

Navigera hållbar omställning

Johan Holmén, fil.dr Fysisk Resursteori, Chalmers

Universitetslektor Hållbar omställning och lärande, Högskolan Väst

Affilierad forskare, Environment for Development Global Hub, Göteborgs Universitet

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Vänersborgs bibliotek. 2026-03-03

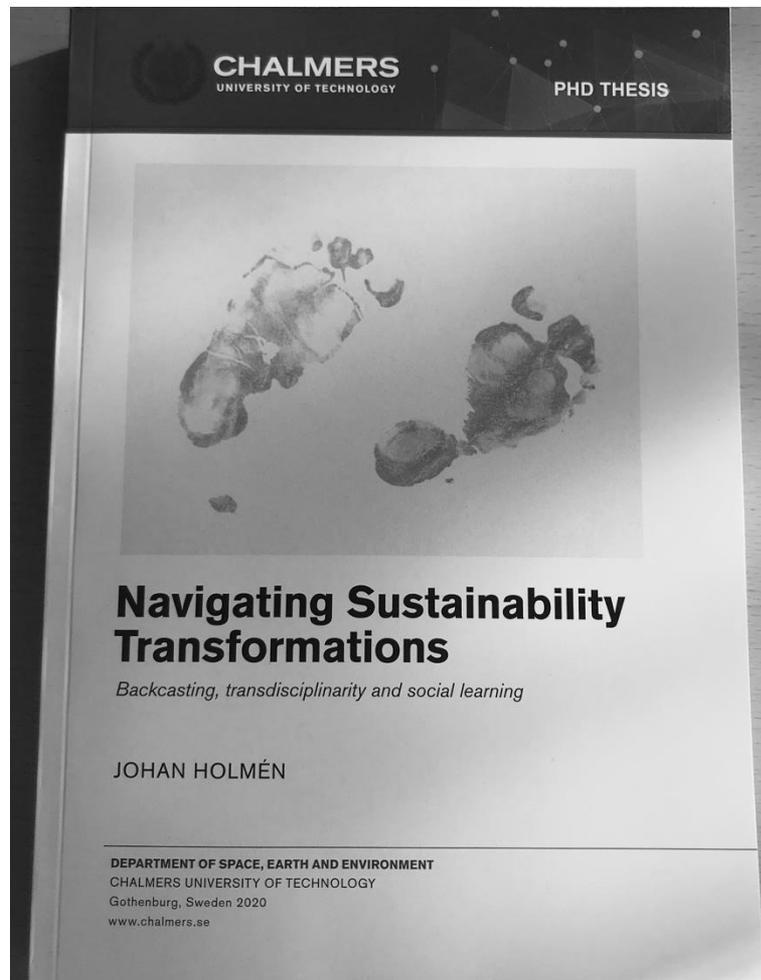


Medskapande omställningsarbete

BACKCASTINGEXPEDITIONER FÖR AGENDA 2030



Sveriges
Kommuner
och Regioner



CHALMERS
UNIVERSITY OF TECHNOLOGY

PHD THESIS

Navigating Sustainability Transformations

Backcasting, transdisciplinarity and social learning

JOHAN HOLMÉN

DEPARTMENT OF SPACE, EARTH AND ENVIRONMENT
CHALMERS UNIVERSITY OF TECHNOLOGY
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www.chalmers.se



Hållbarhet och resiliens i Limpopo-provinsen



award **USAID SOUTHERN AFRICA**

WILBERT COLLEGE **SOUTHERN AFRICAN UNIVERSITY** **UNIVERSITY OF MPUMALANGA** **RHODES UNIVERSITY**

Limpopo Basin Institutions of Higher Learning Curriculum Innovation Network (LBCIN)

Draft Report on the LBCIN Symposium held at the University of Mpumalanga, South Africa, 11-13 July 2018

RHODES UNIVERSITY
Where leaders learn

Postgraduate Diploma in Sustainability Learning

Our society needs new ways of learning, new ways of building and sharing knowledge so that people and the planet can flourish.

This requires critical thinking and problem-solving skills, collaboration and communication skills, environmental literacy, systems thinking, creativity, cultural competence, and an ethic of care.

These are features of **Sustainability Learning**, a sub-field of education that aims to enable individuals and communities to take action for a more sustainable future.



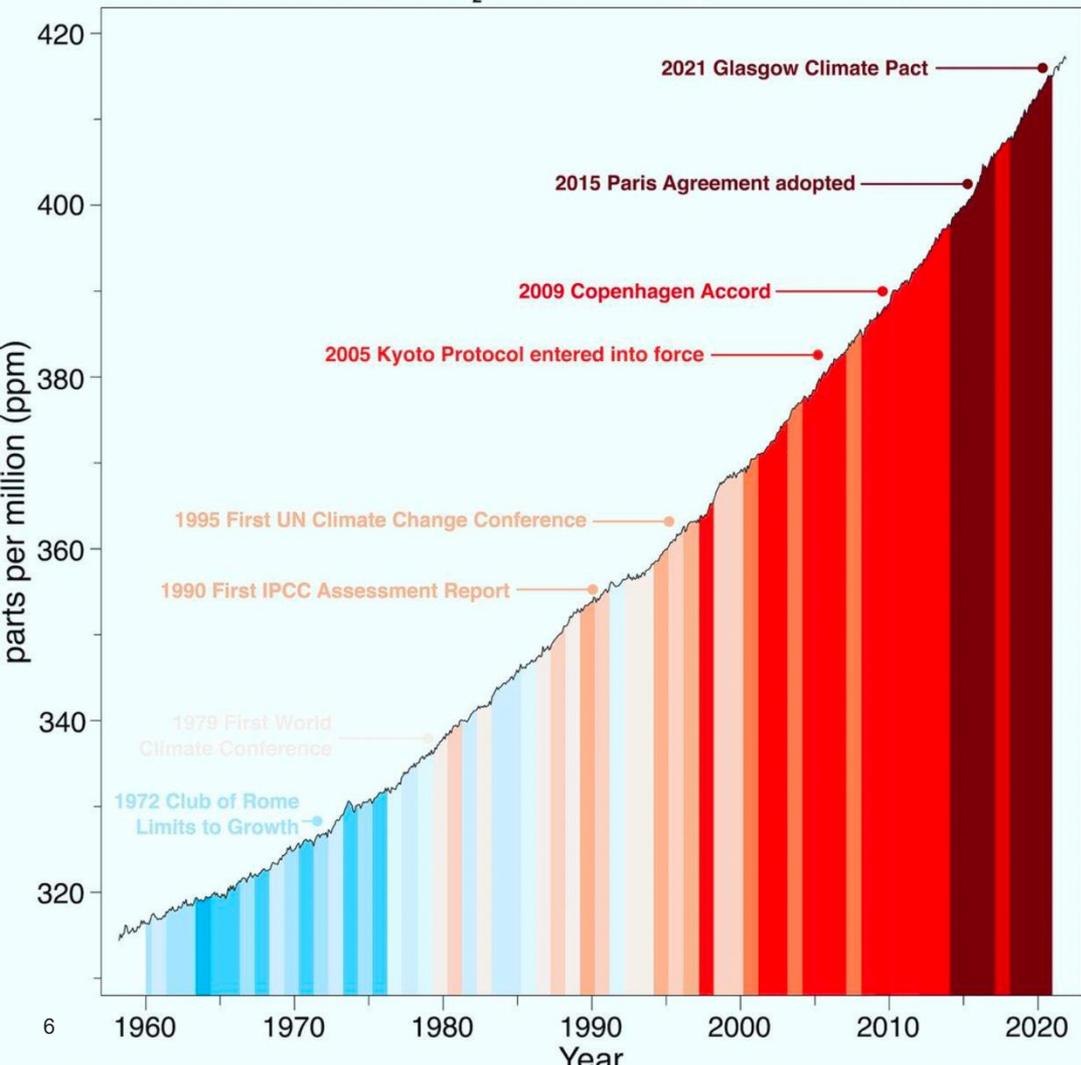


UN Environment (2019). *Global Environment Outlook – GEO-6: Healthy Planet, Healthy People*: (1st ed.). Cambridge University Press.



UN Environment (2026). *Global Environment Outlook – GEO-7*.

Trends in Atmospheric CO₂ vs Global Temperature Change

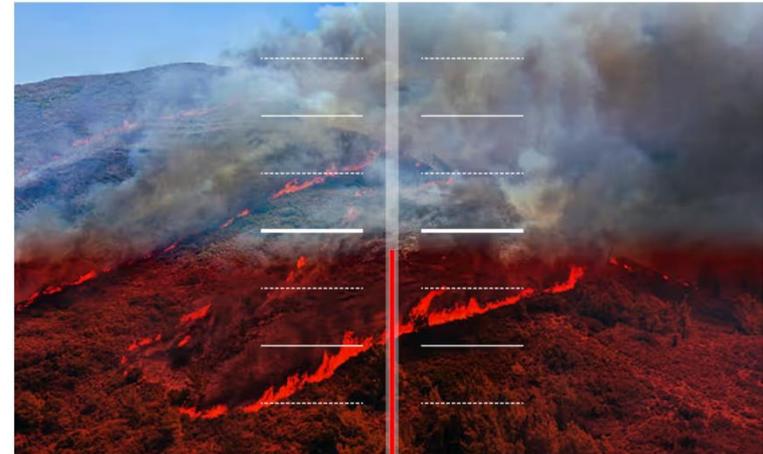


Spangenberg, J. H. (2022). *Only Radical is Realistic Now. International Carbon Rationing in a Climate Emergency* (Think Piece in Partnership with the Sustainable Europe Research Institute). Hot or Cool institute. Berlin

World's top climate scientists expect global heating to blast past 1.5C target

Exclusive: Planet is headed for at least 2.5C of heating with disastrous results for humanity, poll of hundreds of scientists finds

● **'Hopeless and broken': why the world's top climate scientists are in despair**





Swilling, M. (2019). *The Age of Sustainability: Just Transitions in a Complex World*. Routledge.

The International Resource Panel (IRP) is providing the documented evidence across a range of fields that

it is no longer possible to conceive of a future for modern society that rests on the assumption that there are unlimited resources available for ensuring the well-being of over 9 billion people on a finite planet by 2050.

In other words, the IRP is documenting the end of the industrial socio-metabolic epoch and by implication anticipates a deep transition to a more sustainable socio-metabolic order...

The state of nature has deteriorated at an unprecedented and accelerating rate...

While more food, energy and materials than ever before are now being supplied to people in most places, this is increasingly at the expense of nature's ability to provide such contributions in the future, and frequently undermines nature's many other contributions, which range from water quality regulation to sense of place.

The biosphere, upon which humanity as a whole depends, is being altered to an unparalleled degree across all spatial scales. Biodiversity – the diversity within species, between species and of ecosystems – is declining faster than at any time in human history.

... Biodiversity in natural ecosystems declined by 47% on average in relation to their earliest estimated states and the global biomass of wild mammals has fallen by 82%

One million species—including 40 % of amphibians, a third of reef-building corals, and more than a third of marine mammals—are threatened with extinction

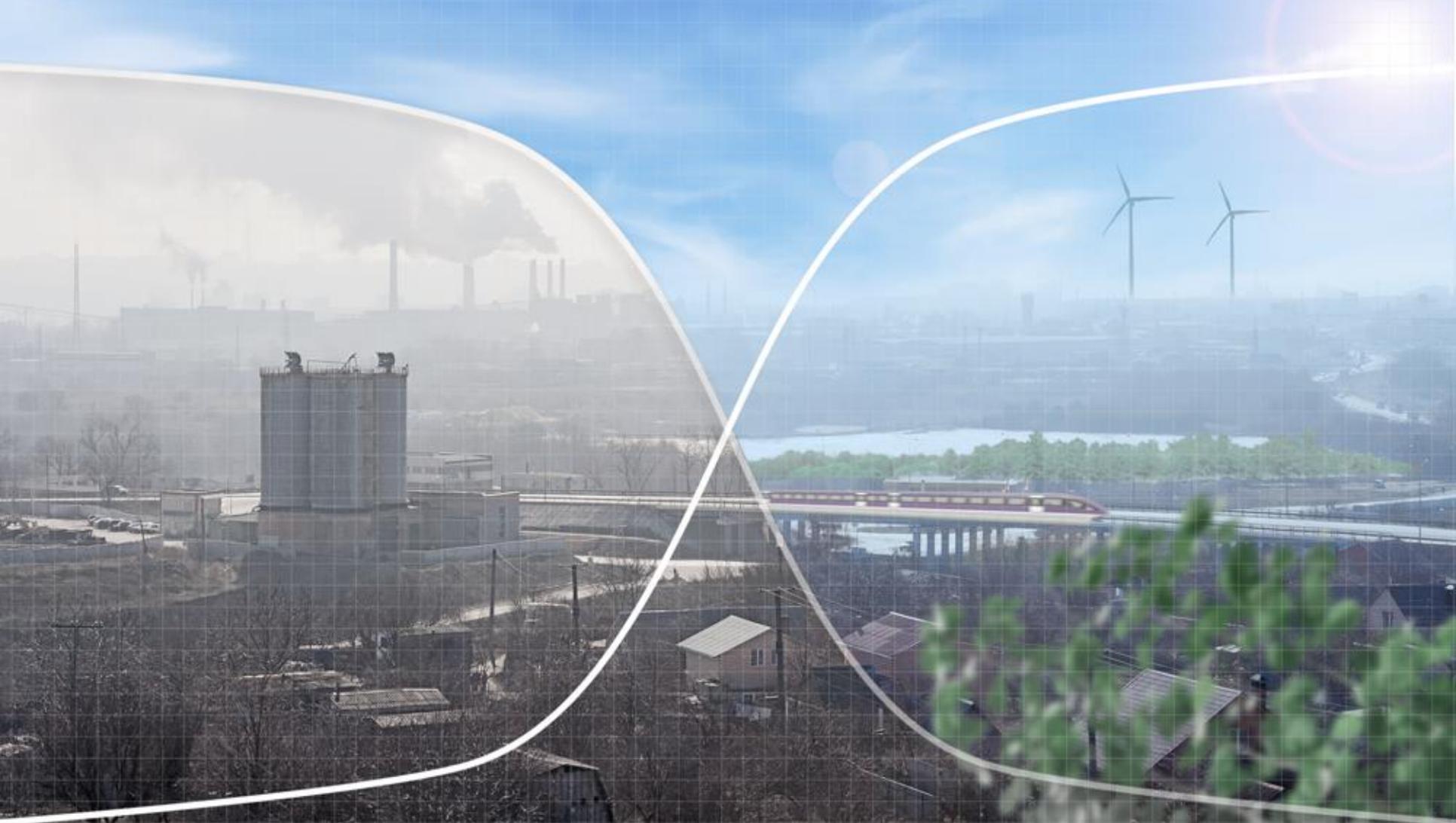


CRISES OF INEQUALITY

Shifting Power for a
New Eco-Social Contract



*“With a central focus on inequality, this report starts from the premise that a system in which a global health crisis can **double the wealth of the 10 richest men in the world while sending more than 120 million people into extreme poverty** signals a broken social contract, leaving behind far too many people and failing to protect our planet.”*

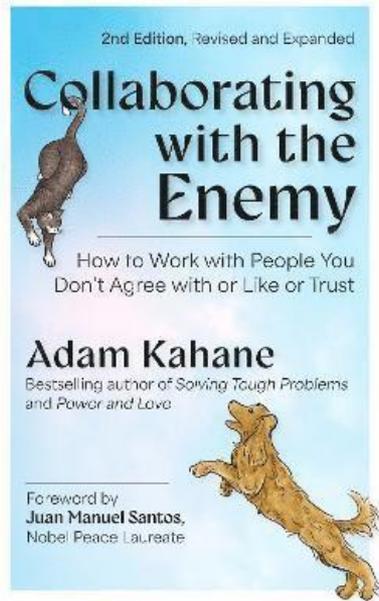


Komplicerade problem...

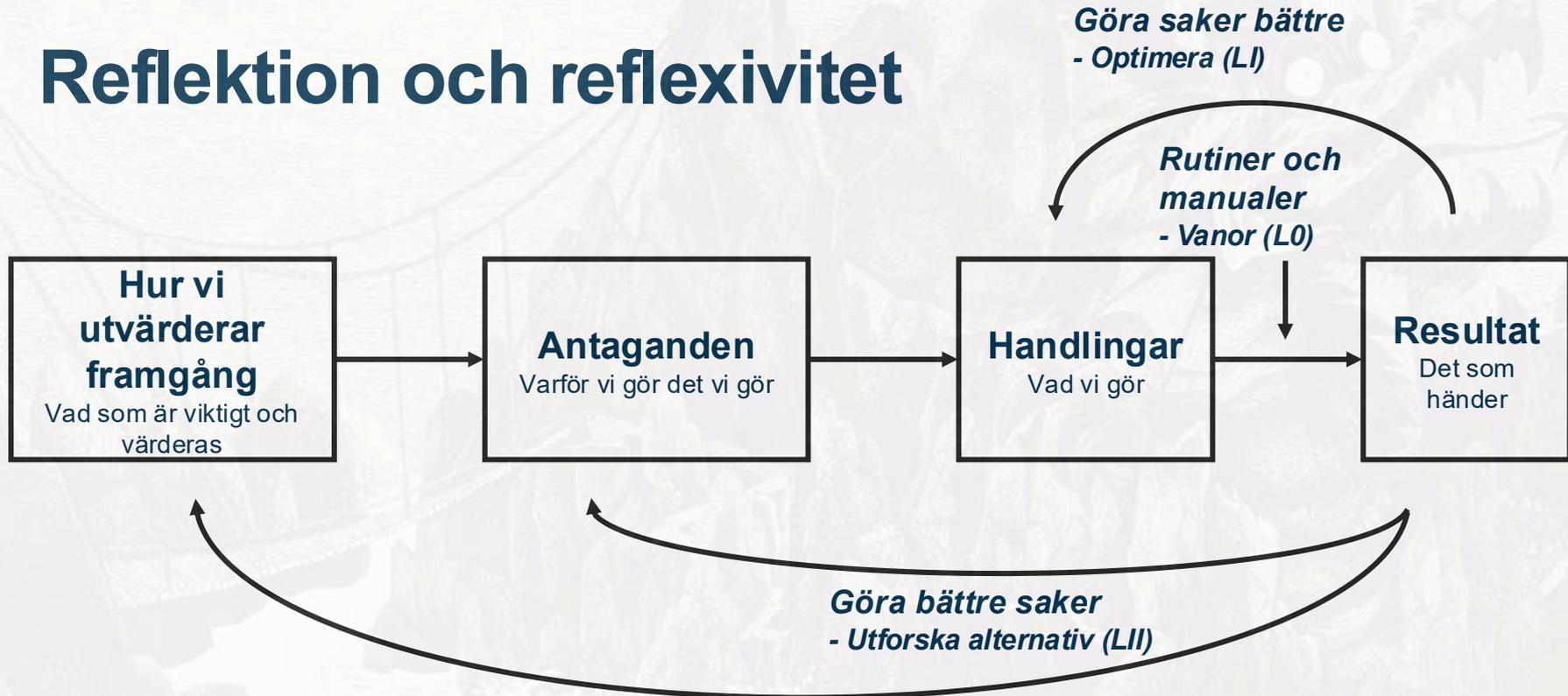
... och komplexa problemsituationer

The scarcest resource is not oil, metals, clean air, capital, labour or technology. It is our willingness to listen to each other and learn from each other and to seek the truth rather than to seek to be right

- Dana Meadows



Reflektion och reflexivitet



Se världen på nya sätt
- *Vad är bättre? (LIII)*

Bateson, 1972;
Argyris & Schön (1978)

”Vem är du på båten?”



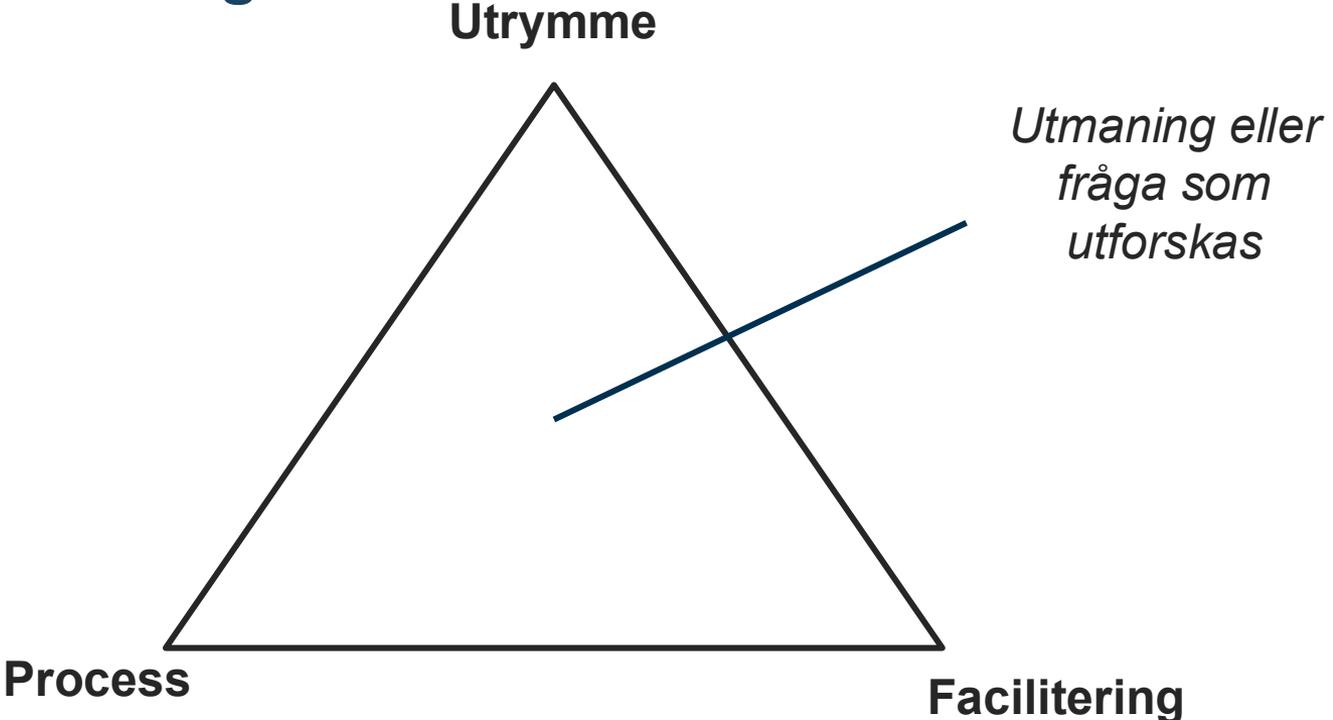
Kryssning Lärande I

- Optimera och förbättra
- Organisation i centrum, rutiner stöttar
- Beslutsfattande
- Mål, delmål, styrning, kontroll
- Mäta och följa upp
- Lösa problem, implementera lösningar

Expedition Lärande II & III

- Tänk bortom och transformera
- Utmaning i centrum, rutiner hindrar
- Facilitering & medskapande
- Vägledande principer, tillit, utrymme
- Experimentera, reflektera, lära
- Leta rot-orsaker, skapa framtider

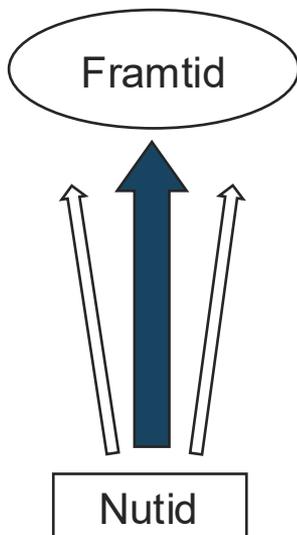
Expeditionstriangeln



Hur ta sig an framtiden?

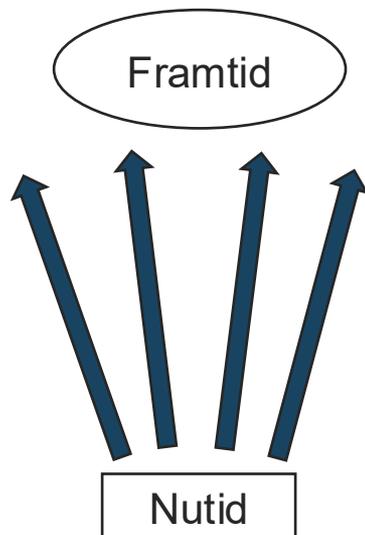
Forecasting

*Förutspå mest troliga
framtiden*



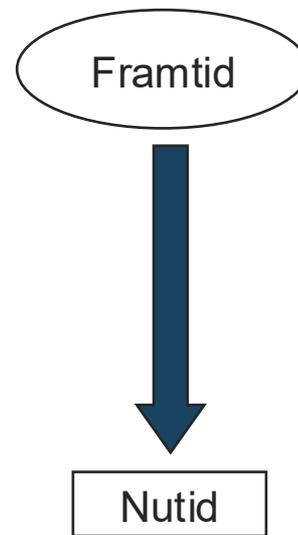
Scenarion

*Studera olika
framtider*

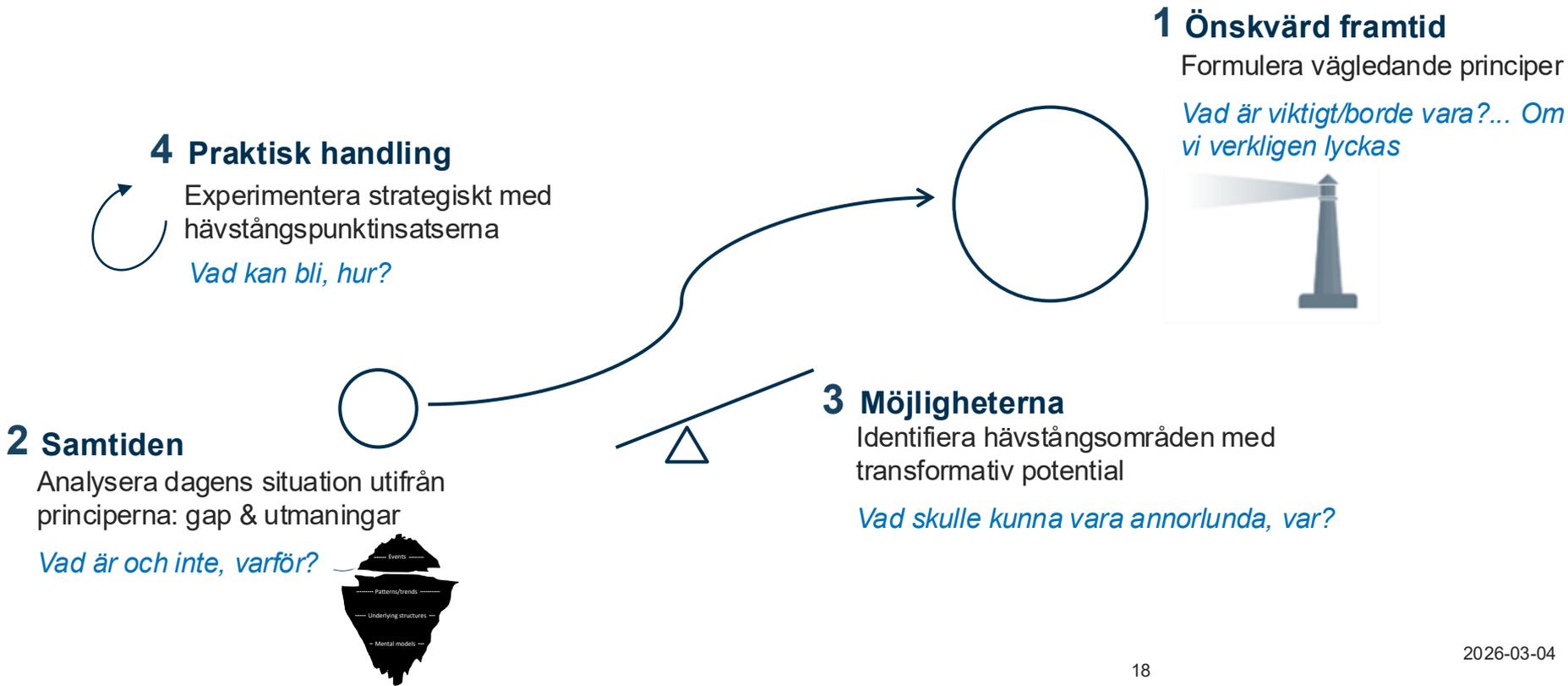


Backcasting

Utforska vad som krävs för
att uppnå önskad framtid



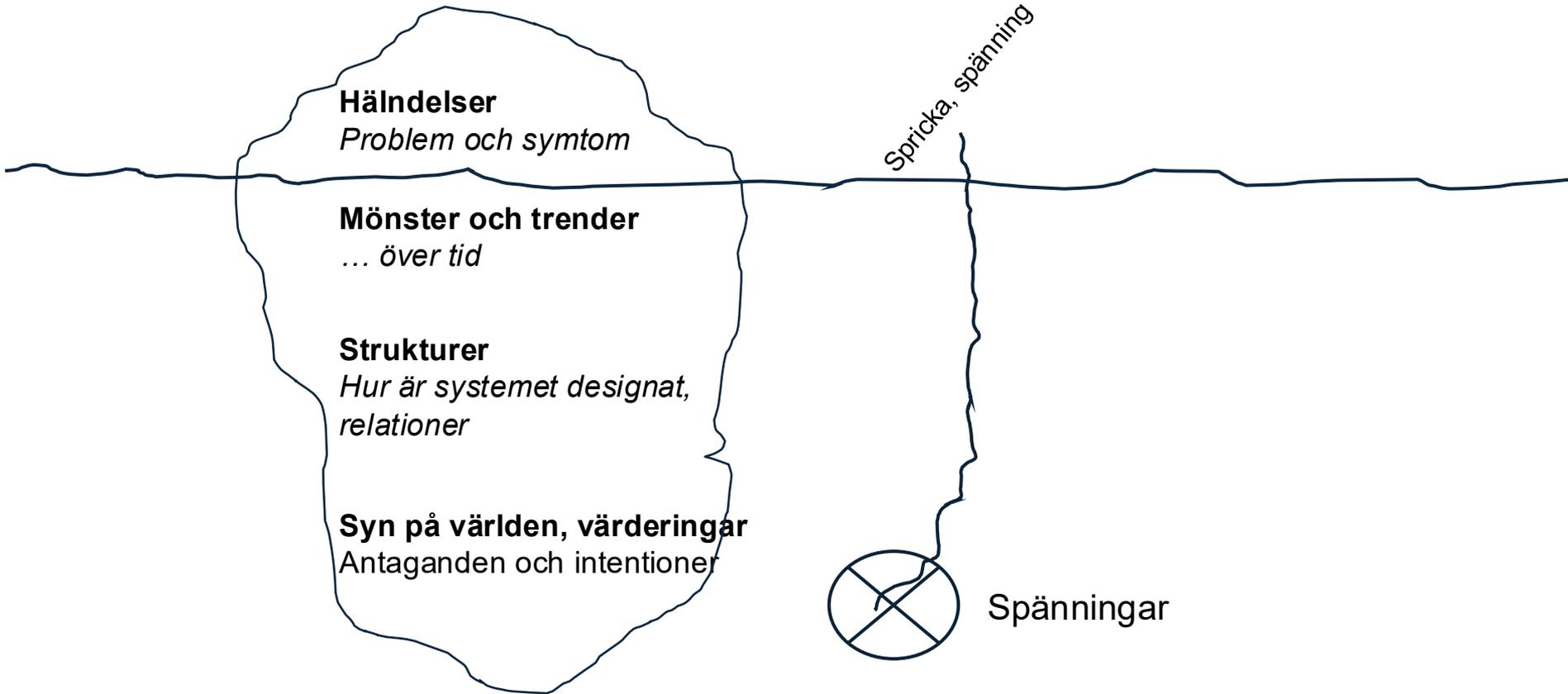
Backcasting från principer: *Tänka bortom, bakom, bredare, tillsammans!*



Hållbarhetsfyren



På djupet i isberget



Underliggande begär

Bornemark, Holmberg,
Holmén, Saglietti (*working paper*)

Vi drivs av två motstridiga krafter



Shoma Morita (1874-1939)

Räddhågsen kraft att vidmakthålla
trygghet och komfort

VS

Modig längtan framåt

“A predictable world has no room for choice, and a choosable world is not predictable”
- Dana Meadows



johan.holmen@hv.se