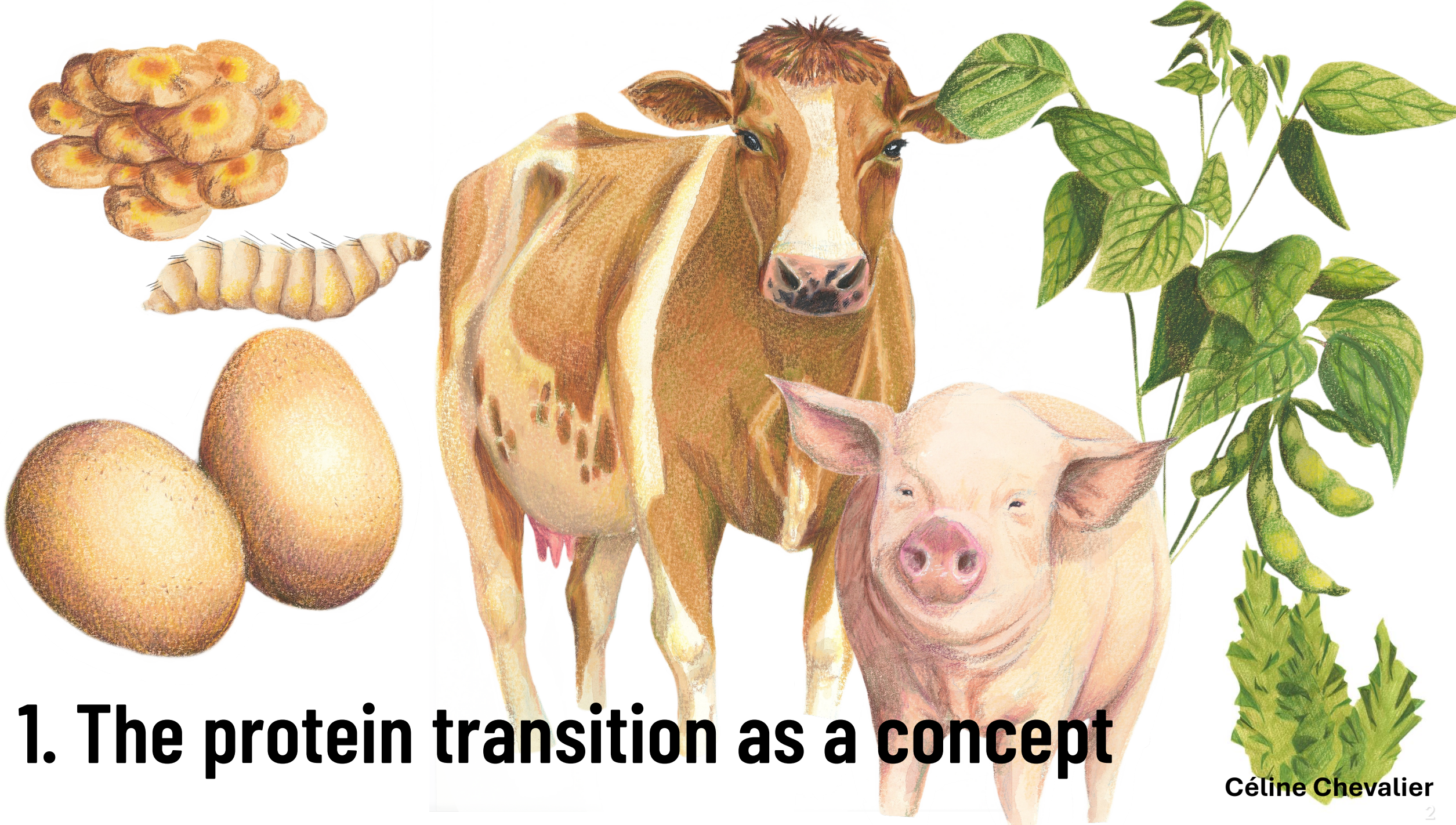


A Restatement of the protein transition

When a good intention gives rise to a new question

Oxford LEAP Conference – 22nd of April 2026

Duluins Océane



1. The protein transition as a concept

Issues linked to the consumption and production of animal-based products

Consumption-related issues

Health impacts



Corona heart disease

Type-2 diabetes

Obesity

Production-related issues

Environmental impacts



Greenhouse gas emissions

Water, air, soil pollution

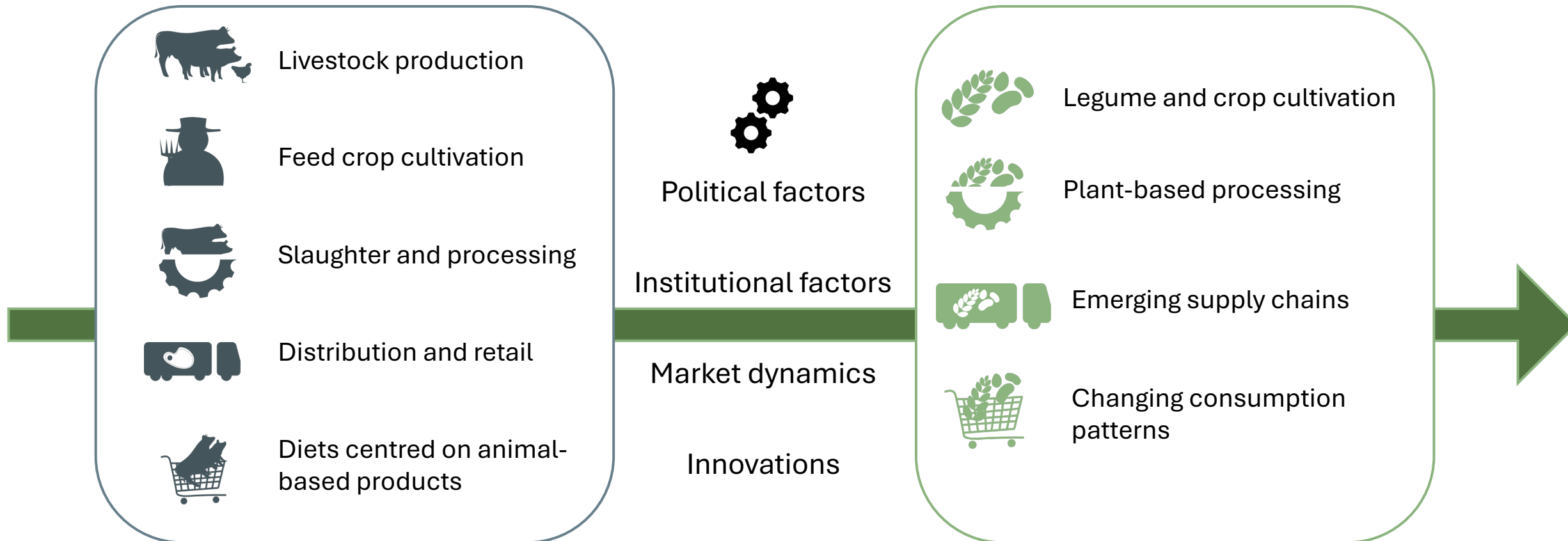
Land degradation

Animal welfare impacts

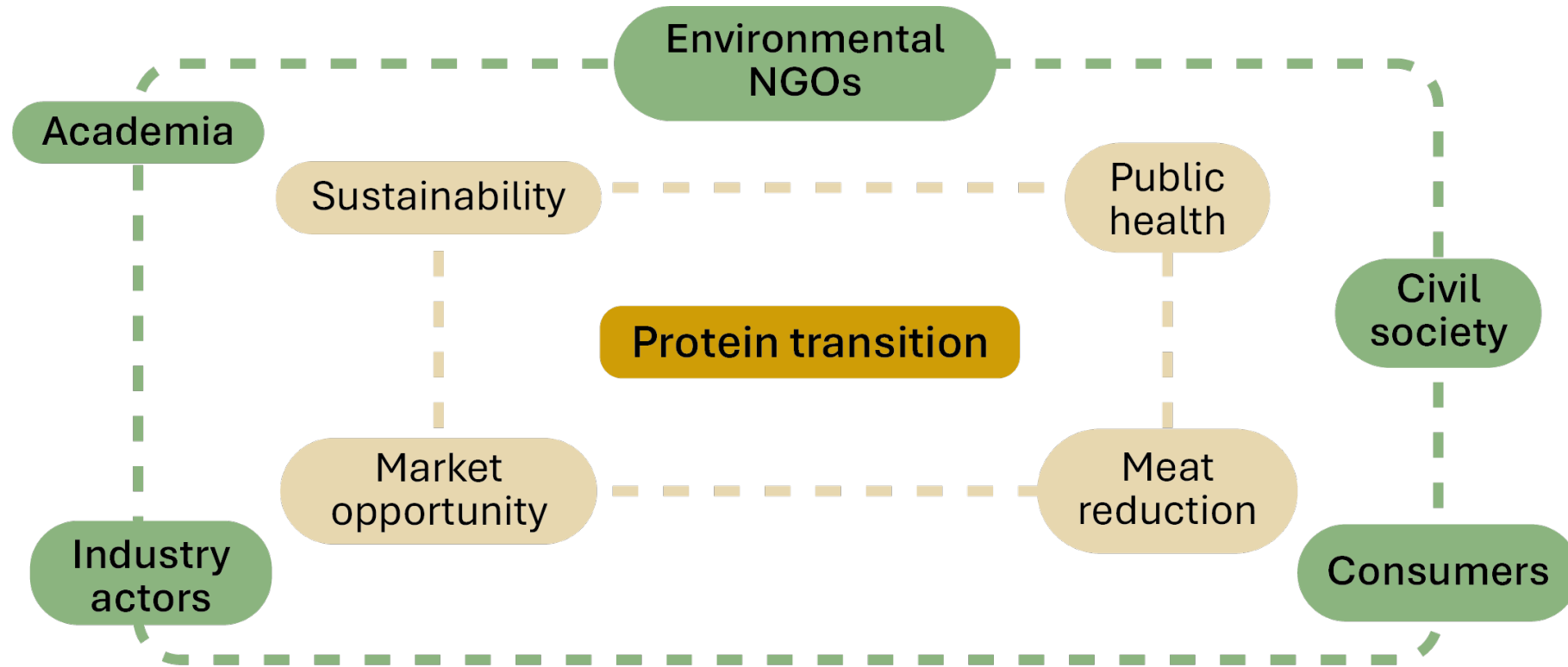


We need a protein transition

A shift away from food systems centered on animal-based products

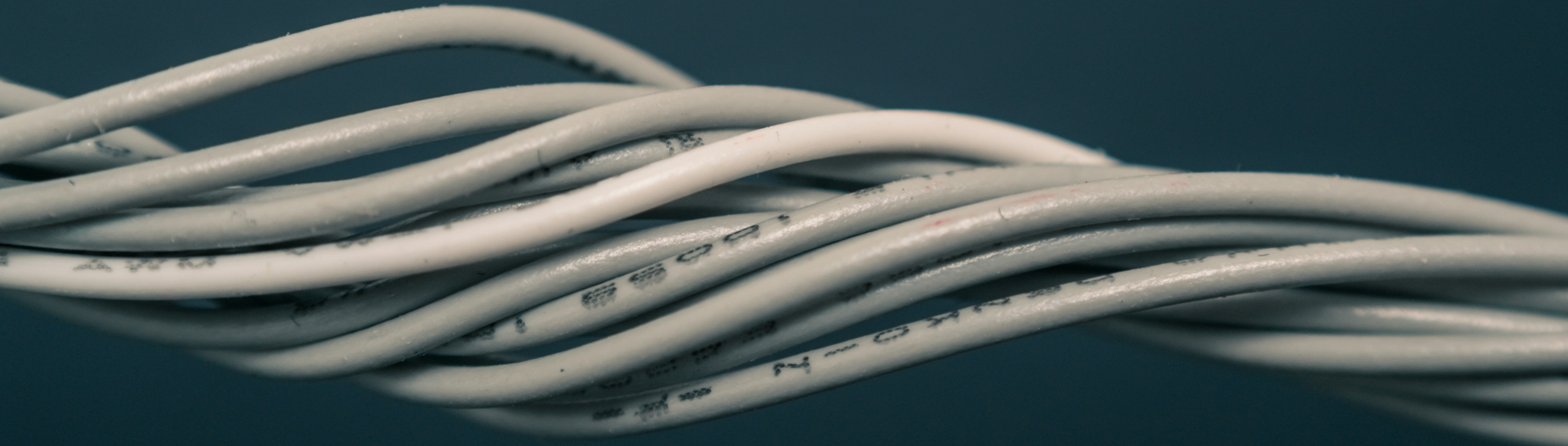


A diversity of interpretations and actors



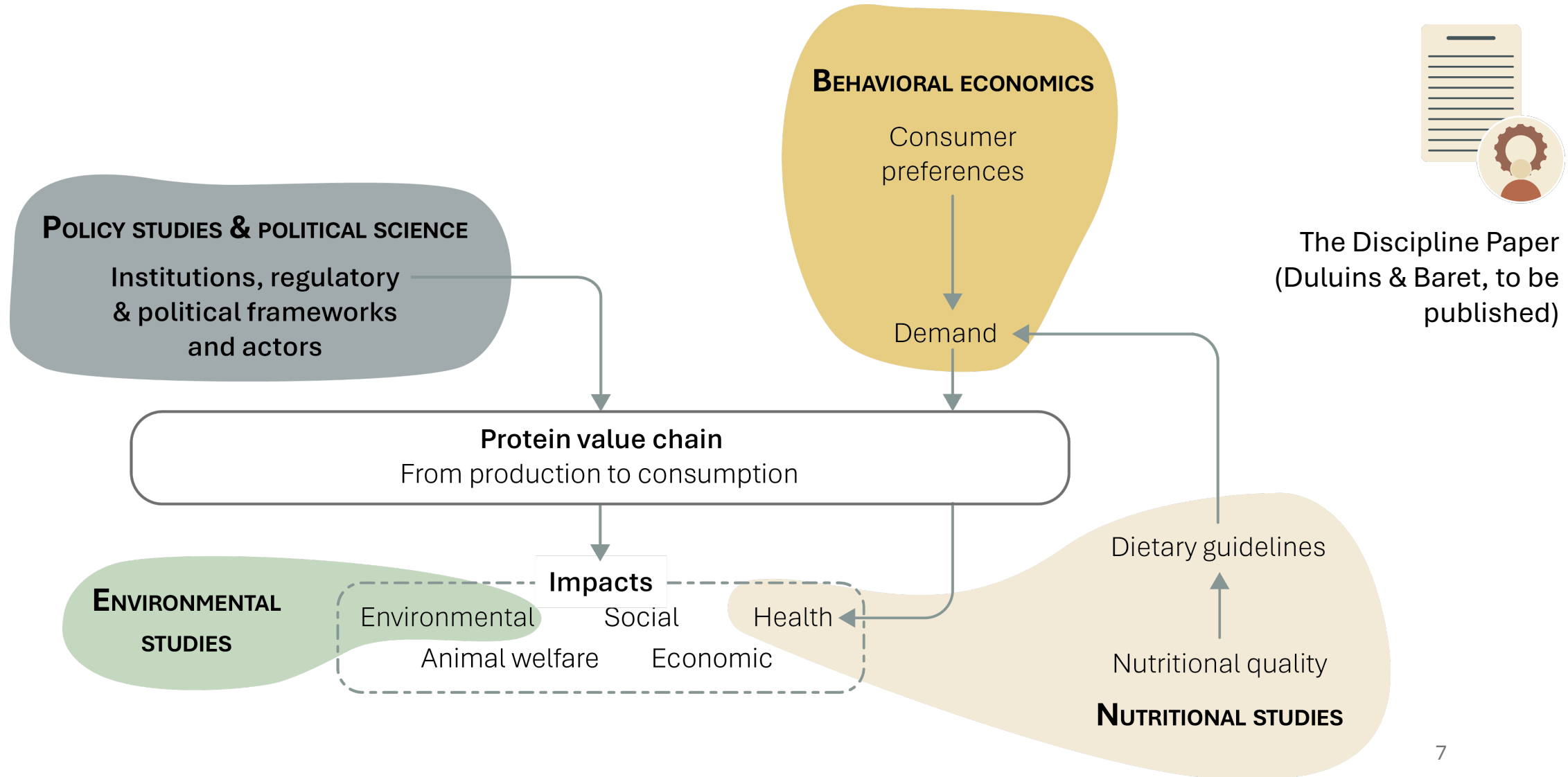
- Meanings
- Actors

The protein transition is a powerful but contested concept



2. The parallel contributions of disciplines

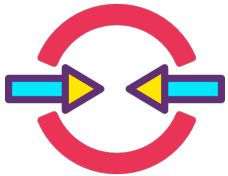
Different disciplines focus on different components



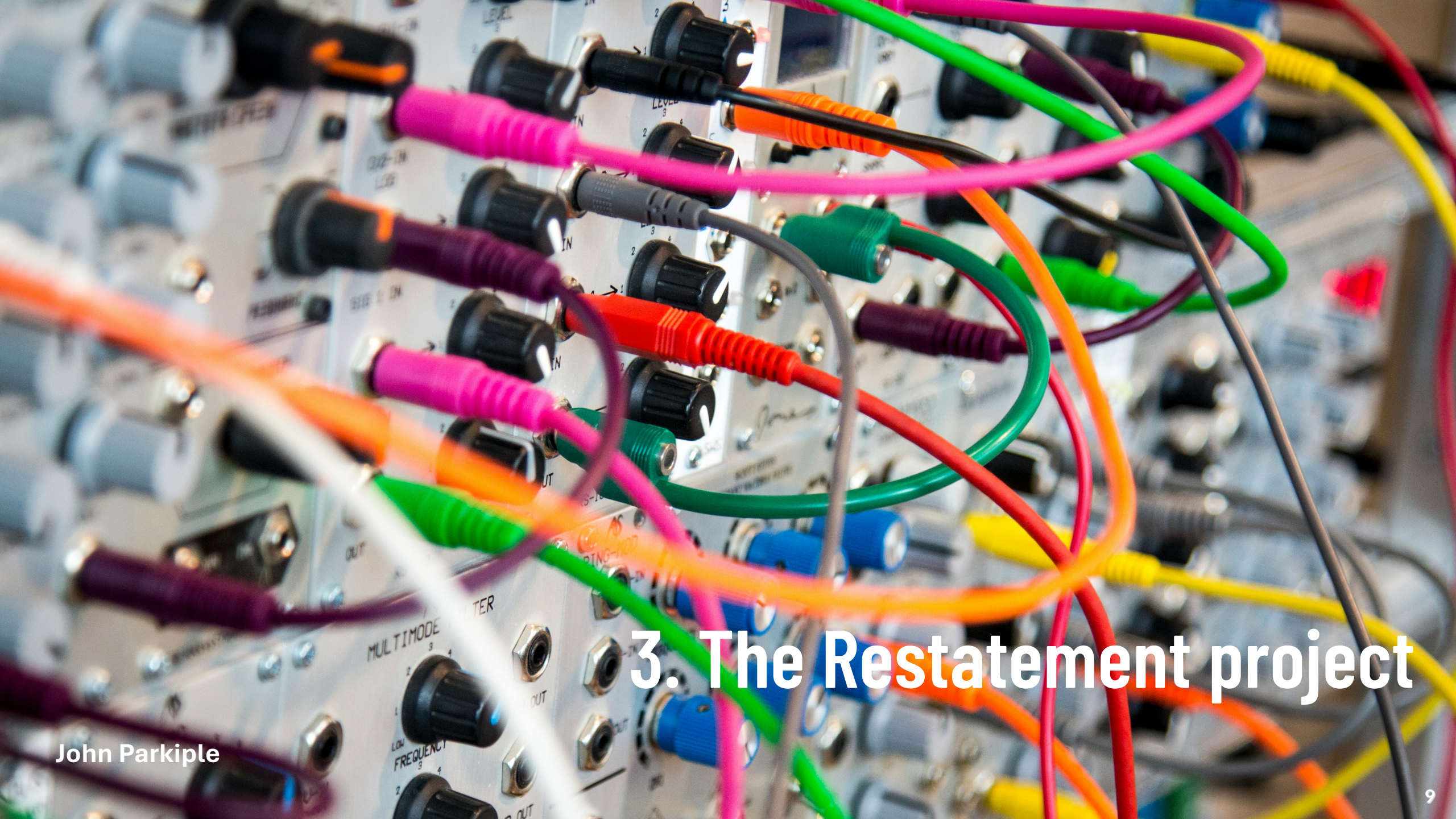
We identified two gaps



1) Scientific knowledge on the protein transition spans multiple disciplines, creating a rich but highly distributed body of literature.



2) When elements from different disciplines are combined, they may contribute to contradictory messages and lend support to different narratives.



3. The Restatement project

John Parkiple

The Restatement approach

A method coming from law

Applied by the Oxford Martin School (University of Oxford)

Clear, policy-neutral synthesis of existing scientific evidence on complex and often contested issues.

OXFORD MARTIN RESTATEMENTS

Our Restatements review the natural science evidence base underlying areas of current policy concern and controversy.

Written in policy neutral terms and designed to be read by an informed but not technically specialist audience, restatements reflect the breadth of opinion on the topic in the science community and involve wide consultation with interested stakeholders.

The Restatement : An interdisciplinary attempt

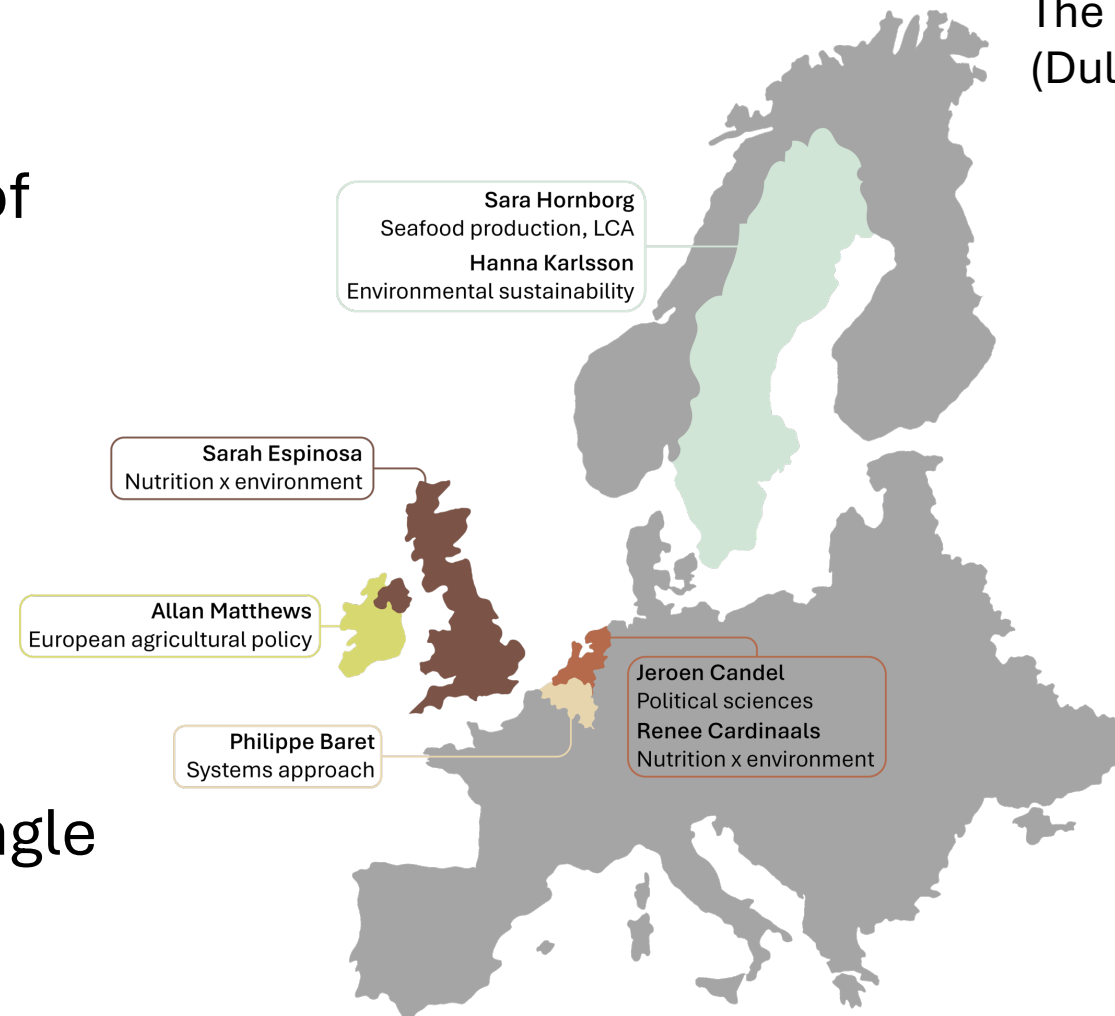


The Restatement Paper
(Duluins et al. 2025)

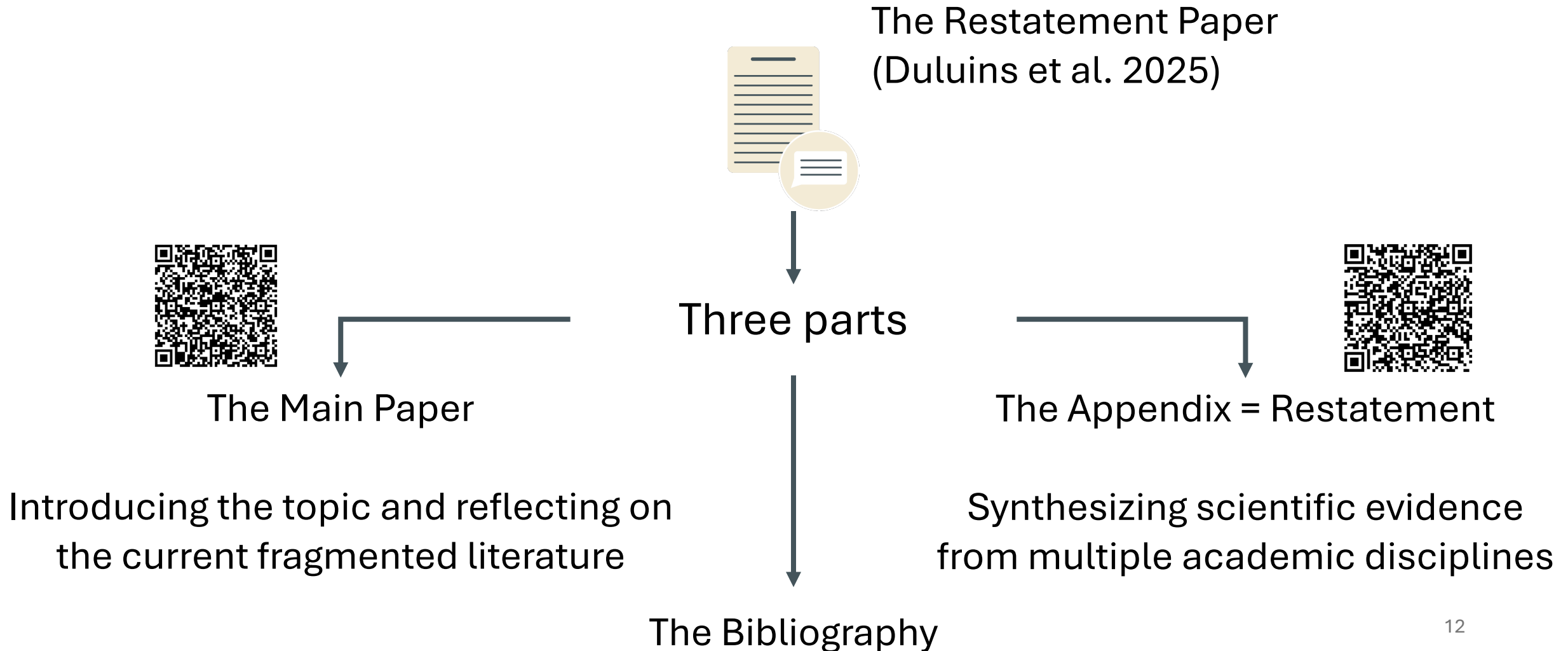
Build an integrated,
interdisciplinary inventory of
knowledge on the protein
transition

8 co-authors from diverse
disciplines

Key contributions of each
disciplines gathered in a single
document



What is a Restatement?



The Appendix

- 1.
- 2.
- 3.

8 sections



68 main statements



802 references



Example of questions answered:



What is the current status of protein consumption in Europe relative to nutritional recommendations?



How coherent are EU policies and objectives in guiding the protein transition?

- Economic context
- Political context and power dynamics
- Consumer considerations
- Occupational health
- Human health impacts
- Environmental impacts
- Animal health and welfare
- Economic impacts



Human health section

- 1.
- 2.
- 3.

8 sections



Summary of what to expect



Health is approached from a nutritionist's perspective, focusing on nutrient composition and intake

Sub-section



3.1.1. Protein recommendations vs current protein consumption

Main statement



Substatement

(28) Health authorities provide a recommendation for daily protein intake that is needed to compensate for bodily nitrogen losses. Actual protein intake varies widely within and between individuals.



Now Let's Try Layering Multiple Colors

Outline three squares or circles overlapping each other as in the example. Then load your brush with a light value of blue-colored paint and remove excess moisture by glazing the brush over the edge of your mixing palette.

After that, cover one of the circles with paint and let the paint dry completely. To speed up the drying process, you can also use a hair dryer.

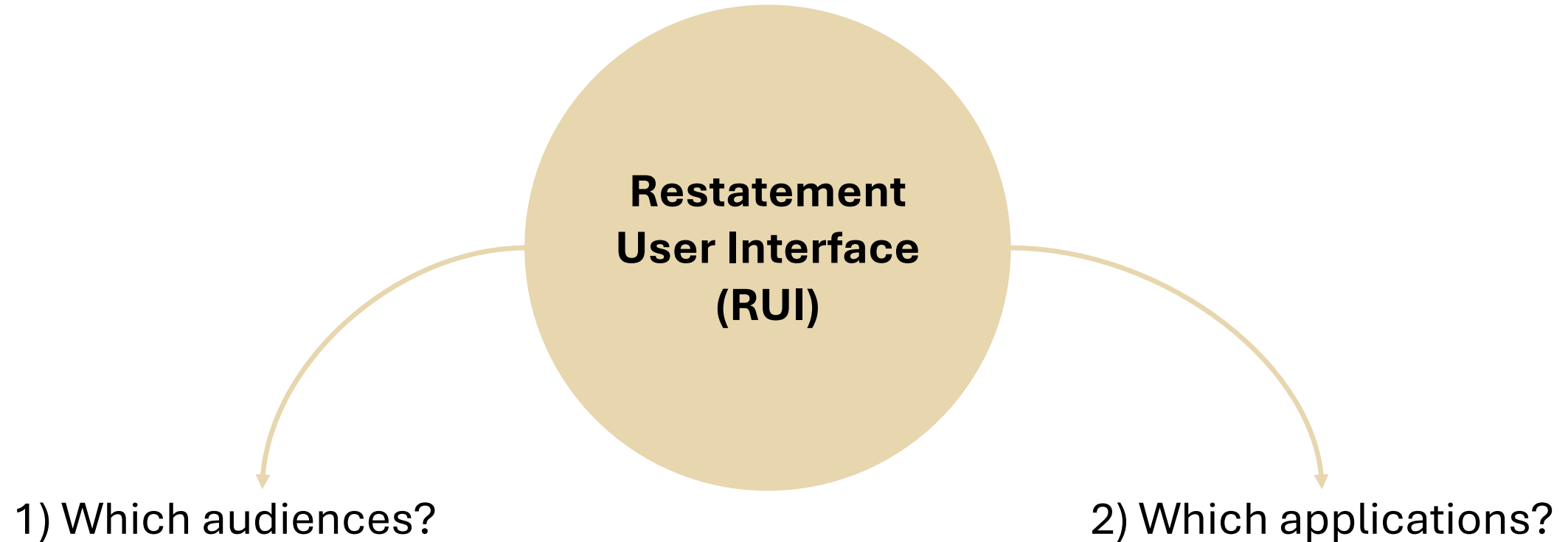
Now you want to repeat the step and apply red-colored paint to the second circle in the same way, but before you apply another layer on top, also don't let the layer below is completely dry. You but quickly and gently scrub with your brush, you avoid activating the paint underneath. Let the paint dry again and now repeat the same steps with yellow-colored paint.

Isn't it fascinating how you can create another color simply by overlapping two colors?

34 No-Fall Watercolor

4. Making the Restatement actionable

How to make the Restatement actionable?



1) Which audiences?



Students



Researchers



Think tanks



Policymakers



Value chain
actors

2) Which potential applications?

Two main applications

1) Question approach feeding in contested claims or trade-offs

Ad-hoc answer scenario : 1 question links to 1 statement

Systemic answer scenario : 1 claim links to multiple interacting statements

2) Gap approach

What we agree that we don't know

Ad-hoc answer

Key questions

- Do Europeans consume sufficient protein relative to recommended dietary allowances?
- Is protein underconsumption a significant public health concern in Europe?
- Which population groups in Europe are most at risk of inadequate protein intake?



1.

2.

3.

Health section

(30) While accurately measuring individual protein consumption remains challenging, the majority of EU citizens consume sufficient protein, with underconsumption posing little concern, particularly among adults. The current average protein consumption in Europe exceeds the RDA of 0.83 g/kg body weight, with no single country consuming inadequate amounts on average. Protein consumption is highly variable between countries and among individuals, which should be taken into account when interpreting the average consumption.

Systemic response

The claim: Meat is necessary for a healthy diet

Factors to be considered



What the Restatement says

Nutrient adequacy

31, 33, 32d

Total protein, amino acid profile, micronutrients

Bioavailability and digestibility

31c, 33a

Differences between animal and plant sources and factors affecting bio and digest

Population-specific needs

29b, 31b, 31c

Age, pregnancy, activity level

Dietary context and combinations

34a, 31b

Whole diet matters and food combinations can compensate

Micro-nutrient risks in plant-based diets

33e, 33f, 33d

Vitamin B12, iron, calcium, and omega-3. Can be addressed via fortification/supplementation

Systemic response

The claim: Meat is necessary for a healthy diet

Main unknowns



What the Restatement says

Minimum share of animal protein

31, 33c, 31b

No clear evidence for a minimum share of animal protein, but unclear whether a plant-only diet fully meets all needs in all contexts

Long-term health effects of plant-only diets

31b

Limited long-term human studies, especially for pregnancy, infants, and development

Optimal protein distribution

31, 32

Evidence on ideal proportions is inconclusive

Causal effects of meat on health

34b, 35b

Most studies are observational → causality not proven

Effects of substitutions and fortification

33

Uncertainty about absorption when nutrients are fortified, combined nutrient effects, long-term safety and adequacy

Systemic response

So is meat necessary for a healthy diet?

The Restatement does not support the claim that meat is strictly necessary for a healthy diet. Instead, it shows that

Meat is **nutritionally useful**, especially for certain nutrients and bioavailability. But **it is not indispensable**, because protein and nutrients can be obtained from plant sources.

Diets can be designed to be adequate without meat.

Where we arrived

The ambition

The Restatement aimed to organize interdisciplinarity around the topic of the protein transition

→ Long and highly complex document

A key tension

The object is compelling, but the interface is not yet satisfying

→ The Restatement is not used

So what should we do about it?

Is interdisciplinarity inherently too complex to engage with?

Or is this primarily an interface problem?

If the interface is the problem, what would it take to make the Restatement actionable/usable? Where should we prioritize efforts?

We need you!

How would the Restatement be useful for you?

Help us by filling out this form



Thank you for listening

Linkedin & ResearchGate: Oceane Duluins
Email: oceane.duluins@uclouvain.be

Link to the form



Jessee Bowser