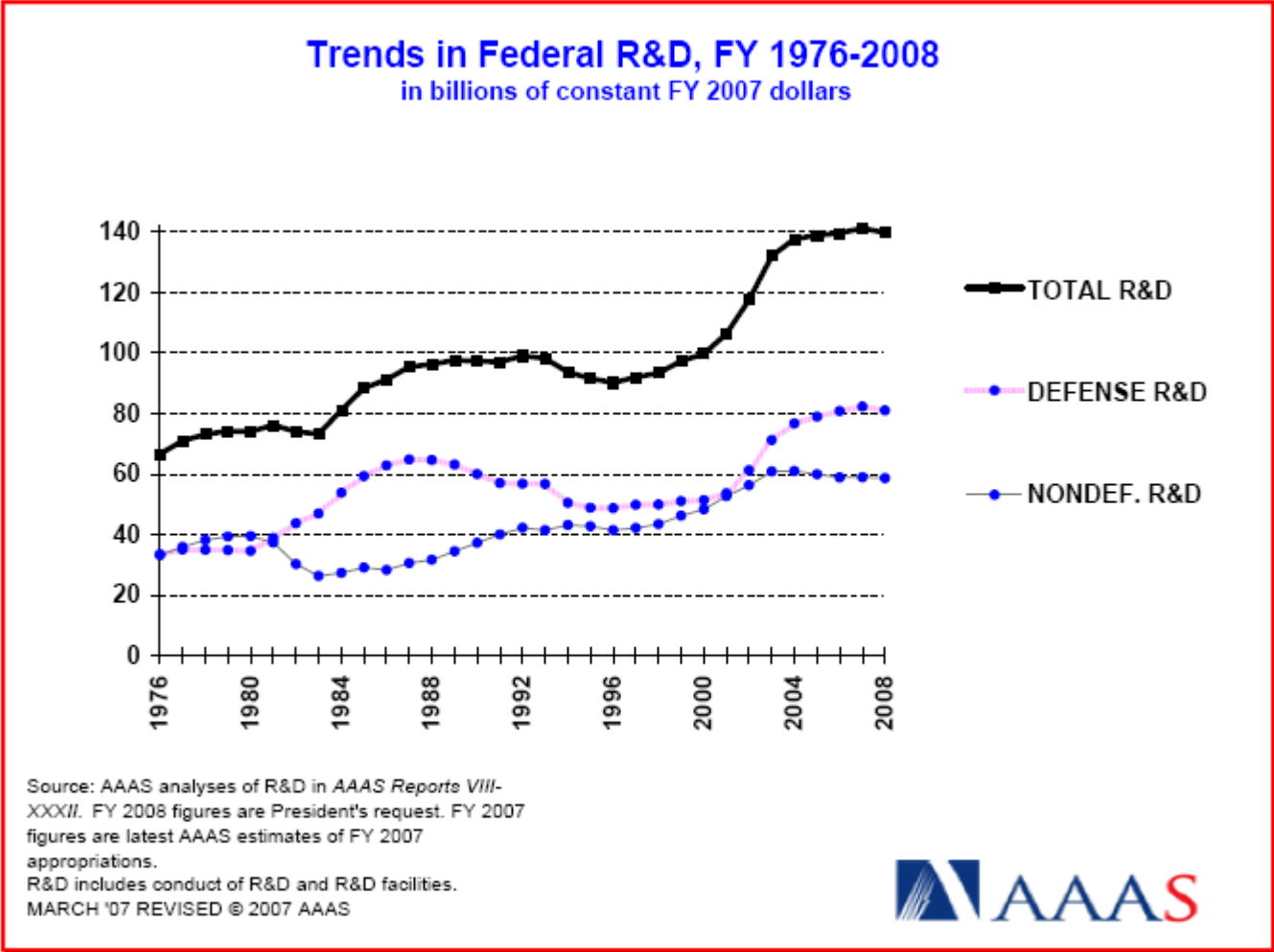


# **Ocean Observations and Useful Climate Information**

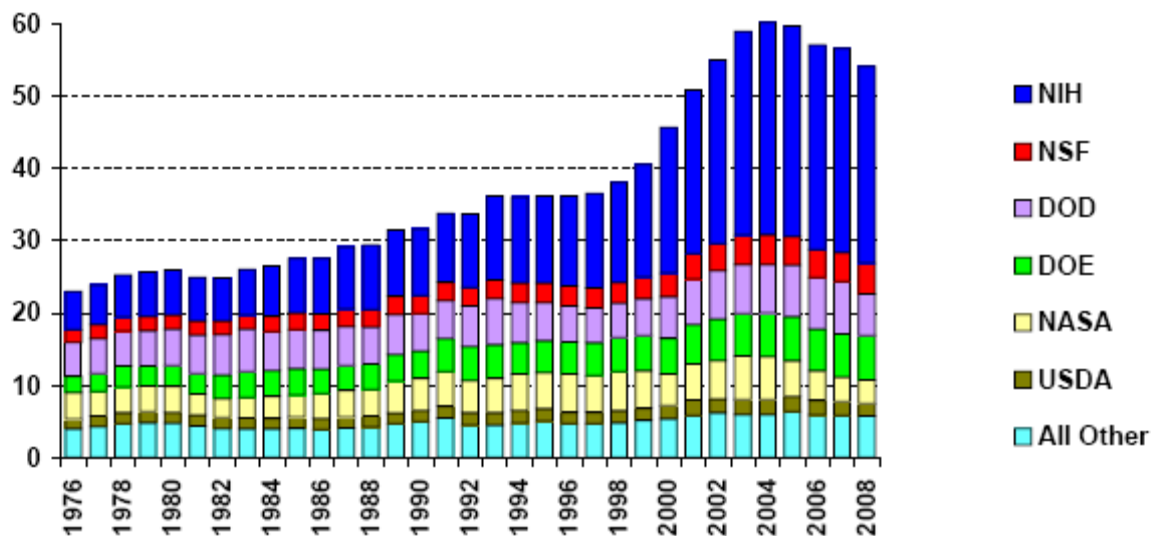
- 1. The Situation**
- 2. Useful Climate Information**
- 3. What's Needed**
- 4. NOAA's Role**
- 5. The Role of Ocean Observations**

# 1. The Situation



## Trends in Research by Agency, FY 1976-2008 \*

in billions of constant FY 2007 dollars



Source: AAAS analyses of R&D in annual AAAS R&D reports.  
 \* FY 2008 figures are President's request. 2007 figures are latest AAAS estimates of research in 2007 appropriations. Research includes basic research and applied research. 1976-1994 figures are NSF data on obligations in the Federal Funds survey. MARCH '07 REVISED © 2007 AAAS



**The Social Contract that defines society's (mutual) obligation to science has **changed**.**

**From Vannevar Bush's "The Endless Frontier" to:**

**Useful Science in Support of Society**

**Corollary: Scientists are NOT a sufficient clientele for science.**

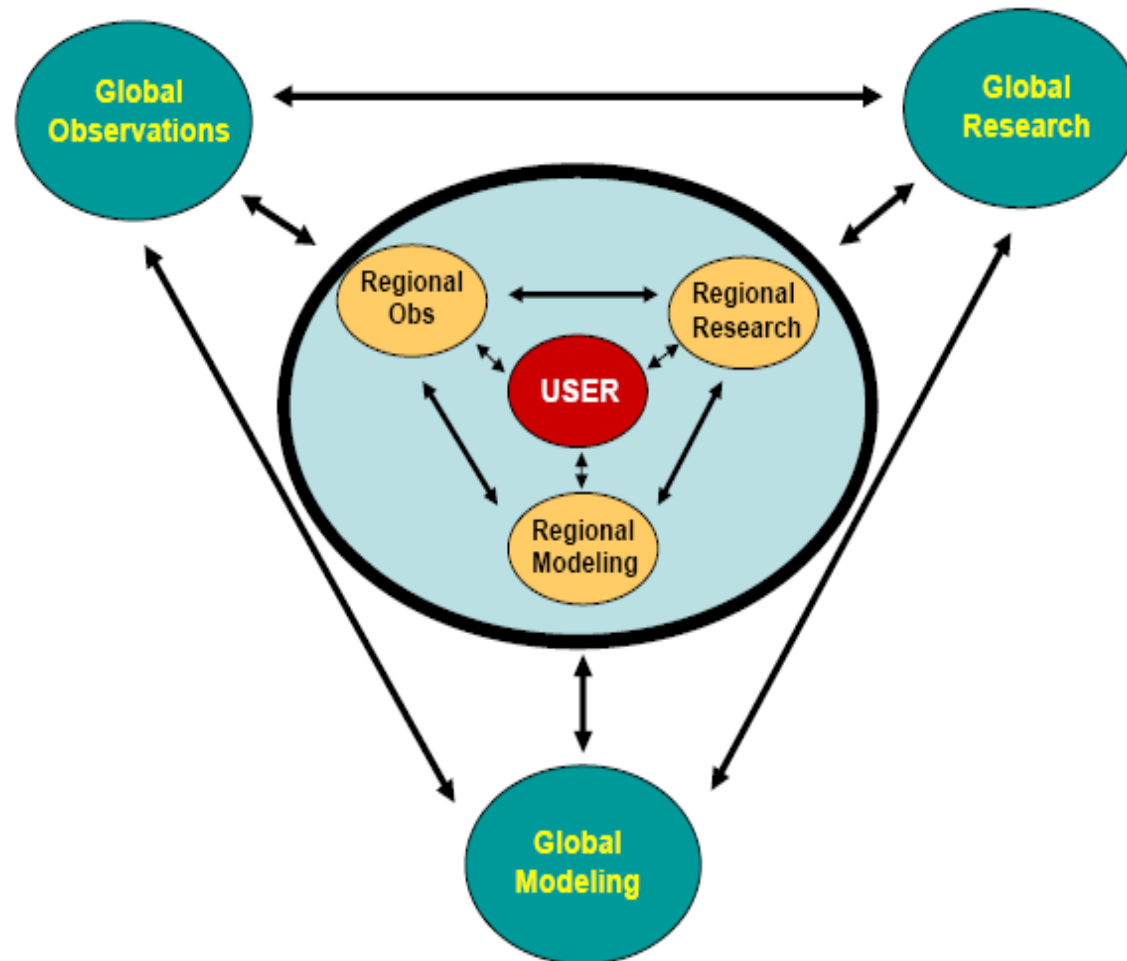
## **2. Useful Climate Information**

**Any climate information (past, present, future) that will help support decision making in public and private domains.**

### **General Properties of Useful Information:**

- ▶ Authoritative, Timely, Salient, Legitimate**
- ▶ Must be Relatable to Resources and Ecology**
- ▶ Different Scales for Different Decisionmakers**
- ▶ The Regional Scales Are Particularly Important**

### 3. What's Needed



## **4. NOAA's Role**

**VISION – An informed society that uses a comprehensive understanding of the role of the oceans, coasts, and atmosphere in the global ecosystem to make the best social and economic decisions.**

**MISSION – To understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs.**

**NOAA is the only agency that has the mandate for sustained climate observations**

## **5. The Role of Ocean Observations**

**Has Direct Users (fisheries, Navy, shipping)**

**Is part of Global Infrastructure of Observations which contributes to the Climate Needs**

**Needs the integration into the climate enterprise:**

**Model Ocean products (SST, Sea Level, Thermocline Depth, Mixed layer Depth, Upper Ocean Heat Content, Ecosystem Health)**

**A Monthly Coupled Analysis of the Climate System**

**Resource-Relevant Products e.g. Drought Forecasts based on SST Forecasts**