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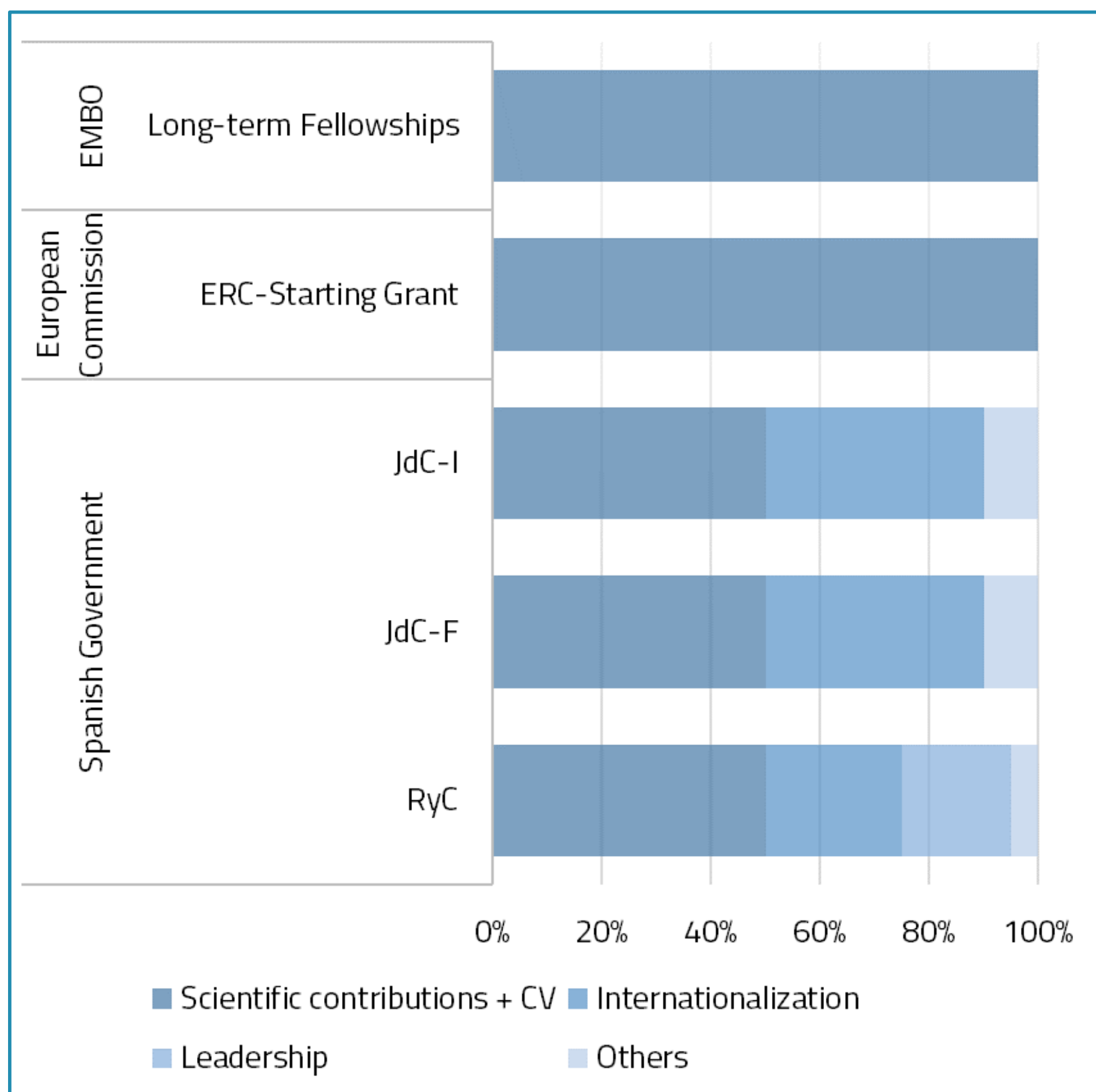


Figure 1. Weights in criteria from different calls when referring specifically to the candidate

Threats from current research evaluation

Threat 1. Evaluation schemes rely heavily on journal publication and citation-based indicators

- Regardless of how explicit their criteria are (Fig 1), the use of scientometric indicators is widely extended in peer review processes¹.
- The irresponsible use of metrics has a negative impact on research practices².

Threat 2. Despite being more necessary than ever, invisible profiles are being kicked out of academia

- Middle authors are increasing in numbers³ but see how their research career is shortened⁴.
- The seemingly 'egalitarian' way in which indicators are used hampers research with specific profiles⁵.

Threat 3. Changes in the scholarly system are ignored in research evaluation

- There is a misalignment between what society needs and demands from science and research assessment, hiring and promotion systems⁶.

Main pillars of the *valuation* model

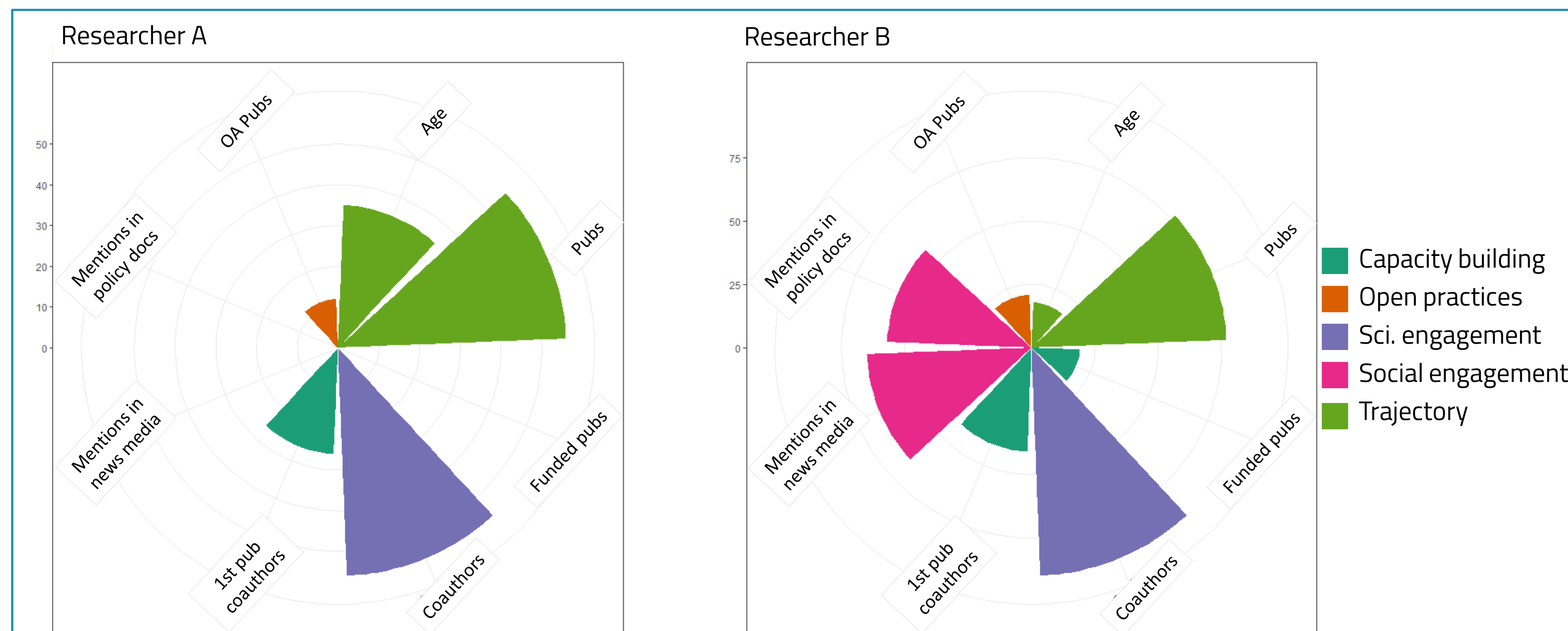
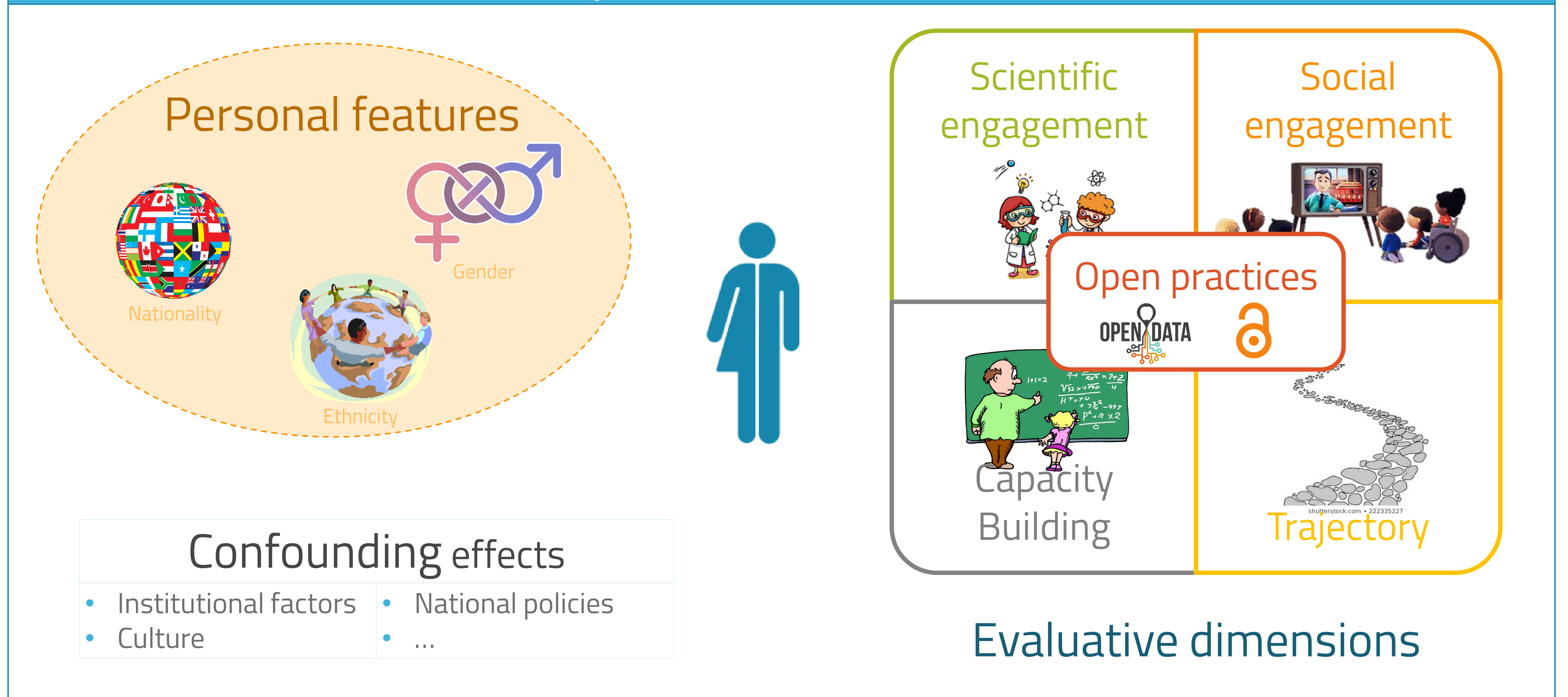


Figure 2. Two examples of senior researchers from Social Sciences fields using bibliometric indicators to operationalize each dimension

Concluding remarks

Operationalization.

- Flexible model in which indicators can be modelled and selected based on **policy context**

Case studies.

- Six case studies are designed to test and validate the model (Fig. 2)

Implementation and future steps.

- The model defines what to measure but not how to assess it

References

1. Hammarfelt, Björn, and Alexander D. Rushforth. 'Indicators as Judgment Devices: An Empirical Study of Citizen Bibliometrics in Research Evaluation'. *Research Evaluation* 26, no. 3 (1 July 2017): 169–80.
2. Rijcke, Sarah de, Paul F. Wouters, Alex D. Rushforth, Thomas P. Franssen, and Björn Hammarfelt. 'Evaluation Practices and Effects of Indicator Use—a Literature Review'. *Research Evaluation* 25, no. 2 (1 April 2016): 161–69.
3. Mongeon, Philippe, Elise Smith, Bruno Joyal, and Vincent Larivière. 'The Rise of the Middle Author: Investigating Collaboration and Division of Labor in Biomedical Research Using Partial Alphabetical Authorship'. *PLOS ONE* 12, no. 9 (14 September 2017): e0184601.
4. Milojević, Staša, Filippo Radicchi, and John P. Walsh. 'Changing Demographics of Scientific Careers: The Rise of the Temporary Workforce'. *Proceedings of the National Academy of Sciences* 115, no. 50 (11 December 2018): 12616–23.
5. Gläser, Jochen, and Grit Laudel. 'Evaluation Without Evaluators'. In *The Changing Governance of the Sciences: The Advent of Research Evaluation Systems*, edited by Richard Whitley and Jochen Gläser, 127–51. Sociology of the Sciences Yearbook. Dordrecht: Springer Netherlands, 2007.
6. Ioannidis, John P. A., and Muin J. Khoury. 'Assessing Value in Biomedical Research: The PQRST of Appraisal and Reward'. *JAMA* 312, no. 5 (6 August 2014): 483–84.

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