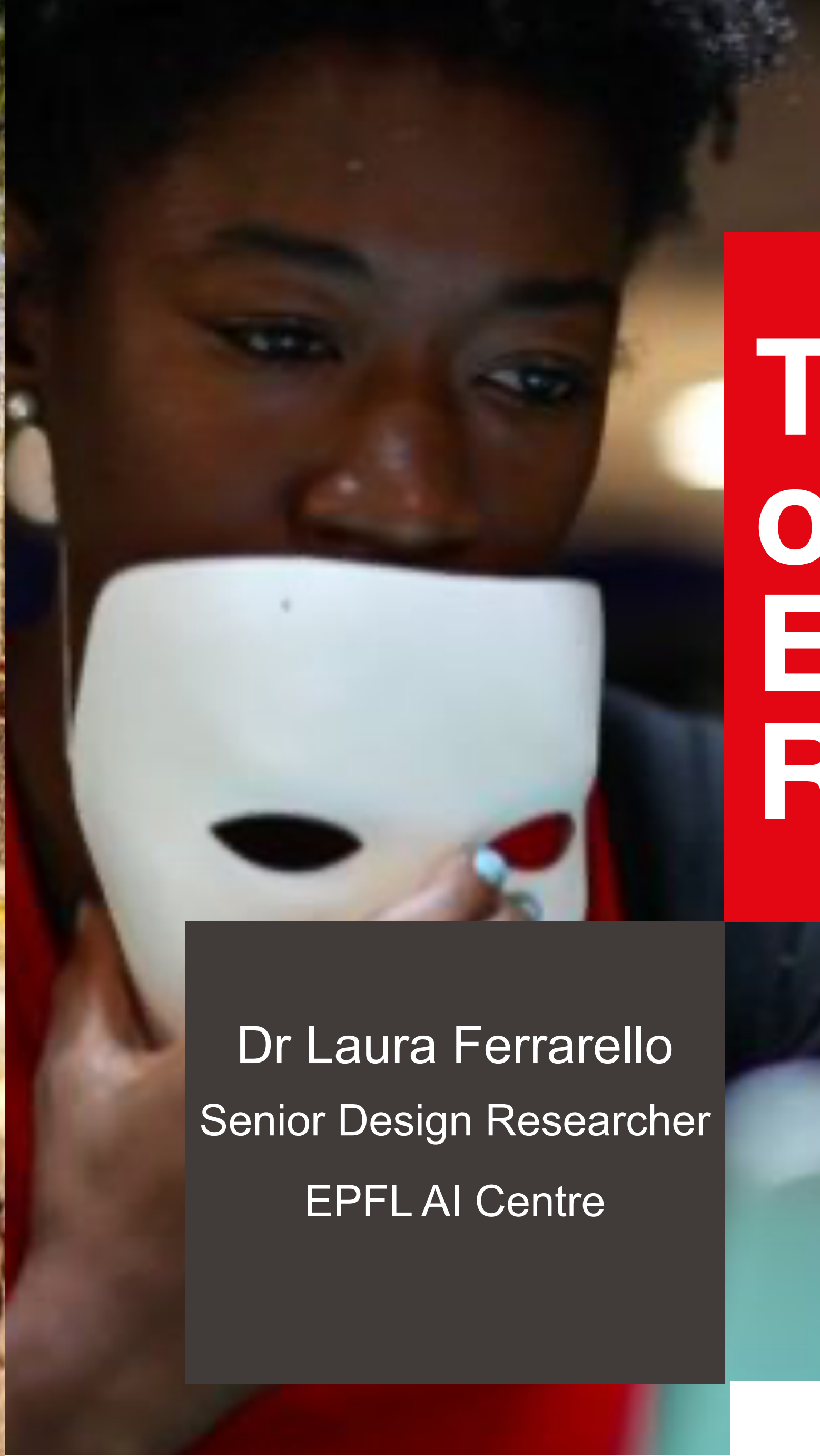




The Practice of Ethics in Engineering Research

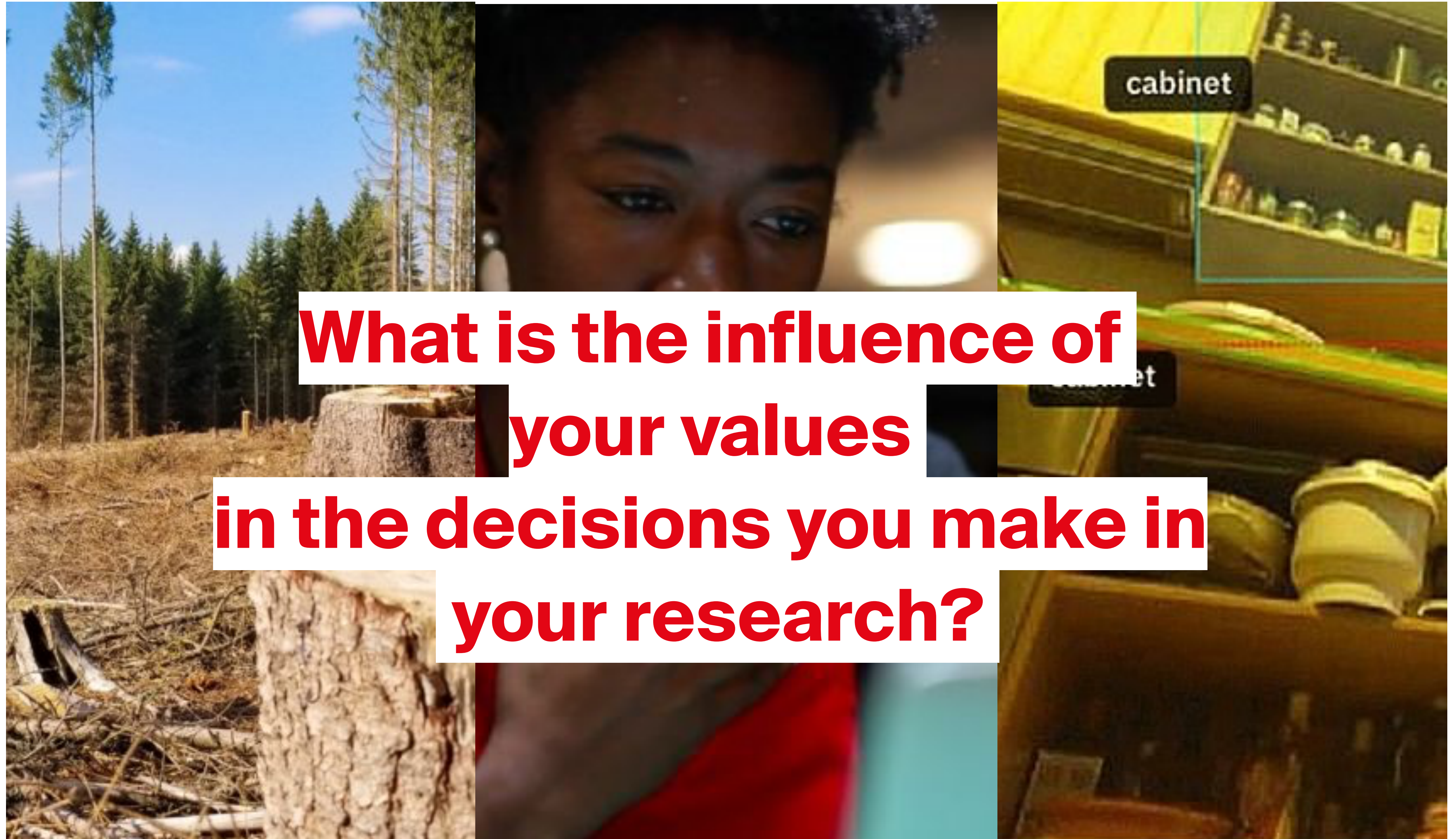
Dr Laura Ferrarello
Senior Design Researcher
EPFL AI Centre



EPFL My research & I

- What decisions I have taken in my research?
- What decisions could I have taken in my research?
- What decisions I wished to take my research?





**What is the influence of
your values
in the decisions you make in
your research?**

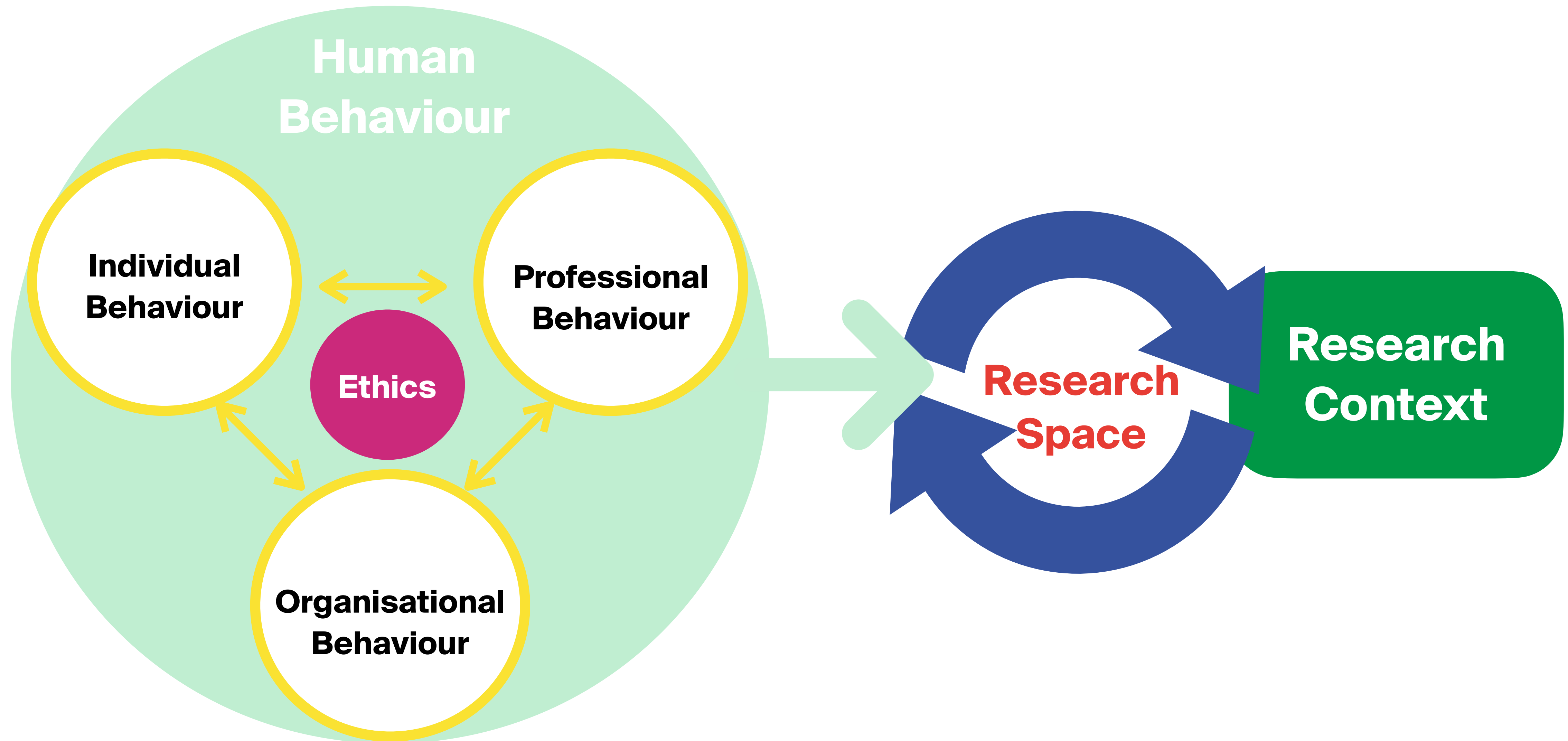


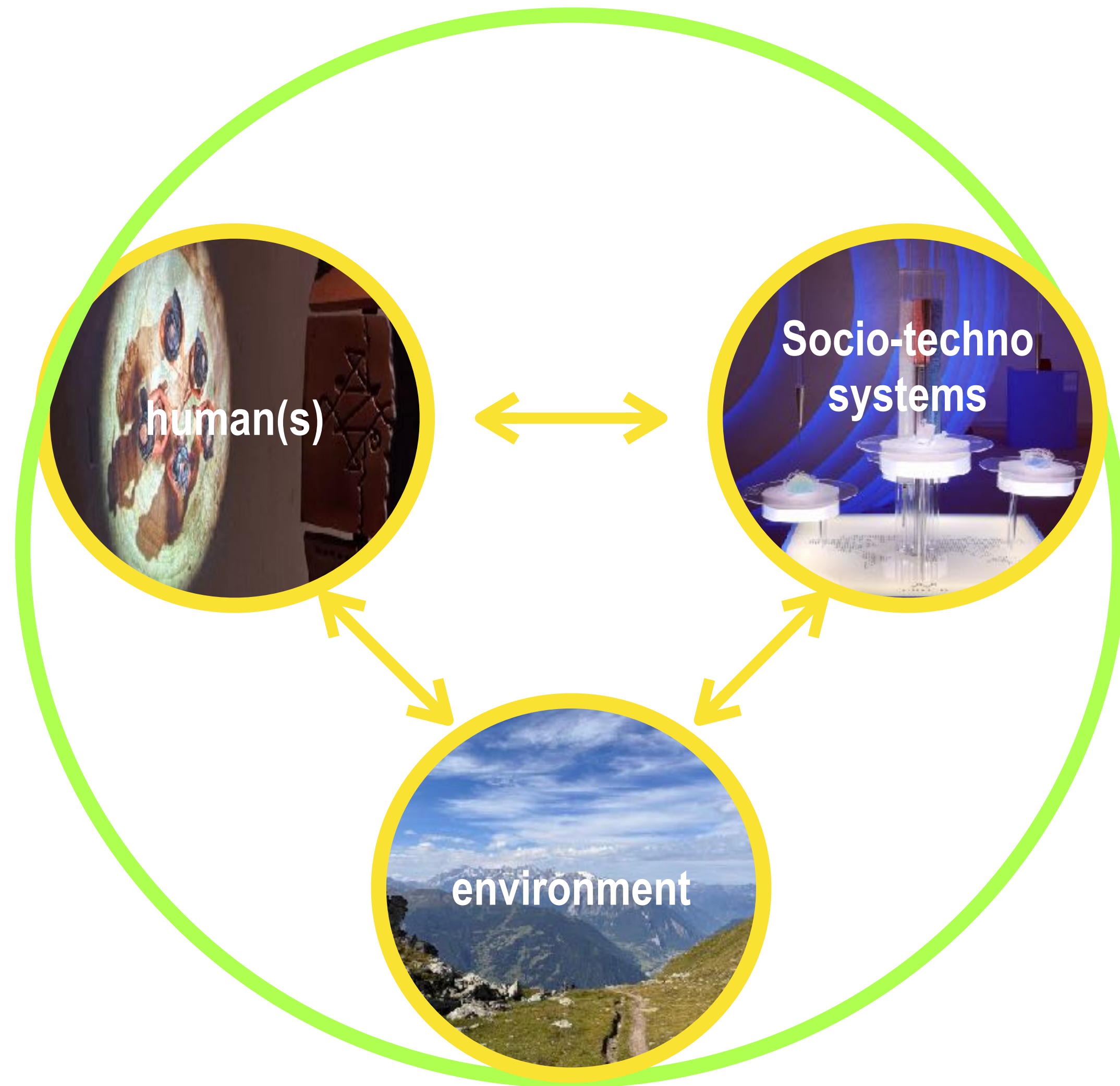
- Ticking box exercise
- Compliance exercise (e.g. filling a form)
- An issue
- A dogma
- Something that can be measured



- Ask questions
- Reflects on consequences
- Be aware of the context (social, technological, environmental, etc)
- Be honest about limitations.
- Engage with possible failures.
- **Behaviour**





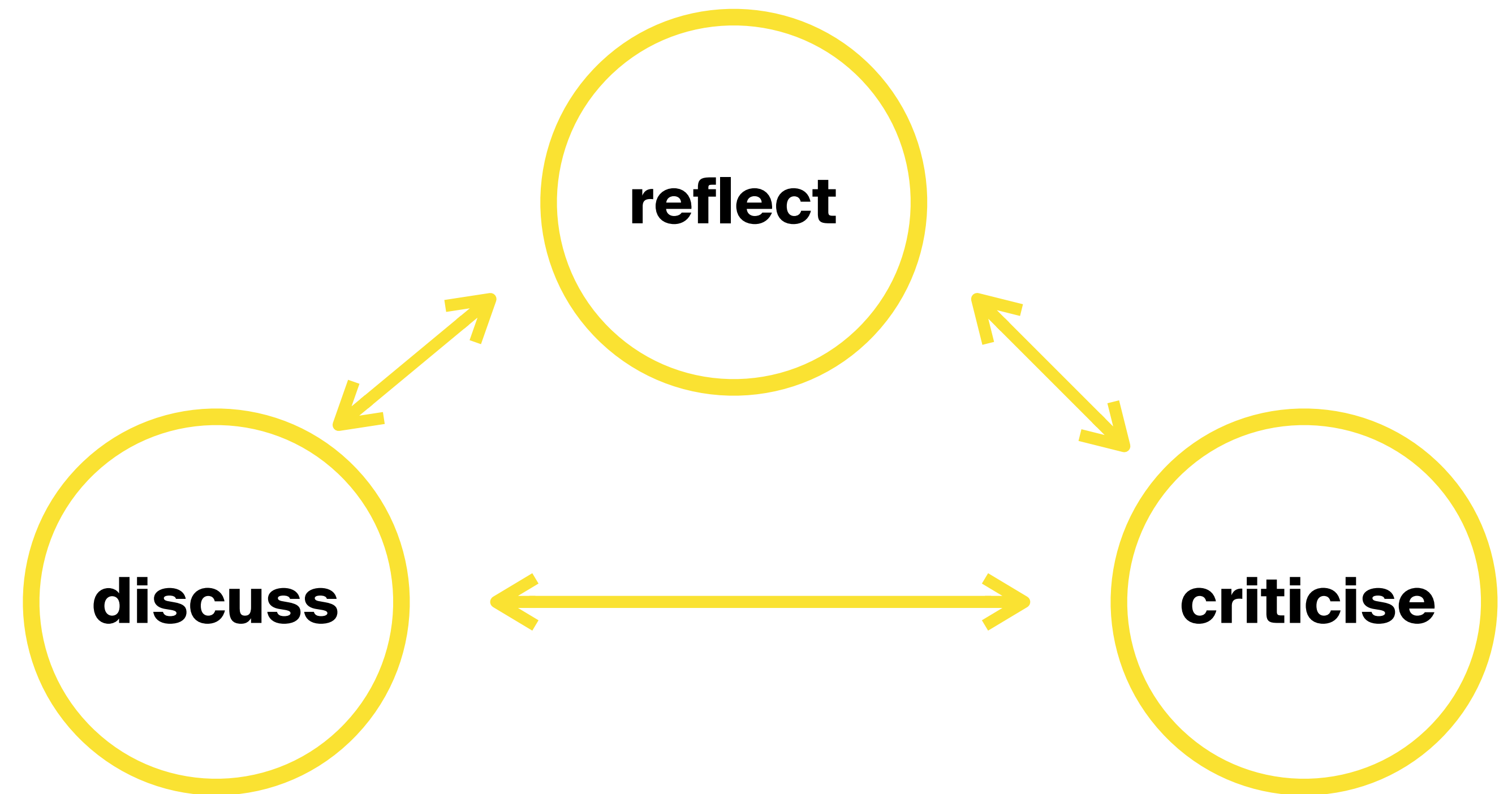


Ethics can be considered as a **social system**.
As dynamic and responsive, it liaises human interactions with other socio-technical and natural systems.

Thinking about ethics implies to **account for collective and individual behaviour** (morality, values, culture) and interrogate the nature and rationale of the decision people take everyday.

Questions to stimulate ethical thinking

Practicing **ethics** stimulates the **reflection, discussion, critic and debate** of human decision making; this means with ethics we apply a more critical and reflective approach to our research process.

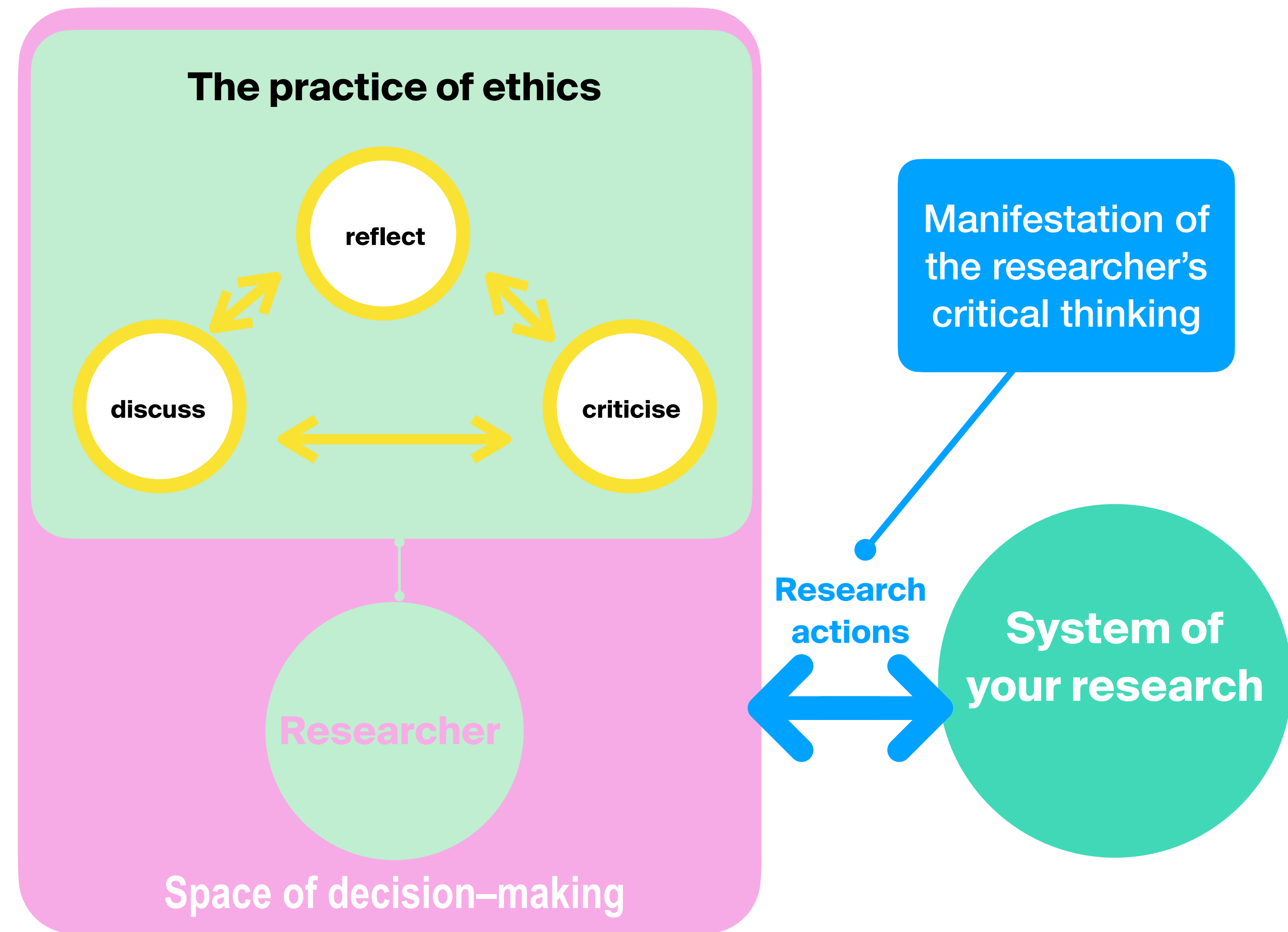


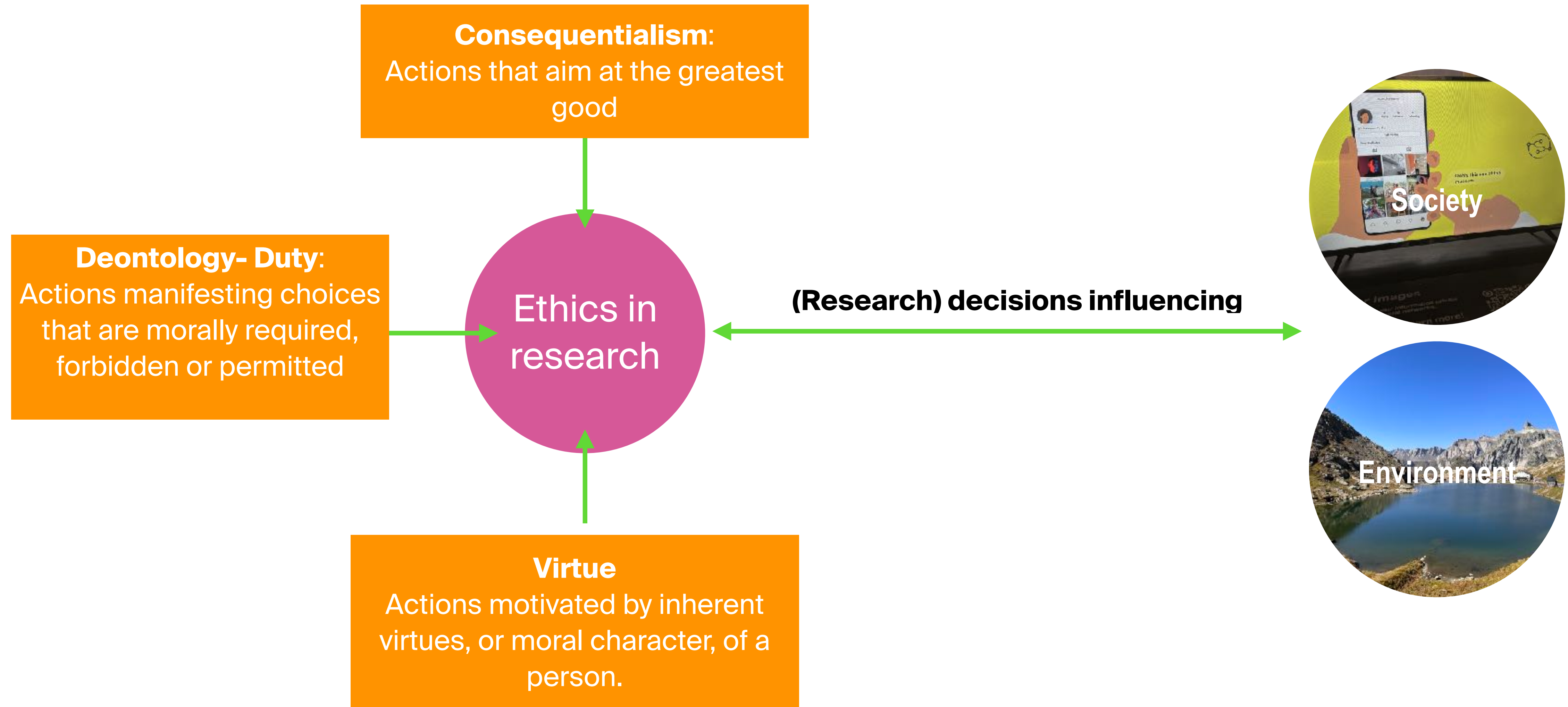
As a consequence, practising ethics is a **critical process of questioning research related actions and taking responsibilities for them.**

EPFL An ethical decision-making

This reflective and critical process is **facilitated by dialogue** – i.e. **reflection, discussion and criticality** – which offers **people the agency of evaluating, reflecting, analysing personal (and collective) actions, and their consequences.**

Dialogue stimulates awareness in understanding how **our research** can influence and impact **people's relationships** or the **natural ecosystem.**





Deontology- Duty:
Actions manifesting choices that are morally required, forbidden or permitted

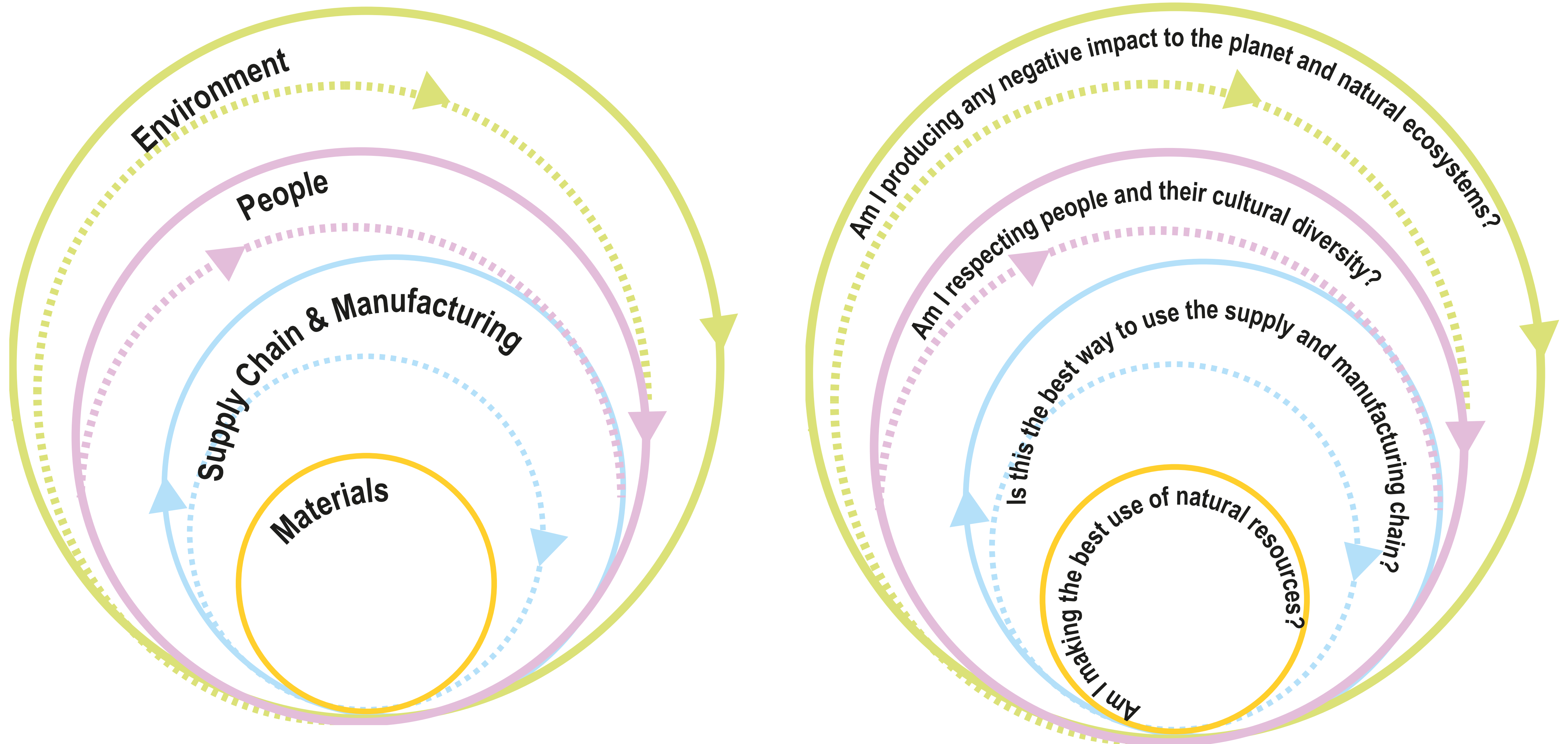
Consequentialism:
Actions that aim at the greatest good

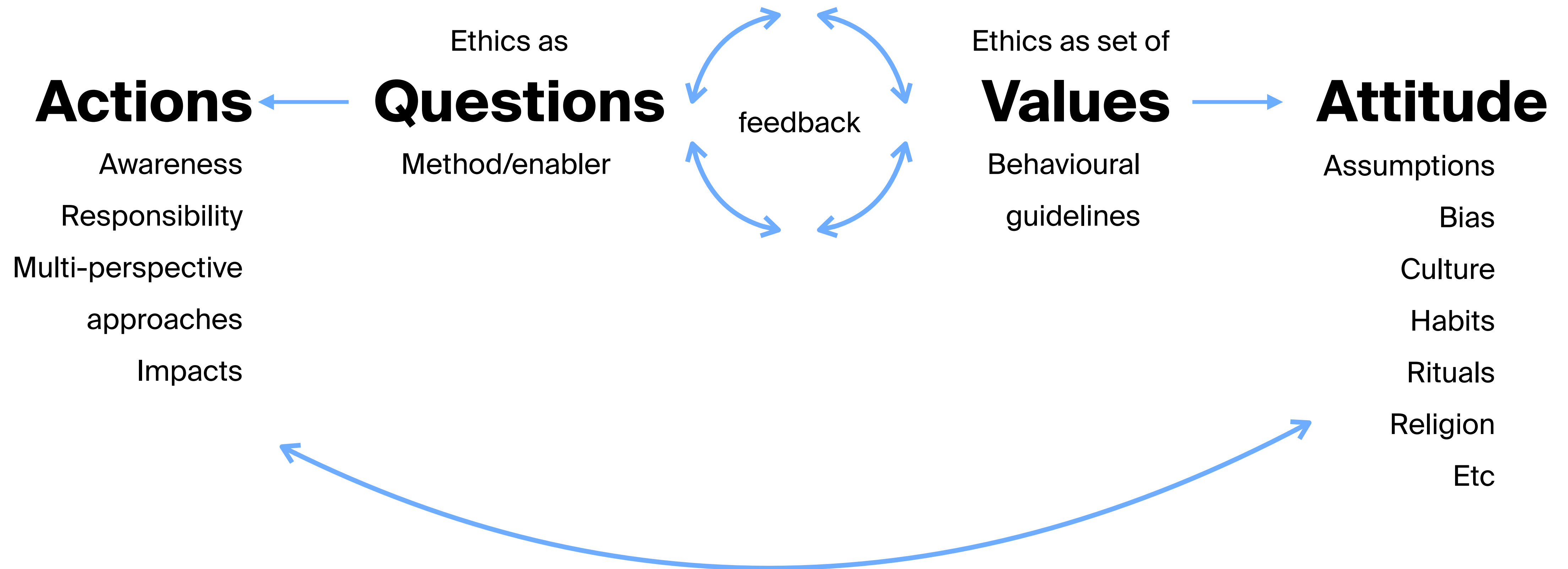


Virtue
Actions motivated by inherent virtues, or moral character, of a person.

- Does collecting personal medical data aimed at **promoting the greatest good** for those using these devices?
- Is collecting personal medical data **morally acceptable**?
- Can storing medical data be considered a **virtuous feature of a person**?

EPFL Developing holistic understanding of research processes





EPFL Using questions to tackle ethical challenges

14

Asking questions has the objective of discussing whether we are aware and have knowledge of ethical dilemmas in our work.

Through these questions, we have the opportunity to re-learn our work from a different perspective and become aware of what can be a challenge.

Questions are a means to understand where our knowledge breaks and what information we might need to address the gap.

Asking question is an exercise to explore what knowledge we have, or should develop, for tackling ethical challenges

Could you write on Slack your reflections regarding:

- what you knew before about tackling the ethical challenges discussed today
- how today's conversation has helped your understanding of that ethical challenge

Your presentations