Continuous Science Foundation

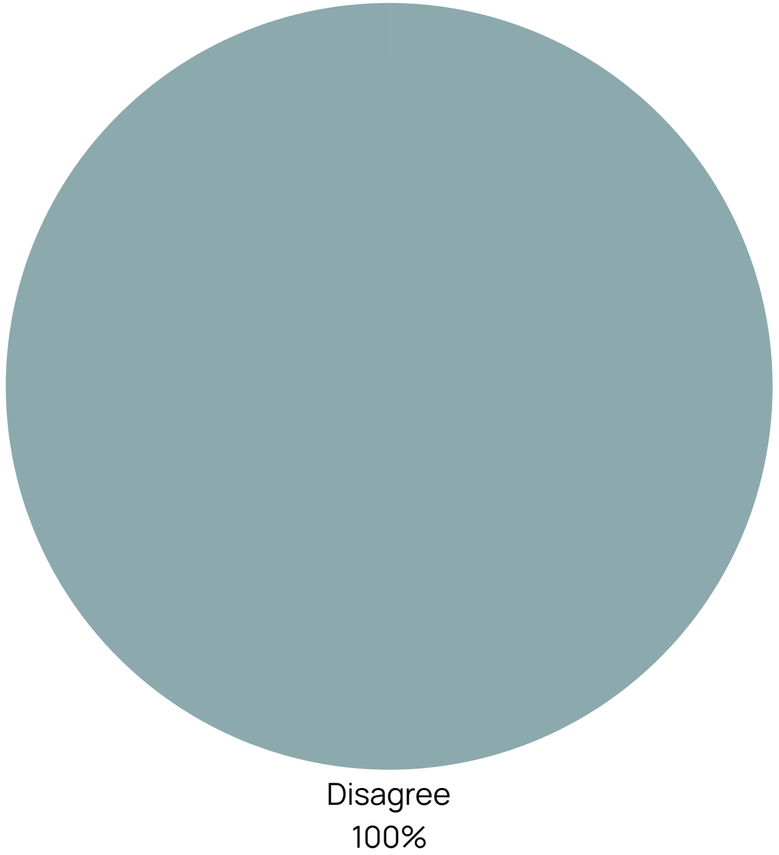
Workshop | May 28 | Banff, Canada

FULL PRE SURVEY RESULTS

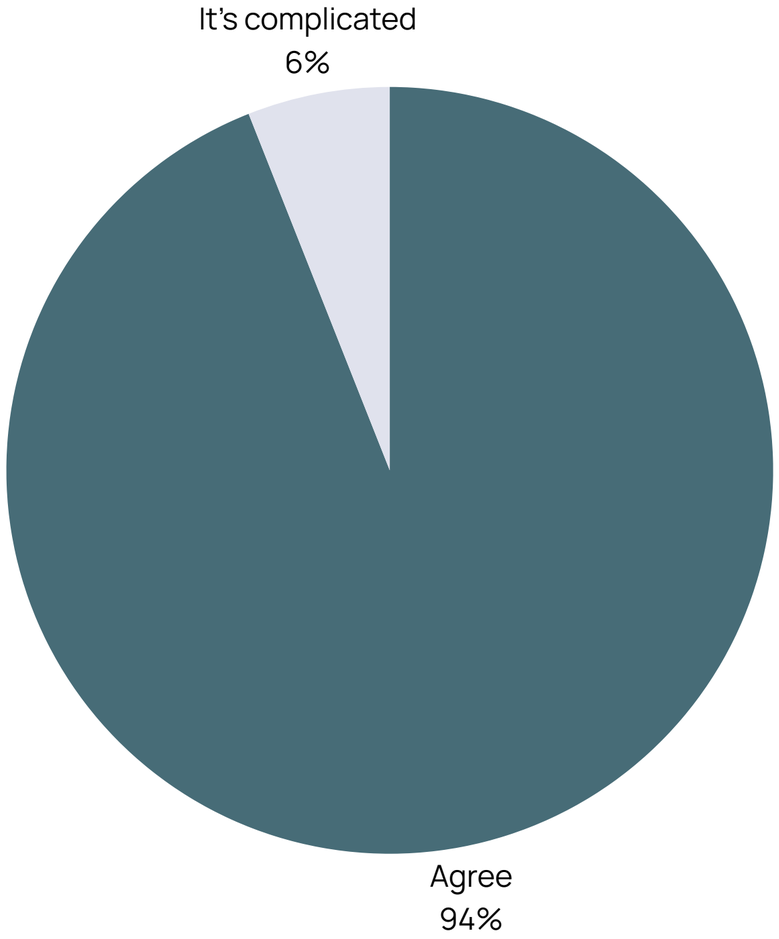
Agree on the “why”
but **diverge** on the
“how”

What does the room agree on?

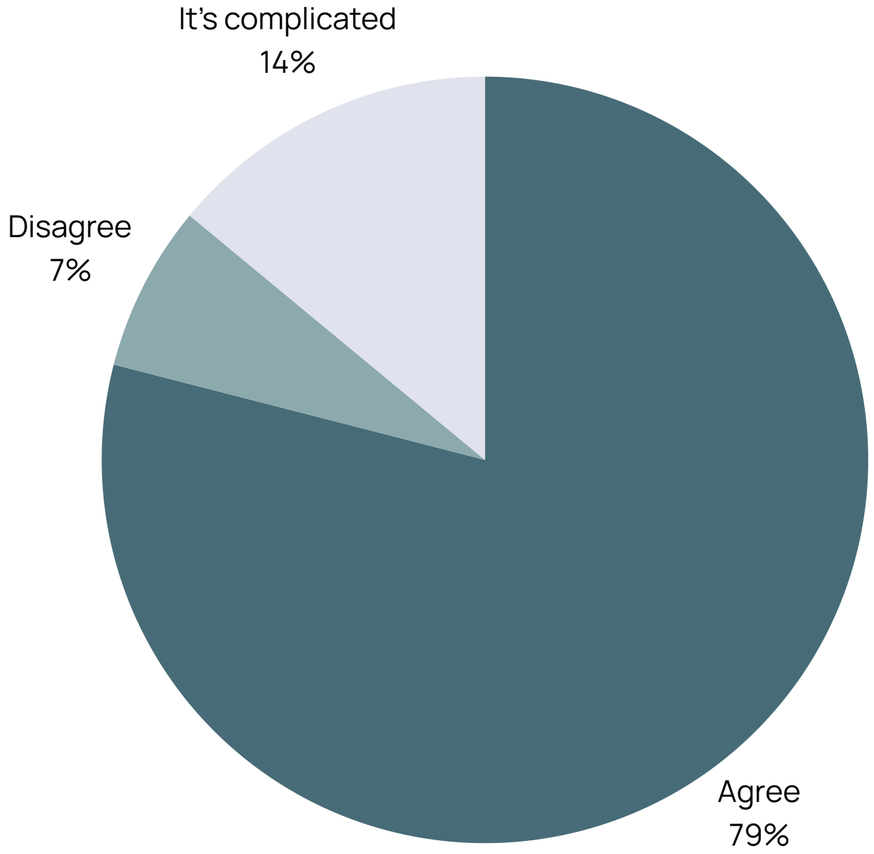
Open science is just about open access to papers.



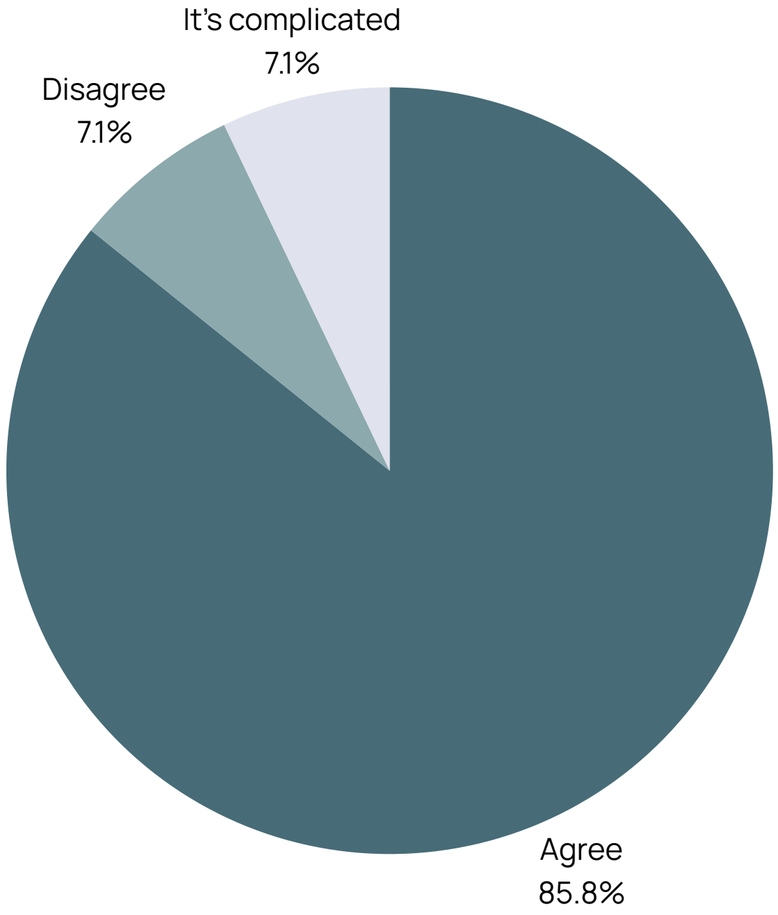
Better design and storytelling can improve how people connect with science.



The pace of discovery has outstripped our systems for communicating research.



Current academic publishing models limit the reach and impact of science.

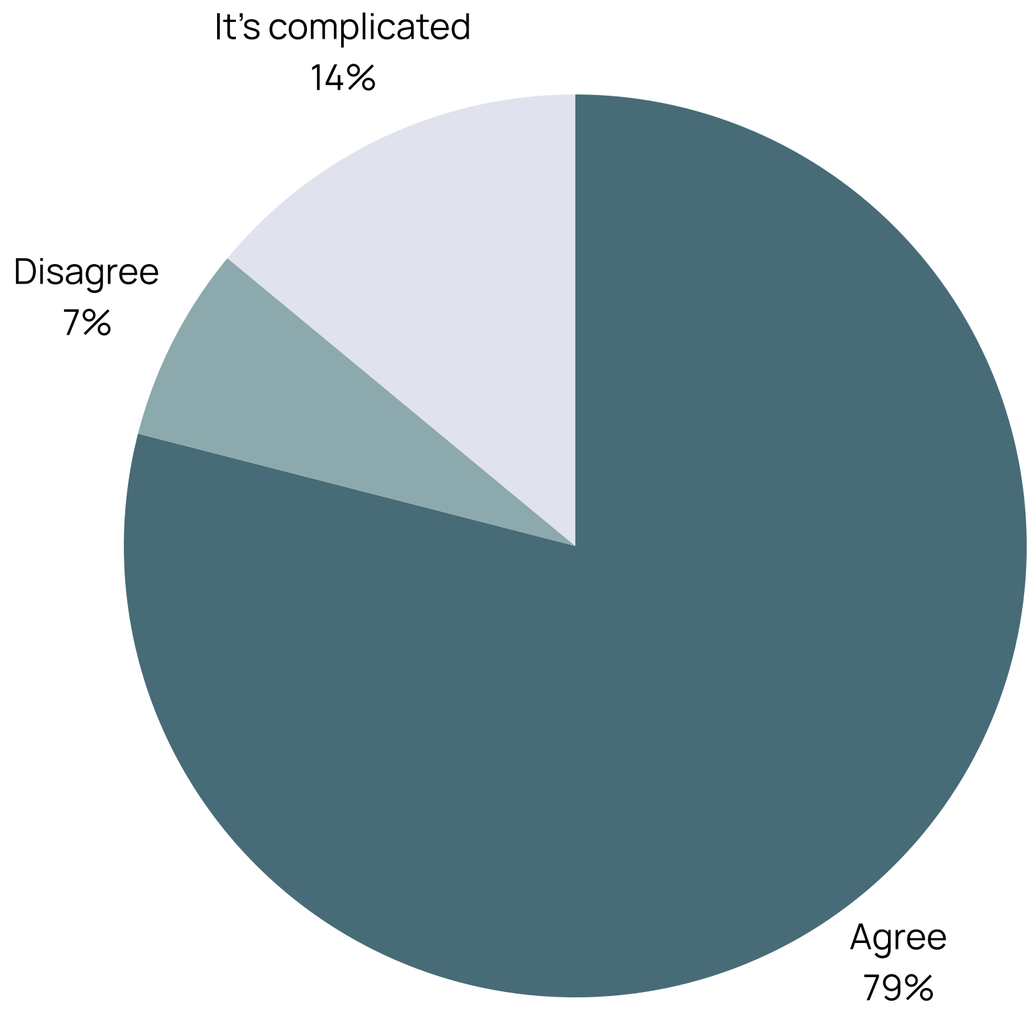


Scientists lack adequate training or support in public communications.

Training exists — but without value alignment and time, it doesn’t stick.

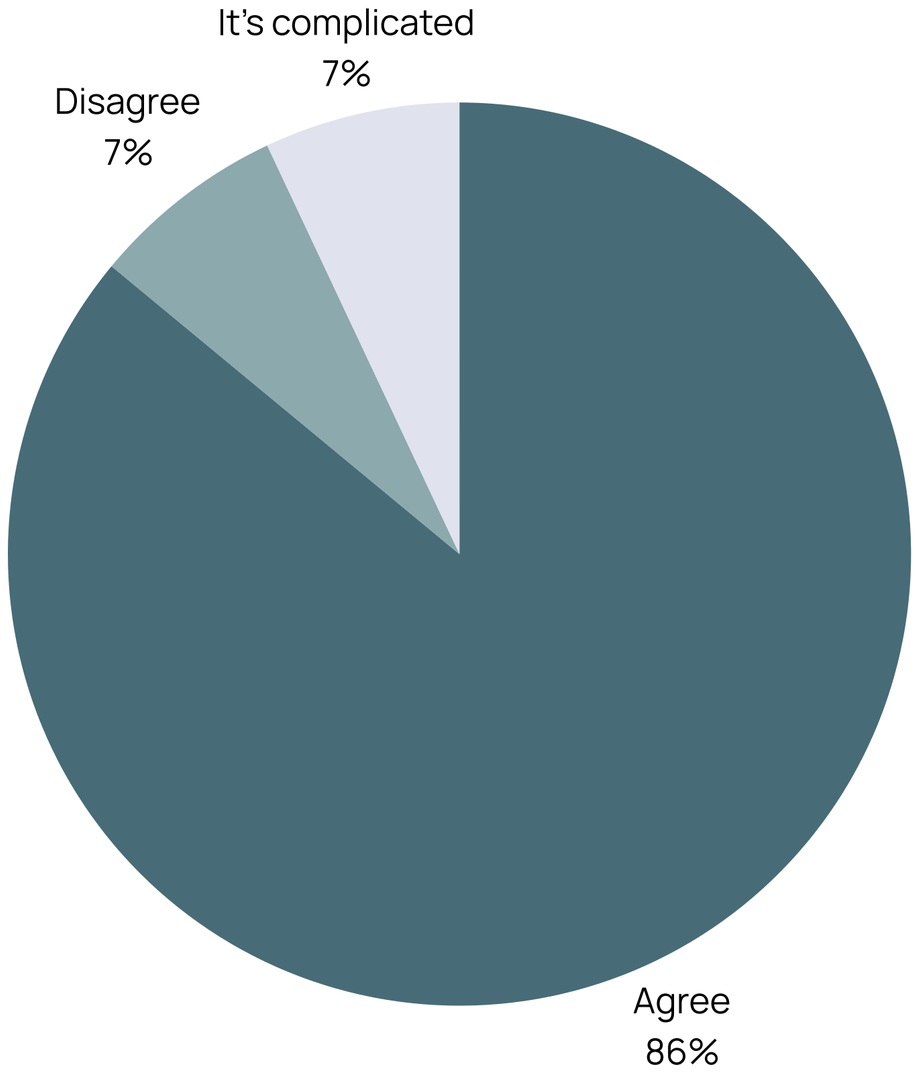
The system doesn't reward public-facing work, even when it's impactful.

Is it a researchers job?



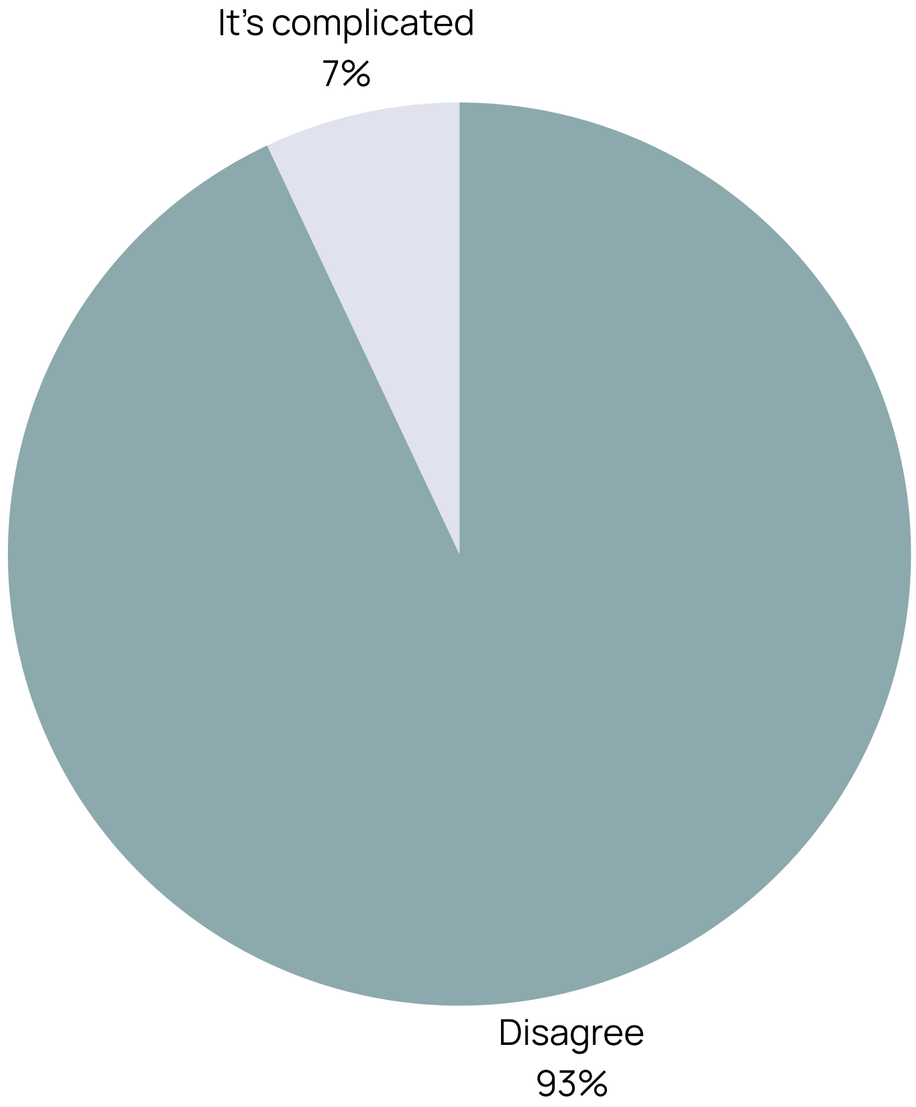
There is a large gap between how science is built versus shared.

Science today is built for iteration, reuse, and collaboration — but our systems of sharing are built for finality, prestige, and exclusivity.



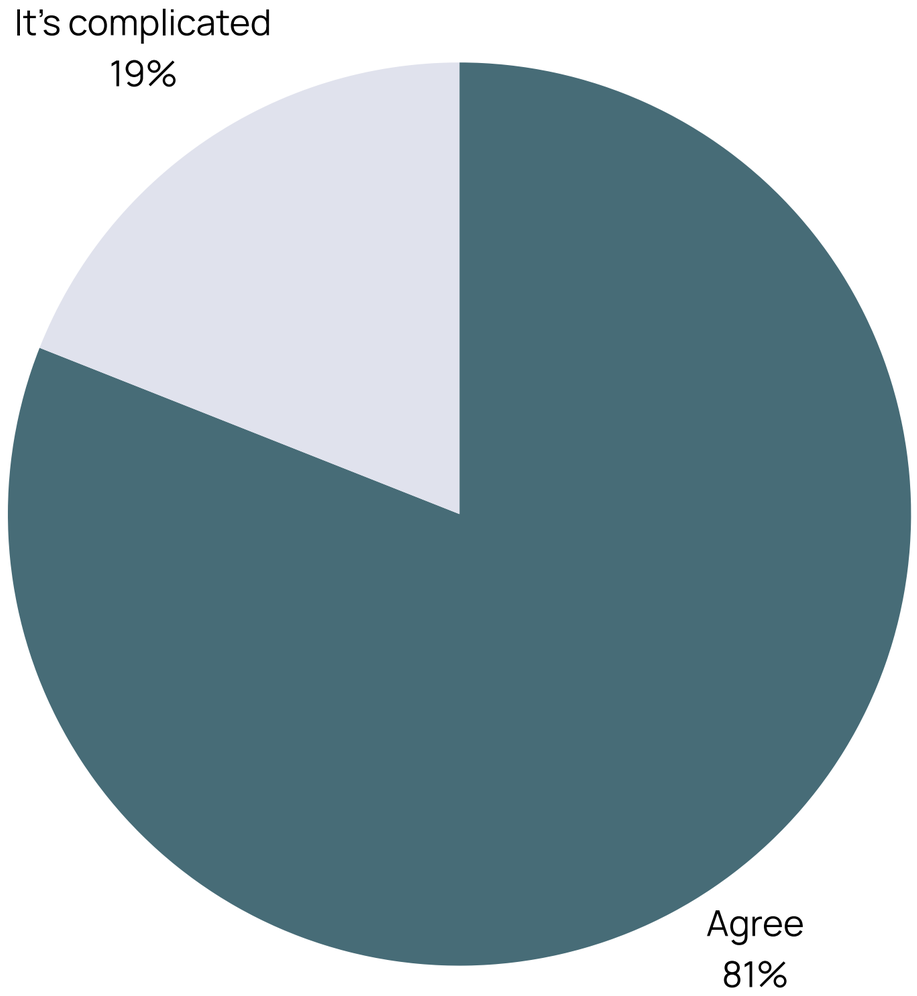
Researchers can easily reuse past scientific work.

Every respondent disagreed, either explicitly or by elaborating on why reuse is difficult — making this one of the **clearest points of consensus across the survey**.

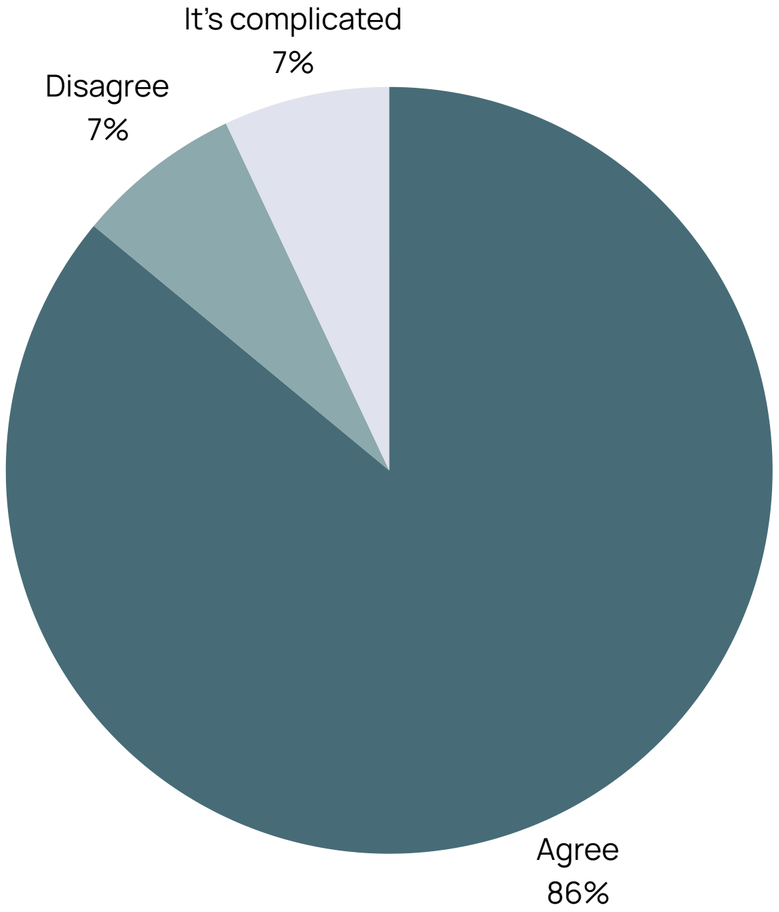


The next decade will be pivotal in reshaping the culture of science.

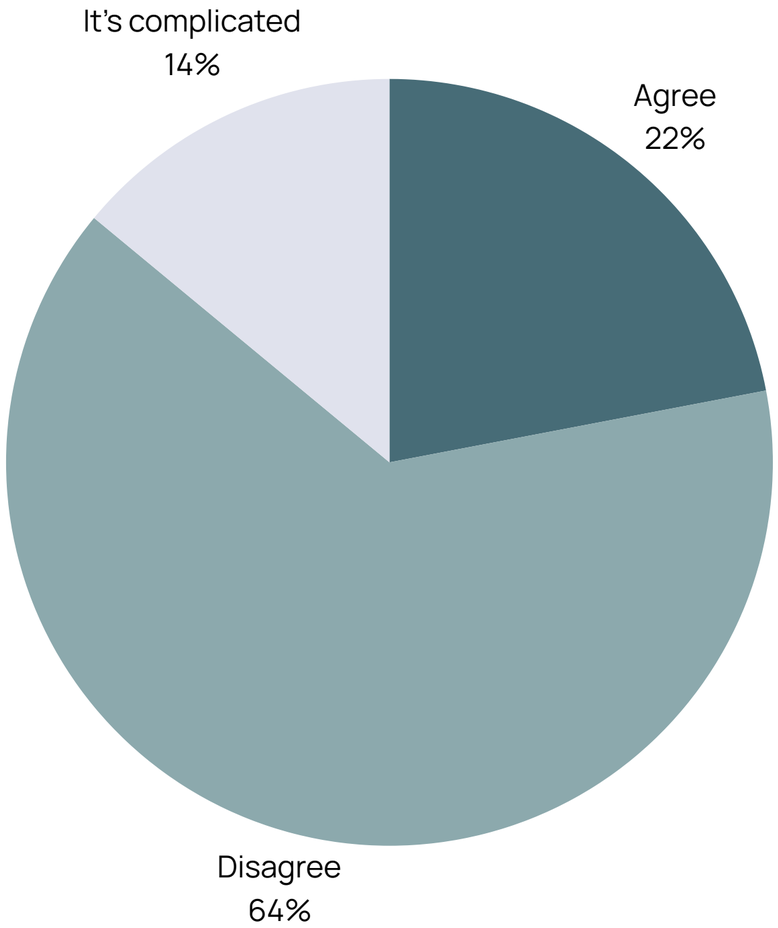
Reveals a strong sense of urgency — participants largely believe we're at a crossroads for reshaping scientific culture, but not everyone is convinced change will happen fast enough.
While the majority are hopeful, a few are wary of repeating cycles of ambition without action.



Research software is undervalued.



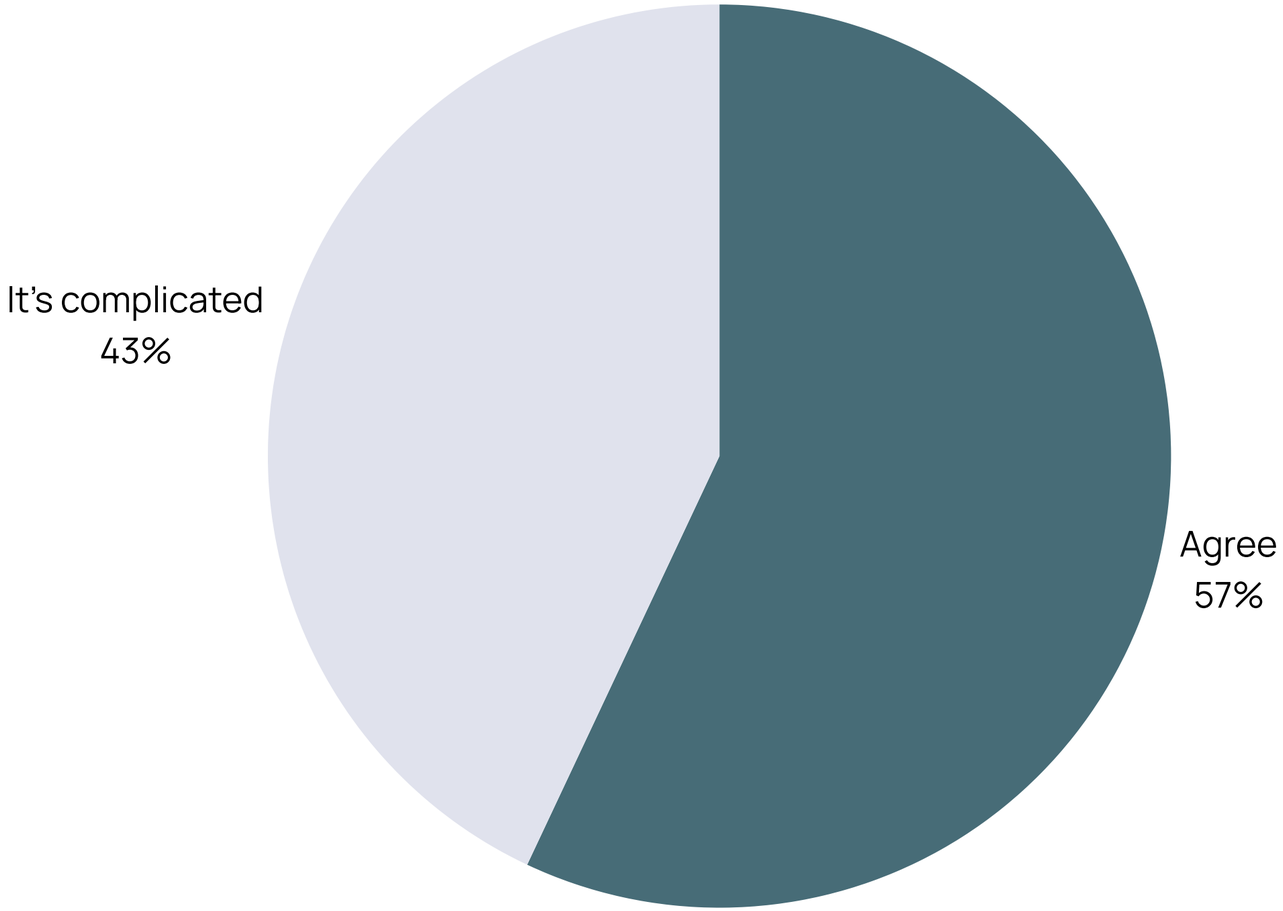
It is easy for researchers to share their data.



Where it’s complicated?

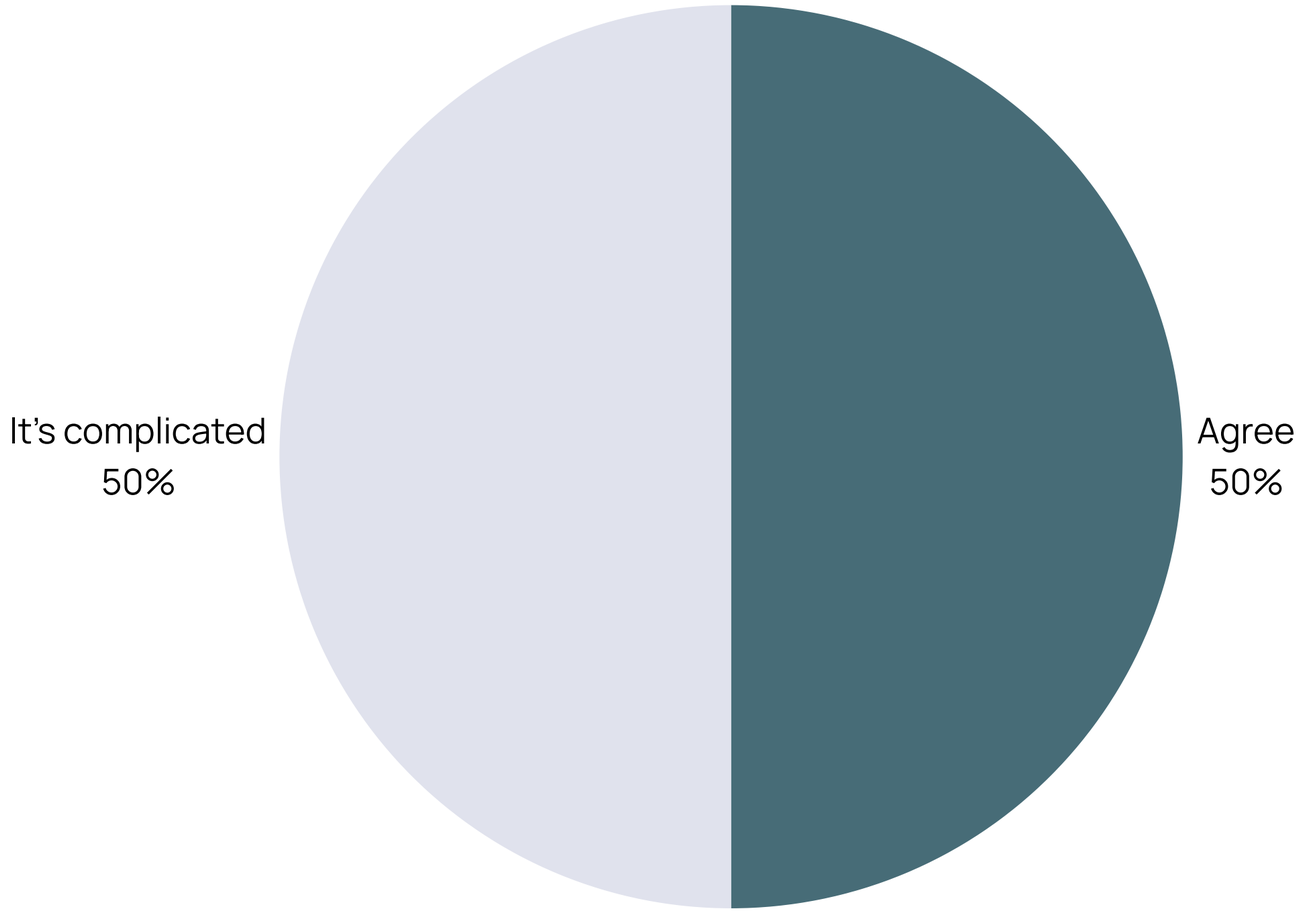
We need to reimagine science publishing systems from the ground up.

This was a quietly powerful consensus point. Few respondents pushed back. Even those who didn't directly say "Agree" offered nuanced expansions, conditional support, or future-facing thinking. There's a clear appetite — not just for reform — but for reinvention.



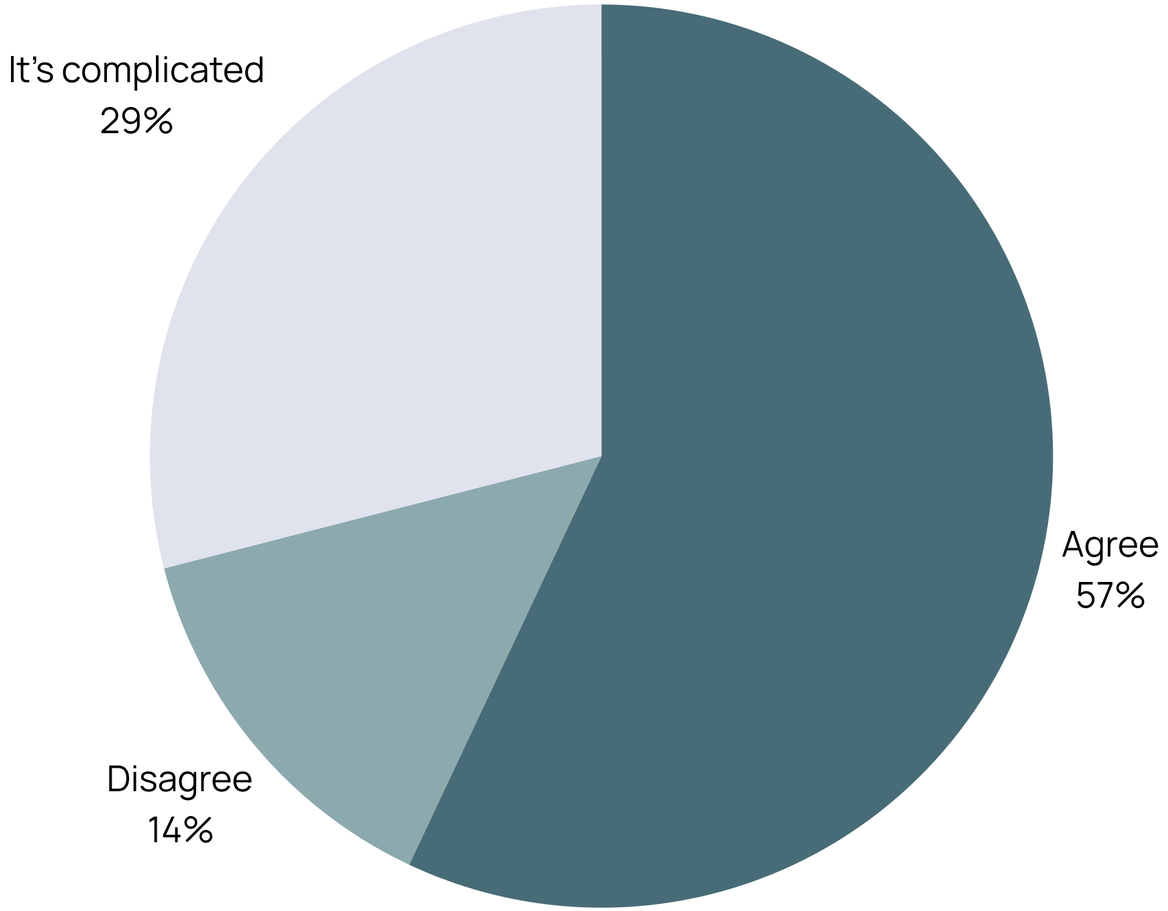
I believe in peer review.

This question sparked philosophical tension more than any other. While many responded with “Agree”, their elaborations reveal that belief in peer review is conditional, conflicted, or even reluctant. This isn’t a full endorsement — it’s a grudging trust in the idea, paired with frustration at the execution.



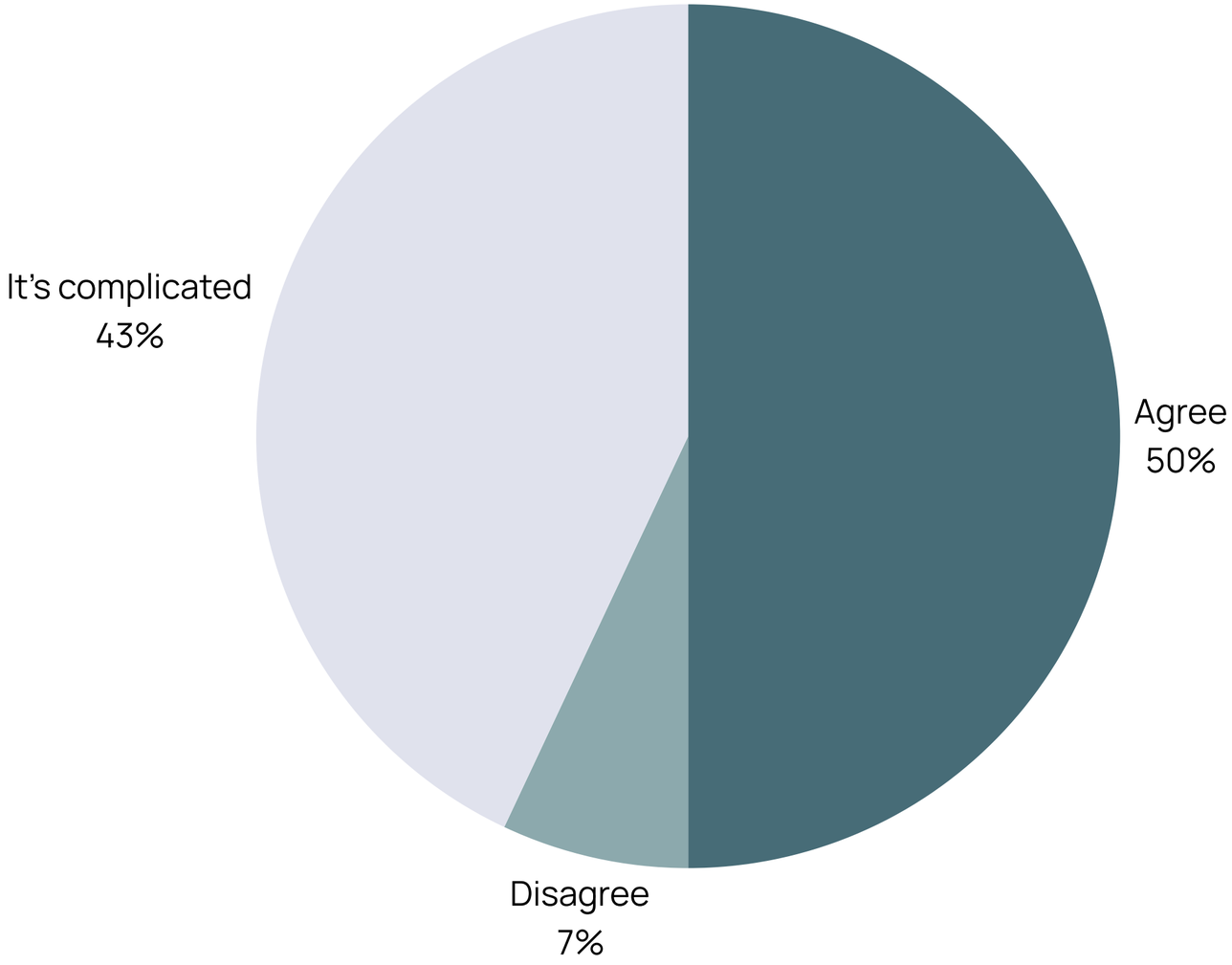
There is a lack of trust between scientific research and the general public.

Most participants agree with this statement — but importantly, they don't blame the public. The responses reflect a view that this trust gap is structural, historical, and self-inflicted by science's own systems, language, and exclusivity.



Reproducibility requires that all work (software, data, protocols) is shared openly.

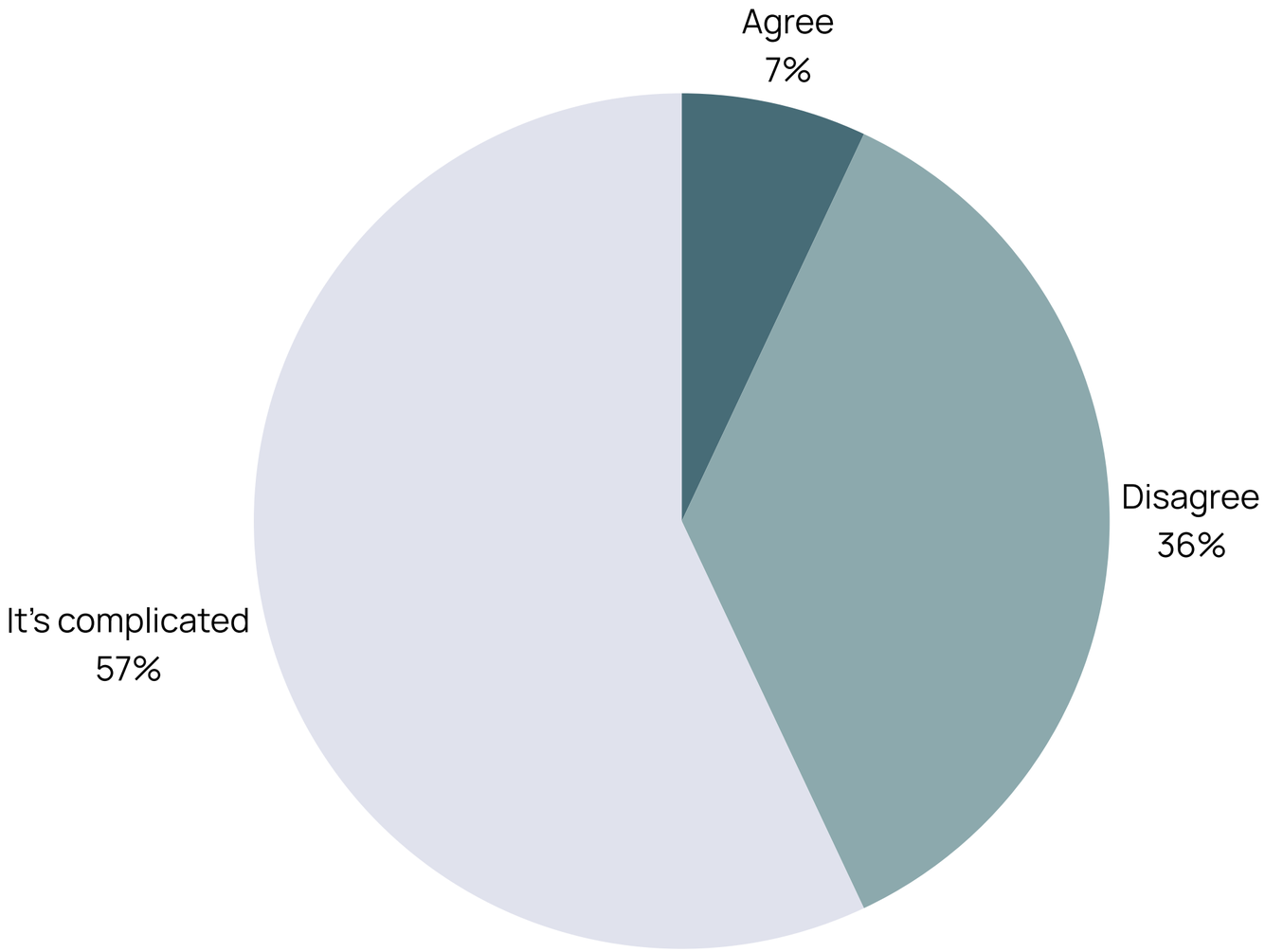
General agreement with the principle — but you see it as idealistic and incomplete. While openness is necessary for reproducibility, they stress that without standards, support, incentives, and usability, sharing alone doesn't guarantee meaningful or trustworthy reuse.



Preprints are on track to solve open science.

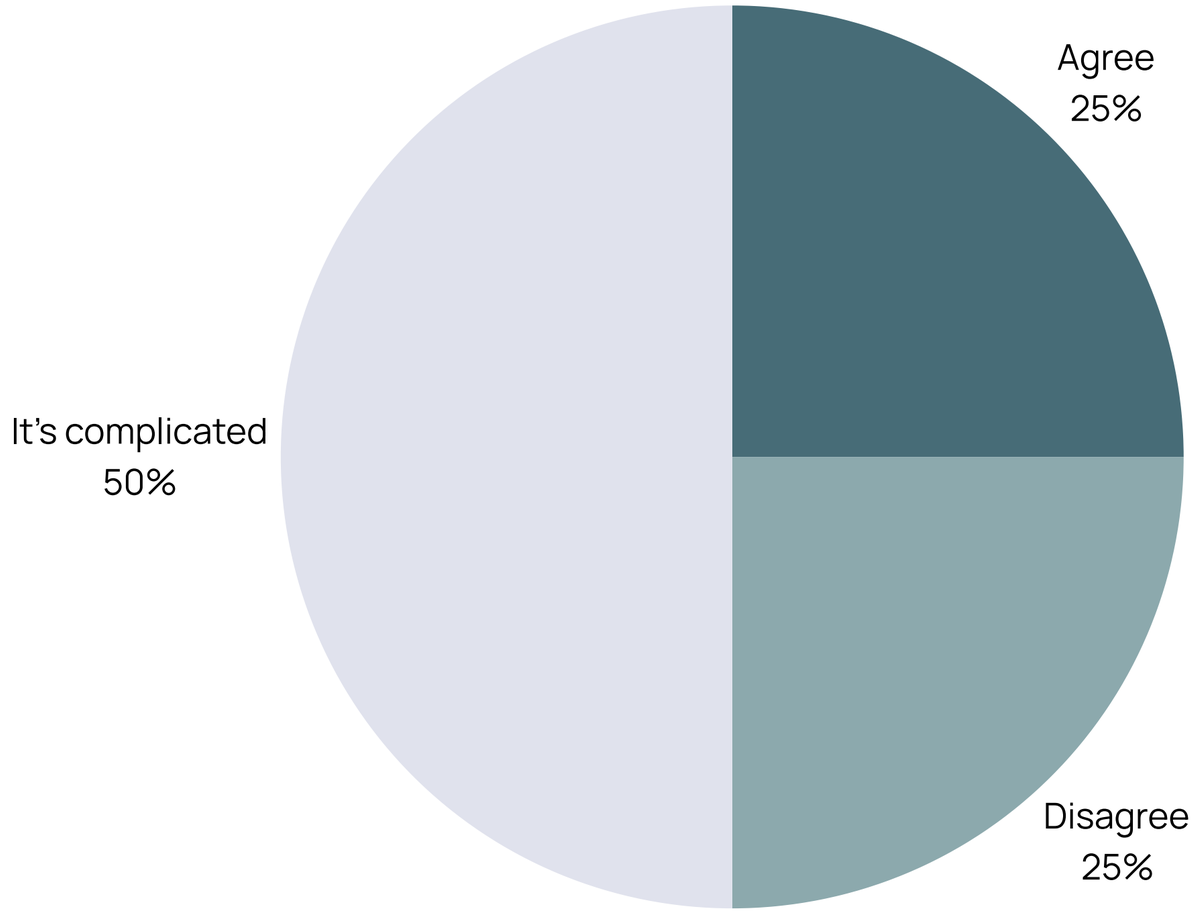
More skepticism than support. Participants generally see preprints as helpful but not sufficient — and in some cases, deeply limited.

They are not viewed as a silver bullet, but rather a partial workaround in a system that still needs structural change.



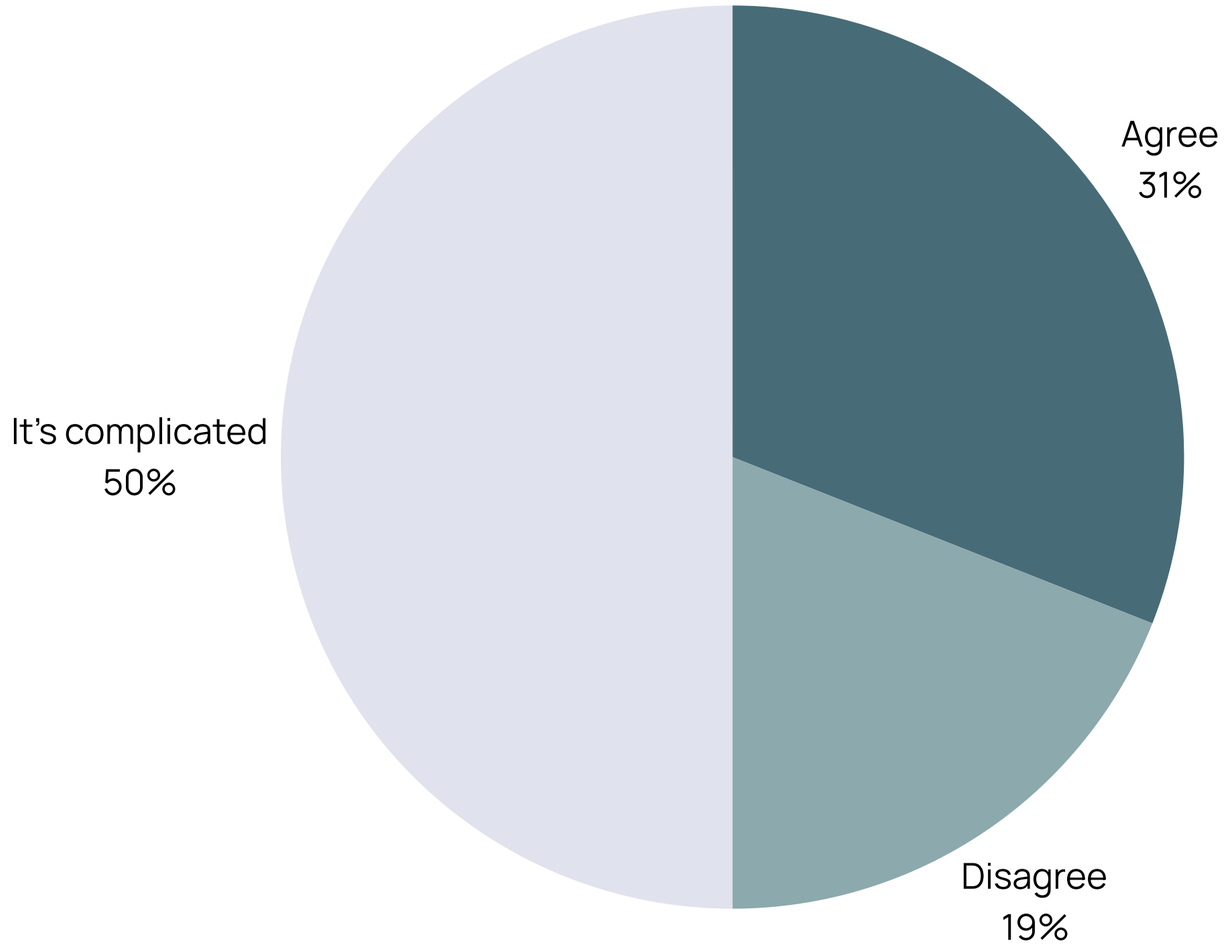
Journals bring value to research.

Reveals a mixed sentiment — participants acknowledge that journals still serve important functions, but many are questioning whether the current model is worth preserving as-is. You don't dismiss journals outright — in fact, several responses affirm their role in coordination, curation, and signaling trust.



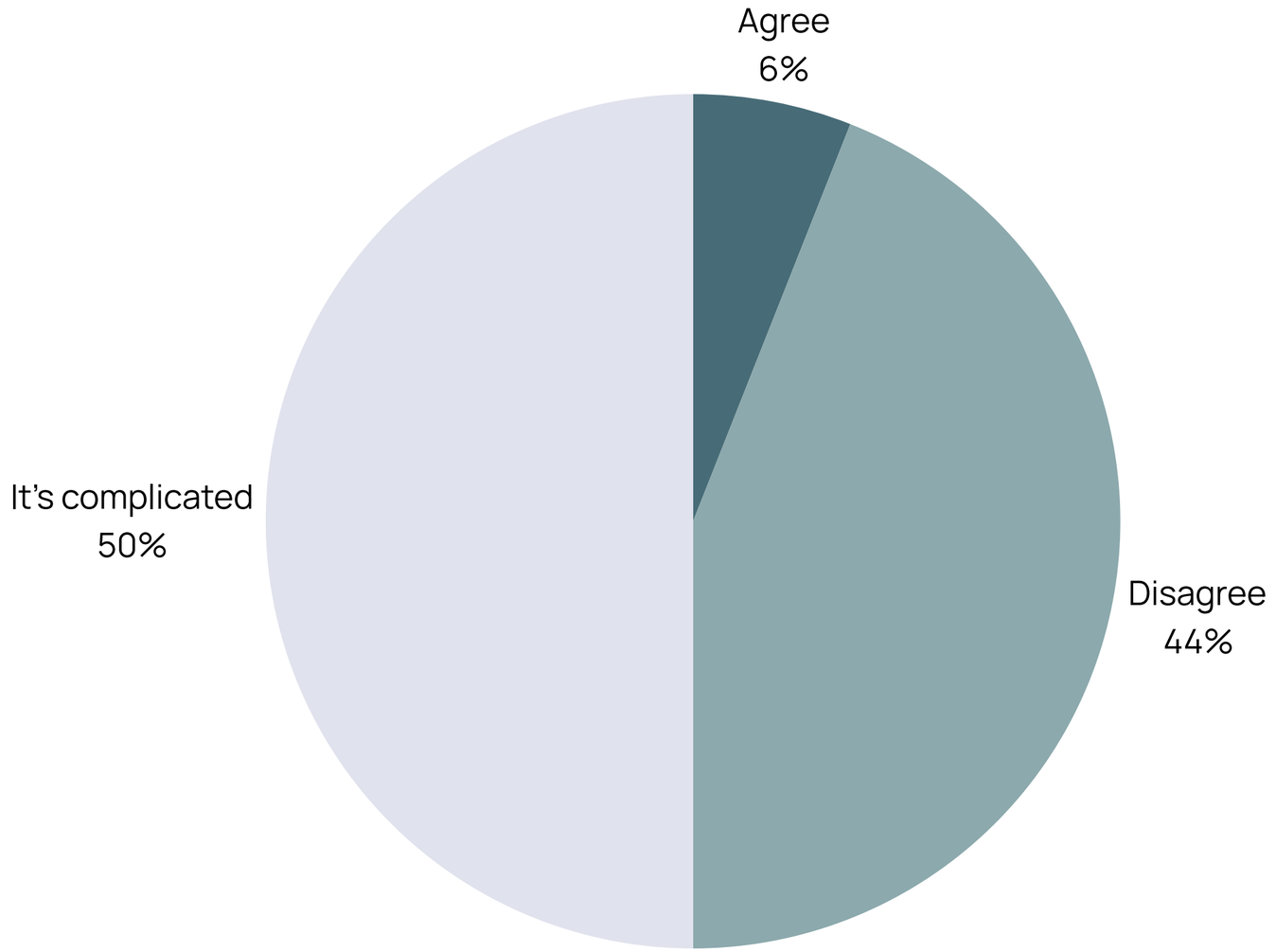
Digital tools are what will transform the way science is built and shared.

Reveals a pragmatic optimism — participants believe digital tools are essential to transforming science, but not sufficient on their own. Participants see technology as a catalyst, not a cure-all. For real change, tools must be paired with shifts in culture, values, and systems of recognition.



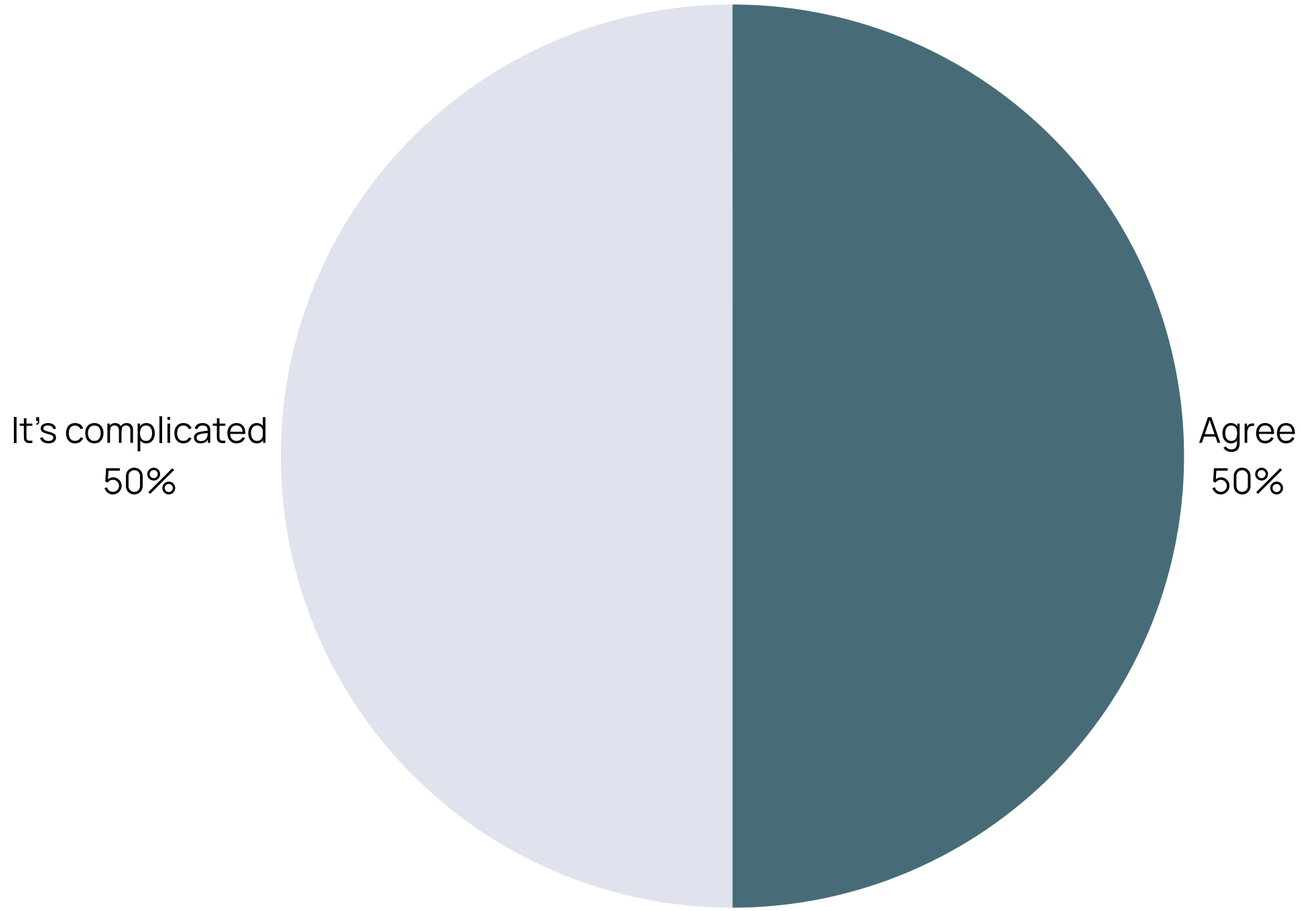
The PDF is needed to communicate research.

Reveals a readiness to move beyond PDFs — but a recognition that they persist for practical reasons. Participants largely view PDFs as a relic of legacy publishing—convenient, yes, but ill-suited to the future of science. Many want alternatives that support richer formats, collaboration, and reuse, while still preserving the reliability and accessibility PDFs offer today.



I share the same beliefs and values for science as my colleagues.

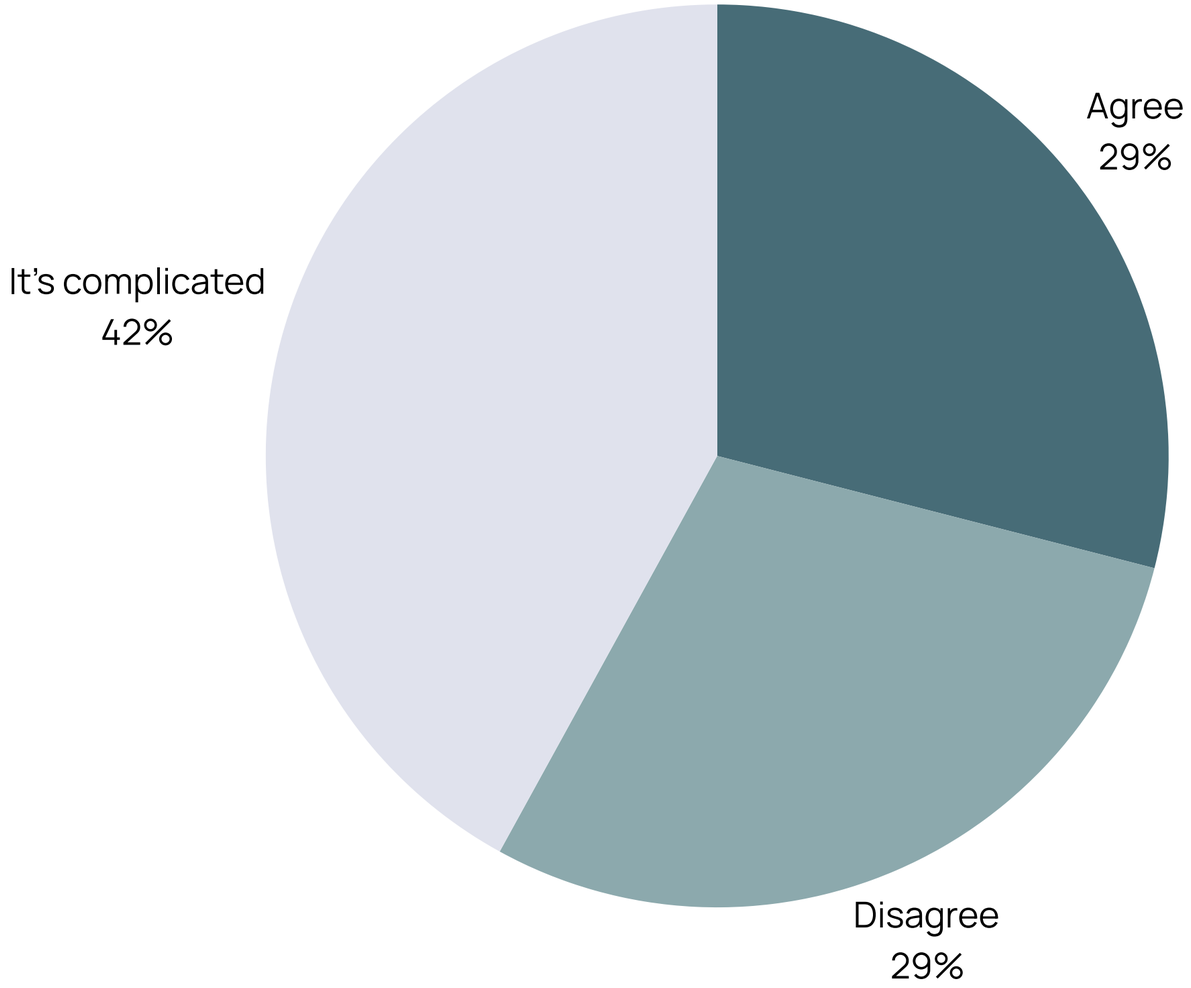
Reveals partial alignment — while many participants share baseline values with colleagues, deeper beliefs around openness, reform, and the purpose of publishing often diverge. Participants described feeling both supported and isolated, depending on context. Beneath general agreement lies a tension between tradition and transformation.



Where you disagree

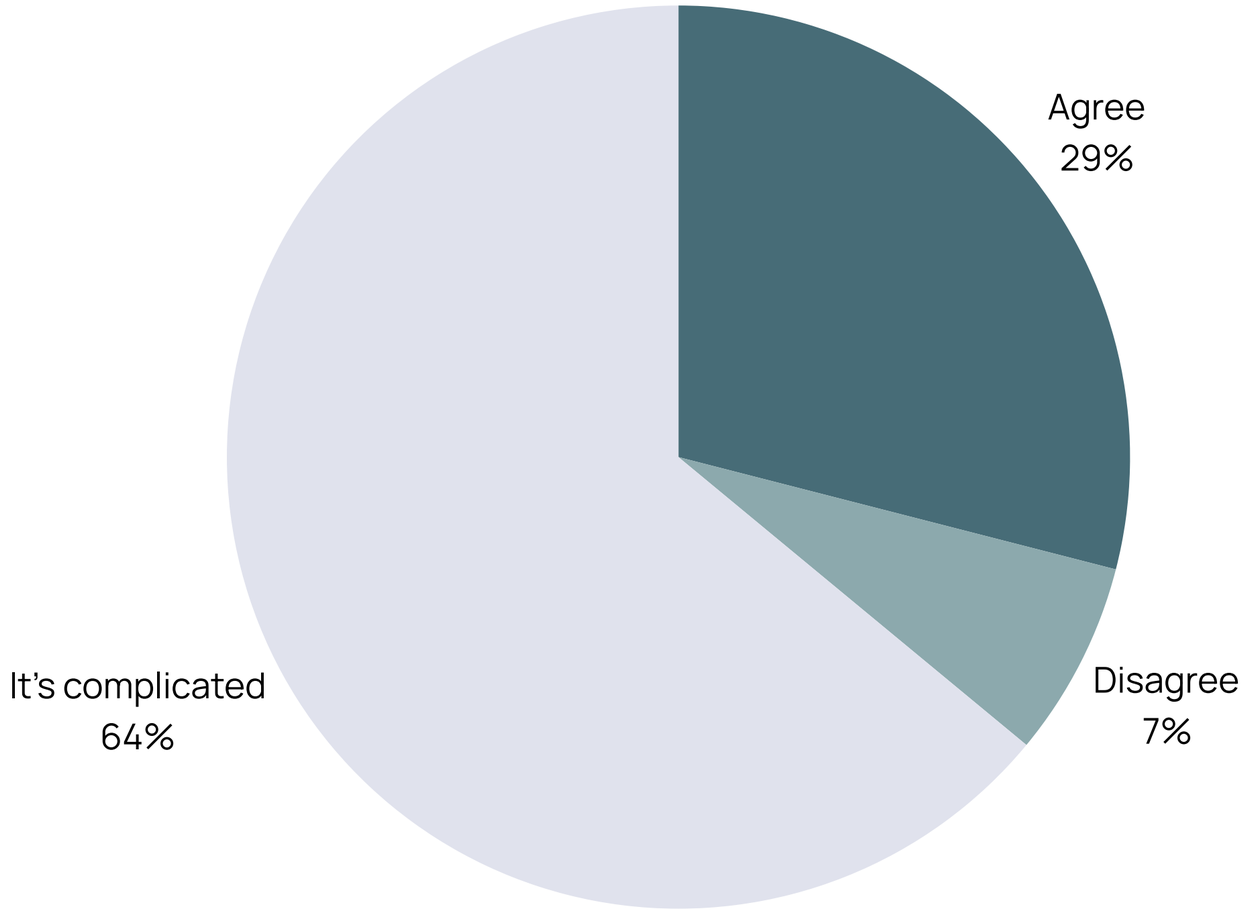
Systems that researchers use to publish their work MUST be open.

This statement drew strong general support — but also surfaced caveats, constraints, and quiet skepticism. While most participants agreed in principle, their responses suggest they see “open” as a value, not a binary requirement — and how open is defined really matters.



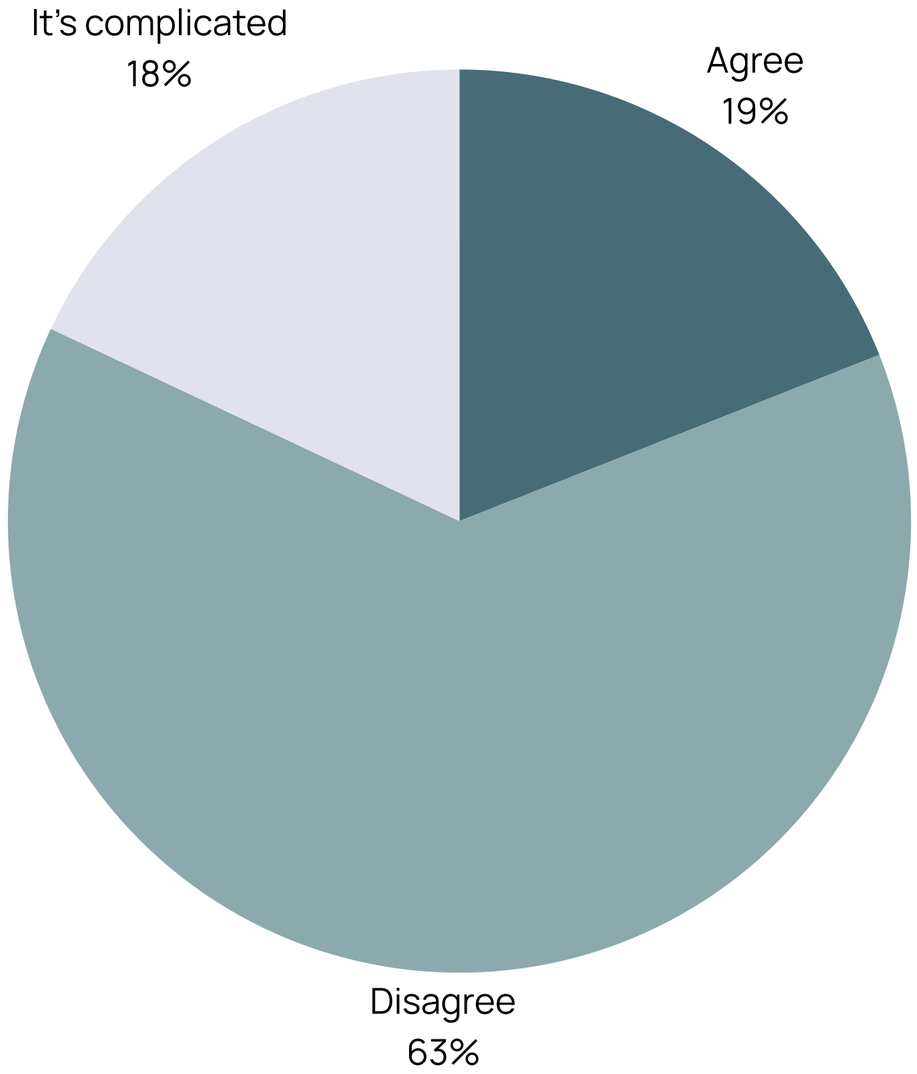
The open science movement is working.

Reveals a divided sentiment — participants are hopeful but cautious, and in many cases, skeptical. They don't reject open science — in fact, they value its goals — but they question whether the movement, as it exists today, is delivering on its promises.



Good science speaks for itself.

Participants largely reject the idea that quality alone ensures visibility or impact. They emphasize that without the right channels and framing, even the best research can be lost or overlooked. “Good science” doesn’t speak for itself — it needs context, communication, and credibility to be heard.



Word Associations

Impact Factor

Tone: Cynical, dismissive
Top Emotion: Disgust

- Participants view it as outdated and unhelpful—associated with reputation games, not scientific merit.

Open Access

Tone: Hopeful but critical
Top Emotion: Frustration

- Valued in principle, but seen as insufficient alone—concerns about cost, accessibility, and implementation.

Continuous Science

Tone: Curious, cautiously optimistic
Top Emotion: Interest

- Viewed as promising but underdefined. Some confusion or skepticism about how it works in practice.

Reproducibility

Tone: Principled, urgent
Top Emotion: Determination

- Strong agreement that it's essential; often tied to systemic failures or neglected priorities.

DOIs and Persistent Identifiers

Tone: Practical, neutral-positive
Top Emotion: Trust

- Seen as necessary infrastructure—functional, if unexciting.

Open Data

Tone: Positive, idealistic
Top Emotion: Hope

- Framed as essential to transparency and collaboration; some concerns around implementation.

Science Communication

Tone: Critical, reflective
Top Emotion: Concern

- Seen as undervalued, misunderstood, or trapped in outdated models (e.g., “information-deficit”).

Scientific Standards

Tone: Mixed—respectful but wary
Top Emotion: Appreciation

- Acknowledged as important, but some frustration about rigid norms or outdated enforcement.

Most urgent priority in reshaping scientific communicaiton

Reproducibility and Rigor

- A top concern was ensuring science is reproducible, especially through better practices around data, code, and methods sharing.

Reforming Publishing

- Several called out the need to restructure or replace traditional publishing, citing its slowness, cost, and misaligned incentives.

Infrastructure and Incentives

- Some focused on funding, governance, and infrastructure—the systems that enable more open and efficient communication.
- Incentives for sharing nontraditional outputs were also seen as pivotal.

Equity and Inclusion

- A few pointed to equity as an urgent priority—ensuring the future of science communication is not only open, but accessible and inclusive.

Speed and Accessibility

- Others highlighted the need to speed up sharing, reduce friction, and make outputs more immediately available to practitioners and the public.

Thematic Tensions

Rigor		Speed
Finality		Iterative
Trust		Transparency
Reuse		Access