

On the Current and Future Uses of Quantitative Scientometric Indicators (QSI) in Swiss Higher Education Institutions

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Overview

The NAIF (National Approach for Interoperable repositories and Findable research results) project aims to increase the visibility and findability of Swiss research output. ("NAIF Project," n.d.)

- **DORA** – Declaration on Research Assessment ("San Francisco Declaration on Research Assessment," n.d.)
- **CoARA** – Coalition for Advancing Research Assessment ("Coalition for Advancing Research Assessment," n.d.)
- **Leiden Manifesto** – Best practices for research metrics ("Leiden Manifesto for Research Metrics," n.d.)

Track 1 focuses on the **responsible use of quantitative indicators** for research assessment, aligned with:

This poster presents results from a **workshop with 27 stakeholders** from Swiss Higher Education Institutions, including **Ginny Barbour** (DORA Co-Chair), and a **survey of swissuniversities member libraries**.

Methods

Workshop Design

- **Participants:** 27 stakeholders from Swiss HEIs, policy makers, and international experts
- **Focus:** Four key questions on QSI implementation and responsible use
- **Case Study:** ETH Zurich's approach to research monitoring

Survey

- **Target:** swissuniversities member libraries
- **Scope:** Current practices, tool importance, and future needs

Key Findings at a Glance

Aspect	Current State
✓ Framework Adoption	Growing alignment with DORA, CoARA, Leiden
⚠ Implementation	Struggles translating declarations into practice
🏛 Assessment Level	Organizational monitoring preferred over individual
📊 Data Quality	Critical prerequisite for meaningful metrics



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Contact

NAIF Track 1: Responsible use of quantitative indicators

<http://eth-library.github.io/naif/>

Partner Institutions



NAIF Partner Institutions

? Q1: How firmly is QSI embedded?

✓ Adoption of Global Frameworks

Significant momentum to align with international reform initiatives:

- **DORA** – Improving research evaluation practices
- **CoARA** – Collaborative reform agenda
- **Leiden Manifesto** – Ten principles for research metrics

⚠ Implementation Challenges

- Many institutions struggle to translate declarations into **appropriate QSI practices**
- Gap between policy commitment and operational implementation

💡 Core Values

Consensus that indicators must be:

- **Transparent** – Clear methodology and limitations
- **Contextual** – Discipline and situation-specific
- **Fair** – Complement, not replace, expert judgment

? Q2: In what situations are QSI used?

🏛 Organizational over Individual

Using **ETH Zurich** as primary case study, QSI are favored for:

- ✓ University/departmental **monitoring and steering**
- ✗ Not for quantifying individual researcher output

📊 Specific Use Cases

Use Case	Application
🔬 Research Profiles	Topics researched, evolution over time
🌐 Impact Analysis	Citation patterns by discipline/country, societal relevance
🔗 Network Analysis	Collaboration patterns (internal/external, national/international)
📅 Strategic Initiatives	Open Access shares, funding source analysis

? Q3: How important are QSI tools?

📊 Data Quality as Prerequisite

Workshop highlighted that quantitative metrics are often **flawed or misapplied**:

- ✓ High importance on **data quality**
- ✎ Requires **multiple data sources**
- ✅ Rigorous **data cleaning** essential

⌚ Contextual Relevance

Tools are only useful when they are **context-based**:

- First understand **how users engage** with data
- Then define appropriate **QSI or tools**

🤝 Diverse Methodologies

Effective use requires collaboration between:

- ✎ **Data specialists** – Collection and cleaning
- ✨ **Subject experts** – Contextual interpretation

? Q4: How to promote responsible QSI?

Four Pillars for Future Implementation

Pillar	Description
🤝 Collaboration of Experts	Multi-layered approach: data specialists + subject experts + social research methodologists
💬 Dialogue-Based Models	Follow ETH Zurich model: prioritize dialogue to clarify purpose and limitations

Pillar	Description
📍 Context-First Approach	Build use cases first, then define sensible QSI – avoid starting with the indicator
🌐 Holistic Scope	Expand beyond citations: ORD, Open Science, transdisciplinary collaboration, media response

📌 Conclusion

The NAIF project will incorporate these insights to develop **guidelines** supporting Swiss HEIs in applying:

- 🔍 **Transparent** research assessment
- 📍 **Context-specific** indicator selection
- 🌐 **International best practices** alignment

Key Takeaways

1. **Start with context**, not indicators
2. **Organizational monitoring** over individual assessment
3. **Data quality** is non-negotiable
4. **Multi-stakeholder dialogue** drives responsible implementation

"Coalition for Advancing Research Assessment." n.d. <<https://coara.eu/>>.
 "Leiden Manifesto for Research Metrics." n.d. <<http://www.leidenmanifesto.org/>>.
 "NAIF Project." n.d. <<https://eth-library.github.io/naif>>.
 "San Francisco Declaration on Research Assessment." n.d. <<https://sfdora.org/>>.