SCIENCE FOR THE PEOPLE

advancing equity and a culture of inclusivity through open science

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Office of Strategic Initiatives, National Library of Medicine, NIH

CZI Open Science Meeting

June 13, 2024

Image by jannoon028 on Freepik

What is open science?

The principle and practice of making research products and processes **available to all**, while respecting diverse cultures, maintaining security and privacy, and fostering **collaborations, reproducibility, and equity**.

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Open Science Announcements from Federal Agencies

Open Science is the principle and practice of making research products and processes available to all, while respecting diverse cultures, maintaining security and privacy, and fostering collaborations, reproducibility, and equity.

Federal agencies are celebrating 2023 as a Year of Open Science, a multi-agency initiative across the federal government to spark change and inspire open science engagement through events and activities that will advance adoption of open, equitable, and secure science.

Help spotlight the value of open science by checking out this toolkit: choose and use images for social media, presentations, posters and virtual backgrounds—agency partners may even co-brand. #YearofOpenScience.

- Centers for Disease Control and Prevention
- Department of Agriculture
- Department of Commerce
- Department of Energy
- Department of State
- Department of Transportation
- Environmental Protection Agency
- National Aeronautics and Space Administration
- National Endowment for the Humanities
- National Institutes of Health
- National Institute of Standards and Technology
- National Oceanic and Atmospheric Administration
- National Science Foundation
- Smithsonian Institution
- U.S. Geological Survey
- U.S. General Services Administration
- White House Office of Science and Technology Policy

The OSTP Year of Open Science Recognition Challenge

TO SERVE COMMUNITIES

ELOKA

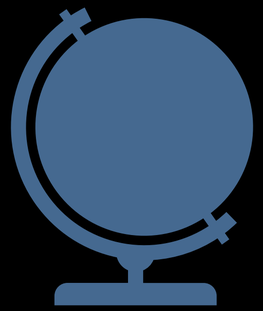
"Co-developing tools for sharing Arctic Indigenous Knowledge"

TO ADVANCE EDUCATION

FoodMASTER

"Open science advances education"

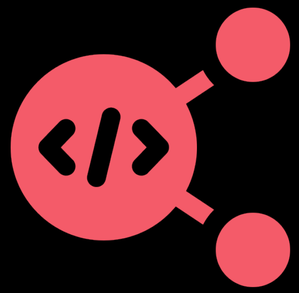
TO ADVANCE GLOBAL SOLUTIONS



PCDC

"Curing childhood cancer: Transforming human health through data"

TECHNICAL ADVANCEMENT FOR OPEN SCIENCE



Project Jupyter

"Reproducible and collaborative computational science and education"

TO ADVANCE INNOVATION

Zooniverse

"Harnessing the Power of 2.6 Million People for Open Science"

graphics from flaticon.com

researchers

health professionals

educators

librarians

policymakers

researchers

health professionals

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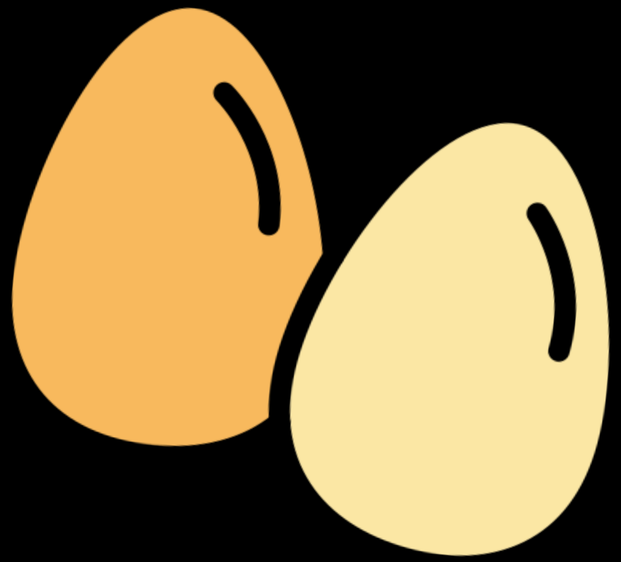
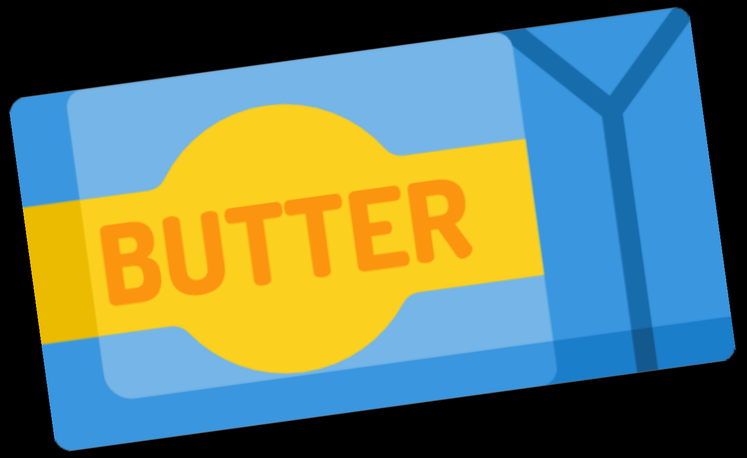
"broader audiences that don't fit neatly into a category"

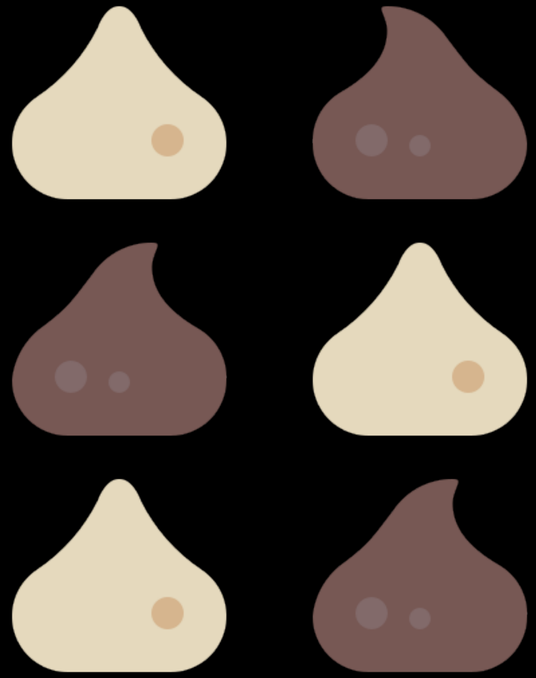
Image by pch.vector on Freepik

DEFICIT MODEL

graphics from flaticon.com







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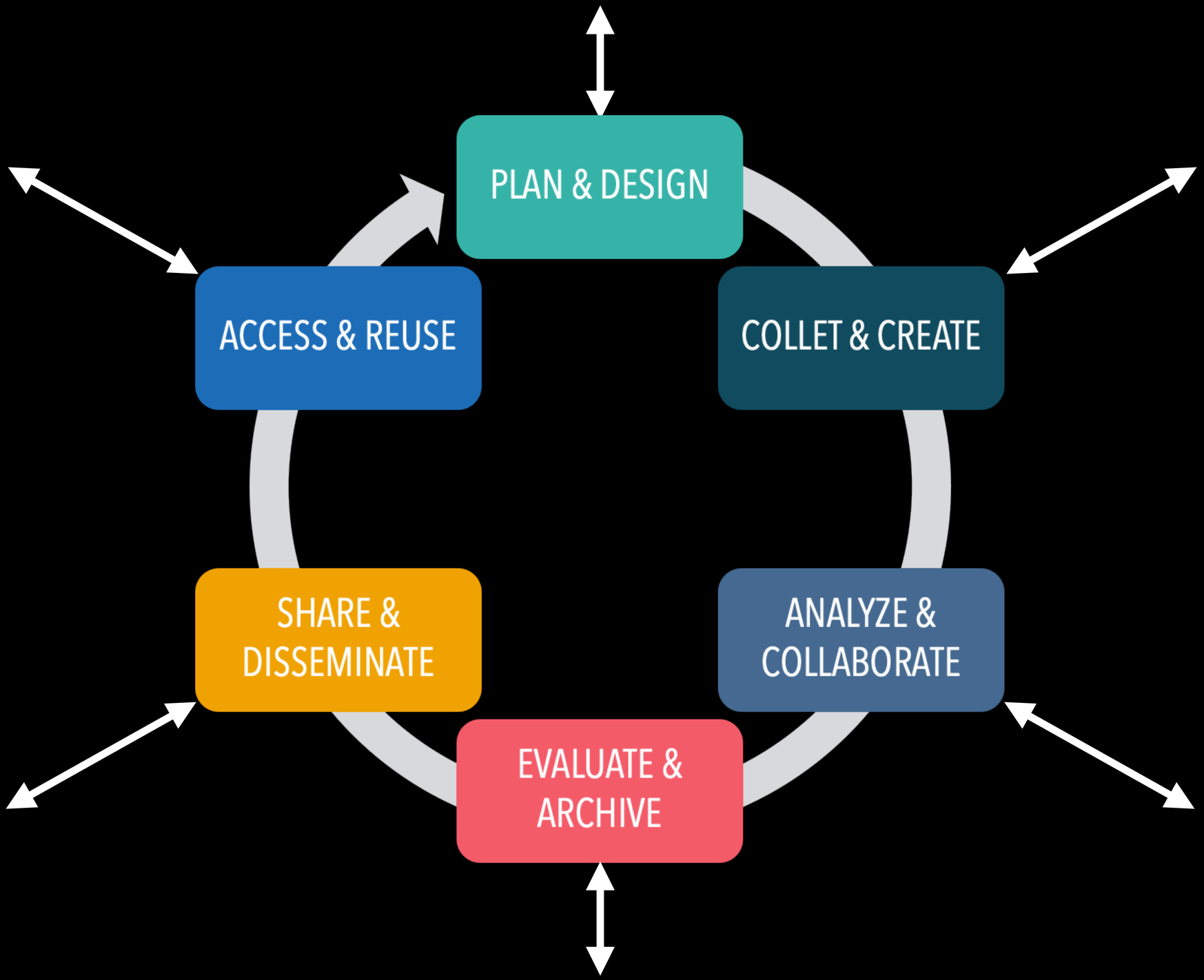
DEFICIT MODEL PARTICIPATION MODEL

graphics from flaticon.com

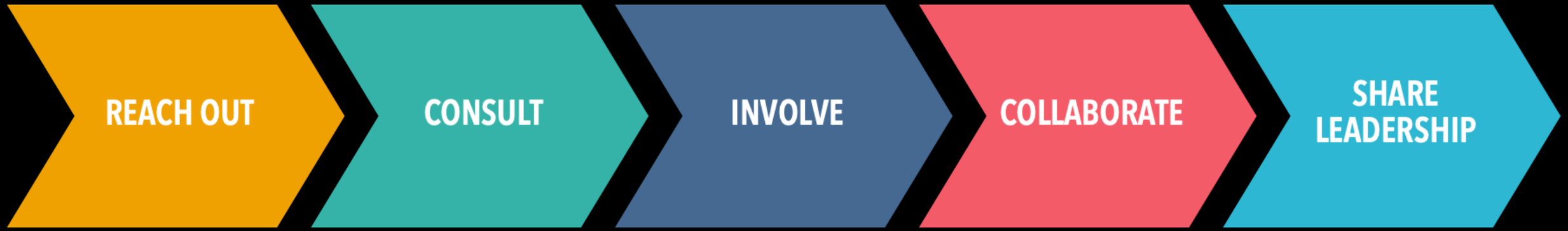

PLAN & DESIGN
COLLET & CREATE
ANALYZE & COLLABORATE
EVALUATE & ARCHIVE
SHARE & DISSEMINATE
ACCESS & REUSE

UNESCO Recommendation on Open Science (2021)

don’t worry. this slide is intentionally blank.

how do we build and sustain
PATHWAYS AND BRIDGES
between open science and communities of knowledge translation?

A Continuum of Engagement Approaches



Example: Science communication & translation

Example: Public listening sessions, crowdsourcing, citizen science

Example: Community review panels, or Patient Engagement Councils, Citizen Science, Prize Competitions, Challenges

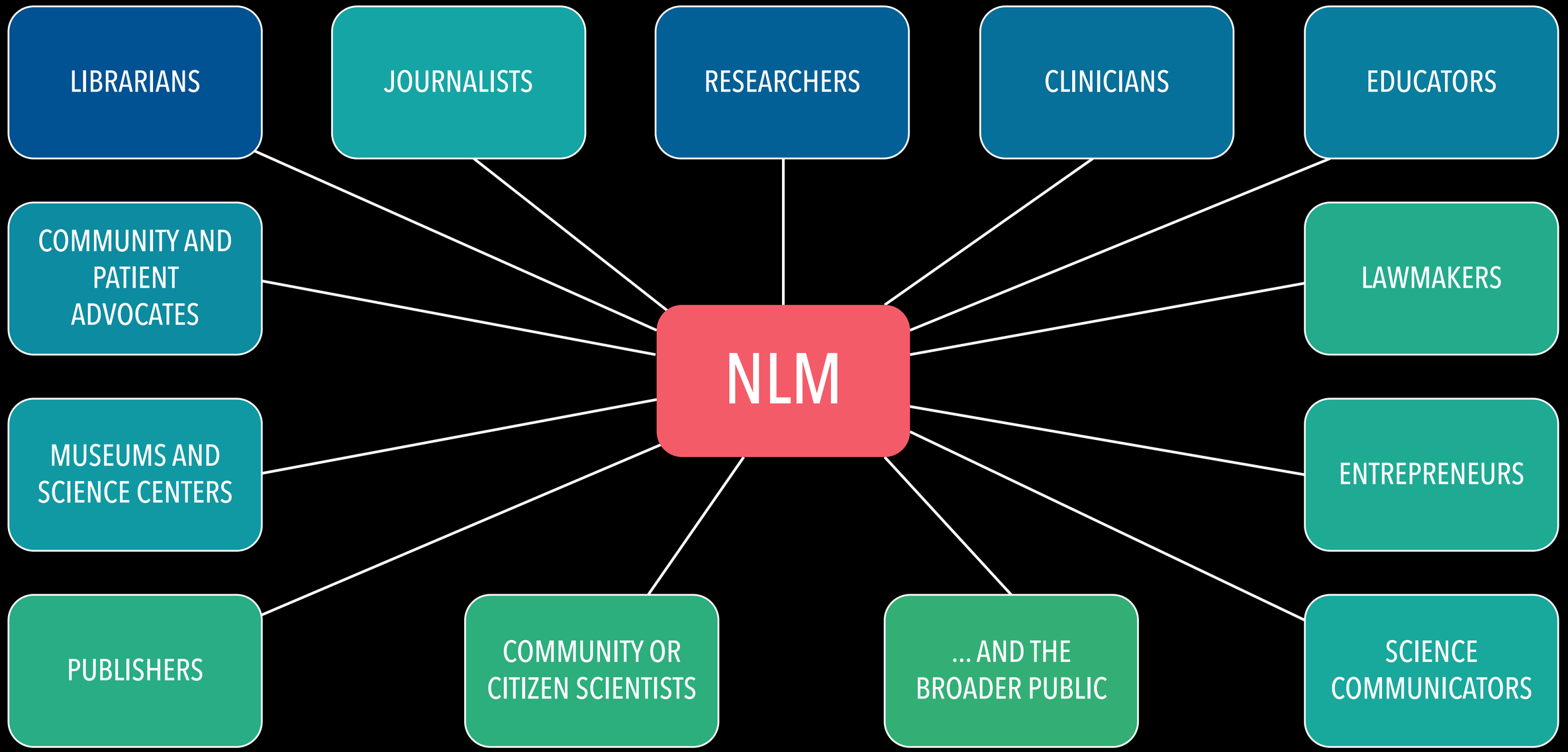
Example: Cooperative agreement funding models

Example: Funding community engagement cores that fund community-university research

Implementation of Federal Prize and Citizen Science Authority: Fiscal Years 2021-2022, OSTP (2024)

NLM IS UNIQUELY POSITION TO UNDERTAKE THIS BRIDGE BUILDING

- LIBRARIANS
- RESEARCHERS
- CLINICIANS
- EDUCATORS
- COMMUNITY AND PATIENT ADVOCATES
- MUSEUMS AND SCIENCE CENTERS
- JOURNALISTS
- SCIENCE COMMUNICATORS
- ENTREPRENEURS
- LAWMAKERS
- PUBLISHERS
- COMMUNITY OR CITIZEN SCIENTISTS
- … AND THE BROADER PUBLIC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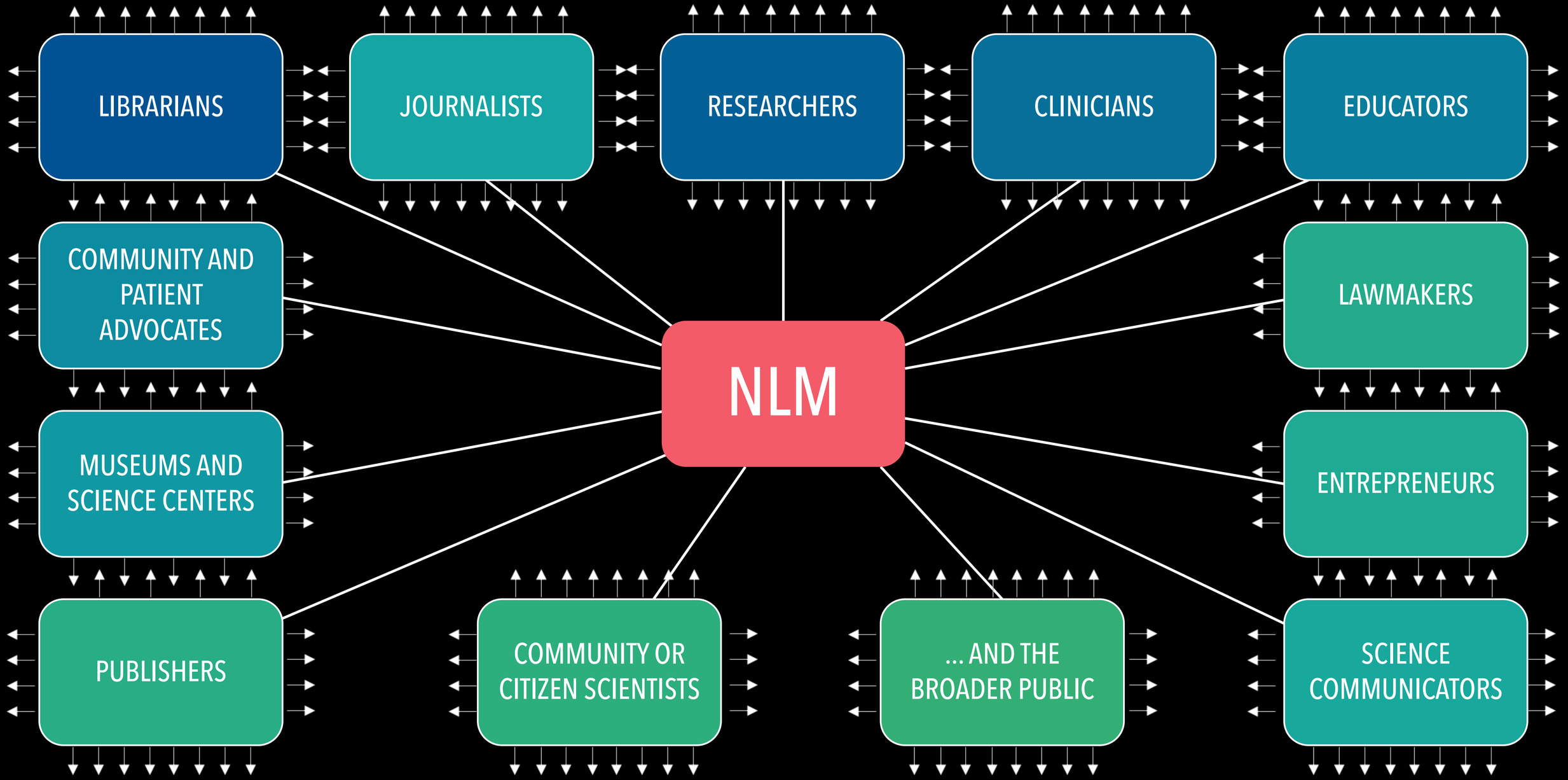
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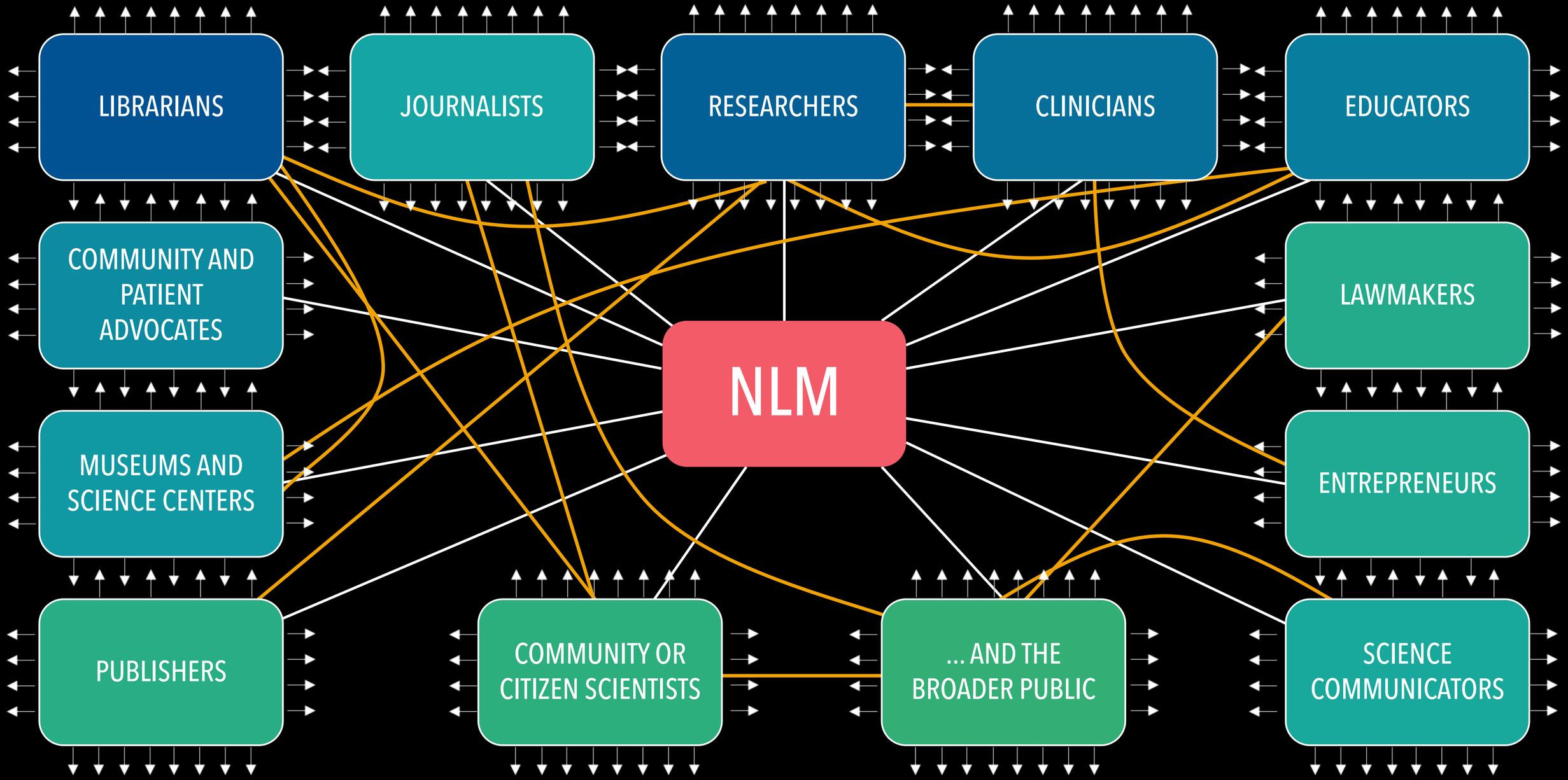
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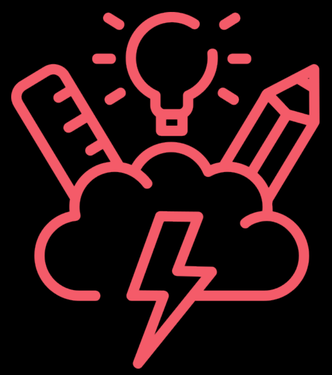
How can NLM leverage its position to **sustainably** promote **equitable** and **meaningful** access to NIH-funded research for diverse communities of end users?

NLM WORKSHOP ON ADVANCING A NETWORKED APPROACH TO EQUITABLE OPEN SCIENCE

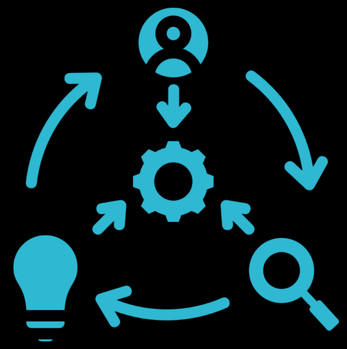
DAY 1



BRAINSTORMING

- What are the ways in which our work in OS and KT complement and/or contrast with one another?
- How can we heighten those synergies and contrasts to identify areas for bridge building and collaboration to extend reach?

DAY 2



SYNTHESIS

- What are opportunities to build out collaborations, networks, and feedback loops?
- How do we prioritize these opportunities?
- What does success look like?

graphics from flaticon.com

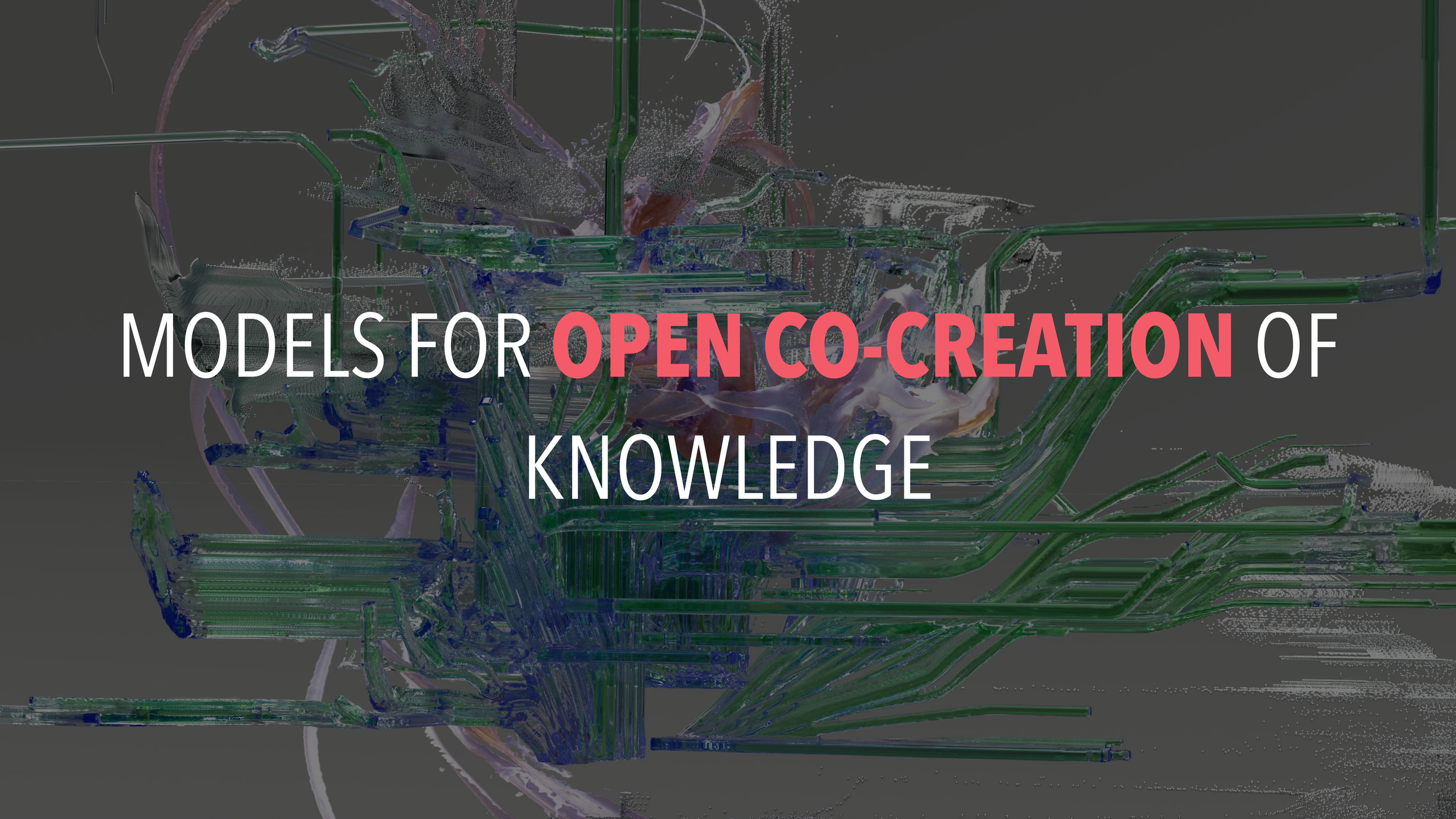
SO WHAT DID WE LEARN?*

* rough reflections from a workshop that happened a week ago

Cultural and Social Infrastructure Is
HARD to Build, Make Visible, and
Share Practices Around

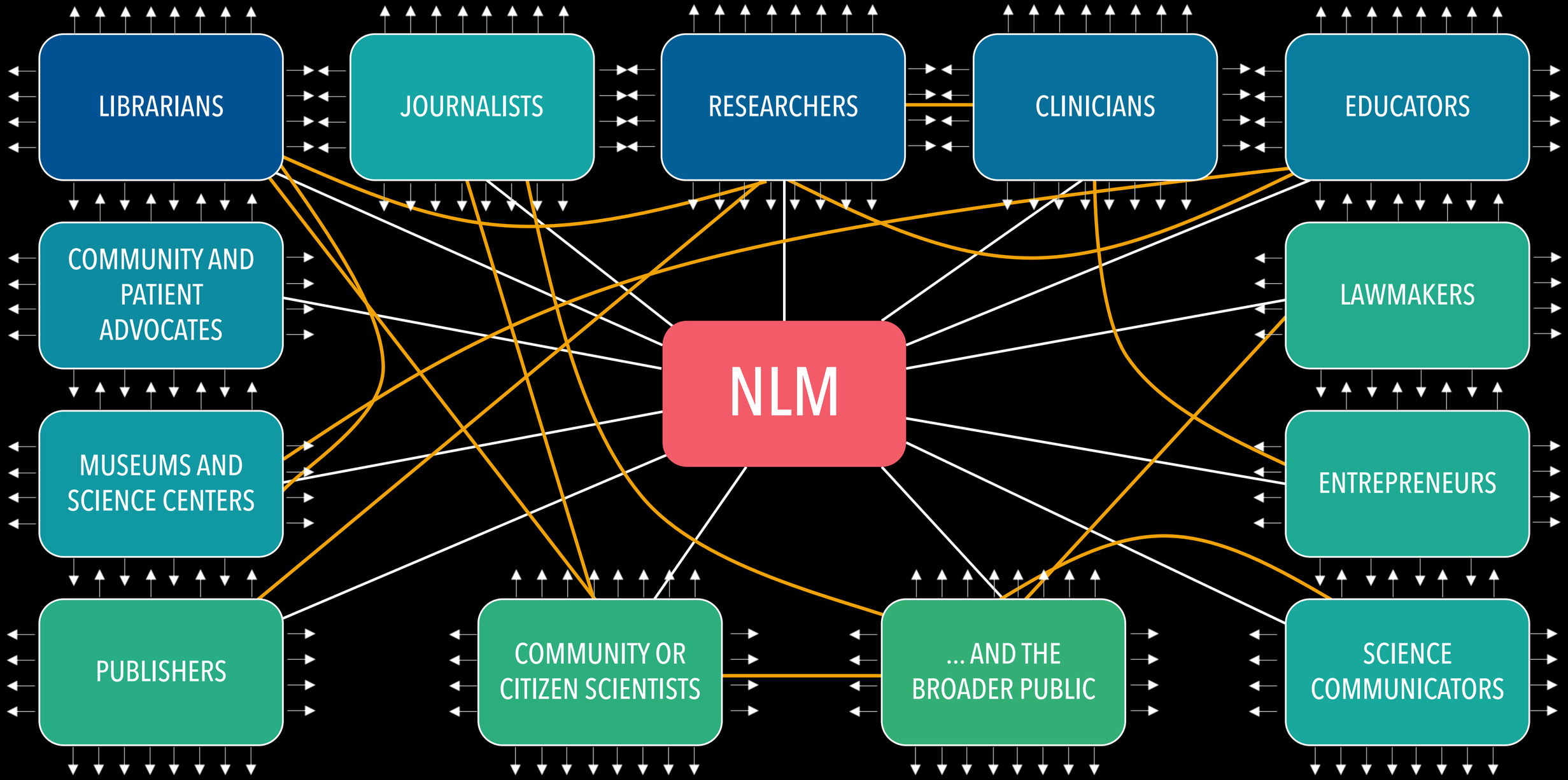
INCENTIVES! INCENTIVES! INCENTIVES!

legitimizing **engagement** as a **critical tool** in equitable open science.



MODELS FOR **OPEN CO-CREATION** OF KNOWLEDGE

WHERE DO WE GO FROM HERE?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GET IN TOUCH

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