

# IEc



## **Evaluating Connections: BOEM's Environmental Studies and Assessments**

**DRAFT**

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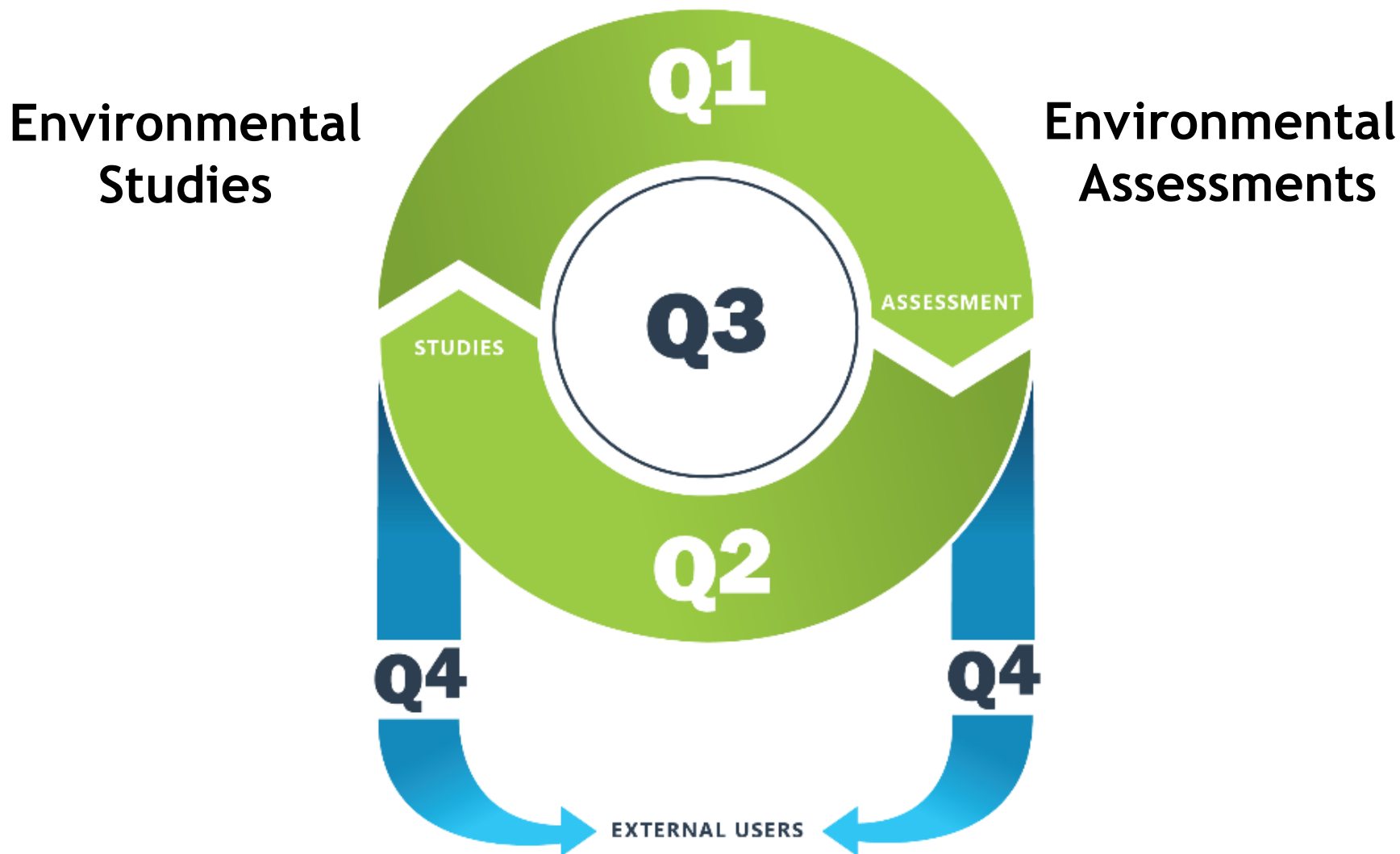
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# Purpose: Evaluate the Feedback Loop at BOEM



# Evaluation Questions

- Q1 How well do BOEM environmental studies inform BOEM's environmental assessments?
- Q2 How well do BOEM's environmental assessments inform new BOEM studies?
- Q3 How well are information needs and study findings communicated across BOEM?

If changes to the feedback process are needed, what would they be and who would be responsible for implementing the changes?

What metrics and processes can BOEM use going forward to understand and communicate the strength of the Feedback Loop?

# Methodology - Scope

- **Environmental studies** funded, in whole or in part, by the Environmental Studies Program (ESP)
- **Environmental assessments** developed by BOEM as primary author (not limited to NEPA)
- Looks back over the past 20 years
- Covers Headquarters and all BOEM offices/regions

Process is designed to be broadly applicable, while accounting for region-specific information.

# Methodology - Analytical Approaches



Interview Coding and Qualitative Analysis



Survey Analysis



Citation Analysis



Network Analysis



Topic Trend Analysis



Information Needs Tracing

## **Q1. How well do BOEM environmental studies inform BOEM environmental assessments?**

1. How are the study results used internally?
  - a. Do study results inform mitigation measures, NEPA reviews, consultations, models, follow-on studies, etc.?
2. How are products other than the final study report (e.g., journal articles) used in assessments?

# Findings Q1

For those that work on assessments, a majority of respondents **somewhat agreed** or **strongly agreed** that **ESP-funded studies are useful to their BOEM assessments**.

Strongly disagree   Somewhat disagree   Neither agree nor disagree   Somewhat agree   Strongly agree

ESP-funded studies are useful to my assessments work

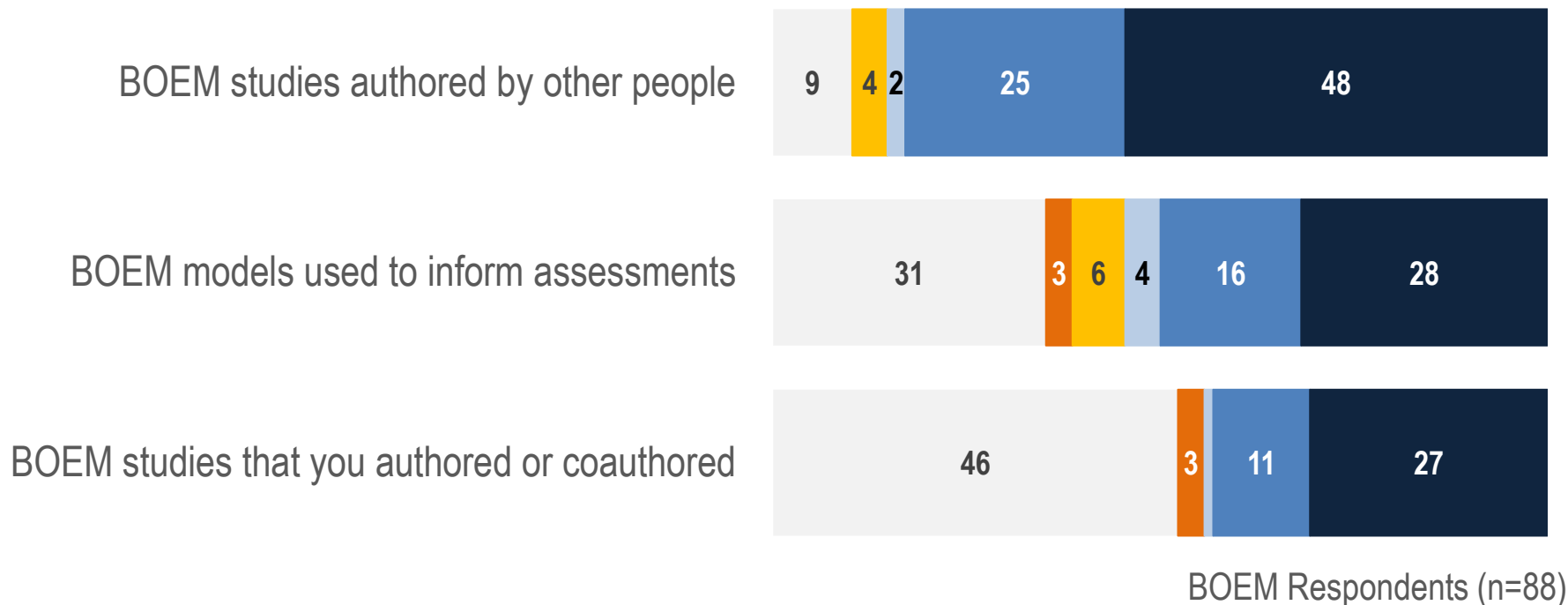


BOEM Respondents (n=88)

# Findings Q1

For those that work on assessments, majority of respondents identified **BOEM studies** (authored by other people) as **somewhat important** or **very important** to developing environmental assessments (83%).

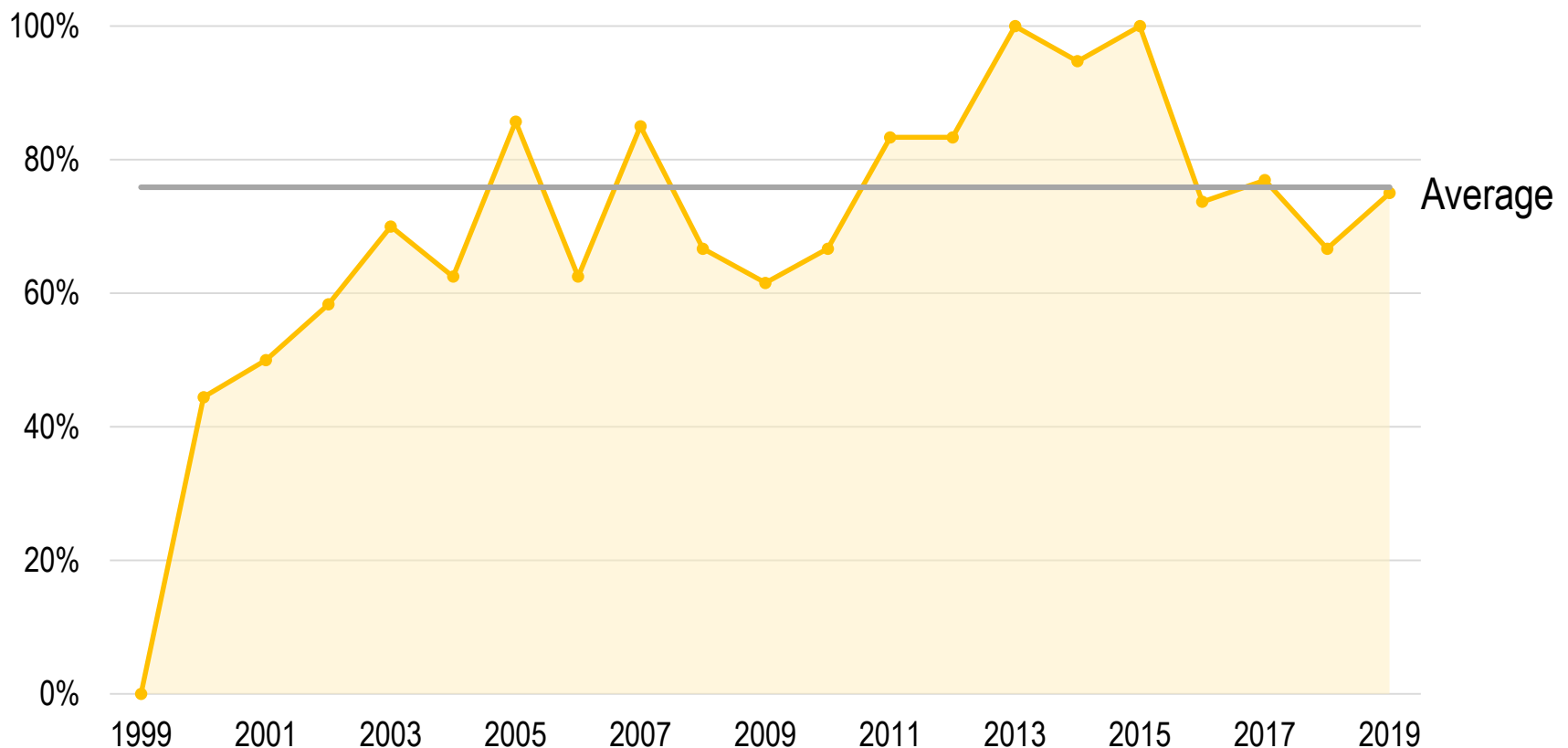
■ Did not use ■ Not at all important ■ Somewhat Unimportant ■ Neither Important nor Unimportant ■ Somewhat Important ■ Very Important





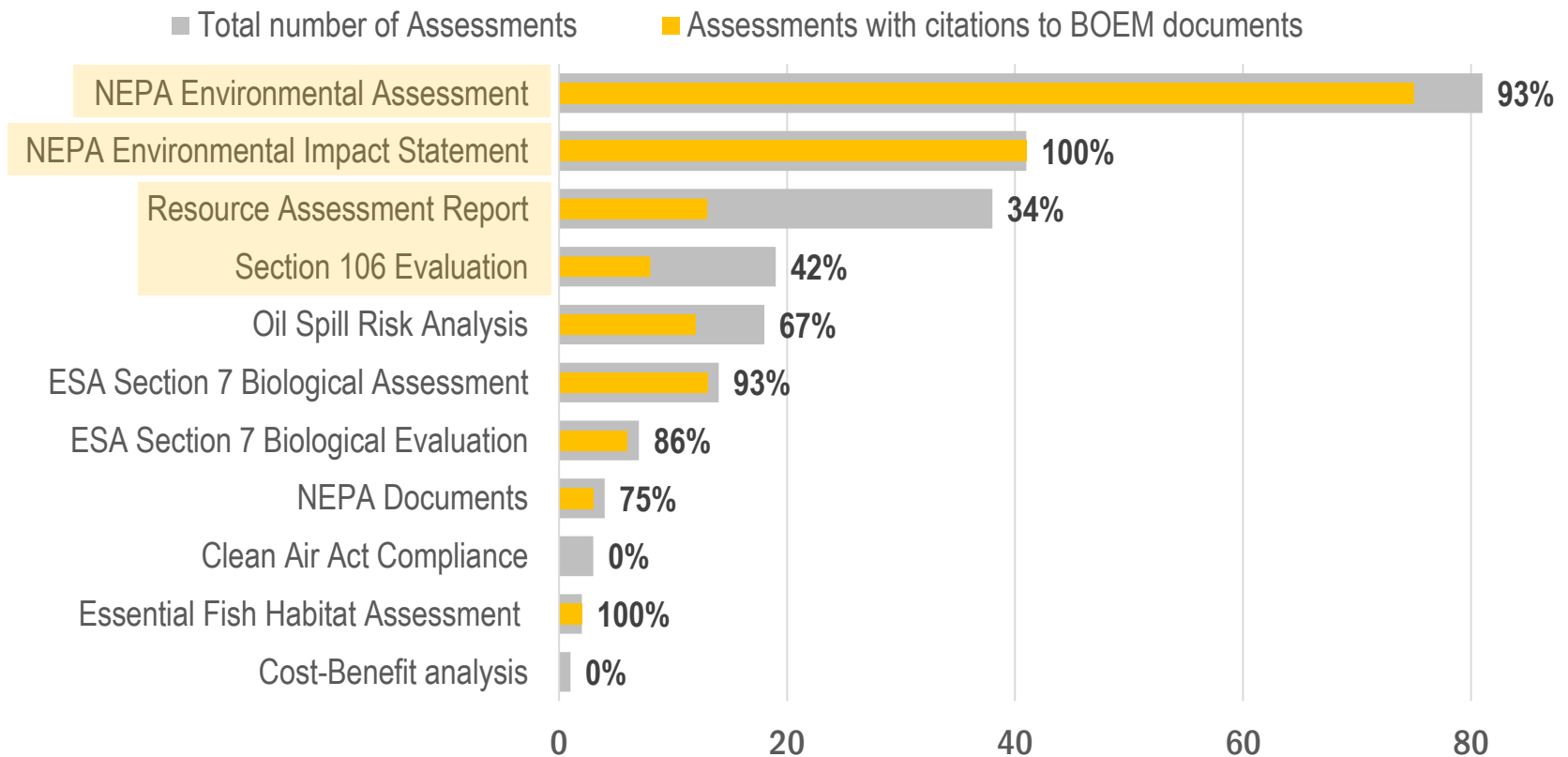
# Findings Q1

The **percent of assessments** that cited at least one BOEM report or publication varied year to year. Older assessments cited fewer reports or publications.



# Findings Q1

The percentage of assessments that **cited at least one BOEM study** varied by the type of BOEM assessment.



# Findings Q1

## Top three BOEM studies by total citations in BOEM assessments, by office/region (DRAFT)

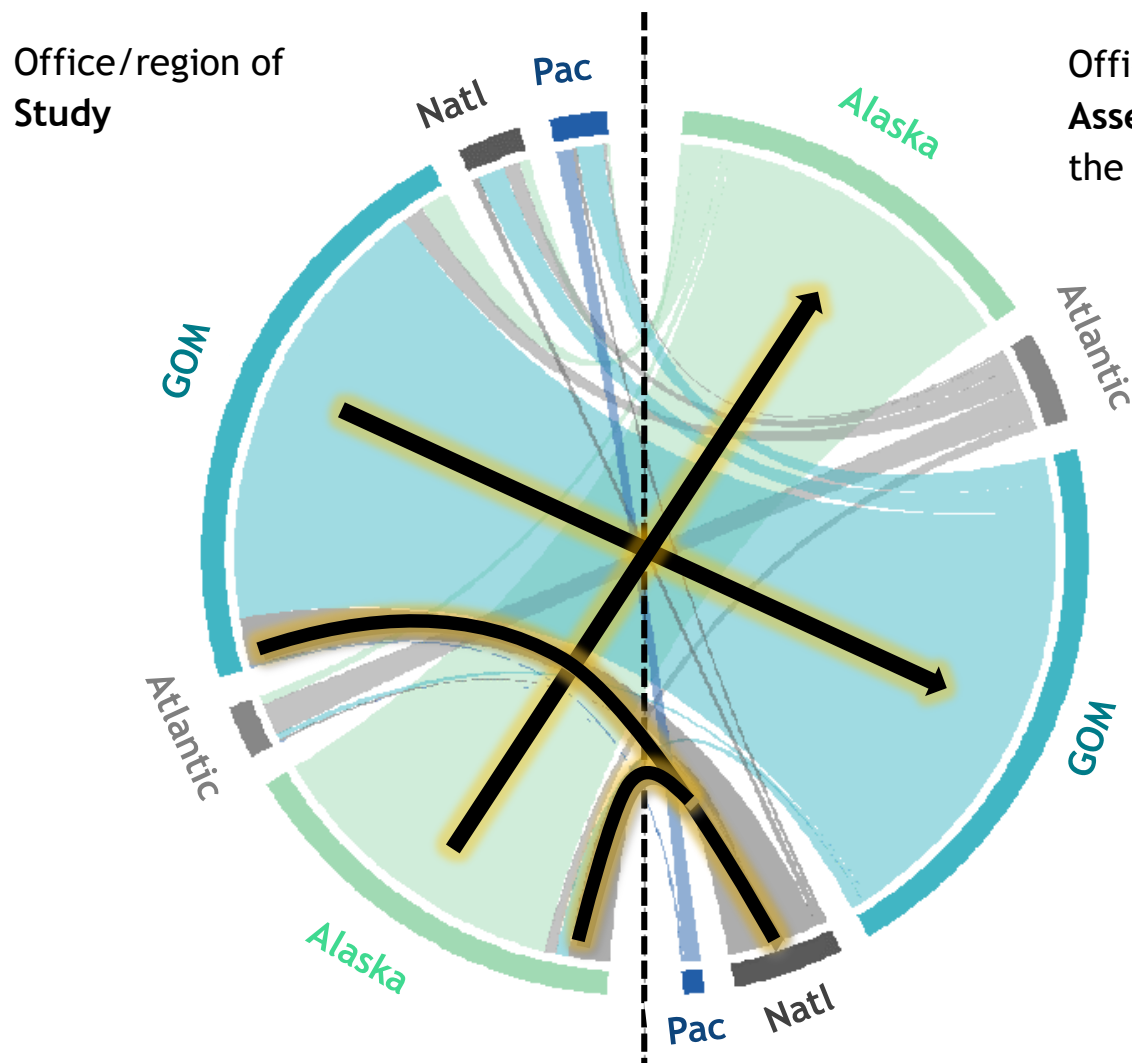
Region/Office	Study Title	Number of Times Cited in BOEM Assessments
Alaska	Monitoring Beaufort Sea Waterfowl and Marine Birds	36
	Importance of the Alaskan Beaufort Sea to King Eiders ( <i>Somateria spectabilis</i> )	25
	Satellite Tracking of Eastern Chukchi Sea Beluga Whales in the Beaufort Sea and Arctic Ocean	24
Atlantic	Publication of Results from Physical Oceanographic Field Program Offshore North Carolina (NSL AT-91-11)	27
	Potential for Interactions between Endangered and Candidate Bird Species and Wind Facility Operations on the Atlantic Outer Continental Shelf	19
	Inventory and Analysis of Archaeological Site Occurrence on the Atlantic Outer Continental Shelf	18
Gulf of Mexico	Coastal and Marine Ecosystem Program: Distribution and Abundance of Marine Mammals in the Gulf of Mexico (GulfCet II)	61
	Northeastern Gulf of Mexico Coastal and Marine Ecosystems Program: Ecosystem Monitoring, Mississippi/Alabama Shelf	46
	Seasonal and Spatial Variation in the Biomass and Size Frequency Distribution of Fish Associated with Oil and Gas Platforms in the Northern Gulf of Mexico	32
National	Identify Information Needs and Data Gaps on the Effects to Fish, Fisheries, and Invertebrates in the U.S. Atlantic and Arctic from Sound-Generating Activities by the Energy Industry	20
	Extension of the Coastal Ocean Model Calculations	14
	Effects of Pile Driving Sounds on Non-Auditory Tissues of Fish	12
Pacific	Continuation of Fish Assemblages Associated with Platforms Concentrating in Areas where Data Are Limited	21
	Bayesian Analysis for Spatial Siting (BASS) Project	18
	The Ecological Role of Natural Reefs and Oil and Gas Production Platforms on Rocky Reef Fishes in Southern California	14

# Findings Q1

## Top three BOEM assessments by total BOEM study citations, by office/region (DRAFT)

Region/Office	Assessment Title	Total Number of BOEM Study Citations
Alaska	Liberty Development Project Development and Production Plan in the Beaufort Sea, Alaska	102
	Chukchi Sea Planning Area Oil and Gas Lease Sale 193	74
	Beaufort Sea and Chukchi Sea Planning Areas Oil and Gas Lease Sales 209, 212, 217, 221	59
Atlantic	Vineyard Wind Offshore Energy Project DEIS	24
	Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New York	20
	Proposed Geophysical and Geological Activities in the Atlantic OCS to Identify Sand Resources and Borrow Areas North Atlantic, Mid-Atlantic, and South Atlantic Straits of Florida Planning	19
Gulf of Mexico	Gulf of Mexico Outer Continental Shelf (OCS) Oil and Gas Lease Sales: 2012-2017 Western Planning Area Lease Sales 229 233 238 246 and 248: Central Planning Area Lease Sales 227 231	92
	Gulf of Mexico Oil and Gas Lease Sales: 2017-2022 Gulf of Mexico Lease Sales 249, 250, 251, 252, 253, 254, 256, 257, 259, and 261	87
	Gulf of Mexico OCS Oil and Gas Lease Sale: 2012 Central Planning Area Lease Sale 216/222 Final Supplemental Environmental Impact Statement	72
National	Programmatic EIS - Outer Continental Shelf Oil and Gas Leasing Program -2012-2017 in Six Planning Area Western Central and Eastern Gulf of Mexico Cook Inlet the Beaufort Sea and the Outer Continental Shelf Oil & Gas Leasing Program: 2007-2012 Final Environmental Impact Statement	99
	Outer Continental Shelf Oil & Gas Leasing Program: 2007-2012 Final Environmental Impact Statement	79
	OCS Oil and Gas Leasing Program: 2017-2022	75
Pacific	Environmental Setting of the Southern; California OCS Planning Area	27
	Revisions to the Platform Hidalgo Development and Production Plan to Include Development of the Western Half of the Northwest Quarter of Lease OCS-P 0450	11
	Programmatic Environmental Assessment of the Use of Well Stimulation Treatments on the Pacific Outer Continental Shelf (final)	7

# Findings Q1

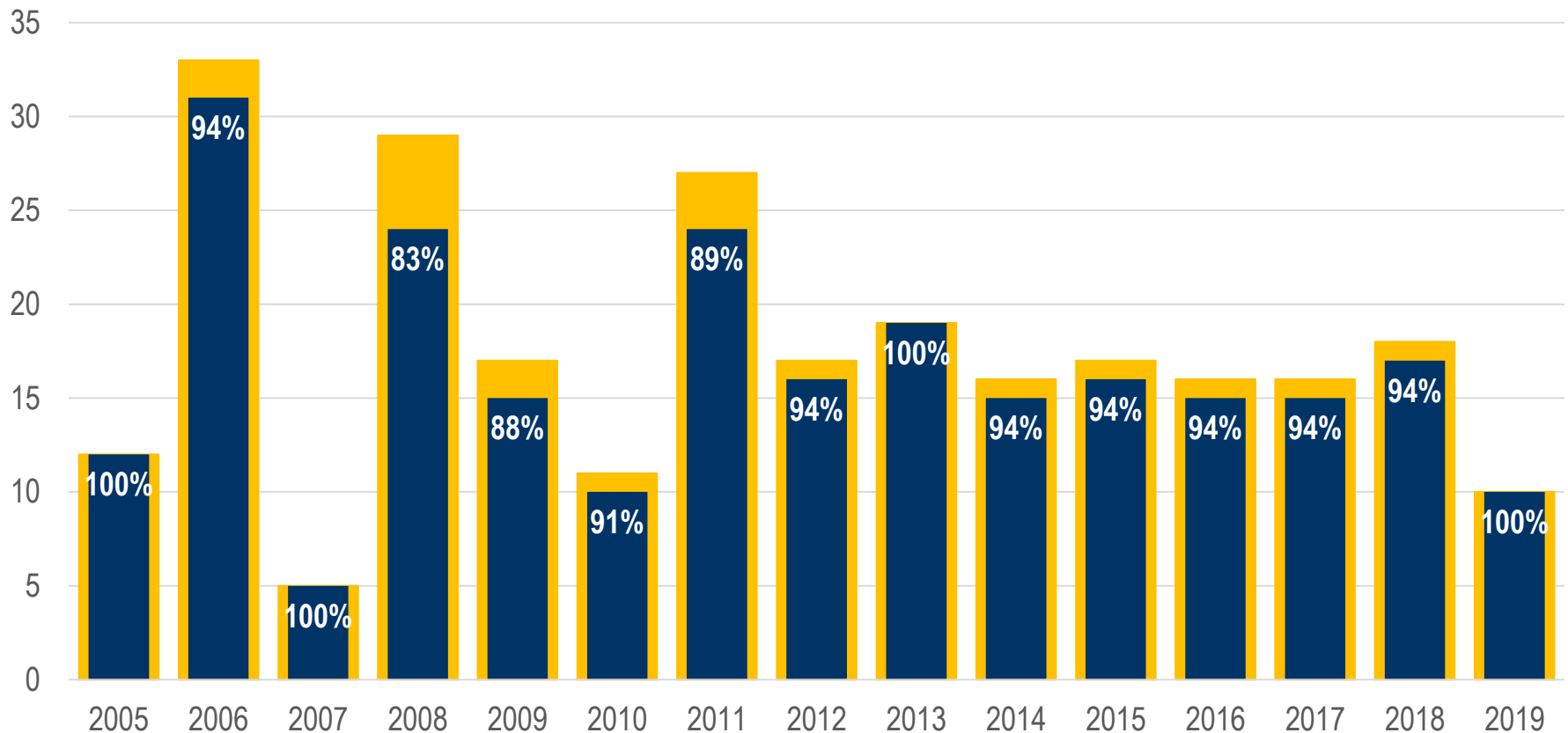


**GOM** and **Alaska** studies largely inform their own assessments

National assessments pull from studies produced by **GOM** and **Alaska**

# Findings Q1

The number of **ESP-PAT submissions** varied over time; overall, 93% of them indicated **there was a clear use for the results of the study.**



## Study results inform

- Mitigation measures
- NEPA reviews
- Consultations
- Models
- Follow-on studies
- Oil spill risk analysis
- ID of resources
- Changes to policies
- NTLs



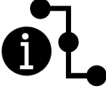

## From interviewees. . .

In the Nantucket shoal area, a study found a high density of birds in the middle of a proposed wind energy area. BOEM changed the shape of the wind energy area to avoid this area.

In the Gulf of Mexico, studies expanded knowledge of potential archaeological features. BOEM updated assumptions and considerations in assessments.

# Findings Q1

Strong evidence that BOEM environmental studies inform BOEM environmental assessments

-  85 percent of survey respondents agreed that ESP-funded studies are useful for their assessment work
-  Majority of BOEM assessments cite at least one BOEM study product
-  93 percent of ESP-PAT submissions indicated clear use
-  Interviewees emphasized importance of studies for informing environmental assessments



## **Q2. How well do assessments inform studies?**

1. Are information needs identified through the assessment process being developed into studies?

- a. If yes, how do the results of the studies address the information needs identified in the study profiles?
- b. If not, why?

## Information Needs Tracing

- Key word search of assessments identified that documents do articulate information needs.
  - No uniform way of synthesizing this information in assessments
  - Description of information need sometimes general
- Topics for which assessments most frequently identify "information needs" generally received higher amounts of funding in studies over time.
  - Relationship varies by topic
  - Indicates ESP funding targets priority information needs

## Interview Findings

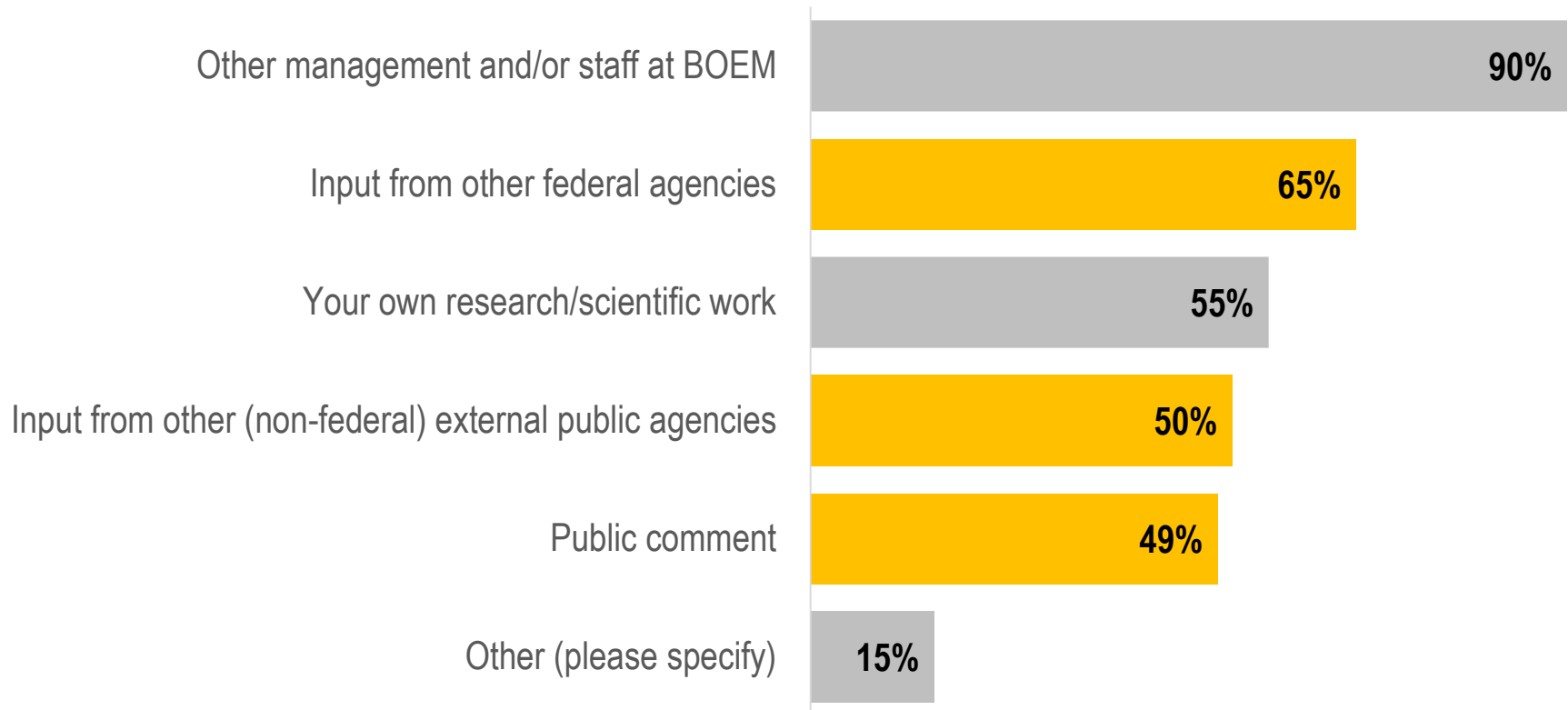
- Assessments are a **primary source** of information needs for BOEM studies
- Studies are developed to fill **anticipated information needs** for future assessments
- Some **persistent information needs** not fully addressed by studies (e.g., environmental justice, social sciences)

## Interview Findings

- Studies generally address the information needs they seek to answer
  - Well written study profiles with good ‘information need’ section help make this happen
- Sometimes studies may not address information needs
  - Timing misalignment between studies and assessment process
  - Lack of a clearly articulated study scope; resulting in more questions than answers.

# Findings **Q2**

Study ideas emerged from a variety of sources but were dominated by other management and/or staff at BOEM.



BOEM Respondents (n=115)

## Survey

- Identified information needs do not always lead to studies
  - Limited funding
  - Lack of management buy-in or misunderstanding of study by STR Team
  - Misalignment with BOEM's current priorities

Generally, information needs identified in assessments inform studies

- Lack of comprehensive + systematic recording of information needs
- Other sources for study ideas outside direct assessment process
- Several reasons studies are not funded even if developed into study profile

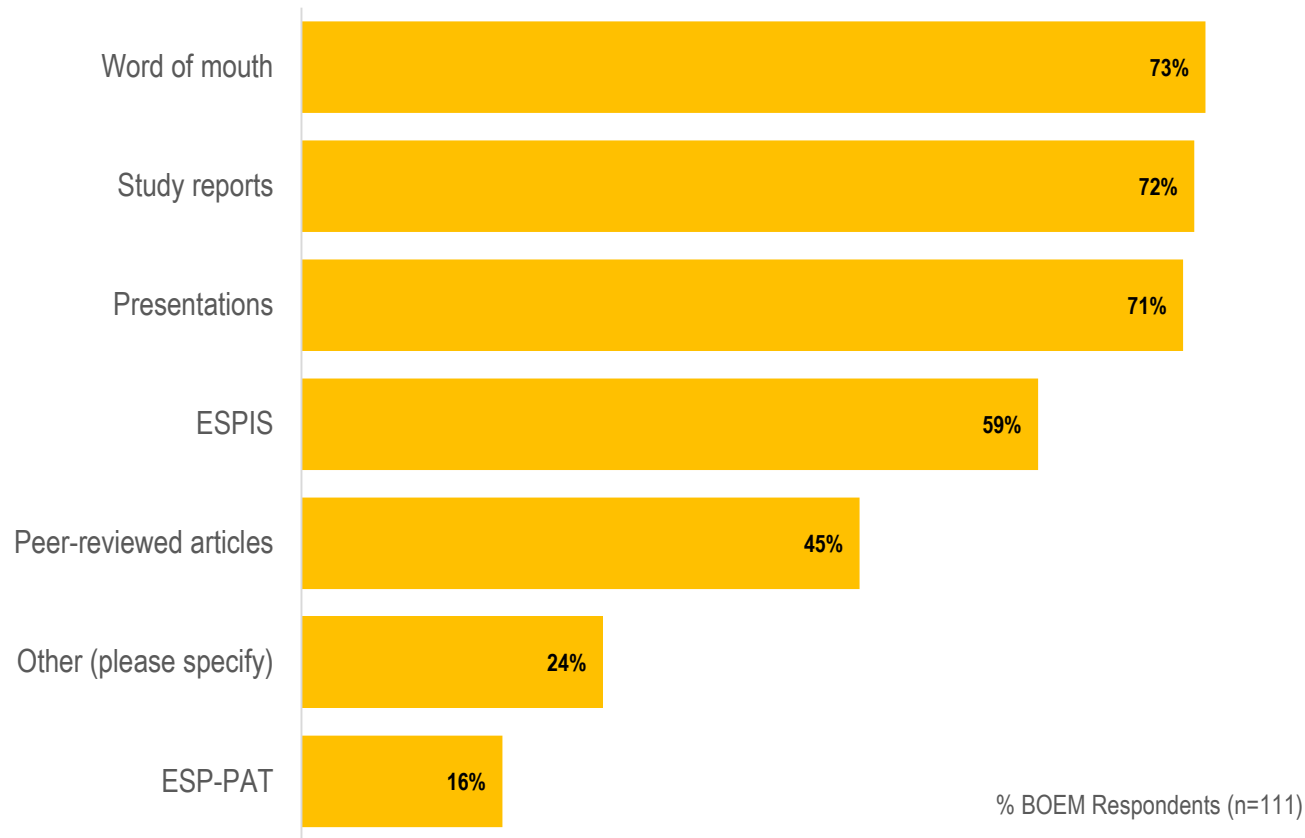
## Q3. How does the Feedback Loop function?

1. How are the results of studies communicated internally?
  - a. Presented?
  - b. ESPIS?
  - c. ESP-PAT?
2. How are assessment information needs identified?
  - a. By whom?
3. Once identified, how are the information needs communicated internally?
  - a. By whom?



# Findings Q3

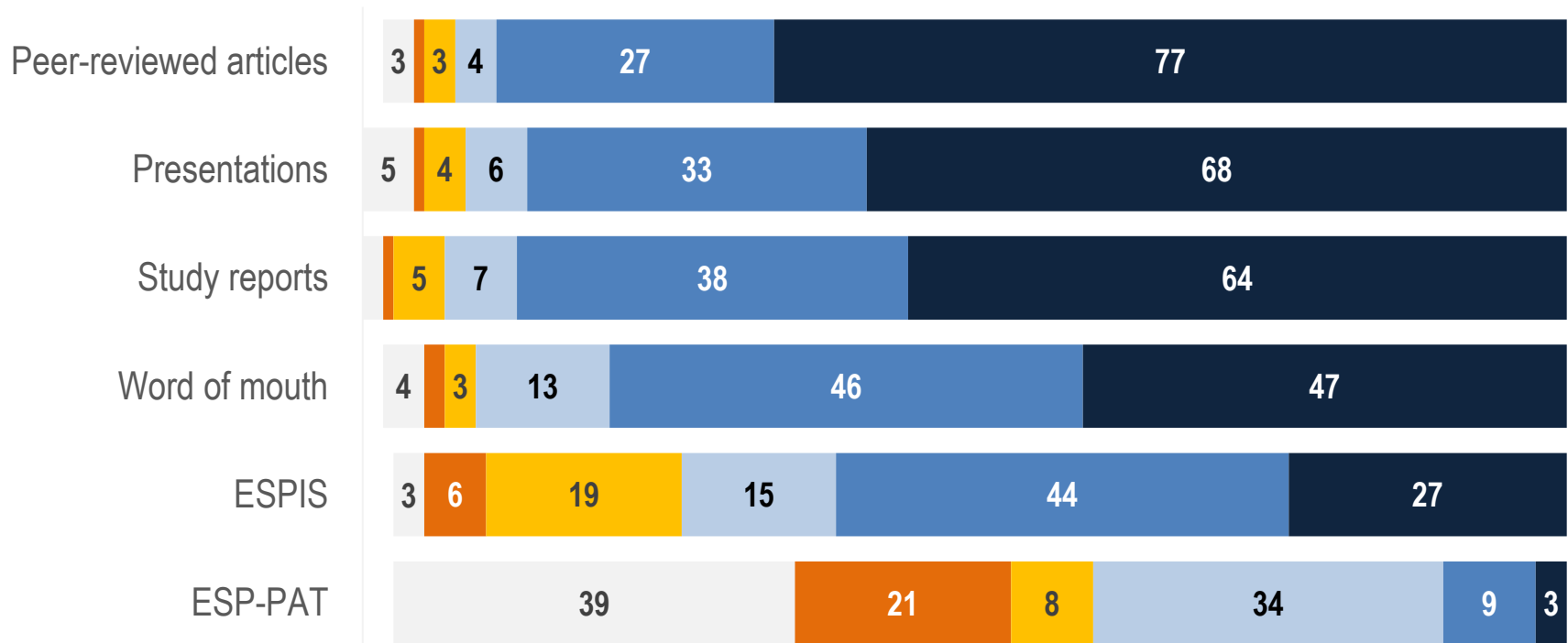
**Word of mouth, study reports, and presentations** were the top three methods for disseminating information about study findings within BOEM.



# Findings Q3

Survey respondents considered peer-reviewed articles with study findings **somewhat useful** or **very useful** as a means of disseminating information about studies in the past year. ESP-PAT was considered the least useful.

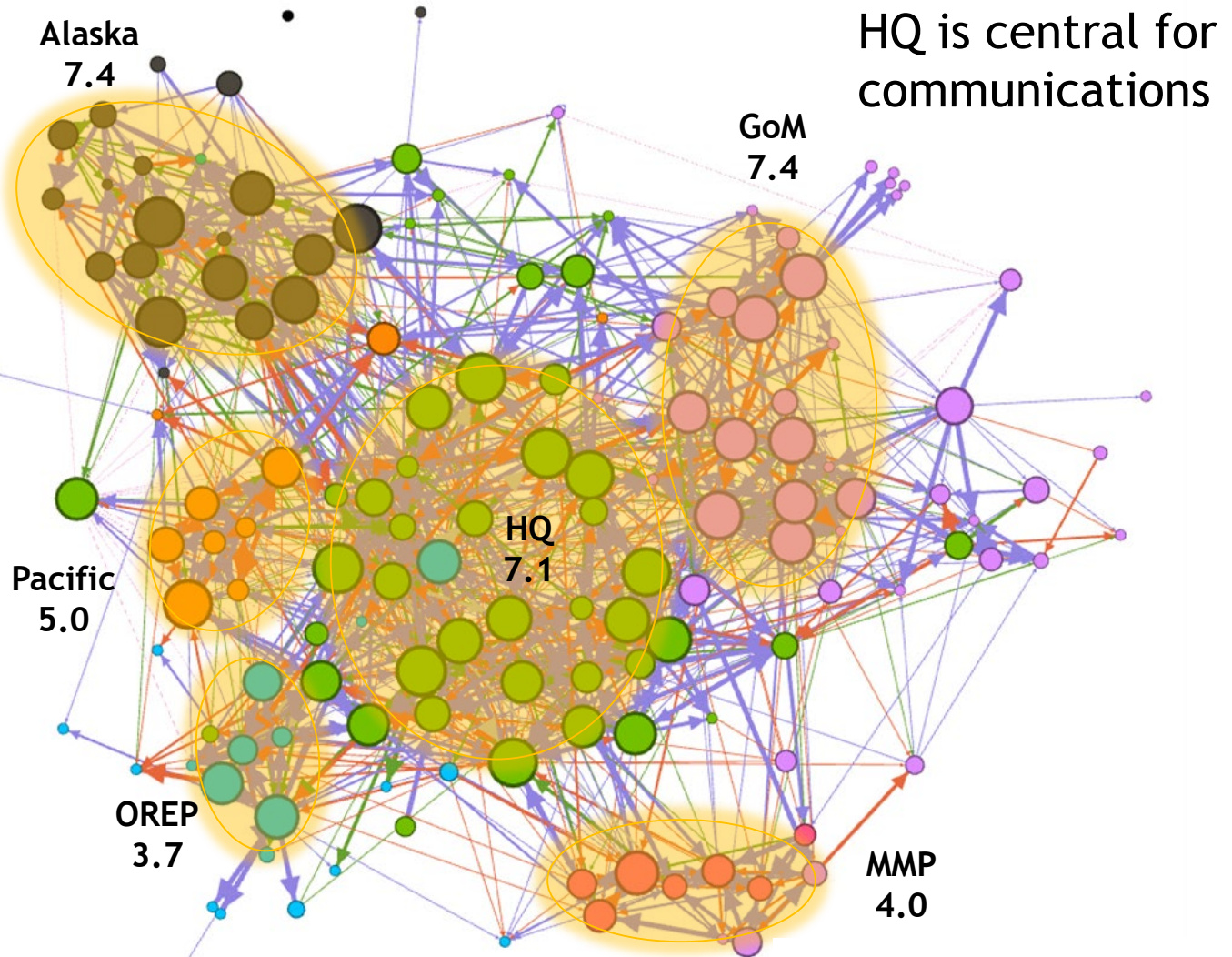
NR   Not applicable   Very useless   Somewhat useless   Neither useful nor useless   Somewhat useful   Very useful



BOEM respondents (n=117)

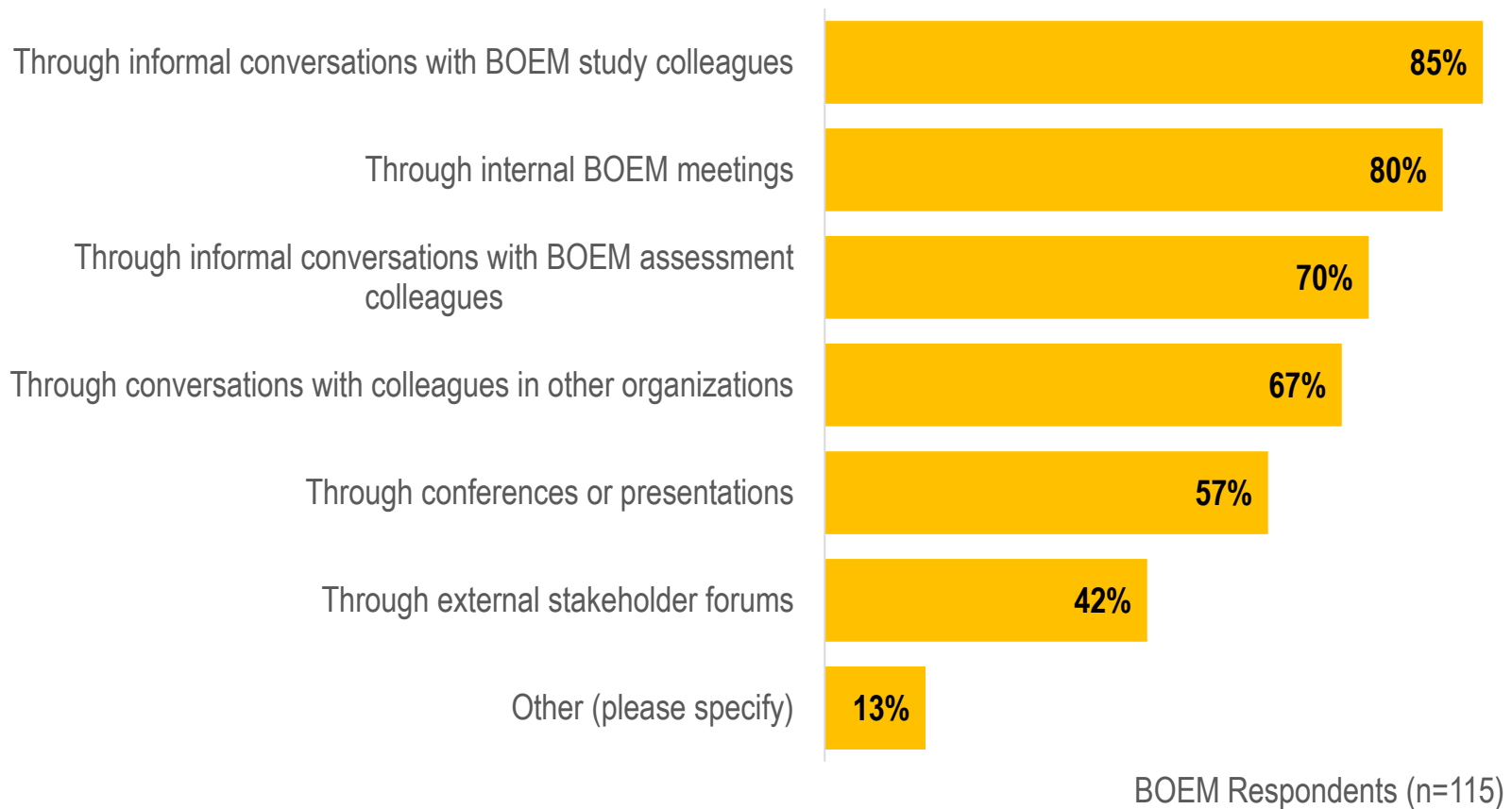
# Findings Q3

BOEM consists of a well-connected network, defined mainly by close intraoffice connections, and frequent interactions with staff at headquarters.



# Findings Q3


Informal conversations with BOEM study colleagues was the most common way to share information about study ideas.

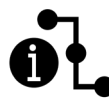


# Findings Q3

 Assessment information needs identified through

- Assessment staff
- Incomplete or Unavailable section of assessments
- Collaboration with other agency's assessments
- Public + Stakeholders

 Survey identified need for simplified and structured way to receive information needs from assessments staff to develop into profiles

 Inconsistent documentation of information needs within assessment documents

Feedback loop functions through formal communications but also relies heavily on informal word of mouth.

## Study Results

- Formal communications - study reports, presentations, ESPIS
- Respondents prefer presentations for receiving information

## Both

- Informal 'word of mouth' essential for communicating
- Frequent interactions between HQ and staff at other offices/regions

## Assessment Information Needs

- Inconsistent documentation in assessments

# Preliminary Recommendations

1. Strengthen the process for tracking **information needs** across BOEM.
2. Consider updating **the process for prioritizing studies** to increase objectivity and transparency.
3. Expand the functionality and usability of **ESPIIS**.
4. Strengthen BOEM's ability to **track citations** of environmental studies, both in peer-reviewed publications and in BOEM assessments.
5. Create a **central location** for storing and accessing all BOEM assessments.
6. Commit to **regular communication** of study results through **formal channels**.
7. Monitor effects of COVID and **working remotely** on communication channels and the feedback loop.



# IEc

## Questions?

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