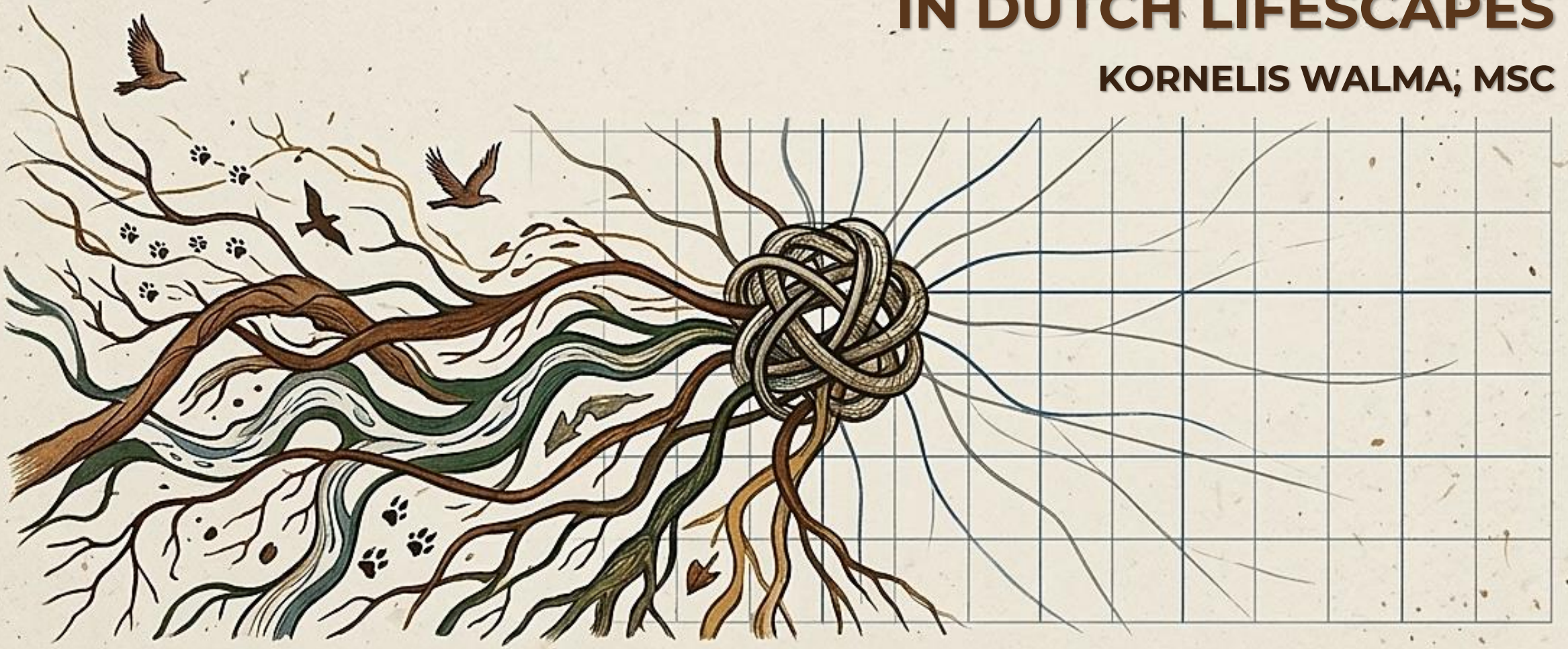
A CRITICAL TRAVERSAL OF THE SOCIO-ECOLOGICAL ENTANGLEMENTS FOR BIODIVERSITY GOVERNANCE IN DUTCH LIFESCAPES

KORNELIS WALMA, MSC



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Presentation Outline .

- Introduction & Context
- Research Framework
  - Research questions & themes
  - Objectives
  - Methodology
- Progress & Results
- The Path Forward
  - Future Research Plan
  - Feasibility & Risk Mitigation
- Conclusion

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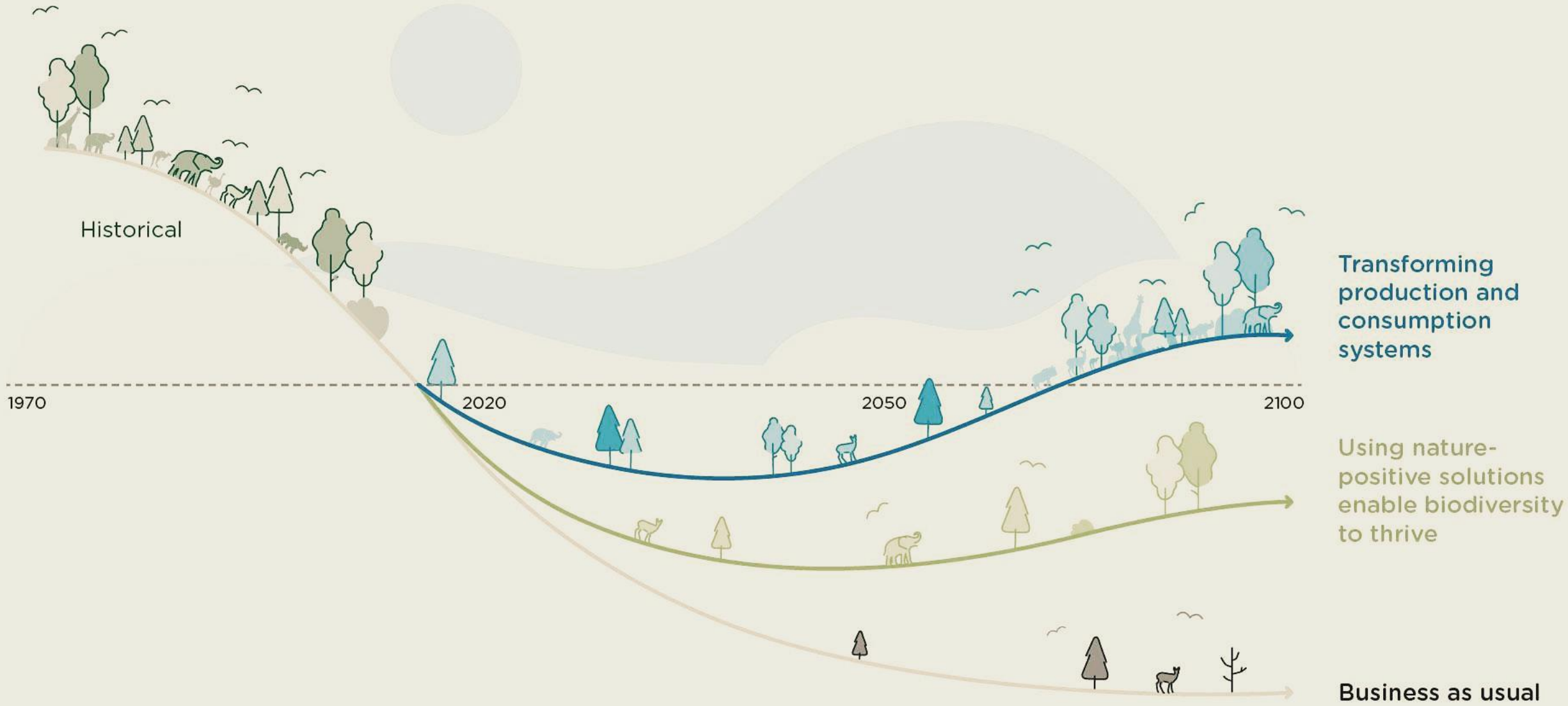

This image is adapted from the Secretariat of the Convention on Biological Diversity's report "Global Biodiversity Outlook 5" (2020) and illustrates the main findings of the Nature article "Bending the curve of terrestrial biodiversity needs an integrated approach" (2020), but does not intend to accurately represent its results.

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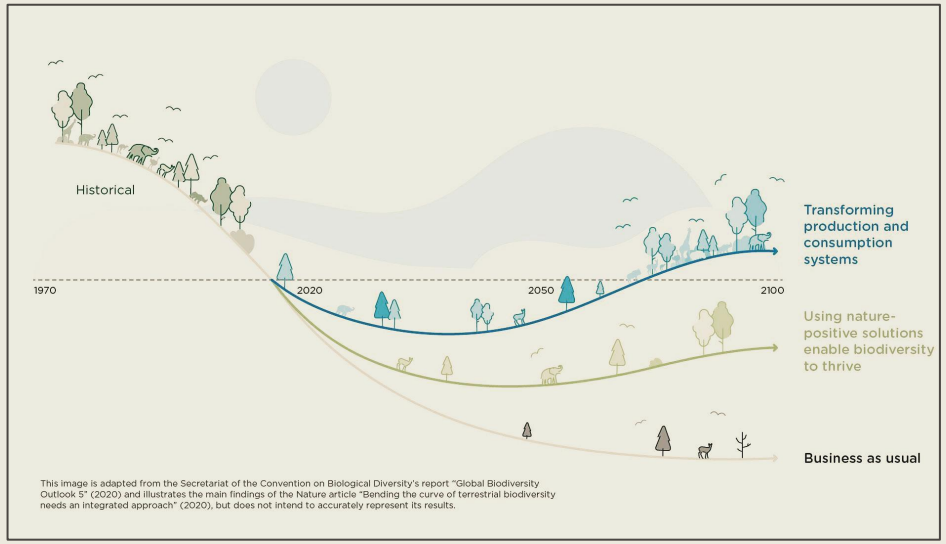
Introduction .

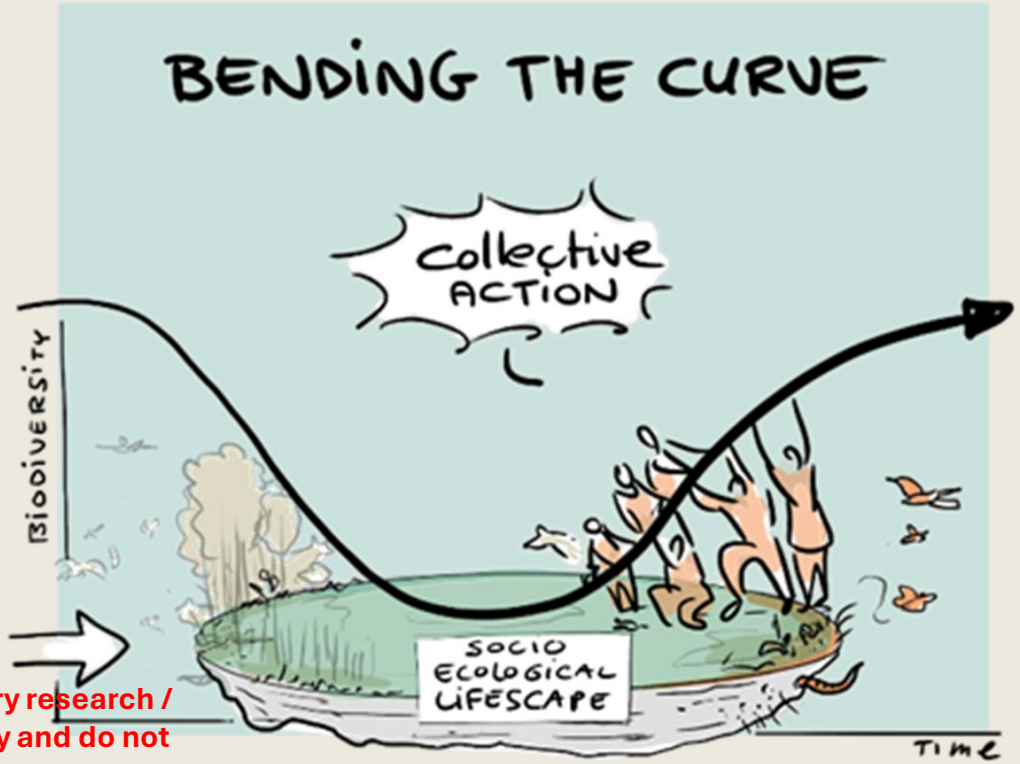
- **CurveBend NWO** (’25-’32)
  - Across three continents: Netherlands, Argentina & Kenya-Tanzania

- **Hypothesis**: Reversing biodiversity decline requires bridging the ‘lifescape mismatch’ (=the disconnect between human land-use and ecological needs) through robust collective action

- **Transdisciplinary synergies**: Integrating ecology, anthropology, and governance whilst co-creating with local stakeholders.

- **My focus:** Unravelling the governance bottlenecks and exploring the transformative potential of collective actions on the Dutch countryside





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Introduction: CurveBend .



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Introduction: Bridging the Implementation Gap .

- **The Implementation Gap**: Acknowledging the tough reality of bringing high-level policies to the farm & landscape level and complementing the existing technical or financial fixes with deeper socio-ecological insights.

- **Integrating Domains**: Moving beyond the traditional division of agriculture and nature to understand their profound socio-ecological entanglement in practice.

- **Broadening the Scope**: Complementing existing technical and financial instruments with deep insights into human behaviour, institutions, and collective action.

- **Aligning Governance with Reality**: Exploring how formal administrative frameworks can be better synchronised with the dynamic, lived reality of the landscape/lifescape.

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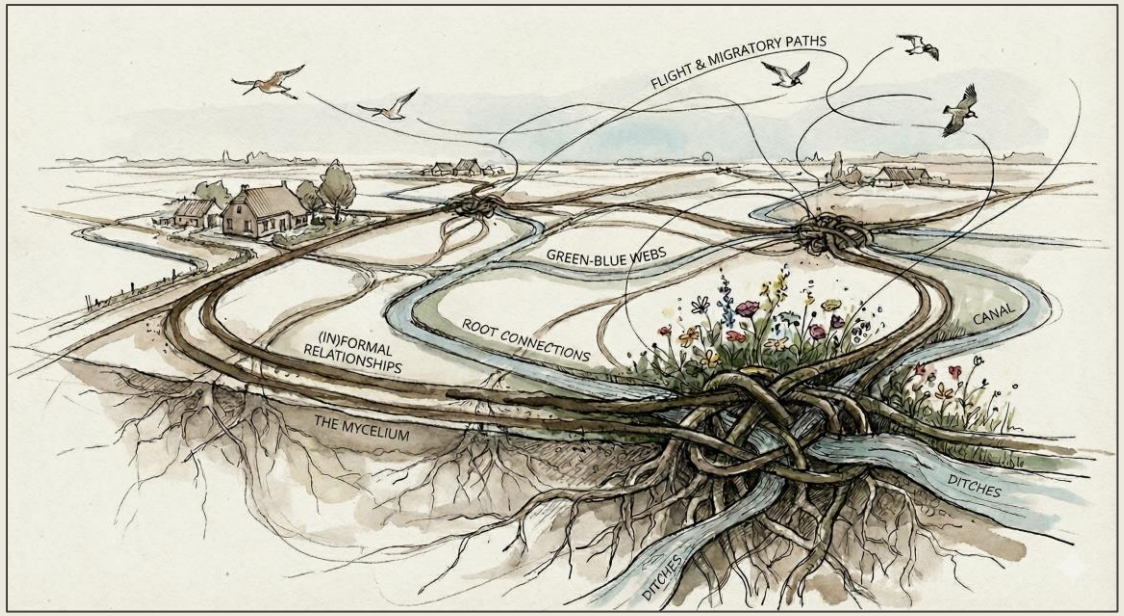
The Grid .

- **Complexity reduction:** simplifying reality, e.g. through standardisation and metrics, is necessary to make ‘unruly’ landscapes legible and manageable
- **A universal logic of steering**, adopted by states, collectives, and farmers alike
- **Static**: Views collective action as fixed, manageable ‘blocks’



The Meshwork .

- **Lived reality**: The fluid, unruly, and tangible reality on the ground
- **Entangled**: A dynamic web of human and more-than-human ‘lines of becoming’
- **Performative**: Defined by continuous, messy everyday practices and situated knowledge



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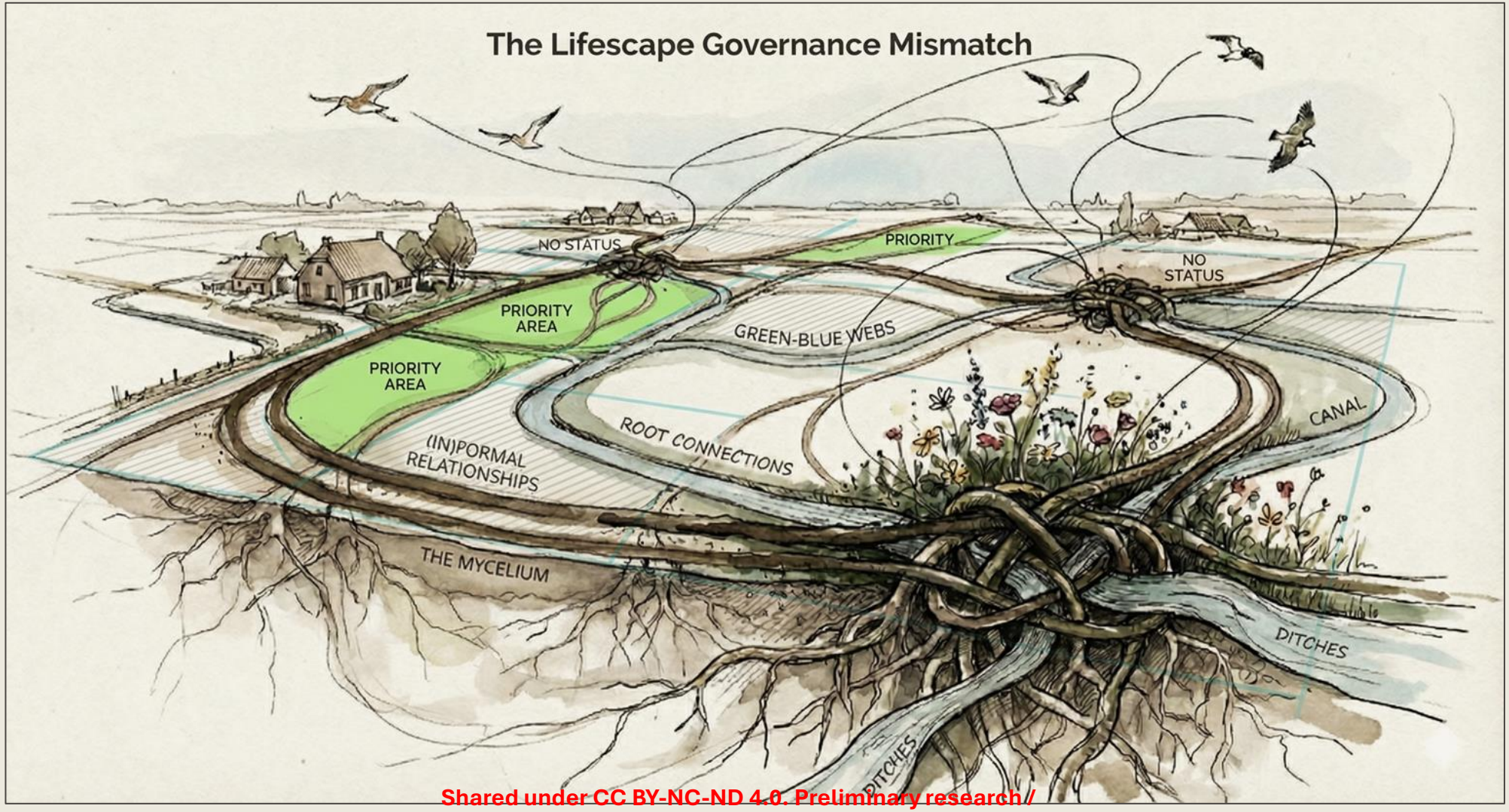
Introduction: the Grid & the Meshwork .



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Research Framework: Main Research Question .

How do the interplays between Dutch agri-environmental governance and socio-ecological lifescapes shape the potential for collective action for transformative biodiversity governance?

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7.

The Ontological Friction: Blocks & Knots

The interplay between formal institutional frameworks, such as policy directives, agri-environmental schemes, etc. and the informal socio-ecological dynamics of the lifescape.



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2.

The Political Friction: Distributed Agency & Sovereignty

The tensions between the unruly agency of the landscape, such as land subsidence, predation, soil salinisation and the governance logic of manageability and accountability.



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3.

The Epistemic Friction: The Metric & The Mud

The interplay between formal, audit-compliant biodiversity monitoring protocols and the situated, practice-based knowledge of practitioners (farmers, ecologists, volunteers, etc.).



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4.

The Ideological Friction: The Fantasy Of Control

The contradiction between phantasmatic ‘win-win’ logics and narratives that maintain current policy regimes and the reality of limited ecological success. E.g. biodiversity restoration can coexist with industrial agriculture.



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Research Framework: Objectives .

- **Traversing the Frictions**: Moving beyond theoretical critique to uncover pathways toward a ‘true socio-ecological fit’ in biodiversity governance

- **Actionable Insights**: Translating our understanding of these four frictions into constructive strategies that empower collective actions for biodiversity

- **Synchronising Policy and Practice**: Pathways for future governance models capable of bridging the ‘Administrative Grid’ with the living reality of the ‘Meshwork’

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Research Framework: Methodology .

- **A Processual-Relational Lens**: Moving beyond static data collection to capture the dynamic, lived experiences and everyday practices within the landscape

- **Case Study Design**: ‘Deep Dive’ cases combined with other cases and case areas

- **Mixed methods**:
  - Semi-structured & theme-guided interviews
  - Situated walking interviews & participant observation
  - Facilitated group interactions
  - Visual ethnography (e.g. art-based methods)
  - Dynamic policy analysis
  - Psycho-social discourse analysis

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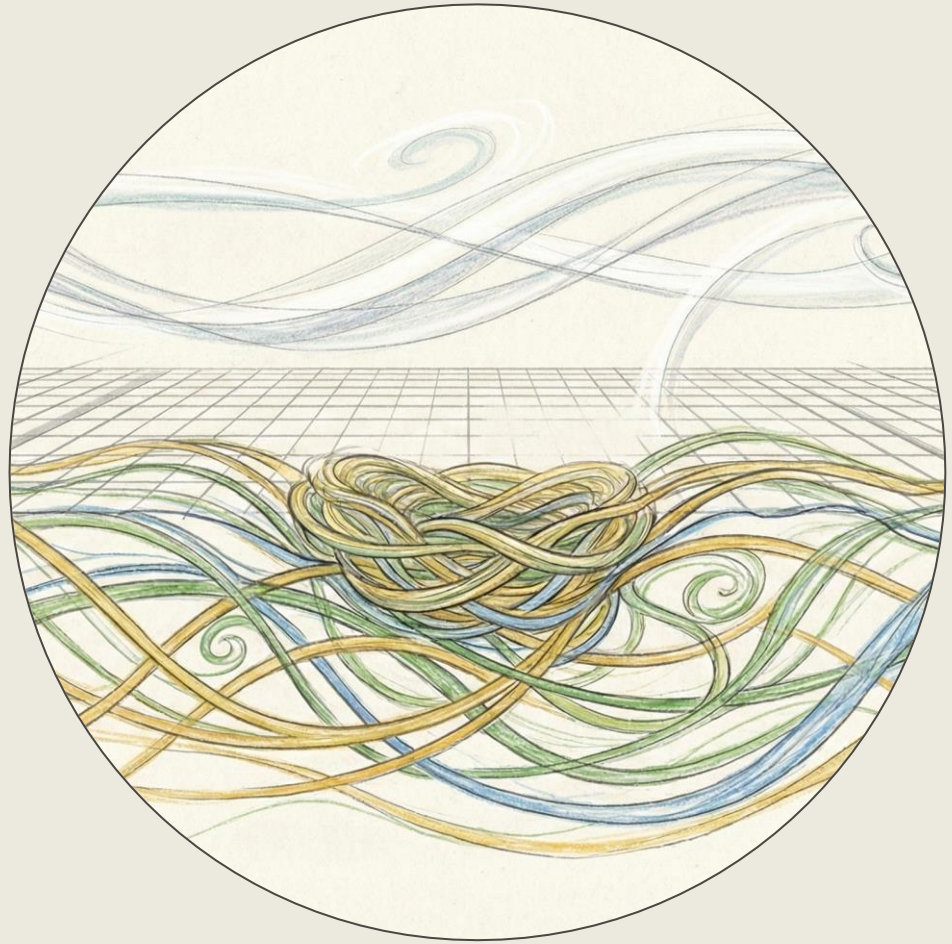
Progress & Results: Collective Action in Action .

- Collective action is an ongoing, precarious accomplishment: a continually enacted configuration of practices, relations, and material-ecological engagements

- It is the temporal, material, and performative knotting of human and more-than-human relationships and trajectories ("**lines of becoming**"): farmers, meadow birds, policy plans, water levels etcetera entangle and affect one another (Ingold, 2011)

- **Intra-action** (Barad, 2007): actors do not precede their encounter; instead, the 'farmer' and the 'biodiversity' are mutually constituted through the very rhythm of the lifescape

- It is in the texture of this knotting where the actual work of restoration happens



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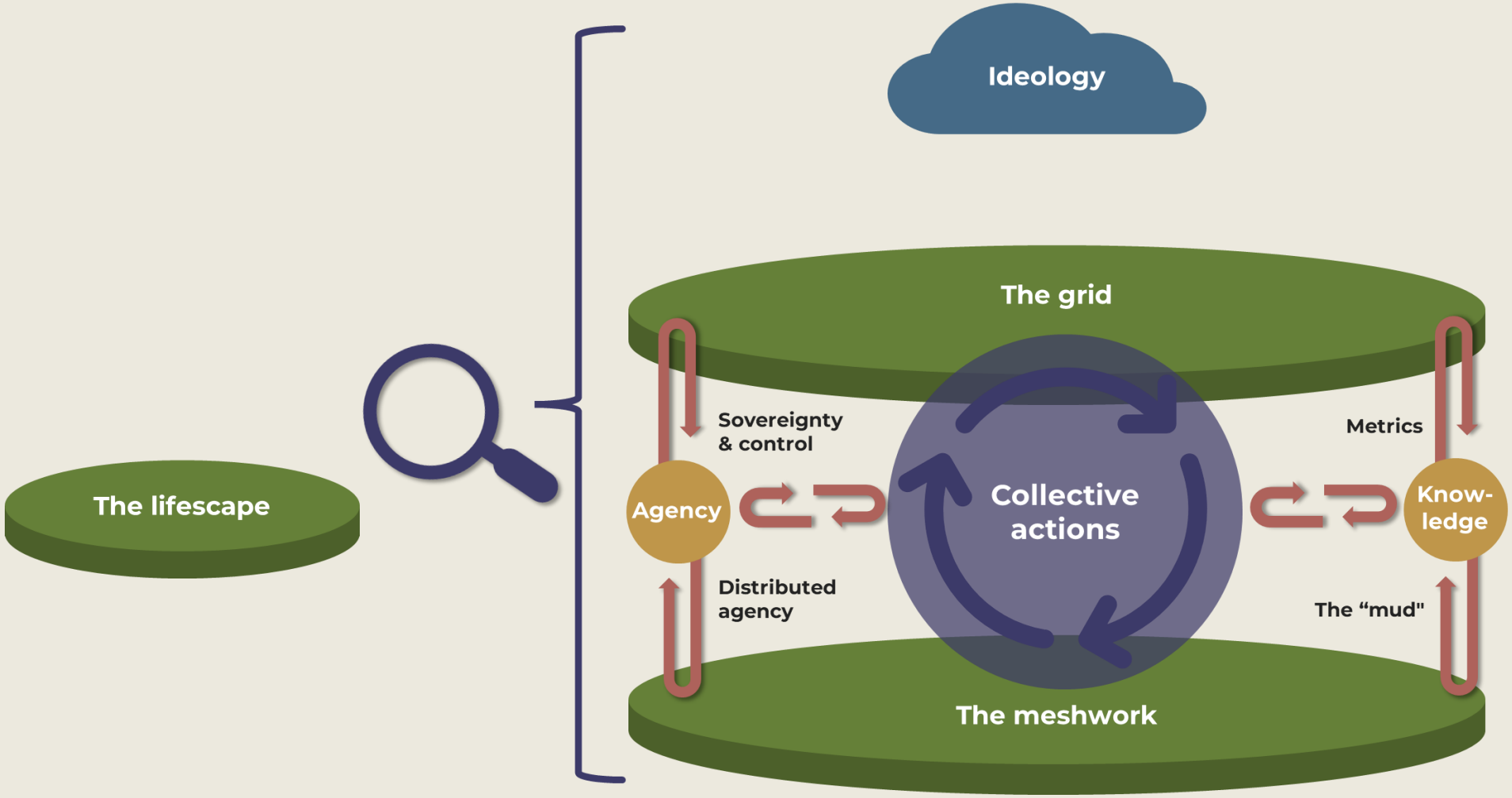
Ingold, T. (2011). *Being alive: Essays on movement, knowledge and description*. Routledge.
Barad, K. (2007). Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning. Duke University Press.

Progress & Results: Conceptual Framework .



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Progress & Results: deep dives .

- 2 and potentially 3 deep dive cases:
  - Close & interdisciplinary collaboration in the same landscape
- Spaarnwoude & Westzaan – North Holland
- Eemland – Utrecht
- Idzegea - Friesland



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Progress & Results: other cases .

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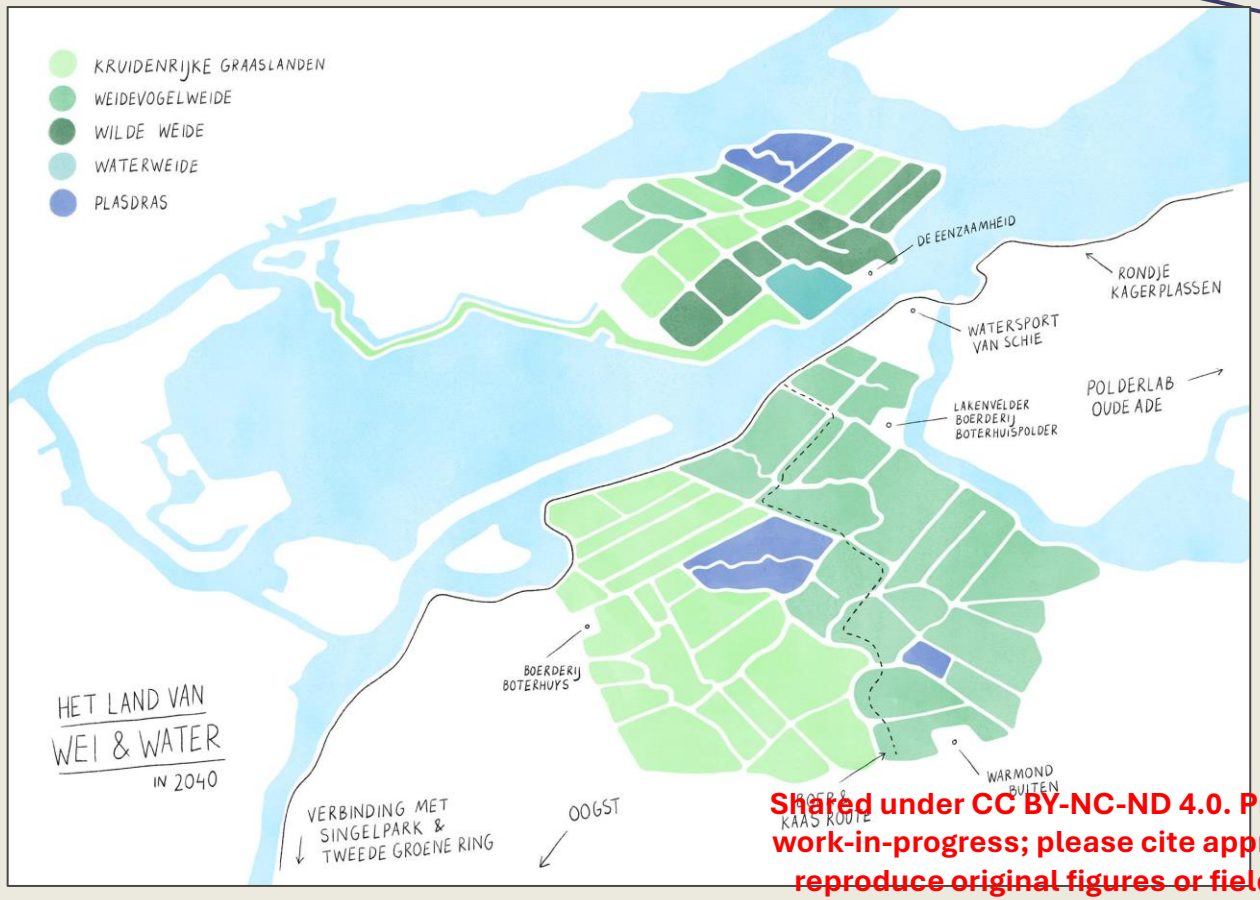

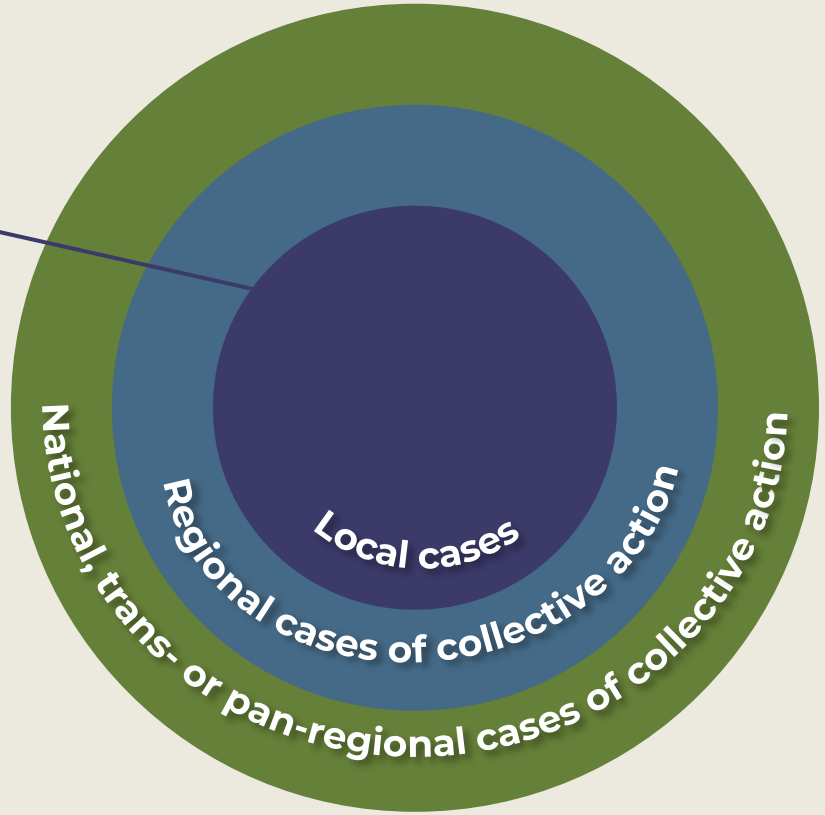

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Progress & Results: other cases .

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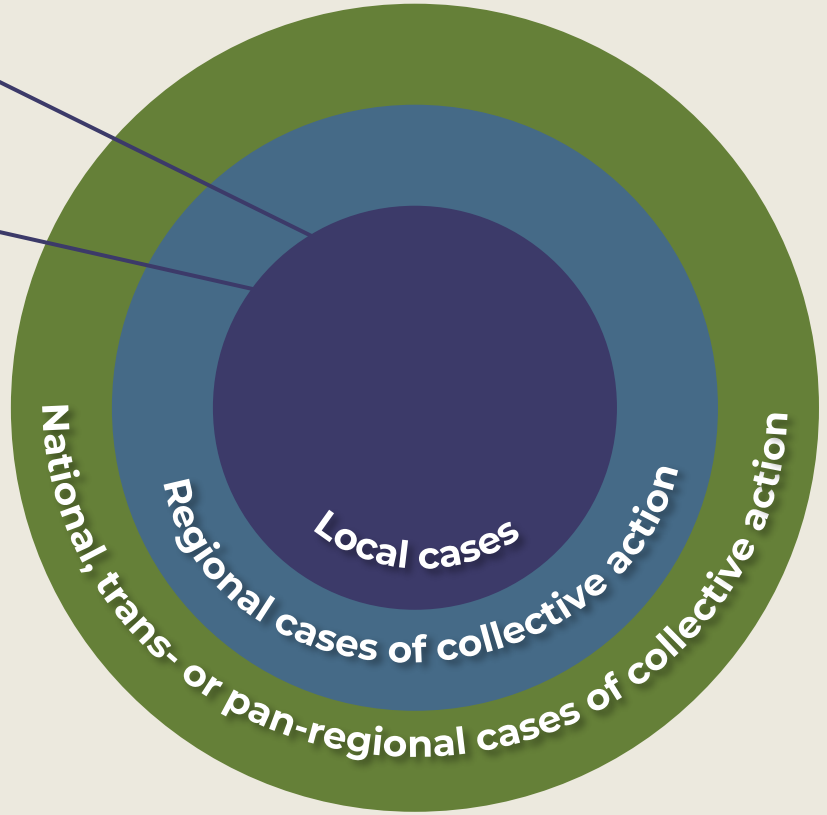

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Progress & Results: other cases .

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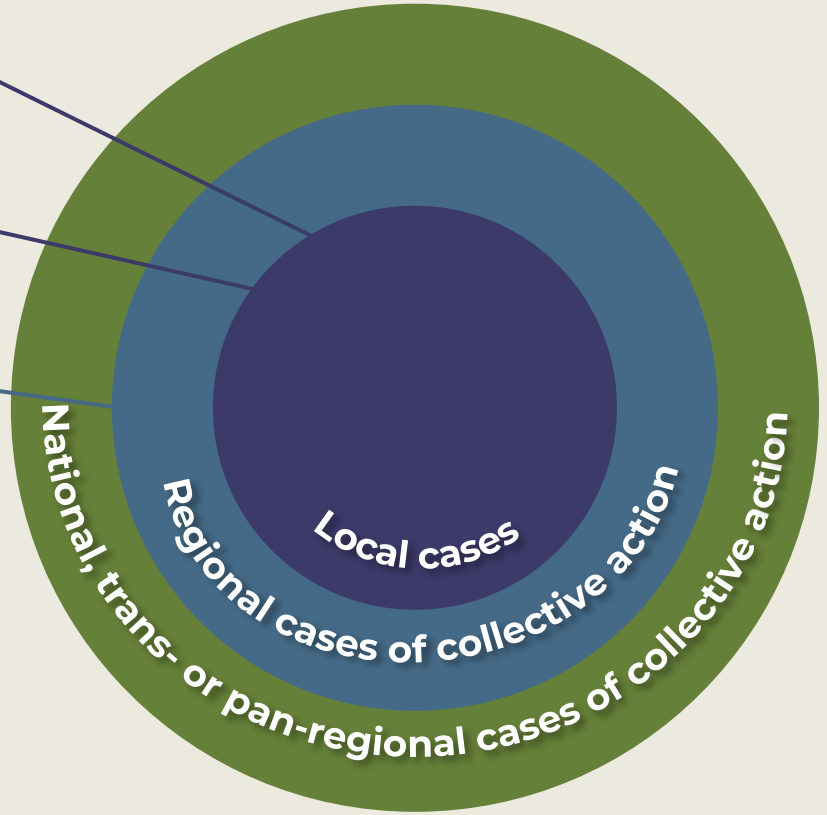

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Progress & Results: other cases .

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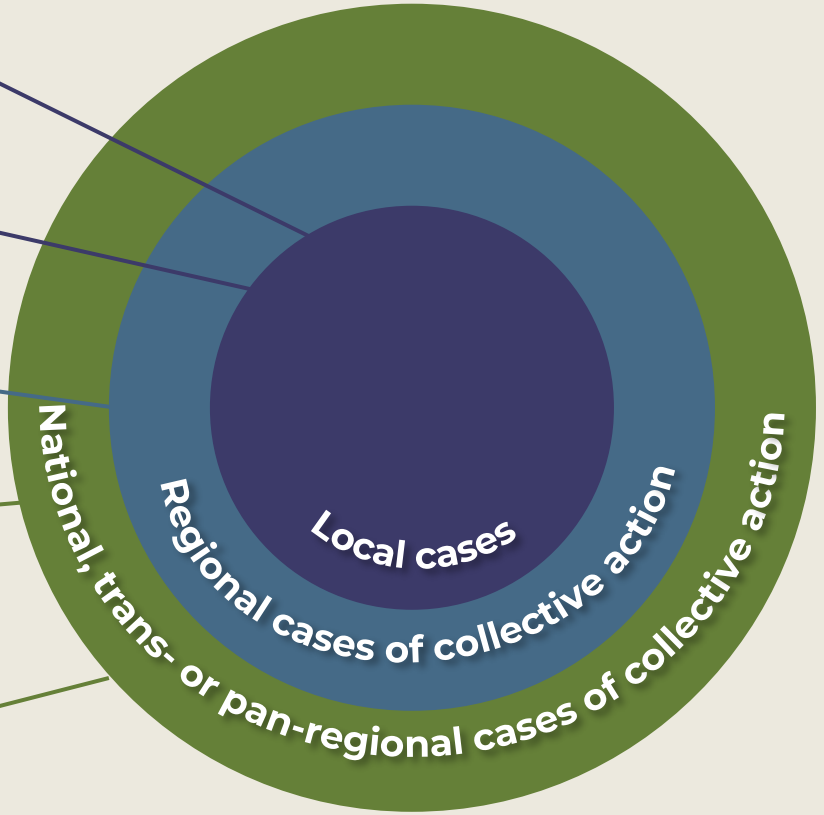



COMMONLAND

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Progress & Results: Year 1 .



- Research proposal
  - Theoretical grounding
  - Conceptual framework
  - Methodological preparation
- Set for ethical approval



- Exploring suitable case study areas
- Visiting potential sites of collective actions



- Interdisciplinary alignment
- Close collaboration with CurveBend's ecologists & anthropologists



- Initiated the teaching qualification trajectory: practical experience through guest lecturing, course facilitation, and master's thesis supervision at OU & RU

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The Path Forward: Future Research Plan .

- Start fieldwork period (‘26-’27): start this Spring.
- ESP (Ecosystem Services Partnerships) Conference – May, Prague
  - Session T18C: Governing the Commons for Ecosystem Services: Insights from recent research
  - "Unravelling the Governance of the Agrarian Commons: lessons from the Netherlands"



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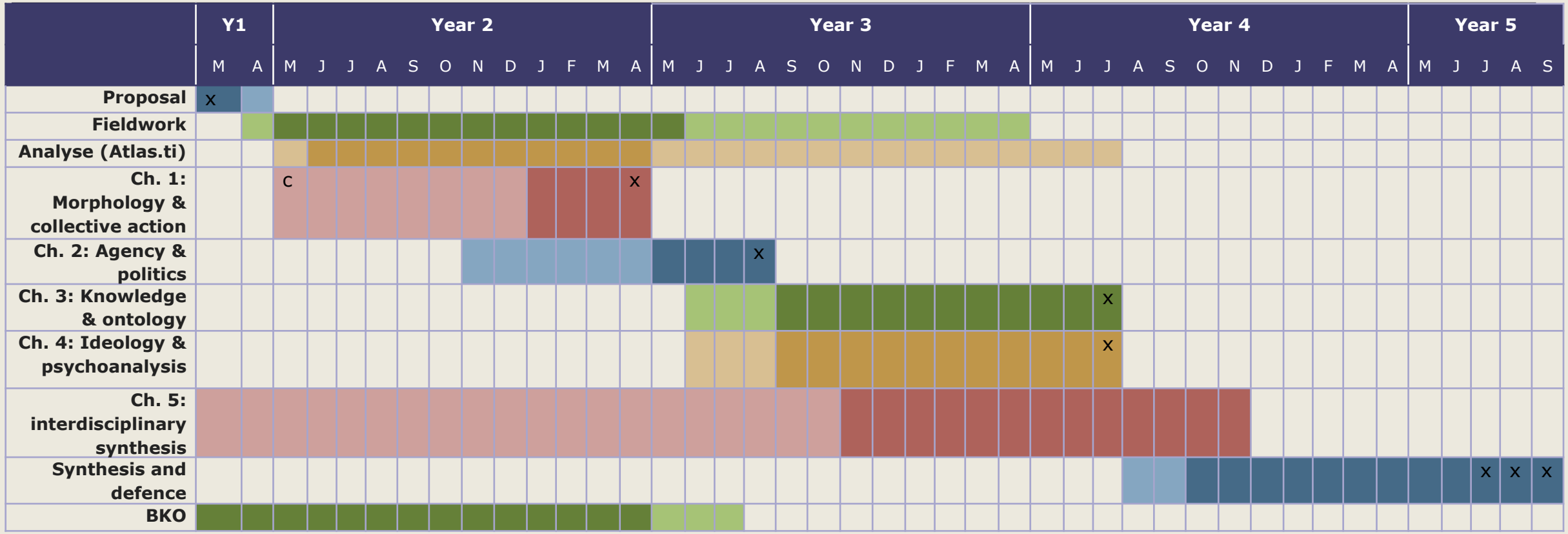
The Path Forward: Publication Strategy & Planning



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The Path Forward: Feasibility & Risk Mitigation .



Socio-Societal Risks

- **Risk** of Stakeholder fatigue or perceived extractive practices
- **Mitigation**: Leveraging existing Living Labs and prioristising reciprocity and long-term relationship building



Methodological Rigour

- **Risks** of theoretical alienation, technical field challenges, data bloat from multiple methods
- **Mitigation**: translating theory to practical value, continious data analysis, interpretation & reflection



Ethical Risks

- **Risk** of traceability in tight-knit communities, privacy concerns with visual-spatial data
- **Mitigation:** Hardware encryption, no-traceable quotes, post-hoc blurring



Interdisciplinary Alignment

- **Risk** of interdisciplinary (e.g. timing, ontological) mismatches and loss of structural focus within the CB consortium
- **Mitigation**: joint field visits & data collection, shared data infrastructure, multi-scalar flexibility

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Concluding: Towards Socio-Ecological Fit .

- **Redefining the Gap**: Bending the curve of biodiversity loss requires moving beyond technical fixes to address the structural misalignment between the ‘Grid’ and the ‘Meshwork’

- **Re-conceptualising Collective Action**: By traversing the four socio-ecological frictions, this research shifts the focus from managing static institutional ‘blocks’ to sustaining dynamic, lived ‘knots’

- **Transformative Impact**: Delivering actionable, grounded insights to empower collective actions for biodiversity, bridging the divide between formal policy and the unruly realities of the Dutch lifescape

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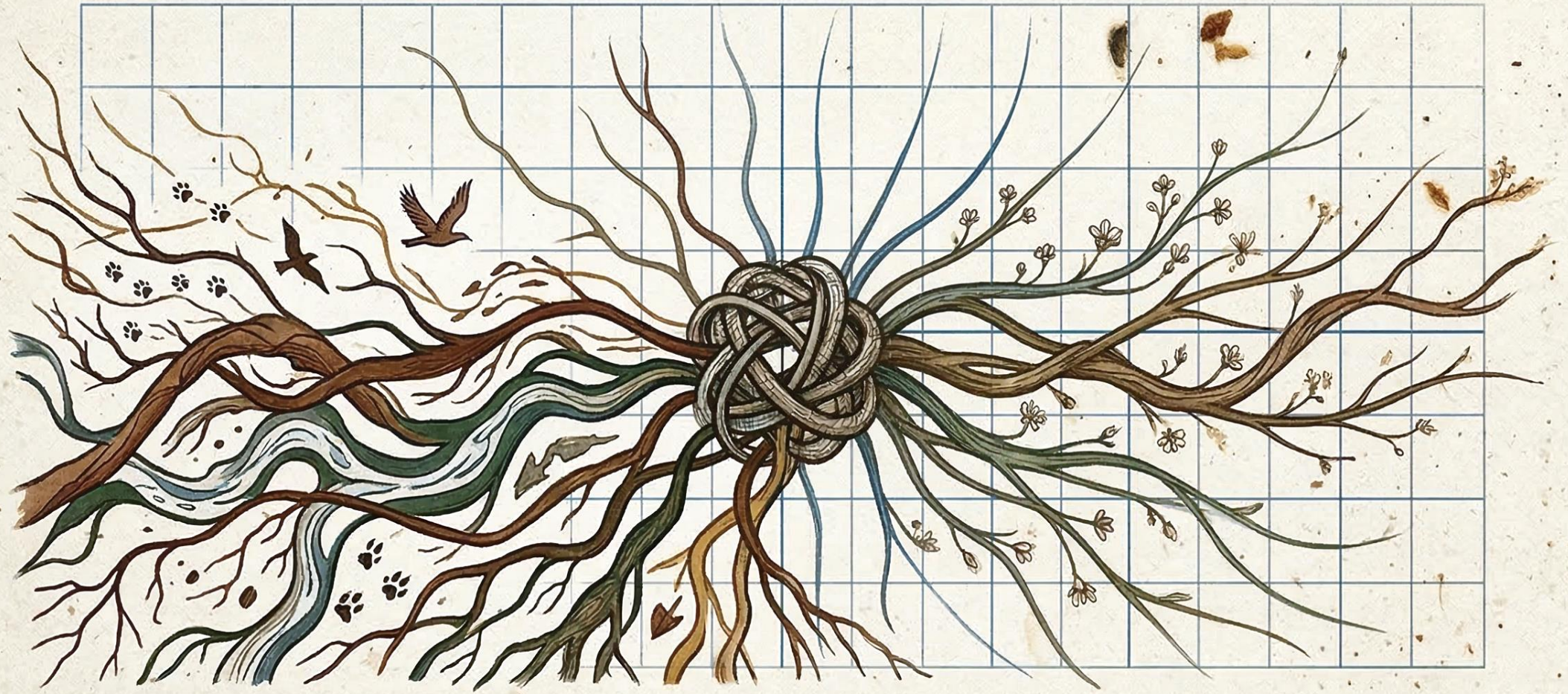
QUESTIONS?



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