

Smart Diaspora 2023

www.diaspora-stiintifica.ro

10 - 13 Aprilie 2023,
Timișoara

Eveniment aflat sub înaltul patronaj
al Președintelui României



Parteneri instituționali:

Parteneri

Parteneri media

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Știința deschisă și implicațiile pentru evaluarea
performanțelor în cercetare

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Assessment Context

- San Francisco Declaration on Research Assessment (DORA, 2012)
- Coalition for Advancement in Research Assessment (CoARA, 2022) (500+ organizations)

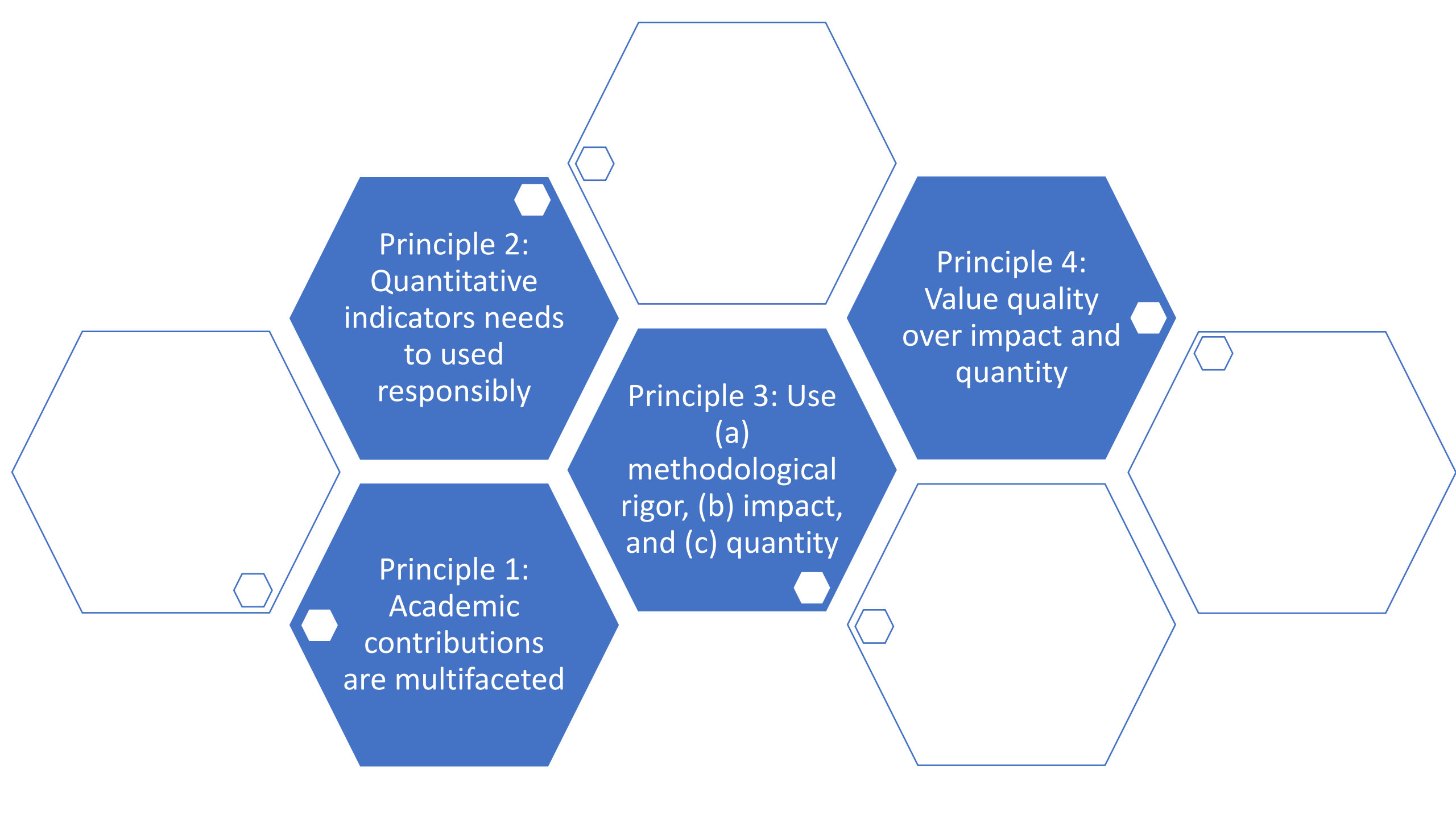
Relying solely on quantitative elements number of papers (quantity), and the JIF (a proxy for quality) is detrimental to the evolution of science/assessment of people

THREE MAIN REASONS

- BAD FOR SCIENCE (negative correlations with some research quality indicators – replication success, reporting errors, presence of HARKing) (Brembs et al., 2013; Dougherty & Horne, 2022; Kepes et al., 2022)
- BAD FOR PEOPLE (publish or perish culture affects the quality of life; disregard other activities and outputs)
- BAD FOR BUSINESS (flourishment of predatory journals/publishers)

Threats of moving away from a scientometric view

- Distorted or irrelevant rankings (see U-Multirank)
- Threats to the university's prestige
- Absence of a real peer-review culture (in some countries)



Principle 2:
Quantitative
indicators needs
to used
responsibly

Principle 4:
Value quality
over impact and
quantity

Principle 3: Use
(a)
methodological
rigor, (b) impact,
and (c) quantity

Principle 1:
Academic
contributions
are multifaceted

Being inclusive and rigorous

Types of academic contributions:

1. Research

2. Teaching

3. Leadership
(e.g., mentoring, management and organizational skills, strategic thinking)

4. Service to the academic institution/ field

5. Societal impact
(e.g., science communication/ citizenship)

Research outputs (ROs):

Publications

Data sets

Research software

Contributor roles

Evaluation dimension:

Rigor
(for each RO)

Impact
(for each RO)

Quantity
(aggregated)

- Registered report
- Analysis script provided
- Open material
- Independently verified reproducibility
- Formal modeling
- Manipulation checks
- Follows reporting guidelines
- ...

- Citation count
- Altmetrics
- Societal impact
- ...

- Number of papers
- ...

- FAIRness
- Representativeness
- Size
- Uniqueness/effort of data collection
- ...

- Citation count
- # of reuses from other authors
- ...

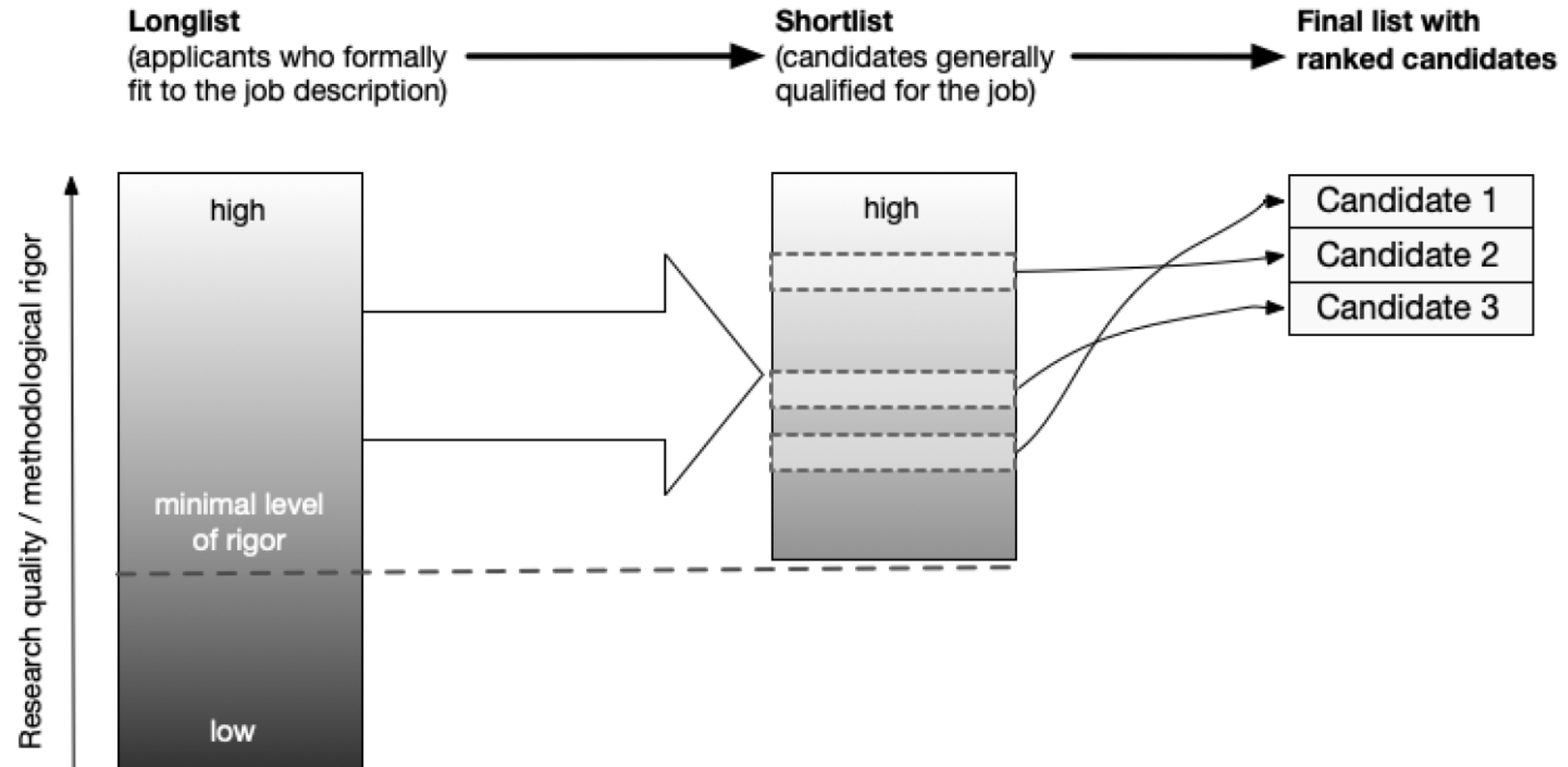
- Number of published data sets
- ...

- Independent review
- Unit testing
- Documentation
- Technology Readiness level
- ...

- Citation count
- Dependencies
- Github stars
- ...

- Number of published software
- Duration of active maintenance
- % of applicants contribution to a product
- ...

A two-stage proposal



**Primary
means of
assessment:**

Phase 1 (negative selection): Use indicators to filter out applicants with insufficient methodological rigor, too low productivity, and necessary criteria from the other types of academic contributions (e.g. teaching)

Phase 2 (positive selection): In-depth discussion about how innovative and meaningful the research is, considering all other academic dimensions such as *Teaching* and *Societal Impact*. Metrics should play no role in this step. Read merit statements; read papers of the final candidates.

Open Science-related tools are essential for meeting the rigor criteria
(a necessary condition for quality)

- Independently verified reproducibility (open materials, script provided, available datasets, FAIRness)
- Preregistration