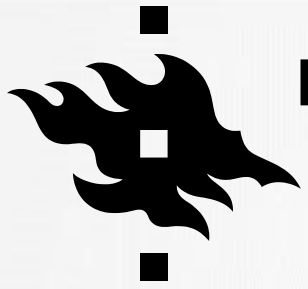


Viikki Sustainability Research Seminar 5.11. 2024

Ten years of sustainability transformation research: lessons learnt and ways ahead

STRONG SUSTAINABILITY: DOUGHNUTS AND WEDDING CAKE?

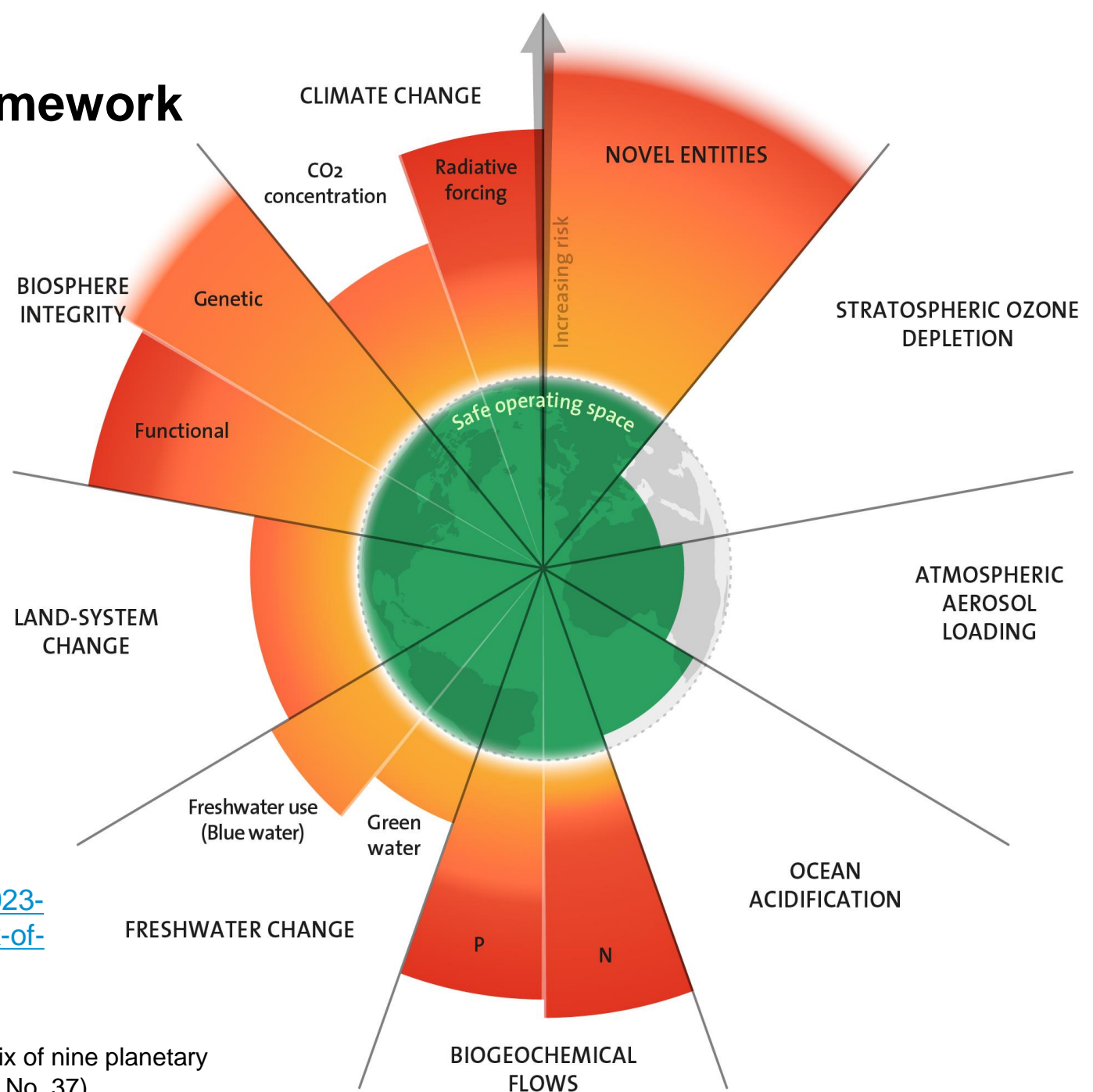
HELSUS Research Director Susanna Lehvävirta,
Sustainability Science Institute at University of Helsinki



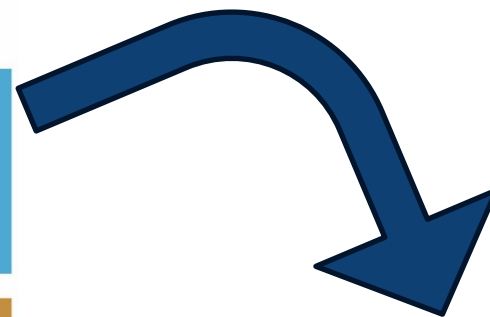
Planetary boundaries framework

- First introduced in 2009
- “...it highlights the environmental consequences of living in the Anthropocene, and our responsibility as future stewards for the planet” Ingo Fetzer, SRC

<https://www.stockholmresilience.org/research/research-news/2023-09-13-all-planetary-boundaries-mapped-out-for-the-first-time-six-of-nine-crossed.html>



SUSTAINABLE DEVELOPMENT GOALS

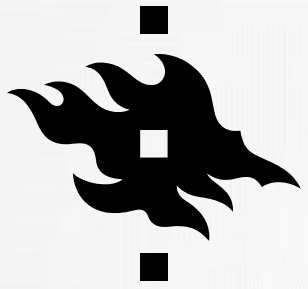


Six Transitions: Investment Pathways to Deliver the SDGs (UN 2023)

- Key transitions with catalytic & multiplier effects across the SDGs
 1. Food systems
 2. Energy access and affordability
 3. Digital connectivity
 4. Education
 5. Jobs and social protection
 6. Climate change, biodiversity loss and pollution

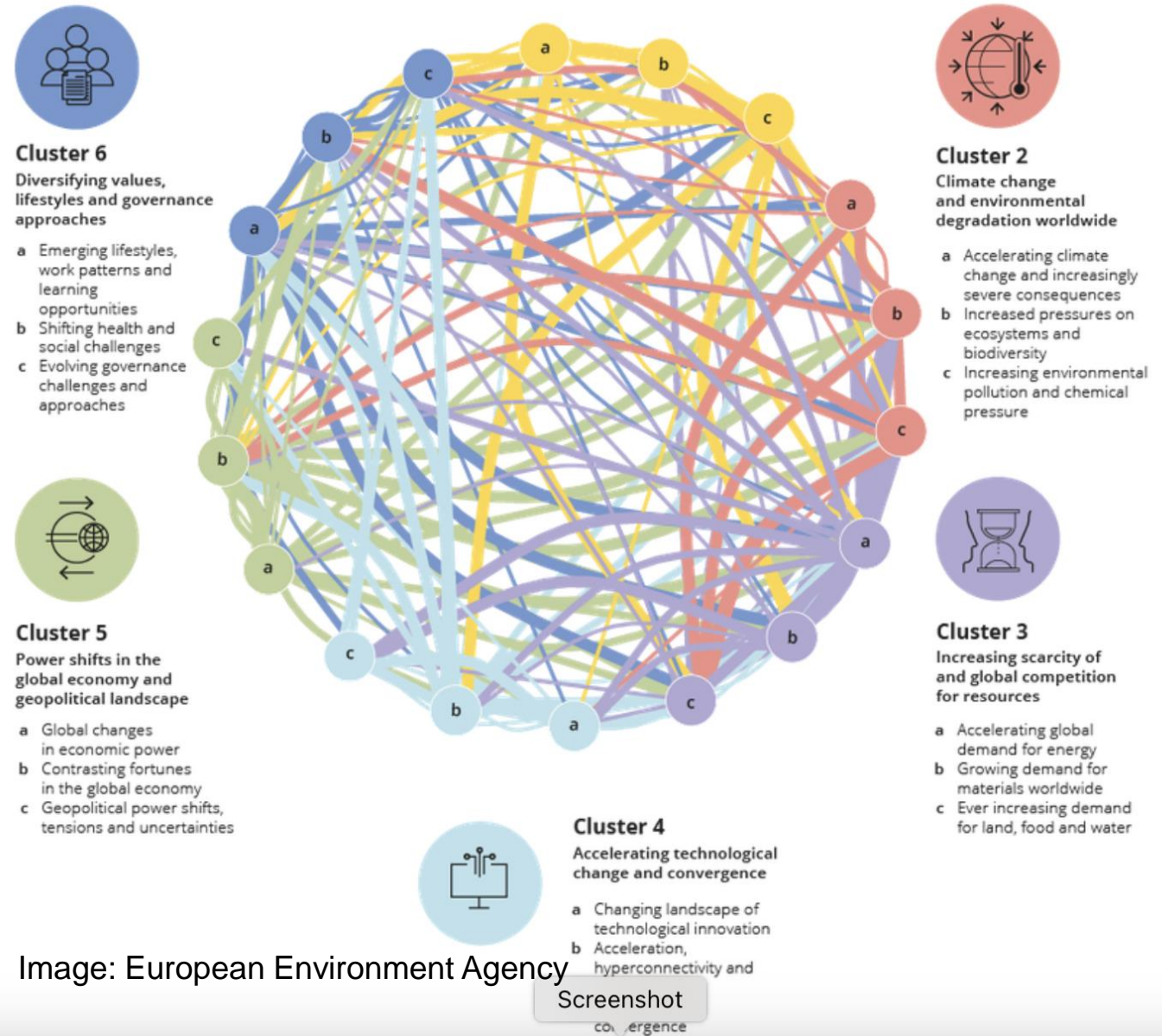
Adopted by UN members in 2015

- Legally non-binding policy objectives for 2030



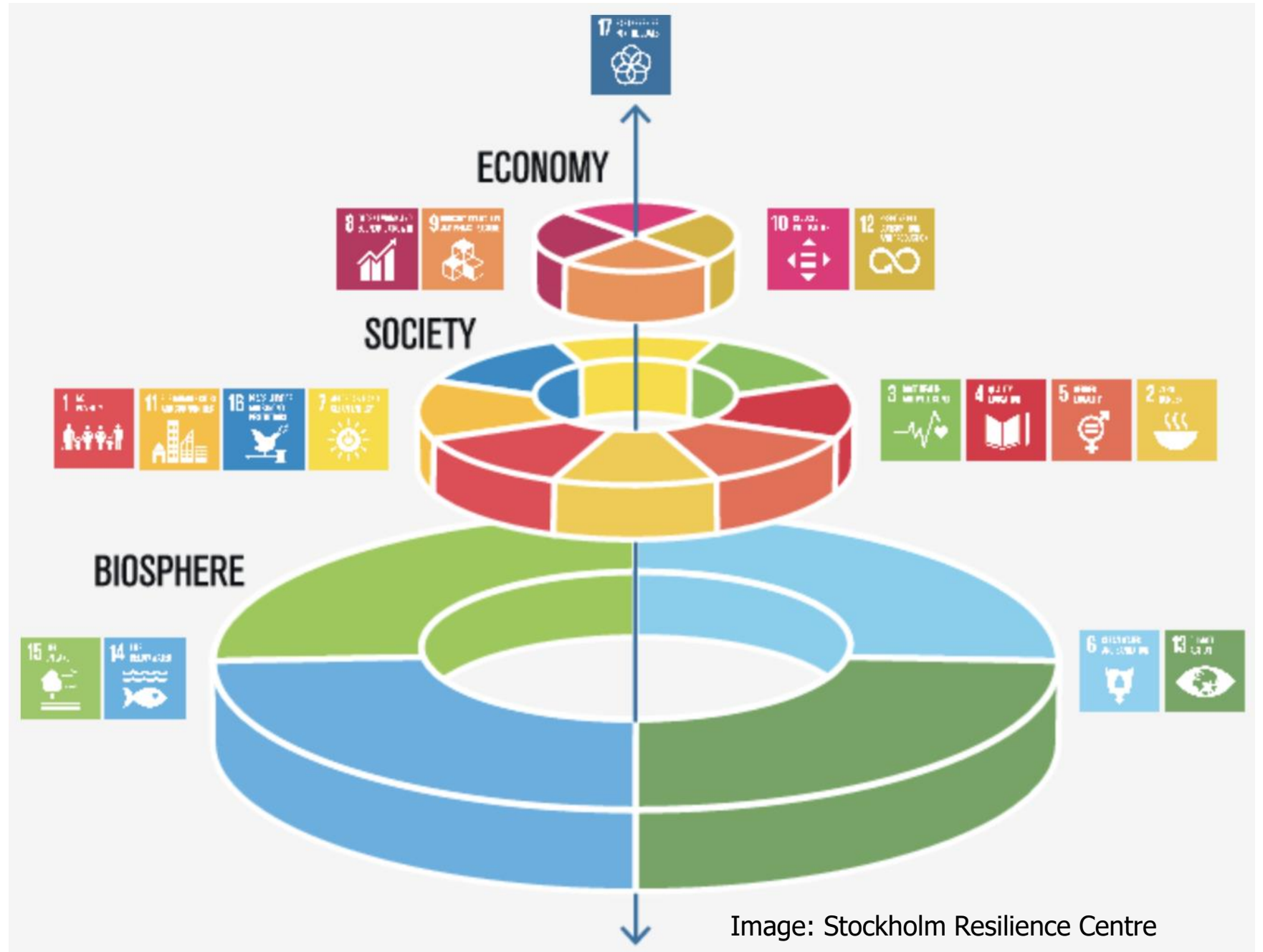
EEA CLUSTERS (2023): DRIVERS OF CHANGE

- 1 — Growing, urbanising & migrating global population
- 2 — Climate change & environmental degradation worldwide
- 3 — Increasing scarcity of & global competition for resources
- 4 — Accelerating technological change & convergence
- 5 — Power shifts in the global economy & geopolitical landscape
- 6 — Diversifying values, lifestyles & governance approaches



WEDDING CAKE

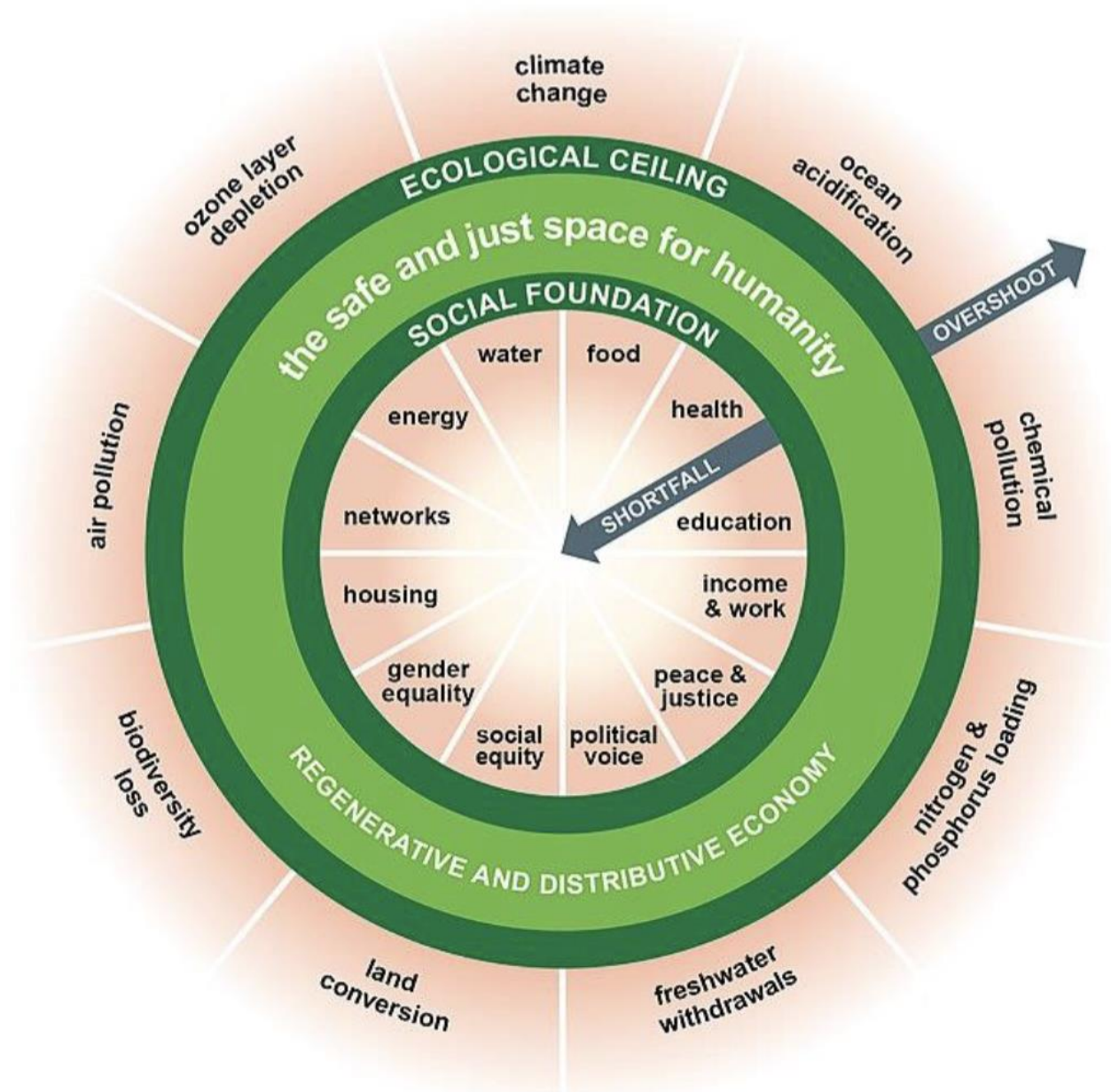
- SRC 2016
- Illustrates that economies and societies are embedded in and dependent of the biosphere



OR DOUGHNUTS?

Raworth's doughnut model (2017)

- Presents the safe and just space for humanity
 - Balanced between over-exploitation and insufficiency
- Economy presented as an aspect of human societies, not an entity of its own



MULTISPECIES SUSTAINABILITY

Critique:

- The previous models are too anthropogenic and fail to represent other than human species
- They oversimplify the representation of all species into e.g. "BD loss"
- Multispecies decision-making

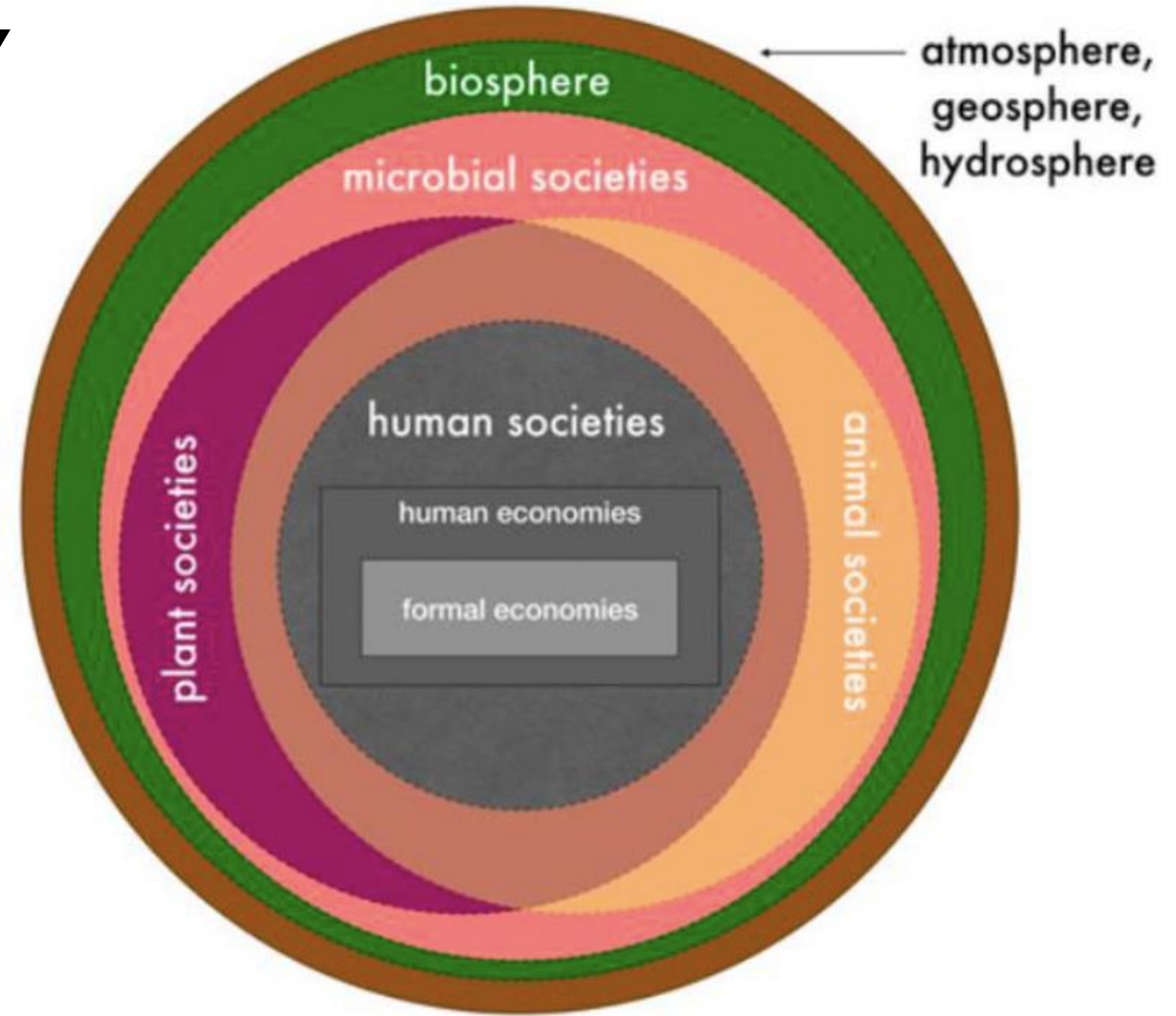


Fig. 3. Visual model of multispecies sustainability focused on interdependence. Elements depend on those containing them, and are affected by those they contain.



SUSTAINABILITY SCIENCE AT HELSUS

Now revising our research themes!

- The critical decade has turned into a global polycrisis
 - How to navigate in the era of collapsing systems?
 - Hope?

HELSUS focuses on **strong** (deep) **sustainability**, an approach that is based on systems thinking and recognises the planetary boundaries as definite.

