

KLIMAATOPSTELLINGEN

CATHY MACHARIS, VUB, MOBILISE

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Visible + Experienced
Invisible + Experienced

Events, symptoms, system artefacts, what we are told

What we see, experience, are told, hear about a system, & what is happening publicly around that system

Patterns

How we shape & define what is a 'good' response or set of responses over time & for what purpose

'Warm Patterns': drawing patterns through stories, experiences, qualitative & human-centred data

Trends: using statistical data, big data, quantitative data sets

Structures

How a response is organised & what structures are put into place to 'hold' the organising - policies, processes, relationships, power & authority structures & organisations

Practices

How responses are put into practice - the application of methodologies, tools, frameworks that together reflect how ideas, policies & structures are enacted. Practices can become routines & habits embedded in systems

Spaces + Interactions

How responses are embedded in physical spaces & interactions within a system - can be observed in the layout of spaces, the ways in which people are received or greeted, the locations in which the system interacts with people & communities

Behaviours

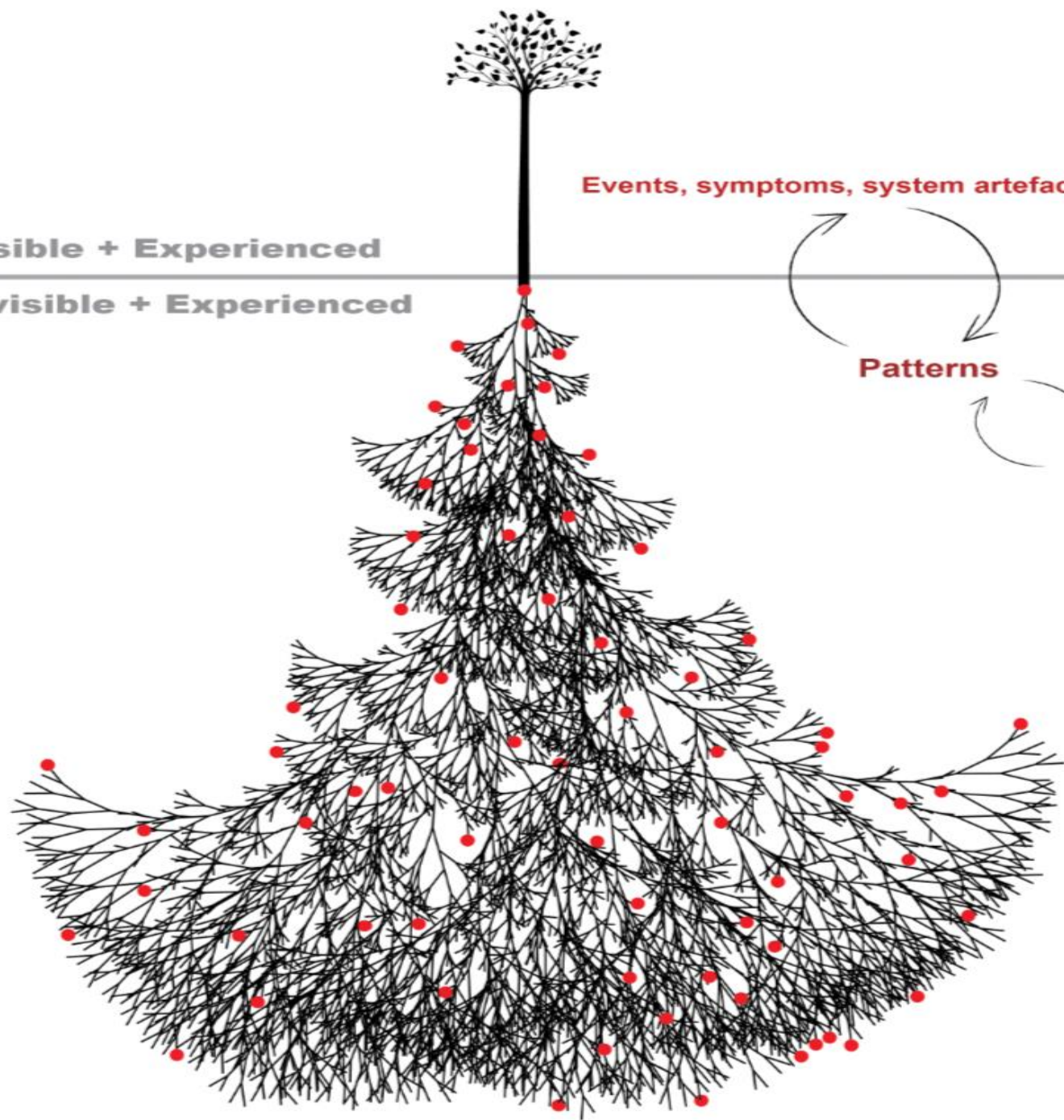
How individuals, teams, groups within a system behave both in responding to people within & those engaging with the system. This includes micro-behaviours (eg. tone of voice, eye contact, facial expressions) or the accepted behaviours within a group (eg. acceptance of aggression)

Mindsets

How mental maps reflect & guide the behaviour of people, at both an individual level & a systems level. Includes people's attitudes to change, orientations towards others, assumptions, interpretations, openness to new ideas, & willingness to learn & adapt

Values

The values, beliefs, cultural assumptions that underpin how the system is conceptualised, organised & ultimately experienced. Human systems are never 'neutral' - they are constructed from particular cultural, political, economic, ecological & social values



INSPIRATION

Change necessitates both understanding and accepting the truth, as well as fostering creative aspirations to envision a different future.

Senge (2004)

*The world changes according to the way people **see it**, and if you can alter it, even by a millimetre, the way people look at reality, then you can **change it**.*

James Baldwin American writer, Civil rights activist, Social critic

Education for sustainability requires more than just cognitive understanding but physical and emotional engagement

Shriicastava, 2010

INSPIRATIE FAMILIE- EN ORGANISATIE OPSTELLINGEN

BERT HELLINGER

-systeemdenken

-verhoudingen binnen families, bedrijven, instellingen en verenigingen

Stap 1, Opstellen

Stap 2, Onderzoek

Stap 3, Herordening

Stap 4, Inzetten vraaginbrenger

Let's try!

SUSTAINABILITY: AN INTERDISCIPLINARY APPROACH

GOAL OF OUR COURSE

To engage students in **transformative collective learning**, emphasizing sustainability as an interdisciplinary endeavour

STUDENTS

FROM DIVERSE ACADEMIC BACKGROUNDS

Bachelor of **Rehabilitation Sciences and Physiotherapy**: **multiple tracks** (only offered in Dutch)

Bachelor of **Medicine**: Standard track (6 years) (only offered in Dutch)

Bachelor of **Business Economics**: **multiple tracks** (only offered in Dutch)

Bachelor of **Chemistry**: Default track (only offered in Dutch)

Master of **Laws**: **multiple tracks** (only offered in Dutch)

Master of **Criminology**: Standaard traject (only offered in Dutch)

Master of **Biomedical Sciences**: **multiple tracks** (only offered in Dutch)

Master of **Business Engineering**: Standaard traject (only offered in Dutch)

Master of **Biology**: **multiple tracks**

Master of **Biomedical Research**: Standaard traject ...



Waldo Galle
@waldo_galle

What an honour for our students and me to get a science-based crash course on [#ClimateEmergency](#) and [#EUIndustryInnovationPathways](#) by top-scientist [@WimThiery](#) and [@TomasWyns](#) at [@VUBrussel](#). Because [#theworldneedsyou](#) [#wearevub](#)



VUB and 3 others

TRANSITION THEORY

Common framing

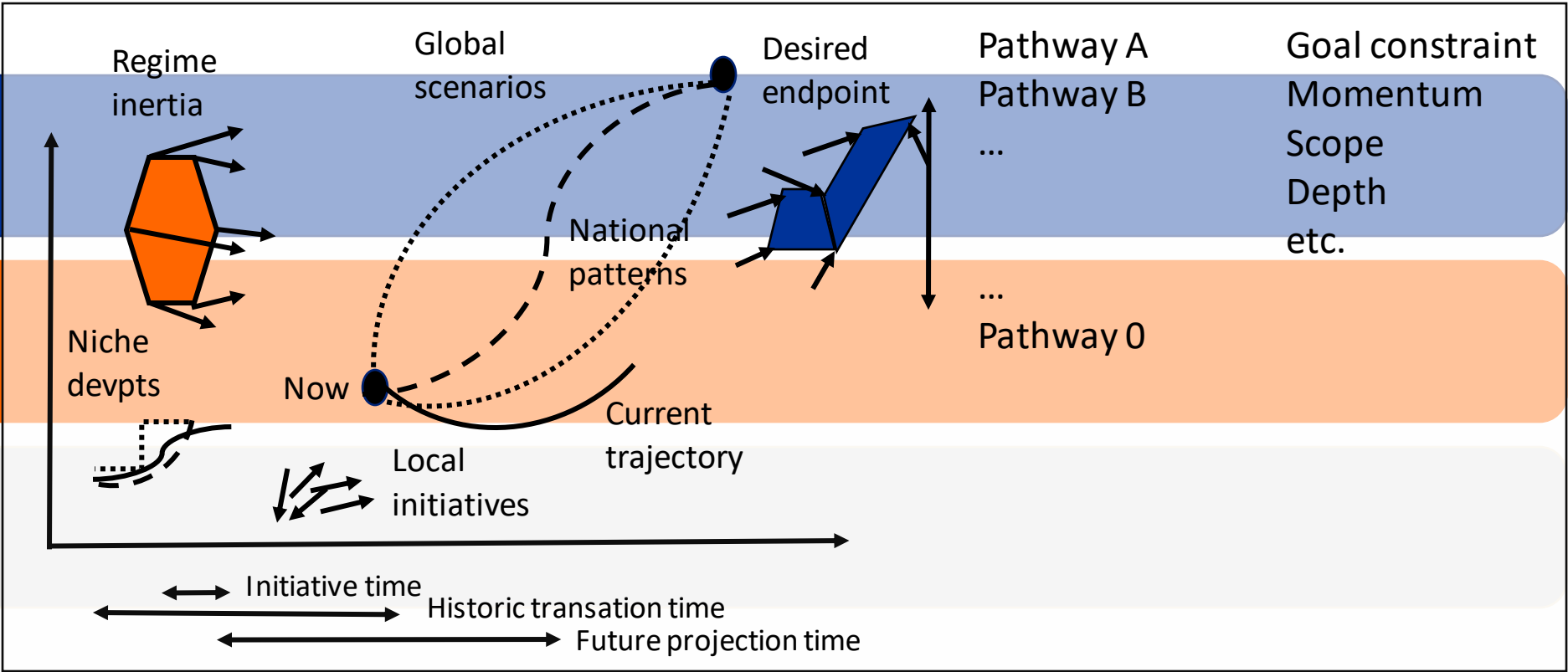
Typology

Concepts

Quantitative systems modelling

Socio-technical analysis

Initiative-based learning



Turnheim et al., 2015

COURSE CONTENT

System Analysis

1. Mobility
2. Communities, governance and politics
3. Biodiversity, land and food
4. Economy
5. Energy
6. Housing

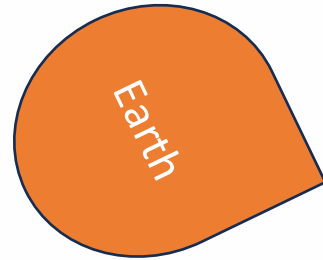
Explorative Workshops as 'Empower Sessions'

1. Sustainability and interdisciplinarity
- 2. System thinking**
3. Causal loop diagrams
- 4. Stakeholder analysis**
5. Scenario analysis
6. Storytelling
7. Pitches

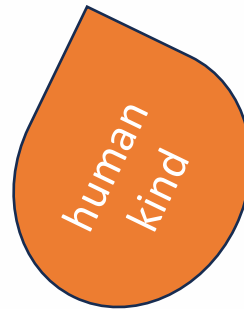
CLIMATE CONSTELLATION



Sadness, a bit angry and despair all along



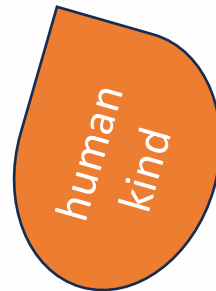
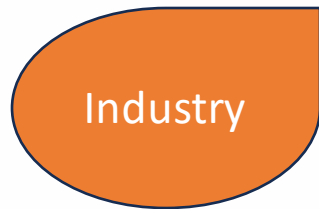
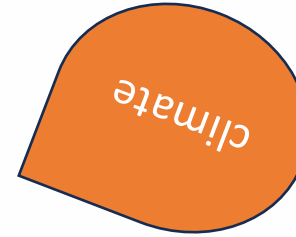
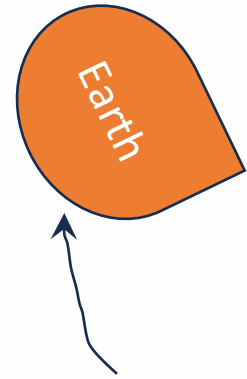
Getting warm



Feels responsible, but
know what to do

Industry comes in

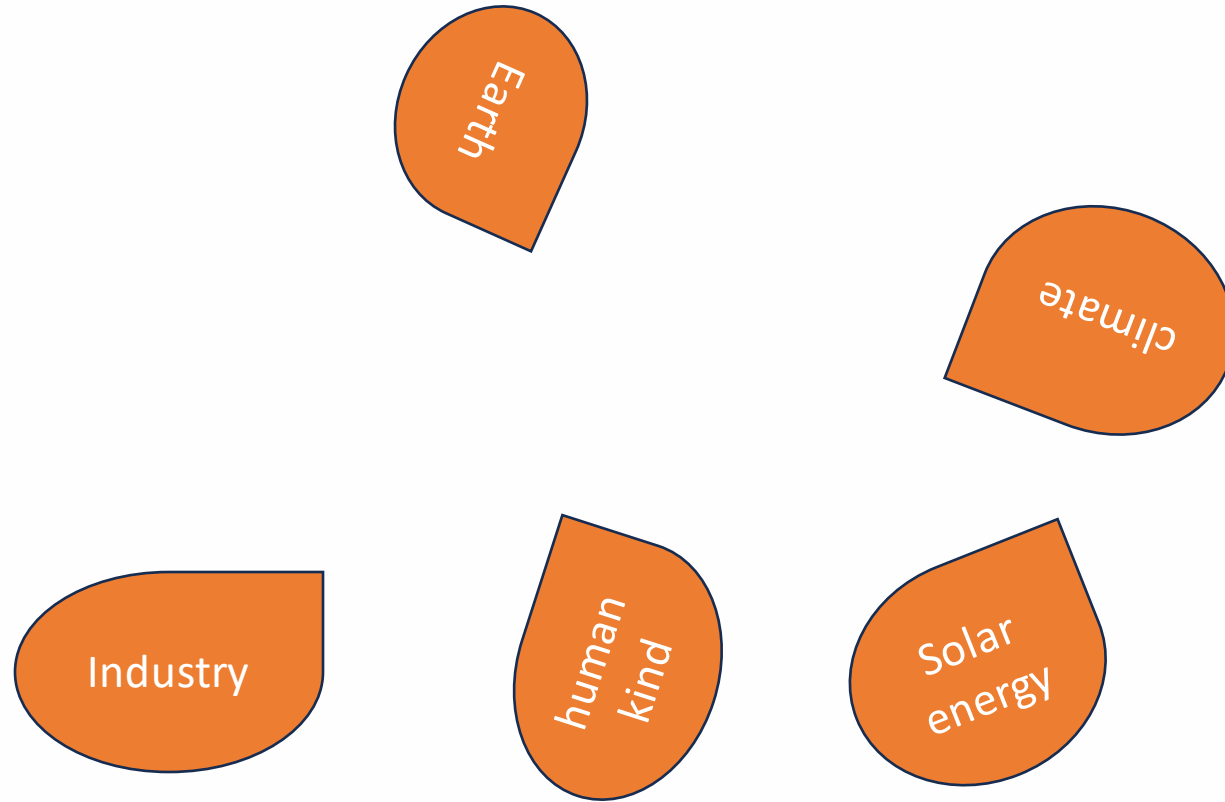
Moves further away
when industry comes
in



Connection, love-hate



Solar energy comes in



Climate is still feeling getting warmer but at a lower pace



Humankind moves



“It is good to see humankind and earth together”



FEEDBACK ROUND

- Representative of negative point of view: It was good to **feel** it and feel how this feelings changed while the situation changed
- Representative of government: it was good to **visually see things** are related and how it changes. And that together with the emotions. Good that new things were added
- Observer: in the beginning I found it a bit **silly**. But then I saw humankind does not take that much initiative and is swept a bit around. That was **interesting to see**

COURSE CONTENT

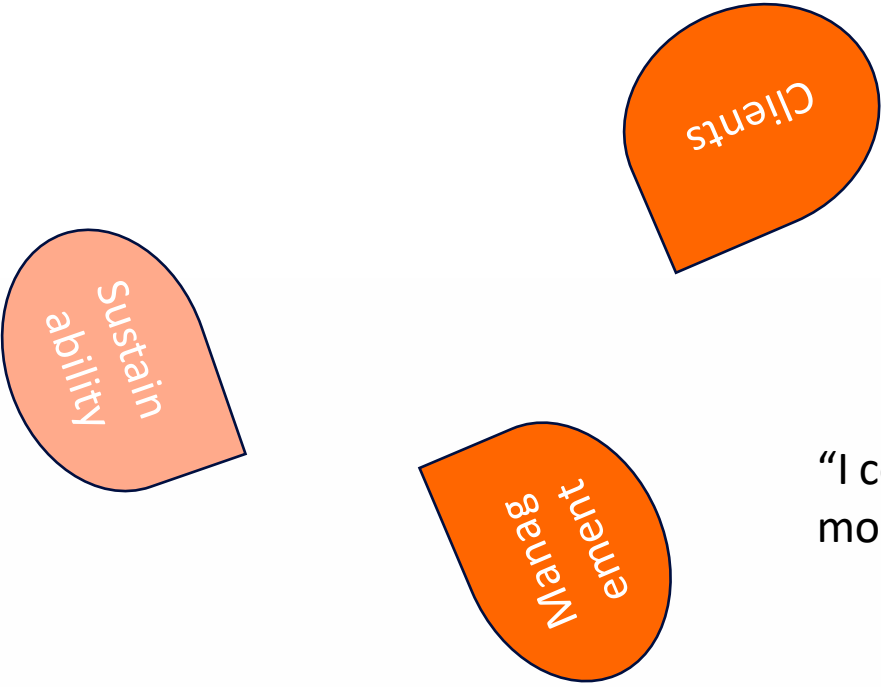
System Analysis

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Shareholders join



“I come closer to profit as I want more money”

Shareholder 2

“I look back at sustainability because I don't want to leave it behind, but I feel I have to turn around”

Shareholder 1

Profit

Competitor

Feedback



Feedback

- “A positive government makes a big change. It is a good exercise to **see where we can make the change.**”
- “It was interesting to see how there is **nobody steering or in charge.**”
- **Profit is still very central** and decisive. It is always a changing system depending on which variable came in. It was interesting to see how some things were completely forgotten. Consumers were always forgotten and never looked at.
- “The consumer was a bit passive in the constellation. I thought we, as consumers, can have a lot of power.”

Conclusie

INNOVATIEVE MANIER OM DE KLIMAATPROBLEMEN TE LATEN

- ERVAREN,
- VOELEN
- VISUALISEREN

EN DIEPERE LAGEN TE ONDERZOEKEN

MEER ONDERZOEK NODIG OM DE TOEPASSINGSMOGELIJKHEDEN
TE EVALUEREN EN DE IMPACT TE METEN

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Improving Experience in Personal Social Systems through Family Constellation Seminars: Results of a Randomized Controlled Trial

CHRISTINA HUNGER+ ANNETTE BORNHA¹ USER+ LEONI LINK+ JOCHEN SCHWEITZER+ JAN WEINHOLD²

Die zeggen dat het positief is en dat er moet verder worden onderzocht. Er is ook een questionnaire bij