What are we going to discuss?

- A case

- Introduction to research culture

- Topics that may influence research practices

- What to do?

- Research agenda

A (couple of) definition

Culture, climate, and environment are distinct but interconnected and overlapping concepts:

- Culture refers to the beliefs, customs, practices, values, and behaviors that define a group of people or society. It includes language, traditions, arts, and social norms.

- Climate refers to the prevailing attitudes, behaviors, and atmosphere within an organization or community. It is often about the social or emotional "weather," like workplace morale or societal tolerance.

- Environment refers to the physical surroundings or conditions, including natural and human-made elements, that affect living organisms or communities. It can be natural (forests, oceans) or built (cities, schools).

Research climate is referred to as:

"the **shared meaning** organisational members attach to the events, **policies**, **practices** and procedures they experience and the **behaviours** they see **rewarded**, supported, and **expected**."

Schneider B, Ehrhart MG, Macey WH. Organizational climate and culture. Annu Rev Psychol. 2013;64(1):361–88. (p.115)

Research Environment (as defined by SOPs4RI):

to **nurture a supportive environment**. **Hyper-competition**, harmful **publication pressure**, detrimental **power imbalances**, and conflicts should be explicitly **addressed and adequately handled**. **Fair, transparent, and responsible policies for assessing, appointing, and promoting** researchers must be in place. **Diversity and inclusion** must be **actively promoted**. **Collegiality, openness, reflection, and shared responsibility** are vital elements of a working environment where the risk of major and minor breaches of research integrity is minimised.

RESEARCH CULTURE

Netherlands Code of Conduct for Research Integrity 2018

"Provide an open, safe and inclusive *research culture…*" (p. 20)

Danish Code of Conduct for Research Integrity

November 2014

"Fostering a *culture of research integrity* is a key element for ensuring high quality and integrity in research." (p.16)

"Research leaders and supervisors should receive specific research integrity teaching and training to support their mentoring rol*es in fostering a **culture of research integrity*" (p18)

The European Code of Conduct for Research Integrity
REVISED EDITION

"Research institutions and organisations promote awareness and ensure a prevailing *culture of research integrity.*" (p. 5)

RESEARCH CULTURE

Netherlands Code of Conduct for Research Integrity 2018

"Provide an open, safe and inclusive *research culture...*" (p. 20)

(2024). Adviesrapport. Evaluatie Nederlandse gedragscode wetenschappelijke integriteit. Amsterdam, Evaluatiecommissie NGWI.

RESEARCH CULTURE

"Netherlands Code of Conduct for Research Integrity 2018"
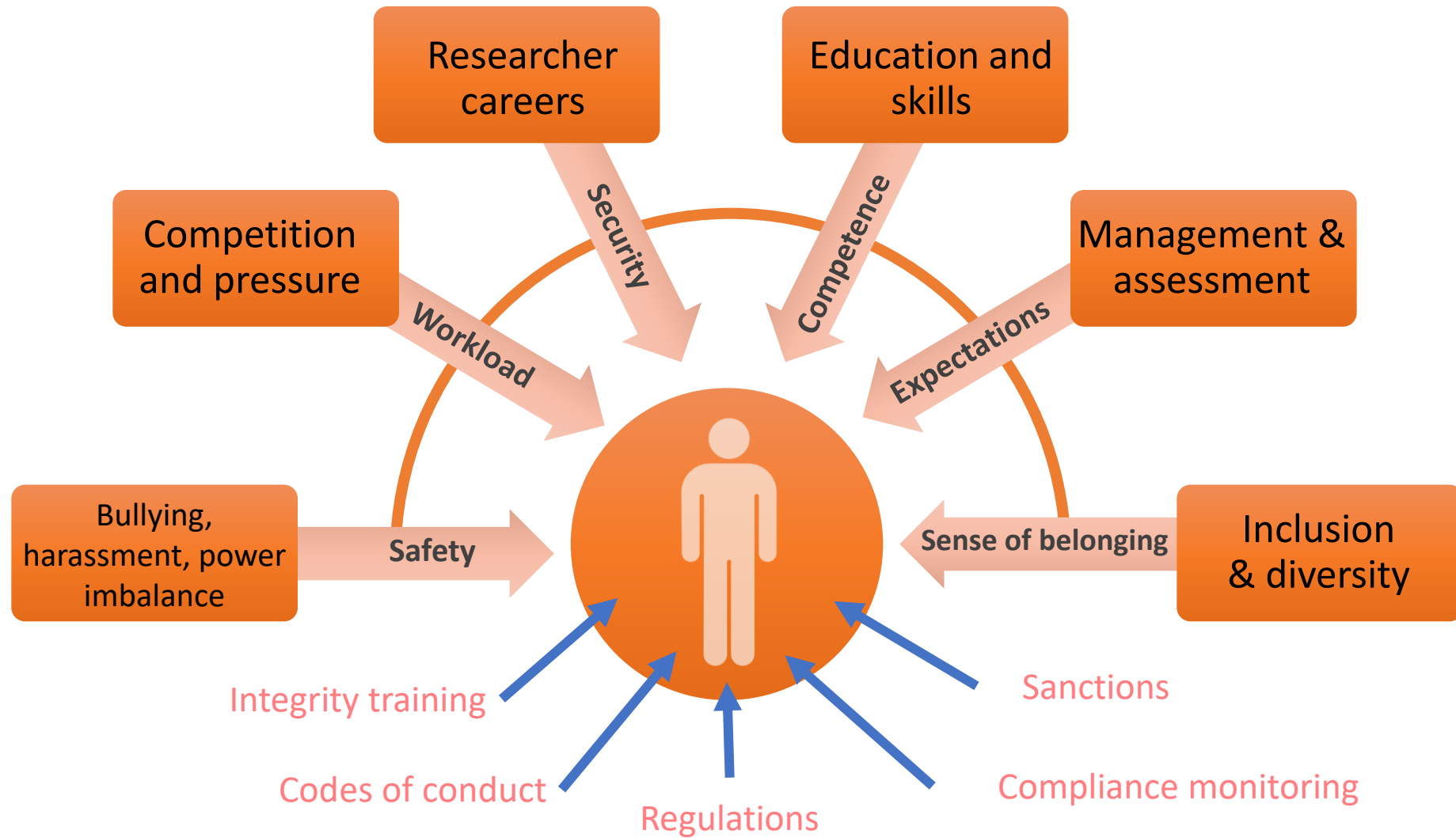
"The committee advises placing active promotion of a **healthy research culture at the center.** Confidential advisors can take on a greater role in enhancing the learning capacity of the institution by making issues known to the administrators. It is important that institutions encourage discussions on research integrity in the workplace."

"Provide an open, safe and inclusive *research culture...*" (p. 20)

Research Environment impact researchers' actions

- Researcher careers
- Education and skills
- Competition and pressure
- Management & assessment
- Bullying, harassment, power imbalance
- Inclusion & diversity

Security
Competence
Workload
Expectations
Safety
Sense of belonging

Integrity training
Codes of conduct
Regulations
Sanctions
Compliance monitoring

Adapted from Stroobants & Aubert-Bonn 2023

Culture & integrity

System

- *hypercompetition*
- *low risk – high rewards*
- *publication cycle*
- *Poor funding rates*

Culture

- *Publication Pressure*
- *Role models*
- *No RCR education*
- *No clear guidance*
- *Unwritten rules*
- *Insufficient supervision*
- *Social safety*
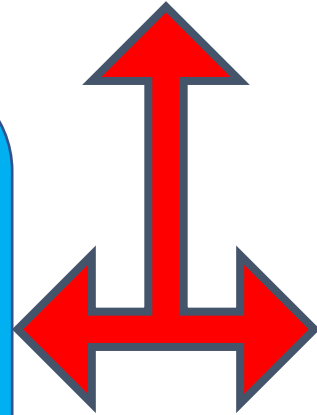
Individual

- *justifying misbehavior*
- *conflicts of interest*
- *moral attitudes*
- *personal beliefs*
- *personality traits*

Research culture and research practices

Survey in Amsterdam among >1000 researchers

Research misbehaviours are explained by responsible research climate (22%)
and publication pressure (16%)

RESEARCH   Open Access

Check for
updates

Explaining variance in perceived research misbehavior: results from a survey among academic researchers in Amsterdam

Tamarinde Haven[1]*, Joeri Tijdink[1,2], Brian Martinson[3,4,5], Lex Bouter[1,6] and Frans Oort[7]

How does research culture relate to research practices?

- Relation between publication pressure, emotional exhaustion and research misbehaviours.

- Publication pressure is associated with misbehaviours

Publication Pressure and Scientific Misconduct in Medical Scientists

Joeri K. Tijdink[1,2], Reinout Verbeke[3], and Yvo M. Smulders[1]

Abstract

There is increasing evidence that scientific misconduct is more common than previously thought. Strong emphasis on scientific productivity may increase the sense of publication pressure. We administered a nationwide survey to Flemish

Why are researchers overburdened?

Mental Health under pressure
1. Lack of supervision
2. Publish and Perish/Publication pressure
3. Poor job opportunities for ECRs
4. Too many tasks
5. Power relations (fear to speak up)
6. Unhealthy work ethos/working hours
7. Unwritten rules
8. Quantitative assessment criteria
9. Personality
10. Vulnerability
11. Work-life balance
12. ...

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Cultural factors

CULTURE

How can we change a culture?

A concerted effort…

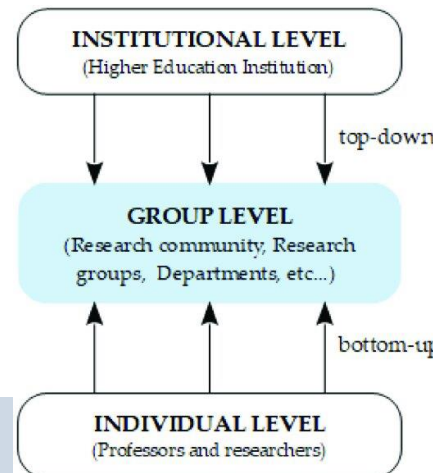| Pyramid Level	
Policy	Make it required
Incentives	Make it rewarding
Communities	Make it normative
User Interface/Experience	Make it easy
Infrastructuur	Make it possible

Policy initiatives

- PhD-quality guidelines
- Anchoring research culture in codes
- SOPs4RI – Research Environment

Research Environment impact researchers' actions

Adapted from Stroobants & Aubert-Bonn 2023

INSTITUTIONAL LEVEL
(Higher Education Institution)

top-down

GROUP LEVEL
(Research community, Research groups, Departments, etc...)

bottom-up

INDIVIDUAL LEVEL
(Professors and researchers)

Esquerra et al. 2021 Sustainability

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Nosek, COS, blogpost 2019

Sub-topics included in Research Environment

- Culture building

- Diversity issues

- Education and skills training

- Fair procedures for appointments, promotions and numeration

- Managing competition & publication pressure

- Supporting a responsible research process

Research environment

To foster integrity and minimize research misconduct and questionable research practices, RPOs need to nurture a supportive environment. Competition, publication pressure, detrimental power imbalances, and conflicts must be explicitly addressed and adequately handled. Fair, transparent, and responsible policies for assessing, appointing, and promoting researchers must be in place. Diversity and inclusion must be actively promoted. Collegiality, openness, reflection, and responsibility are vital elements of a working environment where the risk of major and minor breaches of good research practices is minimized.


Tool categories

| Culture building	Diversity issues	Education & training	Fair procedures for appointments and promotions	Managing competition & publication pressure	Supporting a responsible research process

Incentives and responsibilities

- Anchor RC in Recognition & Rewards criteria
- Support and incentivize culture guardians (leaders, individuals, RI-officers)
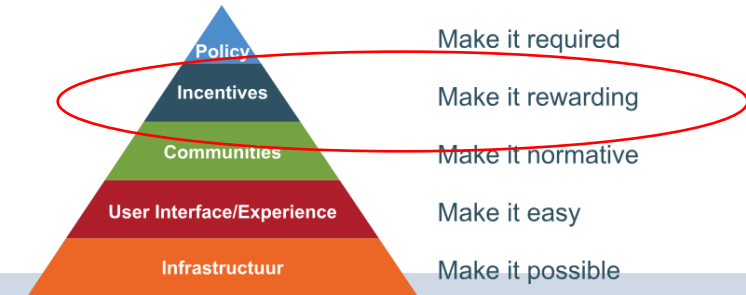- Fund research on research culture to improve knowledge on RC

Research Environment impact researchers' actions
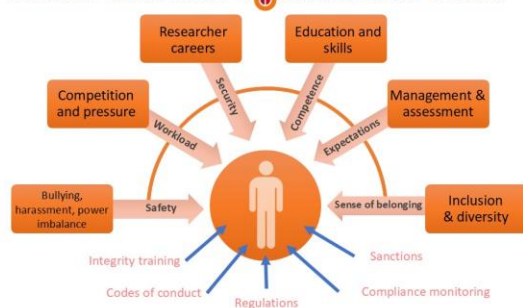
Adapted from Stroobants & Aubert-Bonn 2023
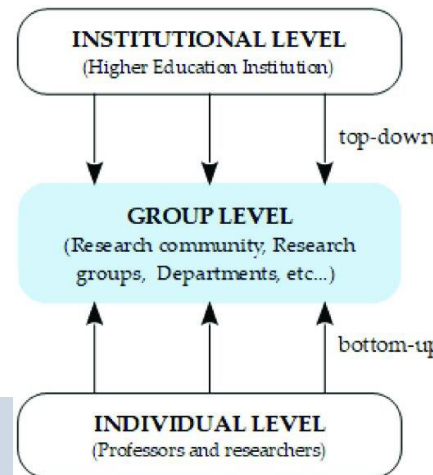
Esquerra et al. 2021 Sustainability
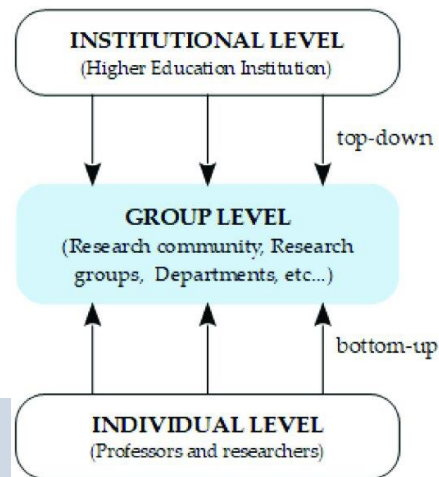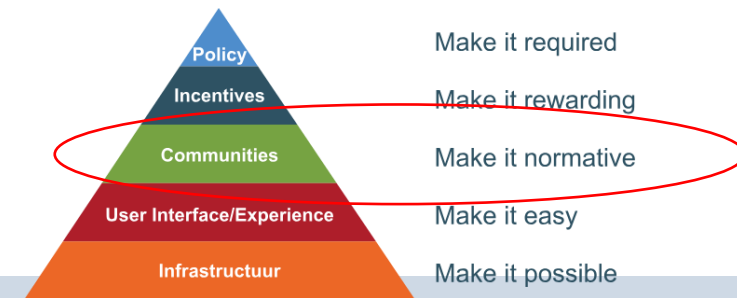
Nosek, COS, blogpost 2019

Communities

- National Centre Research Culture
  - Contact points
- Conferences (like these)
- The Research Culture Enablers Network (RCEN-UK)
- Recognition and Rewards – RC assessment
  - Collaboration, Team science, Supervision

Research Environment impact researchers' actions

Adapted from Stroobants & Aubert-Bonn 2023

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Nosek, COS, blogpost 2019

Tools/practices

Activities and events:
- Engagement activities (eg. UK)
- Discussion events at universities
- Training and workshops
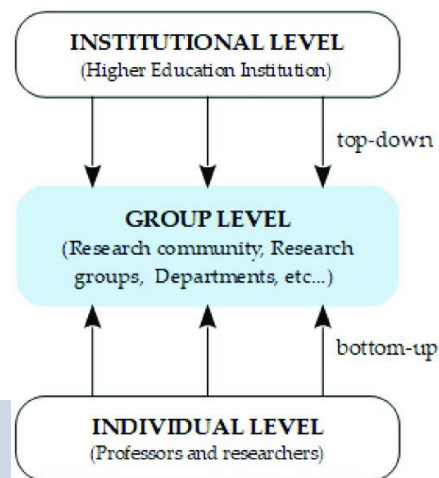- Concrete recommendations
- Peer support

Examples
- Mpower project – how to empower early career researchers
- Best practices in Recognition & Reward structures
- Social safety initiatives
- Training on research culture

Research Environment impact researchers' actions

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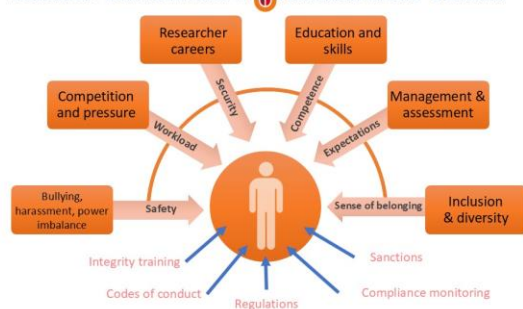Infrastructuur — Make it possible
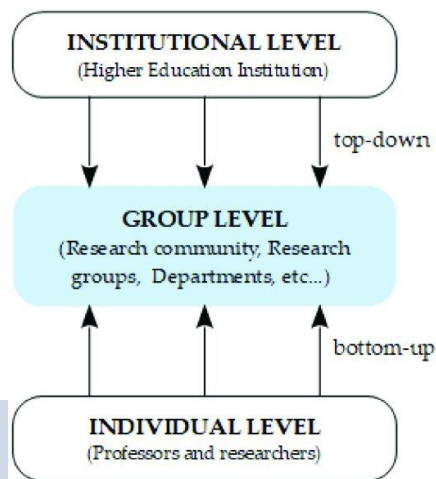
Nosek, COS, blogpost 2019

Infrastructures

- Support networks on institutional and national levels by funders/institutions/governmental bodies
- Create Research Culture champions at universities
- Create a knowledge base with interventions and best practices
- Do research on RC

Research Environment impact researchers' actions

Adapted from Stroobants & Aubert-Bonn 2023

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Nosek, COS, blogpost 2019

To summarize – a concerted effort

- Research culture encompasses a wide variety of topics
- Initiatives that foster research culture are scarce
- More attention is needed to the less tangible aspects of academia
- How can we build a responsible research culture?
- The department plays a pivotal role in research culture change

Next steps to the future?

Research Agenda:

- How RC ⟺ QRPs

- What practices are effective for positive research culture building?

- Revalue the importance of 'soft skills' in academia

- The role of academic leaders

Amsterdam UMC

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CBMER

ThankYou

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