



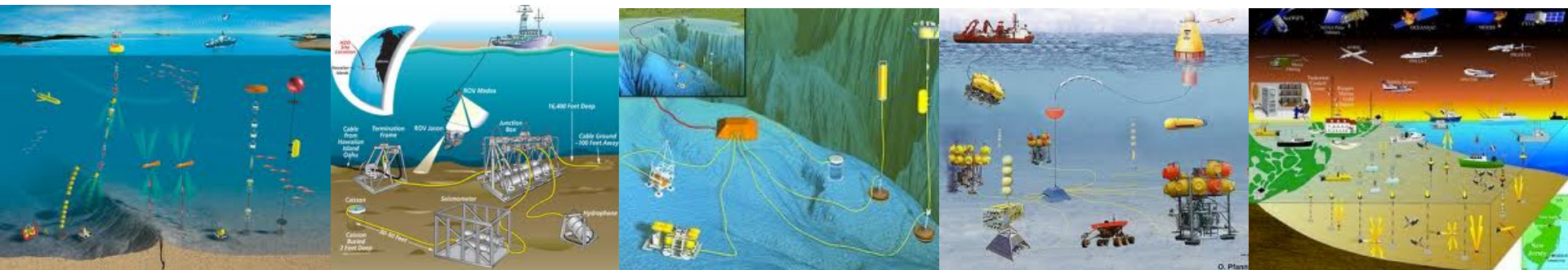
Ocean Observatories Initiative

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# Ocean Observatories: Evolution and Future Directions

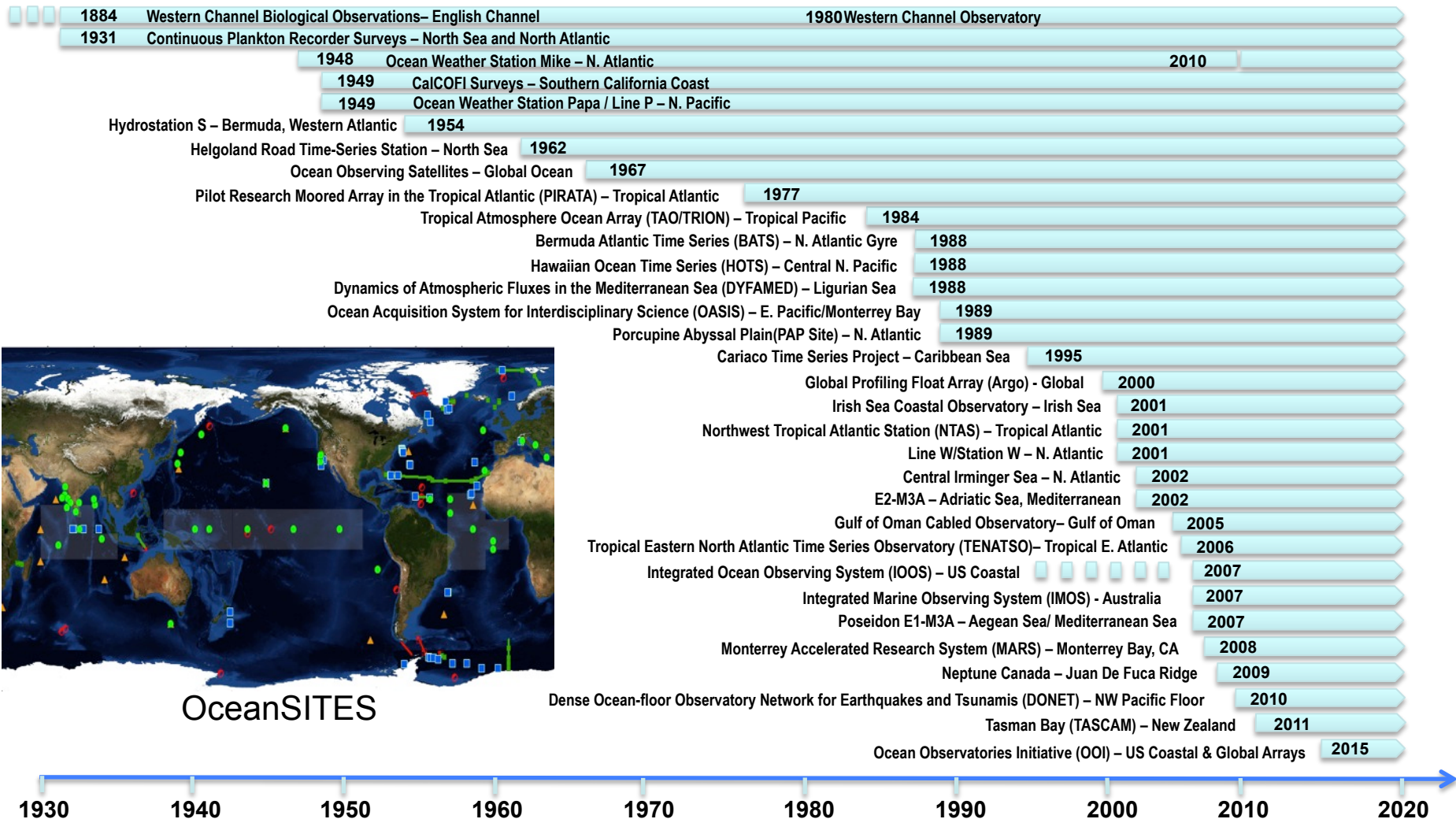
**Steven G. Ackleson**  
**Consortium for Ocean Leadership**  
**Washington, DC**  
**[sackleson@oceanleadership.org](mailto:sackleson@oceanleadership.org)**

# O•cean Ob•serv•a•to•ry (oh-shuh'n uh'b-zur-vuh-tawr-ee)



- **Complex, interdisciplinary set of observations**
- **Continuous presence of robotic, autonomous systems**
- **Broad range of temporal and spatial scales**
- **Free and timely access to data**

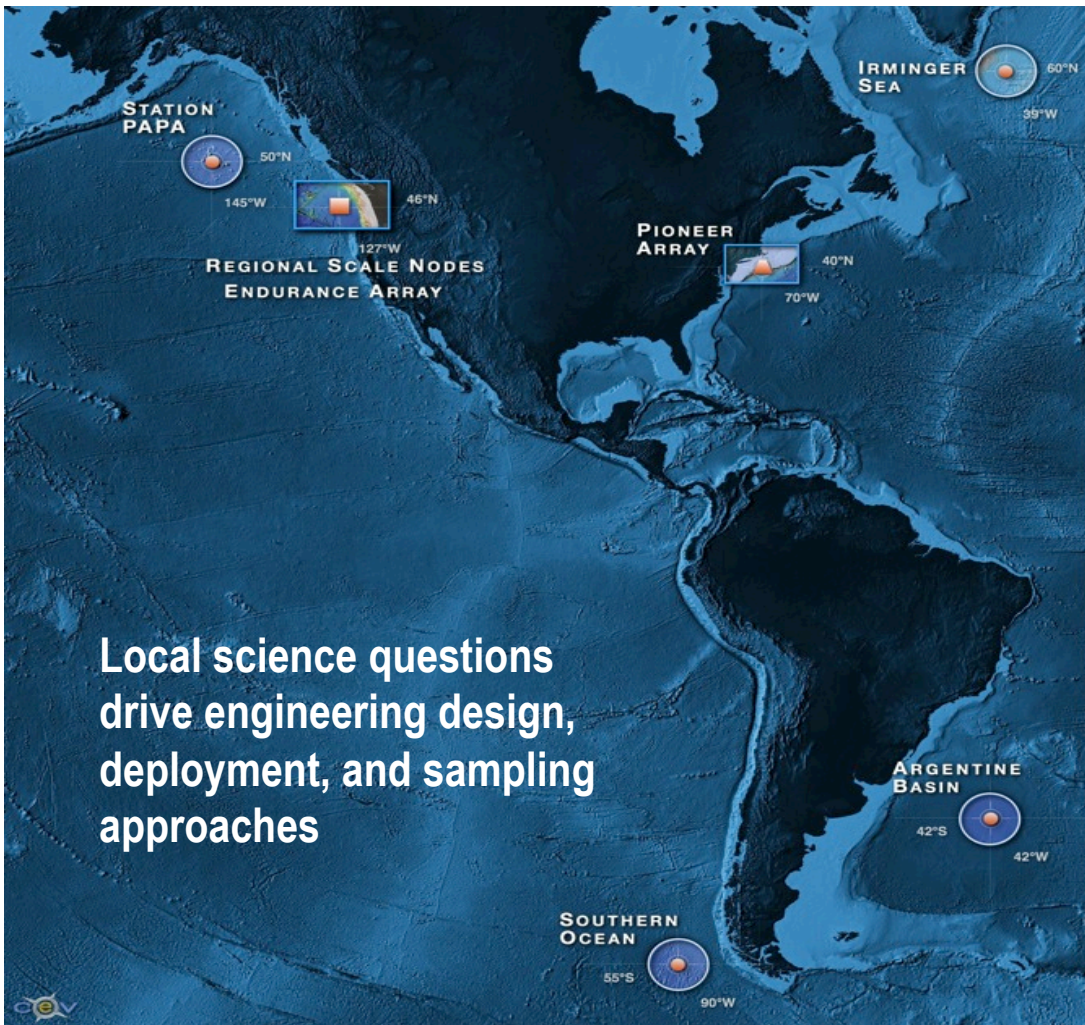
# Ocean Observing Time Series Activities



OceanSITES



# Ocean Observatories Initiative (OOI)



## Four high latitude sites

- Ocean Station Papa (NW Pacific)
- Irminger Sea (North Atlantic)
- Argentine Basin
- Southern Ocean

## Two coastal ocean networks

- Endurance Array (Oregon & Washington)
- Pioneer Array (North Atlantic Bight)

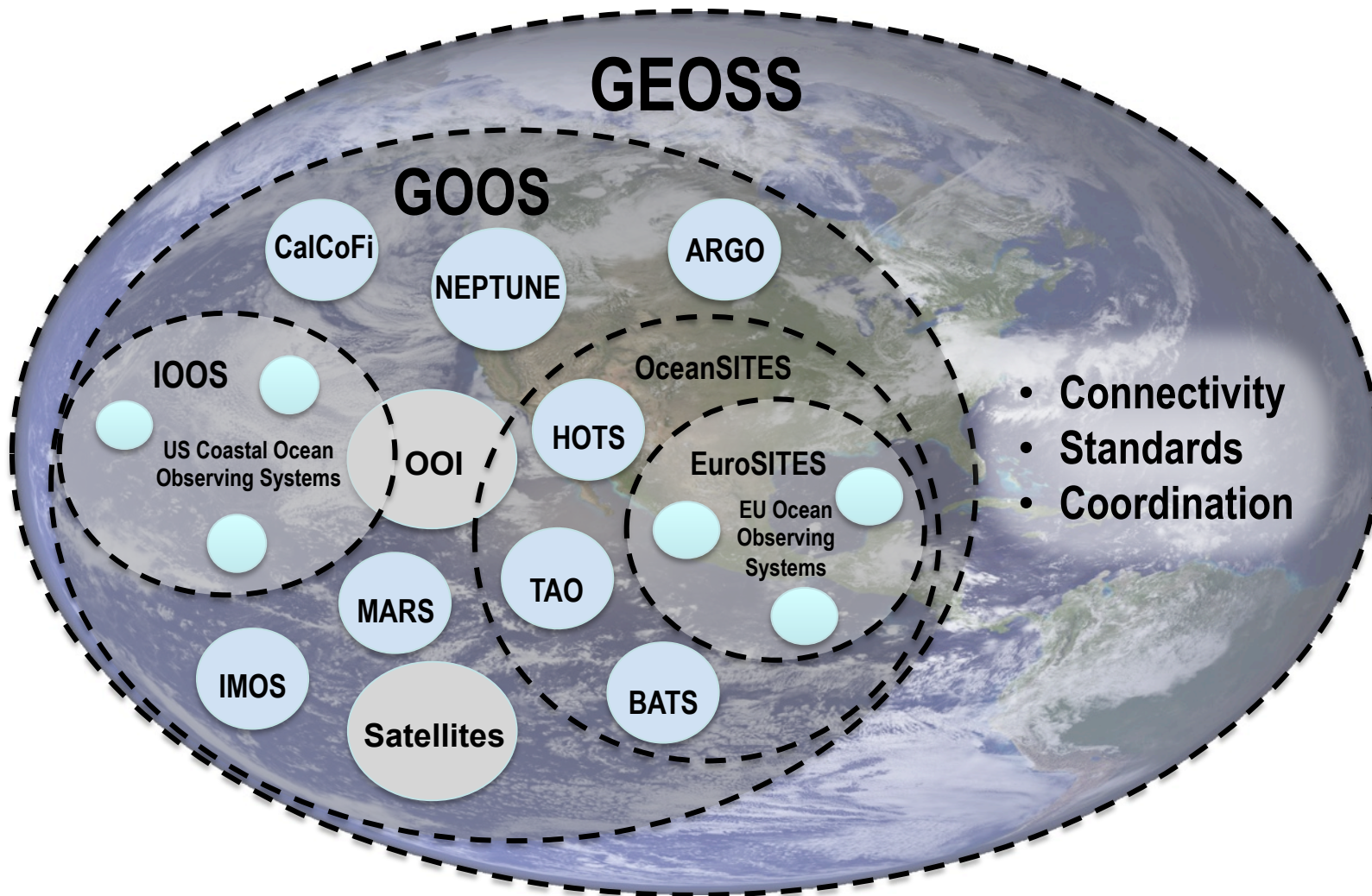
## Regional scale array

- Axial Seamount (Juan De Fuca Plate)
- Fixed Moorings and Mobile Platforms

## By The Numbers:

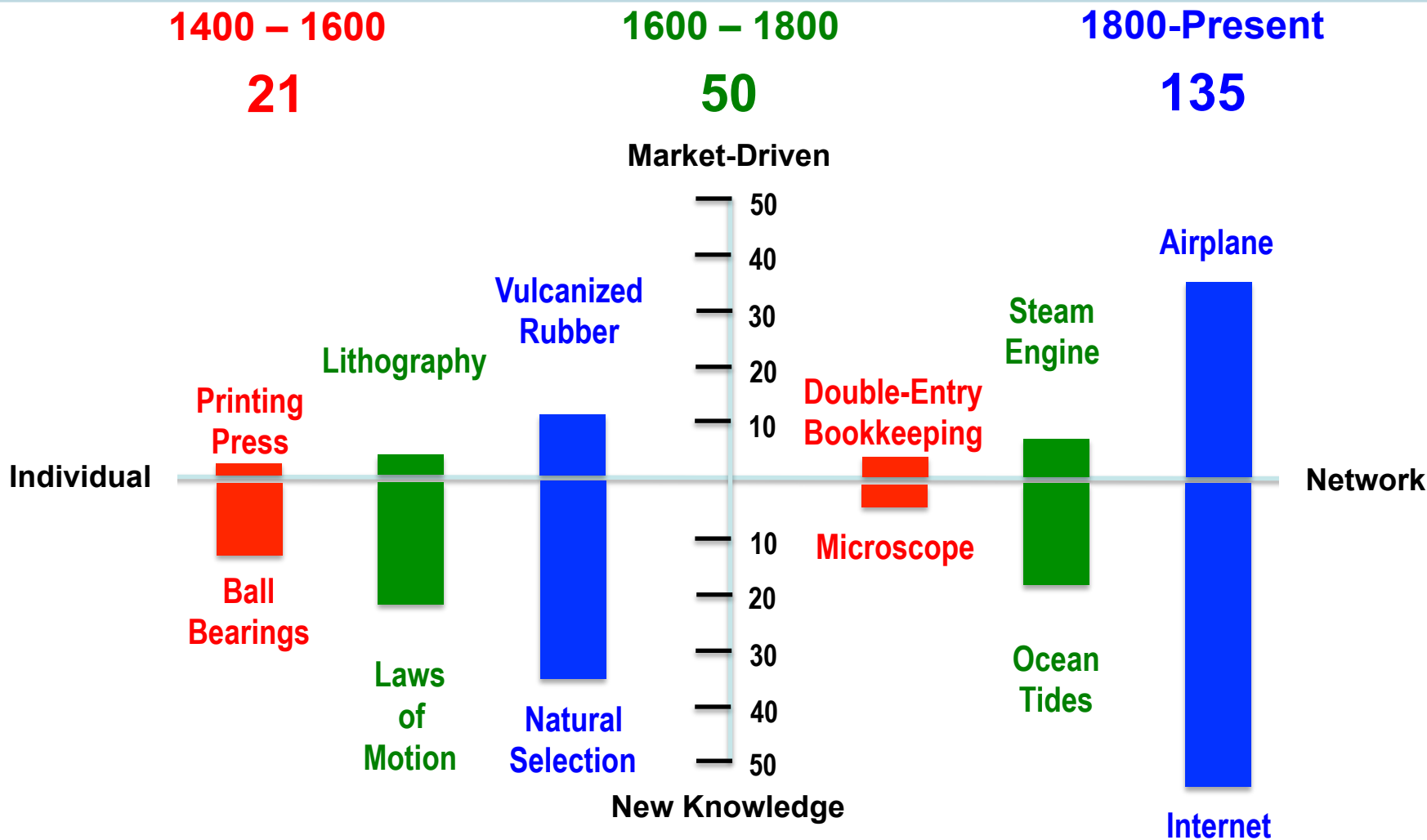
- \$386M Construction Project (MREFC)
- 6 Regional Arrays
- 48 Instrument Types
- 764 Simultaneously Deployed Instruments
- 78 Data Products
- 25-30 Year Operational Lifetime

# Emerging Relationships and Governance

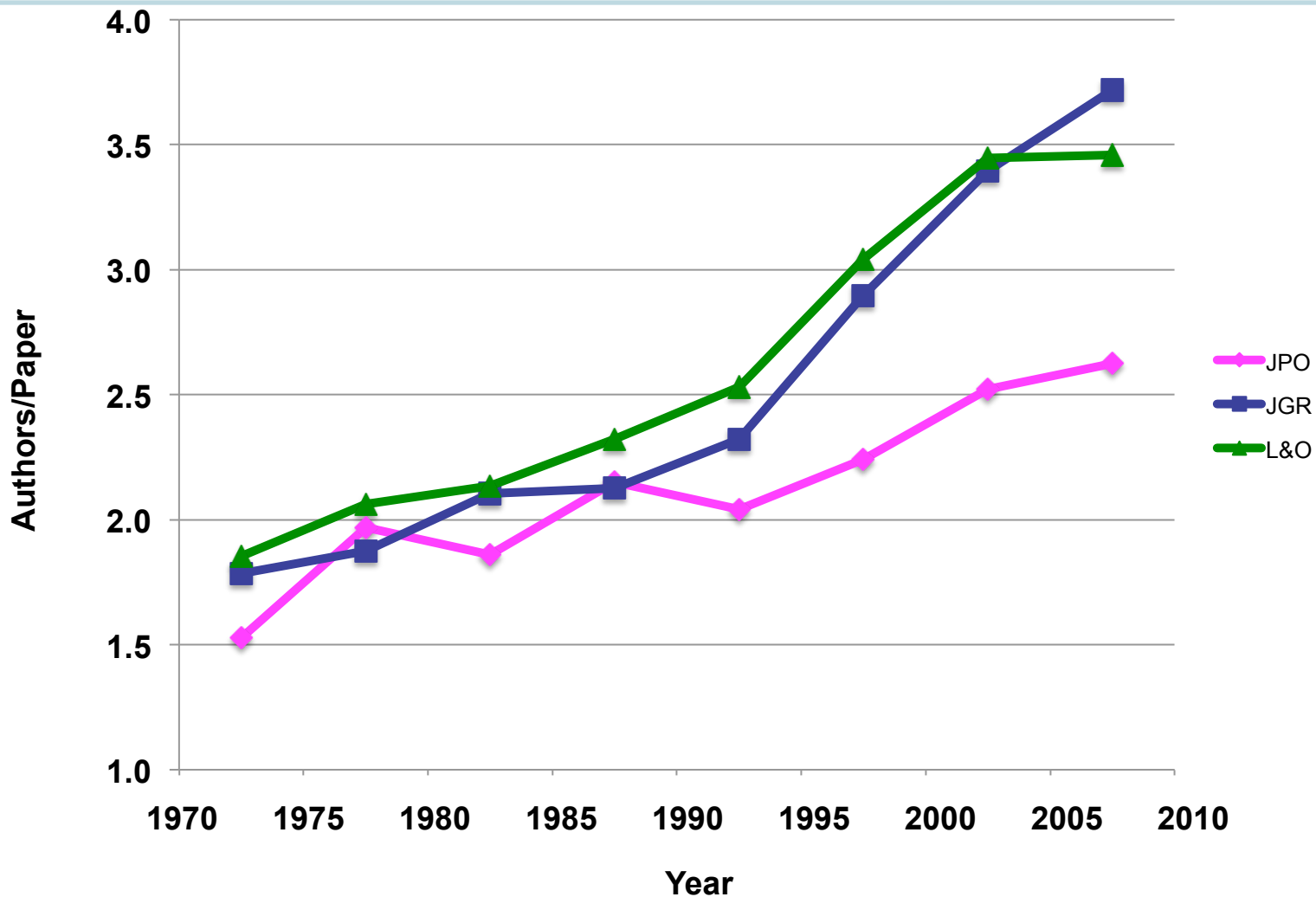




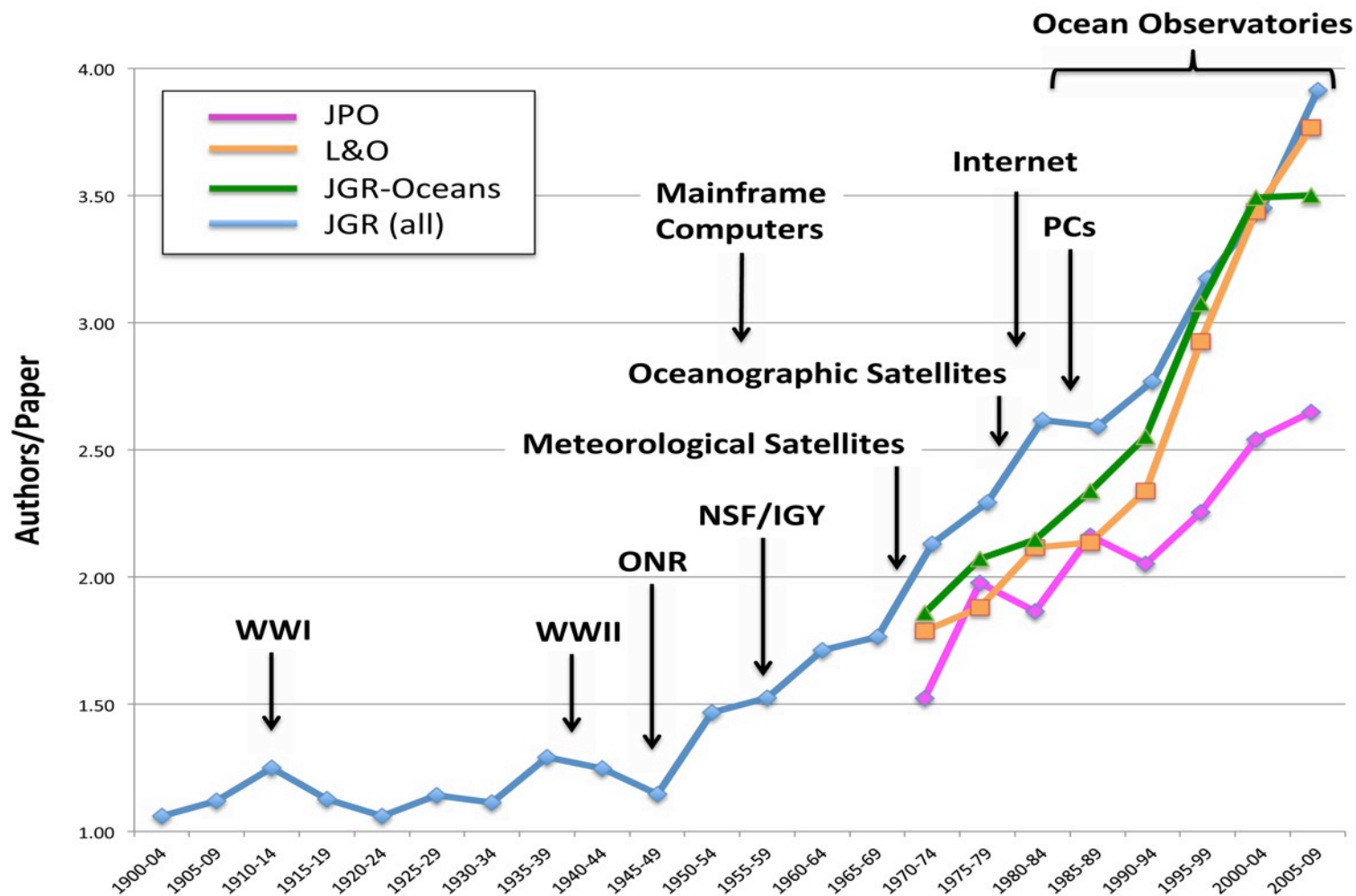
# Stephen Johnson, 2010, "Where Good Ideas Come From"



# Authorship Trends in Oceanographic Journals



# Authorship Trend Factors





# Future Ocean Observatories Trends

- Networked approaches
- International standards
- Quantity and complexity of observations will increase
- Increased system autonomy

