Leading the Shift from Paywall to Partnership:

Strategies to Empower STEM Scholarship Through Open Access

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Why Open Access and Why Now?

Image Source: ChatGPT 5.2

Rising subscription costs and evolving publisher business models have made open access a core strategic priority for STEM research institutions.

Session Outline

- **The Paywall Challenge:** Paywalls, rising costs, and access barriers in STEM publishing

- **NJIT's Approach:** Rethinking subscriptions through Read and Publish and transitional agreements

- **From Vision to Practice:** Implementing sustainable and equitable open access models

- **Impacts:** Empowering researchers and increasing visibility of NJIT scholarship

- **Lessons Learned:** Practical strategies and considerations for replication at other institutions

- **Looking Ahead:** Redefining library–publisher collaboration to support open science

- **Q&A**

About NJIT

- R1 Research University, one of only three in New Jersey & NJ's only STEM focused R1

- $171M+ in annual research activity

- Grace Hopper AI Research Institute launched in 2024

- 12,309 students enrolled (Fall 2025), largest, most diverse first-year classes (2023-2025)

- 3,358 STEM-focused degrees awarded in AY 2025

- Driving the STEM workforce for NJ, the U.S., and the World

National Rankings

- Top 2% nationally in Return on Investment by PayScale

- #26 nationally for Alumni Salaries by Wall Street Journal

- #10 for Career Placement (public universities) by Princeton Review

- #30 nationally for Social Mobility by Wall Street Journal

- #1 best value Public New Jersey University by Wall Street Journal

- #40 Public National University by U.S. News & World Report

Source: https://www.njit.edu/oie/institutional-data

The Paywall Challenge in STEM Publishing

Pay to Read ⟶ Open to All

Traditional Paywall Model

❏ Research locked by publisher paywalls

❏ Copyright limits visibility / slows progress

❏ Subscription costs exceeds actual use

❏ Limited, inequitable global access
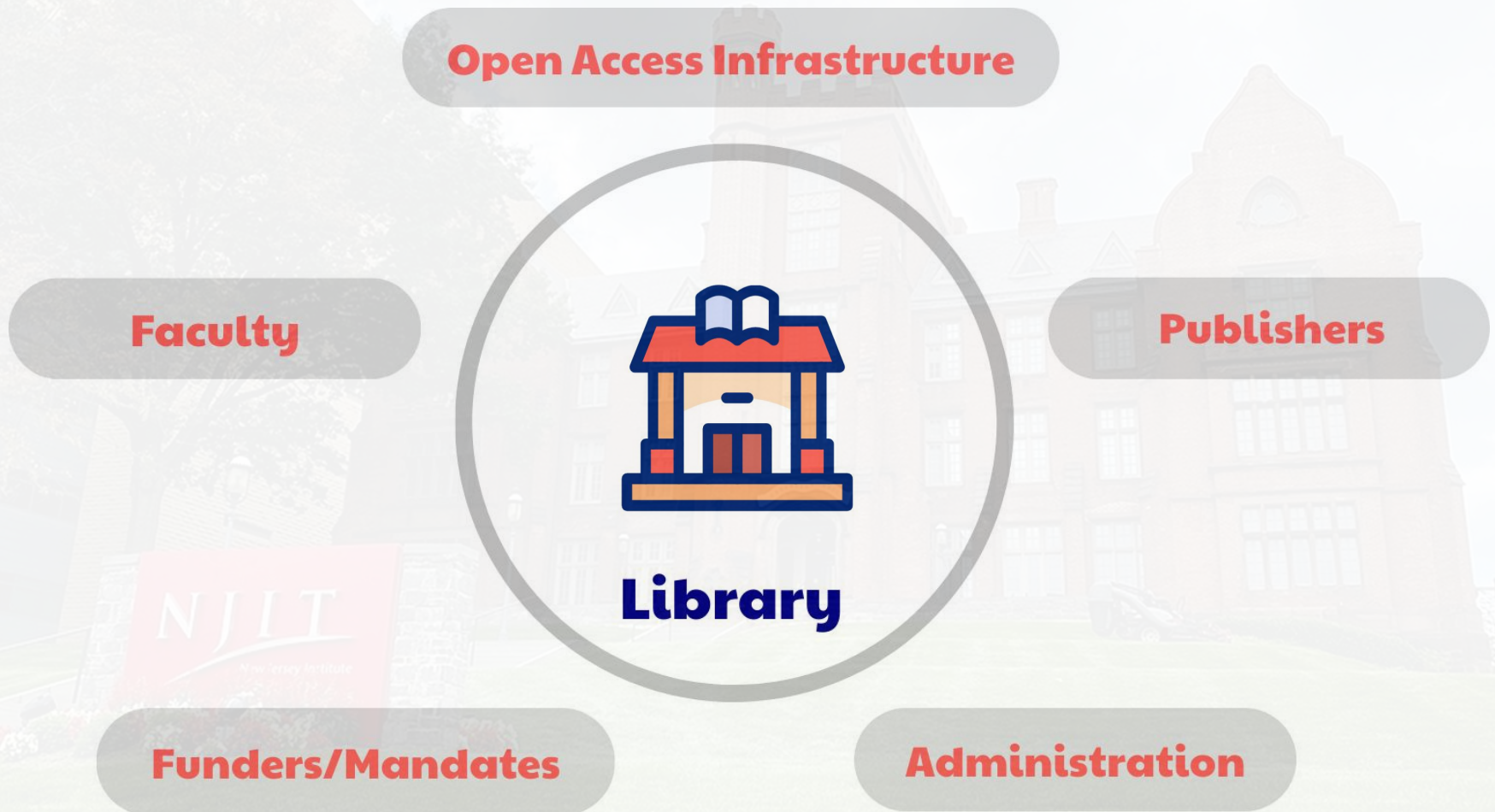
❏ Not scalable or affordable for many STEM institutions

Author ➡ **Publisher** 🅒 ➡ **Library** ➡ **Reader** 🔒

Open Access Solution

❏ Removes paywalls, free online access

❏ Authors keep rights via CC licenses

❏ Costs covered by APCs or institutions

❏ Expands equity, visibility, and global reach

❏ More scalable, transparent, and aligned with publishing needs in STEM

Author ➡ **OA Publisher** 🅒🅒 ➡ **Global Readers** 🔓

Libraries are Poised to Lead in Open Science

Open Access Infrastructure

Faculty

Publishers

Library

Funders/Mandates

Administration

Because of policy changes, infrastructure needs, cost pressures, and their central role, libraries are not just involved. They are well-positioned to lead.

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From Vision to Practice: Strategic Goals & Guiding Principles

NJIT 2030 Strategic Plan

- Retain Carnegie R1 status
- Accelerate and enhance research competitiveness
- Strengthen NJIT as a premier research university
- Grow a diverse faculty community in emerging fields

Source: https://www.njit.edu/strategicplan

Library Strategic Goals

- Enable high-impact research through robust infrastructure and services
- Advance equitable, sustainable open access publishing
- Position the Library as a strategic partner in innovation and experimentation

Source: https://library.njit.edu/our-mission-and-values

Key Enablers

- Transformative Read & Publish agreements
- Research lifecycle support (publishing, visibility, compliance)
- Long-term preservation of faculty publications
- Strategic partnerships and responsible adoption of emerging tools

Library Vision
The vision of the NJIT Library is to be a transformative research library, empowering the NJIT community with innovative services and impactful collections sustained by strategic partnerships.

NJIT Approach to Open Access

Read & Publish

Transformative | **Transactional** | **Transitional**
models with different flavors

What Read & Publish Means?

One contract that combines reading access with open access publishing

Read: Negotiated access for paywalled content

Publish: Negotiated coverage for open access publishing, which may include:

- APC discounts
- Full coverage of APCs (capped or unlimited)
- Deposit accounts (varies by publisher)

Why NJIT Chose the APC Discounts and Full Coverage Approach?

Access ➡ **Readership** ➡ **Citation** ➡ **Broader Impact**

- A single negotiated OA price simplifies budgeting, and improve cost recovery

- Reduce or eliminate APCs lower barriers for faculty to publish OA

- Avoid deposit accounts to reduce administrative overhead

- Centralized APC management ensures equitable and transparent OA publishing

"Definitionally, transformative agreements are transitional in that they seek a pathway for a shift away from payment to read and toward payment to publish." Hinchliffe, Lisa J.

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Evaluation and Negotiation: Our Framework

Evaluating Read

- **COUNTER reports:** TRJ1/TRB1 (full text access) and TRJ2/TRB2 (full text turnaways)
- **Collection change:** how many new titles, relevant turnaways
- **Academic alignment:** what new titles relate to institution's fields of study and "emerging research"

Evaluating Publish

- **Publishing volume & impact factor:** citation analysis through SCOPUS, WoS, etc. combined with faculty discussions on emerging research
- **Calculate publishing value**: use APC costs by number of articles
- **Confirm publication ethics**: use tools (Think.Check.Submit., Beall's List, Open Policy Finder, JournalGuide, etc.) to check for ethical issues

Defining "Acceptable"

- **What are must-haves:** number of articles covered if not unlimited, what journals are covered for publishing, and what content must be available?
- **What conditions are necessary:** contract terms for copyright, accessibility, exigency, AI, etc.?
- **What are the limits:** is the price increase is sustainable over the contract period, are there additional unrelated, but required "expenses", etc.?

Budgeting and Planning: Our Framework

Contracts

Review existing contracts for examples of terms and conditions.

Budget needs to be protected with hardship clause.

Citation Analysis

Complete a citation analysis for publication volume with the publisher, 3-5 full years.

Combine with value based on cost/use calculated from COUNTER reports (TRJ1/ TRB1).

R&P Model

Confirm that the type of coverage (gold, hybrid, green OA) and number of APCs covered works for publication output and target journals.
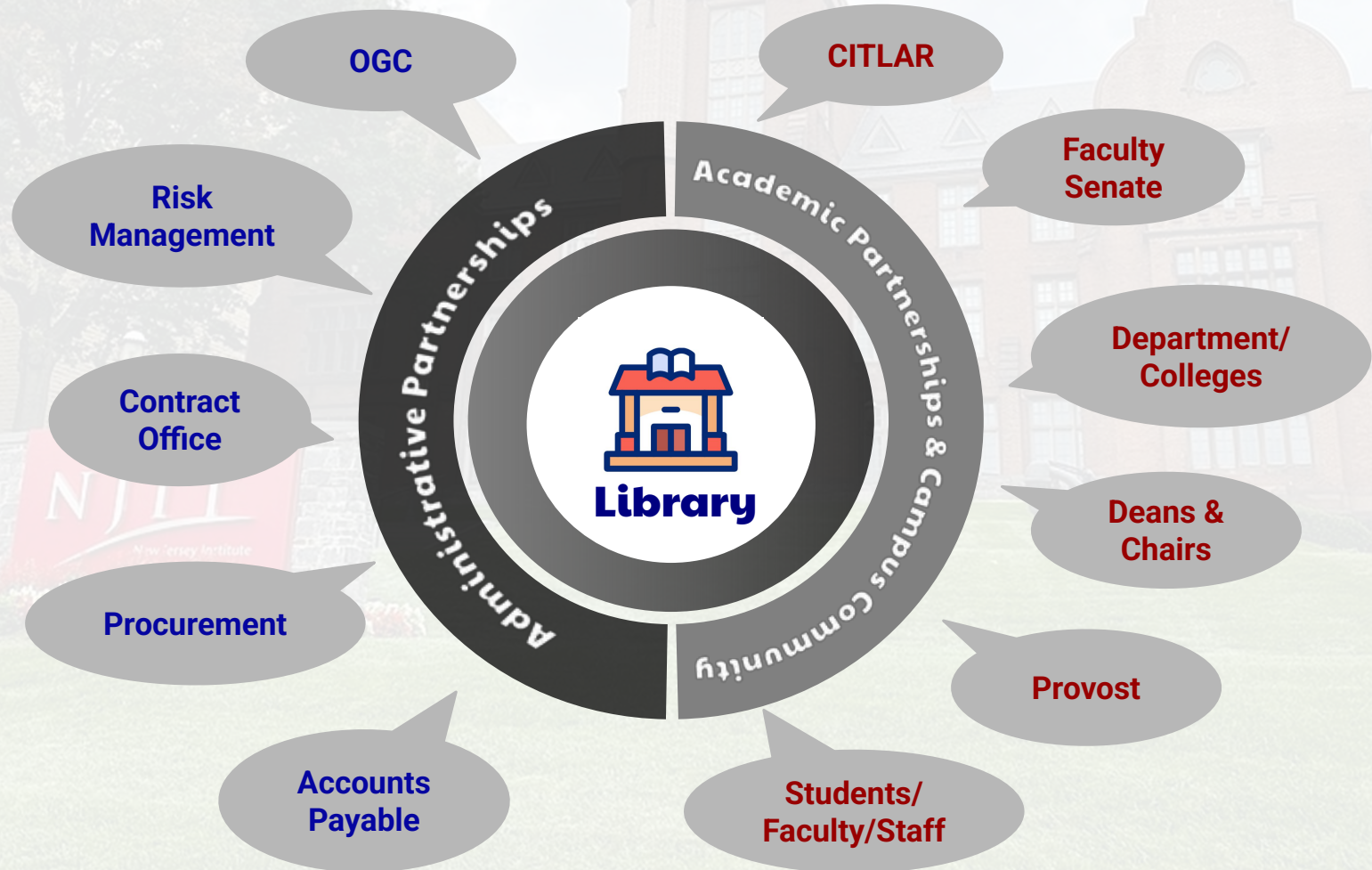
Budget

Calculate costs over the lifetime of the agreement, comparing value against the cost/value of previous traditional agreements.

Fairness

Try to strike a balance between discipline focused / multi-disciplinary publishers to provide publication coverage for widest range of faculty.

When all of these groups work together, Open Access becomes
a shared, campus-wide effort — not just a library initiative

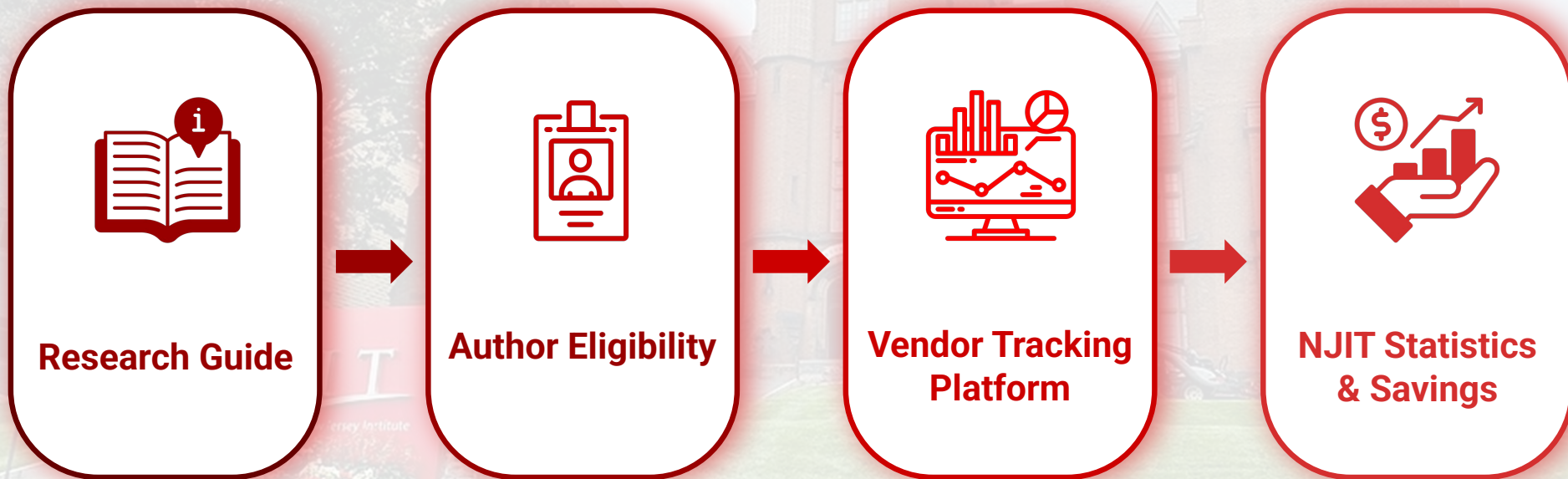# R&P Agreements Implemented

Full (Gold) Open Access	Association for Computing Machinery (ACS)	Open to read and publish. Library pays APC fees for unlimited OA articles through library OA agreement.
	Cambridge University Press (CUP)	Open to read and publish. Library pays APC fees for unlimited OA articles with fully open journals through library OA agreement.
	Multidisciplinary Digital Publishing Institute (MDPI)	Open to read. Authors paid APC fees with 10% discount through library membership for unlimited OA articles.
Hybrid Open Access	American Chemical Society (ACS)	Library pays APC fees for 27 OA articles per year (roll over of remaining balance) with hybrid journals through library OA agreement.
	Cambridge University Press (CPU)	Library pays APC fees for unlimited OA articles with hybrid journals through library OA agreement.
	Elsevier	Library pays APC fees for 85 OA articles per year (no roll over of remaining balance) with hybrid journals through library OA agreement.
	Springer Nature (SN)	Library pays APC fees for unlimited OA articles with hybrid journals through library OA agreement.
Green Open Access	Digital Commons Institutional Repository	*An Animated Introduction to Digital Logic Design* Open Textbook by John Carpinelli
		Journal of Roleplaying Studies and STEAM
		Dissertations & Theses Collection (started in 2002)

Clear documentation, simple eligibility rules, and reliable tracking create a workflow that supports both authors and the OA team

Research Guide → **Author Eligibility** → **Vendor Tracking Platform** → **NJIT Statistics & Savings**

Authors and Librarians Publishing Workflow for Executed Contracts

R&P Tracking Dashboard

The Challenge

Fragmented Data Sources

- Different formats (.csv, .xlsx)
- Different currencies (CHF, EUR, GBP, USD)
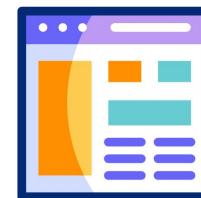- Separate reporting portals

The Solution

Google Sheets Automation

- Raw Data Ingestion: Simple bi-weekly copy/paste
- The "Edits" Engine: Automated cleaning/filtering
- Live Logic: Real-time currency conversion & fiscal year mapping

Unified Dashboard
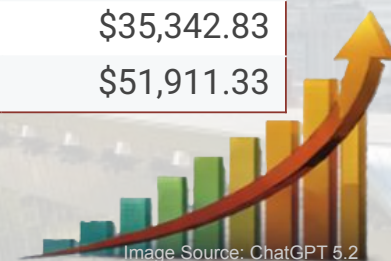
Institution-Wide Visibility

- Real-time savings ROI
- Centralized "Source of Truth"
- Article counts per fiscal year

R&P Reporting Dashboard

	Total Savings to Date ===>		$739,446.61	
R&P Agreements	**Contract Date**	**OA Article Count**	**Total Savings To Date**	**Savings/Year To Date**
ACM	08/2023 to 07/2029	67	**$56,500.00**	$18,833.33
ACS	01/2026 to 12/2029	4	**$16,000.00**	$16,000.00
CUP	01/2025 to 12/2028	3	**$10,650.00**	$5,325.00
Elsevier	01/2025 to 12/2030	79	**$217,820.00**	$108,910.00
MDPI	03/2018 to current (annual)	403	**$282,742.61**	$35,342.83
SN	03/2024 to 02/2027	43	**$155,734.00**	$51,911.33

Image Source: ChatGPT 5.2

R&P Agreements	**FY2018 to FY2023**	**FY2024**	**FY2025**	**FY2026**
ACM	$0.00	$22,400.00	$19,200.00	$14,900.00
ACS	$0.00	$0.00	$0.00	$16,000.00
CUP	$0.00	$0.00	$3,550.00	$7,100.00
Elsevier	$0.00	$0.00	$87,260.00	$130,560.00
MDPI	$191,546.85	$31,970.06	$43,548.68	$15,677.02
SN	$0.00	$29,210.00	$92,747.00	$33,777.00

Researcher Benefits

Reduced or No APCs
Lowering costs to publish.

Greater Visibility & Impact
Global reach, more citations.

Funder Compliance
Meeting funding requirements.

Simplified Publishing Workflows
Integrated into journal submission.

Long-Term Preservation
In the Institutional Repository.

Image Source: ChatGPT 5.2

Institutional Impact

Predictable, Sustainable Costs
Through negotiated agreements.

Reduced Reliance on Subscriptions
Moving investment to open models.

Expanded Global Visibility
Showcasing institutional scholarship.

Support for R1 Expectations
Enhancing research competitiveness.

Stronger Alignment with Faculty
Better meeting faculty needs.

Improved Alignment with Open Science mandates.

Key Enabler: 2022 OSTP Memorandum
Requires public access to federally funded research.
Accelerates open science by making taxpayer-funded research freely available, reinforcing open access as a strategic imperative.

Source: https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/08/08-2022-OSTP-Public-Access-Memo.pdf

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Lessons Learned: Our Experience

✅ What Works Well

- Enhanced library ROI for NJIT
- Strong communication pathways with campus and vendors
- Data-driven negotiations and early adoption of R&P contracts improve pricing
- Opportunities to beta test new features (e.g., IEEE) and gain early product awareness (e.g., JoVE)
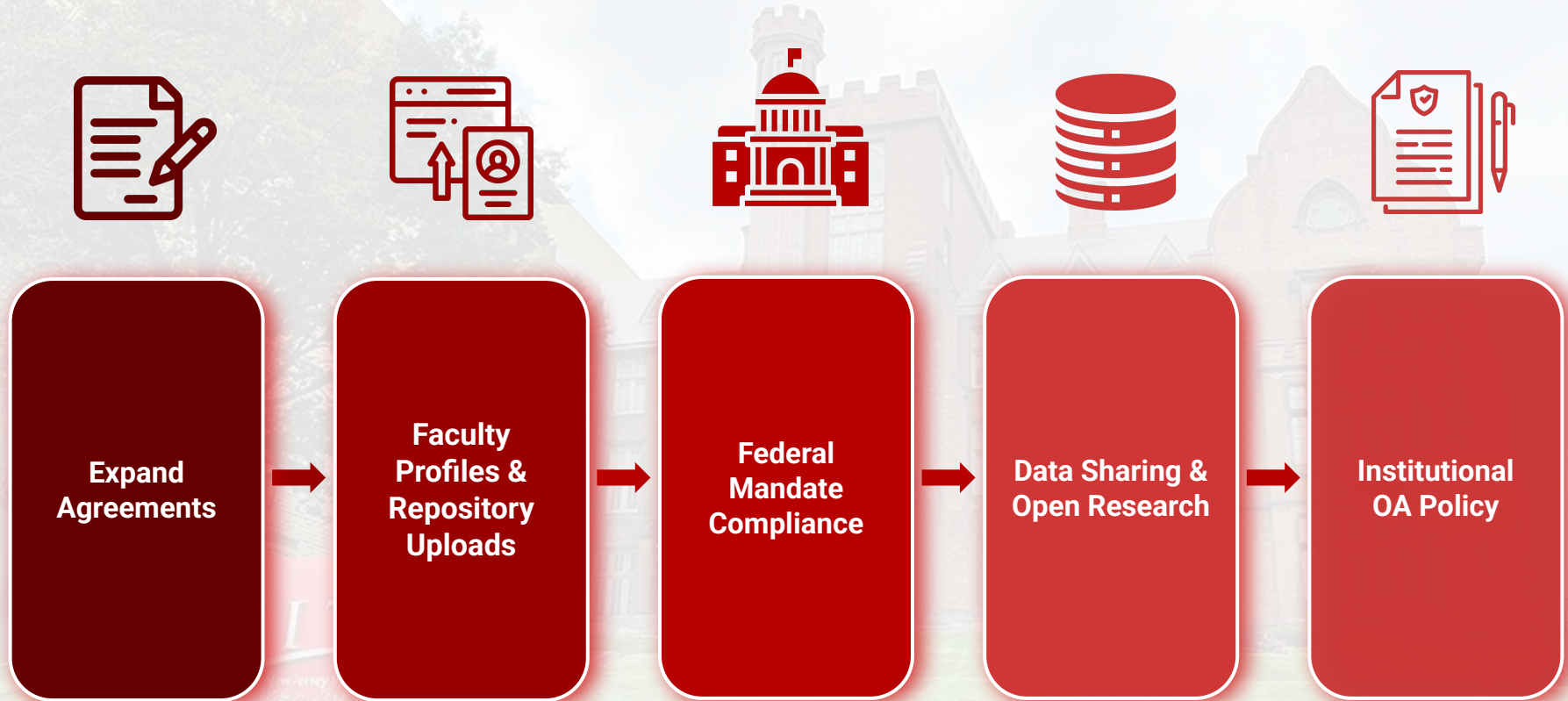
⚠️ Challenges

- Limited budgets and staffing
- Rising concerns around predatory publishing
- Gaps in OA, copyright, and publishing strategy understanding
- Managing faculty expectations amid publisher limitations and inconsistent workflows

💡 Unexpected Insights

- High faculty interest in OA education
- Growing expectation that the library play a leadership role in OA strategy
- Strengthening cross-campus engagement toward a university-wide OA policy
- Demand for more OA contracts, including alternative models (e.g., IEEE's deposit accounts)

Expand Agreements → **Faculty Profiles & Repository Uploads** → **Federal Mandate Compliance** → **Data Sharing & Open Research** → **Institutional OA Policy**

Efforts to position NJIT for long-term leadership in open science: (1) supporting faculty, (2) expanding access, and (3) strengthening impact of our institutional research

Recommendations for Peer Institutions

Where to Start

- **Collect Data**: Articles by discipline, publisher, and subject

- **Choose a Model**: APC type and Read & Publish structure

- **Review Costs**: Compare APC spend with subscriptions; start with publishers that have low cost per article and high publishing volume

Practical Steps

- **Set an OA Strategy**: Align faculty publishing behavior, ROI, and clear library boundaries

- **Prioritize Fit**: Focus on publishers that best match your institution's research strengths

- **Pilot First**: Start with 1–2 publishers, assess outcomes, and refine before scaling

Scalable & Replicable Practices

- **Standardize Negotiations**: Template questions on access, journal coverage, and APC workflows

- **Streamline Outreach**: Reusable faculty messaging with clear links

- **Track Output**: Saved searches and admin tools to monitor OA publishing and use

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▶▶ Open access is no longer optional; it is a strategic imperative for academic institutions

▶▶ NJIT's approach demonstrates how Read & Publish agreements, strong governance, and campus partnerships can shift publishing from paywalls to sustainable, equitable open access models

▶▶ By aligning strategy, operations, and policy, libraries can positioned themselves to scale open science, support faculty success, and meet evolving funder mandates

▶▶ This approach reinforces the library's role as a leader, convener, and partner in advancing research impact and institutional competitiveness
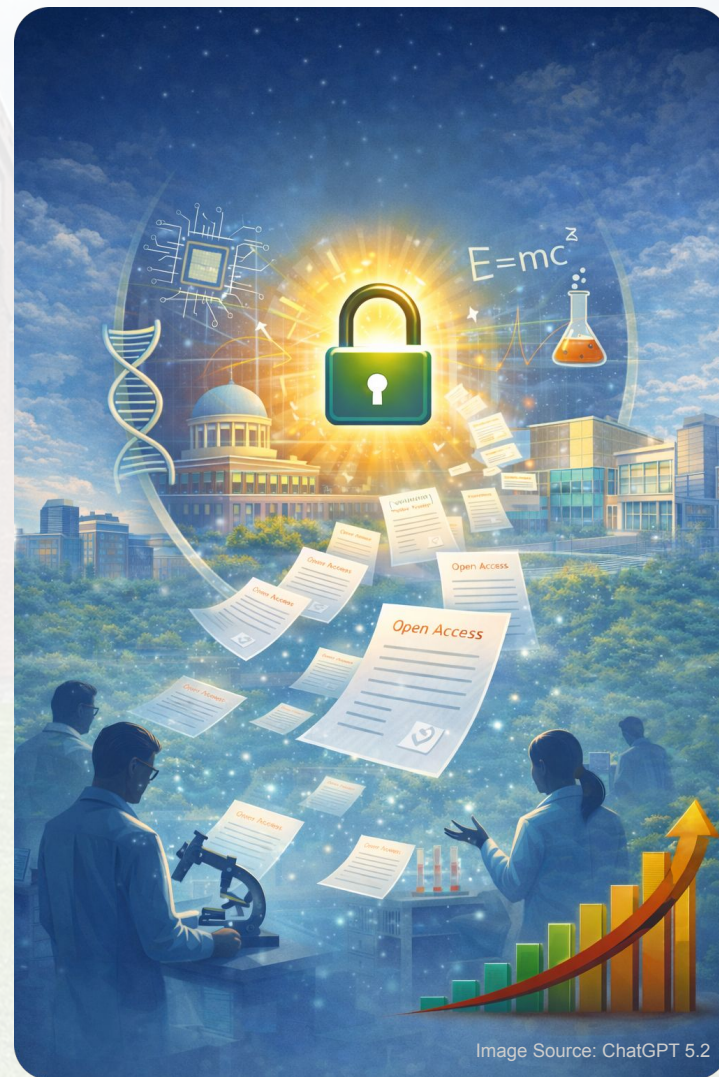

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Thank you. **Questions?**