



FINNISH  
GOVERNMENT

# Positive image of a sustainable future motivates to transform our societies

Chief specialist Eeva Furman, Dr  
Commission for sustainable development.  
Prime minister's office of Finland  
Logy-conference 8.2.2024




GSDP



Image via Quartzle.com

Daniel Kahneman, psykologi, talousnobelisti 2002, kynäparadigma



A positive image of the future is needed to put effort on the transformative change towards sustainable future

# Sustainability compass

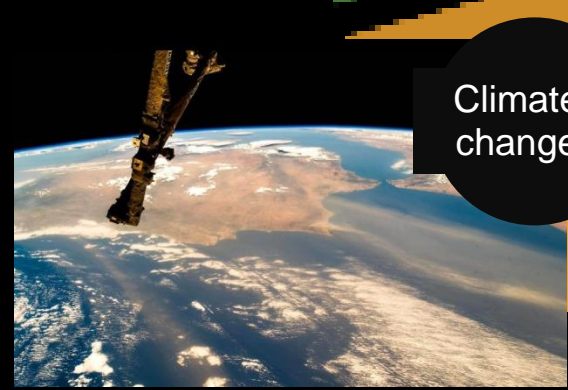




Rising  
inequalites



Biodiversity  
loss



Climate  
change



Growing  
amount of  
waste

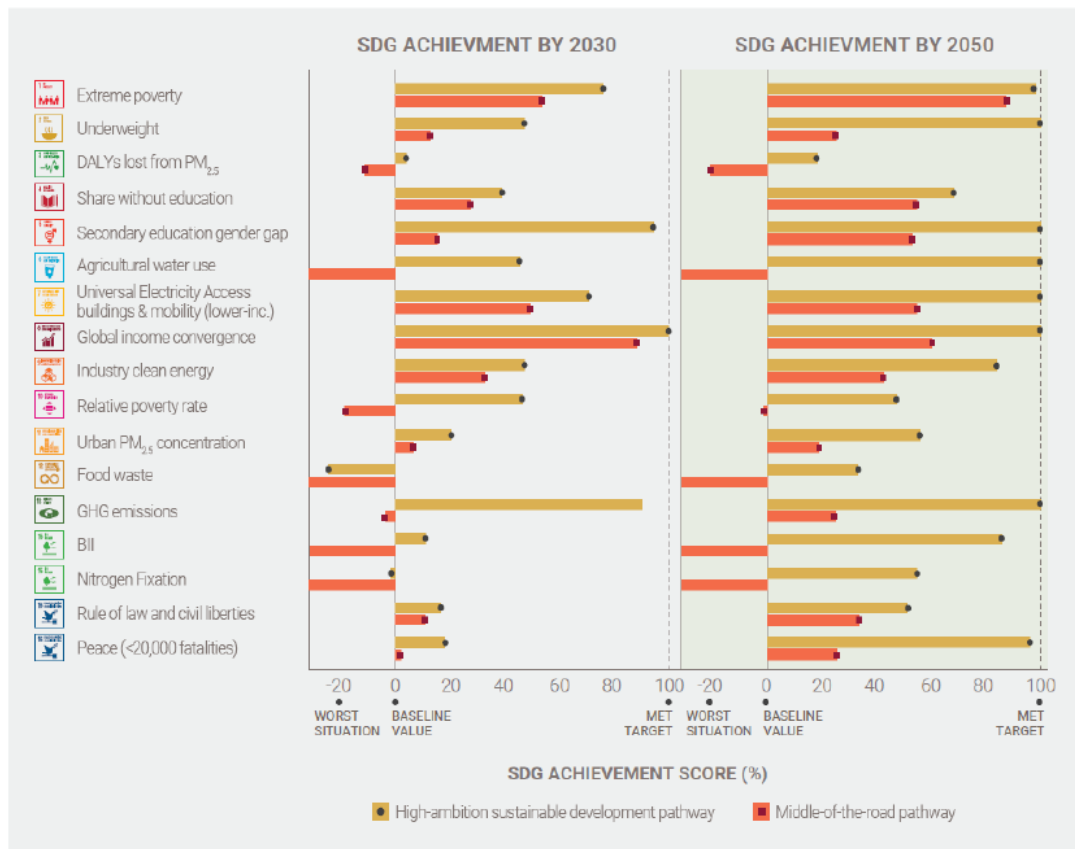
# Path-scenarios until 2030 and 2050 (GSDR2023)

- Two alternative paths
  - Middle of the road
  - Ambitious

## Why differ?

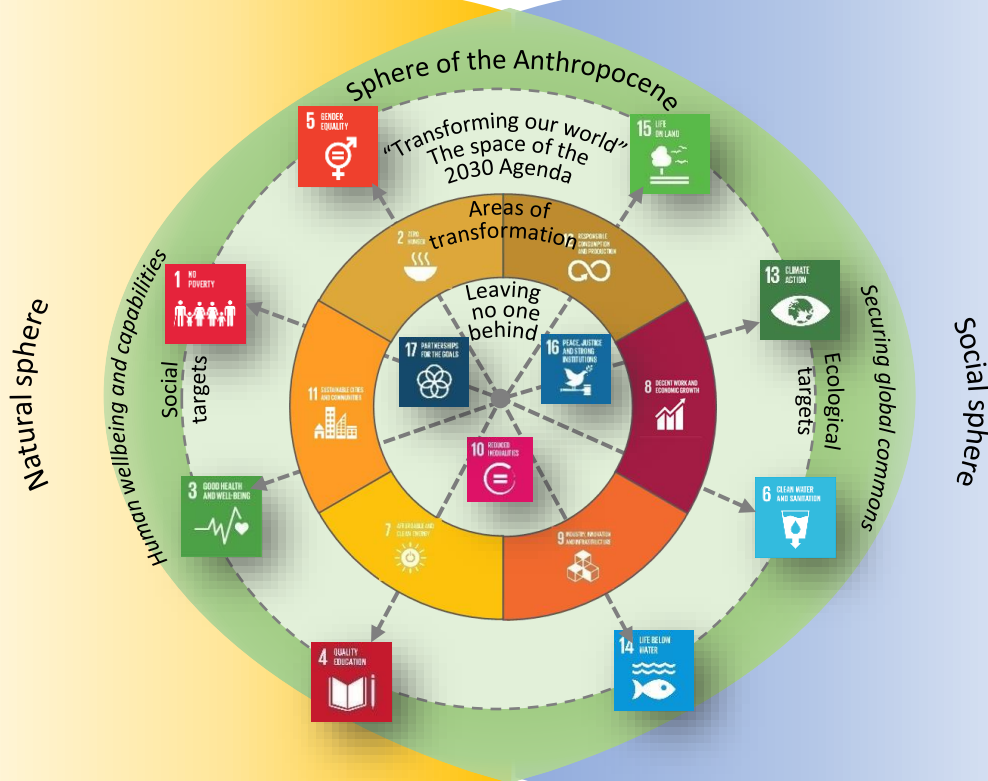
- Understanding the systemic manner of the challenges – things are interlinked

## PROJECTED GLOBAL ACHIEVEMENT FOR SELECT SDG INDICATORS



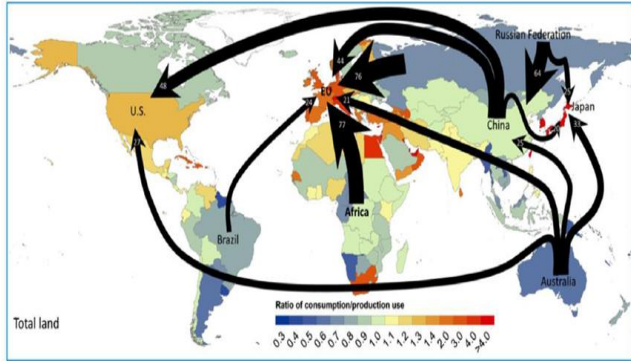
Note: A value of zero represents the baseline value of the indicator in 2015, while 100 per cent means the target is fully met. Left panel provides results for 2030 and right panel for 2050. Negative values represent a worsening of the situation. The main scenarios, middle-of-the-road (SSP2-NDC) and the ambitious (SDP-1.5C), are shown as bars. Intermediate scenarios, SSP1-NDC and SSP1-1.5C, are indicated by symbols.

# In the Anthropocene human has an impact all all planetary systems

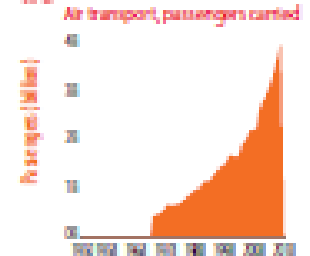
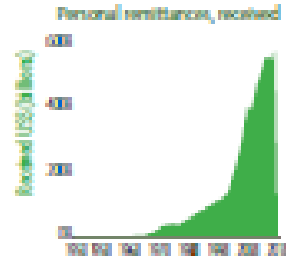
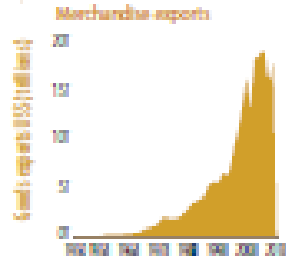
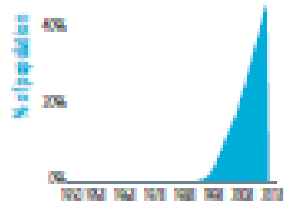




# Hyper-connected world



Yu et al. 2013



# Whose sustainability?



actors

winners... Based on Babic M, Fichtner J, Heemskerk EM. 2017. : [10.1080/03932729.2017.1389151](https://doi.org/10.1080/03932729.2017.1389151).

Country/Corporation	Revenue (USD bn)	Country/Corporation	Revenue (USD bn)	Country/Corporation	Revenue (USD bn)	Country/Corporation	Revenue (USD bn)
1 United States	3363	26 Mexico	224	51 General Electric (US)	140	76 Walgreens Boots Alliance (U)	104
2 China	2465	27 Switzerland	216	52 CSCEC (CN)	139	77 HP (US)	103
3 Japan	1696	28 Berkshire Hathaway (US)	211	53 AmerisourceBergen (US)	136	78 Assicurazioni Generali (IT)	103
4 Germany	1507	29 India	200	54 Agricultural Bank of China	133	79 Cardinal Health (US)	103
5 France	1288	30 Norway	200	55 Verizon (US)	132	80 BMW (DE)	102
6 United Kingdom	996	31 McKesson (US)	192	56 Chevron (US)	131	81 Express Scripts Holding (US)	102
7 Italy	843	32 Russia	187	57 E.ON (DE)	130	82 Nissan Motor (JP)	102
8 Brazil	632	33 Austria	187	58 AXA (FR)	129	83 China Life Insurance (CN)	101
9 Canada	595	34 Turkey	184	59 Indonesia	129	84 J.P. Morgan Chase (US)	101
10 Walmart (US)	482	35 Samsung Electronics (KR)	177	60 Finland	128	85 Koch Industries (US)	100
11 Spain	461	36 Glencore (CH/IE)	170	61 Allianz (DE)	123	86 Gazprom (RU)	99
12 Australia	421	37 ICBC (CN)	167	62 Bank of China (CN)	122	87 China Railway Eng. (CN)	99
13 State Grid (CN)	330	38 Daimler (DE)	166	63 Honda Motor (JP)	121	88 Petrobras (BR)	97
14 Netherlands	323	39 UnitedHealth Group (US)	157	64 Cargill (US)	120	89 Schwarz Group (DE)	97
15 South Korea	304	40 Denmark	157	65 Japan Post Holdings (JP)	119	90 Trafigura Group (NL/SG)	97
16 China Nat. Petroleum (CN)	299	41 EXOR Group (IT/NL)	154	66 Costco (US)	116	91 Nippon Telegraph and Tel. (J)	96
17 Sinopec Group (CN)	294	42 CVS Health (US)	153	67 Argentina	116	92 Boeing (US)	96
18 Royal Dutch Shell (NL/GB)	272	43 General Motors (US)	152	68 BNP Paribas (FR)	112	93 Venezuela	96
19 Sweden	248	44 Vitrol (NL/CH)	152	69 Fannie Mae (US)	111	94 China Railway Constr. (CN)	95
20 Exxon Mobil (US)	246	45 Ford Motor (US)	151	70 Ping An Insurance (CN)	110	95 Microsoft (US)	94
21 Volkswagen (DE)	237	46 China Constr. Bank (CN)	150	71 Kroger (US)	109	96 Bank of America Corp. (US)	93
22 Toyota Motor (JP)	237	47 Saudi Arabia	150	72 Société Générale (FR)	108	97 ENI (IT)	93
23 Apple (US)	234	48 AT&T (US)	147	73 Amazon.com (US)	107	98 Greece	93
24 Belgium	232	49 Total (FR)	143	74 China Mobile Comm. (CN)	106	99 Nestlé (CH)	92
25 BP (GB)	226	50 Hon Hai Precision Ind. (TW)	141	75 SAIC Motor (CN)	105	100 Wells Fargo (US)	90

Nation states

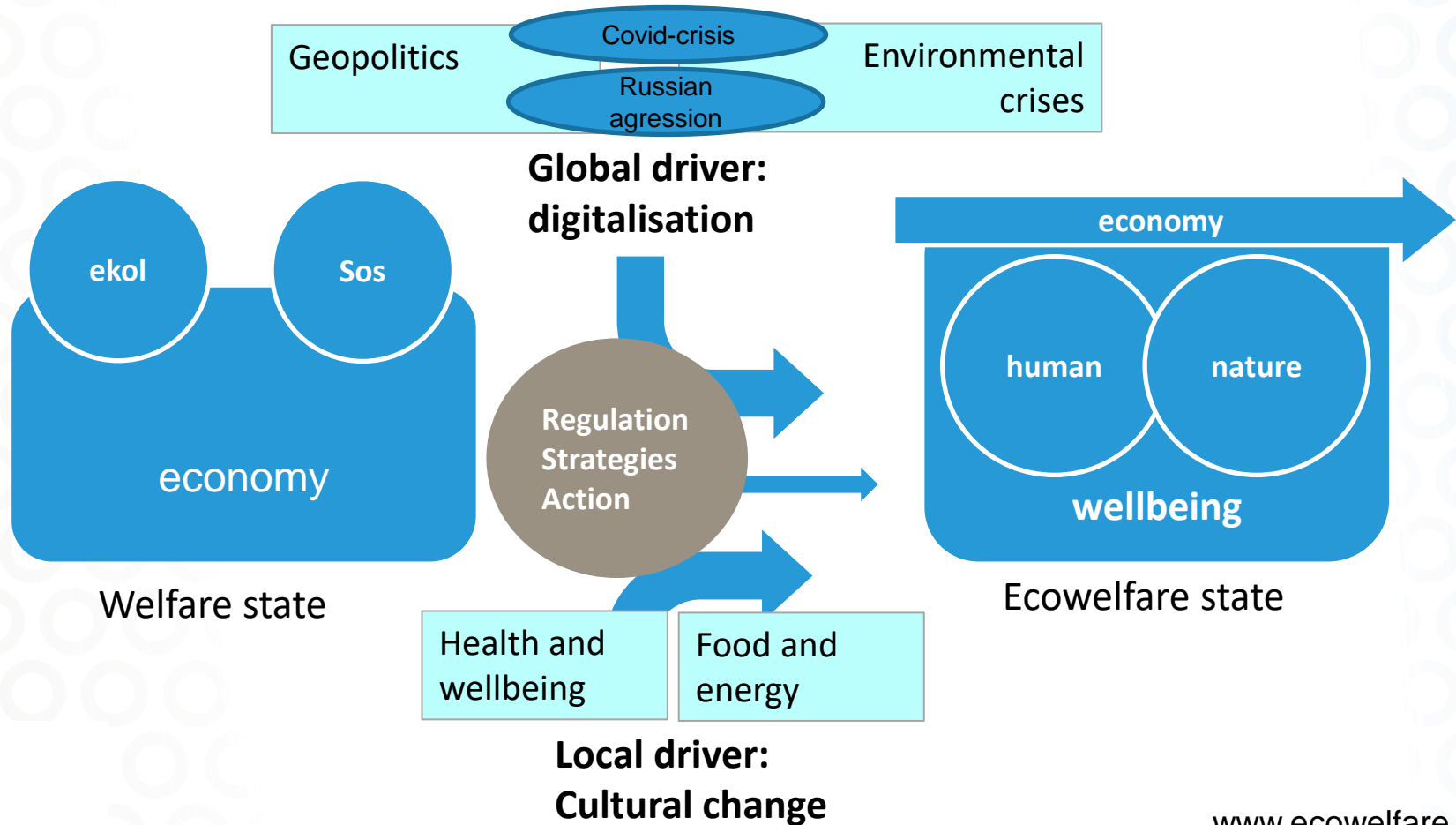
Multi-national company

Fossil-fuel based industry

... and losers



# Digitalisation & Sustainability transformation

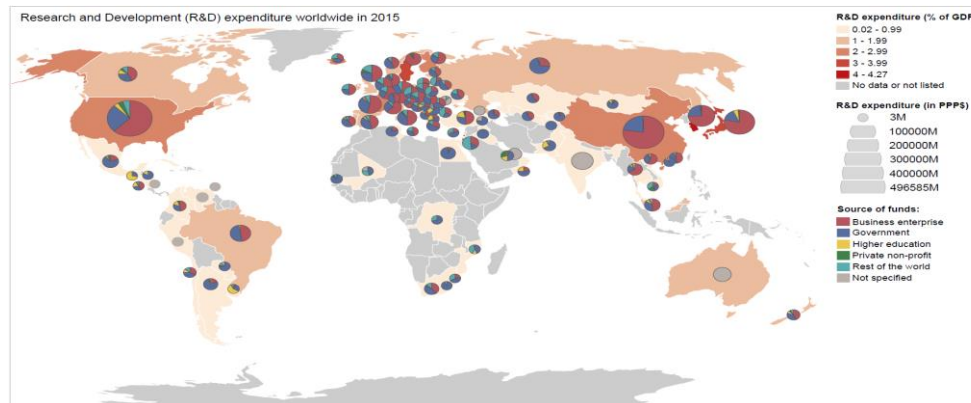


# Is technology necessary in sustainability transformation?

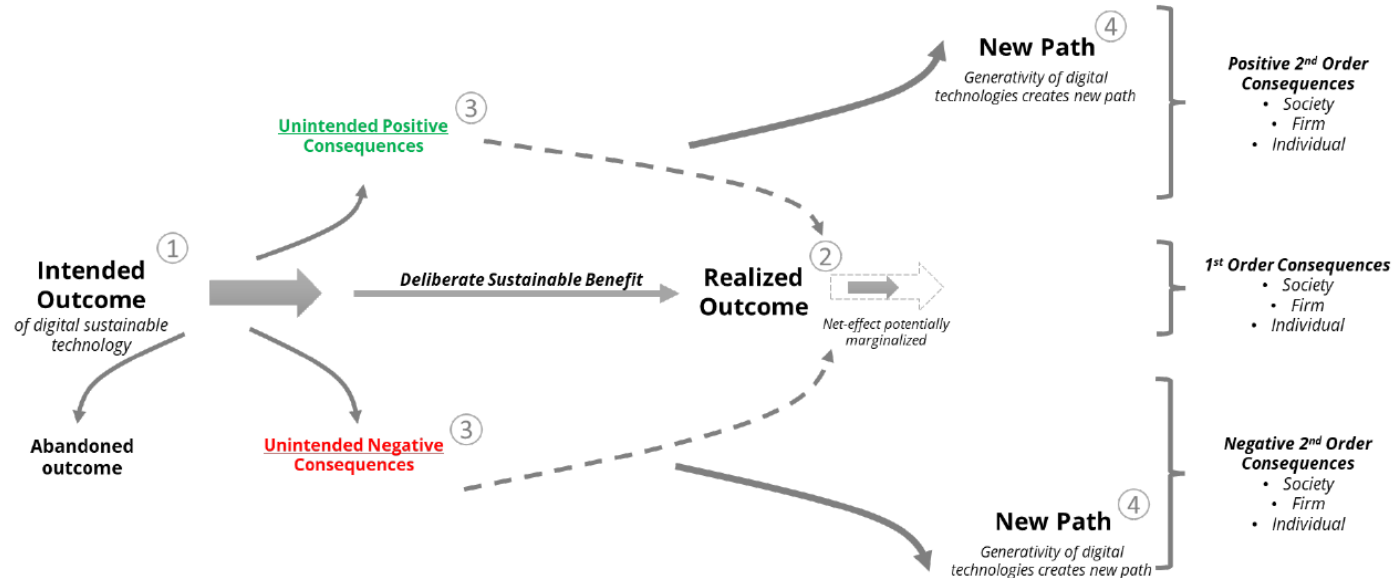
- 1. Technology can deliver more efficient use of the Earth's resources**
- 2. Digitalization can provide tools that may advance social and cognitive capabilities important for progress towards sustainability**
- 3. Danger of the rebound effect, technology in all forms must be used judiciously and in conjunction with other societal levers**

# Rebound effects of AI and digitalisation

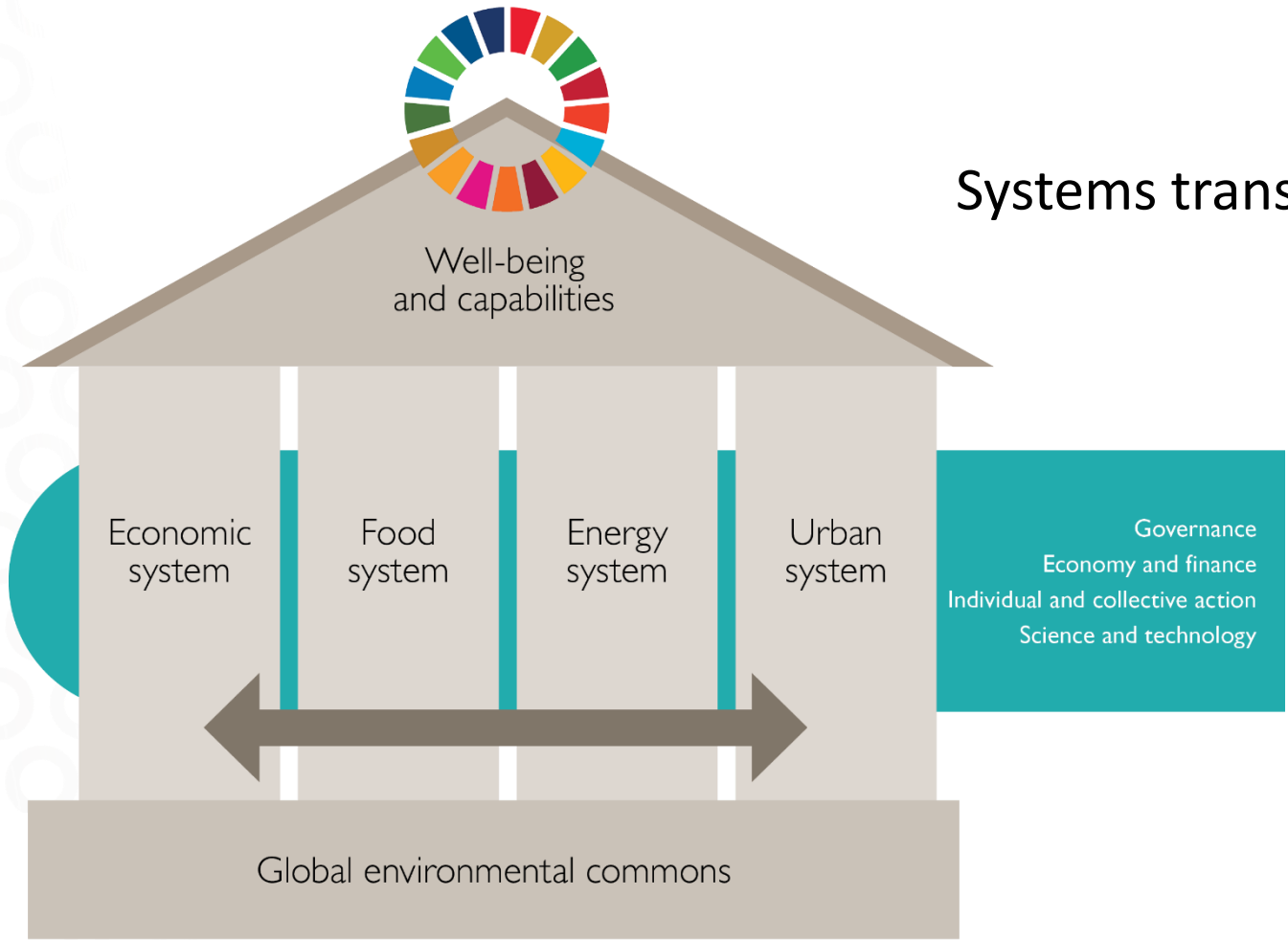
- Local –regional digital solutions: eg. LED lights save energy but negative impacts of light pollution on humans and wildlife
- National – supranational – global digital solutions: eg. Energy use still growing exponentially + natural resource use in the infrastructure
- Democracy and justice on proof



# For precautionary principle – assessing intended and unintended impacts



**Figure 1** Digital technologies' intended and unintended consequences for sustainability



# Systems transformation

# Cultural transformation

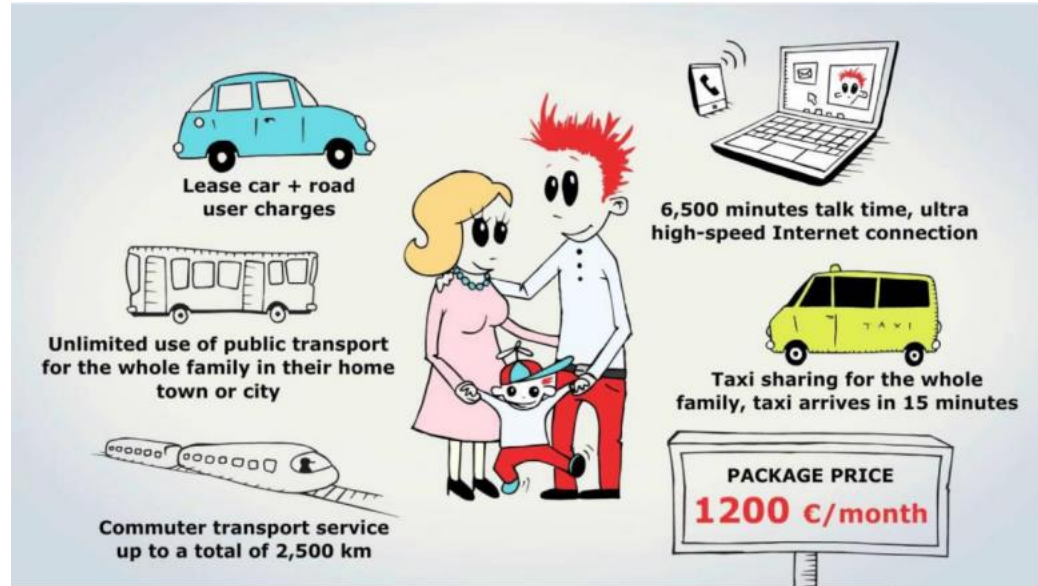
- Culture is crucial in sustainability transformation:
  - What do **WE** see as cool, normal, affordable, elitistic... in eating, living, caring, using money, working, using time, relating to other people...
  - ...relating to other species
  
- Redefining human-nature relationship





# Transformation is most effective when it transforms the entire system

- Example how technological innovations have enhanced the transport system in Finland



# National Strategy for Finland on Sustainable Development 2022–2030

*” A prosperous and globally responsible Finland that protects the carrying capacity of nature ”*

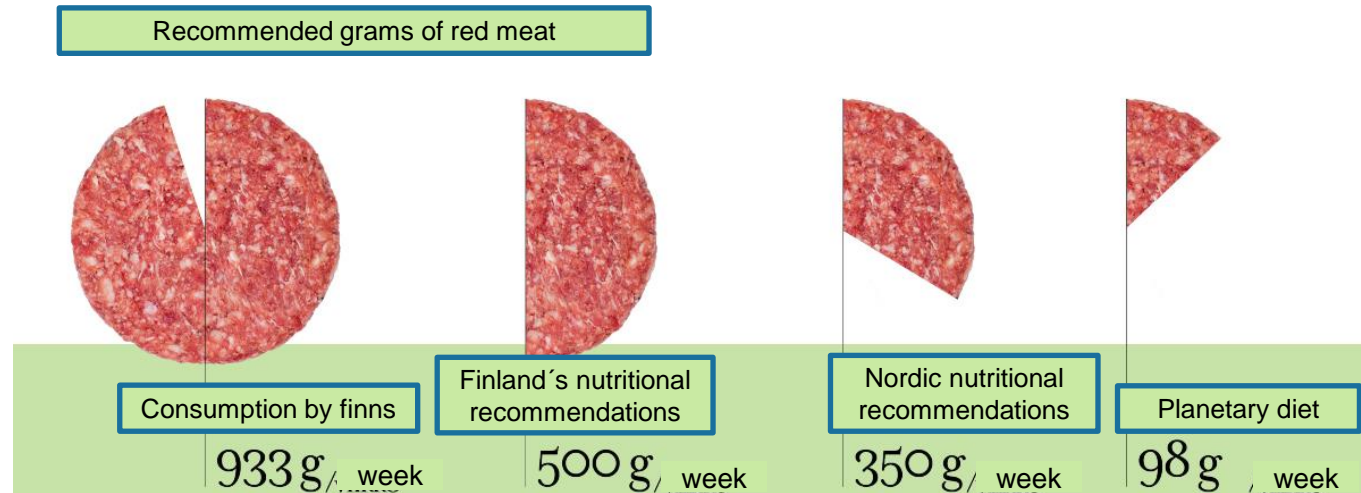
*Aims to create and speed up system level changes in the Finnish society*

*Six areas of societal transformation*



# Area of change: Food system promoting wellbeing

- Improving the environmental sustainability of the food chain
- Making food consumption and consumption habits sustainable



# Building sustainable food systems and nutrition patterns



## Pathways

Food systems and nutrition patterns

## Levers



- Social protection floors
- Integrating social & env. externalities
- Governing value and supply chains



- Insurances against shocks
- Improved trade agreements
- Market access



- Reducing food waste
- Changing dietary habits



- Lower environmental impacts
- Access to information and data
- Infrastructure and transportation





# Area of transformation: Education, competence and sustainable lifestyles

- Reforming the value base of society and mainstreaming sustainable lifestyles
- Strengthening of understanding and competencies that support sustainable development

# Area of transformation: Wellbeing, health and social inclusion



- Investing in preventive structures and accessible services
- Strengthening inclusion
- Mainstreaming welfare economy thinking

# Area of change: Forest, water and land use promoting biodiversity and carbon neutrality



- Consistent use of the entire range of tools for public guidance
- Strengthening biodiversity knowledge, education and skills
- Full commitment of all actors to biodiversity protection



# Area of change: Economy and work promoting wellbeing and sustainable consumption

- Bringing natural capital and human capital to the centre of economic thinking
- Adoption and mainstreaming of more sustainable consumption and production methods
- Ensuring the realisation of good working life and a skilled workforce



# Area of change: Sustainable energy system

- Accelerate the ongoing energy transformation
- Taking into account the stronger role of consumers in the energy system
- Harmonisation and streamlining of permit practices



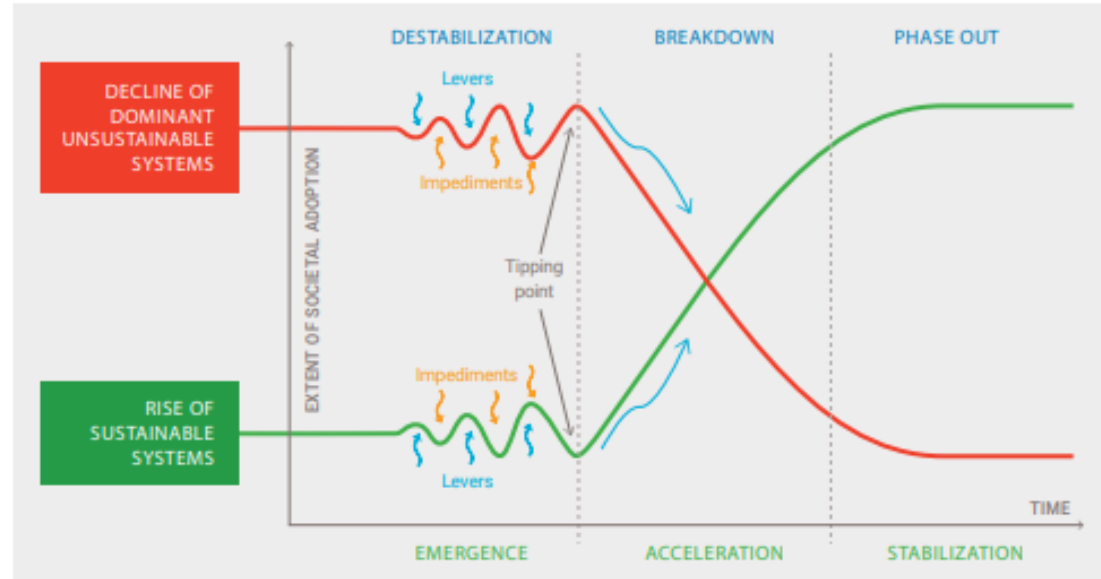
# Area of change: Support for the global implementation of the 2030 Agenda



- Effective foreign policy and development policy and influencing through the EU
- Harnessing the full potential of the private sector

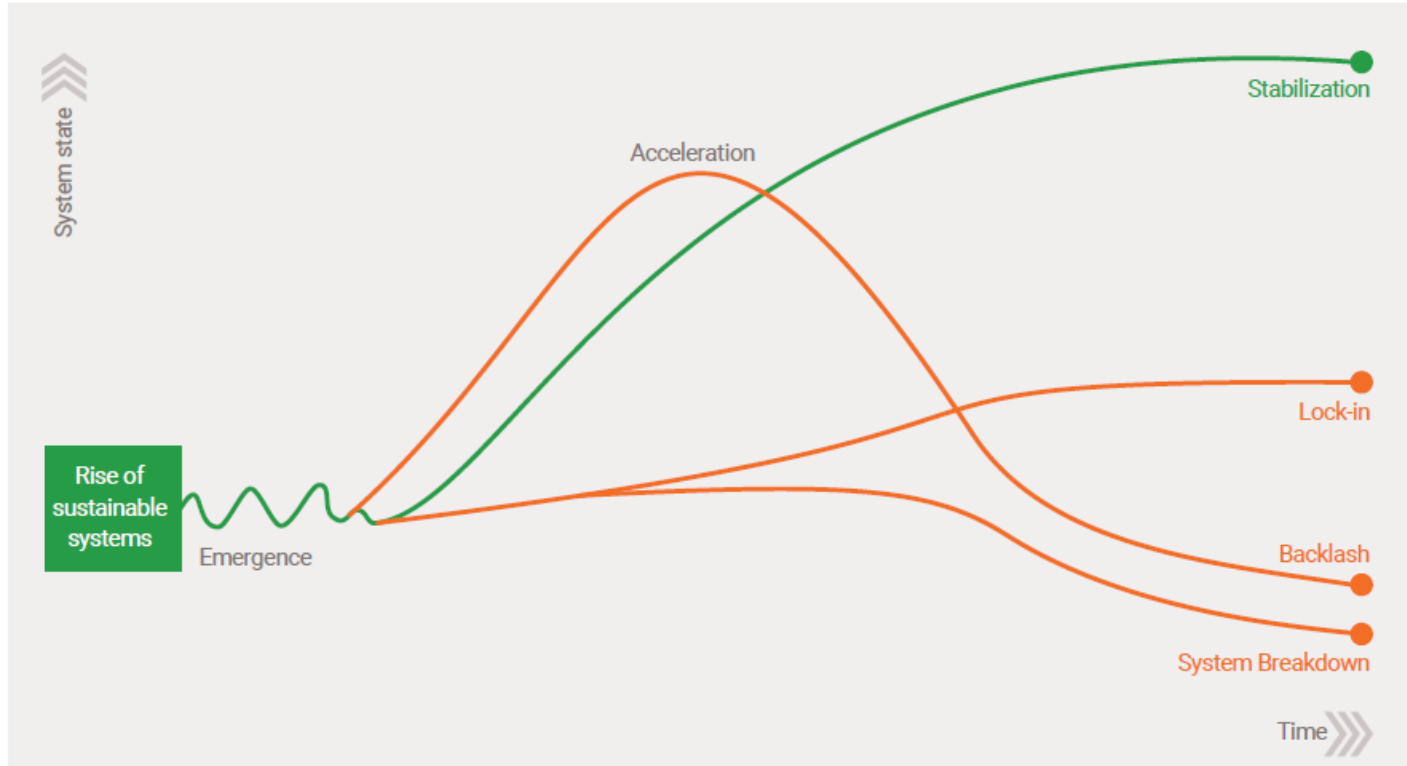
# Dynamics of sustainability transformation

- The rise of new systems/practices/behaviour patterns require that old ones are driven down
  - New form appears – old become unstable
  - The new one speeds up – old one is breaking down
  - New stabilises itself – old one disappears



# Sensitive followup and finetuning to avoid risks

## SUCCESSFUL AND UNSUCCESSFUL TRANSFORMATION PATHWAYS





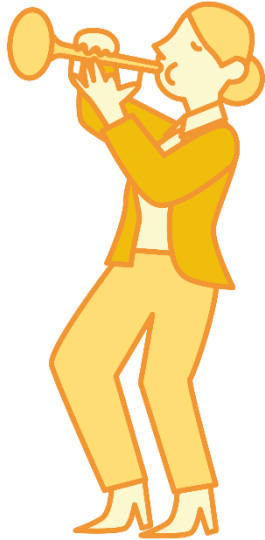
**Setting a positive image of future is scientifically needed for transformative change**

# Science, knowledge and social debate important

- When societies are in stable phase, routines and defined roles are important for efficiency
- When in transformation phase, need to give up old ways of acting to solve new and upcoming challenges

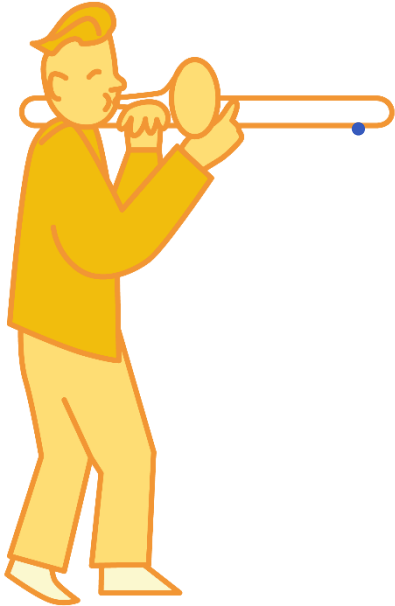
Needed:

- new kind of knowledge and new ways of knowledge production and use
- interdisciplinary research and broad spectrum of research knowledge **as basis for true dialogue** between different actors in policy and society



# A speedy transformative change requires

- giving up illusions and taboos which cause friction



• inviting new actors - from finance to media, from education to trade – to work towards new positive image and reality

# 1) Illusion of inconvenience

- A common first impression of the sustainability transformation:
  - difficult and complex bundle of challenges interconnected in a way that cannot be anticipated

Needed:

- **Shared experiences** of sustainability meaning a more convenient, pleasant and functioning environment, as well as well-being and health, such as vegetarian proteins



## 2) Illusion of continuity

- Tomorrow is a seamless continuum of yesterday, and reason and emotion do not accommodate futures that are radically different. Different kinds of futures are seen unrealistic.

Needed

- **Ability to forecast, analyse and imagine alternative futures,**
- understand path dependencies and
- create a goal oriented change that supports the well-being of people and the environment in an uncertain world.

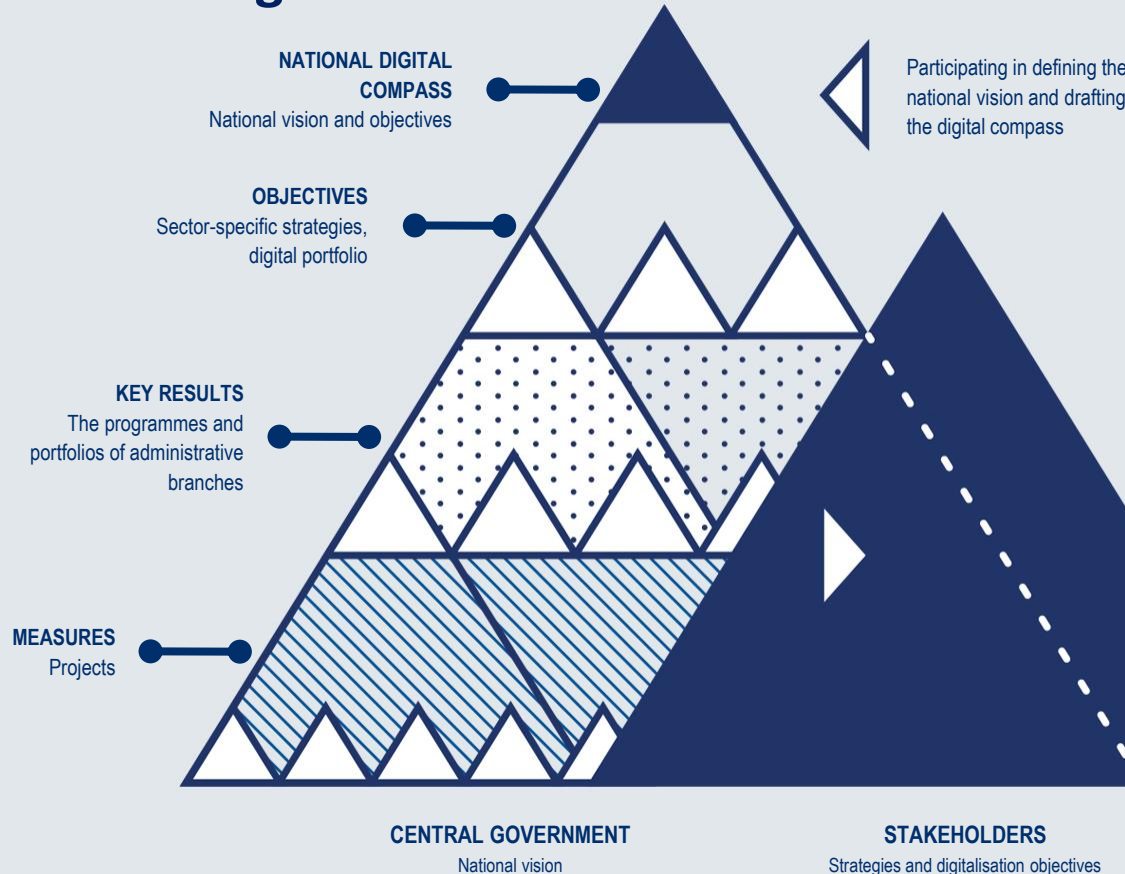
### 3) Illusion of decoupling

Fantasy that we can simultaneously grow the economy and reduce the burden on the environment

Needed:

- **Shared understanding of the illusion** and of the fact that the change cannot happen overnight
  - Indicators on environmental commons and wellbeing into use side by side with GDP
  - Strong public steering on international level for transparency and impact
  - New concepts of wellbeing, such as planetary health

# Keep the entire society on board: Finland's Digital Compass is implemented together





**Thank you**  
Eeva.Furman@gov.fi