



Ministry of Agriculture, Fisheries,
Food Security and Nature

Navigating the twin transitions together

Wageningen Model and Data Day 2025

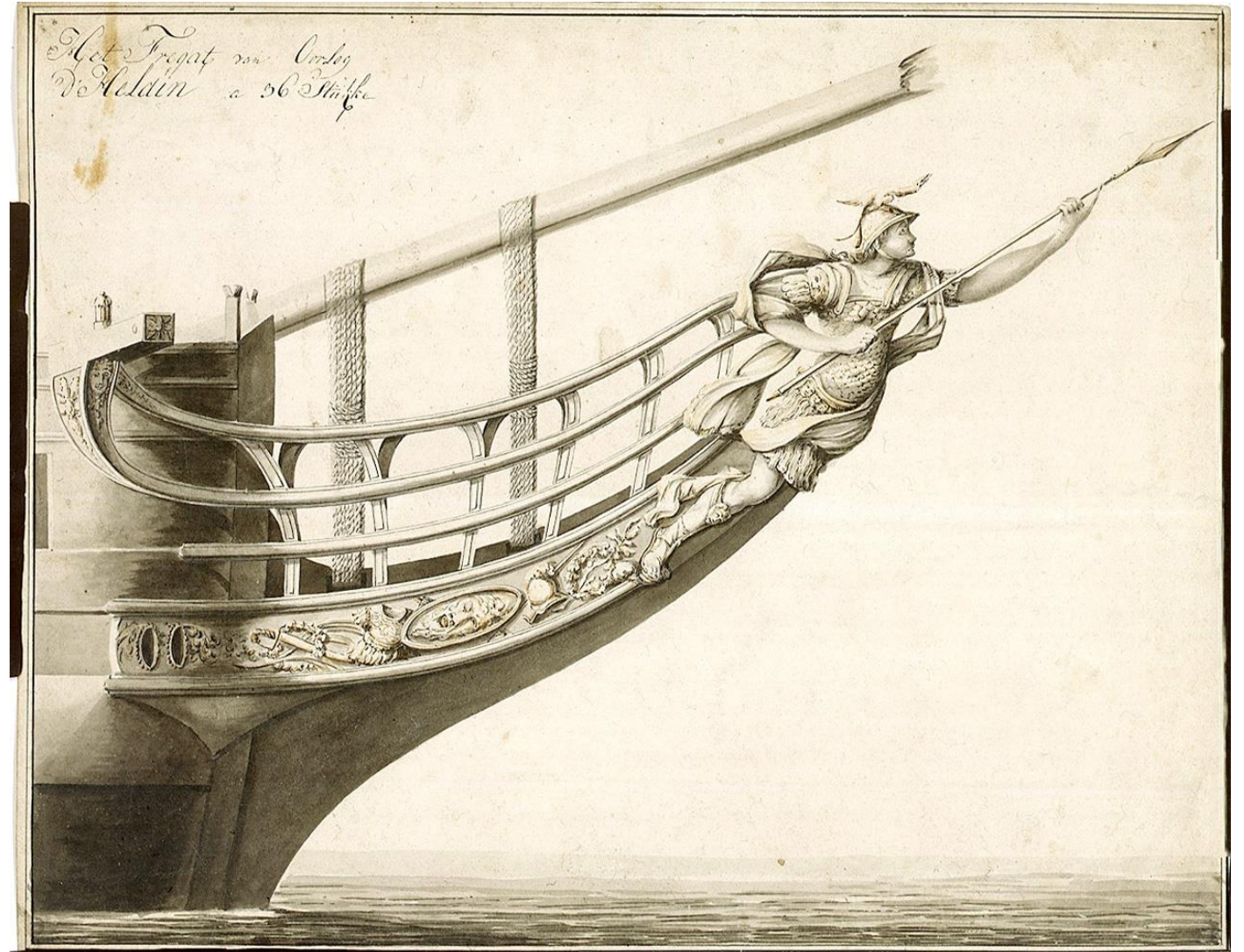
Pim van der Horst, MSc

Programme manager / coordinating policy
officer



Casting off

- › Who's on board?
- › Home port
- › Current vessel
- › Figureheads
- › Compass





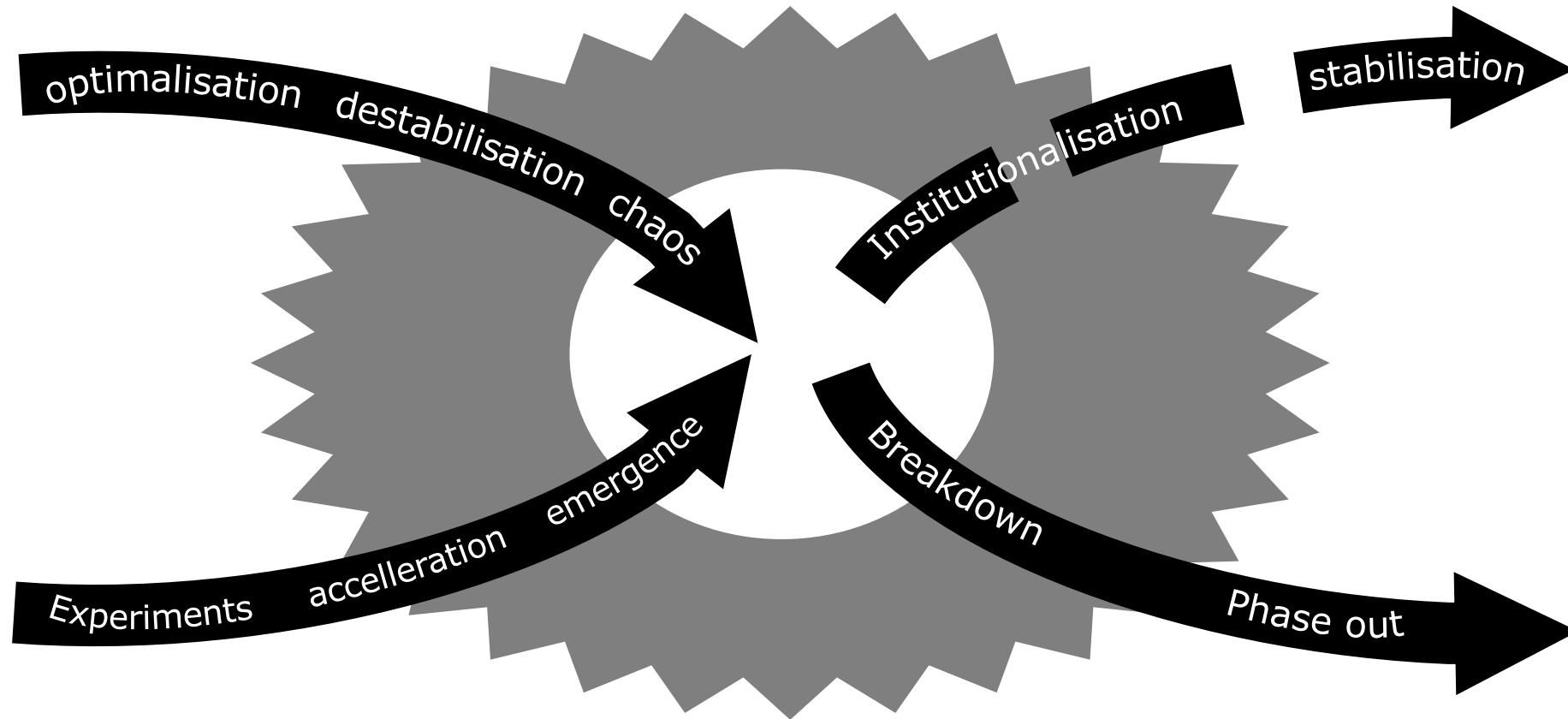
- Home port:
 - WUR
 - BSc Forest and Nature conservation (policy)
 - MSc Organic Agriculture (agro ecology)
 - Fruit cultivation (crop protection and post-harvest research)
 - ERP-consultant in greenhouse horticulture

- Current vessel:
 - Ministry of Agriculture, Fisheries, Food Security and Nature
 - Department of Strategy, Knowledge and Innovation - Team Digitalisation (crew: 7)

- Figureheads: Dutch Digital Synergy Days, Action Programme Digitalisation

- Compass: Facilitate cross-overs / apply systems approach / combine efforts

Walking the plank

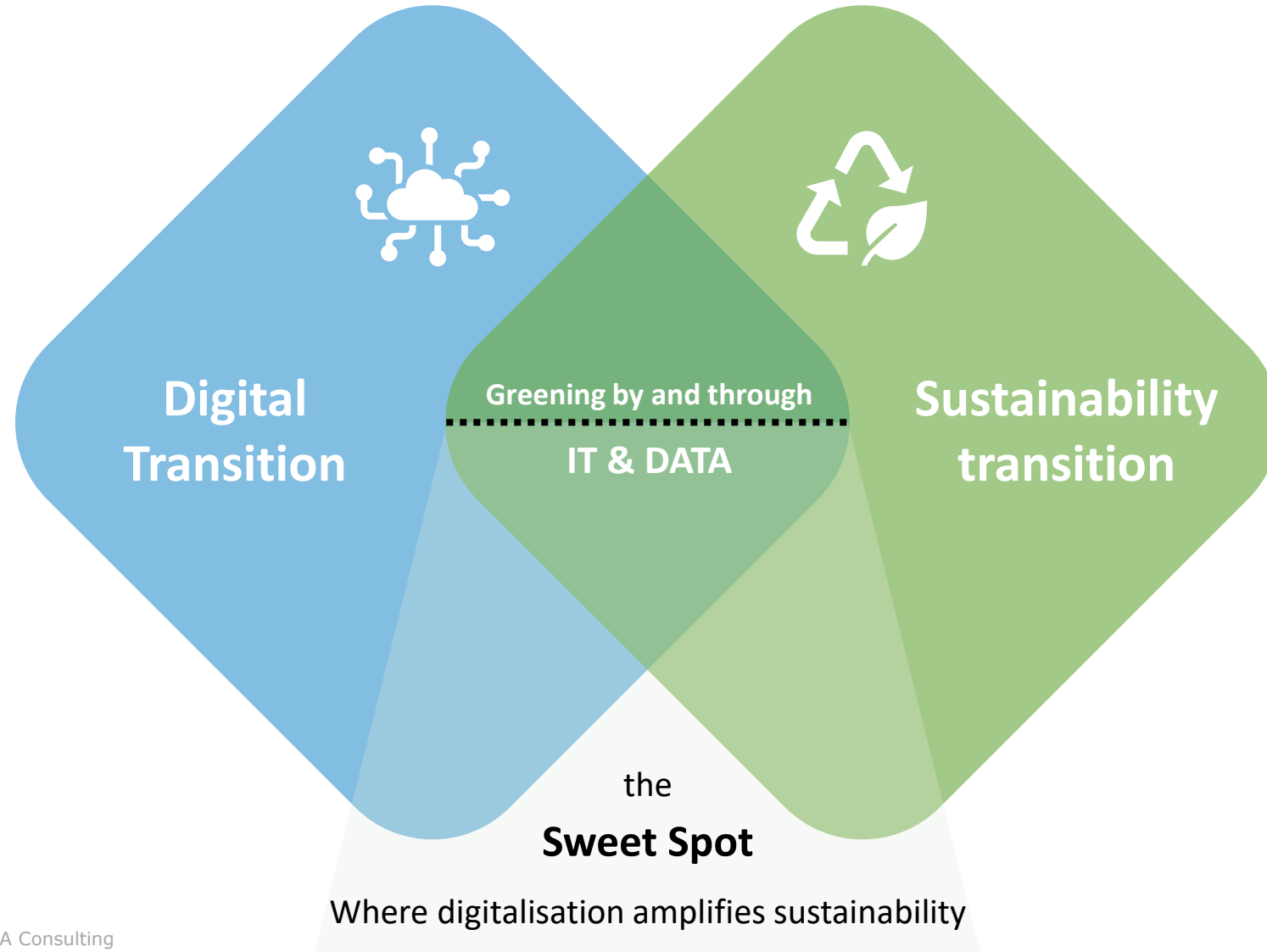


x-curve of transitions. Naar: Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability transitions research: transforming science and practice for societal change. Annual review of environment and resources, 42, 599-626.

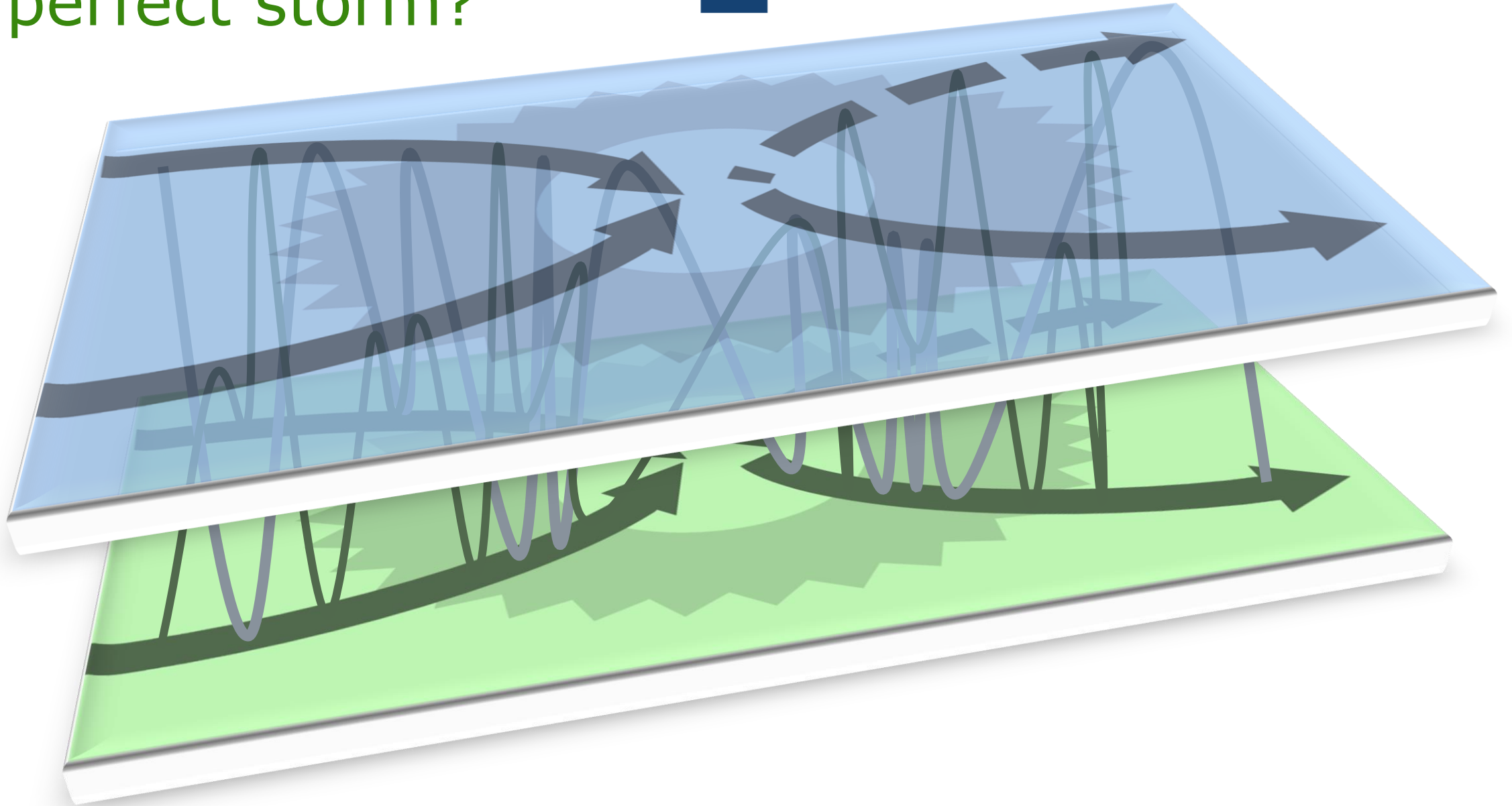
Taking a deep dive



Twin Transition



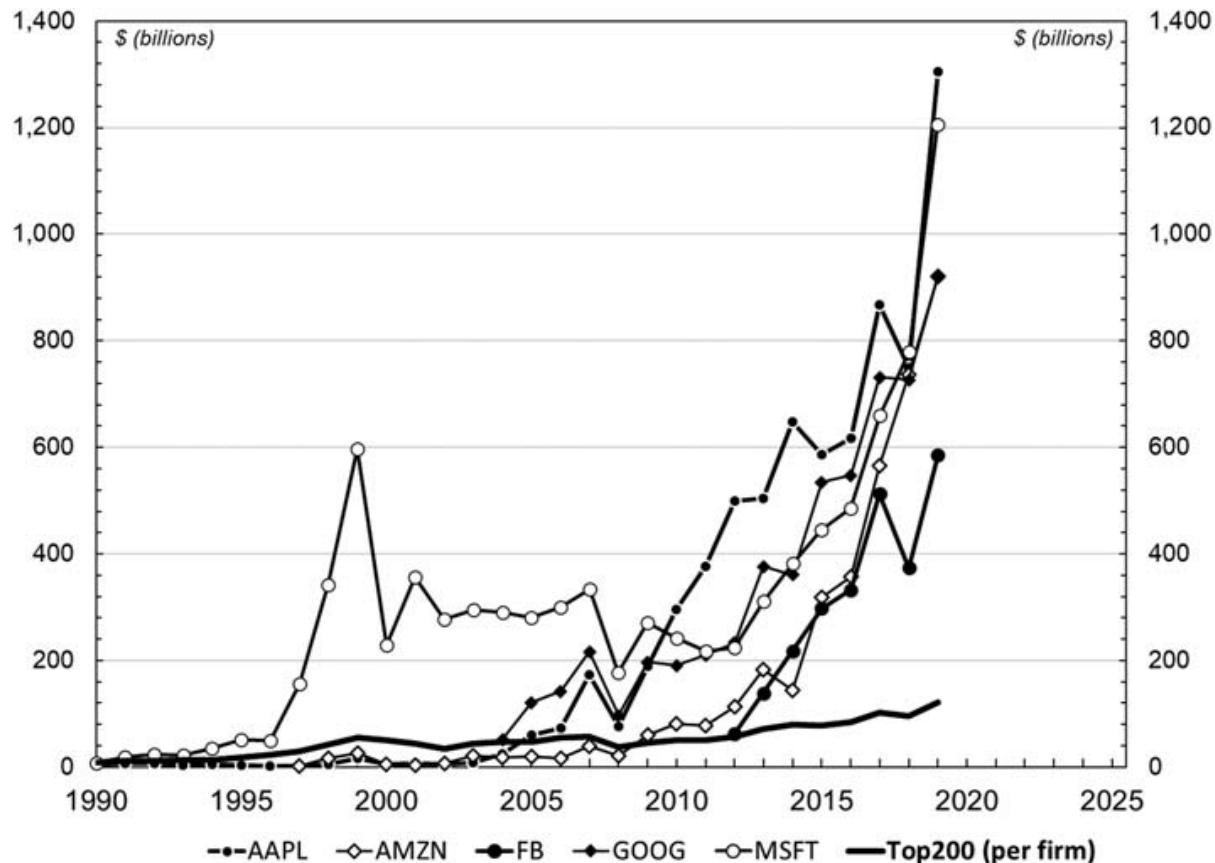
A perfect storm?





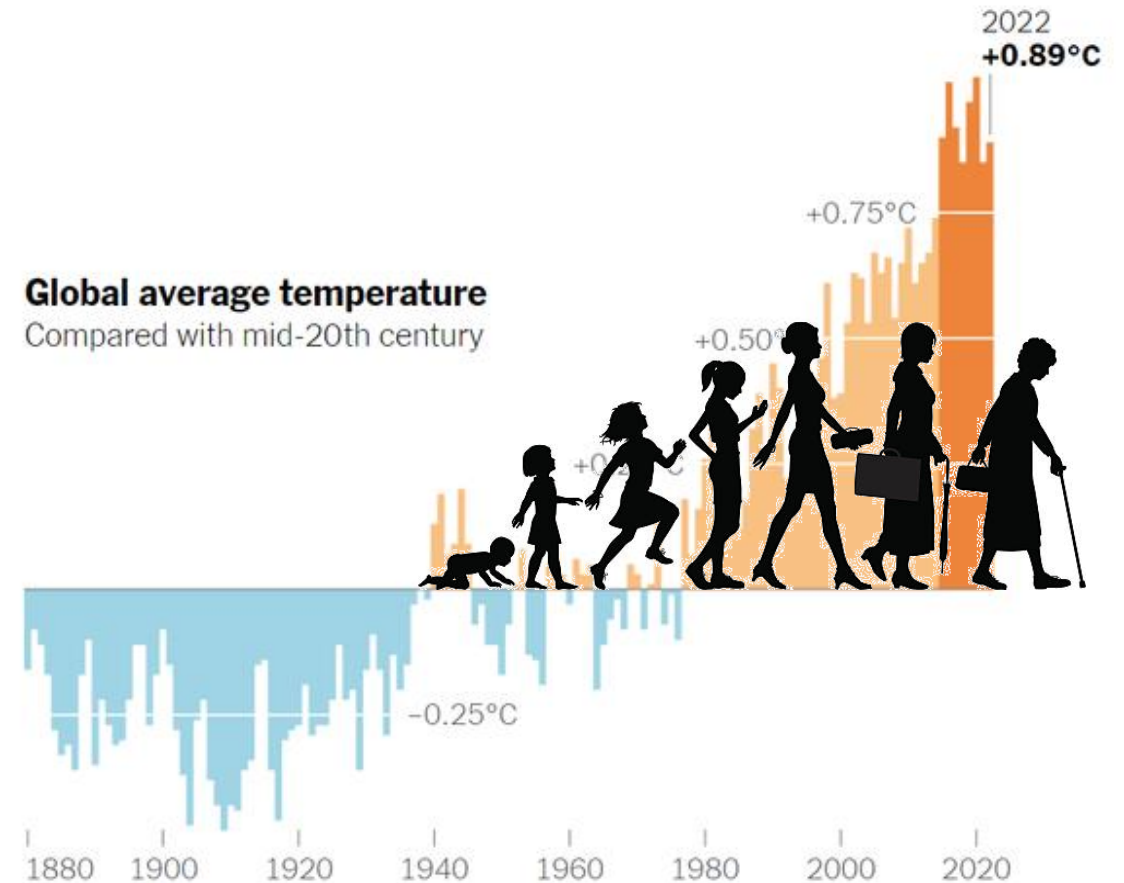
All hands on deck

- › Climate change
- › Big tech



Kean Birch & D. T. Cochrane (2021): Big Tech: Four Emerging Forms of Digital Rentiership, Science as Culture, DOI: 10.1080/09505431.2021.1932794

- › Aging workforce
- › Geopolitical developments

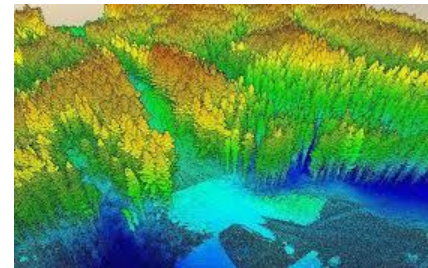


Source: NASA Goddard Institute for Space Studies



LVVN's plotted course on digitalisation:

- › **Leverage digitalisation to accelerate the transition towards a sustainable future of agriculture, fisheries, food, and nature**

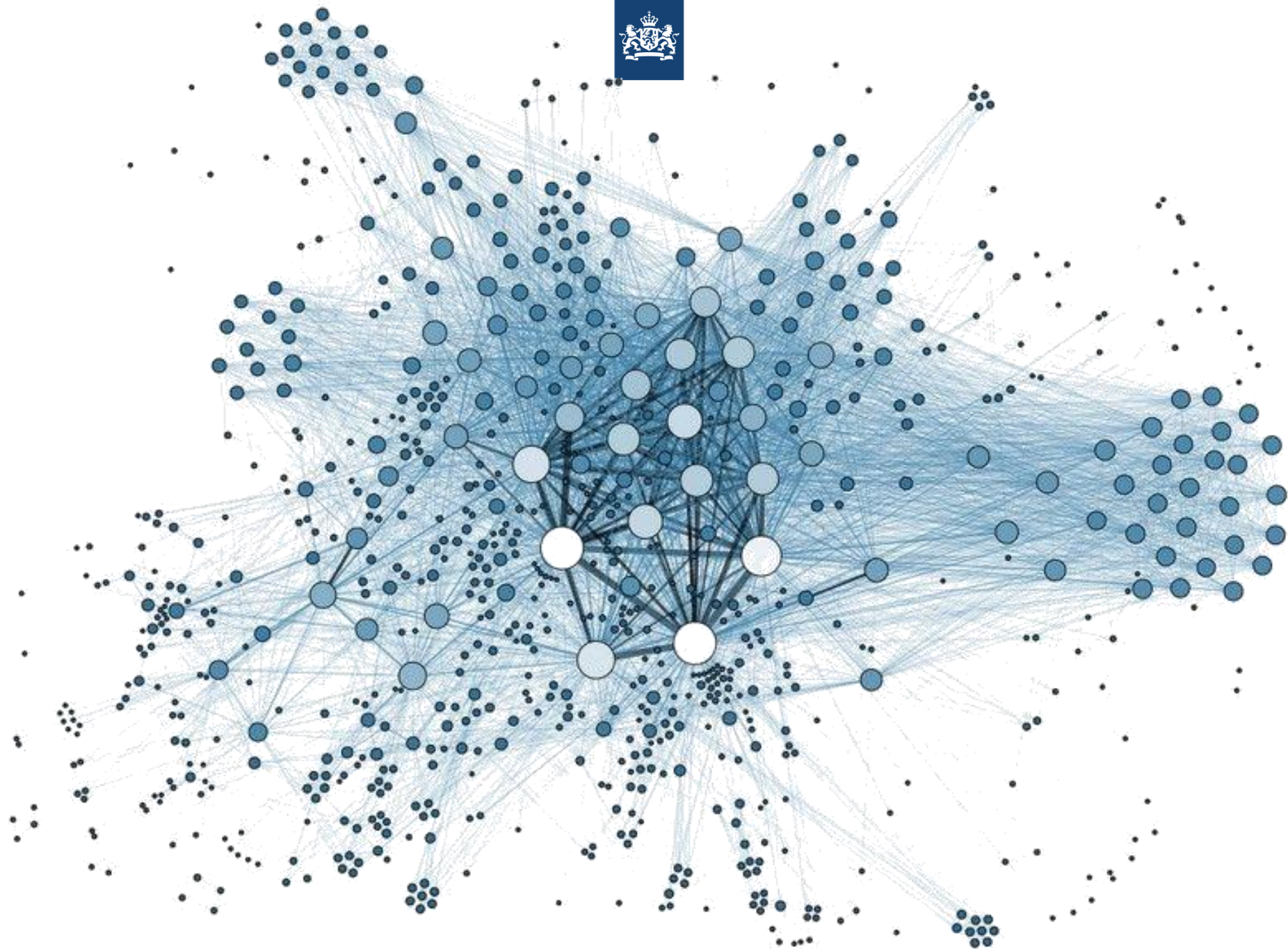




An armada of initiatives

- › Digitalisation Action Programme (2023-2030)
- › Innovation programme 'On-farm Robotics' (2025-2030)
- › Dutch Digital Synergy Days

- › European Innovation Partnerships subsidy (EIP) → 11-11-2025
- › European Digital Infrastructure Consortium (EDIC)
- › Horizon Agriculture of Data
- › WUR – LVVN digitalisation meetings – KB, WPR, WSER
- › Common European Agricultural Data Space (CEADS)
- › Agrifood Testing and Experimentation Facility (AgrifoodTEF)
- › Ethical, Legal and Social Aspects of AI (ELSA Lab)
- › National facility precision agriculture (NPPL)
- › AI-factory Groningen
- › Groenpact Acceleration programme for digitalisation and technology
- › Innovation Hub Agro (Netherlands Enterprise Agency)





Full steam ahead

1-2

- New cabinet
- Robotics innovation program up and running
- Development of DESA, generic federative data-ecosystem
- increased "resilience thinking": geopolitical context
- What's beyond 2030? Strategy development, information council, data authority

3-5

- Accelerating drone applications (swarming)
- Rolling out goal-oriented policy systems
- AI Factory in production
- Advancing and deploying AI agents, general AI, AR/VR, and new Interfaces (haptic, voice)
- Geo/political context: new cabinet again (Netherlands), new U.S. elections, stronger EU autonomy, institutionalised AI ethics, increased cyberwarfare



Uncharted waters

5-10

- Quantum technology is institutionally mature
- Quantum sensing/ computing/ networks/ security
- Generative AI adopted, federated machine learning, Web 3.0
- Privacy-by-design, remote / autonomous control/management legalised
- digital twins of environments, smart habitats
- Accelerated computing power > more complex models
- Automated grants and subsidies
- Real-time automated supervision, coaching and enforcement

10-15

- AI agents fully embedded in society; government adoption on the rise
- Widespread robotic adoption in society



One fleet, one course

- › Digitalisation is driven by dialogue
- › You're not alone; especially not digitally.
- › Seek common grounds to overcome differences
- › Show what you're doing, tell what you're missing, ask for support

Connect – Converge - Convert



Dutch Synergy Days

May '25



Ministry of Agriculture, Fisheries,
Food Security and Nature

Join the voyage! to the buffet



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