CAMPUS KÖLN
CAMPUS MAINZ
CAMPUS POTSDAM

CBS
INTERNATIONAL
BUSINESS SCHOOL

FUTURE SCENARIOS FOR SUSTAINABLE BUSINESS SOLUTIONS

Winter term 2021

Session 3 & 4: Critique phase

CODE OF CONDUCT OF CBS

For lectures during the COVID19 pandemic

1. Consent to the recording and provision of teaching content by the university
2. No further distribution of materials or recordings, not even in extracts
3. No publication (or "post") of any other person's private or confidential information, except with explicit permission
4. No own recordings (e.g. via Smartphone) of lectures, not even in extracts
5. Respectful & polite interaction – also online

SPECIAL RULES FOR ATTENDENCE LECTURES:

1. Documentation of attendance with seat and signature according to official regulations
2. Wearing of mouth/nose protection in the lecture rooms and staying away from the campus in case of symptoms of illness
3. Regular and thorough hand washing, as well as hand disinfection before the start of the lecture
4. Keeping a distance as far as possible and leaving seats free, as well as refraining from physical contact and shaking hands
5. Compliance with lecturers' instructions, particularly with regards to orders to leaving the lecture room in the event of violation of the guidelines

SCHEDULE

THURSDAYS, 08.45-12.00 – ROOM: SINGAPORE H.2.04

No	Date	Phase	Topic
1&2	02.09.2021	Preparation	Course Introduction, Overview & Getting to know the group; Group Formations, Team Work & Choosing of Topics
3&4	16.09.2021	Critique phase	Global Challenges/UN SDGs & a beyond VUCA world; Guided Group Work: Collecting critical issues & Mapping systems
5&6	27.09.2021 16.15-19.30 Room: London	Critique phase / Visioning phase	Excursion: Express and explore your utopia through creative means
7&8	14.10.2021	Visioning phase	Imagining future realities (e.g., Future Game 2050); Future Research, Foresight, scenario development etc.
9&10	28.10.2021	Visioning phase / Implementation phase	Translating Utopia: Evaluation (“DNA”) of utopia & strategic analysis (“retropolation”); How to make it happen: Backcasting Methodology & Exercise
11&12	18.11.2021	Implementation phase	Excursion: Prototyping your solution with Lego Serious Play (LSP)
13&14	25.11.2021	Presentations, debriefing, and feedback	Final Presentations & Handing in Progress- and Reflection Journal (Coursework), Feedback and Debriefing

FORMING GROUPS
FINAL GROUP SETTING

Group 1 (BLUE) Sector: Mobility	Group 2 (GREEN) Sector: Tourism	Group 3 (RED) Sector: Fashion	Group 4 (YELLOW) Sector: Food
Beatriz Bloch	Constantin Krückels	Lisa Kipping	Fiona Weigand
Sven Jöbges	Liane Kirsch	Nika Renner	Lisa Mötzing
Tobias Rittich	Laura Kürten		

REFLECTING ON HOMEWORK EXERCISES

HOW WAS IT?

1) Please read the following texts to prepare for the „critique phase“
   - *Utopia for Realists* – Chapter 1: The Return of Utopia
   - *The Future. A Very Short Introduction* – Chapter 6: Grand global futures challenges
2) For your journaling exercise, please reflect on the content of session 1&2 by sharing your thoughts on the following questions:
   - What might be done in your context to pay attention to more **different** futures?
   - Are they as **diverse** as they could be?
   - How might you explore or communicate the future(s) to which you are attending, in greater **depth**?

REMINDER EFFORT SURVEY

PLEASE KINDLY COMPLETE THE SURVEY VIA THE LINK BELOW!

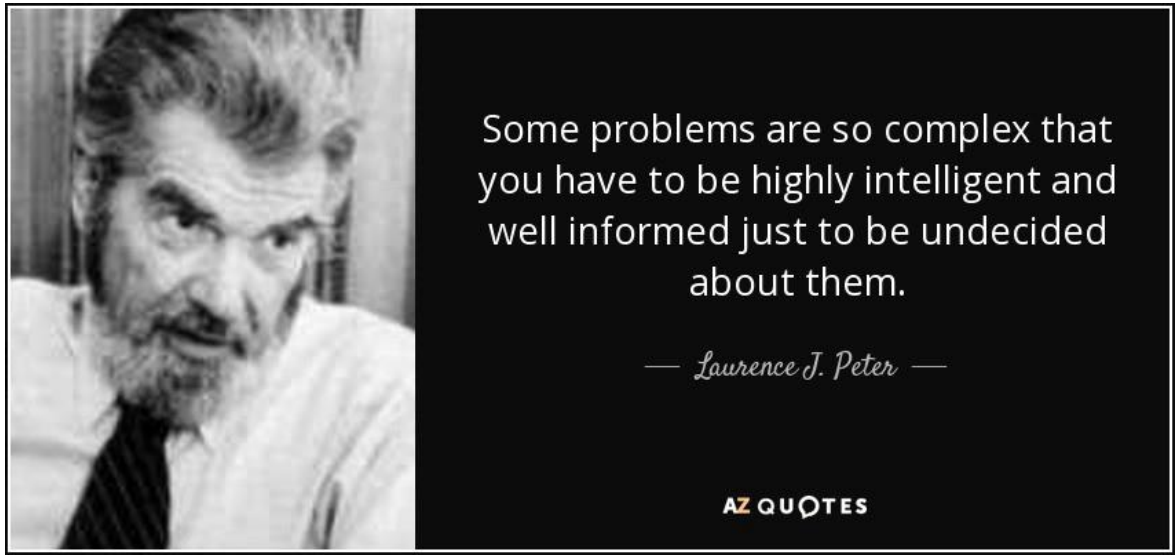
https://ww2.unipark.de/uc/Teaching_Sustainability/e969/

OUR CURRENT ENVIRONMENT AND GRAND CHALLENGES

WICKED PROBLEMS
DEFINTION AND ISSUE

Wicked problems are social or cultural problems that are difficult or impossible to solve for the following 5 reasons:

- Incomplete or contradictory knowledge
- Large diversity of opinions involved
- Denying or unengaged stakeholders with different desires
- Interconnected nature of these problems with other problems – solutions might be too simple/technical or naïve
- Limited financial sustainability and scalability for the solution



Source: https://medium.com/homeland-security/ten-properties-of-wicked-problems-a8a9ff67ccdb, Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. Policy Sciences, 4(2), 155–169, Crowley, K., & Head, B. W. (2017). The enduring challenge of 'wicked problems': revisiting Rittel and Webber. Policy Sciences, 50(4), 539-547.

WICKED PROBLEMS
10 CHARACTERISTICS

1. There is no definitive formulation of a wicked problem
2. Wicked problems have no stopping rule since the search for solutions never stops
3. Solutions to wicked problems are not true or false, good or bad
4. There is no immediate and no ultimate test of a solution to a wicked problem
5. Every solution to a wicked problem is a “one-shot” operation; because there is no opportunity to learn by trial and error, every attempt counts significantly
6. Wicked problems do not have an exhaustively describable set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan
7. Every wicked problem is essentially unique
8. Every wicked problem can be considered to be a symptom of another problem
9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways
10. The planner has no right to be wrong

Source: https://medium.com/homeland-security/ten-properties-of-wicked-problems-a8a9ff67ccdb

WICKED PROBLEMS

SOME OF THOSE WE CREATED SO FAR…

Overpopulation

Climate change

- Ozone depletion / CFCs
- Black Carbon
- Deforestation
- Meat production

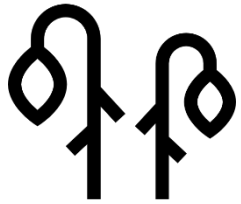
Ecological overshoot

Income inequality

Marine ecosystem

- Coastal development
- Ocean acidification
- Microplastics

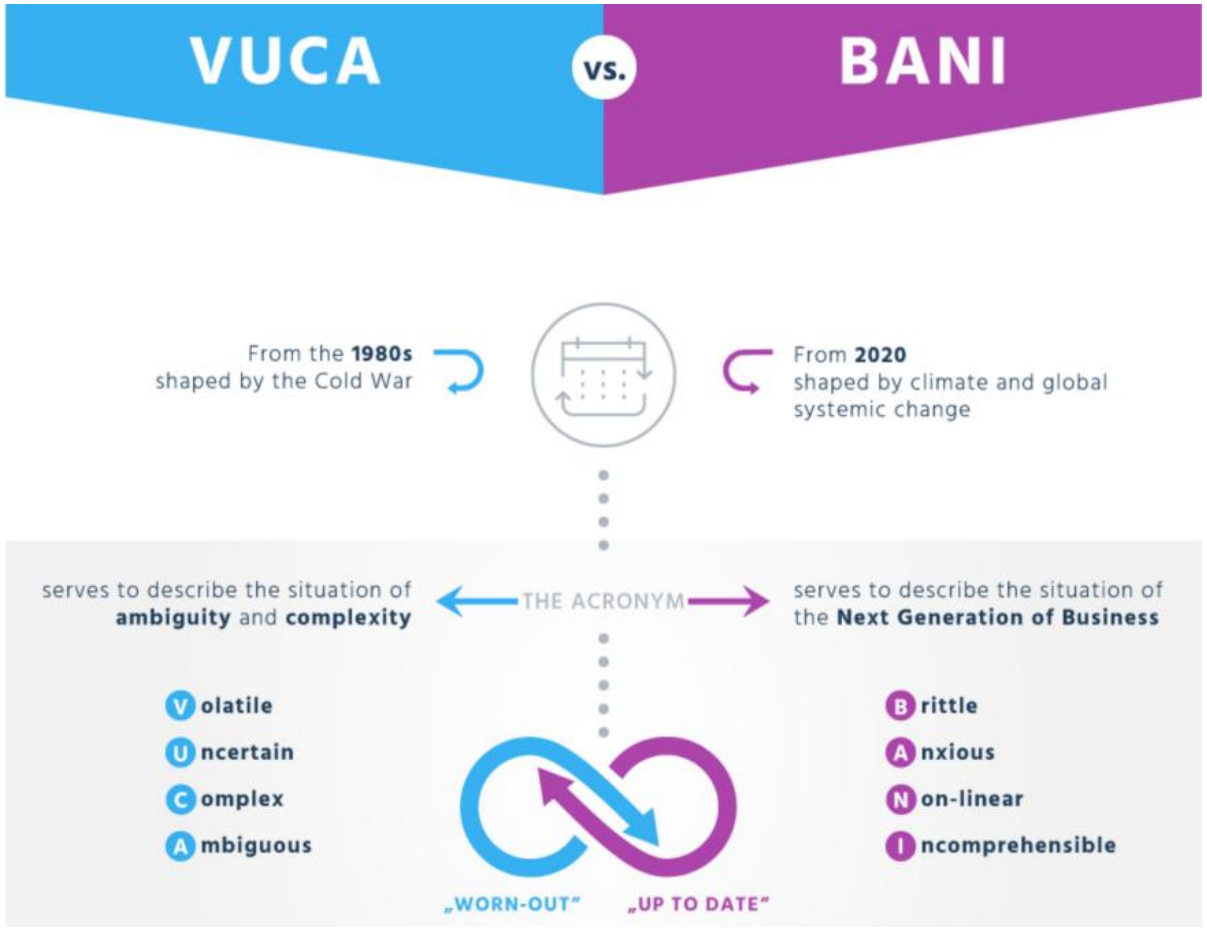
Pollution



Decline of biodiversity

VUCA AND BANI ENVIRONMENT

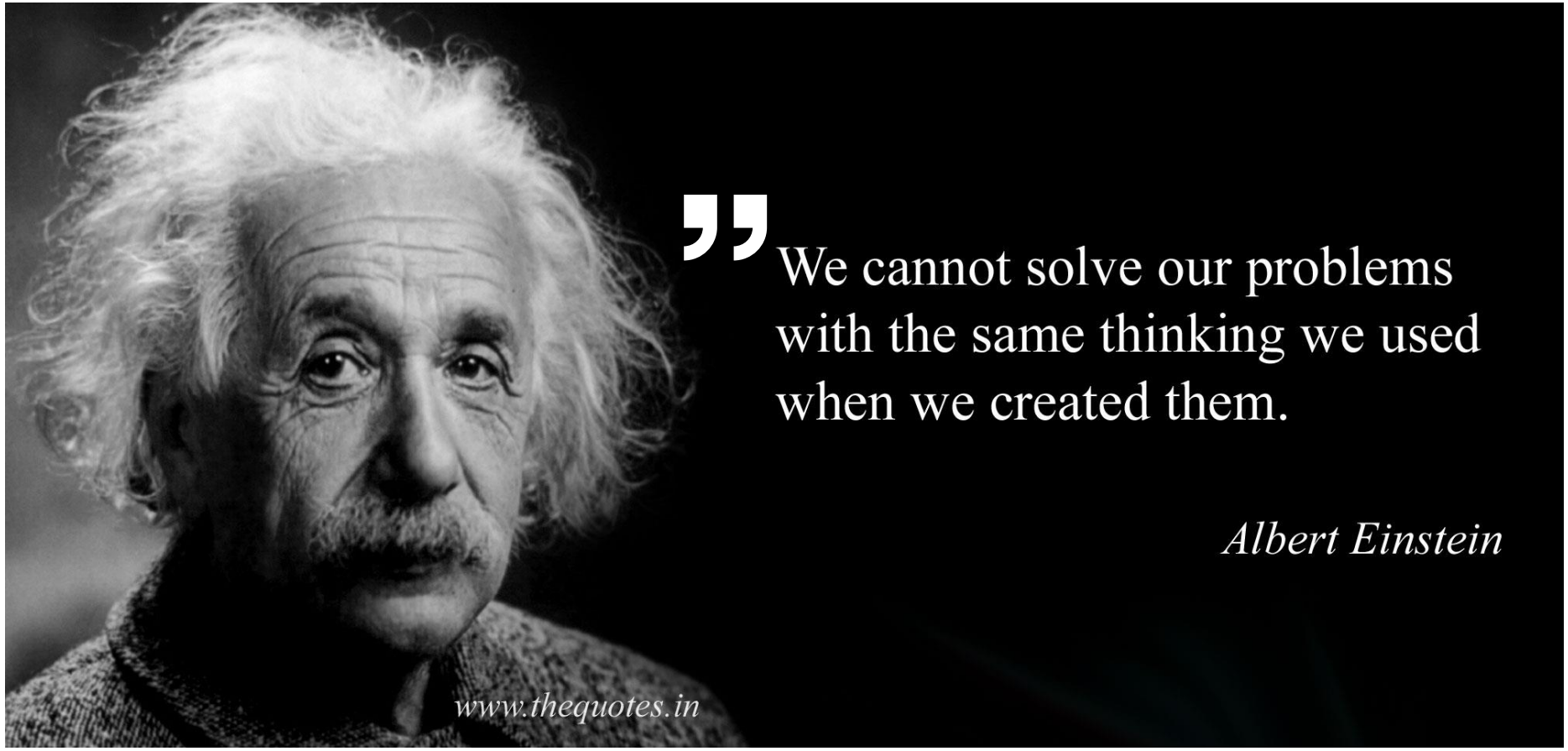
HOW ENVIRONMENTS ADD TO WICKED PROBLEMS



Source: https://marian-temmen.medium.com/bani-vs-vuca-a-new-acronym-for-a-new-world-59c7be2dddce

WICKED PROBLEMS AND VUCA/BANI

HOW CAN WE NEVERTHELESS FACE THESE CHALLENGES?

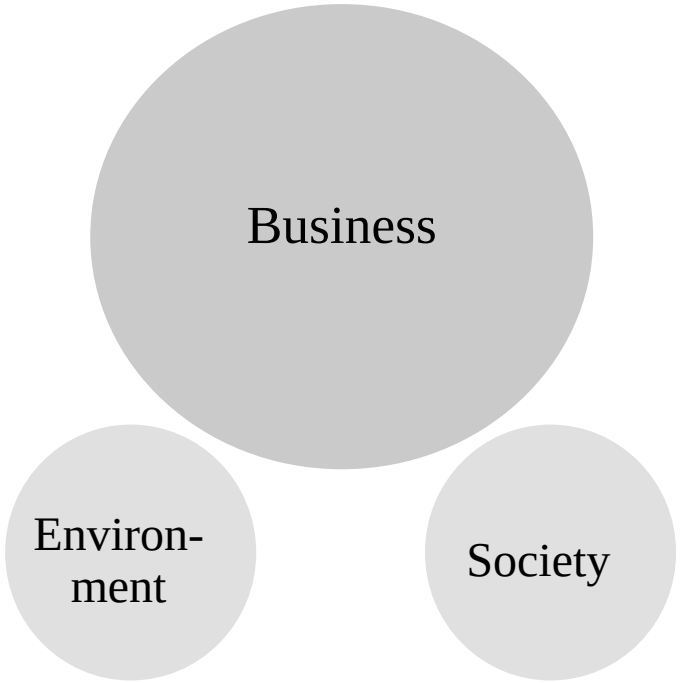


SYSTEMS THINKING HAS FINALLY ARRIVED…

A FOCUS ON PURPOSE AND VALUE IS CRITICAL TO SUCCESS

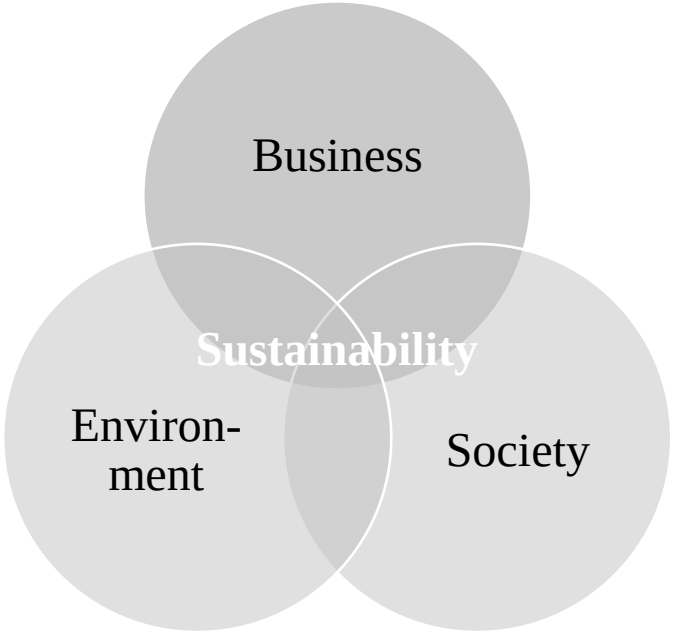
Shareholder Value

Financial returns are all that matters: companies privatize gains and externalize losses.



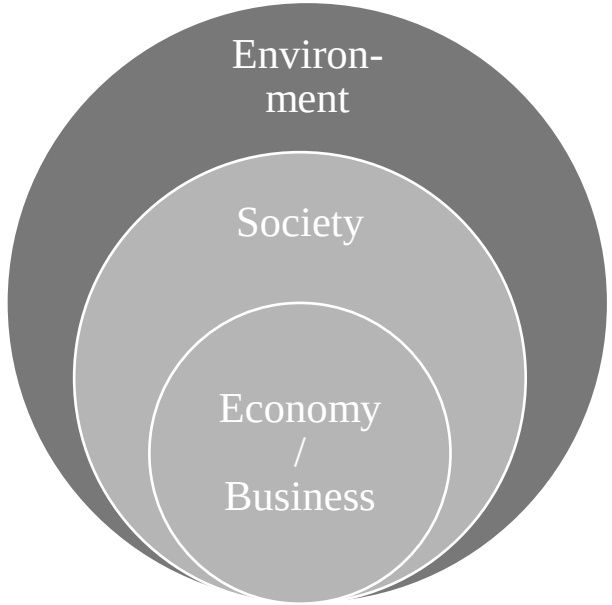
Shared Value

Business comes first: negative impacts are often not sufficiently internalized, or are justified by "doing good" elsewhere.



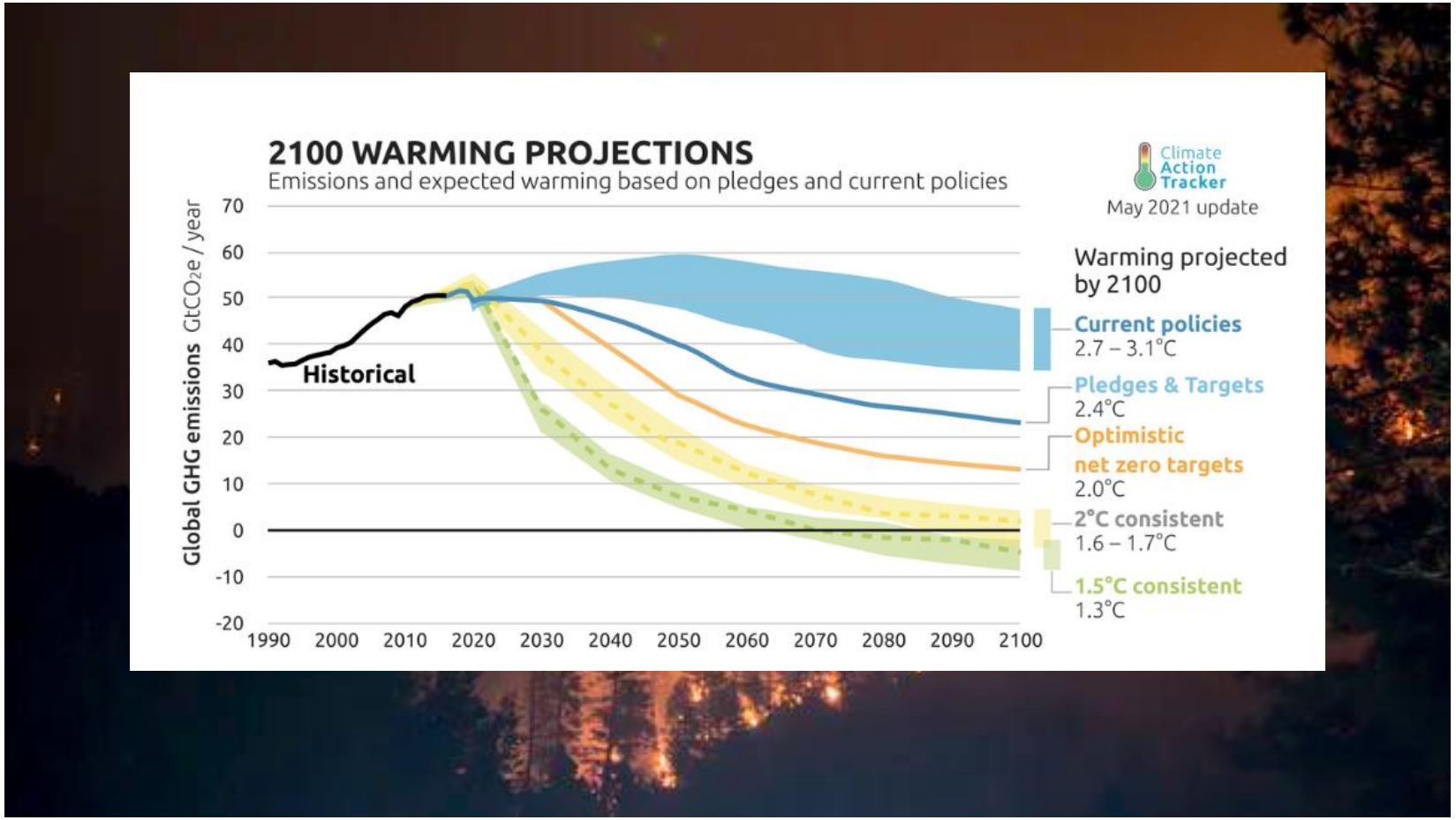
System Value

Business in no way hinders – and ideally contributes to – society's progress toward future-fitness.



THE GRAND CHALLENGES

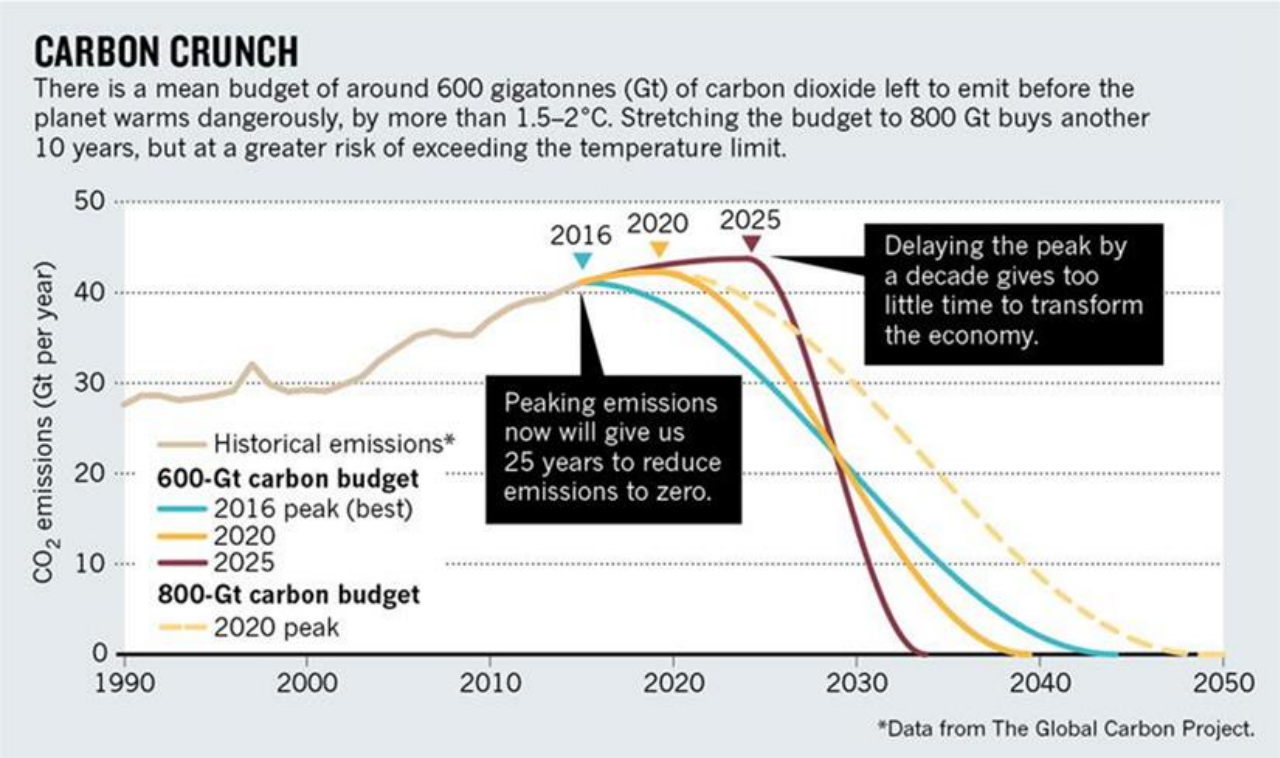
CLIMATE



- Current 1.2 degrees warming; 1.6 degrees in Germany
- with current policy 2-4 degrees in 2100
- Rebound effects
- Mind-Behavior Gap
- Path dependencies

THE GRAND CHALLENGES

CLIMATE/CARBON NEUTRALITY AND BEYOND



Source: https://www.statista.com/chart/9656/the-state-of-the-paris-agreement/

THE GRAND CHALLENGES
COSTS OF CLIMATE CHANGE

- climate change could be around **six times as expensive by 2100 as previously assumed**. Even in an average warming scenario, the global gross national product at the end of the century would be **around 37% lower** as a result of climate damage than in a world without man-made warming. Previously, economic **losses of only 7% by 2100 had been assumed**.
- In Germany, the pathway to net-zero will cost up to 6 trillion euros according to a recent McKinsey study

Source: https://www.sueddeutsche.de/wissen/hochwasserkatastrophe-schaeden-kosten-klimawandel-co2-preis-hurrikan-1.5402770; Kahn, M. E., Mohaddes, K., Ng, R. N. C., Pesaran, H. M., Raissi, M., & Yang, J.-C. (2019). Long-term macroeconomic effects of climate change: A cross-country analysis: IMF working paper; Kikstra, J. S., Waidelich, P., Rising, J., Yumashev, D., Hope, C., & Brierley, C. M. (2021). The social cost of carbon dioxide under climate-economy feedbacks and temperature variability. Environmental Research Letters, 16(9), 94037. https://doi.org/10.1088/1748-9326/ac1d0b, https://www.mckinsey.de/news/presse/studie-net-zero-deutschland-klimaneutralitaet-chancen-herausforderungen

THE GRAND CHALLENGES
BIODIVERSITY

- Per day, 150 species die out…

THE GRAND CHALLENGES

SOIL AND FORESTS

- Each year, 158,000 square kilometers of tropical rainforest are cut down, which equals 42 soccer fields per minute
- 50% of mangrove forests and 70% of the earth's swamps have been destroyed

THE GRAND CHALLENGES
INEQUALITY

- half of humanity owns 1% of global wealth
- the richest 1% have 40% of wealth
- Covid-19 has worsened this situation – whereas the richest have recovered after 9 months, the poor people will suffer more than a decade to overcome its consequences

Source: https://www.oxfam.de/ueber-uns/publikationen/oxfams-bericht-covid-19-auswirkungen-ungleichheitsvirus

THE GRAND CHALLENGES
PSYCHOLOGY AND PURPOSE

- Steady rise in depression, burnouts, mental illnesses
- 26% of the total population has depressive symptoms

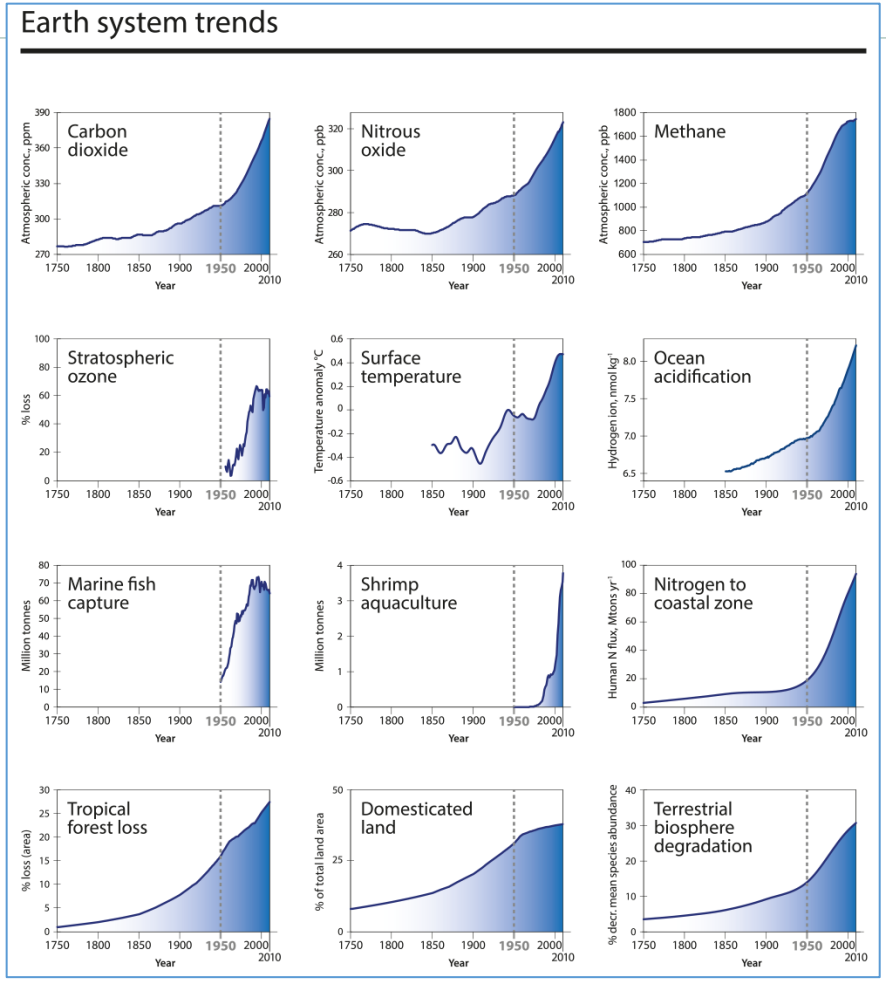
THE GRAND CHALLENGES
ECONOMY

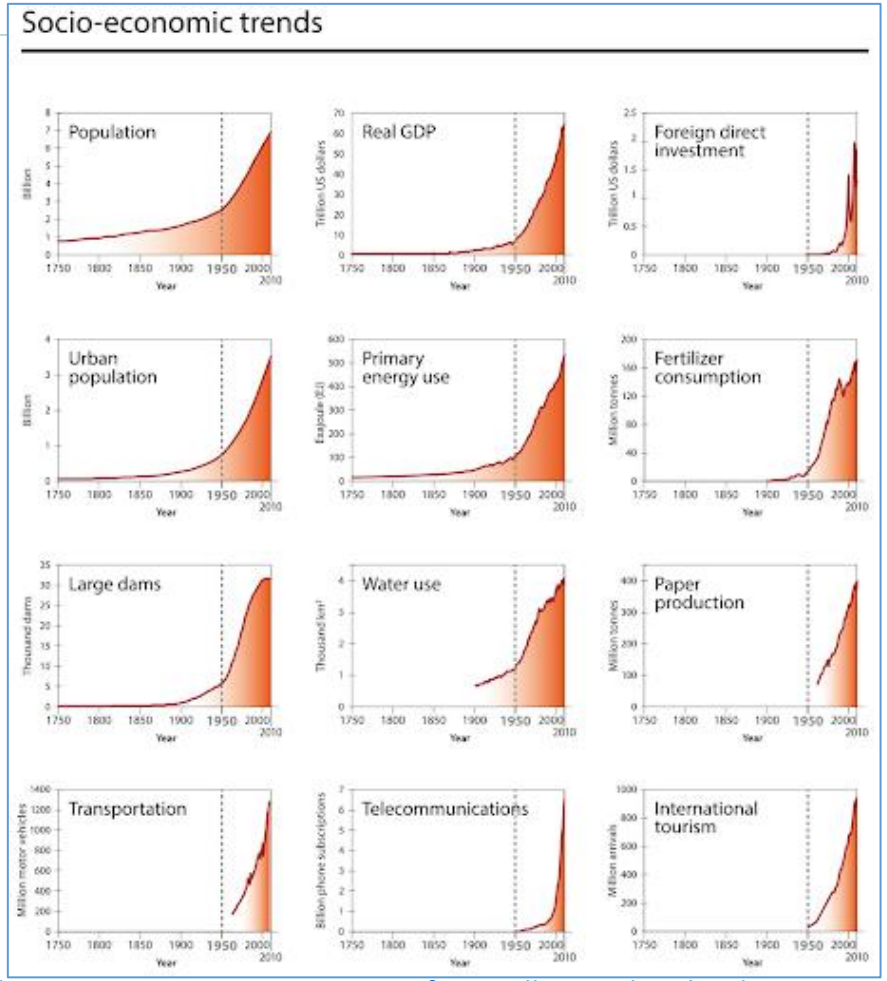
- growth pressure and non-temporal / inadequate performance measurement (GDP?)

THE ANTHROPOCENE

THE GREAT ACCELERATION SINCE 1950

Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O., & Ludwig, C. (2015). The trajectory of the Anthropocene: the great acceleration. The Anthropocene Review, 2(1), 81-98.





Source: http://www.igbp.net/news/pressreleases/pressreleases/planetarydashboardshowsgreataccelerationinhumanactivitysince1950.5.950c2fa1495db7081eb42.html;

EGO TO ECO FRAMEWORK

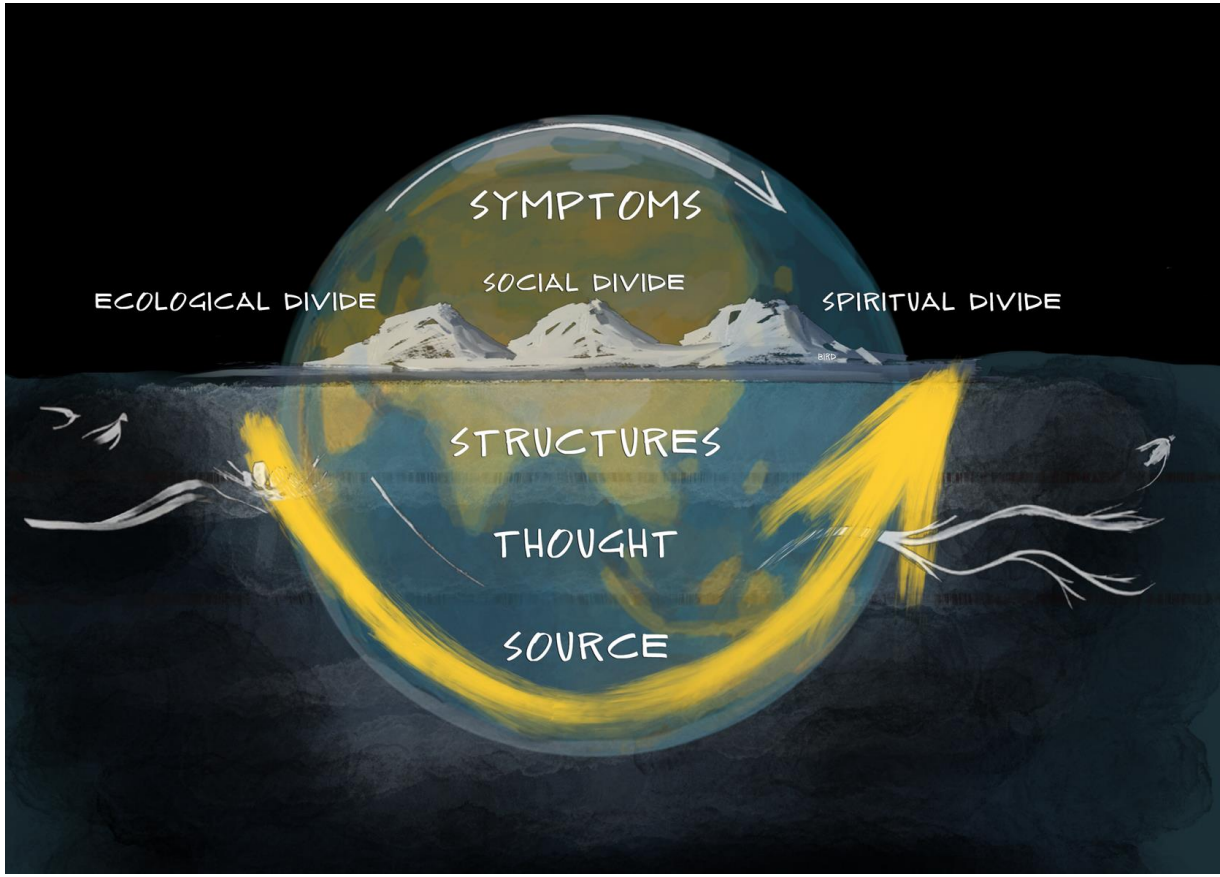
BY OTTO SCHARMER

Disconnect	Eco	Income	Financial	Technology	Leadership	Consumerism	Coordination	Ownership
Surface System	1.5 planet footprint	Top 1% owns more than bottom 90%	US$ 1.5 quadrillion speculation bubble	quick Techno fix syndrome	Collectively creating results that nobody want	Burnout, depression, consume without well-being	Unable to face challenges at the scale of whole system	Overuse of scarce resources: tragedy of the commons
Structural Disconnect	Decoupling of unlimited growth and finite resources	Decoupling of have's and have not's of wealth and basic need	Decoupling of financial economy and real economy	Decoupling of tech. solutions and societal needs	Decoupling of old leadership tools and new leadership challenges	Decoupling of GDP and well-being	Decoupling of coordination mechanism and common goods, of part and whole	Decoupling of current ownership forms and best societal use
Systemic Limit	Limit to growth ↓ Cultivating finite	Limits to inequality ↓ Embodying human right	Limits to Speculation ↓ Organizing around the real economy	Limits to symptom fixes ↓ Focusing on sustainable solutions	Limit to leadership ↓ Direct distributed, dialogic self governance	Limits to consumerism ↓ Connecting to real sources of happiness & wellbeing	Limits to competition ↓ Redrawing boundaries of competition + cooperation	Limits to state+private property ↓ Property rights for the commons

Source: https://www.presencing.org/aboutus/ego-to-eco/acupuncture-points

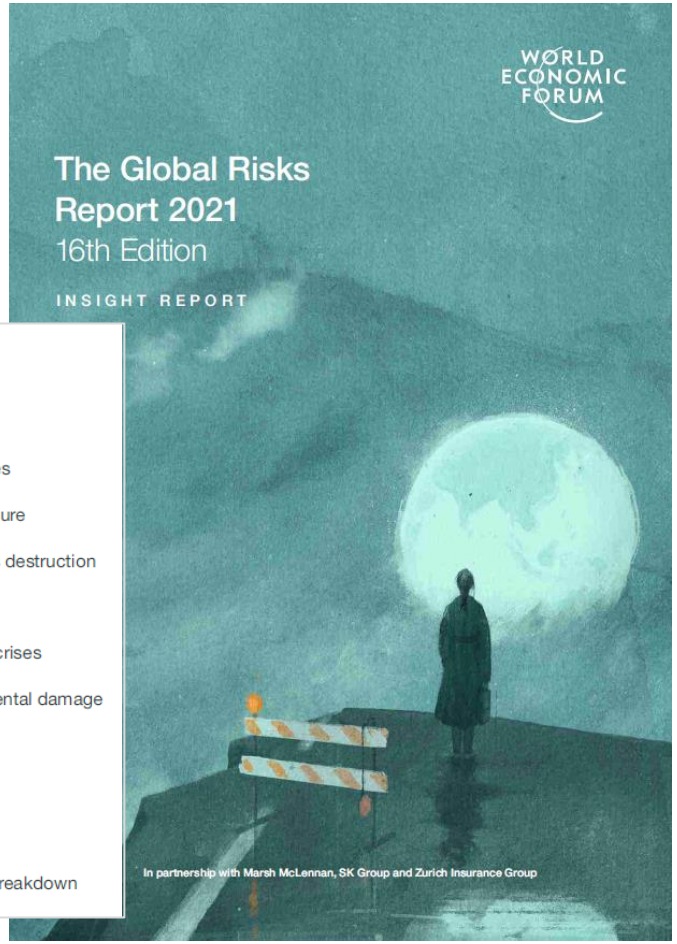
THE GRAND CHALLENGES
REFLECTING QUESTIONS

- In what situations in your everyday life do you experience one of the three divides?
- When you perceive a divide, what does it do to you emotionally? How do you deal with cognitive dissonance?
- What is the root cause of the divide(s)?



TRENDS AND RISKS

THE GLOBAL RISKS REPORT 2021

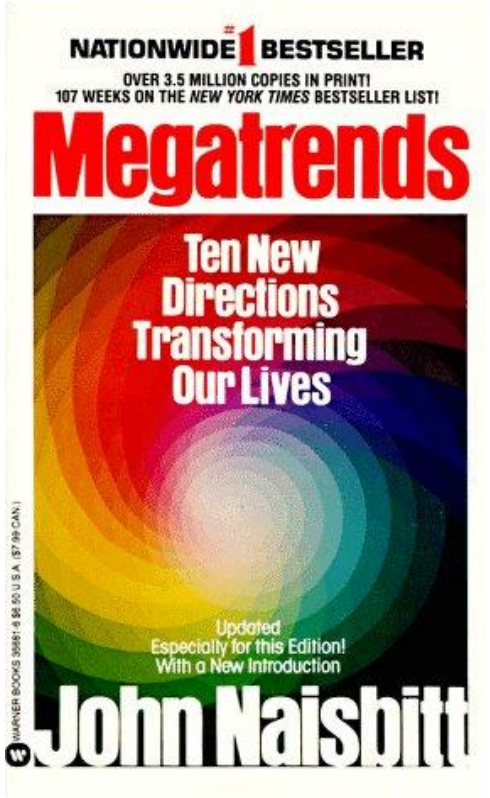


Source: World Economic Forum. (2021). Global Risks Report 2021. https://www.weforum.org/global-risks/reports

THE TREND IS YOUR FRIEND?

BECOMING RESILIENT ACROSS TIME WITH TREND ANALYSIS

- can be used to publicly discuss topics aligned with own interests
- provides the basis for further discussions
  - Why has this trend been chosen?
  - Which underlying cause does this trend show?
  - Why does this trend exist?
  - Which connections do we see to other trends?
- can be used as part of the „future search“ methodology
- could provide a prognosis of future development, making us able to adapt our actions accordingly (e.g., life expectancy for insurances)
- Trends need to increase or decline – digitalization per se is not a trend, but the increase of digitalization



Naisbitt coined the term „megatrend“ in 1982

Source: Bergheim, S., & Zimmermann, H. J. (2021). Futures - Open to Variety: A Manual for the Wise Use of the Later-Than-Now. Zgf Publishers. (Chapter 6)

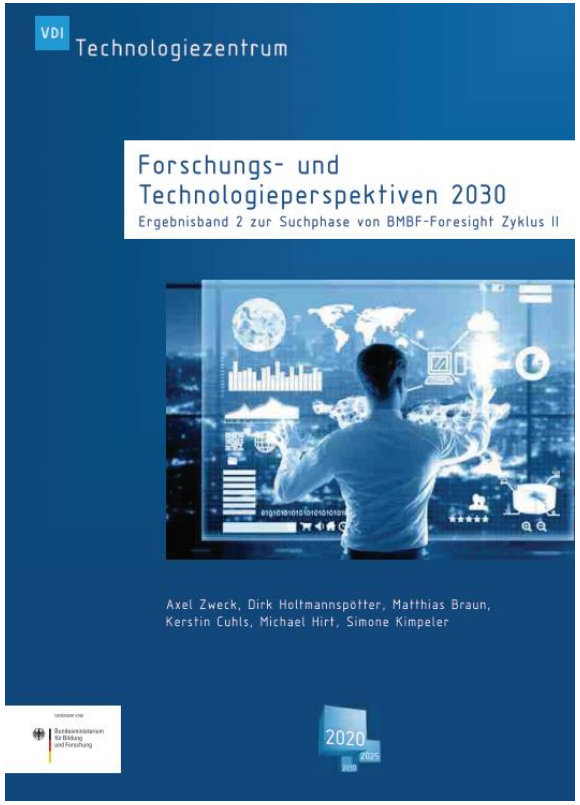
FURTHER TREND REPORTS

NATIONAL INTELLIGENCE COUNCIL

https://www.intelligence.gov/publics-daily-brief/public-s-daily-brief-articles/1055-national-intelligence-council-releases-global-trends-report-on-the-more-contested-world-of-2040

FURTHER TREND REPORTS

FRAUNHOFER COMPETENCE CENTER FORESIGHT

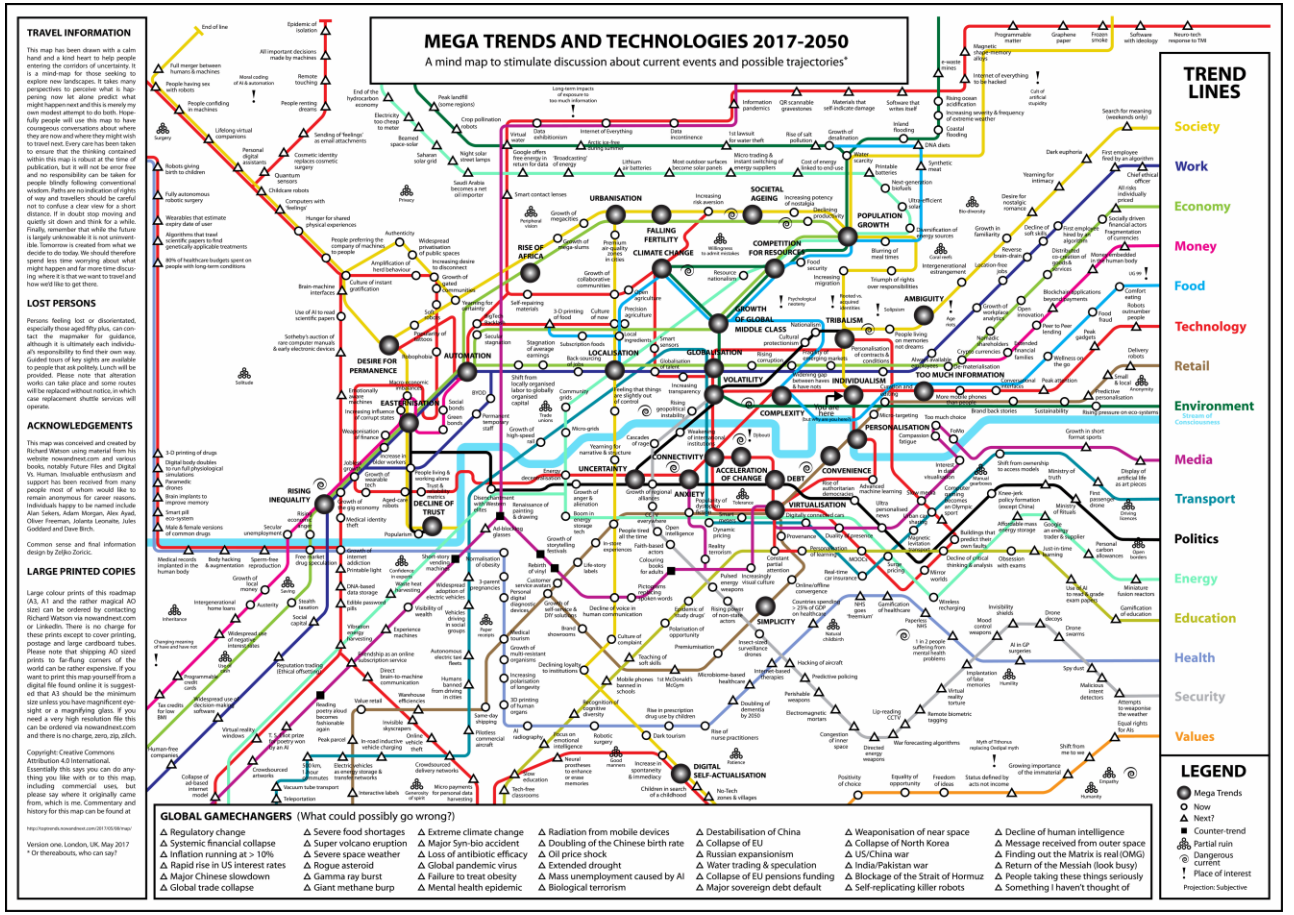


https://www.vditz.de/service/publikationen/details/forschungs-und-technologieperspektiven-2030;
https://www.vditz.de/service/publikationen/details/geschichten-aus-der-zukunft-2030;
https://www.vditz.de/service/publikationen/details/gesellschaftliche-veraenderungen-2030

MEGATRENDS BY RICHARD WATSON

PLEASE EXPLORE THE TRENDS! (20min)

- Please discuss in your group which trends / risks have an influence on your industry.
- Which powerful question can you ask to narrow down on your future scenario for the industry/sector?



Sources: https://nowandnext.com/thinking-tools/; https://www.zukunftsinstitut.de/artikel/die-megatrend-map/

SYSTEMS THINKING

WHAT IS SYSTEMS THINKING?
DEFINITION

- based on the belief that the component parts of a system will act differently when isolated from the system's environment or other parts of the system

- sets out to view systems in a holistic manner

- concerns an understanding of a system by examining the linkages and interactions between the elements that comprise the whole of the system.

WHY IS IT USEFUL?

SYSTEMS THINKING MIGHT BENEFIT US IN DIFFERENT WAYS

- Change our thinking
- Communicate with others
- Change our behaviour
- Identify and test a wider variety of possible actions and solution pathways
- Become more aware of the potential for unintended consequences of our actions
- Harness social learning processes
- Expand the choices available to use

Source: https://integratedreporting.org/resource/integrated-thinking-strategy-state-of-play-report/; https://www.researchgate.net/publication/281649433_Systems_Thinking_for_Health_Systems_Strengthening; https://www.oecd.org/gov/innovative-government/Systems-approaches-to-public-challenges-executive-summary.pdf

SYSTEMS THINKING AND THE SDGs

SUSTAINABLE DEVELOPMENT GOALS ARE ALL INTERCONNECTED

Further reading: Sachs, J. D. and Sachs, L. E. (2021). Business Alignment for the Decade of Action. Journal of International Business Policy, 4, 22-27.

THREE STEPS TO UNLOCK SDG POTENTIAL

- **Level 1: Joined-up efforts on individual goals**

How are we ensuring that the combined activities across the world on ending poverty or achieving gender equality add up to more than the sum of their parts?

- **Level 2: A „network set“ of goals**

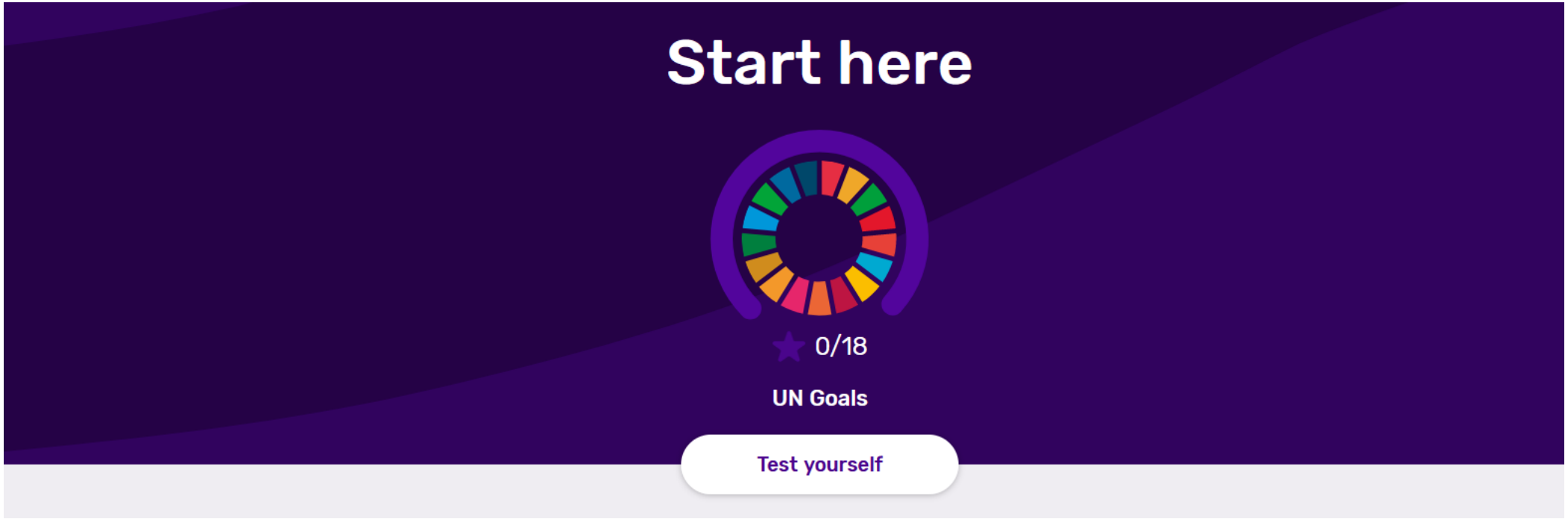
What are the inter-relationships across the goals? How can we understand the different drivers and root causes of a number of different goals regionally, nationally and globally? Which goals work together to deliver a change in a system, and how do we make the most of those combinations? Where are the tensions between them?

- **Level 3: The „how“ of sustainable development**

How are we addressing the Sustainable Development Goals? What are the underlying principles that will drive success?

GAPMINDER QUIZ

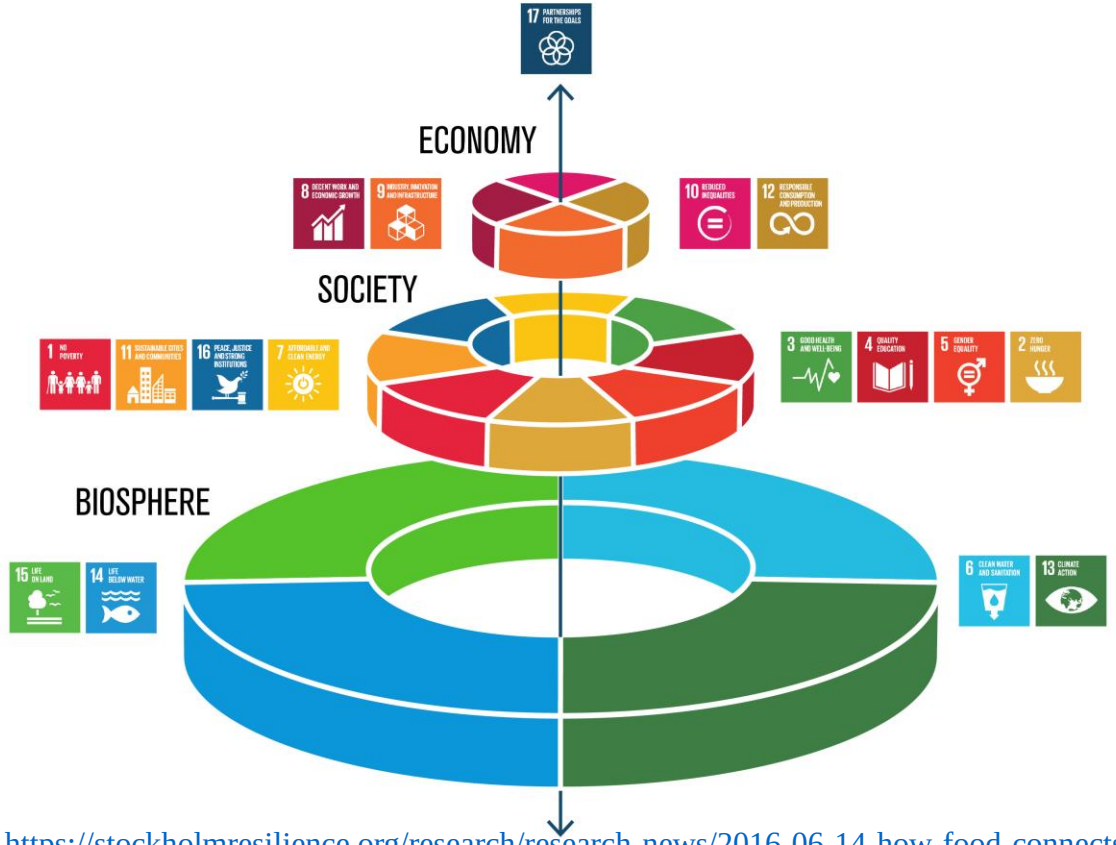
HOW MUCH DO YOU KNOW ABOUT THE SDGs?

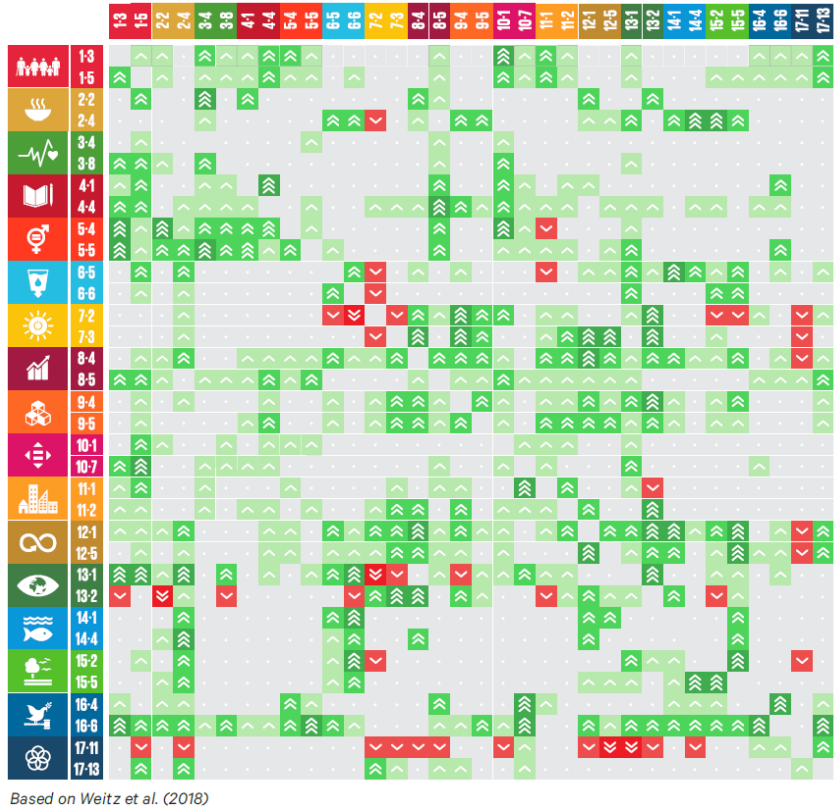


Source: https://upgrader.gapminder.org/

UNDERSTANDING THE CORRELATIONS

SDG CLASSIFICATIONS AND SYNERGIES

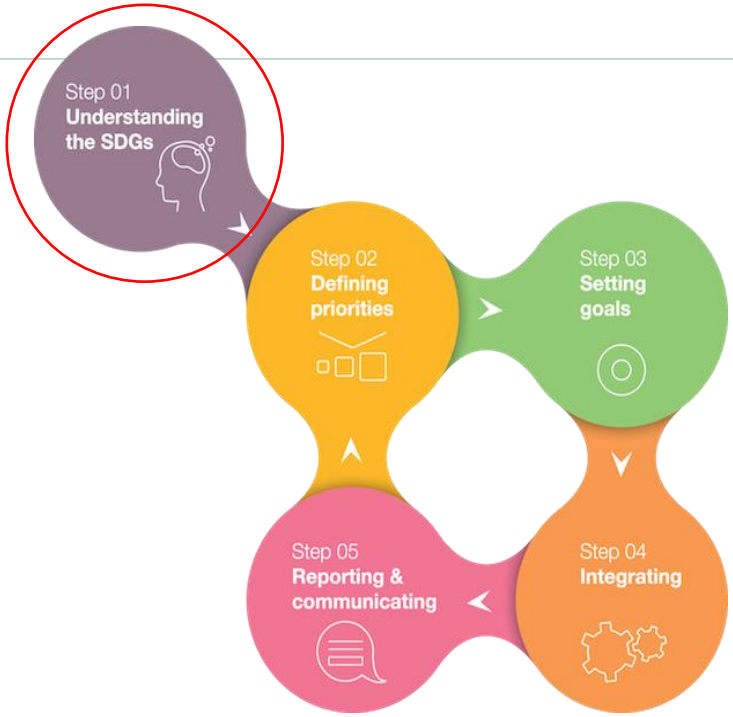




Based on Weitz et al. (2018)

Source: https://stockholmresilience.org/research/research-news/2016-06-14-how-food-connects-all-the-sdgs.html;
Stockholm Environment Institute (2019). SDG Synergies: An approach for coherent 2030 Agenda implementation.
https://www.sei.org/wp-content/uploads/2019/04/sei-brief-2019-sdg-synergies-2.pdf

SDG COMPASS – HOW TO IMPLEMENT



SDG Compass

The guide for business action on the SDGs

The SDG Compass provides guidance to companies on how to align their strategies and measure and manage their contribution to achieving the SDGs.

SDG COMPASS – HOW TO IMPLEMENT

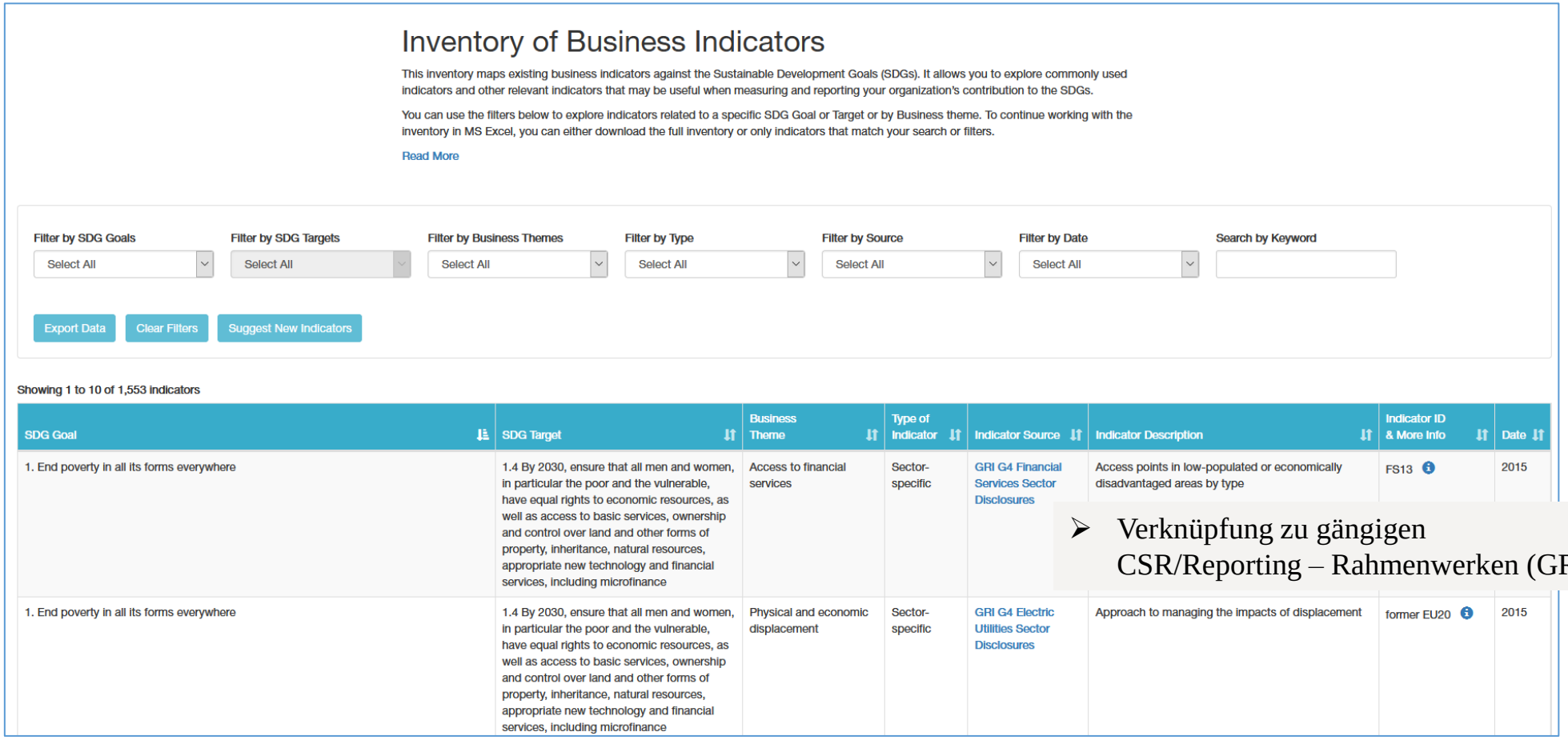
HOW TO AVOID SDG-WASHING

- **SDG Compass**
  - https://www.unglobalcompact.org/library/3101
  - **https://sdgcompass.org/** (Business Indicators)
  - https://www.globalcompact.de/de/newscenter/meldungen/SDG-Compass-in-Deutsch-veroeffentlicht.php (auf Deutsch)

- **Now available: SDG Manager**
  - https://www.unglobalcompact.org/take-action/sdg-action-manager

SDG COMPASS – HOW TO IMPLEMENT

INDICATORS https://sdgcompass.org/business-indicators/



Inventory of Business Indicators

This inventory maps existing business indicators against the Sustainable Development Goals (SDGs). It allows you to explore commonly used indicators and other relevant indicators that may be useful when measuring and reporting your organization's contribution to the SDGs.

You can use the filters below to explore indicators related to a specific SDG Goal or Target or by Business theme. To continue working with the inventory in MS Excel, you can either download the full inventory or only indicators that match your search or filters.

Read More

Filter by SDG Goals: Select All | Filter by SDG Targets: Select All | Filter by Business Themes: Select All | Filter by Type: Select All | Filter by Source: Select All | Filter by Date: Select All | Search by Keyword

Export Data | Clear Filters | Suggest New Indicators

Showing 1 to 10 of 1,553 indicators

SDG Goal	SDG Target	Business Theme	Type of Indicator	Indicator Source	Indicator Description	Indicator ID & More Info	Date
1. End poverty in all its forms everywhere	1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	Access to financial services	Sector-specific	GRI G4 Financial Services Sector Disclosures	Access points in low-populated or economically disadvantaged areas by type	FS13	2015
1. End poverty in all its forms everywhere	1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	Physical and economic displacement	Sector-specific	GRI G4 Electric Utilities Sector Disclosures	Approach to managing the impacts of displacement	former EU20	2015

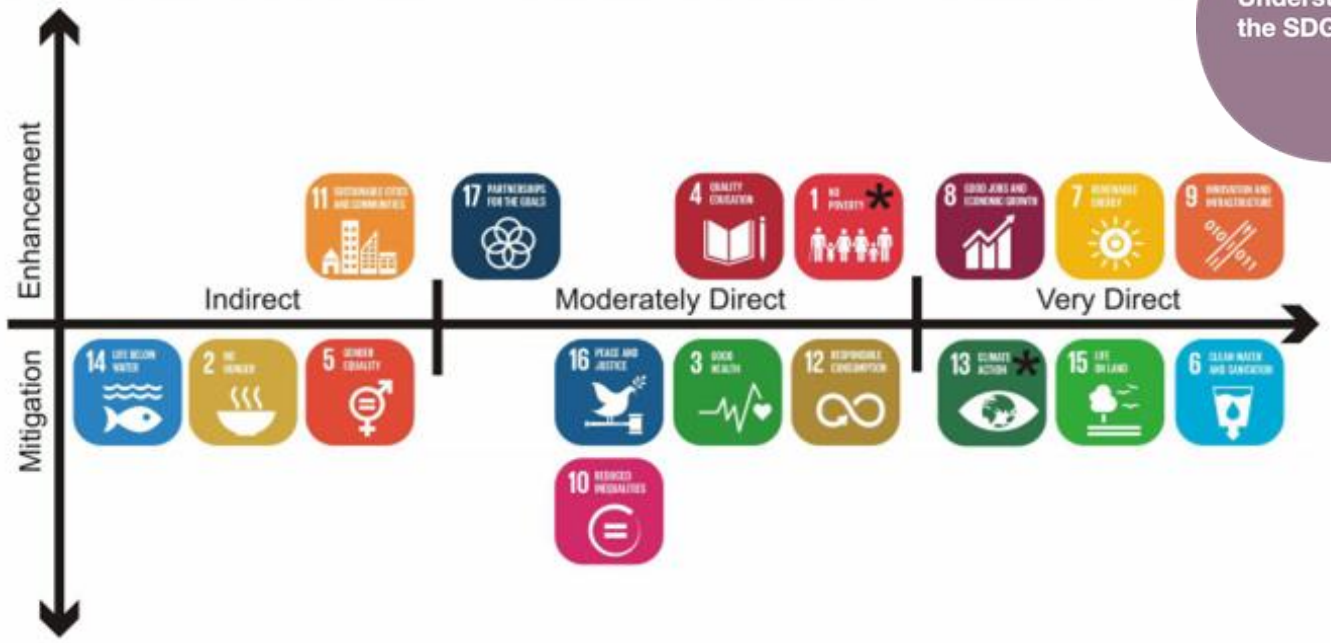
- Verknüpfung zu gängigen CSR/Reporting – Rahmenwerken (GRI)

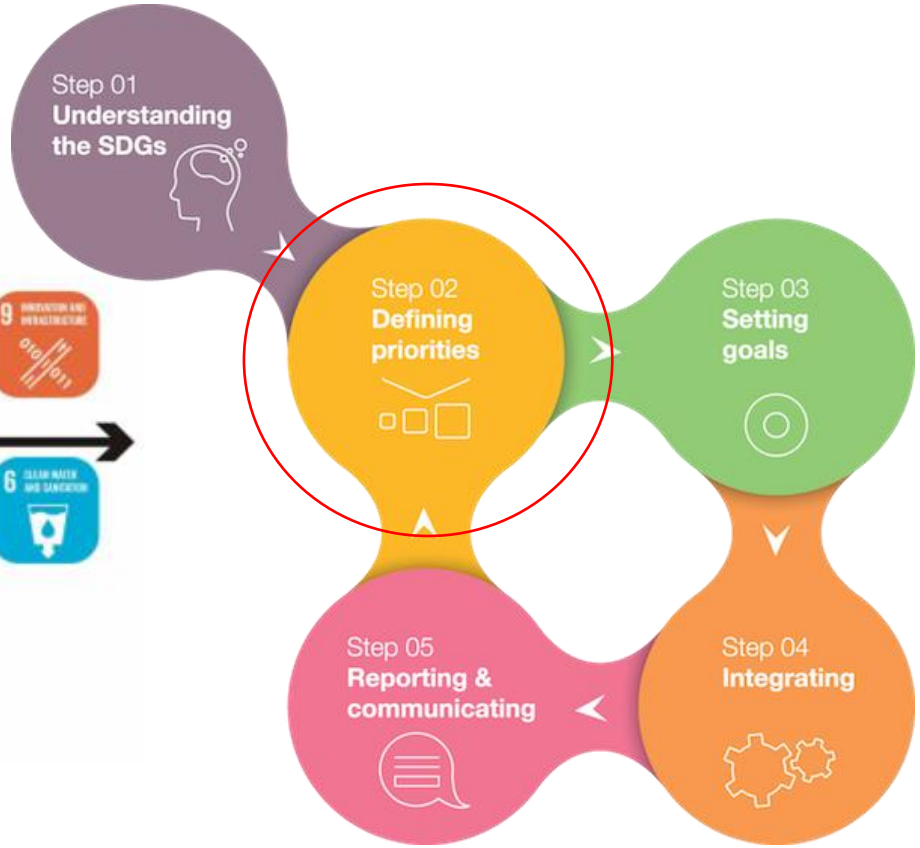
STEP 2 – IDENTIFY IMPACTS

EXAMPLE: MINING

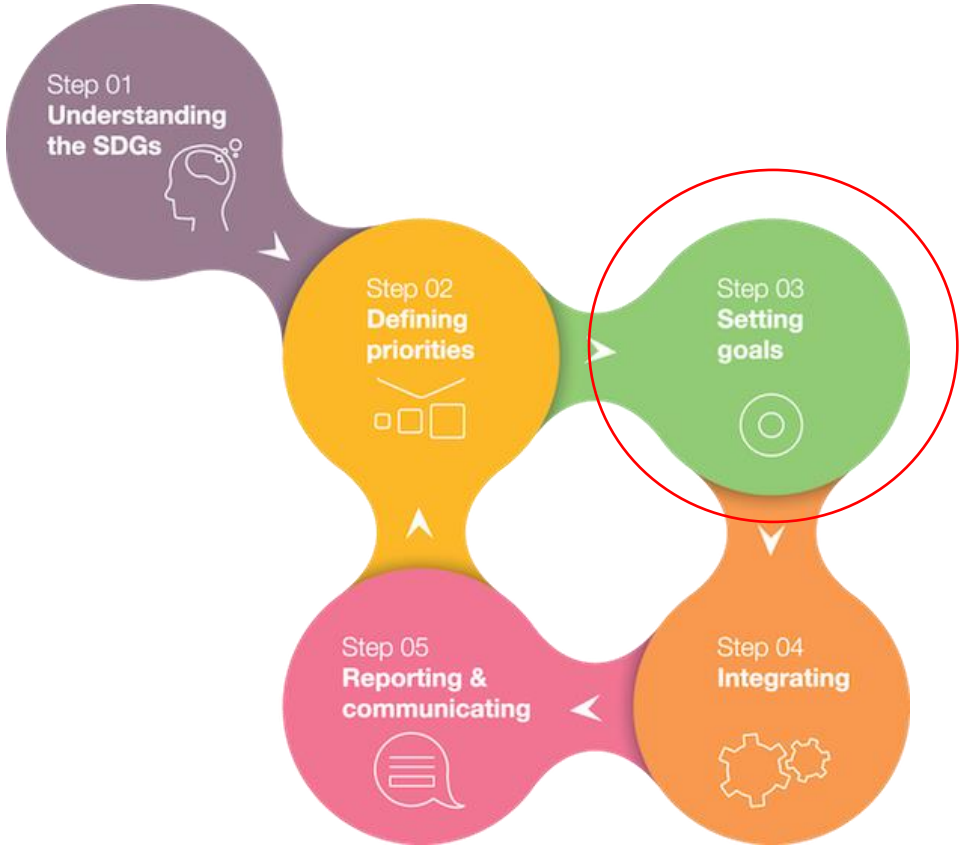
Positive

Negative



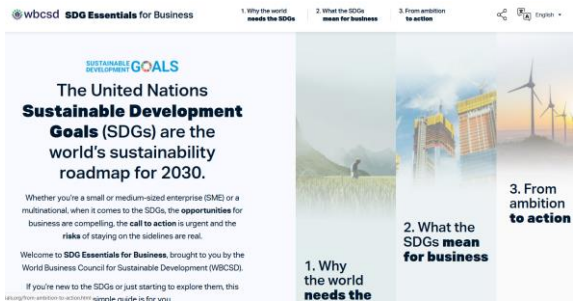


STEP 3 – SETTING GOALS

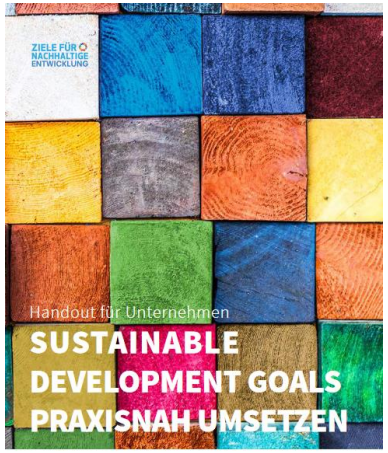


SELECTED GUIDELINES ON THE SDGs

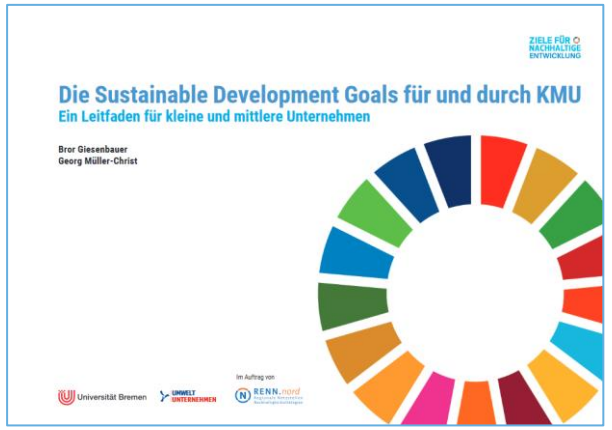
https://www.wbcsd.org/Programs/People-and-Society/Sustainable-Development-Goals



https://sdgessentials.org/



https://www.bnw-bundesverband.de/wp-content/uploads/2019/10/UG-SDGs-praxisnah-Version02-PRO_02-komprimiert.pdf



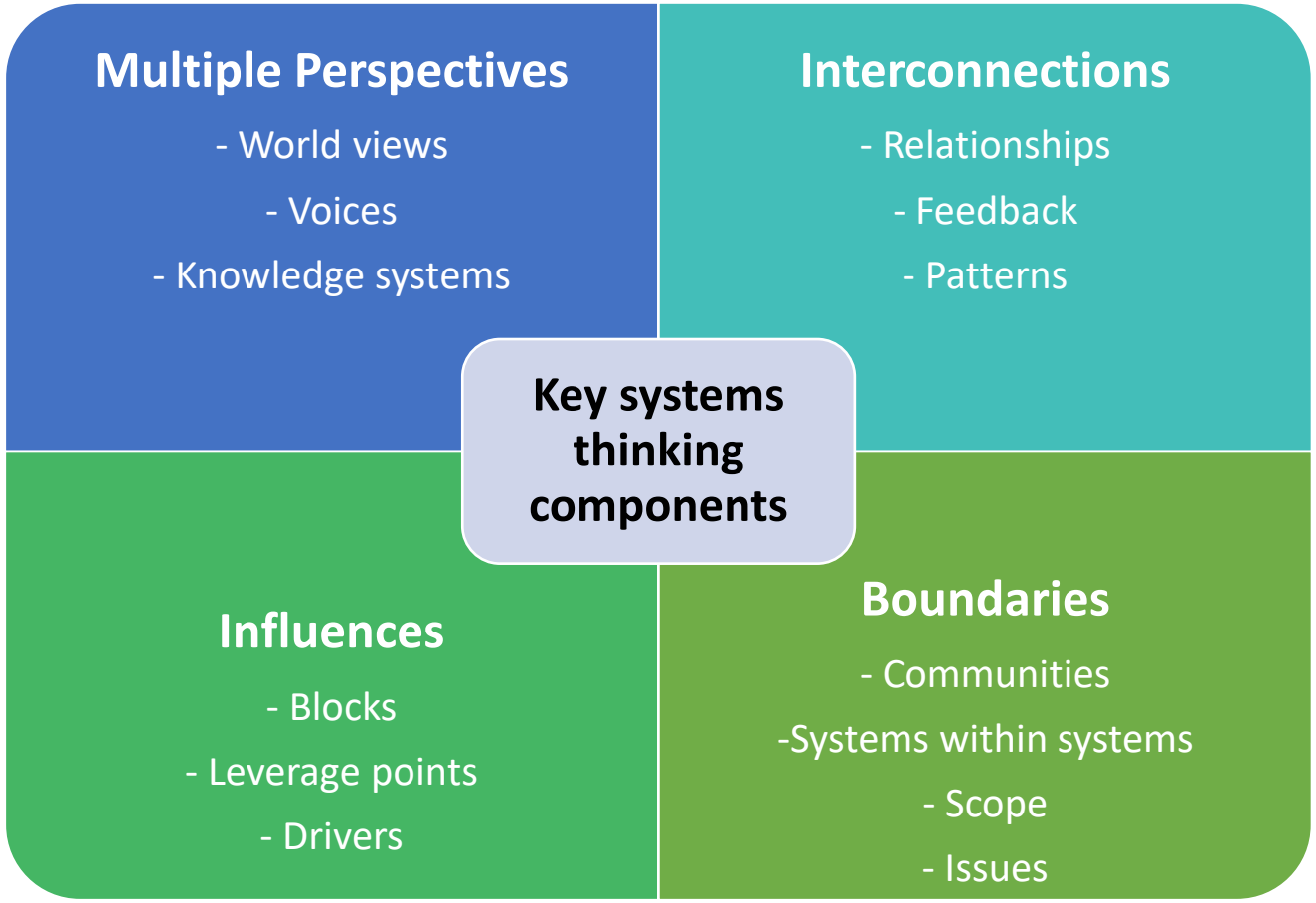
https://www.renn-netzwerk.de/nord/materialien

https://www.globalreporting.org/media/0sxj0ewa/gri_ungc_reporting-on-sdgs_practical_guide.pdf

...

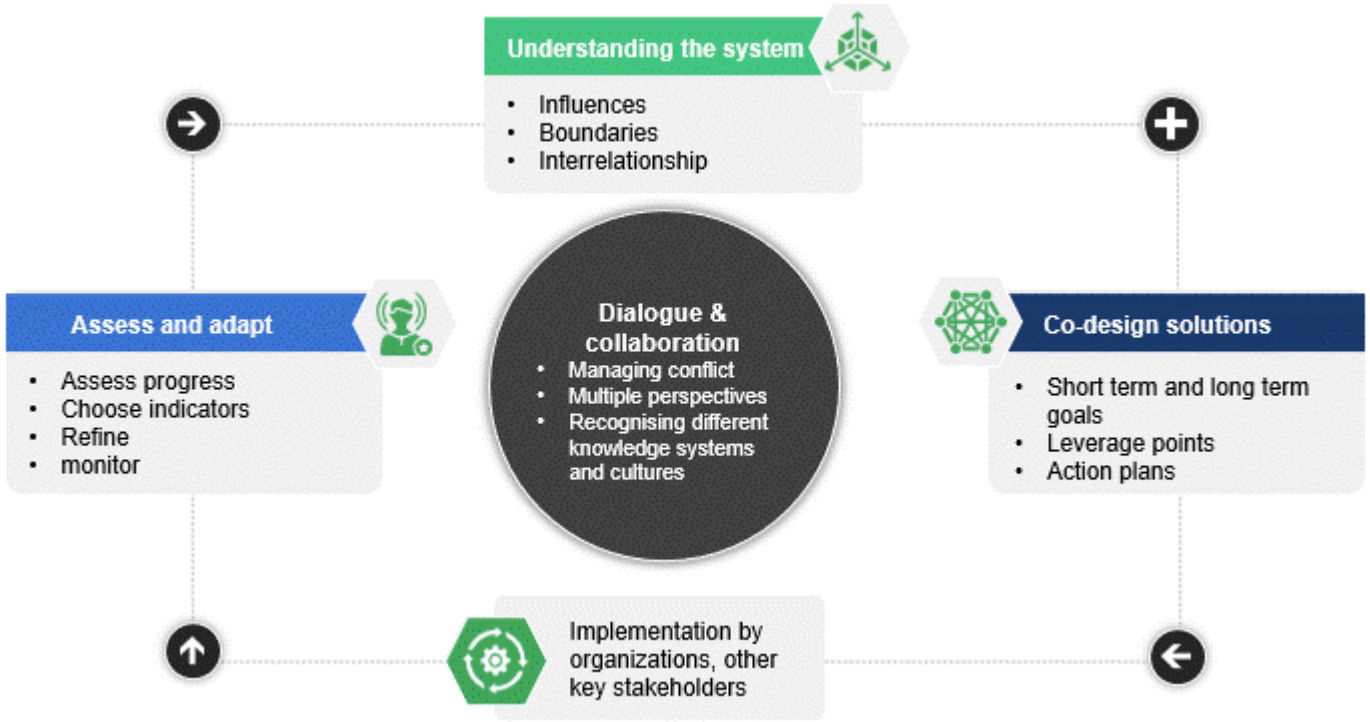
KEY SYSTEM THINKING COMPONENTS
…AND REFLECTING QUESTIONS

- Who or what are the key stakeholders in this situation?
- What are the different ways in which the situation can be framed or understood –by whom?
- What stakes (individual values, motivations, and interests) do they have? What about the power they have?



SYSTEMS THINKING AND SYSTEMIC DESIGN

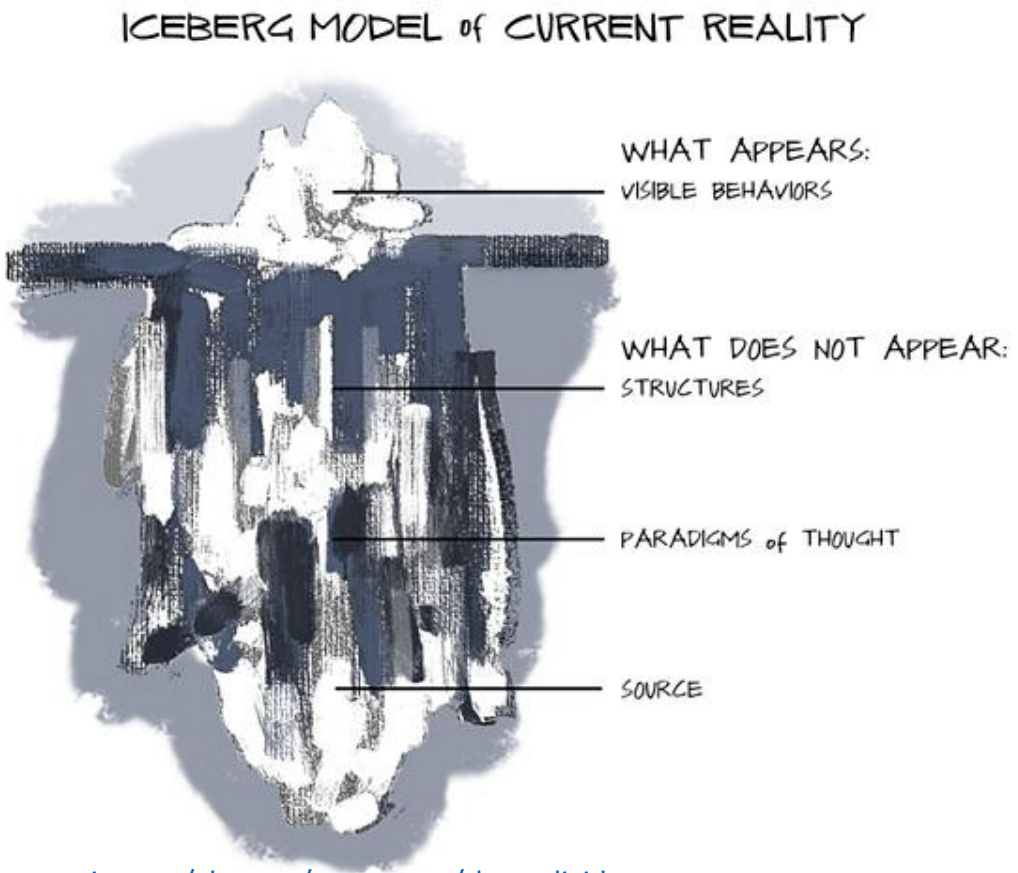
- In the organizational context, systems thinking is often practiced as integrated thinking (or reporting)
- four components can broadly be seen as comprising an iterative and experiential learning cycle



Source: https://learningforsustainability.net/post/systemicdesign-intro/

DIFFERENT LAYERS OF SYSTEMS

THE ICEBERG MODEL

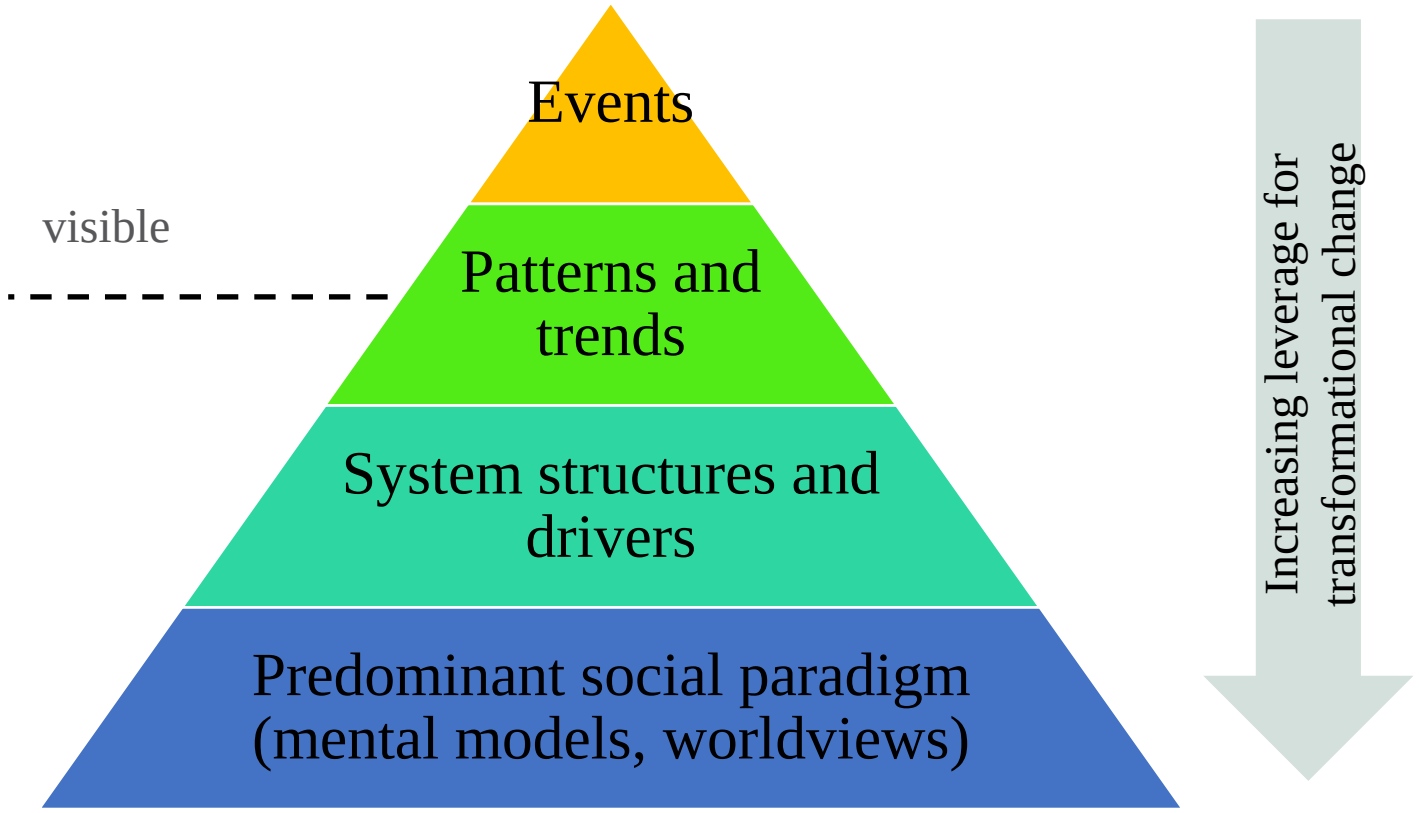


Source: https://www.presencing.org/aboutus/ego-to-eco/three-divides

- **Visible behaviors**: beneath the visible level of events and crises, there are underlying structures, mental models, and sources that are responsible for creating them. If ignored, these deeper layers of reality will keep us locked into re-enacting old patterns time and again.
- **Structures**: pattern of relationships
- **Thought**: The profound changes that are necessary today require a shift in our paradigm of thought and a shift in consciousness from an ego-system to an eco-system awareness
- **Source**: how we operate on the individual level

DIFFERENT LAYERS OF SYSTEMS

THE ICEBERG MODEL / CLA



- The iceberg model (aka CLA-Causal Layered Analysis) is a systems thinking tool designed to help individuals or group discover the patterns of behavior, supporting structures, and mental models that underlie a particular event.
- CLA was developed by future researcher Sohail Inayatullah in the 1990s

  - What is the fastest way to react to this event NOW?
  - What trends and/or patterns are occurring?
  - What mental/organizational structures create the patterns?
  - What are the stated/unstated visions that generate this structure?

Source: Bergheim, S., & Zimmermann, H. J. (2021). Futures - Open to Variety: A Manual for the Wise Use of the Later-Than-Now. Zgf Publishers. (Chapter 11)

GROUP WORK

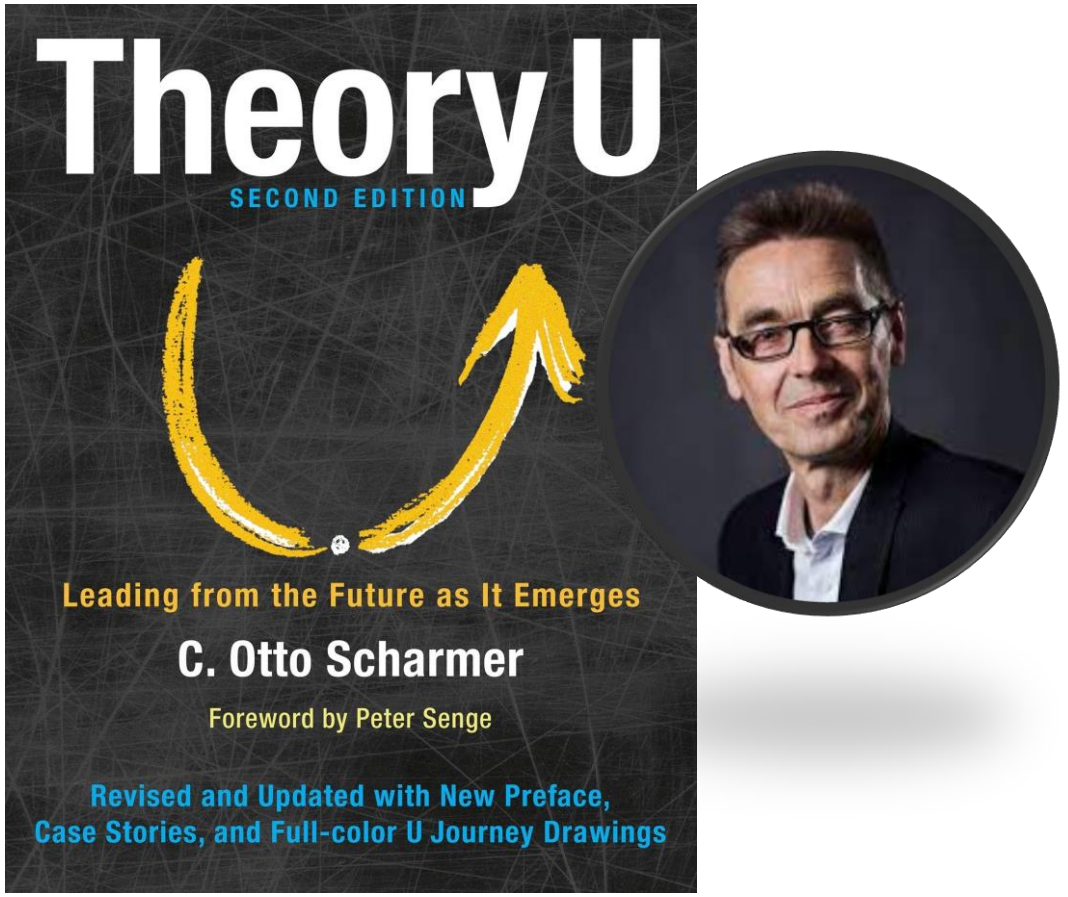
APPLY THESE QUESTIONS TO YOUR INDUSTRY (10min)

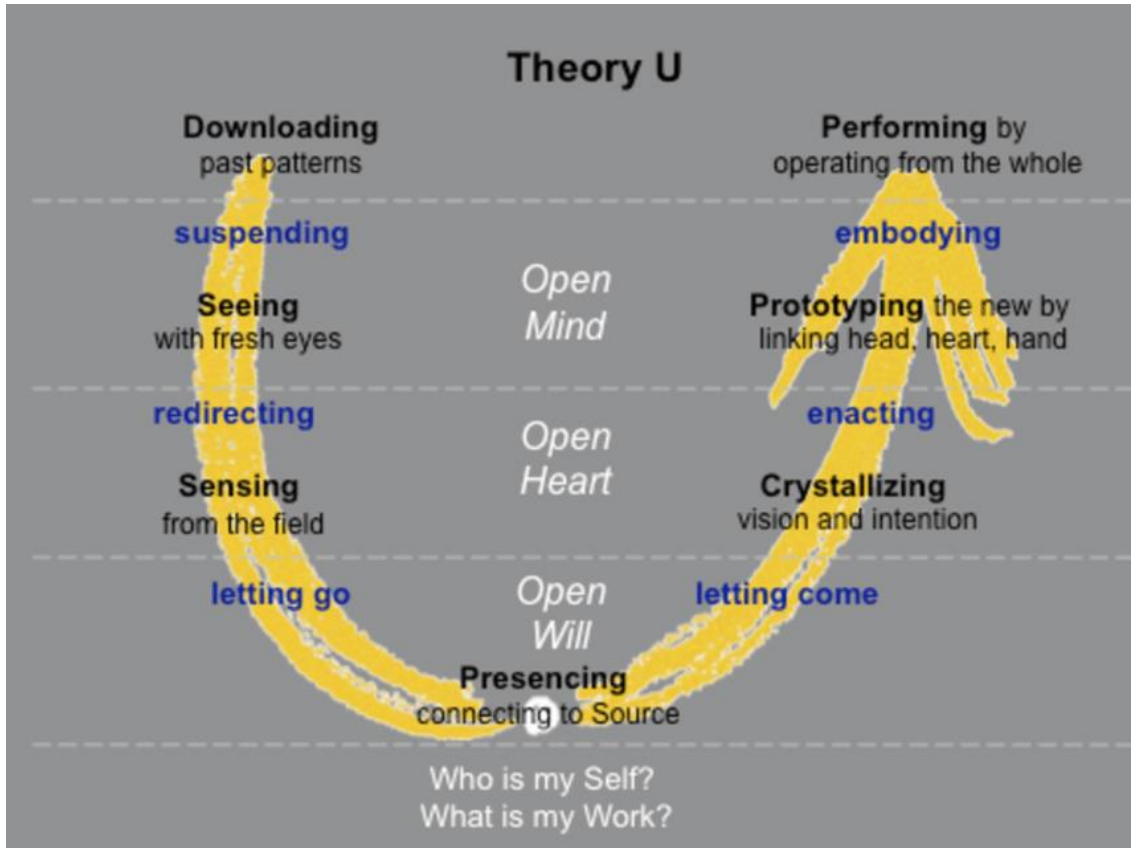
- **Events**: What just happened?*
- **Patterns**: What trends have there been over time?
- **Underlying structures**: What has influenced the patterns?
- **Mental models**: What beliefs keep the system in place?

* You may want to collect media headlines, data, pictures etc.

DEEP SYSTEMIC CAUSES OF MULTIPLE CRISES

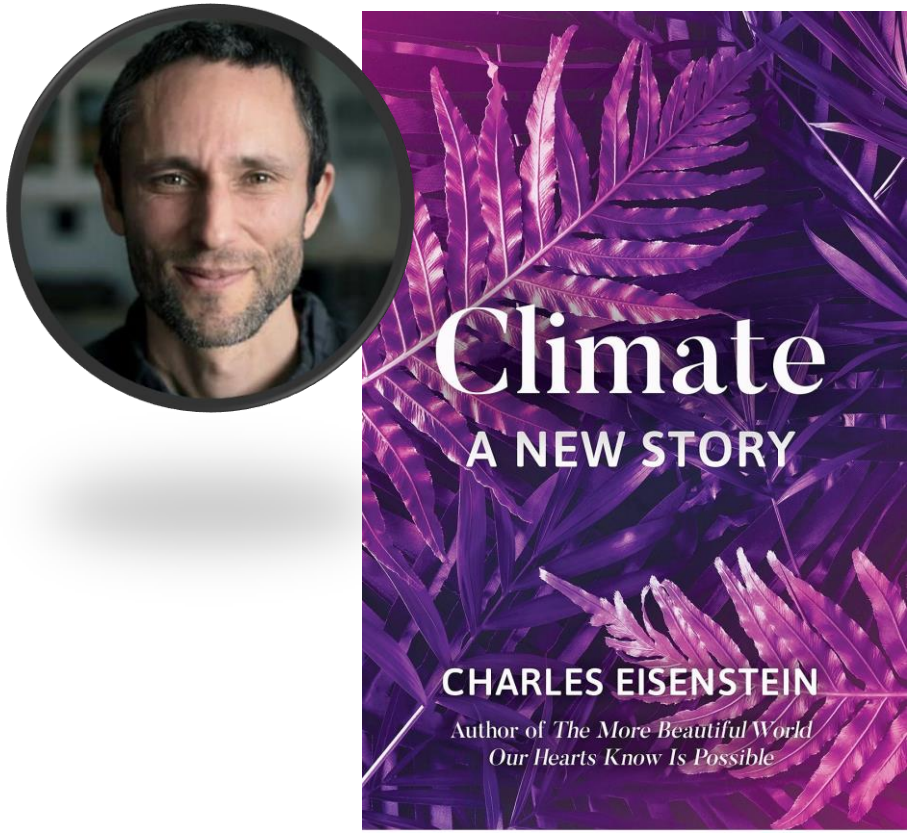
WE ARE COLLECTIVELY CREATING RESULTS NOBODY WANTS!





DEEP SYSTEMIC CAUSES…

…AND SPACES BETWEEN STORIES



"CO_2 is only a symptom of a deeper crisis, the cause of which is a separatist worldview"

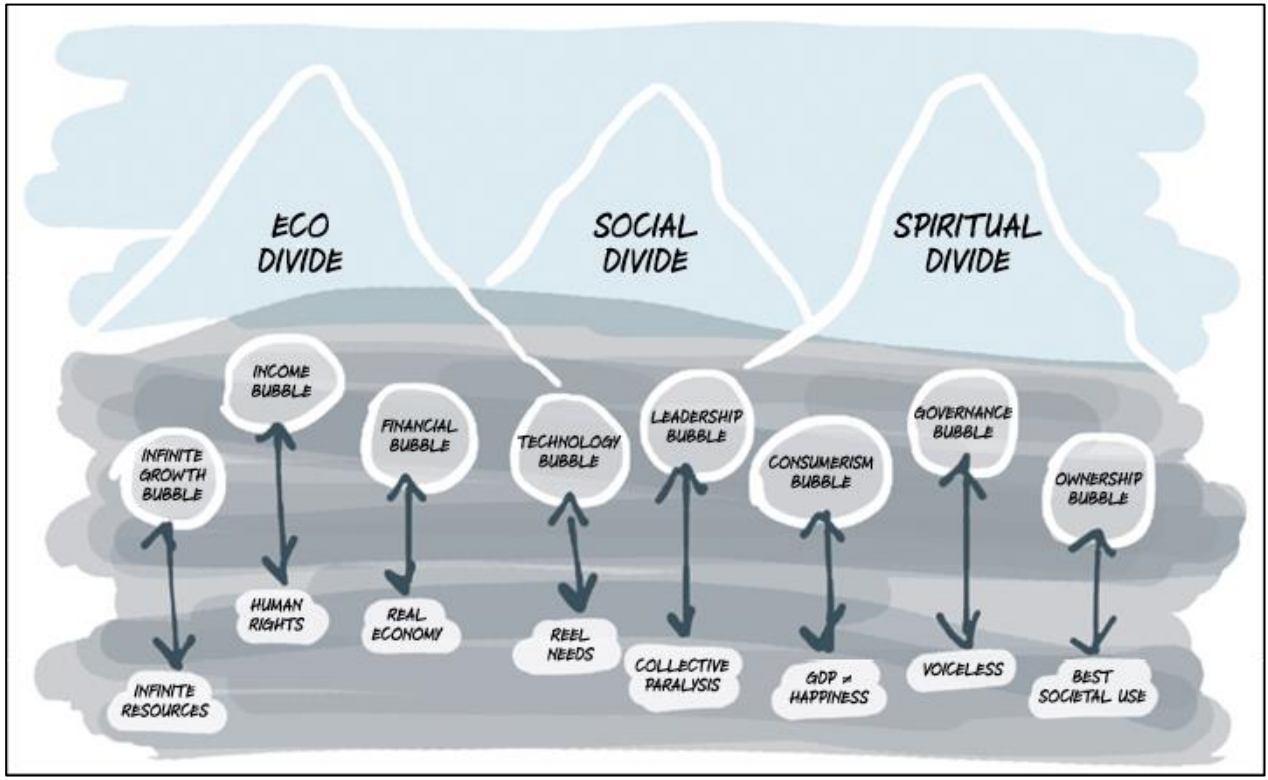
And what is the space between stories?

It is the time when the old story of who I am, what is real, and how to navigate life has broken down. It is the time when my familiar ways of making meaning are no longer relevant. I don't know who I am. What had seemed so permanent, reliable, understandable and real is revealed as an illusion. It is a state of "I don't know." Usually some kind of crisis initiates it, perhaps in work, relationship, health, or money. It could also happen through a powerful experience that irreparably breaches one's story of self and story of the world. Either way, we know that normal isn't coming back again.

Source: https://charleseisenstein.org/; https://charleseisenstein.org/courses/space-between-stories/

CONCLUSION

- Our human civilization is reaching social and planetary boundaries/limits, dangerous tipping points are looming
- The individual crisis manifestations are symptoms of deeper divisions (three divides by Otto Scharmer)
  - Self-Nature
  - Self-Other
  - Self-Self
- Relatively widespread ignorance about inner-psychic dynamics and consciousness conditioning
- A linear mechanistic worldview has to change into a systemic one in order to cope with the challenges of the time

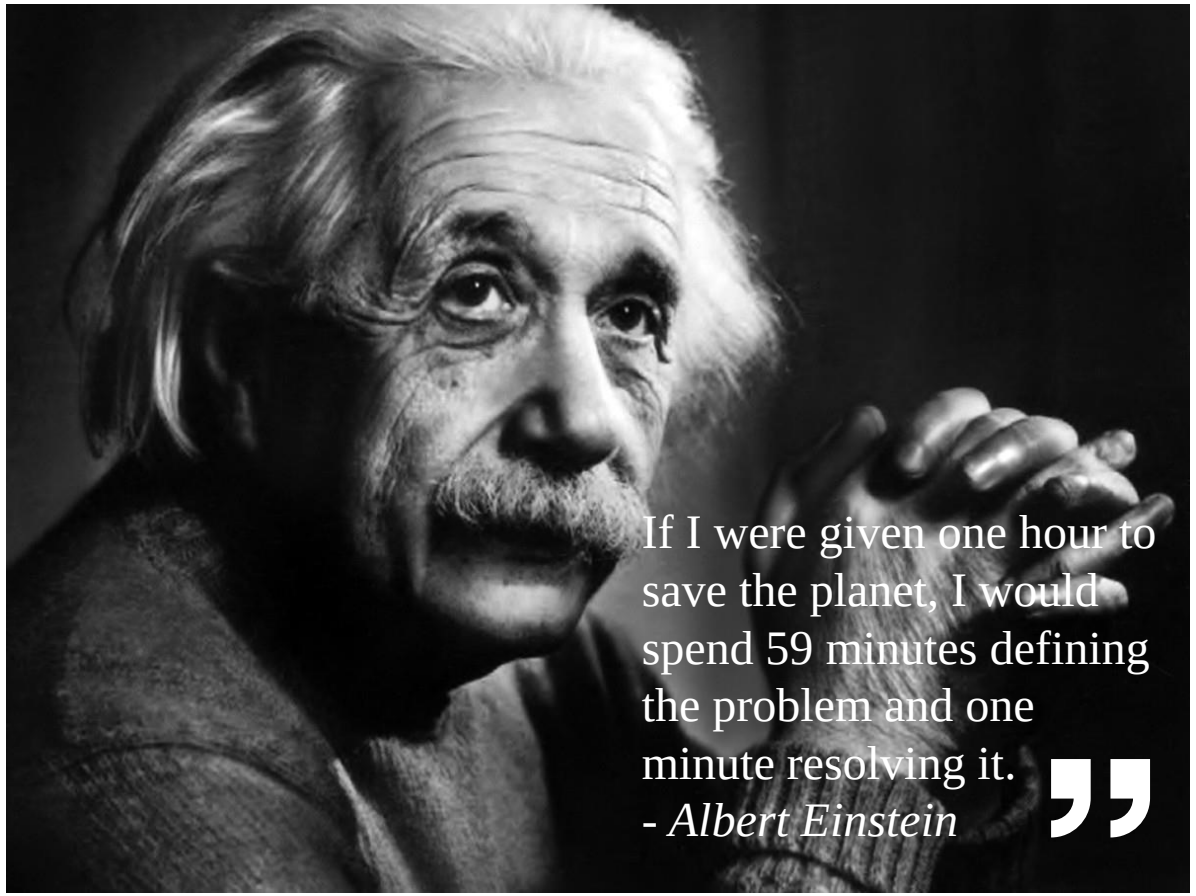


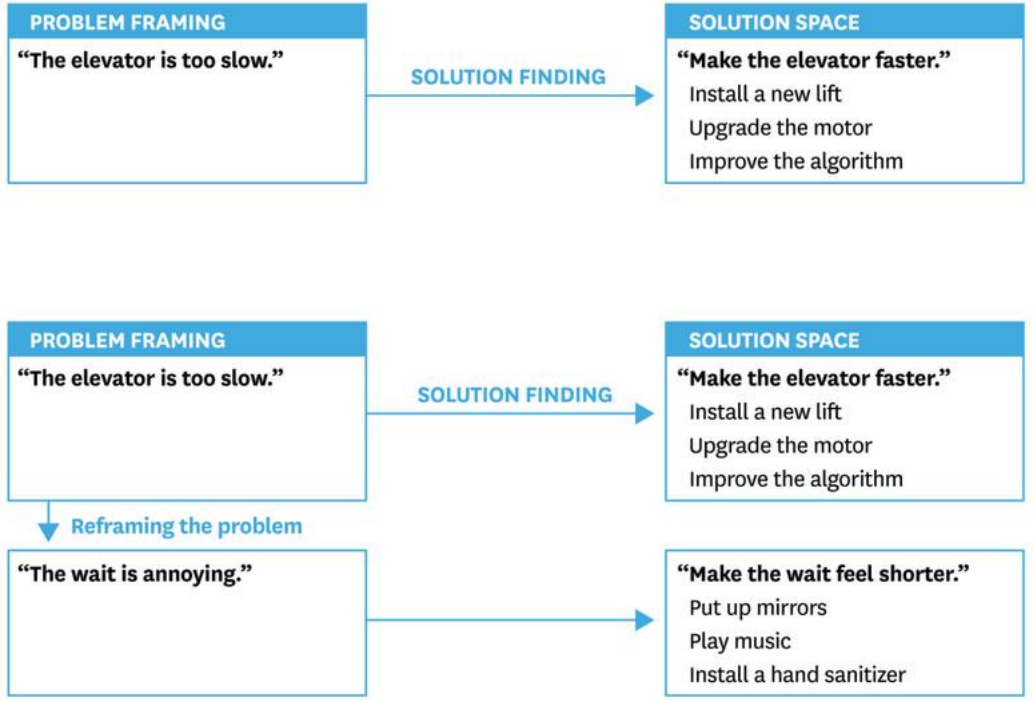
Source: https://www.presencing.org/aboutus/ego-to-eco

UNDERSTANDING PROBLEMS AND SYSTEMS MAPPING

ARE YOU SOLVING THE RIGHT PROBLEMS?

REFRAMING





Source: https://hbr.org/2017/01/are-you-solving-the-right-problems; https://hbr.org/2012/09/are-you-solving-the-right-problem

STARTING WITH THE PROBLEMS CAN…

- …help us overcome confirmation bias by focussing research on the problem and not validating a hypothesis about a solution
- …avoid creating needs that actually are not there
- …avoid creative „blinders“ (once we like a solution it is hard to let it go)
- …encourage team autonomy by feeding them a problem and come up with the right solutions(s)

WHICH PROBLEMS DO YOU SEE?

PLEASE BRAINSTORM PROBLEMS YOU CURRENTLY SEE (10min)

- Try to be investigative and break down some issues within your industry / sector (instead of „Climate Change“, e.g. „not enough charging stations to switch to EV“)

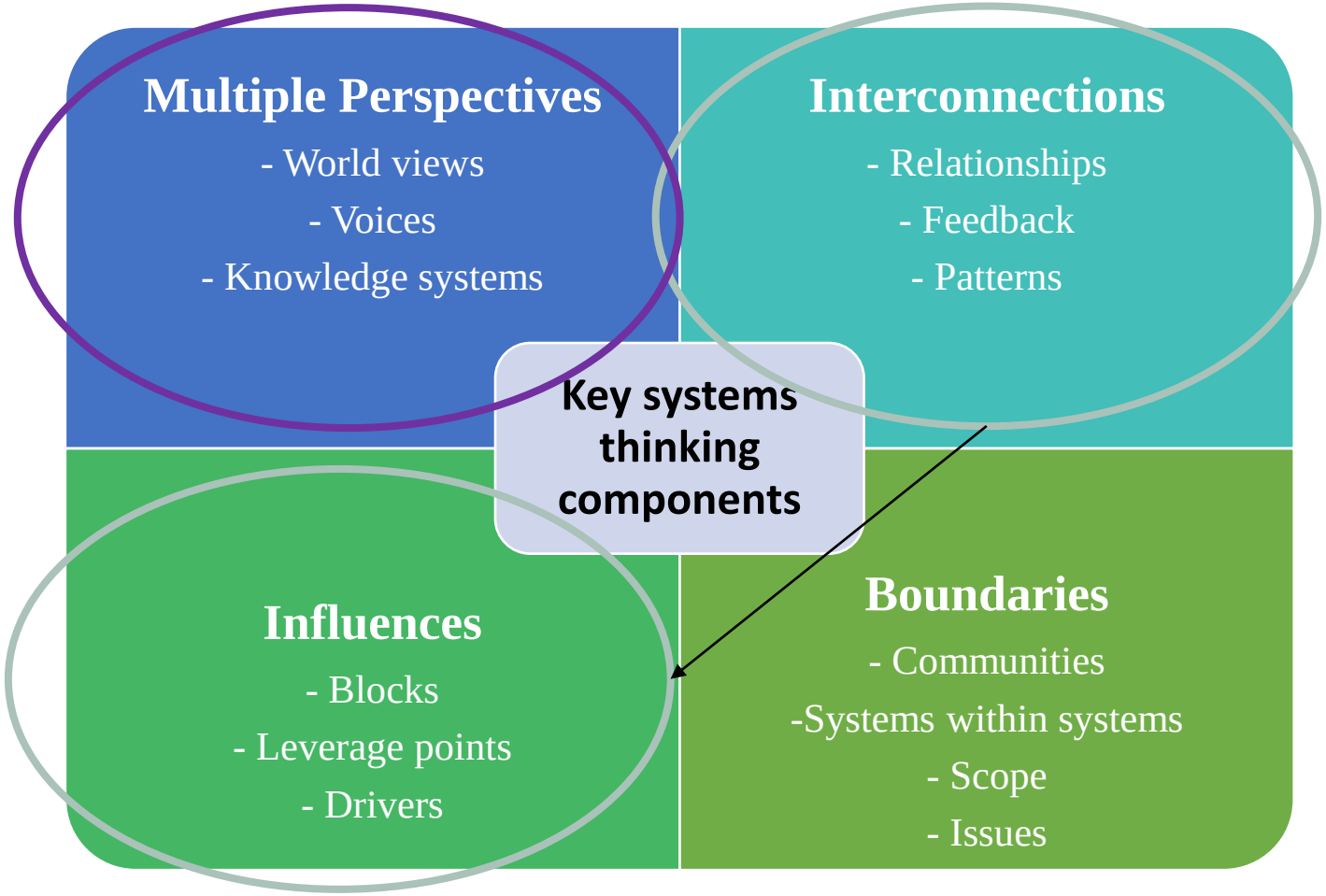
- Note: Please keep/note down the most important ideas for the next exercise.

'Nothing is separate. Everything is connected'.
The Buddha

'Learn to dance with the system'.
Donella Meadows

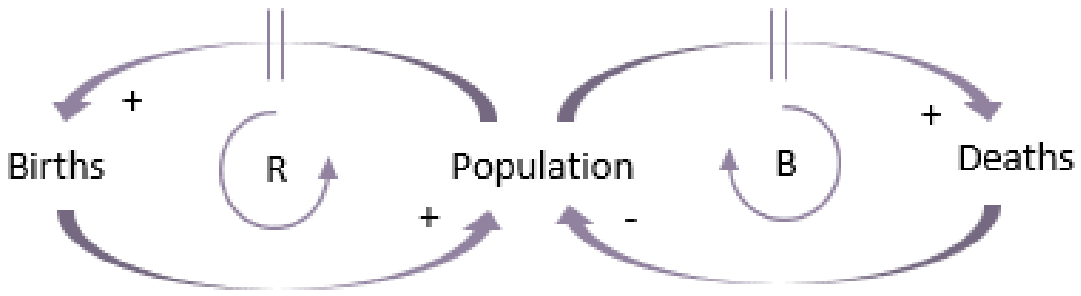
KEY SYSTEMS THINKING COMPONENTS

INTERCONNECTIONS, INFLUENCES, AND MULTIPLE PERSPECTIVES



INTERCONNECTIONS AND INFLUENCES

SYSTEMS CAN BE ILLUSTRATED IN CAUSAL LOOP DIAGRAMS (CLD)



- As births increase, population increases; as population increases, births increase; as population increases, deaths increase.
- Population and births move in the same direction = reinforcing loop
- Death and population move into opposite directions = balancing loop
- As population increases there is a delay before births increase because people have to reach reproductive maturity. Similarly, as population increases, there is a delay before deaths increases (indicated by parallel lines)

INTERCONNECTIONS AND INFLUENCES

SYSTEMS GET VERY COMPLEX IF YOU LOOK CLOSER…

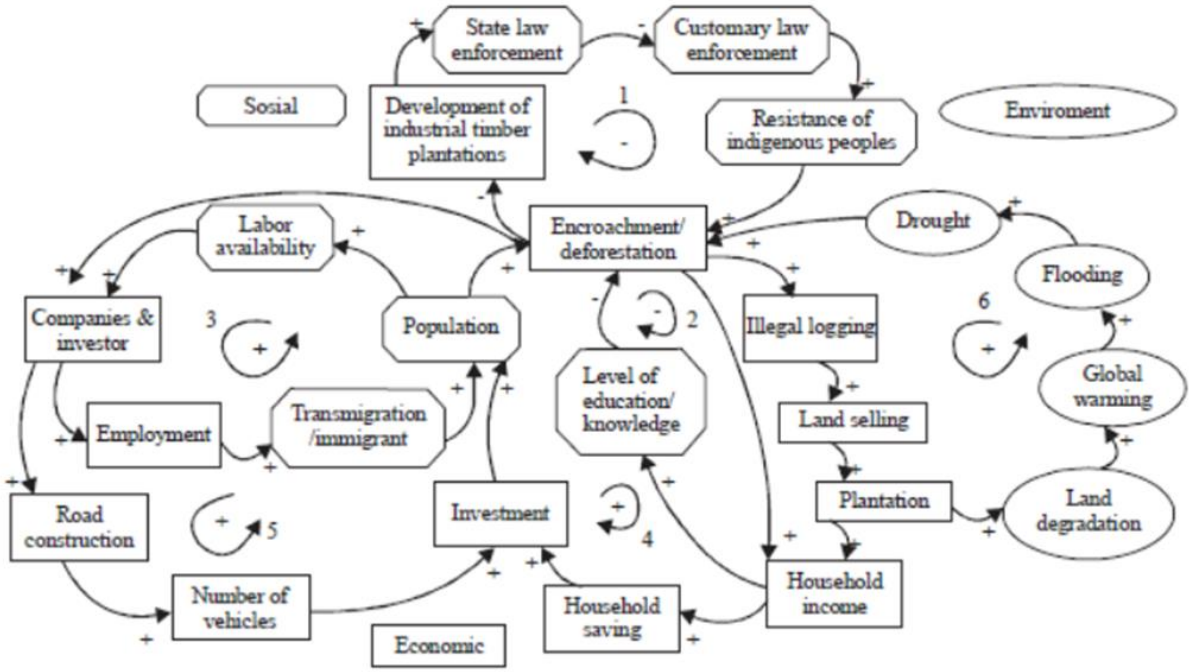


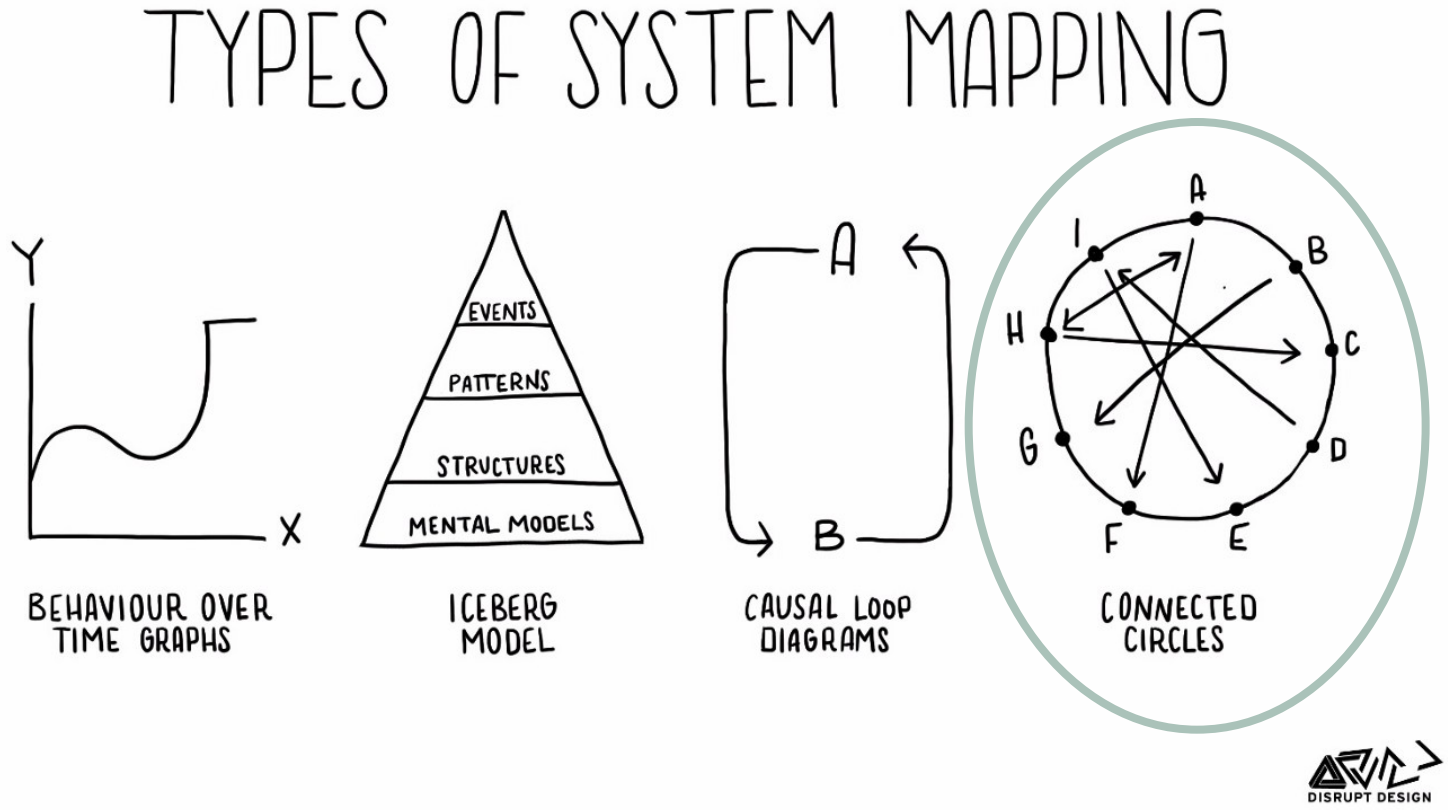
Fig. 3: Causal loop diagram modeling deforestation in PFMU Dharmasraya

Arrows marked positive (+) means the cause or causes will increase as a result of influence and effect in the same direction of change. Arrows are marked negative (-) to show that it will reduce the effect or because it affects result by changing in the opposite direction

Source: Yurike , Yonariza , Rebecca Elmhirst, Syafruddin Karimi and Rudi Febriamansyah, 2018. Deforestation in Dharmasraya District, West Sumatra, Indonesia A Causal Loop Diagrams (CLD) Model. Asian Journal of Scientific Research, 11: 177-184. https://scialert.net/fulltext/?doi=ajsr.2018.177.184

SYSTEMS MAPPING

WHERE TO START?

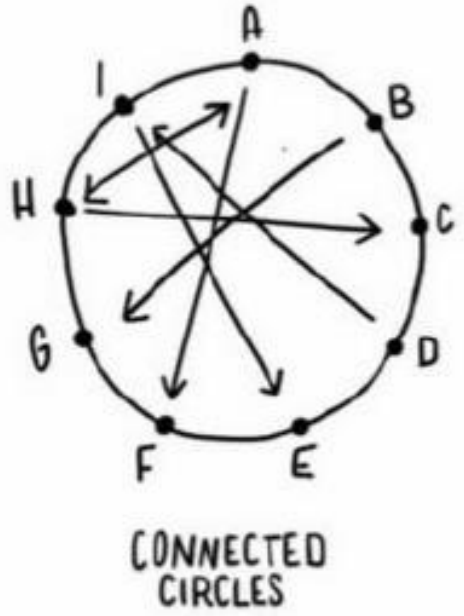


Source: https://medium.com/disruptive-design/tools-for-systems-thinkers-the-6-fundamental-concepts-of-systems-thinking-379cdac3dc6a

GROUP WORK CONNECTED CIRCLES

WE WILL WORK IN MIRO ☺ (20min)

- Brainstorm system elements around the problem that you chose in your team (see previous exercise)
- Take what you think are the most important system elements and put them around the circle and (15min)…
- …start drawing arrows from the elements to other elements of the circle which they have an influence on – this will help you to uncover connections and leverage points (5min)



https://miro.com/welcomeonboard/bzRxczAxd1Q5RHVSS1I2ZGx1R0pRdXlmTVpLZzZDS0ttcFFvYWRrVENNY2hTOEpXb2wyUWo1R2dTckFySU12OXwzMDc0NDU3MzUwNDQ4ODU4MTMz?invite_link_id=636363275427

GROUP WORK CONNECTED CIRCLES

SHARING – WHAT DID YOU DISCOVER?

- Which elements have a lot of arrows coming in and out of them? What does this say about them?
- What is the significance of elements that have no arrows pointing to it? / coming from it?
- Are there elements in your circle that have no arrows at all?
- Can you trace a path of arrows that leads back to the starting element? If so, you uncovered a „feedback loop“
- Are there elements that are part of multiple feedback loops?

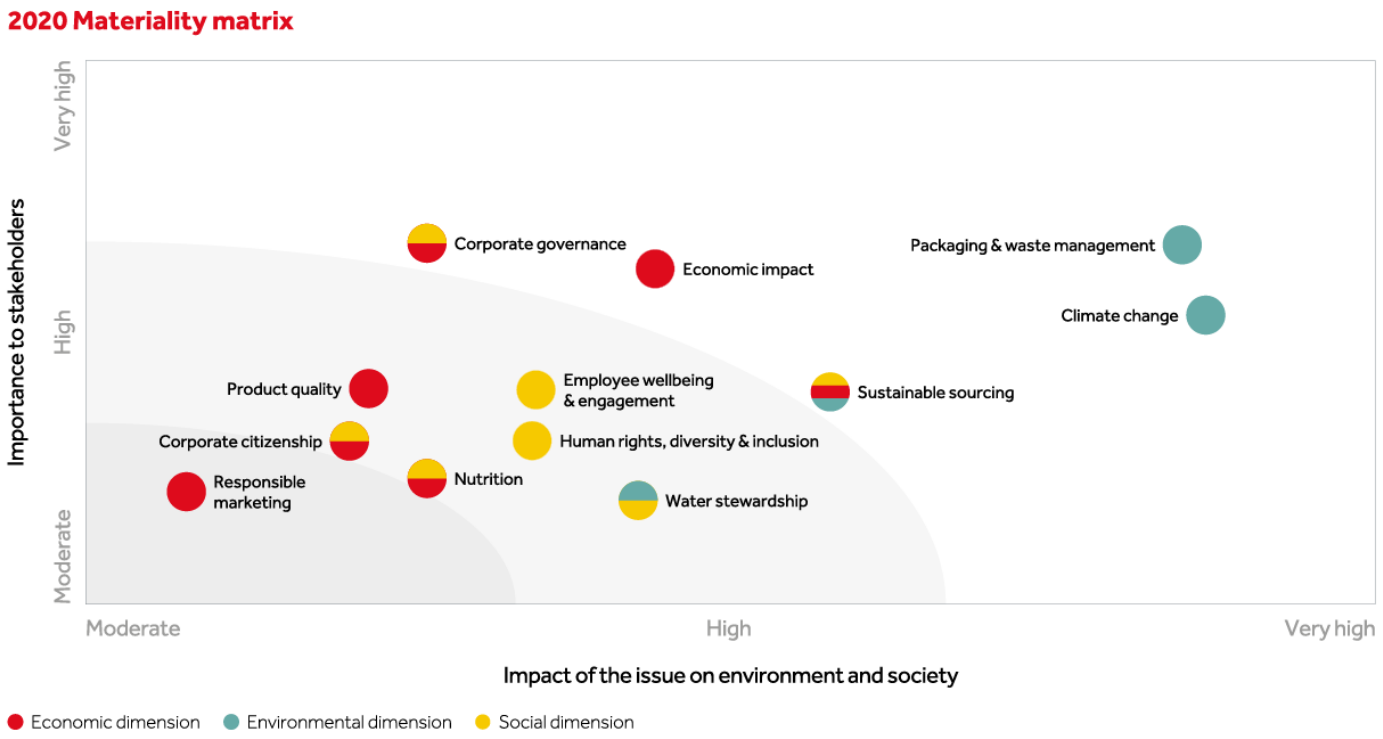
GROUP WORK MULTIPLE PERSPECTIVES

STAKEHOLDER MAPPING (15min)

- Map stakeholders within your system. Try to think about their…
  - **Values**: What do you believe they care about in relation to this case? What do you believe is important to them?
  - **Loyalties**: Whose position might they feel is important not to go against and why? Who do they have close relationship with, or history, that they would not want to upset?
  - **Tensions/Losses**: If you made progress on this problem/case, what do you believe could make them tense or uncomfortable? Is there something they would lose or have to give up? What might it be?

WHICH TOOLS DO YOU USE IN BUSINESS?

ITS ALL ABOUT RELATIONSHIPS AND FINDING CONSENSUS



Dialogue & collaboration tools for involving the right people include:

- Stakeholder analysis and materiality matrix
- Engagement planning
- Relationship building & management
- Networking

Source: https://www.coca-colahellenic.com/en/a-more-sustainable-future/our-approach/materiality

PREPARING FOR THE VISIONING PHASE AND CONCLUSION - UTOPIA

AFTER THE CRITIQUE PHASE

WHAT DOES UTOPIA MEAN FOR YOU?

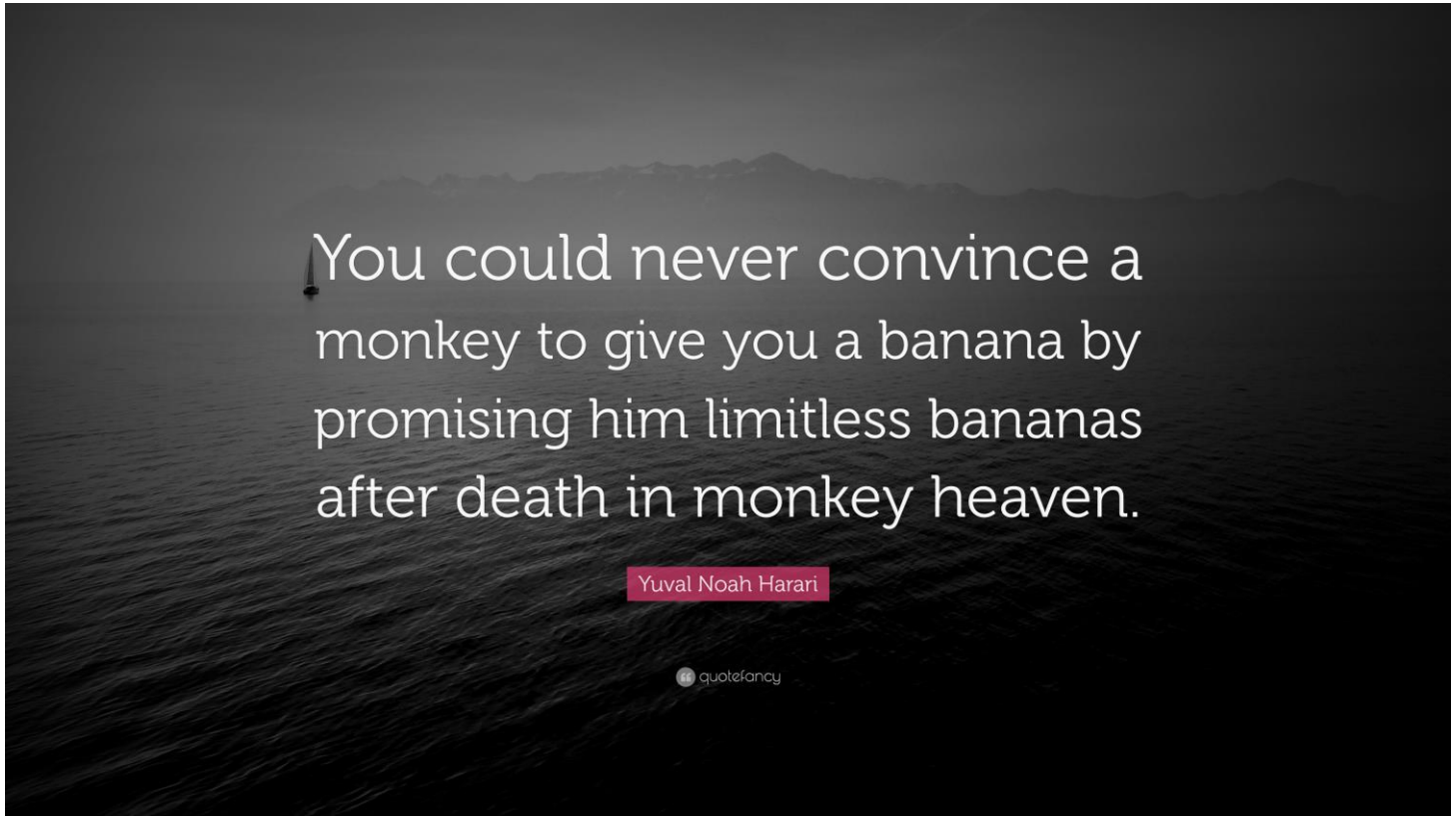
FUTURE THINKING EXERCISE

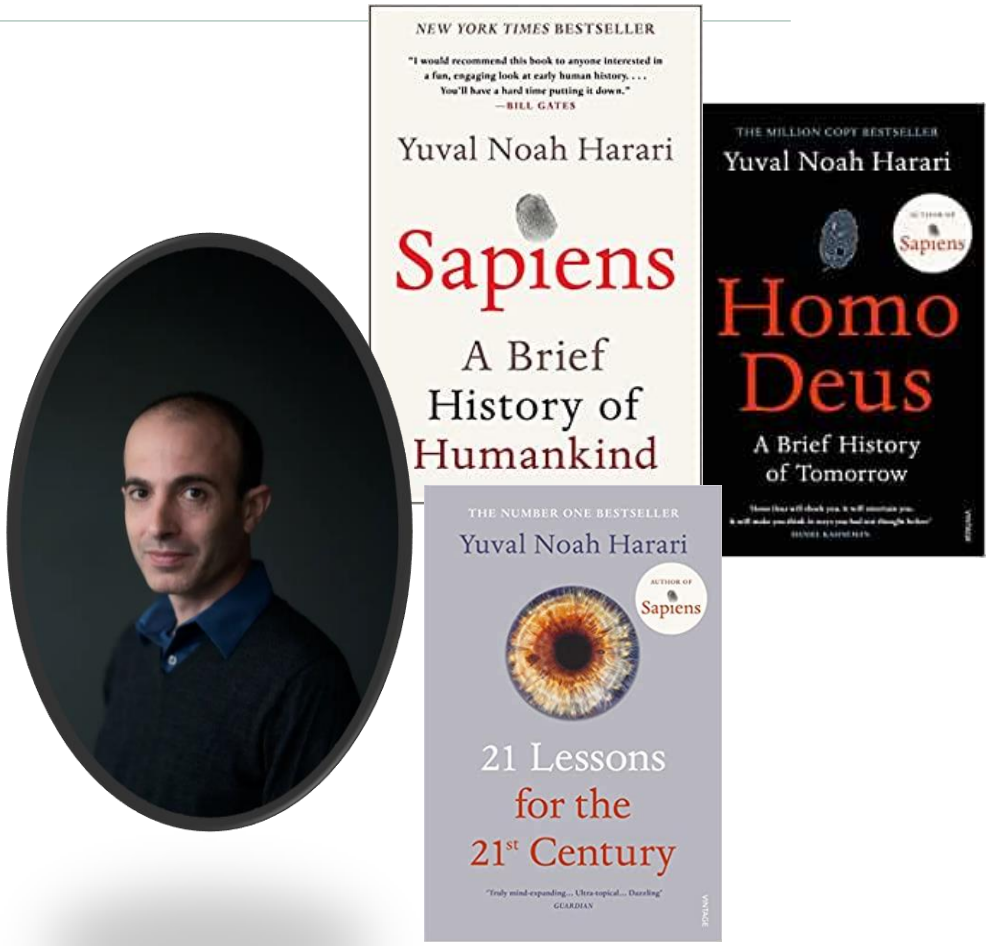
YOUR PERSONAL FUTURE

- How does a future based on this information/facts feel and look like to you?
- How would your most desired and positive future feel/look like?
- Re-framing your scenario: What were you not seeing? What are your blind spots?

CONNECTING PAST AND PRESENT…

…TO LOOK INTO THE FUTURE

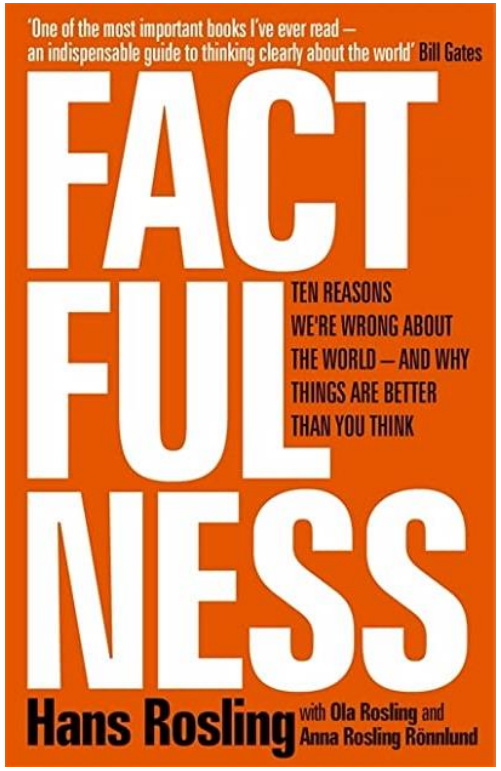


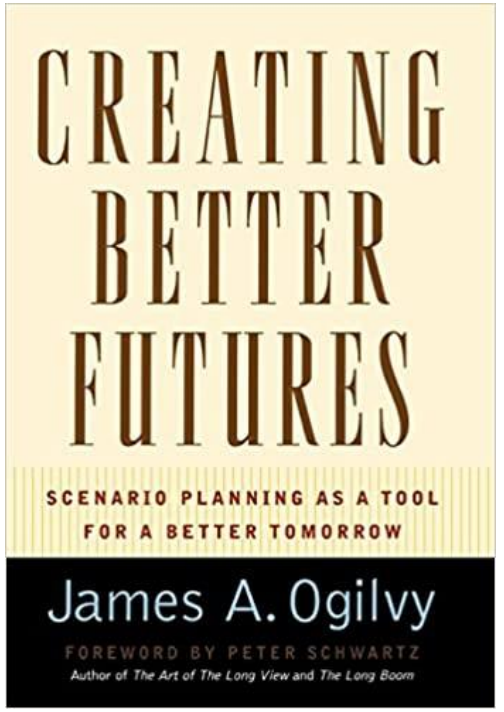


ASSESSING YOUR STARTING POINT

To suit the scenario or vision you want to develop, indicators have to fit to the following characteristics:

- should be result-oriented
- should evaluate the direction to see if the indicator is clearly matching the scenario
- Values of the indicators need to be influenced by people
- should be understandable
- combine subjective and objective indicators
- need to be available already and possibly available as time series





Source: Bergheim, S., & Zimmermann, H. J. (2021). Futures - Open to Variety: A Manual for the Wise Use of the Later-Than-Now. Zgf Publishers. (Chapter 9)

FUTURE SEARCH OR FUTURE WORKSHOP

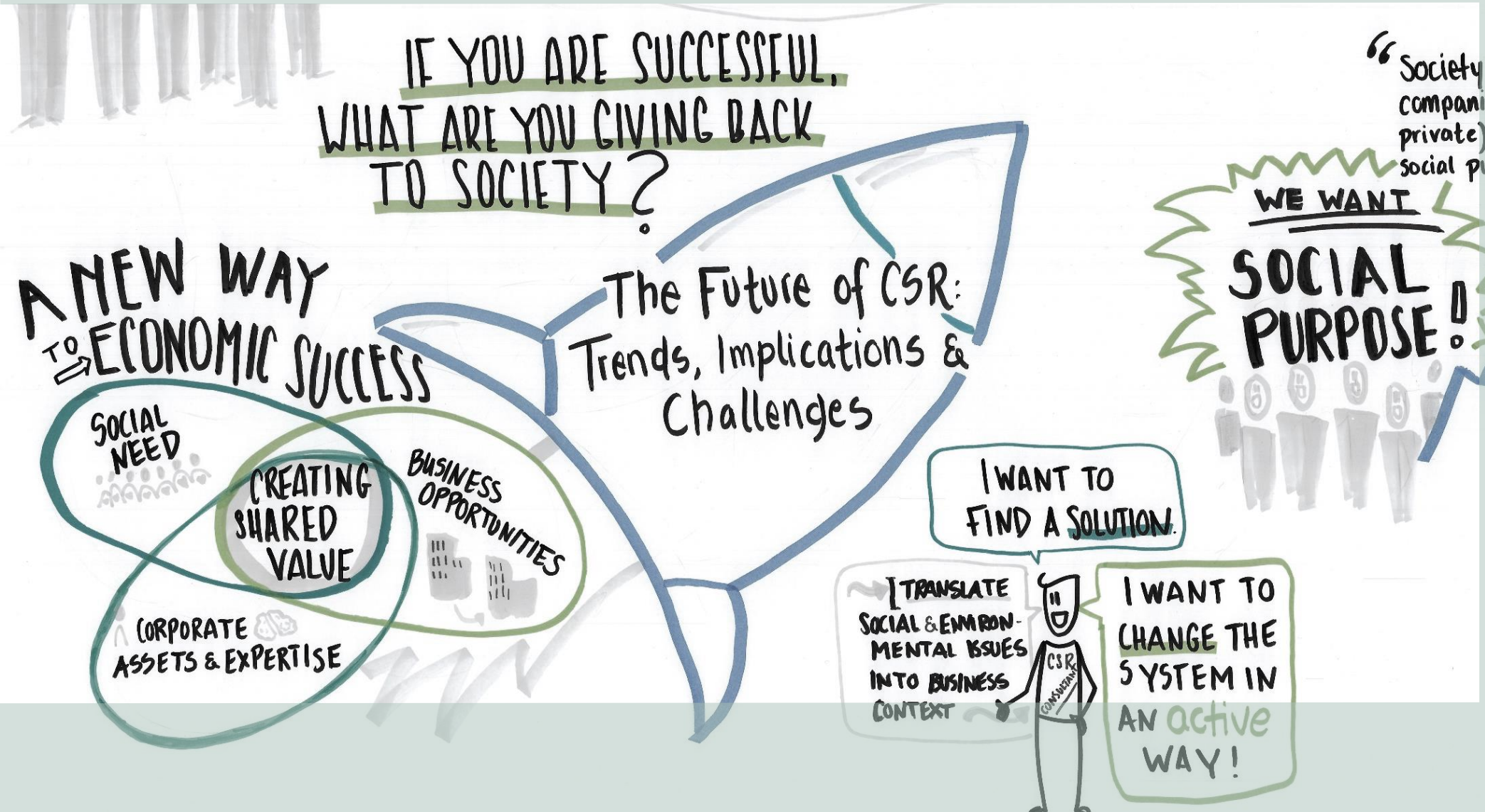
- Involving multiple stakeholder groups that represent as many parts of the whole system as possible
  - Step 1: getting to know the group more personally
  - Step 2: thinking about the past and collecting stories about the topic of the workshop
  - Step 3: thinking about the present and current trends and discussing selected trends more profoundly

  Ideas (Step 1-3) and comments will then be discussed in the plenum
  - Step 4: jointly developing desirable futures and identifying common themes across the group
  - Step 5: How can the different stakeholders contribute to the implementation of these common themes?

Source: Bergheim, S., & Zimmermann, H. J. (2021). Futures - Open to Variety: A Manual for the Wise Use of the Later-Than-Now. Zgf Publishers. (Chapter 10)

HOMEWORK

PLEASE COMPLETE THE FOLLOWING TASKS UNTIL SEPTEMBER 27TH!

1) Please read the texts to prepare for the „critique phase“
   - *Utopia for Realists* – Chapter 5: New Figures for a new Era
   - *Transforming the Future* – Chapter 4: Futures Literacy Laboratories (FLL) in practice
2) Narrow down your choice of critical issues you want to focus on with your group and formulate a question you want to explore in the future.
   - How would your most desired and positive future feel/look like?
3) Identify an expert (e.g., business professional or academic) from the sector you are working on. Schedule interview with him/her after October 14th. Use this content to narrow down your choice of critical issues you want to focus on.
4) For your journaling contemplation, please reflect on the content of session 2 by answering the following questions:
   1) Which exercises helped you to inform and develop your model further? How? What were the challenges you encountered?
   2) How did your personal experiences and worldviews/beliefs play a role here?

UP NEXT: THE VISIONING PHASE I