

Environmental Studies Program

Science for Informed Decisions

Dr. Rodney E. Cluck
Chief, Division of Environmental Sciences

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Mission

To provide the information needed to identify, assess, and manage impacts from offshore energy and marine mineral exploration, development, and production activities on human, marine, and coastal environments



- **Oil and Gas**
 - 5 year Program
- **Renewable Energy**
 - Site identification through stakeholder input and state task forces
- **Marine Minerals**
 - Negotiated agreement with state and local entities

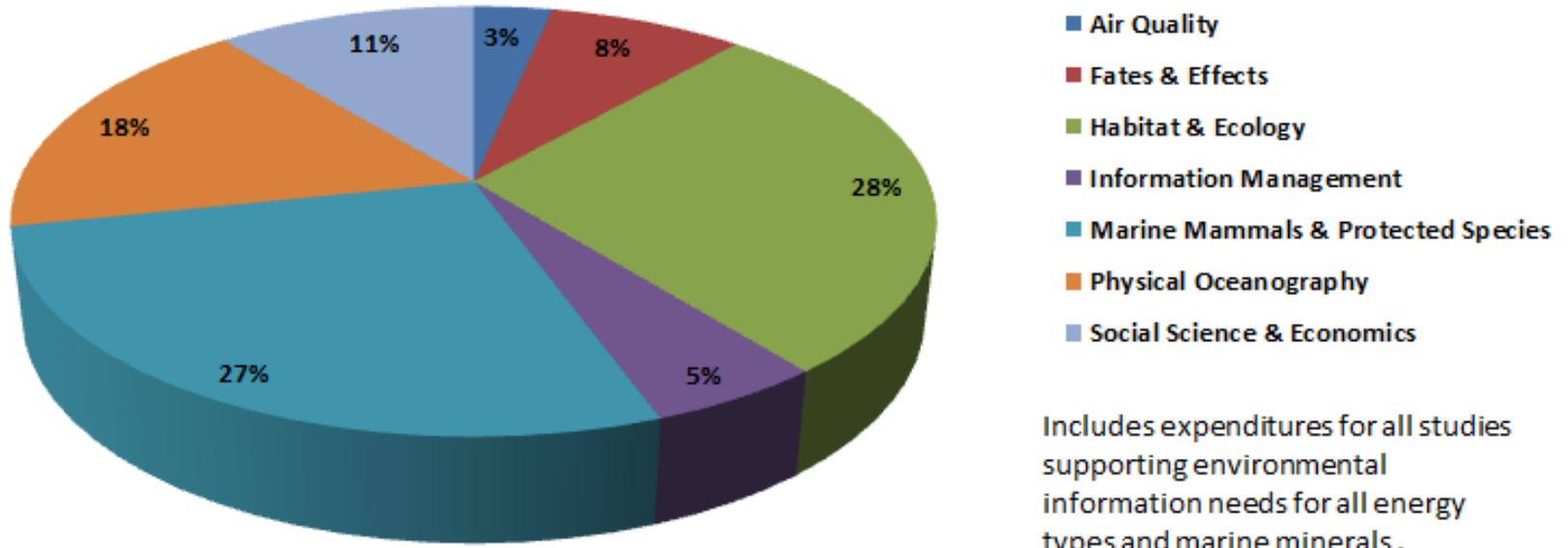


Types of Studies

- Baseline
- Cause and Effect
- Monitoring



Environmental Studies Program Funds by Discipline FY 2008-2014 Cumulative





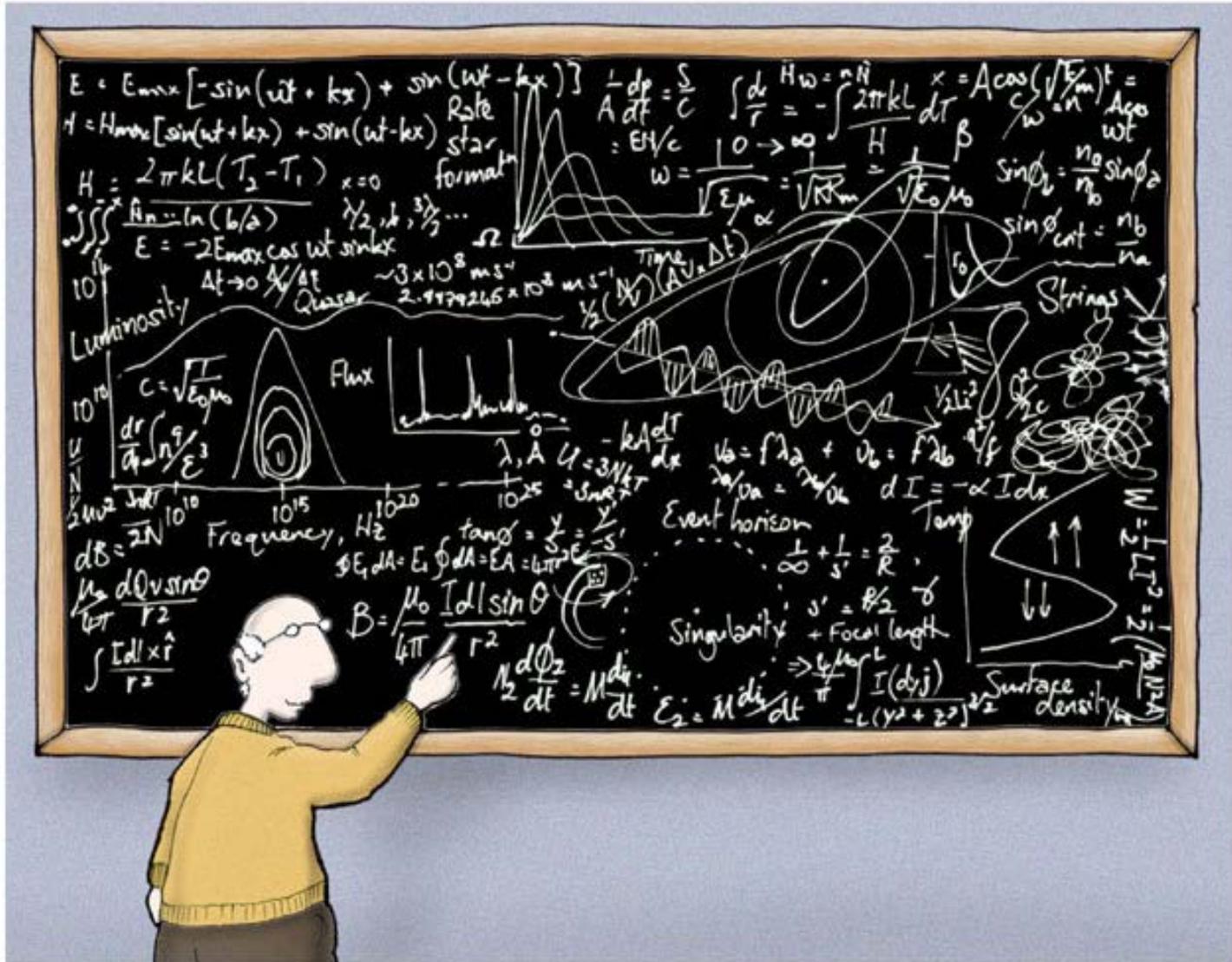
Bureau of Ocean Energy Management
Environmental Studies Program

Studies Development Plan
FY 2014-2016



**Study Development
Plan (SDP) is our
Mechanism to allow
ideas to flow**

Science...to what end?



Astrophysics made simple

What is appropriate for ESP to fund?

- Always ask this question
- Not always black and white
- It is important for us to be mindful of this and think it through as a program...



Bush's famous paper:

- Separates research into *basic* and *applied*
- The domains have enshrined U.S. science and technology policy over the past 7 decades
- This dichotomy does not reflect reality
- In reality, both innovation and discovery happen simultaneously

ESP operates in reality...

Combines :-

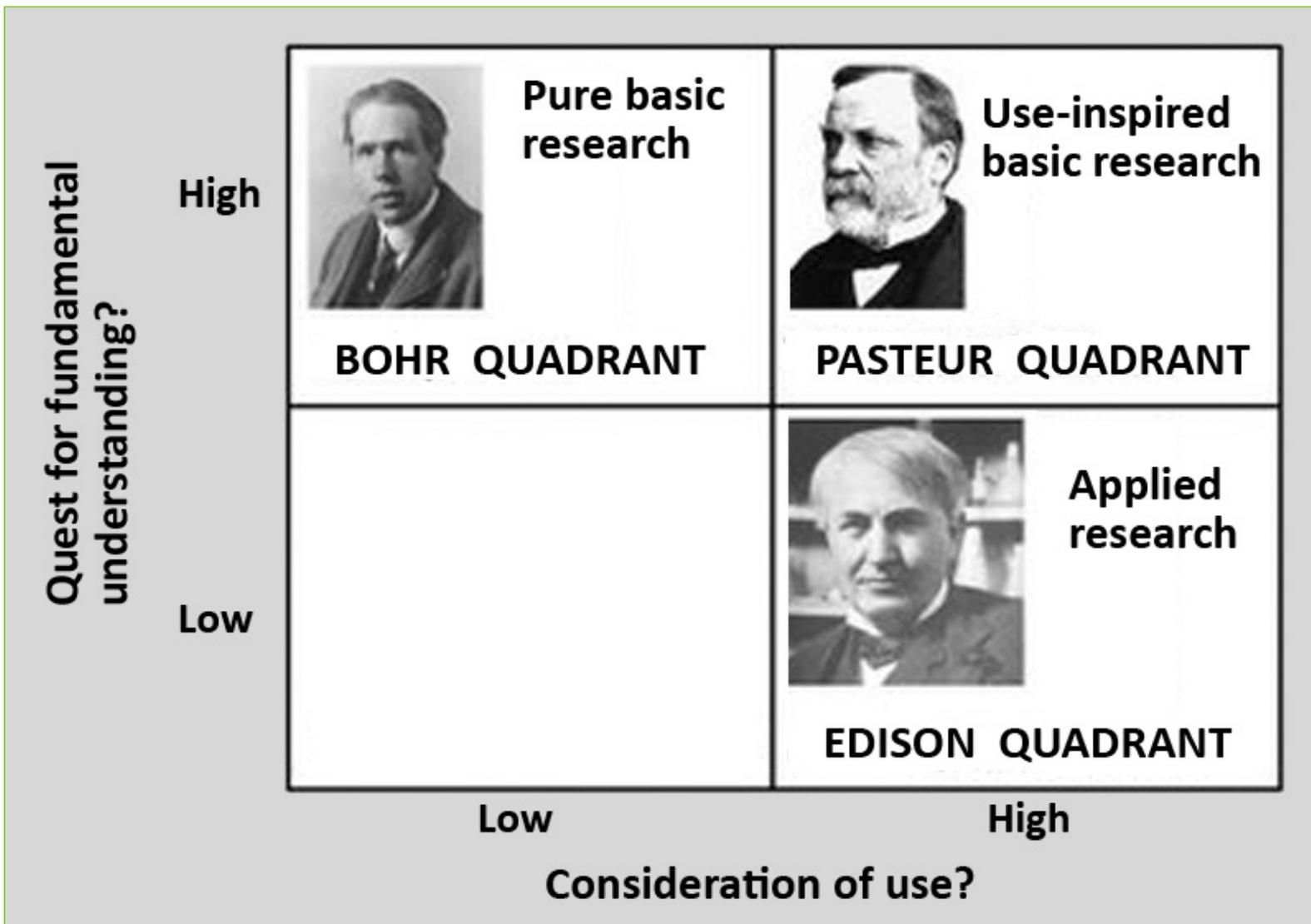
Consideration of Use

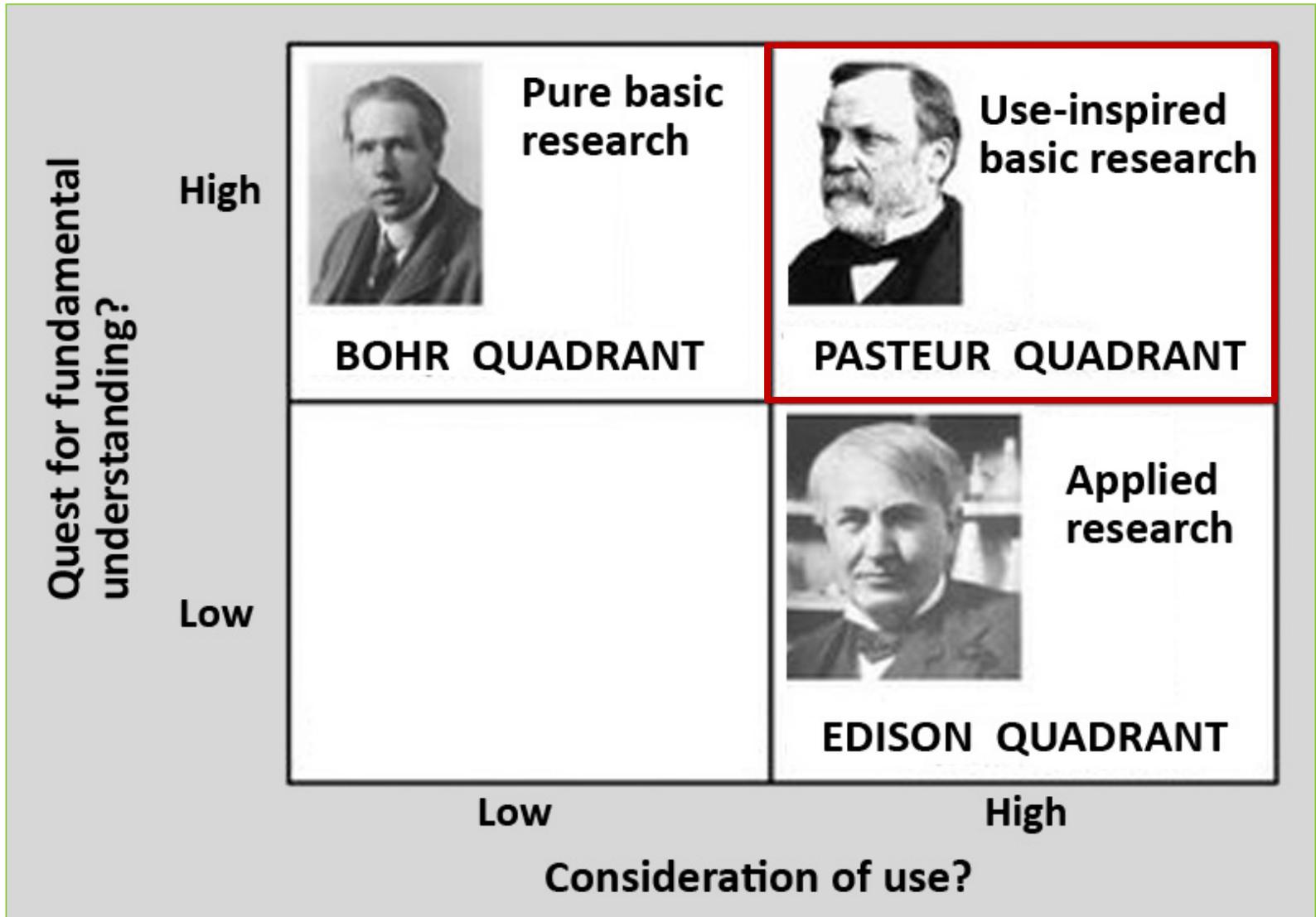
and

Quest for Fundamental Understanding

There is not pure science and applied science but only science and the application of science (Louis Pasteur 1863)







“In order to enhance the broader applicability and **transferability of this research, linkages** within and between universities; research centers; state, local, and tribal governments; community organizations; federal agencies and national labs; and private organizations are encouraged.

Engaging partners and stakeholders in the early phases of problem identification and definitioncan lead to novel paths of scientific inquiry and facilitate application of new scientific insights.”



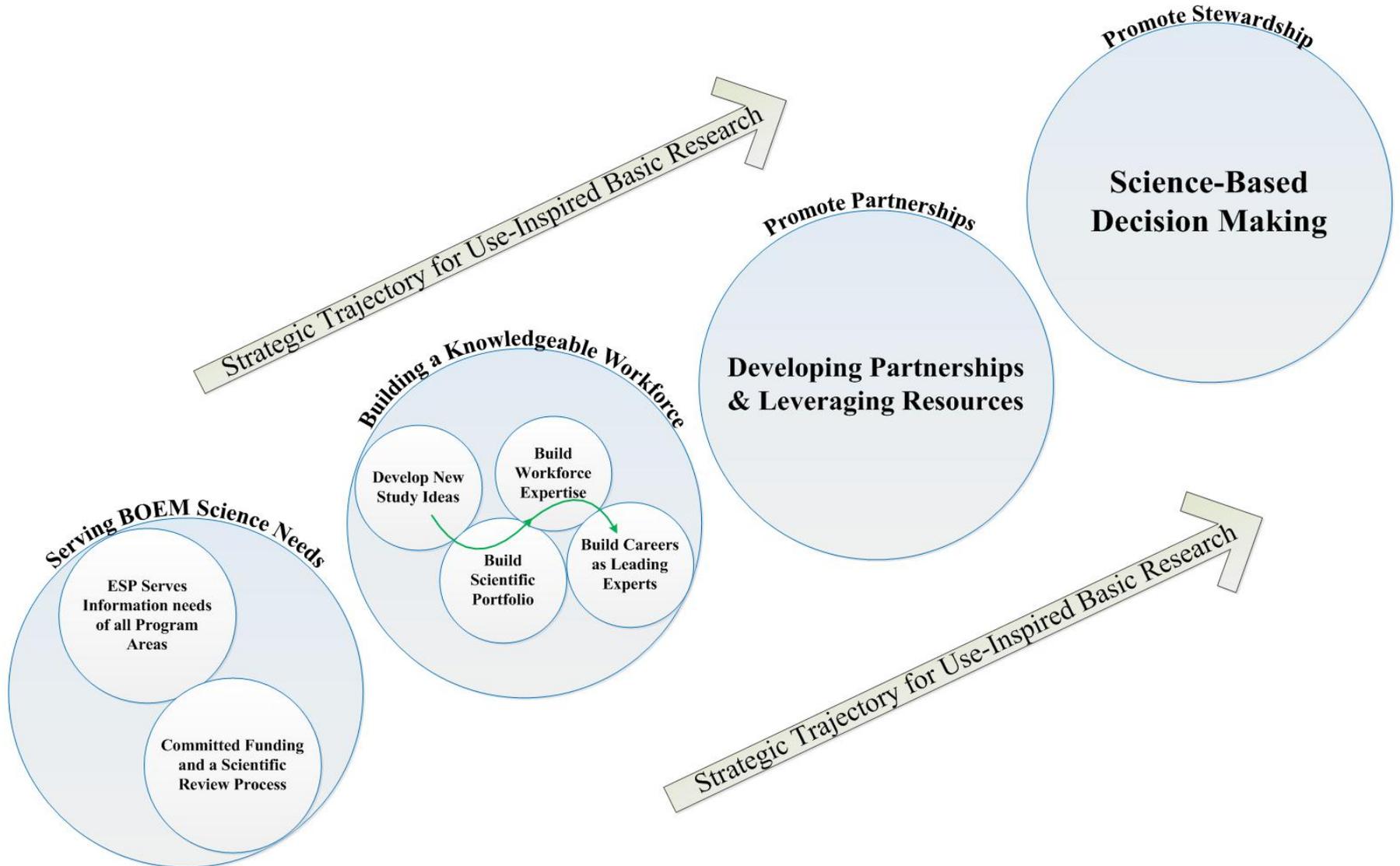
➤ Early Engagement:

- Partners (both public and private)
- Stakeholders

➤ Some of our greatest knowledge arose from these linkages:

- Discoveries of deep-water communities in the Gulf in partnership with federal and private sectors
- Studying bowhead whale migration and subsistence hunting based on Inupiat traditional knowledge
- Trimming of wind energy areas by studying ocean use by avian species in partnership with FWS
- Etc.





- Promote Stewardship through scientific **discovery** and **application**
- Keep asking the tough “**use-inspired**” questions
- Consider future aspects of science with an emphasis on social well-being and **societal benefits**
- This broader time-scale should involve more attention placed on appropriate *Long –Term Environmental Monitoring for the future and make better use of data sets collected over the past 40 years*



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Rodney.Cluck@boem.gov

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