

Nearshore Data Needs Assessment

Adrian Laufer

SEA & SHORE SOLUTIONS

is a women-owned coastal and ocean consulting firm based out of Oregon. We are excited to fill the space between science and application, particularly through policy, management, and outreach.



ACKNOWLEDGMENTS



OCMP

Oregon Coastal
Management Program



**OREGON OCEAN
SCIENCE TRUST**



- 01. BACKGROUND**
Why was this research needed?
- 02. APPROACH**
How did we gather information?
- 03. RESULTS**
What did we learn?
- 04. RECOMMENDATIONS**
How can OOST apply what we learned?

TABLE OF CONTENTS

BACKGROUND

OOST is considering the development of a new open access data repository, the Oregon Open Ocean Database (OOOD), to house and disseminate coastal and ocean research.



BACKGROUND

First step: needs assessment to identify the most scientifically sound and effective approach for enhancing data access, storage, dissemination, and archiving for Oregon nearshore ocean data.





Nearshore Data Needs Assessment Survey
gather expert knowledge, preferences, and resources from possible data contributors and users



Data Hub Metareview
research existing coastal/ocean data hubs to identify successful components

APPROACH

NEEDS ASSESSMENT SURVEY

Distributed to 132 nearshore researchers, managers, and community members with an interest in Oregon's nearshore data.

Survey questions were tailored to data creators and data users.



DATA HUB METAREVIEW

Reviewed 31 online data portals across the globe.

Assessed technology used, geographic range, type of data included, data access, good qualities, and areas for improvement.



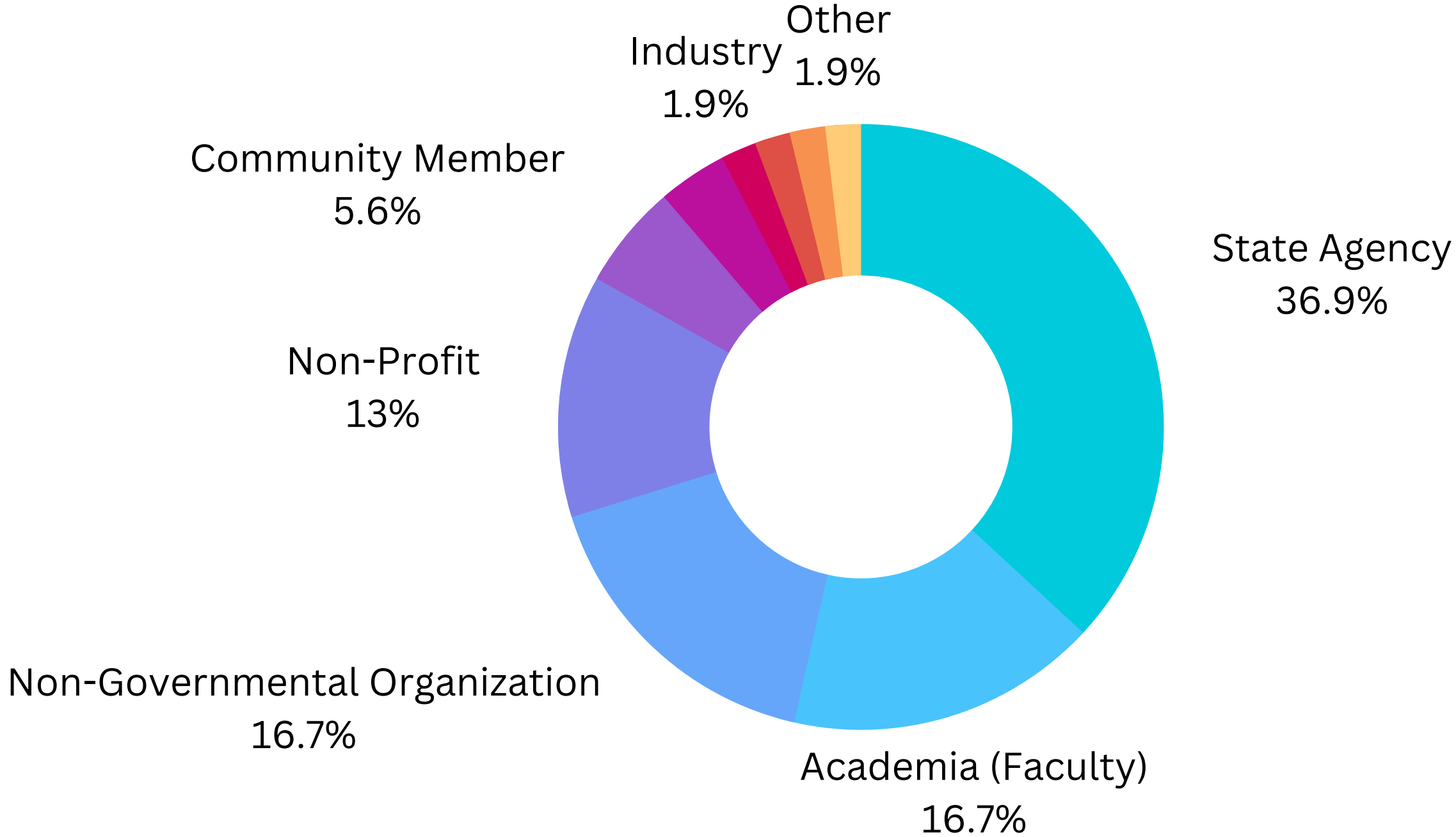
RESULTS

Now we get to the fun stuff.

DATA NEEDS ASSESSMENT

Results

WHO WE SURVEYED

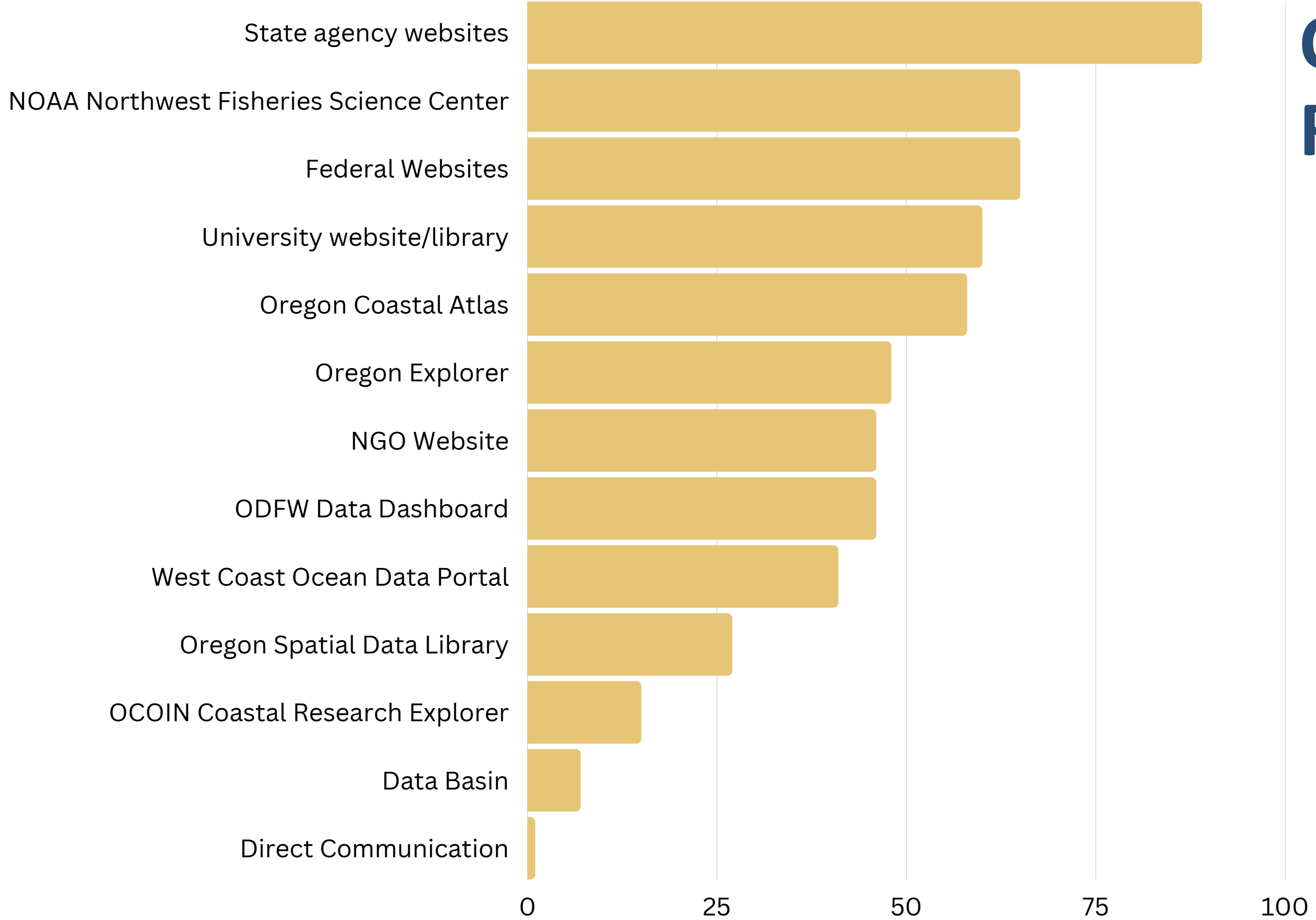


54
Total responses

75%
Both data creators
and users

66%
Use non-spatial
data

CURRENT DATA RESOURCES



EASE OF ACCESS

easy to find, navigate, and interact with, not necessarily because they have the best data

TRUST

perception of authenticity and quality control associated with the data

DIRECT REFERRALS

recommendations from colleagues and staff

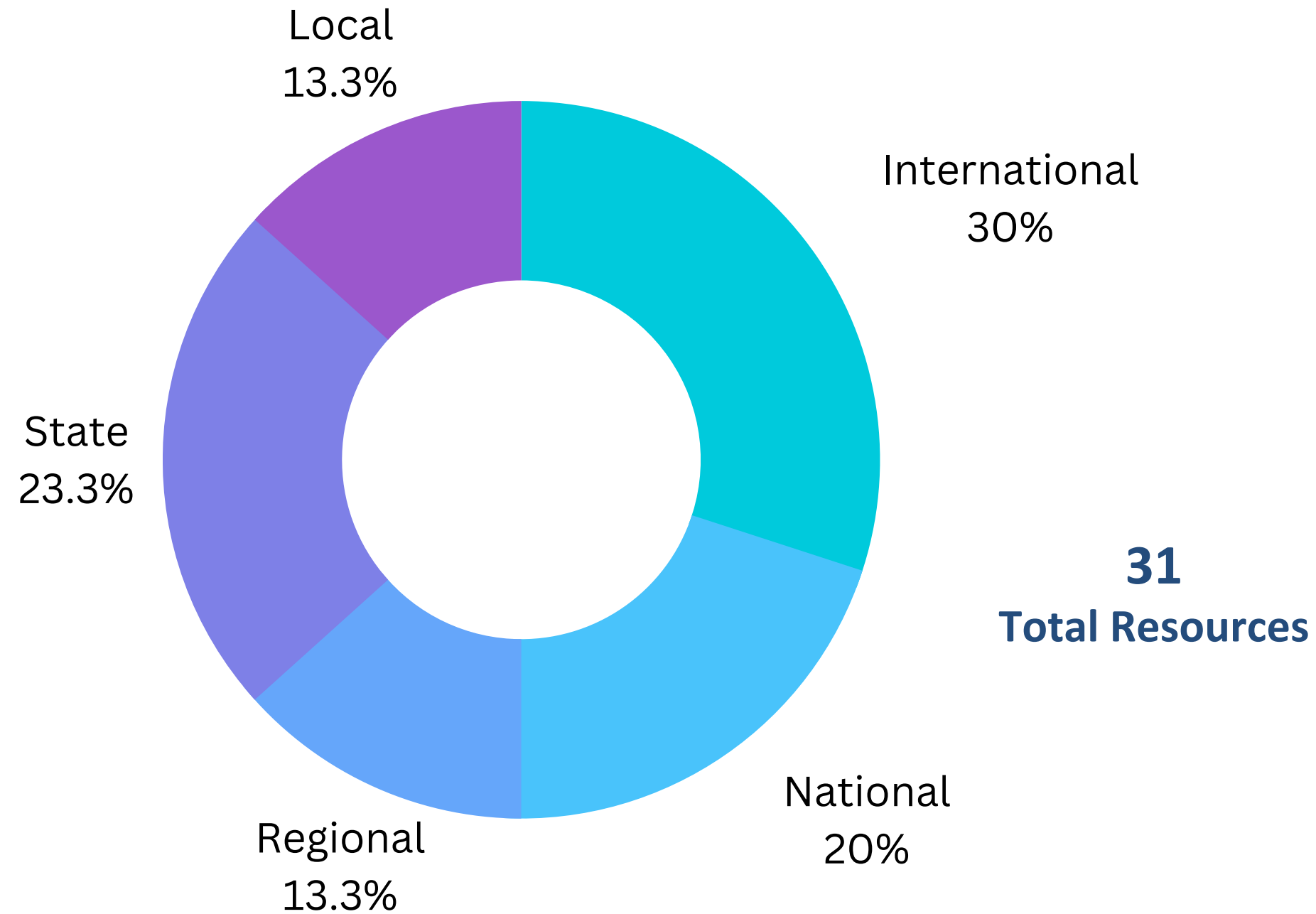
- 01. CROWDED DATA SHARING**
50% of data users reported feeling overwhelmed by the number of data tools available.
- 02. LONG TERM SUPPORT & FUNDING**
67% of data creators shared that a successful tool requires sustainable financial support.
- 03. DATA SOVEREIGNTY**
Tribal respondents urged the use of FAIR and CARE principles.
- 04. CONFIDENTIALITY & DATA MISUSE**
51% shared hesitancy in sharing data due to confidentiality concerns. 40% were also concerned about data misuse.
- 05. CHALLENGES WITH DATA ACCESS**
Data users struggled to navigate multiple resources, fill data gaps, and find open access data.

**OVERALL
THEMES**

DATA HUB METAREVIEW

Results

RESOURCES WE REVIEWED



10%
Datopia (CKAN)

27%
Esri Product

50%
Custom Built
solutions

HIGHLIGHTS

- Mixture of data library and interactive mapping features
- Clean, simple interface
- Connections to data stories, events, and projects
- Detailed user guide and FAQ resources
- Integration of feedback form to report data gaps and issues with the tool
- Prominent metadata and other data standards
- Support for multiple topics and data formats



RECOMMENDATIONS

How can OOST apply what we learned?

01 Leverage



Harness Existing Resources
for Optimal Data Sharing

02 Manage



Incorporate Best
Management Practices for
Data Sharing and Open Data

03 Support



Provide Technical Assistance
and Long-Term Funding

04 Design



Enhance Useability and Tool
Awareness through Intuitive
and Simple Design

01 Leverage



Data sharing in Oregon is crowded, creating confusion and increasing effort. Rather than creating something entirely new, OOST may benefit from integration and partnership with existing platforms that are already working well.

#1

Leverage existing resources to reduce duplication

#2

Integrate new features into existing platforms that already work well and have a following

#3

Consider ways to link to original sources

02 Manage



There are many resources and existing documentation that OOST can leverage to develop a suite of management guidance documentation.

#1

Adopt FAIR (Findable, Accessible, Interoperable, Reusable) Guiding Principles for open data.

#2

Adhere to CARE Principles for Indigenous Data Governance

#3

Develop management resources

FAIR PRINCIPLES

- Findable: Make data easy to discover for both humans and computers.
- Accessible: After discovery, users need clear access methods, including authentication and authorization processes. Metadata should also remain accessible.
- Interoperable: Support integration with other datasets or applications.
- Reusable: Optimizing data reuse is the final aim. To achieve this, well-described data and metadata are crucial, enabling replication and integration in various contexts. Comprehensive metadata descriptions, transparent data usage licenses, detailed data origins, and adherence to relevant community standards enhance data reusability.

CARE PRINCIPLES

- **Collective Benefit:** Support Indigenous Peoples' benefit, inclusive development, citizen engagement, and equitable outcomes
- **Authority to Control:** Recognize and empower Indigenous Peoples' authority over Indigenous data
- **Responsibility:** Those working with Indigenous data hold the responsibility to transparently demonstrate support for Indigenous self-determination, maintain respectful relationships, ensure accountability through evidence of benefits, and advance capacity building, language preservation, and cultural alignment.
- **Ethics:** Uphold Indigenous rights and wellbeing throughout the data life cycle

03 Support



Long-term funding and technical assistance emerged as critical components for a successful data sharing platform. Additionally, by offering guidance on data formatting, metadata creation, and platform navigation, OOST can effectively streamline the intricate process of data integration.

#1

Ensure secure long-term funding for the OOOD

#2

Provide technical assistance and capacity support for data integration and maintenance

04 Design



Enhancing usability is crucial for effective implementation of any data sharing platform. A robust outreach strategy is critical in ensuring the visibility of the resource. It is imperative that potential users are well-informed about the existence and utility of the platform.

#1

Prioritize user experience through navigation design and user resources.

#2

Connect data to stories and publications for context and transparency.

#3

Invest in robust outreach to increase familiarity and built trust in the platform.

THANK YOU

Questions?

adrian@sea-shoresolutions.com

www.sea-shoresolutions.com

Sea
& Shore
SOLUTIONS