

Game over: empower early career researchers to improve research quality



VERONIQUE DE HERDE PhD Candidate UCLouvain Belgium



BJÖRNMALM Senior Advisor Research and Innovation CESAER

MATTIAS



TOMA SUSI
Assistant Professor
Faculty of Physics
University of Vienna

The PhD candidate: 'locked-in' to the current system if I want to progress

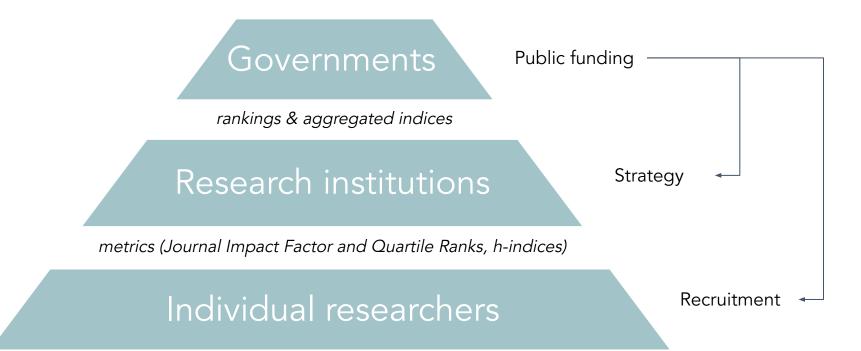
'early career researchers are "locked-in" when it comes to selecting venues for publication' The researcher turned science advocate: change the system from within

'The game may be rigged, but we all are forced to play'

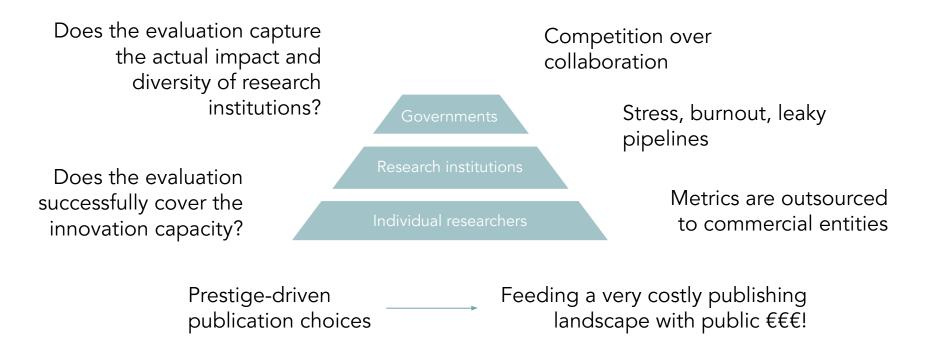
The young academic and PhD supervisor: no choice but to perpetuate the current system

'no researcher should have to martyr themselves to advance openness, given how valuable it is for science'

Evaluation: prestige-based metrics flow downhill



An easy-to-use and globalising system, but...



Most pernicious problem: misuse of journal-based impact metrics

...creating dilemmas for researchers (especially ECRs)

Career incentives

- Publish (a lot and fast) or perish
- Strategic journal choices over innovative publishing models

Idealistic thinking

- FAIR data sets
- Slow-paced innovative approaches
- Collaborative review systems
- ...and much more



We need to reform research assessment ...and change the evaluation culture!

Changing established mindsets is hard

I have been advocating for change for more than decade... yet my thinking is still strongly affected by the prestige game!

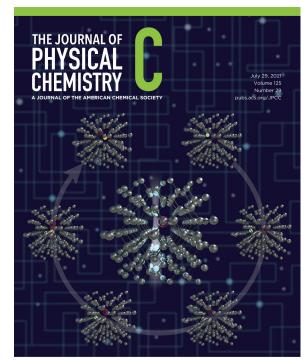
"I recently published a cool piece of science from my ERC project that I was quite proud of.

We tried to initially submit to a very prestigious journal but they said it's not novel enough – a subjective judgment – and we ended up publishing this paper in a respected journal, just not as prestigious. The research didn't change, it was exactly the same article.

And I caught myself thinking "Oh, it's not worth a press release, because it's not such an impressive journal"...

...but then I said to myself "No, it doesn't matter, it's the same research, and I'm going to do it." Luckily, the university agreed.

So yes, it is hard and this mentality change will take time. I'm not sure if people who are now decades into their scientific careers and never thought about these problems can change their minds."





www.acs.o

Which steps do we identify to implement a change of culture?

First, as a research community, among researchers across all career stages, we need to take a *hard*, *realistic and honest look* at the current reward system and its flaws, regardless of how well it may have served us.

Second, beyond localized examples of evolving practices of research evaluation, for example in the recruitment practices of some faculties or research institutes, a broader internal dialogue is needed within the research community to focus on what is important, what should be rewarded and how individuals are evaluated at different stages of their research careers.

To this end...





https://initiative-se.eu

external policy advisors



www.mostlyphysics.net/policy

March 2021: workshop on the assessment of Open Science practices

ISE held a 2-day stakeholder workshop to discuss the implementation of mechanisms to incentivise and reward the adoption of Open Science practices.

[FULL REPORT IN PREPARATION]

"...it is urgent and vital that diverse research communities concretely consider how they wish evaluation systems to be adapted to reward open science practices,

and that decision-makers *engage* with such communities in planning the reforms.

There is serious risk that if research communities *cannot agree* on what to replace currently prevalent prestige indicators such as journal impact factors and quartile ranks with,

these will either continue to be (mis)used or new indicators will be imposed without the community's participation."

'Evaluation is largely in hands of the academic community'

But you can help!



https://www.deviantart.com/scruffytoto/art/Stop-Hitting-Yourself-162754503

What will Europe look like in 2030, if we succeed?

Five key enablers for ministers and leaders at research funding & performing organisations

- 1) There are <u>sustainable funding</u> levels
 - All European states meet the <u>3% GDP target (incl 1.25% public effort target)</u>
 - Competitive (short-term, stimulating) and non-competitive (long-term, strategic) funding streams are balanced
- 2) There are <u>no legal barriers</u> to the mobility of researchers
 - Being a researcher working across Europe no longer means navigating labyrinths of incompatible labour laws, migration rules, social security schemes, pension systems etc.
 - European Commission has taken on an active role as an 'eliminator' of barriers on EU and national levels to
 ensure that <u>Article 179 TFEU</u> is fulfilled with 'researchers, scientific knowledge and technology circulating freely'
- 3) There is full acknowledgement of modern research careers
 - Diverse trajectories are common: e.g. permanent senior scientist, research infrastructure expert, data steward...
- 4) Research infrastructure is abundant and access is fully supported
 - Resources and expertise (hardware and people) are available to the broader research community
- 5) Knowledge is a <u>global public good</u>
 - Societal leaders and politicians embrace and promote knowledge as a global public good in contrast to positioning knowledge as tool to pursue competitive/financial advantage