

The failure of success

Careers, cultures, and integrity in science

Presentation for the Research Integrity Lunch

20 January 2021

Noémie Aubert Bonn

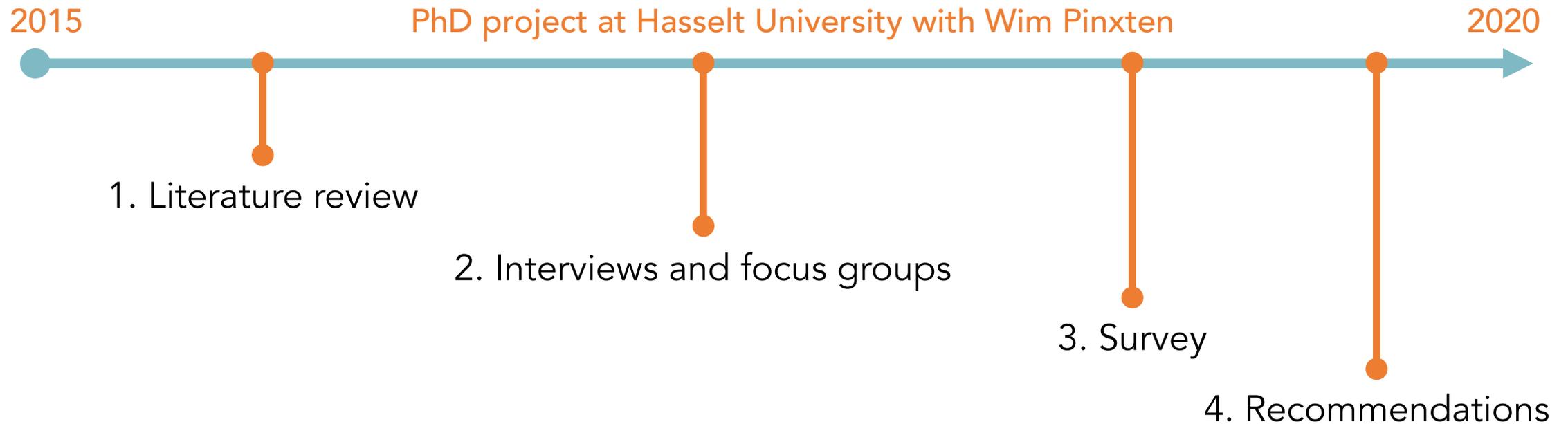


UHASSELT

KNOWLEDGE IN ACTION

The failure of success

Careers, cultures, and integrity in science



1. Literature review

Research on research integrity

Topics

Empirical?

Methodology

Main findings

Proposed approaches

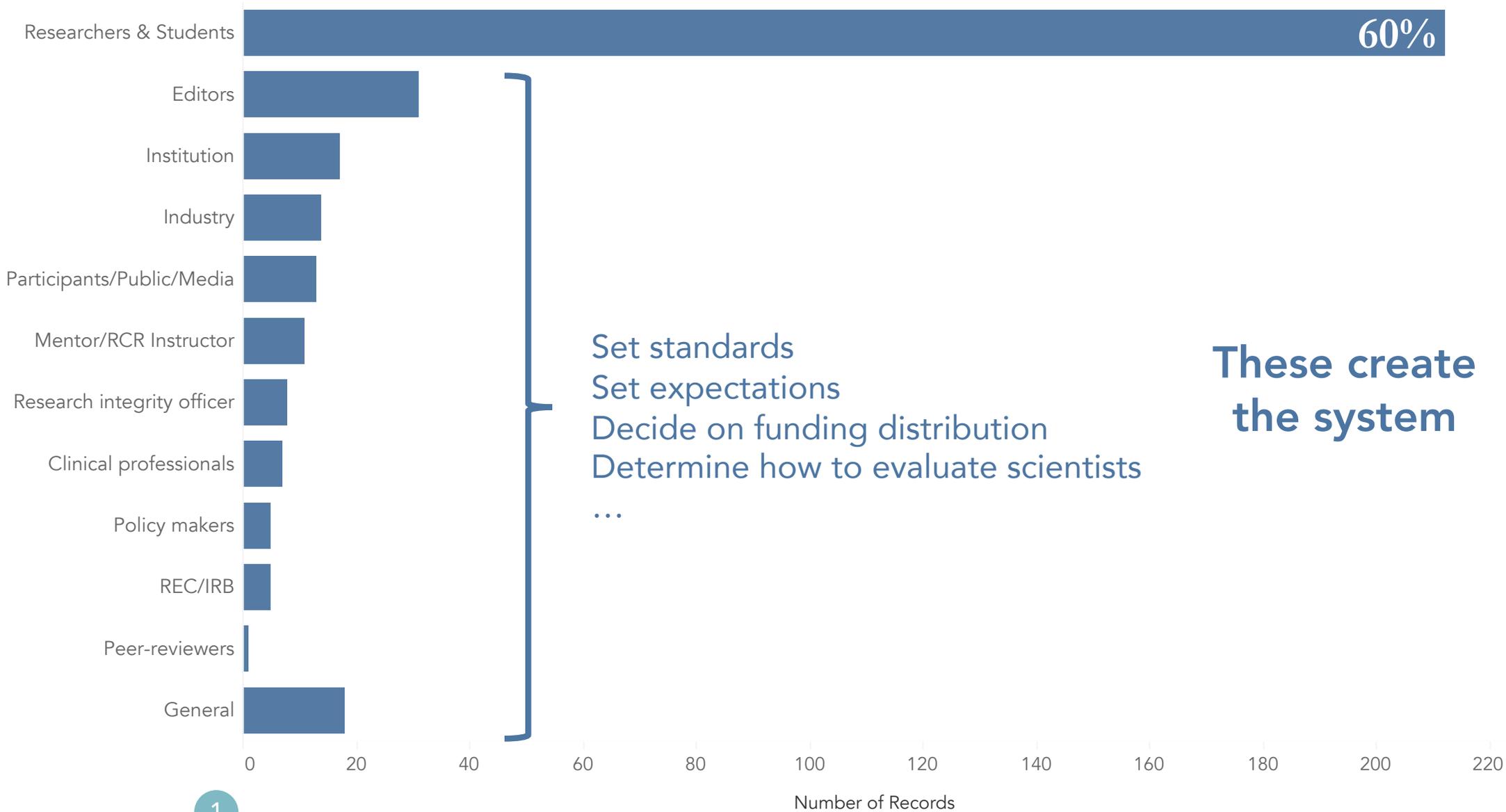
...

955 articles

331 of which were empirical

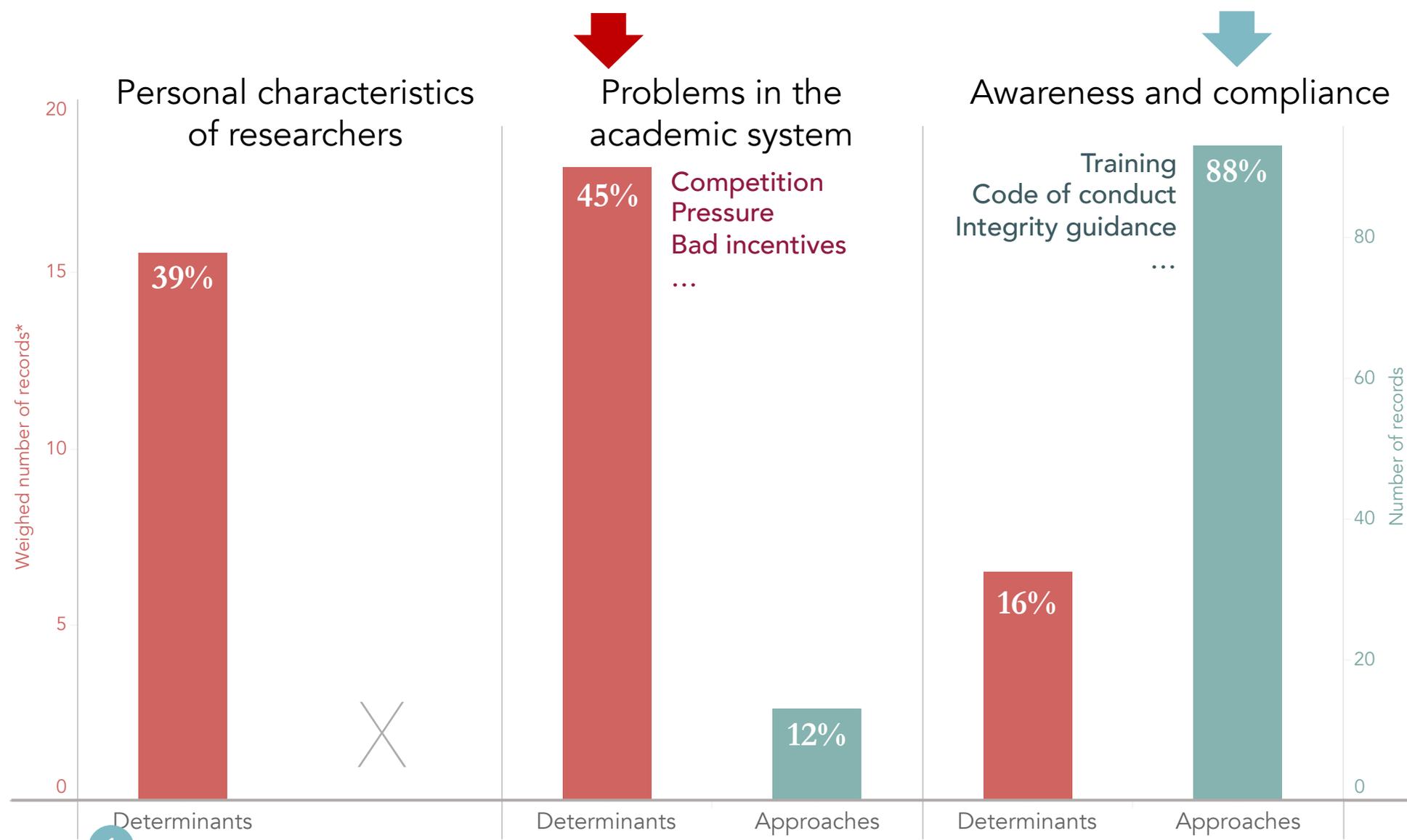


Finding 1: We know a lot about researchers, but very little about other actors



Finding 2: We know the academic system is part of the problem, but we don't address it

Determinants (causes) and **approaches** (solutions) to misconduct



- We know a lot about researchers, but very little about **other actors**
- We know the **academic system** is part of the problem, but we don't address it



1. Literature review

2. Interviews and focus groups

1

2



PhD Students



Post Doc



Faculty researchers



Past-Researchers

1. What leads researchers to
success?

2. What threatens
integrity?

3. Who is
responsible?

Institution Leaders



Policy Makers



Research Funders



Editors/Publishers



Research Integrity
Offices



Lab Technicians



Integrity network



Current assessments...

...overvalue **outputs**

...**ignore** important **processes**

...expect **exceptional** output

→ Discourages realism

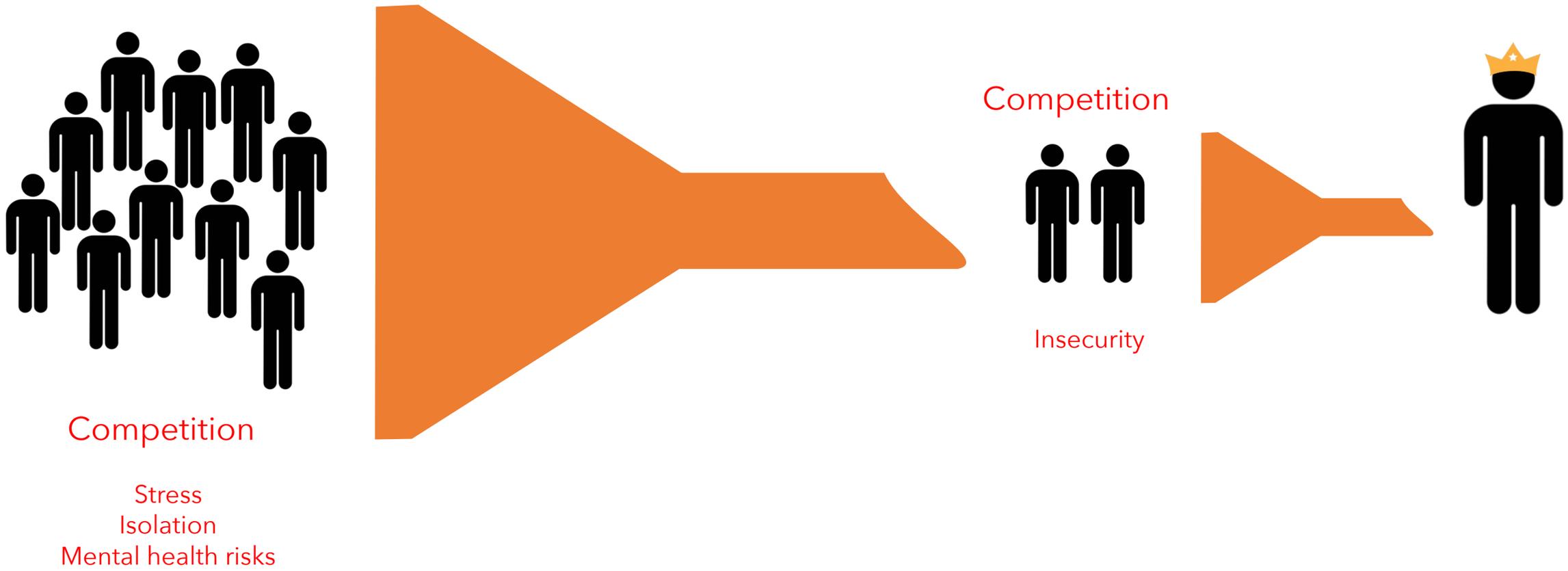
...look at researchers **individually**

→ Discourage collaboration

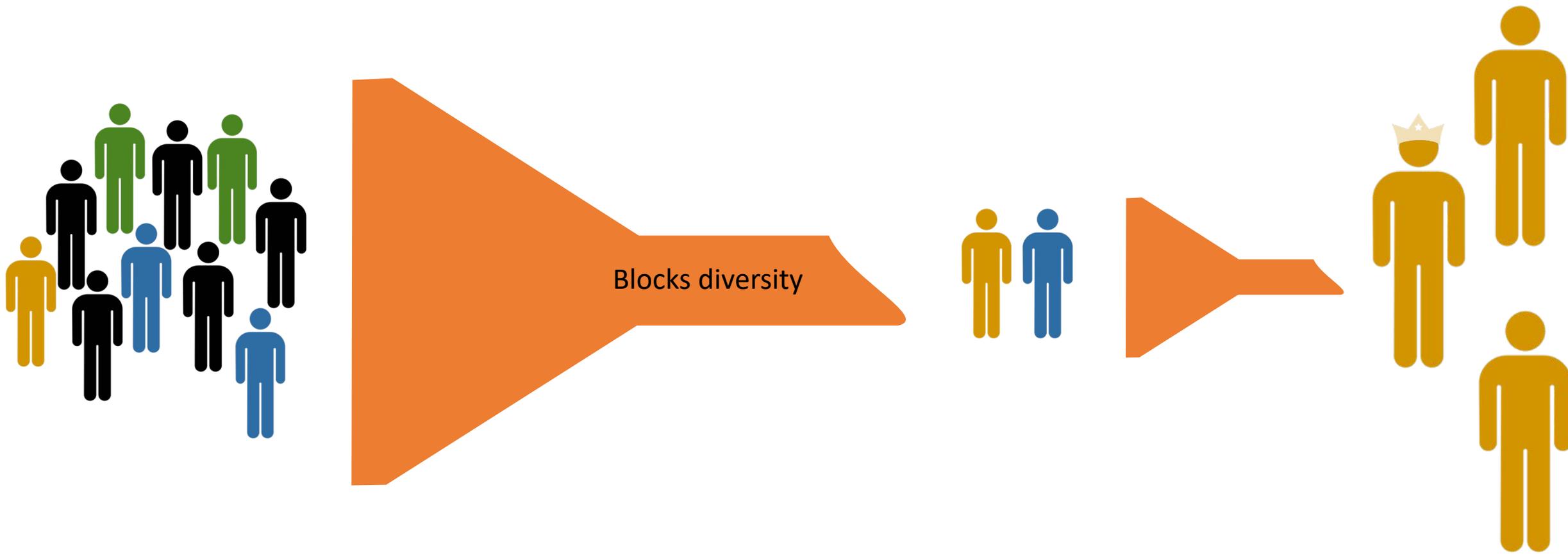
...are based on **competition**

→ Discourage openness

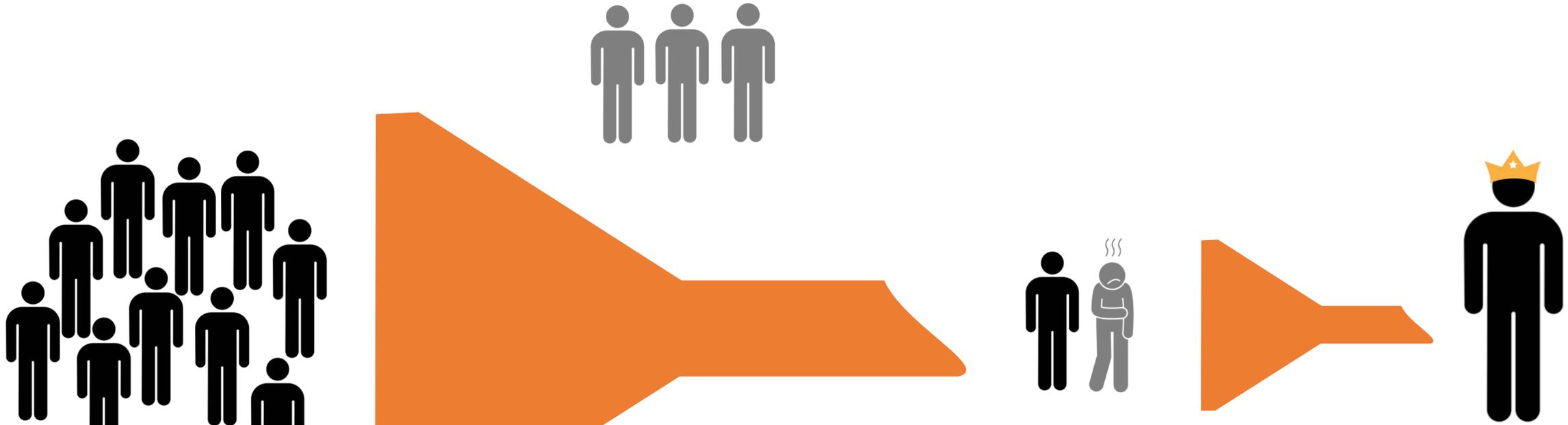
Finding 4: The funnel structure of research careers strengthens existing problems



Finding 4: The funnel structure of research careers strengthens existing problems



Finding 4: The funnel structure of research careers strengthens existing problems



Feeling of failure

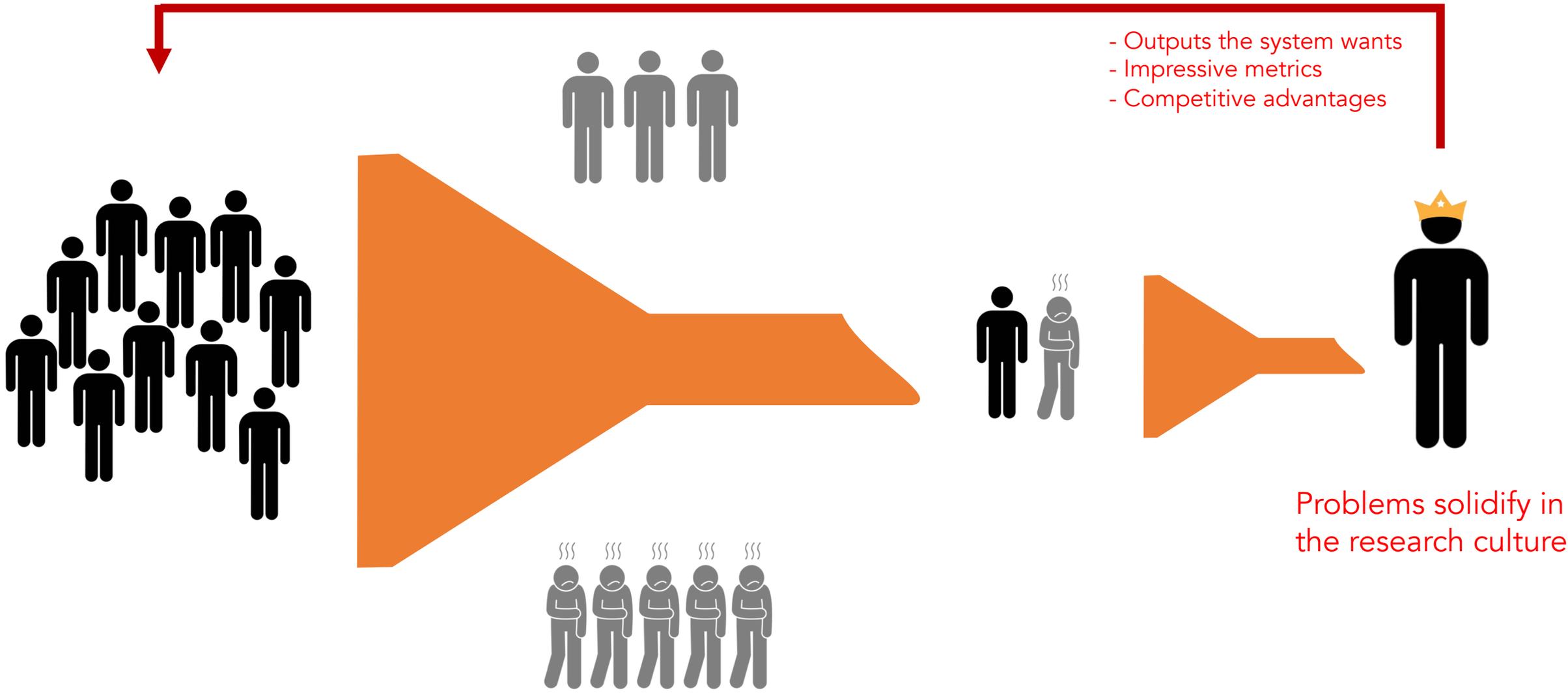
“Maybe I’m not a real, real scientist”



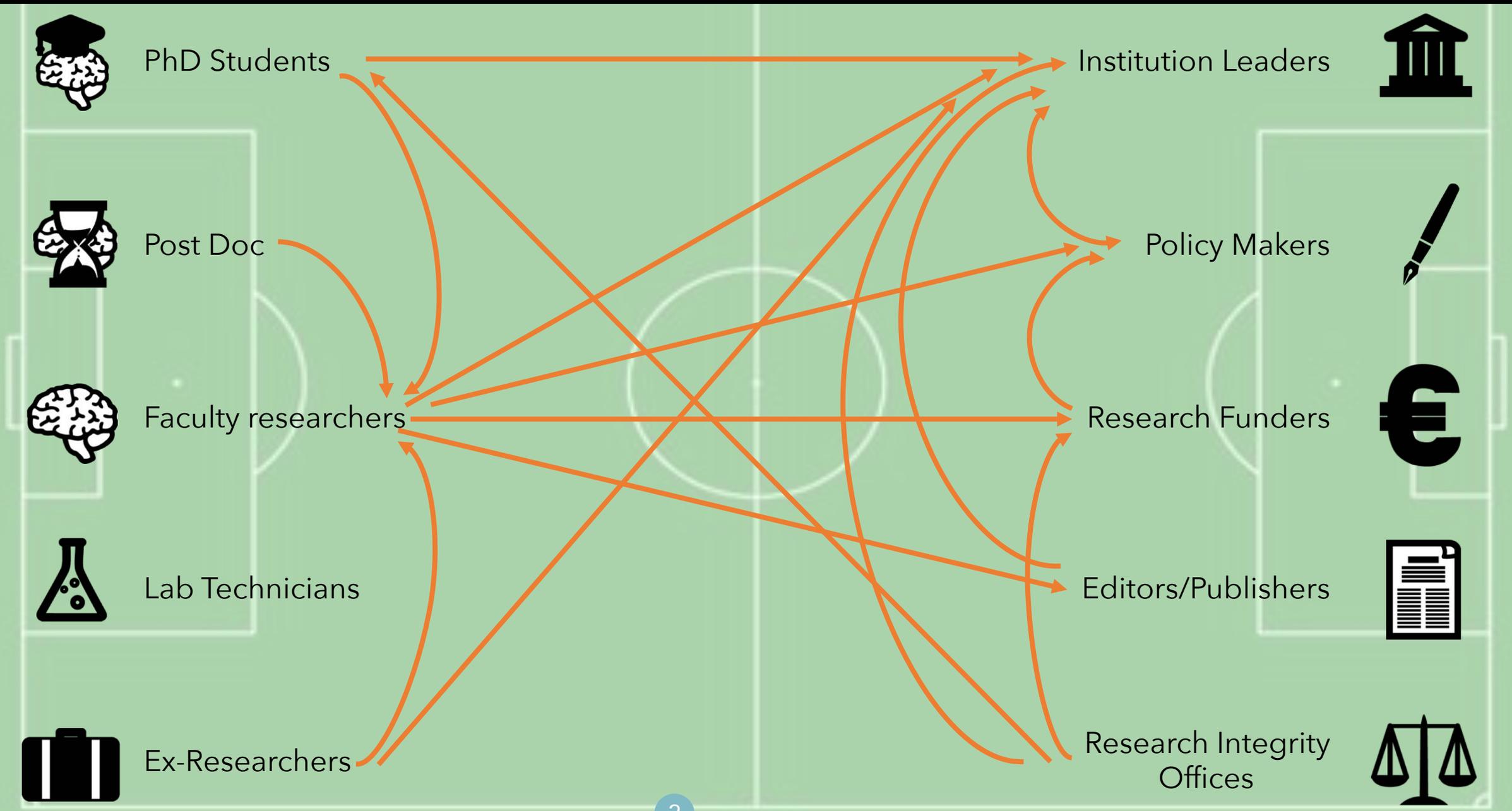
“I’m the idiot that gave up”

“I really took it hard and personal like ‘Oh no, I’m not good enough, I’m not working hard enough.’”

Finding 4: The funnel structure of research careers strengthens existing problems



Finding 5: Nobody feels able nor responsible for solving the problem



Finding 5: Nobody feels able nor responsible for solving the problem



PhD Students

"One institution cannot change that."

Institution Leaders



Post Doc

"I don't really like the idea that only the publication rate will get you far in research career life. But I think at the moment this is how it is."

Policy Makers



Faculty researchers

"Everyone is sticking to the system because the system is like it is."

Research Funders



Lab Technicians

"[High impact factors are] the goal of every author, of every researcher, so there isn't anything that we can do."

Editors/Publishers



Ex-Researchers

Research Integrity Offices



- We know a lot about researchers, but very little about **other actors**
- We know the **system** is part of the problem, but we don't address it
- There is a clear issue in the way we **assess** researchers
- The **funnel structure of research careers** strengthens existing problems
- Nobody feels able nor **responsible** for solving the problem



1. Literature review

2. Interviews and focus groups

3. Survey

1

2

3

3. Survey with researchers

1. How do researchers **distribute their time?**
2. What do they think of **indicators of academic success?**

126 respondents, mostly from Flemish research institutions

Finding 6: Researchers are overworked and burdened by administrative tasks

1. How do researchers **distribute their time**?

- 80% of full time researchers work > 40 hours per week (max 80h!)
- Respondents wish they could spend:
 - **more** time on **research**
 - **less** time **writing grants** and on **other tasks** (meetings, administration)



2. What do they think of **academic success indicators**?

Publishing papers is...

Publishing in **high impact** journals is...

Publishing commentaries or editorials is...

Publishing more papers than others is...

Publishing **open access** is...

Peer reviewing is...

Replicating past research is...

Publishing findings that did not work (i.e., **negative findings**) is...

Sharing your full data and detailed methods is...

Reviewing raw data from students and collaborators is...

Conducting research with a high risk of failure is...

Connecting with renowned researchers is...

Collaborating across borders, disciplines, and sectors is...

Getting cited in scientific literature is...

Having your papers read and downloaded is...

Having public outreach (e.g., social media, news, etc.) is...

Having your results used or implemented in practice is...

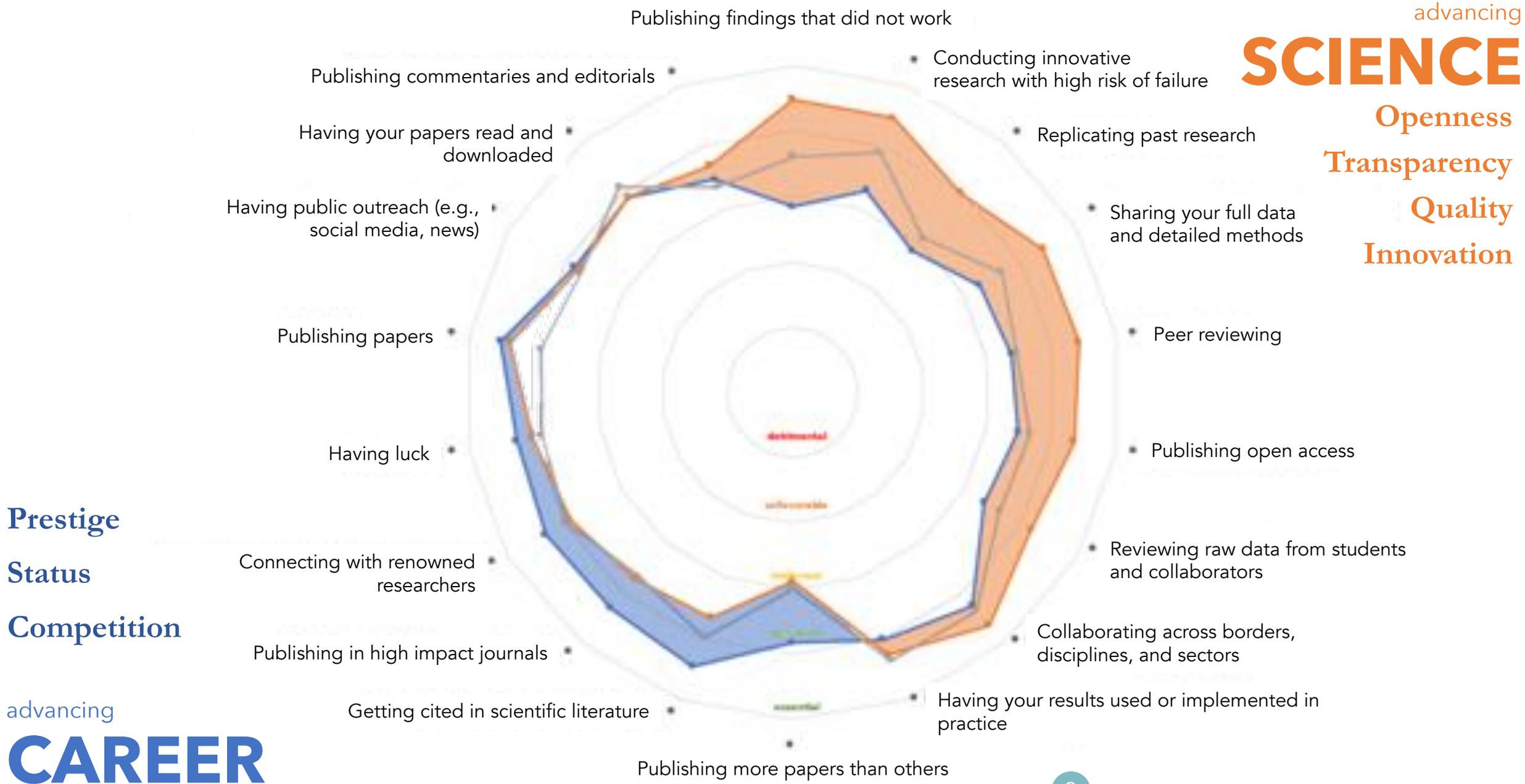
Having luck is...

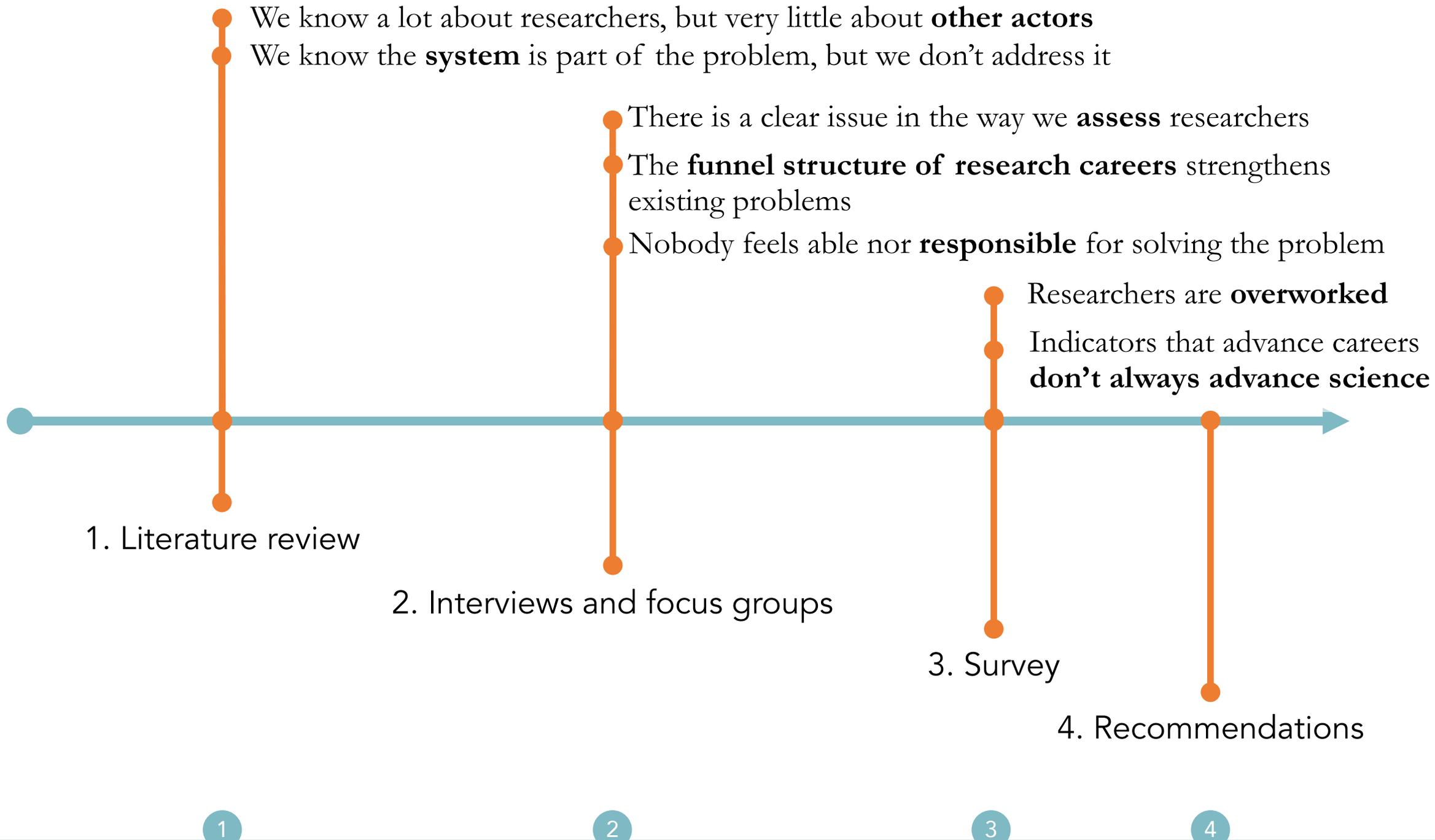
2. What do they think of **academic success indicators**?

Publishing in high impact journals is...

	...in advancing my career	...in advancing science	...to my personal satisfaction
essential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
irrelevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
unfavorable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
detrimental	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Finding 7: Disconnect between what advances science and what advances careers





RECOMMENDATIONS

1. Look beyond the researcher

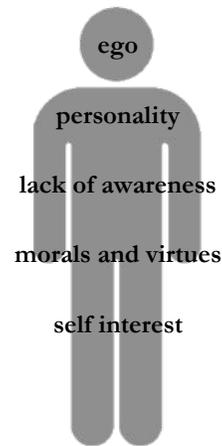
SOURCE

expectations

climates

pressures

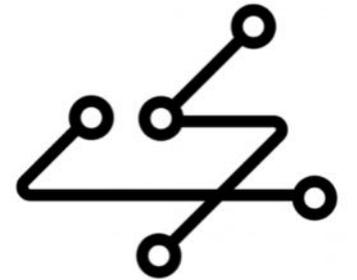
demands



assessments

careers

security



SOPs4RI

infrastructures

RECOMMENDATIONS

2. Rethink research assessments

Be transparent and reflective when using metrics

Complement individual recognition with collective recognition

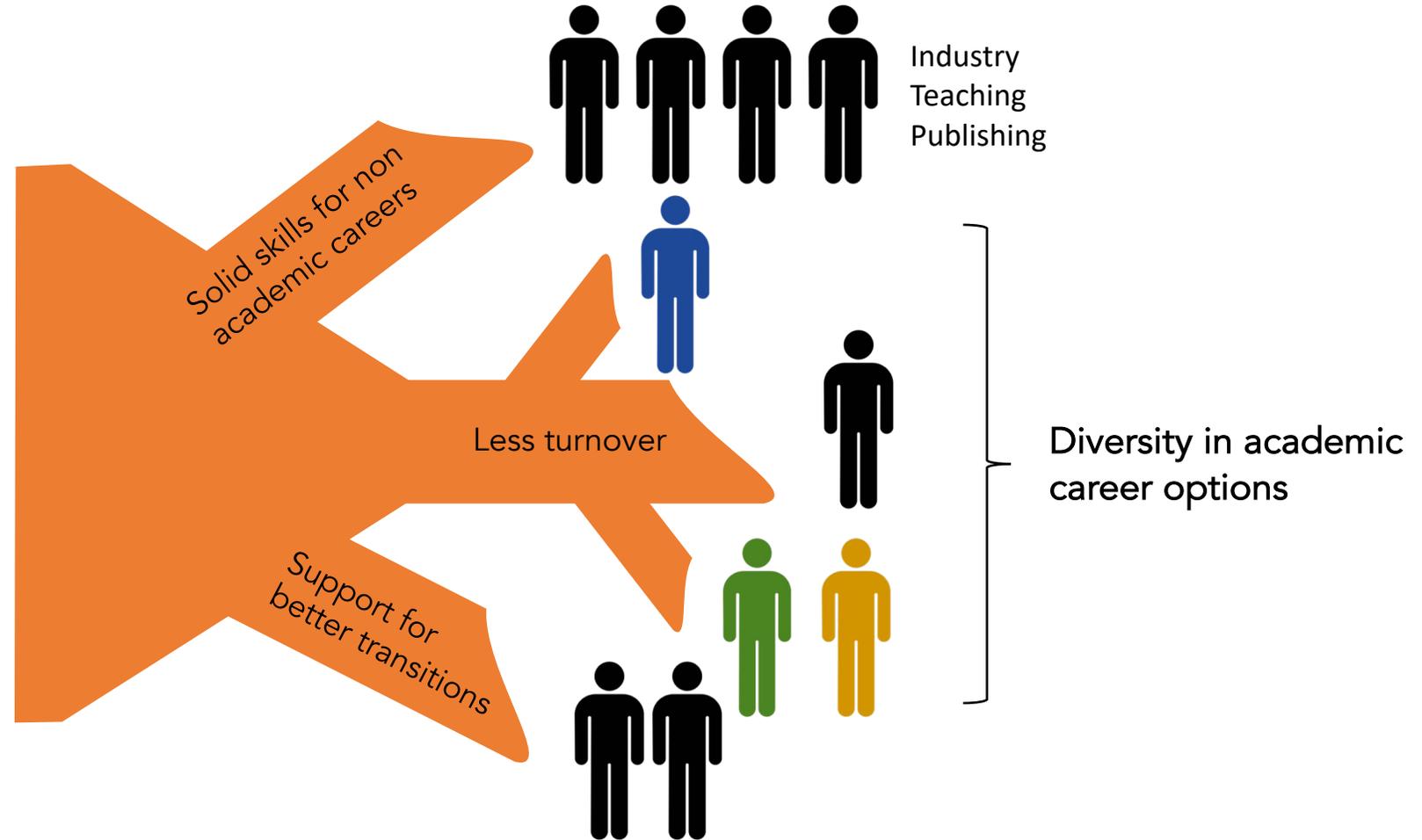
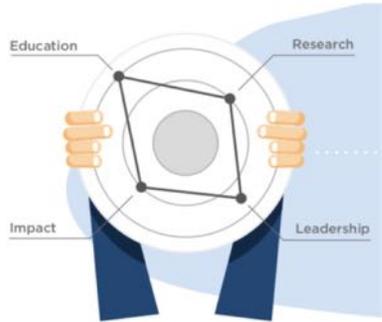
Look at the process behind the output

Set realistic expectations (negative findings, small step research)

Change at all levels of assessments



3. Rethink research careers



RECOMMENDATIONS

4. Unite actors to discuss and coordinate action



RECOMMENDATIONS

summary

1. Look beyond the researcher
2. Rethink research assessments
3. Rethink research careers
4. Unite actors to discuss and coordinate action

Are these recommendations complete? Implementable?

(In short, what are your recommendations on these recommendations?)

How should recommendations like these be disseminated?

(Who are the target groups? What format: papers, news, teaching, statements?)

(How) can we, as researchers, change scientific systems?

Thanks to...

Participants

Wim Pinxten – Thesis supervisor

Raymond De Vries

Funding: UHasselt Bijzonder Onderzoeksfonds (BOF) grant 15NI05

Contributors: **Resources:** Melissa S. Anderson, Brian C. Martinson, Raymond De Vries (focus group guides model) Ines Steffens, Inge Thijs, Igna Rutten, Raffaella Ravinetto, Hannelore Storms, Carl Lachat, Stefanie Van der Burght (recruitment); **Methodology:** Vincent Larivière (distribution model), Patricia Tielens (GDPR guidance) Raymond De Vries, Søren Holm, Daniele Fanelli, Dana Hawwash, Paolo Corsico, Audrey Wolff (survey feedback); **Formal analysis:** Geert Molenberghs, Ludo Waltman (survey statistics)



Questions?