982, upda

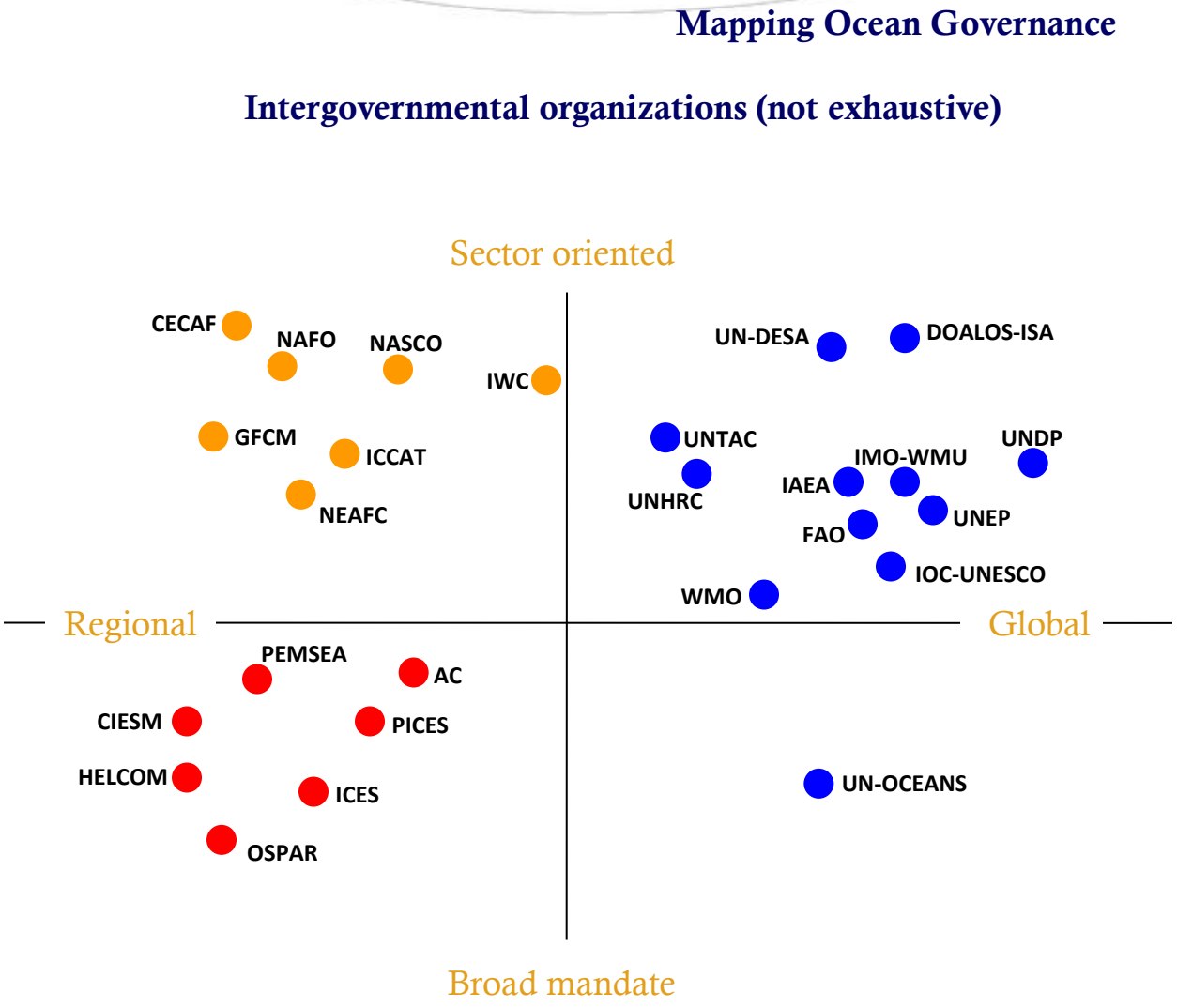
FIGURE 2. REGIONAL GOVERNANCE: OVERLAPS IN REGIONAL SEAS AND RFMOS

Source: FAO (2009); UNEP (1982, updated 2010)

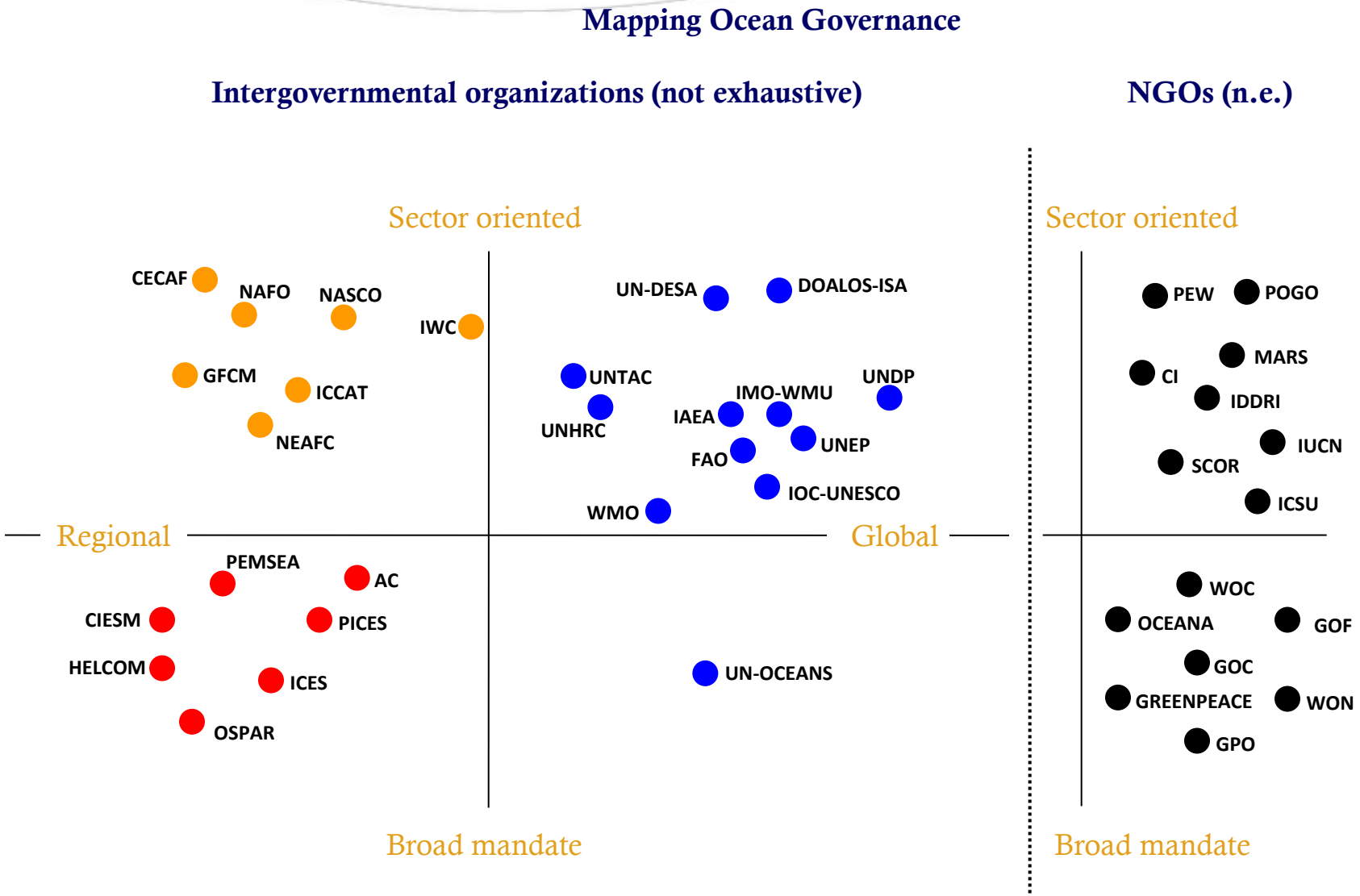
IGOs and transnational NGOs



Who speak on behalf of the Ocean



Who speak on behalf of the Ocean



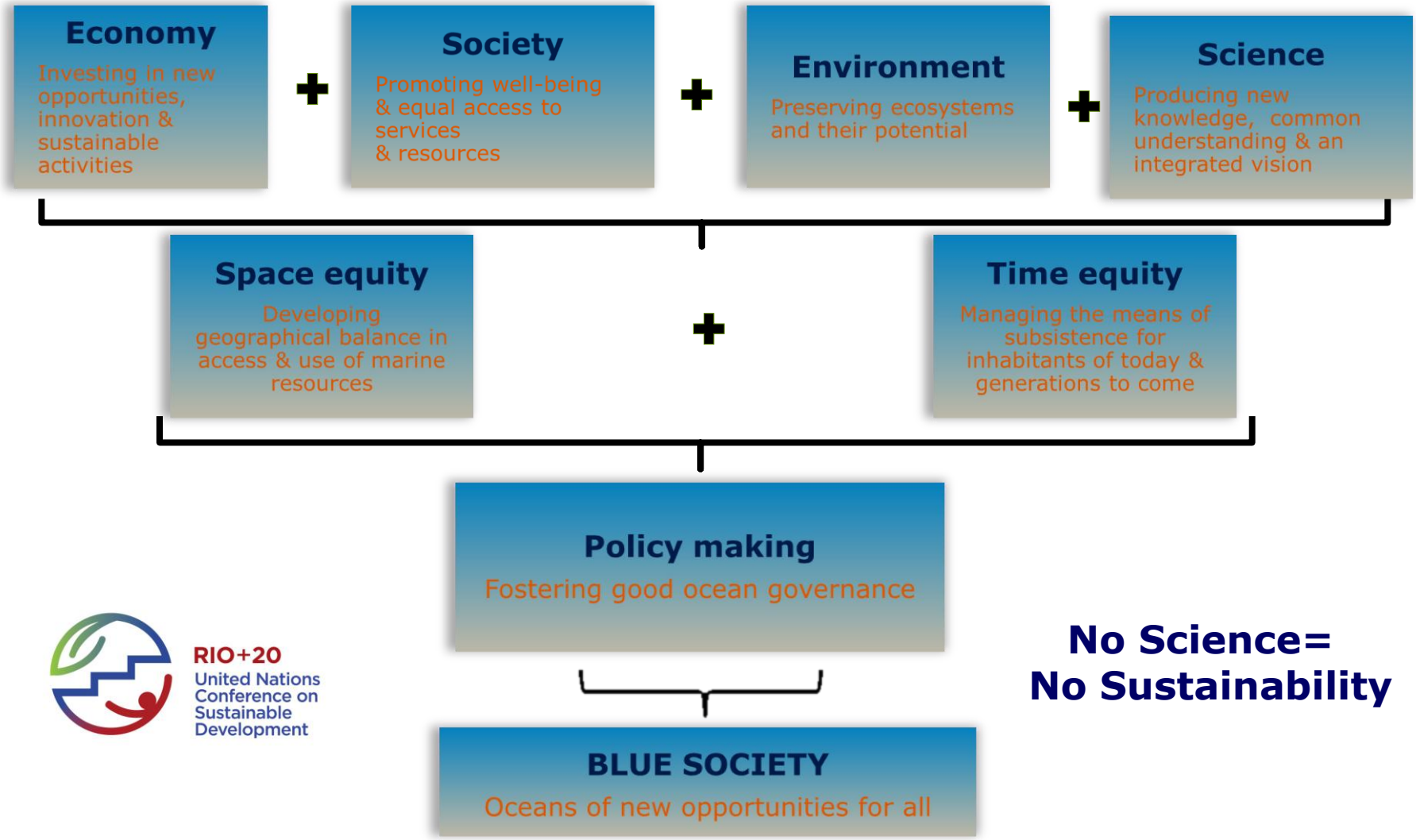
Coupling knowledge to action

Coupling knowledge to action

7 political/environmental targets plus a, b and c

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

Coupling knowledge to action

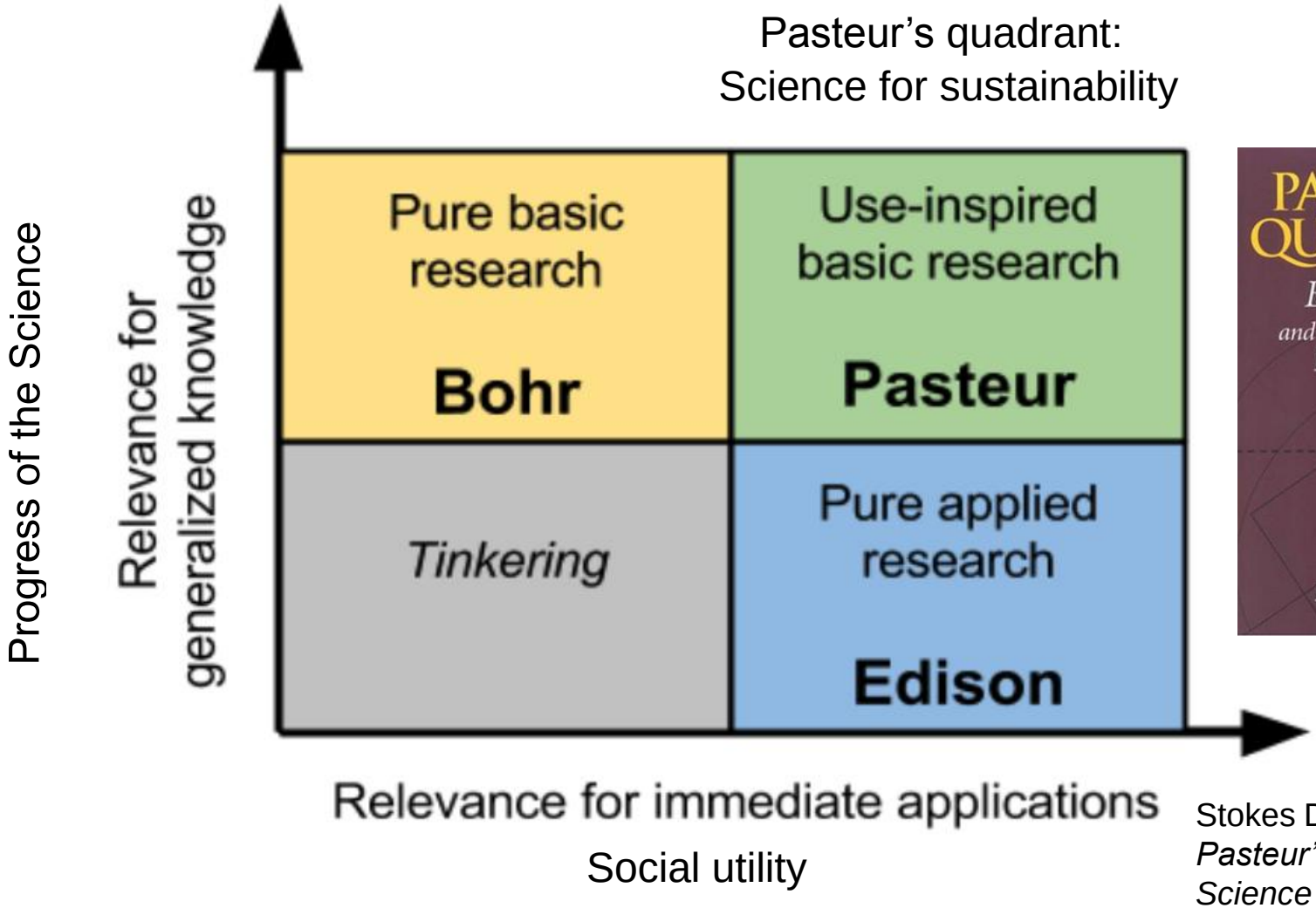


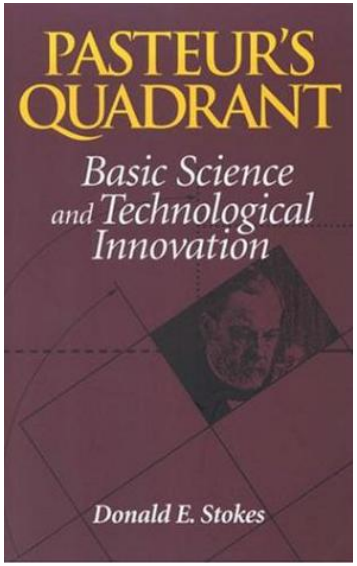
RIO+20
United Nations Conference on Sustainable Development

No Science=
No Sustainability

Coupling knowledge to action

Pasteur's quadrant:
Science for sustainability





Stokes D. E. 1997. *Pasteur's Quadrant: Basic Science and Technological Innovation.*

Take home messages … for the UN and for us

• Many ocean entities at the UN system are part of higher structures, sector-oriented and therefore fragmented leaving little room for integral approaches within the whole UN system. The paradigm is that the UN preference for a sector-by-sector approach to marine management cannot sustain marine ecosystems as a whole.

• The UN system can no longer continue to be seen as a discrete authority on oceans and coastal issues, the current fragmentation and the lack of an overarching and operational body with a common voice is a weakness for an architecture that otherwise counts with the most necessary elements (authority, law, research and science-policy interface processes).

• There is an urgent need for an intergovernmental organization within the UN with a global technical mandate, global coverage and with the legitimacy and authority to speak with one voice on behalf of the ocean.

• Efficient marine policy innovation requires leadership and the political will to strength the role of a central organization in planning, management, and programmatic development (with its own staff and budget). At present there is not such organization.

Take home messages … for the UN and for us

• At present there is a lack of an international and interdisciplinary scientific programme mobilizing the marine scientific community in a common spirit and goal.

• The SDG 14 for the ocean provides foundation for a better integration of international science and environmental governance and the UN should use it as a platform to launch an international scientific programme for the ocean.

• However the rigid top-down structure and decision making process in the UN system makes it difficult to make real progress in this direction. In this regards other Intergovernmental organizations, with a more flexible structure, are legitimated to take the lead and launch a programme for a deeper scientific knowledge of the ocean.

Thank you very much for your attention!

Luis Valdés
luis.valdes@st.ieo.es